



Examining the Relationships Among Perceived Quality, Perceived Value, Customer Satisfaction, and Behavioral Intention in Turkish Fitness Centers

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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Received: 04.07.2022

Accepted: 22.09.2022

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Abstract

The purpose of this study is to analyze the relationships among perceived quality, perceived value, customer satisfaction, and behavioral intention in Turkish fitness centers. The data were collected from 305 fitness customers (149 women and 156 men) using the quantitative method of a questionnaire. The main procedure of this study was to conceptualize fitness clubs' perceived value as a multidimensional construct of four dimensions. Through a comprehensive review of the literature, a questionnaire was developed to measure perceived quality, perceived value, customer satisfaction, and behavioural intention, which took into consideration the unique characteristics of Turkish fitness centers. After examining the measurement properties by conducting confirmatory factor analysis and structural equation model analysis, the results revealed positive relationships among perceived quality, perceived value, customer satisfaction, and behavioral intention. The findings showed that perceived quality was positively related to social value, functional value, emotional value, and economic value. Likewise, functional value and economic value were positively related to customer satisfaction, and social value and emotional value were not positively related to customer satisfaction. Finally, customer satisfaction was related to behavioral intentions. The implication for management is significant as it shows that quality management is important for the different dimensions of value. Therefore, sports managers must work on quality processes to achieve positive perceived quality and its consequences, such as perceived value or behavioral intentions. This chain of positive perceptions improves consumer loyalty.

Keywords: Fitness industry, loyalty, multidimensional value, sports consumer, sports management

Introduction

The global fitness industry is growing rapidly along with the increasing awareness of healthy living. According to Deloitte (2022), the number of fitness customers shrank by 15% in the previous year due to the pandemic. In relation to the number of fitness center customers in Europe, Deloitte (2022) affirms that the number increased by 2.0% to 56.3 million, and fitness market revenues are estimated to be €17.1 billion annually. Therefore, with the exception of 2021, the European fitness market is continuing to grow. The top 20 European fitness center operators account for around 13.1 million customers, representing 26.5% of all memberships. Likewise, IHRSA (2022)

highlighted Russia, Poland, and Turkey as having the biggest potential for growth. It also identified the Middle East, North Africa, and Latin America as being regions with development opportunities.

According to Deloitte (2019), Turkey is one of the countries with the largest increase in customers in the European fitness market (1,830,000 in 2017; 1,950,000 in 2018; 2,100,000 in 2019); the number of fitness centers in the country is 2,555 (Deloitte, 2022; Yildiz et al., 2021). Today, Turkey is the ninth largest fitness industry in Europe, with a total revenue of about €823 million and an estimated 2.1 million customers. Although Turkey is the country with the lowest penetration rate, it ranks first in the European fitness industry in terms of membership growth (about 8%). All of these reports indicate that the industry may have higher growth potential for Turkey in the medium and long term (Eskiler & Altunışık, 2021). Despite this, the paucity of research supporting the traditional cognitive-emotional-behavioral scheme, which is widely adopted in the field of fitness, attracts attention.

At the same time, despite this growth in fitness clubs, competition exists, and the cancellation of memberships is the most serious problem experienced (Gjestvang et al., 2020; San Emeterio et al., 2020; Willinger et al., 2021; Yi et al., 2019; Yi et al., 2021; Zarotis et al., 2017). In sectors where memberships can easily be terminated and where there is intense competition, businesses need to accurately reflect the perceptions and expectations of target consumer groups in order to stay afloat and achieve the desired success.

It is well known that it is necessary to keep existing customers loyal in order to gain new customers due to fewer marketing resources (Kotler, 2003). Minimizing all of these problems and ensuring the continuation of memberships is related to the service quality provided and the resulting value (Li et al., 2021). The fitness customer whose quality expectations are met at the highest level will have a positive perception of value and a stronger behavioral intention to continue their membership and will undertake that behavior (Olya et al., 2022; Tsourela, 2022; Yu et al., 2014). In this sense, perceived quality, perceived value, and customer satisfaction, which affect the cognitive-emotional-behavioral elements of the fitness customer, are important components of long-term sustainability (Dang et al., 2022; Eskiler & Safak, 2022; Foroughi et al., 2019).

When the fitness literature is examined, the concepts of perceived quality, perceived value, and customer satisfaction are the main points of many studies in determining and explaining consumer behavior (Alguacil et al., 2019; Chiu et al., 2017; Dang et al., 2022; Dias & Monteiro, 2020; Eskiler & Altunışık, 2021; Eskiler & Safak, 2022; García-Fernández et al., 2016, 2018, 2020; Yu et al., 2014). The results of the studies show that there are relationships between perceived quality, perceived value, customer satisfaction, and behavioral intention.

