

The Relationship among Service Quality and Satisfaction of Customers in Fitness Centers Located in Southern Taiwan

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Abstract: In this study, researchers attempted to understand the customer's background information and to further examine the relationship between their service quality and the degree of satisfaction from their consumers, with the trend that consumers tend to pay more attention to these two factors when joining the fitness centers. Questionnaire survey was used to collect data, 712 valid questionnaires were obtained and valid rate was 89%, from fitness centers located in southern Taiwan. The results of this study were as follows : 1. The consumers showed moderate agreement to the service quality and moderate satisfaction degree on the fitness centers in southern Taiwan. 2. In terms of the service quality and the satisfaction degree, there was a significant difference among education levels, occupations, monthly incomes, participation frequency and consumption types. 3. There were significant differences between all sub-variables of the service quality and those of the satisfaction degree. Further regression analyses showed that the service quality offered a strong explanation to the satisfaction degree on hardware facilities, corporate image and price.

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1. Introduction

Since Taiwan has implemented weekend in 2001, people stress the leisure time of holiday or weekday. Experts scholars, etc. also promote "Sports" and "Physical Fitness", it cause people knew, to sports is helpful for the health. Fitness Center is a state-of-the-art facility that provides quality health and fitness services to the entire community. As the yearly upgrading of the national income, the concept of sports and fitness is also one thing that is important and needs to give emphasis. But, because of the lack of outdoor sports, leisure space, as well as climate change, security, and many other factors, indoor multi-functional sports facilities-based fitness are more patronized. The study found that the plight of the members of the high wastage rate is also a fitness center. Therefore, this study targeted to evaluate the quality of services and satisfaction of customers in all fitness centers operating in Southern Taiwan. Hence, according to in order to maintain existing customers, and attract more new customers is the key to business survival and profitability (Kalakota & Robinson, 1990).

The definition of service quality is compared expectation and perception (Parasuraman, Zeithaml, & Berry, 1988). Gronroos (1982) think service is the products which has customer highly involved in the consumption process. Tatsuo Sugimoto (1986) had summarized the quality of service is internal quality,

psychological quality, time promptness, hardware quality, software quality altogether five categories. The most widely applications of the study is Parasuraman, Zeithaml, and Berry (1985) proposed service quality model, the main concept of this model is emphasized the users are the key to measure service quality, the users can by the prior expectations, the feel cognitive and the gap of both to assess the level of service quality perception.

From many satisfaction studies, we can know the satisfaction would owing to preferences, expectations, perceptions and motivations had the varied discrepancies, so, the fitness center members at different background, prior expectations, motivation and experience feelings will embodied the satisfaction of using. Because the basic goal of full-service-quality-management is to get total customer satisfaction, the basic goal of full-service-quality-management is to get total customer satisfaction, therefore, provide high quality of service must understand customer expectations first. Customers usually use the service which they had recognized to determine the quality of service, so, most of the corporate results are from the customer's purchase. From the past research, we discover corporate profit will be affected by customer satisfaction, satisfied customers will have a higher loyalty, and cause the company get higher revenue, market share, return on

investment, or better financial performance and profitability (Bolton, 1998). Nowadays companies keep emphasizing the importance of customer satisfaction, so, how to improve customer satisfaction will be one of the major issues of the fitness center.

Zeithaml and Bitner (Zeithaml & Bitner, 1996) summarized a number of studies, that service quality will greatly affect customer satisfaction, and said improvement to customer satisfaction will be the only way to business success (Fonvielle, 1997). Accordingly, this study the southern fitness center in Taiwan as the scope of the study, exploring the members demographic change items and fitness center service quality and overall satisfaction level of each existing conditions. Furthermore, these study the relation between them in order to provide planning and effective management of the participating test as the relevant unit.

Research purposes

1. To understand the customer's background information and quality of services and satisfaction of customer in existing state of fitness centers in southern Taiwan.
2. To explore different background in southern Taiwan fitness centers with regards to customer service quality and satisfaction in different situations.
3. To explore the fitness centers in southern Taiwan regarding customer service quality and satisfaction

of the relevant circumstances.

4. To analyze the situation of southern Taiwan fitness centers service satisfaction forecast.

2. Methods

2.1 Participants

The pre-trial phase is in Kaohsiung world gym. About 200 questionnaires were distributed and answered patiently. Only 191 valid questionnaires gathered to random respondents, and the response rate was 96%. The formal measured conducted last February 2013 to March 2013 was in Tainan, Kaohsiung, Pingtung world gym, fitness factory global Asia action life. A total of 800 questionnaires were distributed, 712 valid questionnaires returned and the effective response rate was 89%.

