



Relationship between Service Quality and Customer Satisfaction of Nan Ning Fitness Centers, Republic of China

DOI: <https://doi.org/10.5281/zenodo.12793551>

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Abstract:

Every organization ought to not only be working toward achieving a high level of customer satisfaction, but they should also be actively working toward achieving that level. Studies correlating influencing factors on the relationship between the quality service and customer satisfaction is scarce at the local level. This quantitative research made use of the descriptive, correlational research design to assess influencing factors on the relationship between the quality service and customer satisfaction in Nanning Fitness Centers in China. Findings of this study served as basis for a proposed intervention plan. 200 respondents were recruited and statistical treatments used were frequency distribution, simple percentage, mean score and standard deviation, and Pearson r. Findings of the study revealed that physical environment, customer value, supporting service, switching cost, and purchasing decision were considered to be very important to the respondents. Overall, the influencing factors were considered to be very important in influencing the relationship between the quality service of Nanning Fitness Centers and customer satisfaction. Respondents were very satisfied with the service of the fitness center. Physical environment, customer value, supporting values, switching cost, purchasing decision, and overall factors influencing the relationship between service quality and customer satisfaction were significantly correlated with extent of the clients' satisfaction with the service. The more important the physical environment, customer value, supporting values, switching cost, purchasing decision, and overall factors influencing the relationship between service quality and customer satisfaction, the higher the extent of satisfaction on the service. To address the findings of the study an in-intervention plan was proposed.

Keywords: Descriptive, correlational design, Fitness Clubs, Influencing factors, Satisfaction with service; Service quality.

Introduction:

Continuous quality improvement is crucial for competitiveness in any industry. In the fitness sector, mechanisms like customer satisfaction, service quality, and feedback are key to attracting more clients. Wong and Teo (2019) highlighted the impact of service quality on customer satisfaction in the fitness industry, emphasizing the importance of understanding this relationship to improve customer experiences. Chen and Hu (2020) explored service quality, customer satisfaction, and loyalty in Chinese fitness centers, showing how loyalty impacts customer satisfaction in Nanning fitness centers. Lin and Wang (2019) discussed the relationship between repurchase intention and gender, providing insights into service quality and customer satisfaction. Choi, Lee, and Kim (2020) examined how service quality affects customer satisfaction and behavioral intention, with a focus on the moderating role of gender.

This study focuses on assessing the relationship between service quality and customer satisfaction in fitness centers in Nanning, China. It aims to identify the factors that influence this relationship and how they impact customer satisfaction. By examining these correlations, the study offers valuable insights for fitness center operators to improve service delivery, enhance customer satisfaction, and boost business performance. This research also contributes to the broader understanding of the fitness industry, helping centers gain a competitive edge, increase customer retention, and improve financial performance through better service quality.



The study addresses gaps in the research on the fitness industry in Nanning, such as limited specific research and unique cultural or market factors that may affect customer preferences and service expectations. It also considers evolving customer demands in the fitness industry. To address these gaps, the study identifies specific service quality dimensions crucial to customer satisfaction, such as staff competence, facilities, cleanliness, and value for money. It proposes practical recommendations for fitness center managers to improve service quality and acknowledges cultural nuances that may influence customer perceptions.

Yang and Peterson (2019) studied customer-perceived service quality in Chinese fitness clubs, examining satisfaction and loyalty with a focus on gender's moderating role. Liu and Jang (2018) explored service quality, customer satisfaction, and loyalty, considering the moderating role of age. The fitness industry in Nanning has experienced rapid growth post-COVID-19, with a 30% increase from 2022 to the present (Alexandra, 2024). Nanning, with its large urban population, has 320 fitness centers serving over 300,000 adults (GuangXi Provincial Bureau of Statistics, 2024; Tianyancha, 2024). However, some centers struggle to meet demand, resulting in customer dissatisfaction.

Addressing customer expectations and needs is crucial for the sustainable operation of fitness centers. Key variables influencing success include the physical environment, customer value, support services, switching costs, and purchasing decisions. The physical environment encompasses infrastructure and accessibility, significantly impacting operations and success (Howat & Assaker, 2020). Customer value goes beyond price, including quality, features, brand reputation, and satisfaction (Hongxing, 2021). Support services before, during, and after a purchase enhance satisfaction, loyalty, and brand perception (Dongdong et al., 2020). High switching costs promote customer retention (Zhenjie & Yao, 2020). Purchasing decisions are influenced by price, quality, brand reputation, preferences, and external factors (Garcia-Fernandez, 2022).