When all of these studies are evaluated, one question that arises about this issue is the following: Which dimension of perceived value has been examined in the studies that deal with the relationship between perceived quality, perceived value, and customer satisfaction? Most of the previous research examining this relationship in the context of fitness considers the value perceived by the customer as a one-dimensional structure that is related only to the customer's valuation of money, price, or cost (García-Fernández et al., 2018, 2020). However, relating perceived value only to the price focuses on a one-dimensional structure, while examining other value dimensions (emotional value, functional value, or epistemic value) considers important aspects that enhance the benefits of the method (Chang et al., 2018; El-Adly, 2019; Kunkel et al., 2017; Kim et al., 2020).

The use of a single element structure in value measurement usually does not reflect the fullness of the theoretical structure, and its reliability cannot be evaluated (Wang et al., 2004). On the other hand, few researchers in the field of sports literature accept perceived value as a multidimensional structure (Kunkel et al., 2017; Kim et al., 2020). In particular, in fitness services, the customer has seen perceived value as a one-dimensional structure that emphasizes value as money (Alguacil et al., 2019; Eskiler & Altunışık, 2021; García-Fernández et al., 2018, 2020). This vision of customer-perceived value ignores what the fitness customer can achieve throughout his or her membership. Therefore, the purpose of this study is to examine the relationships among perceived quality, perceived value, customer satisfaction, and behavioral intention in Turkish fitness centers.

Review of literature

This work focuses on understanding the customer value process with a new approach. In this study, the cognitive and affective drivers of value are emphasized. The theoretical and conceptual framework of the hypotheses created are given in the following sections.

Relationship between perceived quality and perceived value

Perceived quality is defined as "...the consumer's judgment about a product's overall excellence or superiority" (Zeithaml, 1988, p. 3). Perceived value, on the other hand, is a much broader concept defined as "the consumer's evaluation of the usefulness of a product based on the perception of what is given and received" (Woodruff, 1997,

p. 142), or “the heart of modern approximation to marketing” (Nilson, 1992, p. 32). Attempts to understand the value consumers place on the fitness industry have resulted in numerous studies of perceived quality and perceived value (Alguacil et al., 2019; Eskiler & Altunışık, 2021; García-Pascual et al., 2021; Theodorakis et al., 2014). Perceived quality has been identified as an important antecedent of perceived value. Perceived quality is an indispensable element for managers of fitness centers who aim to create sustainable value (Yu et al., 2014). The point of interest here is how perceived quality relates to the multidimensionality of perceived value. Sports consumers achieve their personal values through actions or activities such as social interaction, economic exchange, possession, and consumption (Sheth et al., 1991).

The relationship between perceived quality and perceived value in fitness services has been discussed in different studies (Chiu et al., 2017; García-Fernández et al., 2018, 2020; Yu et al., 2014). In the fitness industry literature, perceived quality and perceived value are seen as the antecedent variables before loyalty (García-Pascual et al., 2021). Perceived value has been seen as a key factor in the success of businesses. Although perceived value is conceptualized as multidimensional in sports research (Kunkel et al., 2017), fitness research focuses on a one-dimensional structure which measures perceived value with a single factor. Perceived value in sports consists of a multidimensional structure, which is defined as what is achieved (perceived benefits) and what is given (perceived sacrifices or costs; Li et al., 2021). It is necessary to determine how each dimension of this multidimensional structure (economic, emotional, and social) is related to perceived quality, how it is affected, and how each dimension affects customer satisfaction. The consumer’s perception of the product and perceived quality directly affects perceived value, and positive quality perception results in positive value perception (Alguacil et al., 2019; Choi & Kim, 2013; Dias & Monteiro, 2020; Silva et al., 2019).

Choi and Kim (2013) examined the relationship between perceived quality and functional, emotional, and social value and found a significant positive effect with three dimensions of perceived value. We also need to investigate this effect between perceived quality and perceived value dimensions in the context of fitness centers. The essence of customers’ perceived value is the balance between perceived benefits and perceived sacrifices, and this balance can also be defined in sports literature through multidimensional structures (Kim et al., 2020). This research was designed to test the multidimensional view of the suggested value, which is also discussed in the sports literature (Kunkel et al., 2017) in the context of fitness centers. Based on the literature, we propose the following hypotheses:

- H₁. There is a direct and positive relationship between perceived quality and social value in fitness centers.
- H₂. There is a direct and positive relationship between perceived quality and functional value in fitness centers.
- H₃. There is a direct and positive relationship between perceived quality and emotional value in fitness centers.
- H₄. There is a direct and positive relationship between perceived quality and economic value in fitness centers.