2.2 Instruments

Questionnaire adopted for the preparation. The questionnaire includes background variables, service quality scale and satisfaction scale which subdivided in three parts. The first draft of the questionnaire and checklist was provided by the experts and scholars, amendments and implementation to predict through item analysis, construct validity and reliability. Analysis was compiled and adopted a five-point scale design. The following table below describes the service quality and satisfaction scale through item analysis and construct validity.

Table 1. Item analysis and construct validity

	Service quality	Satisfaction
item analysis	Critical ratio (CR) 8.55~ 20.67 and are significant.	Critical ratio (CR) 7.95~ 18.4 critical ratio (CR) 8.55~ 20.67 and are significant.
construct validity	The fixed four factor accounted foreign values greater than 1, extracted by Principal Component Analysis and the Varimax rotation method with Kaiser.	
	The Delete Question 3 hardly ever in the dimension of factors questions, Total Variance Explained 71.32%	Total Variance Explained 71.34% °
reliability analysis	Service full scale Cronbach's alpha value of .905	Satisfaction scale Cronbach's alpha value of .924.

2.3 Data processing

In this study, questionnaire survey to collect the various funding information package SPSS for Windows version 20.0 software into the conduct statistical analysis, and the use of Descriptive statistics, t-test, independent Samples, one-way ANOVA, Scheffe Method, Pearson's product-Moment Correlation coefficient, regression model.

3. Results

3.1 Sampling

Fitness center in southern Taiwan Customer background items descriptive results. Table 2 showed customer background items descriptive results.

Table 2. Basic statistics summary table

Item	Content	n	%
gender	male	330	46.3
	female	382	53.7
Age	under 20 years of age	49	6.9
	21-30 years old	208	29.2
	31 to 40 years	260	36.5
	More than 50 year sold	183	25.7
Monthly average income	Less than NT 30,000	102	14.3
	30,001 -50,000	302	42.4
	More than NT50,000	308	43.3
Consumpt-ion Patterns	calculate the number of consumer	20	2.8
	Monthly	153	21.5
	Quarter payment	250	35.1
	Annual payment	211	29.6
	Life Member	78	11.0
career	government employees	141	19.8
	Business	205	28.8
	Worker	21	2.9
	agriculture, forestry, fisheries, animal husbandry	16	2.2
	services	249	35.0
	Student	58	8.1
	House wife	22	3.1
Level of education	primary schools	57	8.0
	high school	91	12.8
	University	269	37.8
	Doctoral/Masteral	295	41.4
The number of weekly	Less than 2 times	226	31.7
	3-5 times	329	46.2
	More than 6 times.	157	22.1

3.2 Service quality and satisfaction scale

Described by the mean and standard deviation of the service quality scale and satisfaction scale analysis. (refer with: Table 3) · Found that service quality dimensions Sort by reliability (M=4.08) · reactivity, authenticity (M=3.77), Empathy (M=3.33). From the average of all levels with the overall service quality, the scale of the five other scale, the mean is 3.74, Therefore, the service quality orientation, are the above average degree of reliability and Reactivity credibility. Satisfaction dimensions sort sequence for Corporate Image (M = 4.14), Hardware Facilities (M = 4.11), price (M = 3.52). From the average of all levels and overall satisfaction, the scale of the five other scale, an average of 3.95, satisfaction tendency, corporate image, hardware facilities, are the above the average level.

Table 3. service qualities and satisfaction factor construct surface of descriptive analysis

Scale content		N	M	SD	Sequence
service quality	reactivity	712	3.77	1.31	2
	credibility	712	3.77	1.31	2
	Empathy	712	3.33	1.20	3
	reliability	712	4.08	1.14	1
Satisfaction	hardware facilities	712	4.11	1.06	2
	corporate image	712	4.14	1.14	1
	price	712	3.52	1.35	3

3.3 Fitness centers in southern Taiwan their differences in customer service quality and satisfaction

Found by the results in Table 4, the age, the average monthly income, consumption patterns, occupation, level of education, weekly frequency of

use on service quality, there are significant differences in service quality. In addition, satisfaction, consumption patterns, occupation, education level, week frequency of use there are significant differences in satisfaction. That is, southern Taiwan, fitness center service quality and customer satisfaction, because of the different variables have different effects. Have a significant impact on variables through multiple comparisons are as follows.

