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CAN WELL-BEING AND SOCIALIZING THROUGH FITNESS FOSTER THE FITNESS CENTER SATISFACTION AND LOYALTY? EMPIRICAL RESEARCH IN A POST-CRISIS CONTEXT

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Abstract:

The recent crises (sanitary, energetic, socio-economic) have undoubtedly altered consumers' daily lives, the way they socialize and how they relate to activities, their own desires and their peers. Especially the recent pandemic has caused major social disruptions, forcing consumers to become more individualistic and give up or change previous lifestyles and traditional socializing. This research examines how socializing through fitness and well-being through sport activities fosters consumers satisfaction and loyalty towards their preferred fitness center, which benefits the best image in their own minds. Factors like fitness centers services, location, lockers, staff, pricing, or advertising generate a unique perception of the preferred fitness center, thus leading to increased satisfaction and loyalty. 1,498 clients from sport fitness centers were approached using a face-to-face administered questionnaire; the collected data were analyzed using structural equation modelling in SmartPLS. Various fitness center vectors, like equipment, lockers, pricing, advertising, location, and staff, positively impact on the center's image, which in turn, mediated by well-being through fitness generates satisfaction and loyalty. Socializing at fitness centers impacts customer satisfaction, loyalty, and well-being. This paper contributes to existing knowledge by applying the Stimulus-Organism-Response model to fitness center clients in a post-crisis context on an emerging country.

Key words: *fitness center, well-being, socializing, Stimulus-Organism-Response (SOR) model, fitness center customers, satisfaction, loyalty*

1. Introduction

The fitness services sector has expanded recently due to increased interest in healthier lifestyles, relaxation, and social interactions (Davis et al., 2023). Worldwide, but also in Europe, the number of fitness centers is increasing, especially after the recent sanitary crisis, likely due to restrictions on sports and social activities (Rada & Szabo, 2022). Fitness centers have made great efforts to regain their clientele in the New Normal (Budler & Božič, 2024). The recent crisis led to a transition from gym workouts to home settings, resulting in higher sales of fitness equipment and expansion in the online home fitness market (Rada & Szabo, 2022).

Prior to the recent sanitarian crisis (Deloitte, 2022; Batrakoulis et al., 2023), fitness and wellness clubs across the 28 EU countries, along with Norway, Russia, Switzerland, Turkey, and Ukraine, generated total revenues of 26.6 billion euros, establishing Europe as the leading global fitness market (TG, 2024). Of the 794 million Europeans, 7.5% were registered in fitness centers, the number of clubs growing by 3.3% compared to 2016 (Klem et al., 2021; EAC, 2024). Over 205,000 fitness and health clubs operated globally in 2019, generating revenues of 94 billion US dollars. Europe had approximately 63,644 health clubs, and the global health and fitness club market is projected to grow annually by 7.5% until 2030, reaching over 125 billion US dollars (Statista, 2023). During the recent crises (sanitary, energetic, socio-economic), the fitness industry experienced an average worldwide decline of about 40% (58% in the USA, 30% in Europe) (Deloitte, 2022), Romania being also along the European trend, with a strong increase of fitness centers in 2023 (Statista, 2023; Milon et al., 2024).

To stimulate customer's motivation and implicitly, satisfaction, the managers of fitness centers must implement efficient marketing strategies to attract new clients, bind old ones and generate the best customer experiences. Therefore, their goals are to generate a strong customer satisfaction and loyalty towards fitness center (Gocłowska et al., 2019). Previous research on fitness centers has addressed quality and satisfaction, along their impacts on customer loyalty and retention (Ferreira-Barbosa et al., 2023; Septiarini et al., 2023). Literature argues that fitness center satisfaction and loyalty might be increased through users' stickiness in fitness apps (Elsotouhy et al., 2022), but also through the impact of music on self-paced fitness consumers (Williams et al., 2023). There are merely studies that explored how customers' well-being and socializing through sport activities inclinations affect or influence their satisfaction and loyalty towards fitness centers. To cover this gap, empirical research was conducted in a post-crisis context on an emerging market, aiming to highlight how socializing through fitness and well-being through sport activities fosters consumers satisfaction and loyalty towards their preferred fitness center. Fitness center service, prices, staff, advertising etc. generate customers image toward their preferred fitness center, thus also enhancing their satisfaction and loyalty.

The research adds knowledge and a deeper understanding and application of the Stimulus-Organism-Response (SOR) model, applied for fitness centers; services, equipment, staff, prices, advertising etc. can be regarded as stimuli, while socializing through sport activities and well-being through fitness, along the anchored image of fitness centers constitutes parts of the organism. Loyalty is the response generated by fitness

center clients. The authors develop critically, based on the literature, a conceptual model, which is then analyzed by means of structural equations modelling with SmartPLS on a sample of Romanian fitness center clients. The results show under the influence of socializing through fitness and well-being through sports an increased post-crisis satisfaction and loyalty towards fitness center clients.

The paper begins with an introduction, proceeds to a literature review, outlines the research hypotheses, and the conceptual model development; this is followed by the research methodology, the findings, discussions, and conclusions.

2. Literature Review

The fitness industry has experience in recent years a strong technological advancement, many being based on apps suit to offer practical advice to both amateur and professional sport enthusiasts; these innovations, which incorporate digital technologies and artificial intelligence, are also available in the form of wearable innovative devices, through which sportsman can monitor their engagement in physical activities (Kalgotra et al., 2022; Stajer et al., 2022; Florea et al., 2023). Customers anticipate benefits corresponding to the price paid for fitness center services. The SOR model, developed by Mehrabian and Russell (1974), explains consumer buying behavior and decision-making at individual and group levels (Hussain et al., 2022). Stimuli are external factors influencing individuals; organisms reflect a person's internal states, including attitudes and behaviors; and response denotes the behavioral decisions made by an individual (Liu et al., 2022). The SOR approach highlights the link among consumer experience, perceived added value, satisfaction, and loyalty in various sport settings, like sports events (Jeong et al., 2020), sport-scape, emotion, and behavioral intention in US sport leagues (Jang et al., 2017), motivation stimulation in e-sports (Fernando et al., 2022); socialization through football games, but also through customers increased interest towards the football team (stimuli) influence fan engagement, thus leading to satisfaction (organism), which then generates loyalty (response) (Rahman et al., 2023). Further research based on the SOR model is applied to fitness and "sports-gamified apps"; in this research, a positive experience towards using the app is considered to be an external stimulus, which then leads to a better and enhanced customer brand loyalty, app usage behaviour, as well as to customer-brand engagement (Habachi et al., 2023).

