Service Quality, satisfaction and loyalty in gymnasiums

A study from India

Nirmalya Bandyopadhyay

Department of Marketing,

IIM Rohtak

Rohtak, India

Abstract

Purpose: This study attempts to explore the dimensions of consumer perceived service quality in the context of fitness services provided by gymnasiums and investigate the relationship among service quality, loyalty and overall satisfaction of consumers from the fitness service.

Design/methodology/approach: A 16-item instrument (SERVGYM) was developed by modifying SERVPERF instrument to measure service quality in gymnasiums in four major cities of India. The scale was validated using confirmatory factor analysis. Structural equation modeling technique was employed to assess the relationship of service quality with loyalty and overall satisfaction of consumers.

Findings: Four service quality dimensions were identified namely, reliability, customer-orientedness, convenience, and ambiance. All the service quality dimensions were found to have positive influence on both satisfaction and loyalty. Positive relationship between satisfaction and loyalty was also established.

Originality/value: The scale contextualised to Indian fitness service (Gym) industry is useful to measure service quality in gymnasiums. Understanding of the service quality dimensions and their relationship with loyalty and customer satisfaction is also significant

Paper type: Research paper

Keywords: Loyalty, customer satisfaction, fitness service, service quality perception

1. Introduction

The understanding of service quality is stemmed from the user-based approach of quality, which sees quality from the perspective of consumers and takes into account whether the specification of a service offering is appropriate enough to meet consumer's requirements adequately or not (Garvin, 1984) i.e. service quality is all about as to what extent consumers *perceive* the service to be capable in meeting their requirements (Gummeson 1987, Gronroos, 1984, Cronin and Taylor, 1992). Parasuraman *et al.* (1985) viewed service quality as the discrepancy between consumer's expectation from the service and perception of the service experienced. Consumer's perception of services is the proximal determinant to satisfaction. According to Sureschander *et al.* (2002), based on the perception of services, a consumer makes an 'overall value judgement' whether the service is good or not, which may lead to favourable (repurchase, positive word-of-mouth) or unfavorable (consumer's complaint action) behavioral intention (Chowdhuri, 2007).

Identification of service quality determinants thus, is extremely important for effective management of service quality in any service setting. It enables the marketers to satisfy the consumers, retaining the consumers and acquisition of new customers through the recommendation of satisfied clients. Service quality determinants are not universally identical across varied service contexts, and it is imperative to explore determinants of service quality across various service settings to improve service offering (Carman, 1990) and achieve a sustainable competitive advantage in the marketplace.

Service quality in the context of fitness services provided by the gymnasium is not well researched in literature. Given the fitness industry is growing rapidly (Tawse and Keogh, 1998) it is imperative to address service quality issues of fitness services. (Papadimitriou and Karteroliotis, 2000). Only a few studies can be traced in literature on service quality of fitness services, and all of them are from developed countries. Furthermore, there exists no consensus view regarding the dimensionality of the fitness services provided by the gymnasiums (Chelladurai *et al.* 1987; Papadimitriou and Karteroliotis, 2000; Chang and Chelladurai, 2003). Understanding the fact that no study has ever been conducted on the gymnasium services in Indian context, this study has made an attempt to bridge that gap by identifying service quality determinants in the context of the fitness services provided by gymnasiums and also, to investigate the relationship of various determinants of service

quality with consumer satisfaction and loyalty, i.e. consumer's repurchase intention and intention to recommend the service provider to others.

2. Theoretical background

2.1 Service quality and its measurement:

Parasuraman *et al*. (1985, 1988) presented a comprehensive account of service quality and its measurement. Parasuraman *et al.* (1985) proposed a model popularly known as the *gap model* of service quality, which views service quality as the discrepancy between consumer's expectation from the service and perception of the availed service. Such discrepancy, according to Parasuraman and his colleagues, is a function of various provider gaps each of which can be attributed to a number of shortcomings from the side of the service provider. (Table 1).

Table 1: Various gaps and reasons attributed to the provider gaps

To measure service quality, Parasuraman *et al.* (1988) developed a 22-items instrument popularly known as SERVQUAL and posited that service quality can be measured across five dimensions namely, reliability, assurance, empathy, tangibility, and responsiveness. He further argued that these dimensions are universal in nature and SERVQUAL is applicable to any service setting.

2.2 Criticism of SERVQUAL: SERVQUAL or SERVPERF

Though the service quality model proposed by Parasuraman *et al* evoked a lot of interest among researchers, it failed to avoid criticism (Asbonteng *et al.* 1996; Buttle, 1996). The conceptualization and subsequent measurement of service quality as the gap between expectation and perception of the consumers of the service was criticized. Cronin and Taylor (1992) conceptualized service quality as consumer's perception of service and posited that the perception section of the original SERVQUAL should be considered for measuring service quality. They named the perception section of the SERVQUAL scale as SERVPERF which over time gained acceptance of academic scholars and researchers as an instrument superior to SERVQUAL (Buttle, 1996; Jain and Gupta, 2004).