Relationship between perceived value and customer satisfaction

Customer satisfaction is defined as “the level of a person felt state resulting from comparing a product’s perceived performance” (Giese & Cote, 2000, p. 1). Likewise, customer satisfaction is considered to be a response or a post-consumption evaluation (Kotler, 1991). When the general literature is examined, customer satisfaction can be determined as an important factor affecting behavioral intentions (Yuan et al., 2020). When the research findings in the context of sports service businesses are examined, the idea of a positive relationship between perceived value and customer satisfaction is supported (García-Pascual et al., 2020, 2021; García-Fernández et al., 2020). Many studies in the fitness literature point out that one of the most important ways for fitness customers to have a positive impact on their future intentions is to ensure customer satisfaction (Baena-Arroyo et al., 2020; Chiu et al., 2019; García-Fernández et al., 2020; García-Pascual et al., 2020; Fernández-Martínez et al., 2020). These studies considered the value perceived by the fitness customers as a one-dimensional construct emphasizing value for money. This limited view of perceived value ignores other important dimensions of value that can be derived from the fitness customer’s experience, such as the social, functional, and emotional dimensions of value that can be acquired throughout the membership.

Kim et al. (2020) found different relationships between multidimensional perceived value dimensions and customer citizenship behavior sub-dimensions in their research on sports organizations. For example, while no effect was determined between social value and helping behavior, a high level of effect was detected between epistemic value and helping behavior. Kunkel et al. (2017) examined the effect of perceived value dimensions on customer satisfaction and commitment. While the researchers determined the positive effect of functional value, one of the perceived value dimensions, on customer satisfaction, they could not detect any relationship in other dimensions. According to the results of this research, the dimensions of perceived value produce different results in the

antecedent variable. All of these studies show that perceived value should be included in the proposal model separately instead of evaluating it as one-dimensional. Based on the literature, we propose the following hypotheses:

H₅. There is a direct and positive relationship between social value and customer satisfaction in fitness centers.

H₆. There is a direct and positive relationship between functional value and customer satisfaction in fitness centers.

H₇. There is a direct and positive relationship between emotional value and customer satisfaction in fitness centers.

H₈. There is a direct and positive relationship between economic value and customer satisfaction in fitness centers.

Relationship between customer satisfaction and behavioral intention

Warshaw and Davis (1985, p. 214) defined behavioral intention “as the degree to which a person has formulated conscious plans to perform or not perform some specified future behaviour.” Many studies conducted in the context of both sports and fitness have examined the relationship between customer satisfaction and behavioral intention (Fernández-Martínez et al., 2020). According to the researchers, customer satisfaction seems to be a reliable indicator of behavioral intention in this relationship (Eskiler & Altunışık, 2021). Many fitness studies have found a positive effect between customer satisfaction and behavioral intention (Chiu et al., 2019; Fernández-Martínez et al., 2020; Foroughi et al., 2019; García-Pascual et al., 2020, 2021; Glaveli et al., 2021). Based on the literature, we propose the next hypothesis:

H₉. There is a direct and positive relationship between customer satisfaction and behavioral intention in fitness centers.

The proposed conceptual model and hypotheses for perceived quality, perceived value (multidimensional), customer satisfaction, and behavioral intention in fitness centers are presented in Figure 1.

Method

Participants

The study was designed based on a quantitative method. The data were collected by the researchers between November 2021 and December 2021. This research was carried out among 305 fitness customers in 10 different fitness centers in Adana, which is the fifteenth largest city in Turkey. Each of the fitness centers had around 2,500 customers, and the total number of customers was thus around 25,000 (95% confidence level, margin of error $\pm 5.5\%$). The fitness centers had cardiovascular training, weight training, group training, and social areas (low-cost business model). Participants were informed about the purpose of the research and were asked to participate on a voluntary basis. The process of selecting the participants ensured that none were younger than 18 years old. The ages of the