Physical exercises, which are essential for overall health, including physical, psychological, emotional, and mental well-being (Florea et al., 2023; Mahindru et al., 2023), improve self-esteem (Tikac et al., 2022) and show positive correlations with motivations for competition and enjoyment in the case of men, while physical appearance and social relationships are more relevant for women (Inoue et al., 2024). Fitness centers promote mental health and encourage personal development in both young and elderly populations (Toros et al., 2023), fostering a safe, healthy lifestyle and consumer well-being (Gilani & Dashipour, 2017) with the help of equipment quality, value-added services, and staff competencies (Vieira & Ferreira, 2018; Milon et al., 2024). Generating a client's loyalty is more efficient for a fitness center than attracting new customers (Rane et al., 2023). Consumer satisfaction influences their future revisiting intentions (Garcia-

Fernández et al., 2018). Customers rely more often on positive word-of-mouth regarding their preferred fitness center (Liao et al., 2017). Potential clients will choose the fitness center that best meets their expectations, ensuring maximum satisfaction. The main measures of satisfaction for a fitness center customer are the staff, the price, the promotional activity, the club's equipment, the center's location, and other offered services (Gocłowska et al., 2019), thus leading to customer satisfaction and loyalty (Dabija et al., 2024; Tahir et al., 2024).

Basic services of the fitness center. Fitness centers offer a diverse range of services, including free weights, aerobic classes, Pilates, swimming, relaxation rooms, and saunas (Xu et al., 2021). Their service packages are intended to meet client needs, consisting of basic (Ong et al., 2021) and supplementary services (Riseth et al., 2019). Basic services can include training options, operating hours, equipment hygiene, changing room cleanliness, exercise space, heating and ventilation, specialized consultations (healthcare, nutrition etc.), in-club music, temperature control, lighting comfort, interior design, security, service assurance, e-marketing, client relationships, pricing, price-quality ratio, staff friendliness, instructor competence etc. (Ferreira-Barbosa et al., 2023). A supervised exercise environment by trained staff lets clients use equipment to meet their training goals. The service-scape significantly affects customer satisfaction, impacting on the overall sustainability of the business (Jang & Baek, 2024), and influencing the fitness centers image (Kim et al., 2016). An appealing image of the fitness center fosters a positive first impression, establishing a beneficial relationship between management and customer expectations (León-Quismondo et al., 2020). Based on these facts the following hypothesis is assumed:

H₁: The basic services of the fitness center have a positive influence on the fitness center image.

Fitness center equipment. The equipment of fitness centers must be novel (modern) and always hygiene (Jang et al., 2024). Proper maintenance ensures equipment longevity, providing excellent facilities for customers while reducing injury risks (Addolorato et al., 2020) and its proper functionality (Freitas & Lacerda, 2018). High-quality sports equipment positively influences customer experience (Qiu, 2020). Supposing that a positive high experience of using good quality equipment will favorably generate the fitness centers image, the following hypothesis can be stated:

H₂: Fitness center equipment exerts a positive influence on the fitness center image.

Fitness center lockers. Changing rooms or lockers are designed as single gender facilities, with specific capacities and layouts, usually consisting of changing and shower areas, lockers, toilets, vanity areas with hair dryers and/or mirrors (Freitas & Lacerda, 2018). The cleanliness of lockers always leads to an improved perception of fitness centers (Ferreira-Barbosa et al., 2023), therefore it is argued that:

H₃: Fitness center lockers have a positive influence on the fitness center image.

Fitness center prices. The price level significantly influences consumer purchasing behavior (Zhao et al., 2021). Services prizes impacts client behavior when selecting a fitness center (Pradeep et al., 2020), clients often preferring a training facility depending on the favorability of the quality-price ratio (Ferreira-Barbosa et al., 2023), also

comparing service quality with the costs incurred (Ong et al., 2021). Their disappointment will increase if the actual quality is lower than expected (Garcia-Fernández et al., 2018). Fitness center prices positively affect customer purchase intentions (Ong et al., 2021). The following hypothesis is defined:

H₄: Prices have a positive influence on the fitness center image.

Fitness center advertising. Advertising is a relevant marketing tool (Septianto et al., 2021), which, for fitness centers, means adopting communication channels with customers (Pradeep et al., 2020). Through digital marketing, fitness centers have the advantage to improve customers online experiences, but also attract new ones (Gocłowska et al., 2019). Loyal customers use to repurchase the services and/or to recommend by word-of-mouth their preferred fitness center to peers (Chen & Yu, 2017; Dabija et al., 2024). Advertising has a significant impact on brand image and customer loyalty (Abbas et al., 2021), so it can be stated that:

H₅: Advertising favorably influences the fitness center image.

Fitness center staff. The most important attributes with influence on the fitness sector are the workout facilities, price and staff, like trainers, technical staff and physical education teachers (Freitas & Lacerda, 2019). Personal trainers by certified professionals, emerge as leading trends in Europe (Batrakoulis et al., 2023). The image of fitness instructors significantly impacts service quality perception (Campos et al., 2023). So, the following hypothesis was postulated:

H₆: Staff favorably influences the fitness center image.

Fitness center location. The basic service package of a fitness center includes its geographical location, encompassing distance from clients' homes and availability of parking spaces, which are considered facility functions (Xu et al., 2021). "Place" consists of the availability of a product to customers, with proximity to residence and parking being key determinants in choosing a fitness center (Pradeep et al., 2020). Location is crucial in assessing customer satisfaction in fitness centers (Freitas & Lacerda, 2019), therefore it is assumed that:

H₇: Location has a positive influence on the fitness center image.