Considering these factors in business strategy and marketing is critical for fitness centers' success. The study in Nanning's fitness industry can serve as a model for the broader Chinese market, providing insights into current challenges and opportunities. This research not only enhances understanding of Nanning's fitness sector but also contributes to the overall advancement of the fitness market in China, improving the researcher's skills and interest while having broader implications for the country's fitness industry.

Literature Review:

This research is anchored on the Expectancy-Disconfirmation Theory (Haidong & Caixia, 2021), the Disconfirmation of Expectations Model (Parasuraman, 2023), and the Theory of Service Quality (Chou et al., 2021). The theory of customer satisfaction, a fundamental concept in marketing and business management, has been extensively studied. Customer satisfaction involves customers' evaluations of their experiences with a product, service, or brand, influencing consumer behavior, loyalty, and business success (Peltier, 2020).

The Expectancy-Disconfirmation Theory posits that customer satisfaction is determined by comparing prior expectations with actual performance. Satisfaction occurs when perceived performance exceeds expectations, while dissatisfaction arises when performance falls short (Haidong & Caixia, 2021). The Disconfirmation of Expectations Model extends this framework, suggesting satisfaction depends on the discrepancy between expectations, perceived performance, and the importance of each attribute. This model introduces the "zone of tolerance," where satisfaction varies based on actual performance (Parasuraman, 2023). The Kano Model categorizes attributes into basic needs, performance needs, and delighters, indicating that not all attributes equally contribute to satisfaction (Kano et al., 2022).

Understanding these attribute categories is crucial for prioritizing improvements. Customer satisfaction theory also highlights the role of perceived value, defined as the benefits received relative to the costs incurred. Higher perceived value often leads to greater satisfaction, loyalty, and willingness to repurchase (Tianhe & Jiaming, 2023). The Affect-Based Model of Customer Satisfaction emphasizes the impact of emotional responses on satisfaction, suggesting emotional reactions significantly influence overall satisfaction (Westbrook, 2021).



Service Quality Theory compares customer expectations with actual perceptions of service, involving the service process, results, and overall satisfaction (Chou et al., 2021). To improve customer satisfaction, companies must understand and strive to exceed customer expectations. Key aspects include reliability, responsiveness, guarantee, empathy, and tangibility (Hui, 2021; Stepp & Xu, 2021; Copeland et al., 2022; Sperandei et al., 2021; Bennie et al., 2022). These aspects form the basic framework of service quality theory, helping enterprises understand customer needs and improve service quality and satisfaction.

Customer satisfaction reflects perceptions of the physical environment, customer value, support services, switching costs, and purchasing decisions. High satisfaction levels are crucial for a fitness center's reputation and success.

Khadka and Srijana (2022) found affordability, location, and advertising significantly impact customer satisfaction, while equipment quality does not. Nursanti and Tomoliyus (2021) highlighted the importance of word-of-mouth and service quality on loyalty and satisfaction. Thilagavathi and Nanjappa (2023) indicated that all factors positively correlate with customer satisfaction, with multiple regression analysis showing significant impacts. Xu et al. (2021) identified service recovery, assurance, facility function, program operation, instructor quality, and staff performance as significant predictors of satisfaction.

Wang (2023) found high customer satisfaction with the experience at fitness clubs, meeting psychological expectations. Lim et al. (2024) revealed that perceived value, satisfaction, and service quality significantly influence psychological commitment, membership renewal, and referrals, indicating higher loyalty with increased satisfaction.

Methodology:

Design. This quantitative research made use of the descriptive - correlational design. The descriptive design was used to determine the profile of the respondents, the degree of influencing factors on the relationship between the quality service and customer satisfaction as well as the extent of clients satisfaction on the service. The correlational design was used to assess the relationship between the influencing factors and the extent of clients' satisfaction on the service.

Participants and Sampling Technique. The study employed 200 participants that composed the following: 50 students, 50 coaches, 50 teachers, 50 community clients who were regular customers of the Nan Ning Fitness Centers that were selected purposively.

Inclusion and Exclusion Criteria. Respondents must be falling under the criteria of either being a student, coach, teacher or community clients of Nan Ning Fitness Centers. Respondents must be of legal age regardless of sex, religion, marital status, and socio-economic status and must be residents of Nan Ning for at least a year. They must be willing to participate and provide informed consent. Transients are excluded from the study as well as those identified to be vulnerable.

Data Gathering Tools. The study made use of a three-part researcher-made instrument based on the review of related literature being done. Part one pertains to the profile of the respondents in terms of age, sex, and number of years doing fitness in the fitness center.