Cronin and Taylor (1992) argued that SERFVPERF model of the performance-only measure is more rational than SERVQUAL from the following viewpoints:

i). It is not always possible to measure customers' expectation about a service before the service is rendered.

ii). Measurement of customer expectation does make sense before the service is rendered. Furthermore, there is the possibility of response bias if the expectation is captured after the delivery of service.

iii) Apart from removing the distortions caused by measuring expectations, SERVPERF also shortens the questionnaire reducing the possibility of response fatigue.

So, we see, there exist two dominant paradigms of service quality measurement. One, the use of expectation minus perception score (SERVQUAL) and the other is to consider only the customer's perception score of service quality (SERVPERF). Now the question arises, which one is better for the measurement purpose?

In fact, many authors have placed SERVPERF over SERVQUAL (Babakus and Boller, 1992; Brady *et al*., 2002; Brown *et al*., 1993; Zhou, 2004) while, on the other hand, SERVQUAL has enjoyed and continues to enjoy widespread acceptance as a measure of Service Quality (Chebat *et al*., 1995; Furrer *et al*., 2000; Zeithaml and Bitner, 2003).

Jain and Gupta (2004) conducted a study in the Indian context. They carried out a survey of the consumers of eight fast-food restaurants in Delhi to assess the superiority between SERVQUAL and SERVPERF and found that SERVPERF shows superior convergent and discriminant validity than SERVQUAL. Furthermore, SERVPERF is superior in terms of its ability to explain variation in the overall service quality and the ease of data collection.

Based on the findings stated above SERVPERF was preferred over SERVQUAL in the present research to measure service quality of the fitness services provided by gymnasiums.

2.3 Criticism: Dimensionality of service quality

Contrary to the view of Parasuraman *et al.* (1985, 1988) various researchers presented evidence and argued that service quality dimensions are contextual and not universally applicable (Cronin and Taylor, 1992; Bouman and Van Der Willie, 1992; Teas, 1993; Ekinci and Riley, 1999; Gagliano and Hathkote, 1994) and the number and compositions of service quality dimensions may be different cross different service settings (Carman, 1990). For example, in retail service setting, Finn and Lamb (1991) were unable to find a good fit to the proposed five factor structure. A study by Bauman and Van Der Willie (1992) revealed a

three-factor structure: *customer kindness, tangibles and faith*. The third factor (faith) does not correspond to any one of the five factors proposed by Parasuraman *et al.* (1988). In studying the service quality of banking services Lévesque and McDougall (1996) suggested a three-factor solution which includes a core dimension, a relational dimension and one service feature dimension. Chowdhuri K. (2007) found a four-factor solution while studying service quality of banks in the Indian context which clearly indicates the contextual nature of service quality determinants. As a number of studies of service quality measurement across varied service contexts (Carman, 1990; Saleh and Ryan, 1992; Gagliano and Hathcote, 1994; Akan, 1995; Nadiri and Hussain, 2005) yielded outcomes, which were not in conformance to the findings of Parasuraman *et al.* (1984, 1988), it was univocally accepted that service quality is contextual and dimensions of service quality may vary across various service settings and to understand service quality in the context of any service it is imperative to explore service quality determinants in the context of the service.

So, in our research, we decided to explore the determinants of service quality in the context of fitness services, and our proposition becomes,

Proposition: Service quality in fitness services is a multi-dimensional construct

2.4 Service quality and satisfaction

Oliver (1980) defined satisfaction as disconfirmation of expectation, i.e. consumers develop some expectation about the service and if such expectations are not met (negative disconfirmation), consumers will be dissatisfied. Though the concepts of service quality and satisfaction is quite similar (Cooper et al. 1989), but they are not equivalent (Parasuraman et. al, 1988). A group of writers argued that service quality result in customer satisfaction (as cited by Jhonston, 1993). Bolton and Drew (1991) proposed a multistage model of service quality and posited that satisfaction was an antecedent of service quality, but this view was criticized by contemporary researchers based on empirical research findings (Cronin and Taylor, 1992). They found that customer perceived service quality influences customer satisfaction. Bagozzi (1992) found that service quality perception influences emotive satisfaction of consumers. Iacobucci *et al.* (1995) suggested that it was just a matter of perspective. After analyzing the outcome of two studies, one qualitative and the other experimental, they proposed that these constructs were different but related. While service quality is relevant from the managerial standpoint and includes 'managerially controllable

aspects of the service-delivery system', satisfaction is the 'evaluative reaction of the customer'. Similar view was expressed by Cooper *et al.* (1989).

Cardozo (1965) opined that customer satisfaction should be viewed as a global construct. This view was strongly supported by Churchill and Suprenant (1982) as they stated, "satisfaction to be assessed as the sum of satisfactions with the various attributes of products and services." So, we in terms of dimensionality service quality and satisfaction are viewed differently in literature. While researchers suggested that service quality was a multidimensional construct, and the dimensions are context-specific satisfaction has been viewed as a 'global construct' in literature and emphasis was to measure overall satisfaction of any product or service.