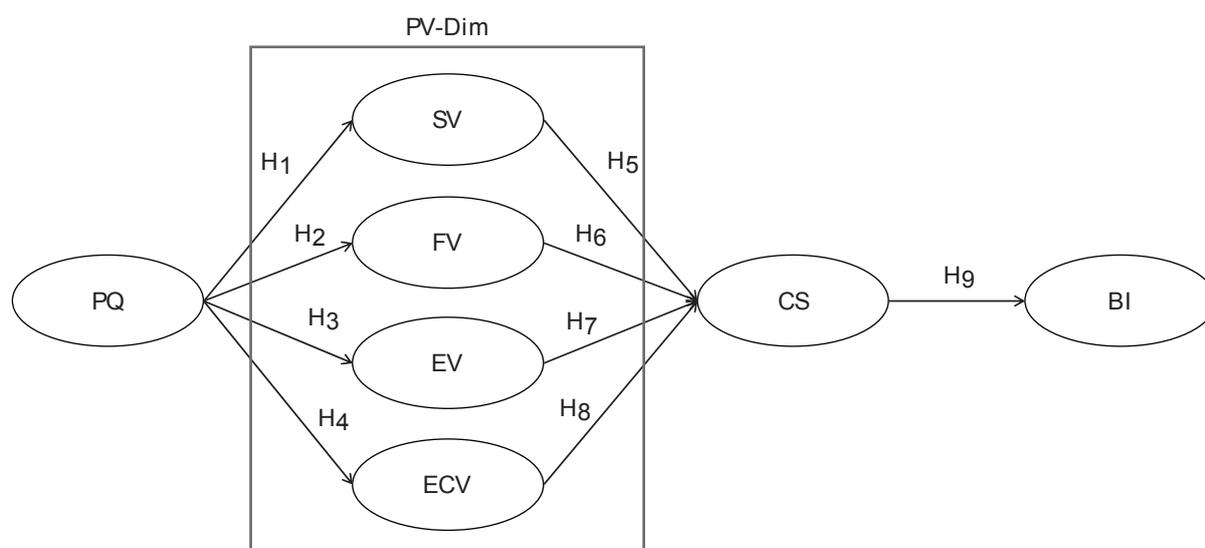


Figure 1. Conceptual model and hypotheses of the study

Note: PQ: Perceived quality, PV-Dim: Perceived value dimensions (SV: social value, FV: functional value, EV: emotional value, ECV: economic value), CS: customer satisfaction, BI: behavioral intention.

fitness customers in the study ranged from 18 to 65. The average age was 30.25. Table 1 provides information about the sample characteristics of the participants. Of the customers participating in the research, 48.9% (n = 149) were female and 51.1% (n = 156) were male.

Table 1. Personal characteristics of the participants

		Frequency	Percent
Gender	female	149	48.9
	male	156	51.1
Marital status	single	120	39.3
	married	185	60.7
Educational status	high school	84	27.5
	associate degree	47	15.4
	degree	127	41.6
	graduate	47	15.4
Income	up to 3,000	45	14.8
	3,001–4,000	80	26.2
	4,001–5,000	45	14.8
	5,001–6,000	48	15.7
	6,001 and above	87	28.5
Membership length	up to 6 months	86	28.2
	7–12 months	73	23.9
	13–18 months	39	12.8
	19–24 months	35	11.5
	24 months and above	72	23.6

Measurements

When creating items for the questionnaire, the items used in the fitness literature were taken as a basis. For the present study, a translation group was first formed within the framework of certain criteria. In this translation group, a group of four experts with more than 12 years of experience in sports management and meeting these criteria was formed, and the items and response options of the scale were translated and evaluated independently of each other. The differences between expert opinions were evaluated through results of the Kendall coefficient of concordance test (W; Kendall's $W = 0.121$, $p = 0.120$). Kendall's W ranges from 0 ("no agreement") to 1 ("complete agreement"). For content validity to be provided, it is necessary that $p > 0.05$. The results of the test indicated that there were no differences between the opinions of the experts and that, in terms of the cultural concordance of the scale, the Turkish form of the scale met the criteria of reliability of "concordance between independent experts" and linguistic and content validity.

Five items were used to measure perceived quality (PQ; based on García-Fernández et al., 2016, 2018), and 22 items were used to measure perceived value (social value [SV]: eight items; functional value [FV]: five items; emotional value [EV]: five items; economic value [ECV]: four items), based on Aktaş and Akıllı (2020), Kim et al. (2020), Kunkel et al. (2017), Lee et al. (2011), Miao et al. (2014), Petrick (2002), and Sweeney and Soutar (2001). Four items were used to measure customer satisfaction (CS; Yu et al., 2014; Zopiatis et al., 2017), and four items were used to measure behavioral intention (BI; Chiu et al., 2019; Fernández-Martínez et al., 2020; Foroughi et al., 2019; García-Pascual et al., 2020, 2021; Glaveli et al., 2021). The scales were measured with a Likert-type scale (1, "strongly disagree" to 5, "strongly agree").

Data collection and data analysis

The data obtained within the scope of this research were collected from 10 different fitness centers with the same service quality and features in Adana, one of the metropolitan cities of Turkey. These fitness centers were selected based on considerations of their size (about 1,500 m²), the sports services they offer (fitness activities and group fitness sessions), and the number of customers in terms of the conditions offered by the province of Adana.

Confirmatory factor analysis (CFA) was applied to the construct validity of the scale. CFA was performed with the LISREL 8.80 program. The 35-item, four-factor structure was tested. Maximum likelihood was used in the parameter estimation method. This method is an estimation method that selects the most probable parameters (Rossi, 2018). The suitability of the CFA was evaluated with absolute fit indices (χ^2/sd), parsimony fit indices (RMSEA), and comparative fit indices (CFI, NFI, NNFI, RFI). Since sufficient sample size for CFA varies according to different conditions (parameter estimation method, number of items, number of factors), there is no generally accepted number for sample size (MacCallum et al., 2001; Wolf et al., 2013). Worthington and Whitaker (2006) argue that a sample of 300 or more is sufficient. Cronbach's alpha (α), composite reliability (CR), and the average variance extracted (AVE) values were calculated for the validity of each factor (Hair et al., 2014). Cronbach's alpha values greater than .70 indicate that it is highly reliable (Gadermann et al., 2012). A CR value greater than .70 indicates that composite reliability is achieved (Bacon et al., 1995). For the AVE, values above .50 are recommended; however, some studies have considered values above .40 as adequate (Aldás, 2000). Heckler (1996) points out that if the reliability of the construct is acceptable, a marginally low value of AVE can be accepted. Fornell and Larcker (1981) suggest that constructs' factor loadings and AVE values are applied to examine validity. For ensuring discriminative validity (DV), the different factors' correlations must be lower than .85 (Kline, 2016).