Part two is the influencing factors on the relationship service quality and customer service. It is a 30-item instrument composed of five dimensions namely: Physical Environment (12 items), customer value (5 items), supporting services (4 items), switching cost (4 items), and purchasing decision (5 items). It is answered using a four-point Likert scale where 1 is not important, 2 is somewhat important, 3 is important, and 4 is very important. Parametric scores and interpretation are as follows: 1.00 – 1.75 is not important, 1.76 – 2.50 is somewhat important, 2.51 – 3.25 is important, and 3.26 – 4.00 is very important.

Part three is the satisfaction with service. It is a 15-item instrument and is answered using a five-point Likert scale where 1 (Very Dissatisfied), 2 (Dissatisfied), 3 (Neutral), 4 (Satisfied), 5 (Very Satisfied). Parametric scores and interpretation are as follows: 1.00 – 1.80 is very dissatisfied, 1.81 – 2.60 is



dissatisfied, 2.61 – 3.40 is neither satisfied nor dissatisfied, 3.41 – 4.20 is satisfied, and 4.21 – 5.00 is very satisfied.

The research questionnaire developed by the researcher was tested for content validity to assess the fit of the content with the research objectives, as well as the logical and chronological organization. Afterwards, the research questionnaire was tested for reliability among 15 respondents to assess the normality of the data and should achieve a Cronbach alpha score of at least 0.5. Cronbach alpha for the instrument revealed .937 for physical environment, .926 for customer value, .924 for supporting service, .896 for swiftness cost, .828 for purchasing decision, and .979 for the satisfaction with the services (please see appendix).

Research Environment. The research environment for this study was primarily consisted of the fitness centers located in Nanning, Republic of China. These fitness centers served as the primary setting where data collection and observations were conducted. The researcher identified and contacted several fitness centers to secure permission for conducting the research and obtaining the necessary data. To ensure a safe and conducive environment for data collection, the researcher abided by the ethical guidelines and privacy policies of each fitness center. This included obtaining informed consent from the respondents, ensuring confidentiality of their responses, and respecting the daily operations of the fitness centers.

The researcher also created an enabling environment for respondents to provide honest and detailed feedback. This involved ensuring that the questionnaire was easy to understand and complete, providing adequate time for respondents to respond, and maintaining a non-judgmental and supportive attitude throughout the data collection process.

Additionally, the researcher took into account the cultural and social context of Nanning when analyzing the data. This included understanding the local fitness culture, consumer behavior, and any potential biases that influenced the respondents' responses. By considering these factors, the researcher was able to provide a more accurate and nuanced understanding of the relationship between service quality and customer satisfaction in Nanning fitness centers.

Finally, the researcher ensured that the research environment remained conducive to data analysis and interpretation. This included using appropriate statistical tools and methods to analyze the collected data, as well as considering the limitations and biases that may affect the results. By doing so, the researcher was able to draw meaningful and reliable conclusions about the relationship between service quality and customer satisfaction in Nanning fitness centers.

Data Gathering Procedure

Pre-Data Gathering. In order to undertake the research project, permission from the Dean of the University of the Visayas' Graduate School of Education was required, along with a panel member's endorsement. In order to secure the Notice to Proceed, the researcher followed the compliance check list and submitted to UV-IRB for technical and ethical review. The Ethics Committee issued a Noticed to Proceed Certification once it had been authorized. The researcher then moved on to collecting data using the approved research instrument for the data gathering procedures.

Actual Data Gathering. Upon the issuance of the Noticed to Proceed Certificate from the Research Ethics Committee of the University of the Visayas- Institutional Review Board the research started the data collection. The study's main respondents were the students coming from various university in Nanning City, China. This was done in a referral recruitment manner which minimized the minor risk identified in the study which was socio-economic risk allowing the students to have enough time to answer the survey in their free and preferred time. The survey was administered not necessary within the educational institution but it was done even outside as long as they met the criteria as presented in the research respondents inclusion criteria. Data gathering surveys were done in both online or face-to-face manner in order to facilitate convenience to the respondents on how they wished to answer the survey. All questionnaires were double-checked to make sure that no item is left out. Should an instrument be found to be incomplete, it was discarded and a new respondent was recruited. In addition, respondents were presented with the informed consent form as part of the



ethical procedure and only considered a full respondent when consent was provided through signing of the inform consent form. It took about 3 months to gather the data.

Post-Data Gathering. Upon completing the survey, the researcher tabulated and were stored in a password protected laptop. Only the researcher had access to the said file.

the data after tabulating and arranging the raw data the researcher then apply statistical analysis using the formula as required by the study upon the generating the result using statistical tool system. The researcher presented them in a tabular manner and provides interpretation, implications, and supporting literature and studies. All raw data were deleted and destroyed at the end of the study.