Socializing through fitness. The physical environment facilitates socializing, communication, and interactivity (Attri et al., 2024). Fitness centers must demonstrate convincingly that they are able to provide value for clients (Garcia-Fernandez, 2018), through the offered services. A fitness center provides social connection as one of its services. Socializing does not necessary correlate with customer satisfaction in the case of low-cost fitness centers (Gálvez-Ruiz et al., 2023). Generating value by fulfilling customers' expectations through social interaction aids in attaining customer satisfaction, retention, and attracting new clientele (Garcia-Fernandez, 2018). Consumer commitment encompasses repurchase intention, and positive word-of-mouth, ultimately leading to loyalty after prolonged commitment. Friendships based on exercising together in a fitness center, while socializing, motivates the customers present and future behavior (Zhou & Krishnan, 2019). The purpose of fitness center managers is to obtain a high level of loyalty from the customers (Garcia-Pascual et al., 2020). Therefore, the following hypotheses are stated:

H₈: Socializing through fitness generates clients' satisfaction with the fitness center.

H₉: Socializing through fitness generates clients' loyalty towards the fitness center.

Social connection represents a basic human need, critical for individuals' health and wellbeing (Wang et al., 2018). Fitness specialists aim to identify key determinants motivating individuals to regularly train. Communicating and interacting while exercising influences physical and psychological well-being (Zhou & Krishnan, 2019). Socialization improves the quality of life, health and well-being, improves customers mood and happiness, enhances their longevity, but also leads to a better cognitive and physical performance (Denworth, 2020; Milon et al., 2024). The advantages of socializing are social connections, the cure for chronic disease, mental well-being, lower risk of cognitive decline, lower stress, lower depression and higher happiness, increasing longevity, a strong and vital body (Grafton, 2020; Levintin, 2020). Regular physical activity at a fitness center fosters a sense of belonging and helps build relationships with like-minded individuals (Iwon et al., 2021). Thus, the following hypothesis was formulated:

H₁₀: Socializing through fitness generates client's well-being through fitness.

Well-being through fitness. The increasingly stressful and demanding nature of modern life has led to a sedentary lifestyle for individuals (Lachman et al., 2018), resulting in the emergence of new diseases, autoimmune disorders and obesity (Jin et al., 2023). Therefore, consumers worldwide are turning to sports and physical activities to live healthier (Garcia-Pascuale et al., 2020). Training at fitness centers provides both physical and mental benefits, positively influencing individuals' social well-being (Heckel et al., 2023). The influence of customer emotion on satisfaction was confirmed in fitness centers (Pedragosa et al., 2015). Satisfaction is considered a precursor to loyalty, future intentions of fitness consumers being influenced by perceived value, and satisfaction (Garcia-Fernandez et al., 2018). Therefore, it is presumed that:

H₁₁: Well-being through fitness generates the fitness center image.

H₁₂: Well-being through fitness favorably influences clients' loyalty towards the fitness center.

Image, satisfaction and loyalty. The image of a fitness center positively influences customers' purchase intentions, as they feel comfortable when their perceived needs are satisfied (Garcia-Fernández et al., 2018). Satisfaction requires that a service's features, price, and quality align with consumer expectations (Pradeep et al., 2020). Customer delight plays a central role in the perceived service quality-loyalty relationship (Gálvez-Ruiz et al., 2023), satisfaction influencing customer behavior intentions in fitness centers. A satisfied customer will repurchase the service and recommend it to peers (Liao et al., 2017; Dabija et al., 2024). The image of a gym generates consumer trust and loyalty, and satisfaction often being a mediator (Hariyanto & Anandya, 2021). A positive brand image impact on customer satisfaction is observed when consumers are satisfied (Dam & Dam, 2021). The following hypothesis is defined:

H₁₃: The fitness center image generates satisfaction with the fitness center.

Loyal customers repeatedly purchase their preferred service. When a consumer experiences delight, satisfaction increases, leading to favorable behavioral intentions (Gálvez-Ruiz et al., 2023). To achieve higher satisfaction and retention, fitness center

managers must provide high-quality services, focusing especially on the client-staff interactions (Dias et al., 2019). Key elements of loyalty include customer-perceived value, corporate image, and switching costs; the image of a fitness center is crucial for customer loyalty. It is also the primary determinant of a consumer's repurchasing decision (Macon, 2020; Dabija et al., 2024). Therefore, a hypothesis is proposed:

H₁₄: The fitness center image generates clients' loyalty.

Customer satisfaction acts as a moderator that links service experience and quality with consumer loyalty (Septiarini et al., 2023). Customer loyalty is directly and strongly influenced by customer satisfaction. There is a direct link between the offered services quality, the client-instructor, and the client-client interaction in a fitness center, influencing customer experience, with impact on customer loyalty (Eskiler & Safak, 2022; Dabija et al., 2024). Therefore, it is considered that:

H₁₅: Satisfaction with the fitness center generates loyalty towards the fitness center.

Based on these arguments and the relations between the different constructs, the authors propose the conceptual model from figure 1.

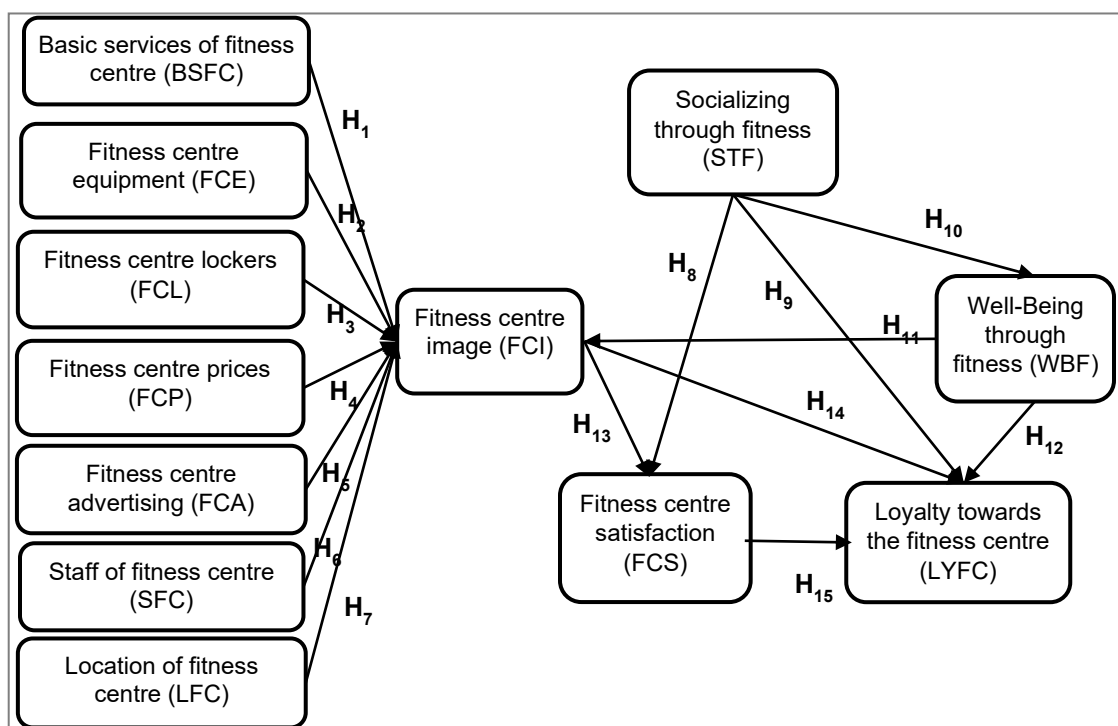


Fig. 1. Conceptual model: Generating satisfaction and loyalty towards the fitness center.