Different background variables in the analysis of the quality of service

- "Age" variable, 41-50-year-old user service quality "reactivity", "credibility" degree of recognition was significantly higher than the 31-40 year after year; we can see those who are older, in the face of problems hoping for a quick help and commitment.
- "Monthly Average Income" variable, the average monthly income of more than NT50,001 in the quality of service "reactivity", "credibility" degree of recognition was significantly higher than the average monthly income for less within last NT30,000 and NT30,001 users, Therefore, the economic capacity more stable groups, the importance of the quality and quantity is better than the level of prices.
- "Consumption Pattern" variables. Annual payment on the degree of recognition of the "reliability" of the service quality is significantly higher than the Consumption Patterns Monthly Quarter payment users, and Annual payment, Life Member "reactivity" quality of service recognition significantly higher than Monthly, Annual payment on the degree of recognition of the "reliability" is also significantly higher than the Monthly Payment Quarter. "Career" variables, the degree of recognition of the "credibility" of government employees was significantly higher than Business services significantly higher than that of the degree of recognition of the "reliability" Agriculture, forestry, fisheries, animal husbandry.
- "Level of education" variables. Dr. Master "reactivity" and "credibility", "empathy" degree of recognition was significantly higher than the user of the University. "The number of weekly" level is more than 6 times on the quality of services "reactivity", "credibility" and "reliability" of the Degree of Recognition Within last 2 times, 3 to 5 times higher than the less significant. Therefore, frequency of use, the weekly frequency and more consumers will be to improve the quality of service of the

phenomenon.

Different background variables in the analysis of the satisfaction

- "Consumption Patterns" variables. Annual payments on satisfaction of these three factor construct were significantly higher than the Consumption Patterns Quarter Payment users.
- Variables in the Career, "Hardware Facilities". Degree for with agriculture of recognition, forestry, fisheries, the animal husbandry significantly lower than for other types of vocational and "corporate image" of the degree of Recognition for worker. House wife was significantly higher than agriculture, forestry, fisheries, animal husbandry.
- In the "Level of education" variable, Dr Master satisfaction "corporate image" degree of recognition was significantly higher than the user of the University. "The number of weekly" level, more within last 6 times three Factor satisfaction. Construct were significantly higher than 3-5 times, "Hardware facilities", "price" significantly higher than the less than 2 times the user.

3.4 Fitness centers in southern Taiwan among customer service quality and satisfaction correlation analysis

Can be found from Table 5, the user of the fitness center in southern Taiwan has a moderate positive correlation ($r > 0.3$) for each variable between the gym service quality and satisfaction. Service quality then "reliability" satisfaction is the most relevant by. Therefore customers in fitness center with the provision of customer commitment and allowing customers to have a sense of trust is higher as well customer satisfaction is also higher.

Table 5. Correlation analysis of the fitness centers in southern Taiwan of customer service quality and satisfaction.

Scale	Satisfaction
reactivity	.30**
credibility	.25**
empathy	.28**
reliability	.35**
service quality	.40**

* $p < .05$ ** $p < .01$

3.5 service quality on the satisfaction degree forecast situation

"Hardware facilities", "corporate image", "price" for the Dependent Variable, "reactivity", "credibility", "empathy", "reliability" conduct "Regression Analysis independent variable, F values were 26.801, 19.603, 14.747, $p < .01$, regression

model has significant explanatory power, Service "reactivity", "credibility", "empathy", "reliability", "satisfaction" Hardware Facilities significant Explanatory Power, 12.7% of the total variance, the most predictive power for the "reliability", followed by the "credibility" β values .179, .176 (P=.000 <.001). Service "reactivity", "reliability" satisfaction "corporate image" has significant explanatory power,

9.5% of the total variance explained most Predictive Power "reliability", followed by "reactivity", the β value .173, .123 (P=.000<.001). Service "reactivity", "empathy", "reliability" satisfaction "price" has significant Predictive Power, could explain 2.8% of the total Variance, the most predictive power "reliability", followed by "reactivity", and its β value .141, .125 (P = .000 <.001).