Data Analysis. To facilitate the analysis of the data for this research the following are to be used:

Frequency Distribution and Simple Percentage was used in determining the profile of the respondent

Mean score and standard deviation was used to determine the degree of influencing factors on the relationship between the quality service and customer satisfaction as well as the extent of clients satisfaction on the service.

Pearson r was used assess the relationship between the influencing factors and the extent of clients satisfaction on the service.

Ethical Considerations. Ethical principles were observed in the conduct of the study. The study went through ethical approval. A notice to proceed was secured to data gathering. Please appendices for the discussion of the ethical considerations.

Results and Discussion:

Degree of Influencing Factors on the Relationship between the Quality Service of Nanning Fitness Centers and Customer Satisfaction

Table 1 is the presentation of the data on the degree of the influencing factors on the relationship between the quality service of Nanning Fitness Centers and customer satisfaction.

Table 1

Degree of Influencing Factors on the Relationship between the Quality Service of Nanning Fitness Centers and Customer Satisfaction

Dimensions	Mean score	SD	Interpretation
Physical Environment			
1. Fitness center cleanliness and sanitation	3.74	.475	Very important
2. Fitness center equipment status	3.75	.468	Very important
3. Fitness center space layout	3.68	.490	Very important
4. Fitness center temperature and ventilation	3.75	.468	Very important
5. Fitness Center Music and Atmosphere	3.70	.542	Very important
6. Fitness center bathing facilities	3.66	.533	Very important
7. Fitness center staff friendliness	3.73	.488	Very important
8. Fitness Center parking and accessibility	3.68	.609	Very important
9. Financial rewards	3.56	.623	Very important
10. Personal satisfaction	3.70	.499	Very important
11. Autonomy and independence	3.64	.548	Very important
12. Impact on society	3.65	.582	Very important
Factor mean	3.69	.388	Very important



Customer Value			
1. Coaching and staff quality.	3.74	.481	Very important
2. Equipment and facilities.	3.74	.481	Very important
3. Courses and Activities.	3.70	.529	Very important
4. Personalized service	3.74	.473	Very important
5. Convenience and accessibility	3.75	.468	Very important
Factor mean	3.74	.414	Very important
Supporting Service			
1. Member consultation and guidance	3.70	.532	Very important
2. Health assessment	3.75	.468	Very important
3. Training and education	3.74	.459	Very important
4. Member benefits	3.62	.588	Very important
Factor mean	3.70	.425	Very important
Switching Cost			
1. Economic cost	3.66	.533	Very important
2. Time and effort	3.71	.487	Very important
3. Brand loyalty	3.68	.556	Very important
4. Geographical location	3.64	.520	Very important
Factor mean	3.68	.431	Very important
Purchasing Decision			
1. Courses and activities	3.70	.503	Very important
2. Word of mouth and reviews	3.72	.490	Very important
3. Brand loyalty	3.68	.549	Very important
4. Price and payment options	3.65	.547	Very important
5. Social experience	3.72	.522	Very important
Factor mean	3.69	.430	Very important
Grand mean	3.70	.386	Very important

Note: n=200. Legend: 1.00 – 1.75 is not important, 1.76 – 2.50 is somewhat important, 2.51 – 3.25 is important, and 3.26 – 4.00 is very important.

Physical Environment. This was considered to be very important. Respondents believed that cleanliness and sanitation is very important along with the equipment status, space layout, temperature and ventilation, music and atmosphere, and bathing facilities. They also consider staff friendliness, parking and accessibility, financial rewards, personal satisfaction, autonomy and independence, and impact on society as very important factors that influence the relationship between quality service and customer satisfaction.

Importance of physical environment to customer satisfaction: From the questionnaire results, it can be seen that physical environment is one of the important factors affecting customer satisfaction. A high-quality physical environment can not only enhance the customer's exercise experience, but also increase the customer's trust and loyalty to the fitness center. Necessity of continuous improvement: Although Nanning Fitness Center has received high praise from customers in many aspects, it still needs continuous improvement. For example, the types and quantity of equipment can be further increased, the diversity and professionalism of courses can be improved, and the cost-effectiveness of membership packages can be optimized. At the same time, it is also necessary to pay attention to keeping the facilities clean and tidy to ensure that customers can exercise in a comfortable and pleasant environment.

In summary, the physical environment of the fitness center, including cleanliness and hygiene, equipment diversity and maintenance, reasonable facility layout and fitness course arrangement, and overall environment and atmosphere, has a significant impact on customer satisfaction. Nanning Fitness Center has performed well in these aspects and significantly improved customer satisfaction. Therefore, it is recommended that fitness centers continue to maintain high standards of environmental hygiene, maintain and update equipment in a timely manner, and optimize facility layout and course arrangements to continuously improve customer satisfaction.