3. Research methodology

To highlight how socializing through fitness and well-being through sport activities fosters consumers satisfaction and loyalty towards their preferred fitness center, which also benefits of the best image in customers own minds, an empirical investigation was

implemented in the post-crisis context. A quantitative approach was employed, using a face-to-face administered questionnaire among 1,498 fitness center clients who practiced training regularly for at least a month. A convenience sampling method was employed to maximize respondent participation, comprising 746 men (49.5%) and 752 women (50.5%). 377 fitness center clients have a high school education (25.2%), 99 have professional or post-high school education (6.6%), and 1,022 clients hold higher education qualifications (68.3%).

246 (16.40%) were born before 1980, 597 (39.82%) between 1980-1989, and 655 (43.78%) after 1990. From 1,023 clients (68.29%) who reported their net monthly income, 129 (8.6%) have one below the Romanian minimum wage, 801 clients (53.5%) earn between the minimum and the average wage, 490 clients (32.7%) between one and two average salaries, and 78 clients (5.1%) earn over four average salaries. 6.7% train at the fitness center for up to 30 minutes; 97 clients (6.5%) train for 31-45 minutes; 757 (50.5%) train for 46-60 minutes; 339 (22.6%) train for 61-90 minutes; and 205 (13.7%) train for over 90 minutes.

4. Findings

The evaluation of measurement models. The theoretical model (Fig. 1) was tested through structural equations modelling (SEM) by using SmartPLS (Ringle et al., 2015). This allowed the determination of the dependency relations between constructs. Validity analysis, internal consistency, item loadings, average variance extracted (AVE), reliability (Table 1), respectively the discriminant validity (Fornell-Larcker and Heterotrait-Monotrait tests (Table 2) were reflectively measured. Item loadings exceed the recommended threshold of 0.70 (see Table 1), which means that all items show convergence validity and accurately measure the investigated phenomenon (Hair et al., 2010). Construct reliability was determined by the Cronbach- α analysis, the values exceeding the required threshold (0.7) (Henseler & Sarstedt, 2013). Average variance extracted is higher than the required threshold of 0.5, which means that the analyzed model is correct (Chin, 1998) and that it contains construct convergent validity. All the constructs have reliability, Composite Reliability (CR) being higher than the threshold of 0.7 (Hair et al., 2010).

Table 1. Constructs and items

Item	Description	Loa- ding	α /CR/ AVE
Services of fitness center (SFC) adapted after Ong et al., 2021; Xu et al., 2021; Ferreira-Barbosa et al., 2023.			
In my fitness center...			
BSFC1	...the training possibilities are diverse.	0.779	0.746/ 0.840/ 0.567
BSFC2	...the workouts I do are varied enough for me.	0.764	
BSFC3	...the operating program is an adequate one.	0.760	
BSFC4	...the planning of training hours is excellent.	0.708	
Fitness center equipment (FCE) adapted after Freitas & Lacerda, 2018; Addolorato et al., 2020; Qiu, 2020; Jang et al., 2024.			

My fitness center...			
FCE1	...has modern equipment.	0.846	0.870/
FCE2	...has clean and properly maintained equipment.	0.854	0.911/
FCE3	...has equipment that is safe to use.	0.865	0.719
FCE4	...has professional equipment.	0.827	
Fitness center lockers (FCL) Freitas & Lacerda, 2018			
My fitness center...			
FCL1	...has lockers that are always clean.	0.776	0.887/
FCL2	...has well-ventilated and pleasant-smelling changing rooms/lockers.	0.769	0.911/
FCL3	...has sufficient sanitary installations that work perfectly.	0.800	0.595
FCL4	...is spacious enough for training.	0.787	
FCL5	...is always clean and airy.	0.799	
FCL6	...is adequately lit.	0.751	
FCL7	...has appropriate equipment.	0.717	
Fitness center prices (FCP) adapted after Chen & Yu, 2017; García-Fernández et al., 2018; Pradeep et al., 2020; Zhao et al., 2021; Ong et al., 2021; Ferreira-Barbosa et al., 2023.			
In my fitness center...			
FCP1	...prices are constant/stable in the long run.	0.742	0.782/
FCP2	...the quality/price ratio is a good one.	0.837	0.859/
FCP3	...the price level is better than in other fitness centers.	0.728	0.604
FCP4	...the prices charged are acceptable.	0.796	
Fitness center advertising (FCA) adapted after Gocłowska et al., 2019; Pradeepa et al., 2020, Abbas et al., 2021.			
My favorite fitness center...			
FCA1	...has an attractive advertising.	0.853	0.860/
FCA2	...has an advertising that seems to attract me.	0.851	0.905/
FCA3	...has good social media advertising (Facebook, Twitter, etc.).	0.844	0.705
FCA4	...also provides me with useful information from its own website.	0.809	
Staff of fitness center (SFC) adapted after Freitas & Lacerda, 2019.			
The staff of my fitness center...			
SFC1	...is generally kind.	0.752	0.880/
SFC2	...is prepared appropriately (adequate knowledge).	0.794	0.907/
SFC3	...is present in the fitness room whenever needed and willing to help.	0.788	0.582
SFC4	...respect the schedule of scheduled activities.	0.765	
SFC5	...treat customers correctly	0.787	
SFC6	...offers adequate attention to clients.	0.740	
SFC7	...provides complete information regarding the workouts (their order, the benefits of the exercises, etc.).	0.713	
Location of fitness center (LFC) adapted after Freitas & Lacerda, 2019; Pradeep et al., 2020; Xu et al., 2021.			
In my fitness center...			
LFC1	...I can easily find an appropriate parking place.	0.873	0.886/
LFC2	...the parking lot is safe.	0.942	0.929/
LFC3	...the parking lot is adequately arranged and close to the center.	0.890	0.813
Socializing through fitness (STF) adapted after Wang et al., 2018; Zhou & Krishnan, 2019; Iwon et al., 2021; Gálvez-Ruiz et al., 2023; Attri et al., 2024.			
STF1	Training at the fitness center is a opportunity to meet friends.	0.842	0.801/