So, based on the converging opinion as expressed in extant literature, the following hypothesis is proposed:

H1: Service quality dimensions positively influence overall customer satisfaction in fitness services.

2.5 Service quality and loyalty

Oliver (1999) defined loyalty as:

"a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" Butcher (2001) posited that loyalty essentially include consumers' repurchase intention and the positive word-of-mouth spread by the consumers advocating for the products and services, i.e. to recommend the products or services to others.

The relationship between service quality and loyalty can be traced in literature. Parasuraman *et al.* (1988) found positive relationship between service quality and willingness to recommend. Positive relationship between service quality and repurchase intention and recommendation was reported by Ruyter *et al.* (1998) and Jones *et al.* (2002). Roostika (2011) reported positive relationship between service quality and loyalty.

So, based on the evidence available in literature it is hypothesize that,

H2: Service quality dimensions positively influence customer loyalty in fitness services.

2.6 Satisfaction and Loyalty

The relationship between satisfaction and loyalty can be traced in literature. Dick and Basu (1994) viewed satisfaction as an affective antecedent of loyalty. Positive influence of satisfaction on customer loyalty has been posited in literature by a number of researchers (Bolton, 1998; Fornell *et al.* 1996; Musa, 2005).

Based on the support available in literature, the following hypothesis is presented,

H3: Overall satisfaction positively influences loyalty in fitness services.

Assuming service quality as a multi-dimensional construct our model stands like the following:
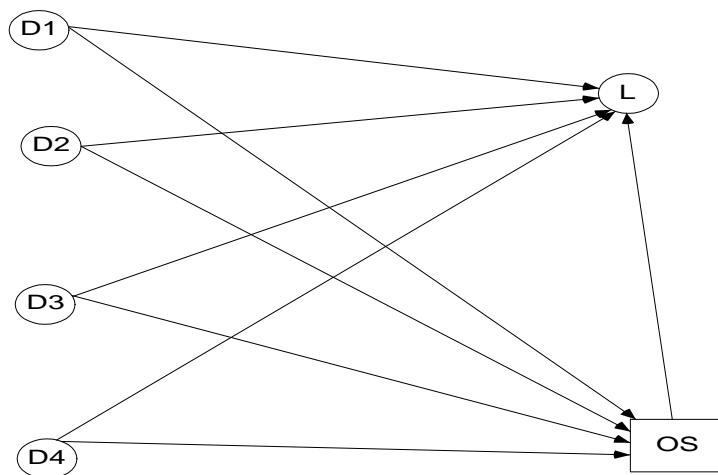

Fig 1 The proposed model

Here D1, D2, D3, D4 stands for various dimensions of service quality 9assuming service quality as a four factor structure); OS stands for overall satisfaction and L stands for loyalty.

3. Research methodology and data analysis

3.1 Questionnaire development

Loyalty was measured by a 3 item scale borrowed from Narayandas (1996). The items included are:

How likely are you to renew membership of your gym?

If you get a better offer from some other fitness service provider how likely are you to switch?

How likely are you to recommend your gym to someone who seeks your advice?

Overall customer satisfaction was measured by a single item scale:

'Are you satisfied with the services provided by your gymnasium'.

One of the major objectives of the study was to measure service quality of the fitness services provided by gymnasiums. For that purpose, original SERVPERF scale (Cronin and Taylor, 1992) was modified and the altered scale was called as SERVGYM.

Development of SERVGYM (modified SERVPERF) instrument

SERVPERF is the perception only part of the 22-item SERVQUAL questionnaire where the perceptions of the respondents along 22 selected service quality items are captured and analysed. The questionnaire for the measurement of customer-perceived service quality required the respondent to indicate the extent to which the particular fitness center (Gym) possesses the characteristics described on a seven-point (strongly disagree to strongly agree) scale.

All of the 22-items of the original SERVPERF were initially considered. A pilot survey was conducted with 80 customers to explore whether they understand the items to be included in the questionnaire and also, whether some additional items come up during the survey which can be included in the questionnaire. It was decided to reject and/or accept items only if 95% of the respondents in the pilot study think that those items qualify for addition and/or deletion. On the basis of the survey outcome, eight items from the original list were dropped as they appeared vague, repetitive, difficult to comprehend, or considered irrelevant to the respondents. Five items were added as 98% of the participants in the pilot study indicated that those items were very important in the context of fitness services. After the alteration of the items as per the requirement of the service context, the following list of items was arrived at

(Table2) Table 2: Items of SERVGYM

3.2 Sample design and data collection:

For the study reported herein, responses were gathered from customers of 2 major national fitness service providers (Gym) of India. All these centers are considered among the profitable gymnasiums in India. Study was primarily conducted in four major cities i.e. Kolkata, Bangalore, Delhi, and Mumbai. One branch from each of the service providers was

randomly selected in each of the stated metro cities. The actual names of the gymnasiums were changed, for confidentiality. The branches were considered by the management to be largely homogeneous with respect to size, clientele, and operations.