Results

CFA was used to assess the validity of the measurement model. As a result of the CFA, it was revealed that the factor load of each item varied between .48 and .75. It has been determined as chi-square / df = 2358.82 / 539 = 4.37. The RMSEA value was determined as .077. When the fit values of the measurement model were examined, it was determined that CFI = .95, IFI = .95, RFI = .92, NNFI = .95, and NFI = .93. Comparative fit indices are .90 and above, indicating the fit of the fit index (Marsh & Hau, 1996; Shevlin & Miles, 1998). A χ^2/sd value of 4.37 indicates an acceptable fit (Anderson & Gerbing, 1984). As a result, all standard fit indices show that the factor structure of the model is confirmed.

The latent variables of perceived quality (PQ), perceived value (PV-Dim; SV; FV; EV; ECV), customer satisfaction, and behavioral intention used in the model were verified in the measurement model. The structural model was subsequently verified.

Table 2. Factor loadings (λ), Cronbach's alpha (α), composite reliability (CR), average variance extracted (AVE) of each dimension

Dimensions		M	Factor loading	α	CR	AVE
Perceived quality						
PQ1	The FC facilities are attractive.	4.75	.59	.76	.77	.41
PQ2	The FC facilities are spacious.	4.63	.75			
PQ3	The FC facilities are clean.	4.75	.69			
PQ4	The equipment of the FC is in good condition.	4.59	.61			
PQ5	The FC environment (temperature) is good.	4.70	.56			
Social value (SV)						
SV1	The FC I am a member of helps me be socially accepted.	4.56	.71	.85	.86	.43
SV2	There is a friendly atmosphere in the FC that I am a member of.	4.65	.69			
SV3	The FC that I am a member of improves the way I am perceived.	4.63	.65			

SV4	The FC I am a member of gives me sports awareness and the ability to comply with social norms and rules.	4.61	.70			
SV5	The FC that I am a member of earns me respect in society.	4.57	.68			
SV6	Thanks to the FC that I am a member of, I make a good impression on other people.	4.63	.59			
SV7	The employees of the FC I am a member of are friendly.	4.65	.66			
SV8	The FC I am a member of makes me feel like I am part of a special group.	4.57	.61			
Functional value (FV)						
FV1	Dressing rooms are sufficient in the FC that I am a member of.	4.49	.63	.78	.79	.43
FV2	The music system of the FC that I am a member of is sufficient.	4.53	.71			
FV3	The amount of training equipment in the FC I am a member of is sufficient.	4.57	.74			
FV4	The physical facilities of the FC that I am a member of are sufficient.	4.60	.68			
FV5	The FC I am a member of is well designed.	4.54	.52			
Emotional value (EV)						
EV1	It is exciting to go to the FC that I am a member of.	4.59	.72	.77	.78	.42
EV2	I train with pleasure in the FC that I am a member of.	4.60	.70			
EV3	The FC I am a member of takes me away from the mundane things I do every day.	4.61	.70			
EV4	Training in the FC I am a member of helps me forget my problems.	4.53	.63			
EV5	Seeing my body improve in the FC that I am a member of makes me feel happy.	4.64	.48			
Economic value (ECV)						
ECV1	The FC that I am a member of offers affordable services.	4.67	.67	.72	.75	.43
ECV2	The FC that I am a member of offers good service for its price.	4.70	.68			
ECV3	The FC I am a member of is economically advantageous.	4.63	.74			
ECV4	At the FC I am a member of, the prices of the services that are not included in the contract, if any, are appropriate.	4.62	.52			
Customer satisfaction (CS)						
CS1	I am satisfied with the programs and services of this FC.	4.65	.66	.75	.74	.43
CS2	I am happy with the programs and services of this FC.	4.68	.62			
CS3	I am pleased to have made the decision to become a member of this FC.	4.67	.65			
CS4	My decision to be a member of this FC was successful	4.69	.68			
Behavioral intention (BI)						
BI1	I will make positive comments to a friend about the programs and services of this FC.	4.66	.72	.80	.80	.52
BI2	If you ask me, I will recommend this FC.	4.67	.75			
BI3	I will continue to participate in the programs and services of this FC.	4.72	.69			
BI4	I would sign up for this FC if I unsubscribed.	4.71	.71			

Note: ***p < .01 (t > 2.58), **p < .05 (t > 1.96), *p < .10 (t > 1.65), ^{NS} t-value not significant, FC – fitness center.