Customer Value. This was rated as very important as well. Also, the respondents believed that the influencing factors of coaching and staff quality, equipment and facilities, courses and activities, personalized service, and convenience and accessibility were very important to the relationship between the quality service and customer satisfaction.

It can be seen that Nanning Fitness Center has performed well in many aspects, including cleanliness, employee attitude, equipment quality, course arrangement, membership package, facility management, information communication and overall atmosphere. These factors work together to significantly improve customer satisfaction. It is recommended that fitness centers continue to maintain these high standards of service and facilities and continue to pay attention to customer needs and feedback to further improve customer satisfaction and loyalty.

Supporting Service. This was rated as very important. The respondents believed that factors such as member consultation and guidance, health assessment, training and education, and member benefits were very important factors that influence the relationship between the quality service and customer satisfaction.

The importance of support services to customer satisfaction: Through the analysis of the factors affecting support services, we can see that support services play a vital role in the relationship between Nanning Fitness Center's high-quality services and customer satisfaction. Friendly staff, affordable membership packages, effective communication channels, and convenient facilities can enhance customer satisfaction and loyalty.

Fitness centers can effectively improve customer satisfaction and loyalty by improving cleaning and sanitation standards, improving employee service quality, maintaining and updating equipment, arranging courses reasonably, optimizing pricing strategies, strengthening communication and member services, and creating a good fitness environment. These supporting service influencing factors are of great significance to the future development and competitiveness of fitness centers.

Switching Cost. This was considered to be very important to the respondents. They believed that economic cost, time and effort, brand loyalty, and geographical location are very important factors that influence the relationship between quality service and customer satisfaction. The level of switching costs directly affects customer loyalty. Nanning Fitness Center has successfully attracted a large number of loyal customers and improved customer satisfaction and loyalty by providing high-quality services and reducing customers' switching costs. Nanning Fitness Center has reduced customers' switching costs by providing high-quality services (such as clean facilities, friendly staff, equipment maintenance, etc.), thereby enhancing customer satisfaction and loyalty.

Purchasing Decision. This was also considered to be very important. Courses and activities, word of mouth and reviews, brand loyalty, price and payment options, and social experience were considered by the respondents to be very important factors that influence the relationship between quality of service and customer satisfaction. High-quality services are an important factor affecting customers' purchasing decisions. Nanning Fitness Center has improved customer satisfaction and loyalty by providing high-quality services, thereby increasing the likelihood of customers' purchasing decisions. Balance between price and value: In purchasing decisions, customers will weigh price and value. Nanning Fitness Center has achieved a balance between price and value by providing reasonable prices and high-quality services, thereby attracting more customers. Importance of word of mouth: Word of mouth is an important factor in purchasing decisions. Nanning Fitness Center has won a good reputation by providing high-quality services and facilities, which in turn attracted more potential customers. Additional services can increase customers' sense of value and thus influence their purchasing decisions. Nanning Fitness Center should continue to provide a variety of additional services to meet the needs of different customers.

Overall, the influencing factors were considered to be very important in influencing the relationship between the quality service of Nanning Fitness Centers and customer satisfaction. The correlation analysis of Thilagavathi and Nanjappa (2023) revealed that all the factors positively correlate with customer satisfaction at the fitness centre. The multiple regression analysis indicates that each factor significantly impacts satisfaction with fitness centres. The study concluded that customers would be



satisfied if services were set against costs. Customers demand quality service because they have invested money, time, effort, and emotional well-being.

According to Xu et al. (2021), service recovery, service assurance, facility function, program operation, instructor quality, and staff performance were factors that significantly predicted customer satisfaction with fitness clubs in China. The findings highlight the importance of high-quality service delivery, service recovery, and service assurance and pinpoint specific areas for improvement.

Extent of the Clients being Satisfied with the Service of the Nan Ning Fitness Centers

Table 2 is the presentation of the data on the extent the clients are satisfied with the service of the Nan Ning Fitness Centers.