Responses from 475 respondents were collected out of which 30 responses were not in usable condition and suffered by response error. Total 445 usable responses were used for analysis. Data was collected in two stages: in stage one, service quality, questionnaires (modified SERVPERF) were sent to the respondents, and 132 usable responses were obtained. Demographic information was also collected from the respondents. The gymnasium specific response rates are presented in the following table (Table 3):

This chapter describes the details of data analysis and its interpretation. The first research objective was to understand the determinants of service quality in the context of fitness services in India. To achieve that factor analysis technique is applied. At the very first stage, after checking the normality of the data, exploratory factor analysis (EFA) (of the data collected in the first stage) was done using SPSS (16th version) software to explore the underlying dimensions of the data. Subsequently, data purification was done to eliminate garbage items. At the next stage, confirmatory factor analysis technique (CFA) was applied to the data (collected at the second stage) to confirm the factor structure explored by EFA. Structural Equation Modelling was done using AMOS software for this purpose. Univariate normality of the data was checked. Construct validity of the measures were also established.

Second objective of the research was to classify the service quality attributes and the dimensions according to their ability to satisfy customers. Kano analysis followed by computation of satisfaction increment index (SII) and dissatisfaction decrement index (DDI) is done to achieve the objective. Analysis was done on the data collected in the second stage.

Third sets of objectives were to explore the relationships between service quality dimensions as explored in the first stage and satisfaction, loyalty and customer's complaint action separately. Multiple regression analysis (MRA) technique is applied.

Fourth objective was to find out whether service quality perception significantly differs between males and females. One-way ANOVA technique was applied.

Data purification was required to eliminate the 'garbage' items. In doing that, content validity of the items was assessed using Lawshe's method and all the items qualified to be included in the scale as per Lawshe's criteria (Content validity ratio >0.6 for a 10 member panel). After content validity of the items was assessed, *item to total correlation* for the items constituting each dimension was checked and as per Blunch's (1997) recommendation, V14, V15, and V17 with *item to total correlation* less than .40 were eliminated. Furthermore, internal consistency of the data for all the four dimensions was assessed and for all of the dimensions Cronbach's alpha value was found to be greater than .70 which was acceptable (Hair *et al*. 1998). Communality for all the items was checked and as no item was found with communality less than 0.40, no item was qualified for deletion on that ground. The details of data purification analysis is summarised in Table 5.

Table 5: Item-Total correlation, reliability (Cronbach's alpha) and Communalities of the items.

After data purification the composition of the factors stands like the following (Table 6)

Table 6: Composition of Factors (after EFA)

At the next step, Confirmatory Factor Analysis (CFA) was conducted with the 16 variables. Data collected at the second phase (313 responses) was subjected to analysis. Before performing CFA, multivariate normality of the data was assessed and as the multivariate index (skewness and kurtosis together) was found to be higher than the critical value, CFA was conducted using bootstrapping procedure which yielded result indicating a good fit (NFI >.90; TLI >.95; CFI>.95; RMSEA <.05) to the hypothesized four-factor model.

At the next step, convergent and discriminant validity of the SERVGYM instrument were assessed. An examination of the loading of the basic measurement model (Table 7) revealed that all the items were significantly loaded on their expected factors and that all of these loadings were above .51 and all were significant at 5% level (critical ratio being 1.96). This suggested a high degree of convergent validity (Kacmar and Carlson, 1997).

Table 7. Standardized regression weights of the model

Discriminant validity for all the constructs was tested using the method proposed by Anderson and Gerbing (1988). Dimensions were taken pairwise (4x3/2 = 6 pairs) and for

each pair, a series of χ^2 difference statistics (constrained and unconstrained) were computed to establish discriminant validity of each construct. Each of these combinations yielded a χ^2 difference value which is greater than 3.841, which confirms the discriminant validity of each construct, or in other words, it shows that each of these constructs are distinct (see table 8 for the result of the analysis).

Table 8: Chi-Squared Difference Results

At the next step, the hypotheses were tested using structural equation modeling. The result yielded an acceptable model fit (Table 9) and support for the hypotheses pertaining to the relationship among service quality dimensions, loyalty and overall satisfaction (Table 10).

Table 9: Model fit indices for the Structural Equation Model

Table 10: Summary of hypothesis testing

4. Discussion and conclusion:

This study develops an instrument (SERVGYM) to measure service quality in the context of fitness services provided by the gymnasiums by modifying the SERVPERF scale and examined the relationship of service quality dimensions with both loyalty and customer's overall satisfaction with the gymnasiums. Four dimensions of service quality emerged from the analysis of data. They are: reliability, customer-orientedness, convenience and ambiance. Among them, reliability was found to be more significant which consistent with the view of Parasuraman *et al.* (1988). Relationship of service quality dimensions with loyalty and customer's overall satisfaction was established by empirical analysis. The study found that all the service quality dimensions influence customer loyalty and customer's overall satisfaction with the gymnasium and the reliability dimension was found to be of highest influence in both the cases.. The high influence of reliability may be because consumers are primarily concerned with the outcome of the service and the dominant need for the consumer in this case is to keep fit and also may be to reduce weight, to have a good shape, etc. Linked to this; it is imperative for gymnasium to understand what customers' need actually and deliver services as prompt as possible.