STF2	I prefer training at the gym because I can socialize with others.	0.881	0.883/
STF3	I like to train together with others.	0.814	0.716
Well-being through fitness (WBF) adapted after Keckel et al., 2023			
WBF1	I enjoy sharing my experiences with other athletes.	0.801	0.777/
WBF2	When I train at the gym, I can exceed my physical limits.	0.741	0.855/
WBF3	Going to the gym makes me feel unique.	0.753	0.597
WBF4	I feel like I'm really living when I go to the gym to train.	0.794	
Fitness center image (FCI) adapted after Hariyanto & Anandya, 2021.			
My fitness center...			
FCI1	...is attractive.	0.755	0.880/
FCI2	...is unique.	0.748	0.907/
FCI3	...is different from other gyms.	0.810	0.582
FCI4	...is reliable.	0.772	
FCI5	...is better than other fitness centers.	0.730	
FCI6	...is a good decision for me.	0.746	
FCI7	...is nice.	0.775	
Fitness center satisfaction (FCS) adapted after Liao et al., 2017; Dias et al., 2019; Gálvez-Ruiz et al., 2023.			
Overall, I am satisfied with the...			
FCS1	...staff of my fitness center.	0.790	0.848/
FCS2	...equipment and devices.	0.863	0.898/
FCS3	...services offered.	0.863	0.688
FCS4	...quality/price ratio of the services received.	0.799	
Loyalty towards the fitness center (LYFC) adapted after Hadiwijaya et al., 2021; Eskiler & Safak, 2022; Septiarini et al., 2023.			
My experience with this fitness center convinces me...			
LYFC1	...to train here again.	0.745	0.876/
LYFC2	...to tell my friends/how satisfied I am.	0.818	0.907/
LYFC3	...to recommend its trainers to friends/acquaintances.	0.814	0.619
LYFC4	...to recommend to others training at it.	0.823	
LYFC5	...to positively present it to relatives/friends.	0.807	
LYFC6	...to prefer it in the future.	0.706	

Note: Factor loading>0.6; Cronbach's Alpha/ α >0.7; Average variance extracted (AVE)>0.5; Composite reliability (CR)>0.7 (see Hair et al., 2010).

Discriminant validity with Fornell-Larcker procedure and the Heterotrait-Monotrait (HTMT) test (Table 2) was applied. For Fornell-Larcker, the diagonal values must be greater than the values below the diagonal, representing “the square root of the average variance extracted, and in the case of the HTMT test the values must be less than 0.9”, which indicates that the considered concepts are not similar (Henseler et al., 2014). Applying for the HTMT test, the highest obtained value was 0.844.

Table 2. Discriminant validity analyses

Con-struct	BSFC	FCI	FCA	FCE	FCL	FCP	FCS	LFC	LYFC	STF	SFC	WBF
Fornell-Larcker discriminant validity												
BSFC	0.753											
FCI	0.586	0.763										
FCA	0.356	0.410	0.840									
FCE	0.542	0.575	0.313	0.848								
FCL	0.511	0.578	0.367	0.682	0.772							
FCP	0.467	0.512	0.324	0.410	0.344	0.777						
FCS	0.531	0.756	0.367	0.607	0.616	0.496	0.830					
LFC	0.222	0.170	0.232	0.167	0.195	0.161	0.152	0.902				
LYFC	0.534	0.749	0.385	0.505	0.519	0.436	0.629	0.200	0.787			
STF	0.134	0.205	0.164	0.128	0.127	0.209	0.189	0.181	0.261	0.846		
SFC	0.466	0.582	0.332	0.460	0.483	0.397	0.584	0.164	0.532	0.260	0.763	
WBF	0.175	0.287	0.210	0.162	0.140	0.254	0.236	0.169	0.317	0.660	0.273	0.773
Heterotrait-Monotrait discriminant validity												
BSFC												
FCI	0.722											
FCA	0.445	0.471										
FCE	0.671	0.657	0.362									
FCL	0.625	0.651	0.421	0.773								
FCP	0.599	0.606	0.393	0.483	0.397							
FCS	0.665	0.844	0.431	0.705	0.708	0.594						
LFC	0.274	0.189	0.262	0.190	0.223	0.197	0.175					
LYFC	0.654	0.847	0.442	0.574	0.585	0.515	0.725	0.224				
STF	0.174	0.244	0.187	0.154	0.149	0.266	0.230	0.218	0.312			
SFC	0.573	0.659	0.381	0.525	0.544	0.468	0.675	0.184	0.602	0.311		
WBF	0.230	0.349	0.259	0.196	0.169	0.325	0.292	0.204	0.381	0.809	0.329	

Note: BSFC: Basic services of fitness centre; FCA: Fitness centre advertising; FCE: Fitness centre equipment; FCI: Fitness centre image; FCL: Fitness centre lockers; FCP: Fitness centre prices; FCS: Fitness centre satisfaction; LFC: Location of fitness centre; LYFC: Loyalty towards the fitness centre; SFC: Staff of fitness centre; STF: Socializing through fitness; WBF: Well-being through fitness.

Items collinearity was tested with the variance inflation (VIF) factors applied to all items, the values being below the threshold of 3.3 (Sarstedt et al., 2017). With a $VIF=3.275<3.3$ (LFC2 item) there is no multicollinearity issue. Hypothesis were tested based on the bootstrap procedure, which allowed the confirmation of all hypotheses (positive t-statistics significance).