Table 4. Different backgrounds in southern Taiwan fitness center customer service quality and satisfaction difference analysis summary table

		gender	age	Monthly average income	Consumption Patterns	career	Level of education	The number of weekly	
		F/T	-1.58	2.56*	3.84*	6.31**	1.41	4.07**	8.98**
service quality	reactivity	multiple comparisons	-	41-50 > 31-40 years	More than NT50,000 > Less than NT 30,000	Yearly, Life Member > monthly	-	Dr. Master > University	More than 6 times > Less than 2times ,3-5 times
		F/T	-1.76	2.51*	6.73**	1.13	4.67**	4.75**	7.98**
	credibility	multiple comparisons	-	41-50 > 31-40 years	More than NT50,000 > NT30,001- NT 50,000	-	government employees > Business	high school, Dr. Master. > University	More than 6 times > Less than 2times ,3-5 times
		F/T	-3.63 **	2.65*	1.11	2.06	1.53	5.85**	1.79
	empathy	multiple comparisons	-	-	-	-	-	high school, Dr. Master. > University	-
		F/T	-2.28*	2.64*	.79	6.27**	3.38**	2.42*	6.09**
	reliability	multiple comparisons	-	-	-	yearly > monthly, quarter	services > agriculture, forestry, fisheries, animal husbandry	-	More than 6 times, 3-5 times > Less than 2times
		F/T	-1.42 **	1.81	.252	8.92**	4.23**	.46	12.55**
	hardware facilities	multiple comparisons	-	-	-	Yearly, Life Member > Pay Per. quarter	all > agriculture, forestry, fisheries, animal husbandry	-	More than 6 times > Less than 2times ,3-5 times
		F/T	-1.42	2.84*	.35	3.99**	4.07**	4.17 **	5.78**
Satisfaction	corporate image	multiple comparisons	-	-	Yearly, Life Member > quarter	worker ,housewife > agriculture, forestry, fisheries, animal husbandry	Dr. Master. > University	More than 6 times > 3-5 times	
		F/T	-2.82 **	.96	1.42	5.50**	2.49*	.56	8.95**
	price	multiple comparisons	-	-	Yearly > monthly, quarter	-	-	More than 6 times > Less than 2times ,3-5 times	

*p<.05 **p<.01

Therefore, users of the service quality of the fitness center in southern Taiwan are having the degree of satisfaction with the impact of a significant positive influence, which have significant predictive power, "reactivity" and "reliability" satisfaction results are shown in Table 6.

Table 6. service quality on satisfaction degree of Regression Analysis

Scale content		R	Adjusted R ²	β	t	F
hardware facilities	reactivity	.36	.13	.09	2.21*	26.80*
	credibility			.12	2.90*	
	empathy			.10	2.37*	
	reliability			.18	4.23*	
corporate image	reactivity	.32	.10	.12	2.94*	19.60*
	credibility			.05	1.21	
	empathy			.07	1.60	
	reliability			.17	4.01*	
price	reactivity	.28	.07	.13	2.97*	14.75*
	credibility			.00	-.01	
	empathy			.09	2.06*	
	reliability			.14	3.23*	

*p < .05

4. Conclusion

- Fitness center in southern Taiwan customer

service quality level of the order of Reliability, reactivity, credibility, empathy, the level of satisfaction with the order of the corporate image, hardware facilities, price.

- Different socio-economic background has a significant difference in the service quality and satisfaction, consumption patterns, occupation, education level, weekly frequency of use of background variables were significant differences in service quality and satisfaction.
- Fitness centers in southern Taiwan have a positive correlation between the quality of customer service and satisfaction.
- There is a significant impact on customer service quality and satisfaction of the fitness centers in southern Taiwan, further regression analysis showed that service quality satisfaction has a significant explanatory power, the dimensions of the various factors have "reactivity", and "reliability" has significant predictive power.

5. Suggestion

Demographic analysis from the study that the customer background, consumption patterns and consumption habits are different. Regarding the service quality, service capabilities to provide reliable and accurate customer commitment scored the highest on the agreement scale. Among the items of the satisfaction degree, the corporate image of the fitness centers scored the highest on the satisfaction scale, this study finds that fitness centers owners plan business planning and marketing, should pay attention to the overall consumer demographics and consumption patterns. Therefore, this study suggests implementation of market segmentation for different consumers, consumption patterns and spending habits, fitness centers owners must plan the sports technology and diversified-services, so that each fitness centers are distinctive, and heighten the overall economy.

The conclusion of this research can help the owners and the related authorities make a more accurate evaluation, which they can refer to when they work on the marketing strategies and the direction of the development.

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