5. Managerial implications

The service quality measurement scale developed in the present study enables the manager of gymnasiums to measure service quality perceptions of their consumers. It also enabled them to understand the significance of various determinants of service quality in order to satisfy customers and win customer loyalty. Guided by the findings service managers of major gymnasiums may be able to develop strategies to improve attributes selectively and thus enhance customer satisfaction and loyalty.

6. Limitations and directions for future research

There are certain limitations of this study: First, this study has taken into consideration only the. gymnasiums and not taken into account other services, which contribute to wellness. So, the applicability of the SERVGYM in other wellness services was not assessed.

Secondly, the study was conducted taking respondents from only two gymnasium chains from organized sector. The service quality determinants from unorganized mom-and-pop gyms may be different from what we have explored. Further research is required to assess the applicability of our scale in those types of settings.

Despite its limitations the findings of this study provide a foundation upon which further studies can be pursued. Continued refinement of the scale for measuring service quality in gymnasium services proposed in this study, is certainly possible in future research. Although, in this study, it was attempted to cover all major aspects of service quality, there may be certain aspects we failed to capture or become relevant with new trends in the industry. With time, customers may reveal new aspects of service quality in fitness services that are important to them.

Future research should also focus on aspects of the conceptual models not examined here. In this regard, the relationship among service quality, satisfaction, customer complaining intention and customer defection can be studied. Furthermore, the factors which led customers to switch from one service provider to the other merits further exploration.

References

Akan, P. (1995), "Dimensions of service quality: a study in Istanbul". *Managing Service Quality,* Vol. 5 No.6, pp., 39-43

Anderson, J. C., & Gerbing, D. W. (1984), "The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis", *Psychometrika,* Vol. 49 No. 2, pp. 155-173.

Asbonteng, P. McCleary, K.J. and Swan, J.E (1996), "SERVQUAL revisited: a critical review of service quality, *Journal of Services Marketing,* Vol. 10 No. 6, pp. 62-70.

Babakus, E and Boller, G W (1992), "An Empirical Assessment of the Servqual Scale", *Journal of Business Research,* Vol. 24, No. 3*,* pp. 253-268.

Bagozzi, R. P. (1992), "The self-regulation of attitudes, intentions, and behavior", *Social Psychology Quarterly,* Vol. 55, No. 2, pp. 178-204.

Bolton, R. N. (1998), "A Dynamic Model of the Duration of the Customer's Relationship With a Continuous Service Provider: The Role of Satisfaction." *Marketing Science* Vo. 17, No. 1, pp. 45-65.

Bolton, R.N. and Drew, J.H. (1991), "A Multistage Model of Customers' Assessment of Service Quality and Value", *Journal of Consumer Research,* Vol. 17, No. 4, pp. 375-384.

Bouman, M. and Van der Wiele, T. (1992), "Measuring service quality in the car services industry: Building and testing an instrument", *International Journal of Service Industry Management,* Vol. 3, No. 4, pp. 4-16.

Brady, M.K., Cronin, J.J. Jr, and Brand, R.R (2002), "Performance-only measurement of service quality: a replication and extension", *Journal of Business Research,* Vol. 55, No. 1, pp. 17-31.

Brown, T.J. Churchill, G.A. Jr.and Peter, P.J. (1993), "Improving the measurement of service quality" *Journal of Retailing,* Vol. 68, No. 1, pp. 127-39.

Butcher, K. (2001), "Evaluative and relational influences on service loyalty", *International Journal of Service Industry Management,* Vol. 12, No. 4, pp. 310-327.

Buttle, F. (1996), "SERVQUAL: review, critique, research agenda", *European Journal of Marketing,* Vol. 30, No. 1, pp. 8-32.

Cardozo R.N. (1965), "An Experimental Study of Customer Effort, Expectation, and Satisfaction", *Journal of Marketing Research,* Vol 2, No. 3, pp. 244-249

Carman, J. M. (1990), "Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions", *Journal of Retailing,* Vol.66, No. 1, pp. 33-55

Chang, K. and Chelladurai, P. (2003), "System-Based Quality Dimensions in Fitness Services: Development of the Scale of Quality", *The Service Industries Journal,* Vol. 23, No. 5, pp. 65-83.

Chebat, J.C., Laroche, M., and Filiatrault, P. (2003), *The Consumer Behaviour*, 3rd ed., Gae˙tan Morin Edition, Montreal.

Chelladurai, P., Scott, F. L. and Haywood-Farmer, J. (1987), "Dimensions of fitness services development of a model", Journal *of Sport Management,* Vol. 1, No. 2, pp. 159-172.

Chowdhuri, K. (2007), "Service Quality Dimensionality: A Study of the Indian Banking", Sector *Journal of Asia pacific Business,* Vol. 8, No. 4, pp. 21-38.