The evaluation of the structural model. The analysis of the collinearity between the constructs highlighted the absence of this problem, the greatest VIF value of the inner model being of $2.406<3.3$ (FCI→LYFC). Goodness of fit measured with the square root mean residual (SRMR) has a value of $0.045<0.08$. The image of fitness centers and

socializing through fitness explains 43.5% of the variance of well-being through fitness ($R^2=0.435$), while image of fitness centers and socializing through fitness explain 57.3% of the variance in satisfaction with the fitness center and image of the fitness center, together with socializing and wellbeing through fitness explain 58.4% of loyalty towards the fitness center ($R^2=0.584$). This pinpoints that the structural model depicts a strong predicting power (Figure 2).

H₁ inferred that basic services positively influence fitness center image. The results ($\beta=0.197$; T-value=10.734; $p<0.001$) display a positive and intense influence, highlighting that the service-scape plays a major role in creating the image of the fitness center (Kim et al., 2016), impacting on the customers satisfaction level and the sustainability of the business (Jang & Baek, 2024). Literature (Ong et al., 2021; Xu et al., 2021) underlined the impact of basic services on the fitness centers development, thus confirming our findings. A good image of the fitness center leads to a successful customer's impression (León-Quismondo et al., 2020). Therefore, H₁ is confirmed.

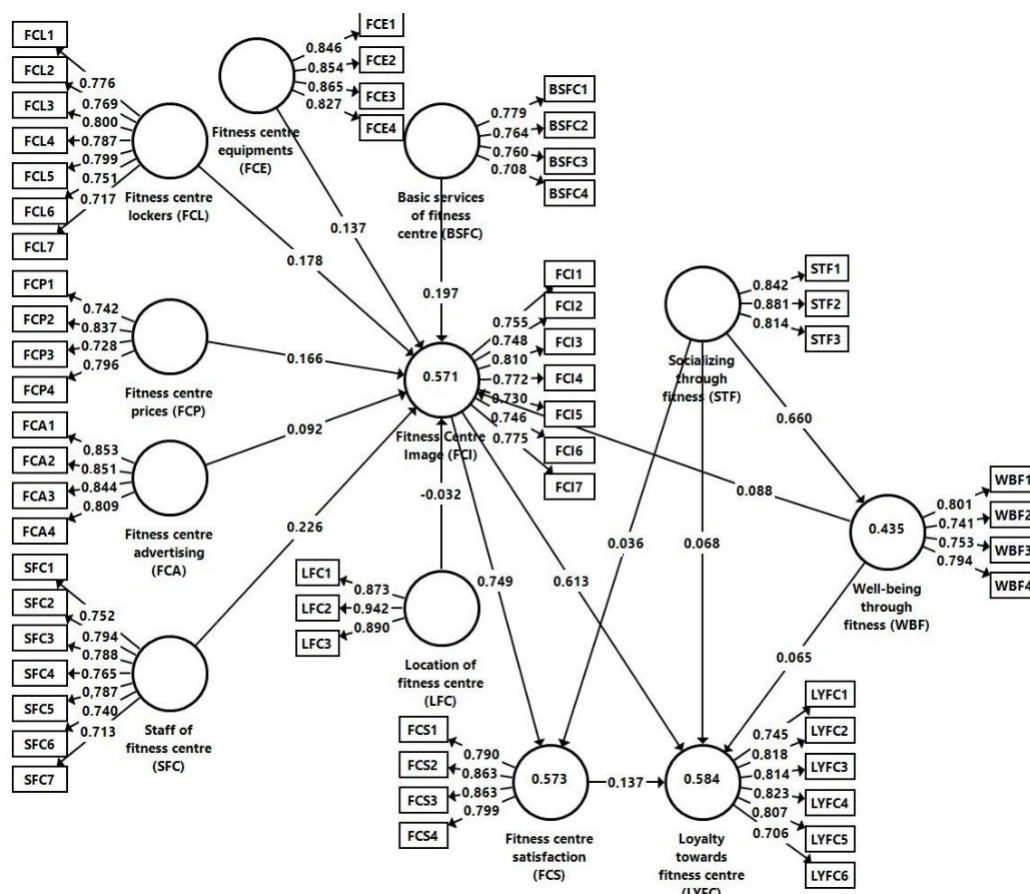


Fig. 2. Structural model

H₂ assumed that fitness center equipment exerts a positive influence on the fitness center image. The results ($\beta=0.137$; T-value=5.930; $p<0.001$) indicate a moderate, but positive relation. The literature underline some attributes regarding the features fitness

equipment must have to better satisfy the customer's needs: availability of equipment cleaning products, number of available equipment, equipment functionality and variety, equipment location, equipment ease of use, preservation of equipment, value and price of the workout facilities (Freitas & Lacerda, 2018), features of modern science and technology (Qiu, 2020). The results show that the fitness center equipment exerts a positive influence on the fitness center image, thus H₂ is validated. H₃ presumed that fitness center lockers have a positive influence on the fitness center image. The results ($\beta=0.178$; T-value=8.422; $p<0.001$) show a moderate intense and positive relation, so H₃ can be confirmed.

H₄ argued that prices have a positive influence on the fitness center image. The results ($\beta=0.166$; T-value=9.099; $p<0.001$) depict an intense and strong positive influence, the literature does not show whether the influence between prices and the fitness center image is positive. Price has a significant impact on each client's behavior when selecting a fitness center because they are interested in the quality-price ratio (Ferreira-Barbosa et al., 2023). Customers usually compare the quality of the services offered with the paid value (Ong et al., 2021). If the real quality is lower than the expected one, clients will become disappointed (Garcia-Fernández et al., 2018). The relationship between the prices and the image of the fitness center are validated for the first time, so H₄ is supported.