Table 2

Extent of the Clients being Satisfied with the Service of the Nan Ning Fitness Centers

Statements	Mean score	SD	Interpretation
1. How satisfied are you with the overall cleanliness and hygiene of our fitness center facilities?	4.60	.681	Very satisfied
2. On a scale of 1 to 5, how would you rate the friendliness and helpfulness of our staff members?	4.57	.684	Very friendly or helpful
3. How satisfied are you with the variety of equipment available for your workouts?	4.54	.694	Very satisfied
4. Did our fitness center meet your expectations in terms of equipment maintenance and functionality?	4.39	.775	Far exceeded expectations
5. How likely are you to recommend our gym to a friend or family member?	4.48	.694	Very likely
6. How satisfied are you with the availability and cleanliness of locker rooms and shower facilities?	4.46	.722	Very satisfied
7. How would you rate the effectiveness of the fitness classes or personal training sessions you've attended at our fitness center?	4.50	.695	Very satisfied
8. How satisfied are you with the scheduling and availability of fitness classes?	4.50	.702	Very satisfied
9. How satisfied are you with the affordability and value for money of our membership packages?	4.50	.702	Very satisfied
10. How often do you experience overcrowding or long wait times for equipment during your visits to the fitness center?	4.16	.916	Never
11. How satisfied are you with the communication channels provided by the fitness center for updates and announcements?	4.45	.755	Very satisfied
12. How likely are you to renew your membership with our fitness center?	4.38	.714	Very likely
13. How satisfied are you with the accessibility and parking options at our fitness center?	4.46	.742	Very satisfied
14. How satisfied are you with the cleanliness and maintenance of the swimming pool (if applicable)?	4.46	.715	Very satisfied
15. How satisfied are you with the overall	4.52	.665	Very satisfied



atmosphere and ambiance of our fitness center during your visits?

Grand mean	4.46	.612	Very satisfied
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Note: $n=200$. Legend: 1.00 – 1.80 is very dissatisfied, 1.81 – 2.60 is dissatisfied, 2.61 – 3.40 is neither satisfied nor dissatisfied, 3.41 – 4.20 is satisfied, and 4.21 – 5.00 is very satisfied.

Respondents were very satisfied with the service of the Nan Ning Fitness Center. Specifically, they were satisfied with the overall cleanliness and hygiene of the fitness center facilities and the friendliness and helpfulness of the staff members. Also, they were very satisfied with the variety of equipment available for workouts, about the center meeting expectations in terms of equipment maintenance and functionality, and that because they were very satisfied they would recommend the gym to a friend or family member. Further, they were very satisfied with the availability and cleanliness of locker rooms and shower facilities, the effectiveness of the fitness classes or personal training sessions, and with the scheduling and availability of fitness classes.

Furthermore, they were very satisfied with the affordability and value for money of our membership packages, with the experience of overcrowding or long wait times for equipment, and with the communication channels provided by the fitness center for updates and announcements. Also, they were very satisfied with the fitness centers that they are likely to renew their membership and with the accessibility and parking options. Lastly, they were very satisfied with the cleanliness and maintenance of the swimming pool and with the overall atmosphere and ambiance of the fitness center during visits.

Supporting the findings, in the study of Wang (2023), the customer's satisfaction with the experience effect of the Fitness Club was high and basically meets the customer's psychological expectations, which indicates that the implementation of the experience marketing strategy had been realized in all aspects of the customer experience process.

The results of the multiple regression analysis of Lim et al. (2024) revealed that customer perceived value, satisfaction, and service quality significantly influence customers' psychological commitment and behavioral intentions of membership renewal and customer referrals. Therefore, the higher customer perceived value, satisfaction, and service quality, the higher customer loyalty.

Correlation between Influencing Factors and the Extent of the Clients are Satisfied with the Service of the Nan Ning Fitness Centers

Table 3 is the presentation of the data on whether there is a significant correlation between the influencing factors and the extent of the clients are satisfied with the service of the Nan Ning Fitness Centers.

Table 3
Correlation between Influencing Factors and the Extent of the Clients are Satisfied with the Service of the Nan Ning Fitness Centers

Independent variables	r value	p value	Decision	Interpretation
Physical environment	.728	.000	Reject Ho	Significant
Customer value	.672	.000	Reject Ho	Significant
Supporting values	.679	.000	Reject Ho	Significant
Switching cost	.674	.000	Reject Ho	Significant
Purchasing decision	.744	.000	Reject Ho	Significant
Overall factors influencing the relationship between service quality and customer satisfaction	.755	.000	Reject Ho	Significant

Legend: Significant if p value is $\leq .05$. Dependent variable: Extent of the Clients are Satisfied with the Service. Pearson r interpretation: A value greater than .5 is strong (positive), between .3 and .5 is



moderate (positive), between 0 and .3 is weak (positive), 0 is none, between 0 and -.3 is weak (negative), between -.3 and -.5 is moderate (negative), and less than -.5 is strong (negative).

The table shows that p values of physical environment, customer value, supporting values, switching cost, purchasing decision, and overall factors influencing the relationship between service quality and customer satisfaction were lesser than the significant value of .05. These values were interpreted as significant which led to the decision of rejecting the null hypothesis. Thus, physical environment, customer value, supporting values, switching cost, purchasing decision, and overall factors influencing the relationship between service quality and customer satisfaction were significantly correlated with extent of the clients' satisfaction with the service. The correlations were strong positive. This means that the more important the physical environment, customer value, supporting values, switching cost, purchasing decision, and overall factors influencing the relationship between service quality and customer satisfaction, the higher the extent of satisfaction on the service.