Churchill, G.A. and Surprenant, C (1982), "An investigation into the determinants of customer satisfaction", *Journal of* Marketing *Research,* Vol. 19, No. 4, pp. 491-505.

Cooper A.R., Cooper M.B. and Duhan D.F. (1989), "Measurement Instrument Development Using Two Competing Concepts of Customer Satisfaction", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior,* Vol. 2, pp. 28-35.

Cronin, J. J. and Taylor, S. A. (1992), "Measuring Service Quality: A reexamination and extension", *Journal of Marketing,* Vol. 56, No. 3, pp. 68-81. .

Dick, A. and Basu, K. (1994), "Customer Loyalty: Toward an integrated conceptual framework", *Journal of the Academy of Marketing Science*, Vol. 22 No. 20, pp. 119-132.

Ekinci, Y. and Riley, M. (1999), "Measuring hotel quality: Back to basics*", International Journal of Contemporary Hospitality Management,* Vol. 11, No. 6, pp. 287-293.

Field, A. (2009), "Exploratory factor Analysis", In: *Discovering Statistics with SPSS,* 3rd ed. Sage Publication, London, pp. 670-671.

Finn, D W and Lamb, C W (1991), "An Evaluation of the SERVQUAL Scale in a Retailing Setting" in Holman, R and Solomon, M R (eds.), *Advances in Consumer Research*, Provo, UT: Association for Consumer Research, pp. 480-93.

Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. and Bryant, B.E. (1996), "The American customer satisfaction index: nature, purpose and findings", *Journal of Marketing,* Vol. 60, No. 4, pp. 7-18

Furrer, O., Liu, B.S-C. and Sudharshan, D. (2000), "The relationships between culture and service quality perceptions: basis for cross-cultural market segmentation and resource allocation", *Journal of Service Research,* Vol. 2, No. 4, pp. 355-371.

Gagliano, K. B. and Hathcote, J. (1994), "Customer expectations and perceptions of Service Quality in apparel retailing", *Journal of Services* Marketing, Vol. 8, No. 1, pp. 60-69.

Garvin, D A. (1984), "What does product quality really mean" *Sloan Management Review*. Vol. 26, No. 1, pp. 25-43.

Gronroos, C. (1984), "A service quality model and its marketing implications", *European Journal of Marketing,* Vol. 18, No. 4, pp. 36-44. .

Gummerson, E. (1987), "The new marketing-developing long term interactive relationships", *Long Range Planning,* Vol. 20, No. 4, pp. 10-20.

Hair, J.F., Anderson, R.E. Tatham, R.L and Black W.G., (1998). *Multivariate Data Analysis*, Prentice Hall International, New Jersey, USA

Iacobucci, D. Grayson, K., & Ostrom. A. (1994), "The calculus of service quality and customer satisfaction: Theoretical and empirical differentiation and integration", In T. A. Swartz, D. E. Bowen. 8: S. W. Brown (Eds.), Advances in services marketing and management: Research and practice 3, Greenwich, JAI, pp. 1-63.

Jones, M. A., Beatty, S. E., & Mothersbaugh, D. V. (2002), "Why customers stay: measuring the underlying dimensions of services switching costs and managing their differential strategic outcomes", *Journal of Business Research*. Vol. 55, No. 6, pp. 441-450.

Jain, S.K. and Gupta, G. (2004), "Measuring service quality: SERVQUAL vs SERVPERF scales", *The Journal for Decision Makers,* Vol. 29, No. 2, pp. 25-37.

Johnston, Robert, (1993) *The service quality factors: satisfaction, dissatisfaction and recovery.* PhD thesis, University of Warwick.

Kacmar, K. M., & Carlson, D. S. (1997), "Further validation of the perceptions of organizational politics scale (POPS): A multiple sample investigation", *Journal of Management,* Vol. 23, No. 5, pp. 627-658.

Levesque, T. and McDougall, G. H. G. (1996), "Determinants of Customer Satisfaction in Retail Banking", *International Journal of Bank Marketing,* Vol. 14, No. 7, pp. 12-20.

Musa, R. (2005), "A Proposed Conceptual Framework of Satisfaction—Attitudinal Loyalty—Behavioural Loyalty Chain: Exploring The Moderating Effect Of Trust"., in *Proceedings of the Australian and New Zealand Marketing Academy (ANZMAC),* 5-7 Dec, Fremantle, Western Australia.

Nadiri, H. and Hussain, K. (2005), "Perceptions of service quality in North Cyprus hotels", *International Journal of Contemporary Hospitality Management,* Vol. 17, No. 4, pp. 469-480.

Narayandas, N. (1996), "The link between customer satisfaction and customer loyalty: an empirical investigation", Working Paper, No. 97-017, Harvard Business School, Boston, MA.

Oliver, Richard. L. (1999), "Whence consumer loyalty?" *Journal of Marketing,* Vol. 63, pp. 33-44.

Oliver, Richard. L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions", *Journal of Marketing Research,* Vol. 17, No. 4, pp. 60-469.