Table 3. The path coefficients of the structural equation model

Paths	Path Coefficients	Standard Deviation	T-Value	P-Value	Hypotheses
BSFC→FCI	0.197	0.018	10.734	0.000***	H ₁ -Confirmed
FCE→FCI	0.137	0.023	5.930	0.000***	H ₂ -Confirmed
FCL→FCI	0.178	0.021	8.422	0.000***	H ₃ -Confirmed
FCP→FCI	0.166	0.018	9.099	0.000***	H ₄ -Confirmed
FCA→FCI	0.092	0.017	5.542	0.000***	H ₅ -Confirmed
SFC→FCI	0.226	0.017	13.518	0.000***	H ₆ -Confirmed
LFC→FCI	-0.032	0.013	2.239	0.020*	H ₇ -Confirmed
STF→FCS	0.036	0.013	2.675	0.008**	H ₈ -Confirmed
STF→LYFC	0.068	0.019	3.640	0.000***	H ₉ -Confirmed
STF→WBF	0.660	0.012	53.209	0.000***	H ₁₀ -Confirmed
WBF→FCI	0.088	0.015	5.927	0.000***	H ₁₁ -Confirmed
WBF→LYFC	0.065	0.020	3.272	0.001***	H ₁₂ -Confirmed
FCI→FCS	0.749	0.011	68.665	0.000***	H ₁₃ -Confirmed
FCI→LYFC	0.613	0.022	27.503	0.000***	H ₁₄ -Confirmed
FCS→LYFC	0.137	0.023	5.968	0.000***	H ₁₅ -Confirmed

Note: *** $p<0.001$; * $p<0.05$. BSFC: Basic services of fitness centre; FCA: Fitness centre advertising; FCE: Fitness centre equipment; FCI: Fitness centre image; FCL: Fitness centre lockers; FCP: Fitness centre prices; FCS: Fitness centre satisfaction; LFC: Location of fitness centre; LYFC: Loyalty towards the fitness centre; SFC: Staff of fitness centre; STF: Socializing through fitness; WBF: Well-being through fitness.

H₅ investigated the influence of advertising on the fitness center image. The results ($\beta=0.092$; T-value=5.542; $p<0.001$) show a low intense influence, therefore H₅ can be endorsed, results being in line with research (Abbas et al., 2021), which showed that

advertising exerts a significant impact on brand image; online advertising has a positive significant effect on brand image and loyalty. H_6 analyzed the influence of the fitness center's staff on the fitness center image. The results ($\beta=0.226$; $T\text{-value}=13.518$; $p<0.001$) depict a strong positive influence, even. The statistical data allows us to confirm H_6 .

H_7 assumed that the location has a positive influence on the fitness center image. The results ($\beta=-0.032$; $T\text{-value}=2.239$; $p<0.020$) pinpoint a very low intense and negative relation, meaning that the fitness center location does not influence strongly the fitness center's image. Location can be regarded as a facility function (Xu et al., 2021), but also a factor influencing consumers' choice (Pradeep et al., 2020). The hypothesis is confirmed. H_8 presumed that socializing through fitness generates clients' satisfaction with the fitness center. The results ($\beta=0.036$; $T\text{-value}=2.675$; $p<0.008$) confirm the relation, agreeing with previous research (Garcia-Fernandez et al., 2018; Zhou & Krishnan, 2019). Therefore, H_8 is supported.

H_9 inferred that socializing through fitness generates clients' loyalty towards the fitness center. Literature (Garcia-Pascual et al., 2020) underlined the importance to obtain a high consumers loyalty, without linking socialization to customer's loyalty as in this research. The results ($\beta=0.068$; $T\text{-value}=3.640$; $p<0.001$) show a positive but low intensity influence, so the hypothesis is confirmed thus also being a novel finding in literature. Psychological involvement, particularly pleasure and centrality, plays a crucial role in developing customer loyalty over time (Yoshida et al., 2023). H_{10} presumed that socializing through fitness generates client's well-being through fitness. The results ($\beta=0.600$; $T\text{-value}=53.209$; $p<0.001$) highlight a very strong positive influence between the dimensions, which agrees with literature (Denworth, 2020). So, the presumed hypothesis is to be confirmed.

H_{11} analyzed the relation between well-being towards the fitness center and the fitness center image. The results ($\beta=0.088$; $T\text{-value}=5.927$; $p<0.001$) pinpoint a positive influence of quite low intensity, meaning that well-being influences the fitness center image moderately. This is the first validation of this hypothesis. H_{12} argued that well-being through fitness favorably influences clients' loyalty towards the fitness center. The results ($\beta=0.065$; $T\text{-value}=3.272$; $p<0.001$) confirm a positive relation, of a very low intensity. This is the first validation of this hypothesis because the literature has not validated the link between well-being in a fitness center and the customer's loyalty towards the fitness center. A link between customer emotion and customer satisfaction was validated in fitness centers (Pedragosa et al., 2015), satisfaction being considered an antecedent of loyalty (Garcia-Fernandez et al., 2018). The hypothesis can be confirmed.

H_{13} investigated the influence of the fitness center image on satisfaction with the fitness center. The results ($\beta=0.749$; $T\text{-value}=68.665$; $p<0.001$) depict a very strong positive influence between the concepts, agreeing with literature (Hariyanto & Anandya, 2021), who validated the impact of corporate image and consumer loyalty. Literature has found that fitness center image depends on client's satisfaction, showing that when a consumer is satisfied, the impact of brand image on customer satisfaction is positive (Dam & Dam, 2021). The findings allow us to confirm H_{13} .

H_{14} considered that the fitness center image generates clients' loyalty. The results ($\beta=0.613$; $T\text{-value}=27.503$; $p<0.001$) underline the very strong positive influence leading to

the confirmation of H₁₄, being in accordance with previous research (Hariyanto & Anandya, 2021). The image of the fitness center is the main determinant of consumers repurchasing decision (Macon, 2020). H₁₅ presumes that satisfaction with the fitness center exerts a positive influence on clients' loyalty. The results ($\beta=0.137$; T-value=5.968; $p<0.001$) display a positive influence between the constructs, validating previous research (Septiarini et al., 2023) which confirms the interdependence between customer satisfaction and loyalty. In a fitness center there is a direct link between the quality of the offered services, the client-instructor, and the client-client interaction, influencing the quality of customer experience, with impact on customer's loyalty (Eskiler & Safak, 2022). Thus, H₁₅ is confirmed.