The different factors are not called influencing factors if they do not really influence service quality and customer satisfaction. Service quality and customer service are similar concepts with satisfaction with the service. Thus, it is not surprising to see a correlation between the influencing factors and the extent of satisfaction with service. The provision of the very good physical environment allows clients to have a positive experience when doing fitness exercises. The same with the provision of customer value, supporting values, switching cost, and purchasing decision, clients will be able to see the worth of their investment and everything they need to accomplish fitness goals can be achieved. Thus, no doubt that the overall factors influencing the relationship between service quality and customer satisfaction really correlates with satisfaction with service.

Supporting the findings of the study, in the study of Khadka and Srijana (2022), the regression analysis results indicate that affordability, location, and advertising significantly impact customer satisfaction, while equipment quality does not. These findings highlight the need for fitness clubs to prioritize accessibility, affordability, and effective advertising to increase consumer satisfaction. In a highly competitive industry, fitness clubs can optimize customer experiences and enhance overall business performance by understanding these factors.

The results in the study of Nursanti and Tomoliyus (2021) showed that loyalty and satisfaction were significantly influenced by word-of-mouth, and service quality had a positive effect. Price had a significant effect on customer satisfaction and loyalty as well. A company's customer satisfaction and loyalty are very important for increasing profits, so it is crucial for companies to always maintain good relations with their customers.

Conclusion:

In conclusion, the influencing factors on the relationship between service quality and customer service influences the extent of the clients satisfied with the service of the fitness centers. This means that as the influencing factors become very important, the extent of satisfaction increases. True to the Expectancy-Disconfirmation Theory the very important findings in the influencing factors greatly contributes to customer satisfaction as a result of the comparison between customers' prior expectations and their perceptions of actual service performance of the fitness centers. Further, the very important findings also affirms the Disconfirmation of Expectations Model, in which the influencing factors was dependent on the discrepancy between customer expectations, perceived performance, and the importance assigned to each attribute. Lastly, the very satisfied finding affirms the Theory of Service Quality where service quality is the comparison between customers' expectations for services and actual perceptions. In order to address the findings of the study, an intervention plan was proposed.

References:

- Aloklu, J. (2020). Attitude of students towards the use of library facilities: a case. study. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 7(1), 24-36.
- Hongxing, B. (2021). Analysis on the current situation of the opening of large-scale sports.



- venues in my country under the background of government purchasing of public services. *Journal of Jilin Institute of Physical Education*, 31(06), 1-6.
- Bennie, J. A., Wiesner, G. H., van Uffelen, J. G., et al. (2017). Sources of practice knowledge among Australian fitness trainers. *Translational Behavioral Medicine*, 7(9838), 1-10.
- Consumer. Loyalty: Differences of Non-profit and Low-cost Business Models in Spain (2018). *Economic Reserpcg-konomska Ja*, 31(1), 1042-1058.
- Cronin, J. J., & Taylor, S. A. (2020). Measuring service quality-A reexamination and extension. *Journal of Marketing*, 56(3), 55-68.
- Chou, C., Liu, L., Huang, S., et al. (2021). An evaluation of airline service quality. Using Fuzzy Weighted SERVQUAL. *Applied Soft Computing*, 11(2), 2117-2128.
- Copeland J L, Currie C, Walker A, et al. (2022). Fitness equipment in public parks: Frequency of use and community perceptions in a small urban centre. *Journal of Physical Activity & Health*, 14(5), 1.
- Choi, S., Lee, H., & Kim, C. (2020). *The effect of service quality on customer satisfaction and behavioral intention in fitness centers: The moderating role of gender.*
- Chen, J., & Hu, Y. (2020). *The relationship between service quality, customer satisfaction, and loyalty in fitness centers: Evidence from China.*
- Dongdong, L., Xiaobo, G., Lulu, W. (2020). Research on institutional failure and countermeasures in large-scale sports venue services. *Journal of Physical Education*, 27(01), 60-65.
- Garcia-Fernandez, J., Galvez-Ruiz, P., Velez-Colon, L. (2022). *Exploring fitness center.*
- Guanghui, C., Shuisheng, X., Qixiao, L., & Dawei, Y. (2023). The current business strategy of my country's gyms from a legal perspective. *Contemporary Sports Technology*, 8(06), 208-211.
- Hanchao, S., Liuqing, O., Honggui, T., Yongdong, L., Guomin, H., Xiexiang, C., Deping, S.,
- Xiaoxuan, L., & Zhijin, Z. (2001). Research on the sports consumption behavior of Chinese residents. *Journal of Wuhan Institute of Physical Education*, (01), 4-8.
<https://doi.org/10.15930/j.cnki.wtxb.2001.01.002>.
- Haidong, Y., & Caixia, L. (2021). The value, dilemma and path of digital sports promoting the construction of a sports power. *Sports Culture Guide*, 2021(12), 1-6.
- Howat, G., & Assaker, G. (2020). The theory of buyer behavior. *New York Wiley*, (5), 27-28.
- Hui, W. (2021). Reconstructing core competitiveness of gyms in the new era. *China Sports News*, 2021-06-20(002).
- Junyi, Z., Zhixia, C., & Jinyuan, G. (2021). The impact of public perceived quality of urban community public sports services on public trust: based on the mediating role of public satisfaction. *Journal of Metropolitan Institute of Physical Education*, 2021(1), 94-100.
- Kano, N., Seraku, N., Takahashi, F., & Tsuji, S. (2022). *Attractive quality and must-be.*
- Khadka, A., & Khadka, S. (2022). Factors affecting customer satisfaction in fitness clubs: Study from Kathmandu Valley. *NCC Journal*, 7, 27-32.
<https://doi.org/10.3126/nccj.v7i1.58616>.
- Liu, Y., & Jang, S. (2018). *The relationship between service quality, customer satisfaction, and loyalty in fitness centers: The moderating role of age.*