Papadimitriou, D. A. and Karteroliotis, K. (2000), "The Service Quality Expectations in Private Sport and Fitness Centers: A Reexamination of the Factor Structure", *Sport Marketing Quarterly,* Vol. 9, No. 3, pp. 157-164.

Parasuraman, A., Zeithaml, V. A., and Berry, L. L (1988), "SERVQUAL: A Multiple-item scale for measuring consumer perceptions of Service Quality", *Journal of Retailing,* Vo. 64, No. 1, pp. 12-40.

Parasuraman, A., Zeithaml, V.A., and Berry, L. L (1985), "A Conceptual Model of Service Quality and its implication for future research", *Journal of Marketing,* Vol. 49, No. 4, pp. 41-50.

Roostika, R. (2011), *The Analysis of Antecedents of Customer Loyalty in the Mobile Internet Market.* Available: rssm.upnyk.ac.id/userfiles/file/papers/022.pdf. Last accessed 15th December 2012.

Ruyter, K., Wetzel, M., and Bloemer, J. (1998), "On the relationship between perceived service quality, service loyalty and switching costs", *.International Journal of service Industry Management*, Vol. 9, No. 5, pp. 436-453.

Saleh, F. and Ryan, C. (1991), "Analysing service quality in the hospitality industry using the SERVQUAL model", *Service Industries Journal,* Vol. 11, No. 3, pp. 324-343.

Sureschander, G S., Rajendran, C., Anantharaman, R N.(2002), "The relationship between service quality and customer satisfaction - a factor specific approach", *Journal of Services Marketing*, Vol. 16, No. 4, pp. 363-379.

Tawse, E.L. and Keogh, W. (1998), "Quality in the leisure industry: an investigation", *Total Quality Management*, Vol. 9, No. 4, pp. 219-23.

Teas, K R (1993), "Expectations, Performance Evaluation, and Consumer's Perceptions of Quality", *Journal of Marketing,* Vol. 57, No. 4, pp. 18-34.

Zeithaml, V.A. and Bitner, M.J. (2003), *Services Marketing: Integrating Customer Focus across the Firm (3rd ed.).* Boston MA, USA: Irwin McGraw-Hill.

Zhou, L. (2004), "A dimension-specific analysis of performance-only measurement of service quality and satisfaction in china's retail banking", *The Journal of Services Marketing,* Vol. 18, No. 7, pp. 534-546.

Table 1: Various gaps and reasons attributed to the provider gaps

Gap No.	Gap	Reasons attributed to the gap
Gap 1	Gap between consumers' expectation and management's perception of consumer's expectation (The management perception gap)	Inadequate marketing research orientation, lack of upward communication, levels of management
Gap 2	Gap between management's perception of consumer's expectation and service quality specifications (The quality specification gap)	Lack of management commitment to service quality, inappropriate goal setting, lack of task standardization, perception of feasibility.
Gap 3	Gap between service quality specifications and service delivery (The delivery gap)	Lack of teamwork, role conflict, role ambiguity, supervisory control system, poor employee job-fit, poor technology-job fit, lack of perceived control
Gap 4	Gap between services delivered and promised made by external communication by the service provider (The communication gap)	Horizontal communication, overpromise
Gap 5	Gap between consumer's expectation and perception of service (SERVICE QUALITY)	Function of all the provider gaps (i.e. Gap 1, Gap 2, gap 3, and Gap 4).

Table 2: Items of SERVGYM

Variable	Item Description
V1	YOUR GYMNASIUM HAS MODERN LOOKING TRAINING EQUIPMENT
V2	THE PHYSICAL FACILITIES OF YOUR GYMNASIUM IS VISUALLY APPEALING
V6	WHEN YOU HAVE A PROBLEM YOUR GYMNASIUM SHOWS A SINCERE INTEREST IN SOLVING IT
V7	YOUR GYMNASIUM PERFORMS THE SERVICS RIGHT AT THE FIRST TIME
V8	YOUR GYMNASIUM PROVIDES ITS SERVICES AT THE TIME IT PROMISES TO DO SO.
V9	YOUR GYMNASIUM INSISTS ON ERROR FREE RECORDS
V11	YOUR GYMNASIUM GIVES YOU PROMPT SERVICE
V14	THE BEHAVIOR OF THE EMPLOYEES OF YOUR GYMNASIUM INSTILLS CONFIDENCE IN YOU.
V15	YOU FEEL SAFE IN YOUR TRANSACTION WITH YOUR GYMNASIUM
V16	EMPLOYEES OF YOUR GYMNASIUM IS CONSISTENTLY COURTEOUS WITH YOU