5. Discussions

This research identifies factors that ensure customer satisfaction and loyalty in fitness centers, including staff quality, location, basic services, pricing, and advertising, which enhance the fitness center's image and contribute to consumer satisfaction and loyalty. The research utilized the SOR model to determine whether stimuli, including socialization and well-being, affects the image of the fitness center and, ultimately, consumer loyalty. It is not the first time that the SOR model has been applied to activities in the fitness sector, but there is a limited number of such studies in the literature (Elsotouhy et al., 2022; Özgen et al., 2024). Furthermore, some of the constructs used in this research are not very popular in the specialized literature in publications focused on this type of sporting activity - fitness; here we remember the fitness center lockers (Freitas & Lacerda, 2018), the staff (Freitas & Lacerda, 2018), the image of the fitness center (Hariyanto & Anandya, 2021) and well-being through fitness (Keckel et al., 2023). Numerous hypotheses validated in international literature were confirmed in the context of an emerging country such as Romania. A fitness center provides basic (Ong et al., 2021; Xu et al., 2021) and supplementary services (Riseth et al., 2019). Both affect consumer satisfaction. A direct correlation exists between the fundamental services of a fitness center and its image (Kim et al., 2016). The results demonstrate a significant positive effect of fitness centre equipment on the fitness centre image, a hypothesis not previously validated in the literature. Fitness centre lockers positively influence the image of fitness centres. Although previous studies have examined the prices of fitness center related products and/or services (Ong et al., 2021; Ferreira-Barbosa et al., 2023), they have not also studied their impact and/or relationship towards the fitness center's image. This research validates the price-image relationship for the first time and shows how advertising influences the image of fitness centers. The fifth hypothesis was confirmed, aligning with prior research (Abbas et al., 2021).

The fitness center's staff has a strong positive influence on the center's image. The location, considered a facility function (Xu et al., 2021), is paramount in customers' choice of fitness center (Pradeep et al., 2020). This research confirms that the location positively impacts the center's image. Satisfaction is a consequence of service repurchase intention (Liao et al., 2017).

Previous literature (Gálvez-Ruiz et al., 2023) has reached to similar results as those obtained within this research when it has analyzed the impact of delight on

consumers' satisfaction and behavior, or between the consumers' retention rate and satisfaction. It is important to obtain a high level of loyalty from the consumers, without linking socialization to customers' loyalty (Garcia-Pascual et al., 2020). Despite the results of literature, this research shows a positive but low intensity influence between socializing through fitness and client's loyalty towards the fitness center, which constitutes a new finding for literature. The link between socialization through fitness and client's well-being through fitness was revalidated as having a strong influence in an emerging country, as previously shown (Zhou & Krishnan, 2019; Denworth, 2020). The research highlights a positive influence between client well-being and the perceived fitness center image, as well as between well-being and customer loyalty. This aligns with previous findings that customer emotion generates satisfaction (Pedragosa et al., 2015) and that the fitness center image generates customer satisfaction (Hariyanto & Anandya, 2021). Well-being and socializing through fitness can foster consumer behavior (Kunc et al., 2024; Lazaroïu & Rogalska, 2024) and intentions (Puertas et al., 2024) as a result of business model innovation (Moravec et al., 2024; Prokop et al., 2024), entrepreneurial self-efficacy (Bui & Duong, 2024), and green logistics practices (Chatzoudes et al., 2024), particularly throughout public health and economic crises (Lăzăroiu et al., 2024; Świadek & Gorączkowska, 2024).

The supposition that fitness center image generates client's loyalty was confirmed with a very strong positive influence, confirming previous research (Hariyanto & Anandya, 2021; Macon, 2020). The positive and strong impact between customer satisfaction toward the fitness centre and their loyalty was shown previously (Eskiler & Safak, 2022; Septiarini et al., 2023). Based on the SOR model, this research confirms that various stimuli (socialization and well-being) act on the fitness center image (organism) generating clients' loyalty (response). This study adds a supplementary value to SOR based research within the sports industry.

6. Conclusions

From a theoretical perspective, the research adds value to the implementation of the Stimulus-Organism-Response (SOR) model within the fitness industry by evaluating customer satisfaction and loyalty towards the customers preferred fitness center. The contribution of the research also lies in addressing the literature gap within the fitness industry, particularly in an emerging country, where findings of how customers behaved in times of and/or beyond crisis are still quite limited. The research also develops new variables aimed at measuring some specific constructs, such as fitness center lockers, staff, and well-being through fitness, and formulates new hypotheses. Moreover, the research validated for the first new relationships between hypotheses, such as: the correlation between prices and the fitness centers image, between well-being towards the fitness center and its image, and the well-being-customer's loyalty towards the fitness center relation. The research examines the effects of influence factors like location, equipment, price, basic services, and advertising on client satisfaction and loyalty.

To ensure the increase of customer satisfaction, the management of fitness centers must develop strategies to welcome customers, to make them loyal, knowing that it

is more difficult to attract new customers than to keep the existing ones. Efficient administration of a fitness center necessitates the evaluation of multiple factors, including a varied sports program, staff cordiality, incentives for loyal patrons, and a familial environment. This approach underscores the significance of socio-economic factors, including essential services, location, marketing, pricing, personnel, and changing facilities, in achieving client satisfaction. To enhance efficiency, fitness centers may establish an accessibility policy to ensure that facilities, equipment, and programs are available to individuals with disabilities. Prioritizing customer satisfaction entails multifaceted implications: management must ensure continuous staff training to remain updated on fitness trends, safety protocols, and customer service competencies. Managers encourage and value customer feedback to identify areas that need to be improved and ensure that customer needs are met.

Fitness centers need to offer a wide variety of fitness classes and programs to accommodate different preferences and fitness levels. The fitness center becomes more attractive to a broader audience. Success today is closely associated with technology integration; thus, utilizing it to monitor customer progress, offer virtual classes, and improve the fitness center experience is essential. Fitness centers must cultivate a community that fosters a sense of belonging among loyal customers by organizing events, challenges, and inclusive social activities to encourage customer commitment and retention. Fitness center management could target existing groups, such as staff, to offer training programs. The fitness center benefited from a larger customer base compared to individual targeted customers, as it facilitates community building through physical activities.

Among the limitations of the research it must be emphasized that the questionnaire was not implemented only in Transylvania, as it was not possible to include all regions of Romania. Therefore future research could extend the investigation to other regions of Romania and/or permit comparisons between gym enthusiasts in rural versus urban areas. Another limitation lies in the fact that the influence of various socio-demographic characteristics of sport enthusiasts was not considered, thus future research could investigate the extend of income, working conditions, gender, age etc. on customers inclination towards practicing fitness.

Future studies could incorporate additional stimuli in their theoretical models or conduct a comparative analysis of fitness client behavior based on age, gender, income, personality, or health style. The future trend of fitness services will incorporate not just higher quality services, more time, space, and networks (such as apps, sites), but hybrid fitness solutions and digital fitness technology. The development of artificial intelligence and virtual reality will determine gym managers to redefine the future fitness service offer and the customer's digital experience through the new wellness technologies.

7. References

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