Table 3. Hypothesis results

H	Hypothesis	Supported	β
1	PQ → SV	Yes	.98**
2	PQ → FV	Yes	.69**
3	PQ → EV	Yes	.89**
4	PQ → ECV	Yes	.86**
5	SV → CS	No	.06
6	FV → CS	No	.08
7	EV → CS	Yes	.23*
8	ECV → CS	Yes	.65**
9	CS → BI	Yes	.93**

Note: *** $p < .01$ ($t > 2.58$), ** $p < .05$ ($t > 1.96$), * $p < .10$ ($t > 1.65$), ^{NS} t-value not significant. PQ = perceived quality; SV = social value; FV = functional value; EV = emotional value; ECV = economic value; CS = customer satisfaction; BI = behavioral intention.

The measurement model showed an adequate fit to the data ($\chi^2 [305] = 2419.58$; $df = 551$ [$p < .001$]; $\chi^2/df = 4.39$; CFI = .95; NFI = .93; NNFI = .94; RFI = .92; IFI = .95; RMSEA = .078). It was determined that the X^2/Sd ratio of the measurement model was 4.39 (2419.58/551). In samples larger than 200, an X^2/Sd ratio above 3 and below 5 is an indication of a good level of fit (Kline, 2016). When the results of the fit values were examined, it was determined that the CFI and IFI values were excellent (Baumgartner & Homburg, 1996; Bentler, 1980; Bentler & Bonet, 1980), and the NFI, NNFI, RFI, and RMSEA values indicated a good fit (Browne & Cudeck, 1992). Reliability concerns the ability of an instrument to measure consistently (Tavakol & Dennick, 2011). To ensure the reliability of the model, internal consistency was $> .70$, and CA $> .70$ coefficients were calculated. Internal consistency coefficients were calculated as .76 for PQ, .85 for SV, .78 for FV, .77 for EV, .72 for ECV, .75 for CS, and .80 for BI. Cronbach’s alpha values higher than .70 indicate that it is highly reliable (Gadermann et al., 2012). CR values were calculated as .77 for PQ, .86 for SV, .79 for FV, .78 for EV, .75 for ECV, .74 for CS, and .80 for BI. A CR value greater than .70 is an indication of composite reliability (Bacon et al., 1995). AVE values were calculated as .41 for PQ, .43 for SV, .43 for FV, .42 for EV, .43 for ECV, .43 for CS, and .52 for BI. Fornell and Larcker (1981) indicate that if the AVE is above .40 but CR is higher than .60, the results are adequate. The discriminant validity (DV) was also tested. The correlations between the different factors ($r = .75-.32$) were lower than .85 (Kline, 2016).

Based on the observed results, it seems that PQ predicted 95% of the SV, 48% of the FV, 79% of the EV, and 74% of the ECV. At the same time, PV-Dim predicted 90% of the CS and 87% of the BI. It was revealed that the latent variable PQ in the structural model had a significantly higher effect on the social value ($\beta = .98$; $p < .01$), functional value ($\beta = .69$; $p < .01$), emotional value ($\beta = .89$; $p < .01$), and economic value ($\beta = .86$; $p < .01$) variables. It was revealed that the latent variable of emotional value had a low effect on the variable of customer satisfaction ($\beta = .23$; $p < .01$), and the latent variable of economic value had a moderate effect on the variable of customer satisfaction ($\beta = .65$; $p < .01$). At the same time, it was revealed that the latent variable of customer satisfaction had a high effect on the behavioral intention variable ($\beta = .93$; $p < .01$). The results of the structural model tested within the scope of the research are presented in Figure 2.