- Lim, J., Romsa, B., & Armentrout, S. (2024). The impact of perceived value, satisfaction, service quality on customer loyalty in women's fitness clubs. *The Sports Journal*, 24.
- Lin, H. H., & Wang, Y. S. (2019). *An examination of the relationship between service quality, customer satisfaction, and repurchase intentions in fitness clubs: A gender perspective.*
- Maxham, J. G., & Netemeyer, R. G. (2002). Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent. *Journal of Retailing*, 78(4), 239-252.
- Nursanti, M. D., & Tomoliyus, T. (2021). *Factors affecting satisfaction and loyalty of health and fitness club customers.* <https://doi.org/10.18502/kss.v6i2.10002>
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460-469.
- Peltier, J. W., & Westfall, J. E. (2022). Dissecting the HMO-benefits Managers relationship: what to mean and why. *Marketing Health Services*, 2022(2), 4-13.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2022). A conceptual model of service. Quality and its implications for future research. *Journal of Marketing*, 49(4), 41-50.
- Sperandei, S., Vieira, M. C., & Reis, A. C. (2021). Adherence to physical activity in an unsupervised. setting: Explanatory variables for high attrition rates among fitness center members. *Journal of Science & Medicine in Sport*, 19(11), 916-920.
- Thilagavathi, M., & Nanjappa, C. (2023). Expanding the Technology Acceptance Model with the inclusion of trust, social influence, and health valuation to determine the predictors of German users willingness to continue using a fitness app: A structural equation model in approach. *International Journal of Human-Computer Interaction*, 34(9), 882-893.
- Thilagavathi, M., & Nanjappa, C. (2023). A study on factors affecting the customer satisfaction towards fitness centre. *European Chemical Bulletin*, 12(S2), 2401 – 2409.
- Tianhe, S., & Jiaming, F. (2023). Realistic review of national fitness activities and research on relief paths. *Journal of Heilongjiang Institute of Technology (Comprehensive Edition)*, 23(01), 132-136. 1672 -6758.
- Wang, X. (2023). Study on customer satisfaction in experience marketing of east fitness club in Wenzhou. *The EURASEANs: Journal on Global Socio-Economic Dynamics*, 6(43).
- Westbrook, R. A. (1987). Product/consumption-based affective responses and postpurchase processes. *Journal of Marketing Research*, 24(3), 258-270.
- Wong, Y. H., & Teo, T. S. H. (2019). *The impact of service quality on customer satisfaction in the fitness industry: A gender perspective.*
- Xu, K. K., Chen, K. K., Kim, E., García-Fernández, J., Nauright, J., Zhang, J. J. (2021). Dimensions of Service Quality in Health-Fitness Clubs in China. *International Journal of Environmental Research and Public Health*, 18, 10567. <https://doi.org/10.3390/ijerph182010567>
- Yang, Z., & Peterson, R. T. (2019). *Customer perceived service quality, satisfaction, and loyalty in Chinese fitness clubs: The moderating role of gender.*
- Zhenjie, G., & Yao, Z. (2020). Risk management issues in the asset securitization process. of. large sports venues. *Journal of Sports*, 27(4), 71-77.