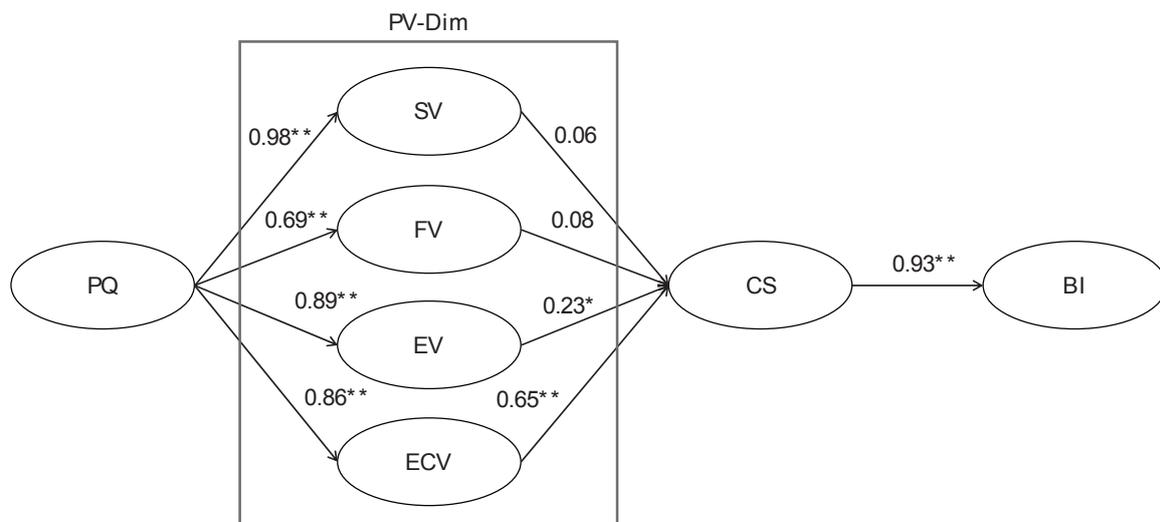


Figure 2. The structural model of the study

Note: *** $p < .01$ ($t > 2.58$), ** $p < .05$ ($t > 1.96$), * $p < .10$ ($t > 1.65$), ^{NS} t-value not significant. PQ: perceived quality, PV-Dim: perceived value dimensions (SV: social value, FV: functional value, EV: emotional value, ECV: economic value), CS: customer satisfaction, BI: behavioral intention.

Discussion and conclusions

The results of this study shed light on the specific operational processes of fitness centers in Turkey while supporting the traditional cognitive-emotional-behavioral pattern that is widely adopted in fitness services. The research results offer some valuable and practical information for fitness managers who are trying to satisfy their customers and keep them loyal. To understand the determinants of customer loyalty in the context of fitness centers, the relationships between perceived quality, perceived value dimensions, customer satisfaction, and behavioral intention were tested among Turkish fitness customers. According to our analysis, the effect of perceived quality on all value dimensions (social, functional, emotional, and economic) has been determined. While the effect of social and functional value on customer satisfaction is not statistically significant, it has been determined that emotional and economic value has a direct positive effect on customer satisfaction. The positive direct effect of customer satisfaction on behavioral intention was also identified.

One of the important findings of the research is that customers' perception of quality has a significant effect on each sub-dimension of perceived value (social, functional, emotional, and economic). This result supports the first, second, third, and fourth hypotheses. The effect of perceived quality on perceived value has been the focus of many studies in the literature of the fitness field (Fernández-Martínez et al., 2020; García-Pascual et al., 2020; Nazari, 2022). However, perceived quality and the multidimensionality of perceived value have not been addressed, as perceived value has been viewed as a one-dimensional structure (Wang & Chiu, 2022). The relationship between perceived quality and multidimensional perceived value has been deciphered for the first time in the context of fitness, which will likely contribute to the literature. This contribution focuses on the further elaboration of perceived value, without neglecting other dimensions of perceived value. In the context of fitness centers, accepting the customer's perception of value as a multidimensional structure, not as a single-item scale or a one-dimensional structure focused only on value for money, gives a clearer and more comprehensive picture of the full experience that a fitness customer can gain from a fitness service. Another important result of this research was that emotional value and economic value had a positive effect on customer satisfaction, while social and functional value did not have a direct positive effect on customer satisfaction. Although these findings are new in the fitness industry, these relationships have begun to be studied in sporting events (Crespo-Hervás et al., 2020). The distinguishing feature of the findings of this study is the inability to detect a direct positive effect between the dimensions of perceived value and customer satisfaction (Baek et al., 2021; El-Adly, 2019). This allows us to make the following inference. First, it is noteworthy that the effect of a multidimensional perceived value framework on customer satisfaction differs here. The use of a multidimensional perceived value framework, and whether each perceived value dimension has a different effect on customer satisfaction, has improved our understanding of the two variables (value vs. satisfaction). This result confirms the necessity of including each dimension of perceived value suggested in the sports management literature separately in the measurement model (Baek et al., 2020; Kunkel et al., 2017). A multidimensional perceived value perspective is generally considered more appropriate in service contexts, as consumption has more sociological and psychological aspects (El-Adly, 2019). The same findings are in question when alternative studies are evaluated. For example, Williams and Soutar (2009) found that functional value, economic value, and emotional value have a significant effect on customer satisfaction, but did not detect any effect of social value on customer satisfaction. In addition, when other research results were evaluated, they obtained different results between perceived value, multidimensionality, and customer satisfaction (Baek et al., 2020; Jiang et al., 2021).

Similarly, Choi and Kim (2013) found a direct positive relationship between functional, economic, and social value and customer satisfaction. Gallarza et al. (2013) also found a positive relationship between social value and customer satisfaction. While Yoo and Park (2016) detected a direct positive effect between utilitarian value, hedonic value, social value, and customer satisfaction, they could not detect a direct effect between self-expressive value and customer satisfaction. These results support the findings of Kunkel et al. (2017), which determined the positive effect of functional value on customer satisfaction, but could not detect any relationship in other dimensions of perceived value. Additionally, the study of Kim et al. (2020) did not show an effect between social value and helping behavior, but a high level of effect was found between epistemic value and helping behavior. All of these research results show that perceived value should be included separately in the model, not as a single dimension. Finally, another prominent result of the research is that customer satisfaction has a significant effect on behavioral intention. Many studies in the literature support our results (García-Fernández et al., 2018, 2020; Olya et al., 2022; Theodorakis et al., 2014; Yu et al., 2014; Zopiatis et al., 2017).

In conclusion, this study allows us to expand the existing knowledge regarding the perceived value of Turkish fitness customers. The findings are important because perceived quality affects each perceived value dimension, as

well as the loyalty chain. This is clear evidence of the necessity of taking a multidimensional approach to analyzing perceived value in sports management research.

Limitations and future research

The limitations of this study should be acknowledged when evaluating the results. Because our results only directly relate to one target group, fitness customers, caution should be taken when generalizing the findings beyond the main observed population. Four sub-dimensions of research value were included. Different dimensions associated with perceived value (hedonic value) could be included in future studies. The antecedent variable was examined, like perceived quality, as a single dimension.

For this reason, future studies could include multidimensional scales of perceived quality and analyze the relationships with multidimensional scales of perceived value. Likewise, as this study is quantitative, a complementary qualitative study could provide a deeper understanding of the research (Taheri et al., 2021). Another limitation of this study was that its results could not be compared with multidimensional perceived value studies in the field of the fitness industry. Therefore, future studies should acknowledge and explore its role in the multidimensional measurement of perceived value. Another limitation of the study is the sample analyzed, as the customers were from low-cost fitness centers with global fitness services included in the membership, and the frequencies of use also differed from the business models. For example, the customer's frequency of use of the fitness center may affect perceived quality, perceived value, customer satisfaction, and behavioral intention. When the relevant literature is examined, it can be seen that people who use fitness centers more frequently are less likely to quit the fitness service. For this reason, testing models with multidimensional scales of quality and perceived value would help in understanding behaviors in different business models, such as premium centers or boutiques. The results would help sports managers understand consumer behavior and carry out the specific management of services according to the business model. Variables such as membership duration and price segment (low, medium, or high) may be included in new research. This would help more clearly reveal whether the perceived quality, multidimensional value, customer satisfaction, and behavioral intention perceptions of fitness customers in different price categories and different types differ.

Managerial and practical implications

From a practical point of view, this research has several implications that allow fitness center managers to develop a multidimensional sense of value among fitness customers. First of all, it reveals the necessity for fitness center managers to understand fitness customers' feelings of perceived quality and perceived value. Fitness center managers primarily need to develop factors that affect perceived quality because it directly affects each dimension of perceived value. In other words, when the quality elements of a fitness center (such as staff, physical features, etc.) are good, the value of that fitness center is also good in the customer's eyes. From this point of view, fitness center managers who want to improve perceived value should focus on strategies that strengthen quality. Likewise, managers may care about the improvement of physical facilities such as the cleanliness of the center, equipment, and changing rooms, which will improve perceived quality (León-Quismondo et al., 2020). At the same time, fitness center managers can affect customers' quality perceptions of many issues. Some of these are helping customers reach their sportive goals and providing customer–employee interactions within the fitness center (Eskiler & Safak, 2022). From this point of view, managers can value the elements that provide customer–employee communication as improving their perceived quality. In addition, they can improve some elements of the indoor environment of the fitness center (such as air quality, lighting environment, thermal environment, and layout). Improving these elements will improve customers' perception of quality (Dang et al., 2022). As a result, in order to improve perceived value, fitness center managers must improve perceptions of how they provide service to the customer and what the customer receives as a result of this service.

Secondly, the factors affecting fitness center customer satisfaction should be developed. Since perceived value can change according to the product, service type, and characteristics of consumers (Lee et al., 2007; Zeithaml, 1988), it should be kept in mind that sports consumers can also differ. Fitness managers can identify which value elements their fitness customers embrace more and focus on strategies that will strengthen these value elements accordingly. For example, they can start making an inference about the strong effect between economic value and customer satisfaction and take action. Turning the economic outputs in favor of the customer may increase customer satisfaction and make it last long-term. At the same time, the positive relationship between functional value and customer satisfaction shows that it is necessary for fitness center managers to increase fitness products and features. Functional value, which is one of the applications that create customer satisfaction, is related to the product

and its features. For this reason, fitness center managers who want to ensure the customer satisfaction of fitness customers should attach importance to functional value elements. From this point of view, fitness managers who want to prevent membership cancellation should focus on strategies that strengthen customers' perceived value of each dimension. In order to achieve this, fitness managers must be able to quickly solve the economic problems of fitness customers, care about them in every environment they encounter, and create a communication environment that makes their customers feel valued. As a result, fitness center managers should increase customer satisfaction by providing an emotional environment in which they feel cared for, as well as creating economic value that the fitness customer can afford and that makes them happy. Finally, fitness center managers can promote customer satisfaction by increasing fitness activities that create economic and emotional value. This will have a positive impact on customers' perception of value, customer satisfaction, and behavioral intentions.

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