V17	EMPLOYEES AT YOUR GYMNASIUM HAVE THE KNOWLEDGE TO ANSWER TO YOUR QUESTIONS
V19	YOUR GYMNASIUM HAS OPERATING HOURS CONVENIENT TO ALL ITS CUSTOMERS.
V20	YOUR GYMNASIUM HAS EMPLOYEES WHO GIVE YOU PERSONAL ATTENTION
V22	THE EMPLOYEES OF YOUR GYMNASIUM UNDERSTAND YOUR SPECIFIC NEEDS.
V23	A COMFORTABLE TEMPARATURE IS MAINTINED INSIDE YOUR GYMNASIUM
V24	YOUR GYMNASIUM OFFERS CONVENIENT MEMBERSHIP PLANS
V25	YOUR GYMNASIUM OFFERS CUSTOMIZED PROGRAMS
V26	YOUR GYMNASIUM MAINTAINS GOOD HYGINIC CONDITION.
V27	YOUR GYMNASIUM OFFERS YOU FREE PARKING FACILITY

Table 3: Distribution of the gymnasium specific (usable) response (stage 1)

This chapter describes the details of data analysis and its interpretation. The first research objective was to understand the determinants of service quality in the context of fitness services in India. To achieve that factor analysis technique is applied. At the very first stage, after checking the normality of the data, exploratory factor analysis (EFA) (of the data collected in the first stage) was done using SPSS (16th version) software to explore the underlying dimensions of the data. Subsequently, data purification was done to eliminate garbage items. At the next stage, confirmatory factor analysis technique (CFA) was applied to the data (collected at the second stage) to confirm the factor structure explored by EFA. Structural Equation Modelling was done using AMOS software for this purpose. Univariate normality of the data was checked. Construct validity of the measures were also established.

Second objective of the research was to classify the service quality attributes and the dimensions according to their ability to satisfy customers. Kano analysis followed by computation of satisfaction increment index (SII) and dissatisfaction decrement index (DDI) is done to achieve the objective. Analysis was done on the data collected in the second stage.

Third sets of objectives were to explore the relationships between service quality dimensions as explored in the first stage and satisfaction, loyalty and customer's complaint action separately. Multiple regression analysis (MRA) technique is applied.

Fourth objective was to find out whether service quality perception significantly differs between males and females. One-way ANOVA technique was applied.

V23	.082	**.648**	.061	.437
V24	.155	.148	-.046	**.819**
V25	.442	.255	-.130	**.695**
V26	.125	**.698**	-.021	.427
V27	.395	.235	-.126	**.614**

Table 5: Item-Total correlation, reliability (Cronbach's alpha) and Communalities of the items.

Variable (Item)		Item-Total correlation	Cronbach's alpha if item is deleted	Reliability (Cronbach's Alpha) for the scale	Communality
Reliability (RL)	V6	.749	.776	**.839**	.739
	V7	.726	.783		.801
	V8	.744	.778		.721
	V9	.586	.822		.548
	V14	**.333**	**.864**		.495
Comment	*V14 qualifies for deletion*				
Ambiance (AMB)	V1	.503	.632	**.701**	.733
	V2	.518	.625		.614
	V23	.515	.680		.566
	V26	.487	.683		.677
	V17	**.384**	.686		.532
Comment	*V17 qualifies for deletion*				
Customer Orientedness (CUST)	V11	.472	.645	**.701**	.626
	V16	.492	.700		.452
	V20	.589	.565		.621
	V22	.517	.616		.735
Convenience (CONV)	V19	.557	..812	**.828**	.504
	V24	.634	.791		.680
	V25	.781	.743		.744
	V27	.651	.787		.590
	V15	**.389**	.825		**.436**
Comment	*V15 qualifies for deletion*				

Table 6: Composition of Factors (after EFA)

Factor	Variable	Variable Name (as given)	Item description
AMBIANCE	V1	Training Equipment	YOUR GYMNASIUM HAS MODERN LOOKING TRAINING EQUIPMENT
	V2	Physical facilities	THE PHYSICAL FACILITIES OF YOUR GYMNASIUM IS VISUALLY APPEALING
	V23	Temperature	A COMFORTABLE TEMPARATURE IS MAINTINED INSIDE YOUR GYMNASIUM
	V26	Hygiene	YOUR GYMNASIUM MAINTAINS GOOD HYGINIC CONDITION
CONVENIENCE	V24	Membership plans	YOUR GYMNASIUM OFFERS CONVENIENT MEMBERSHIP OPTIONS

	V25	Customized Programs	YOUR GYMNASIUM OFFERS CUSTOMIZED TRAINING PROGRAMS
	V19	Operating hours	YOUR GYMNASIUM HAS OPERATING HOURS CONVENIENT TO ALL ITS CUSTOMERS
	V27	Free Parking	YOUR GYMNASIUM OFFERS YOU FREE PARKING FACILITY
RELIABILITY	V6	INTEREST	WHEN YOU HAVE A PROBLEM YOUR GYMNASIUM SHOWS A SINCERE INTEREST IN SOLVING IT
	V7	TIMELY SERVICE	YOUR GYMNASIUM PERFORMS THE SERVICS RIGHT AT THE FIRST TIME
	V8	PROMISED SERVICE	YOUR GYMNASIUM PROVIDES ITS SERVICES AT THE TIME IT PROMISES TO DO SO.
	V9	ERROR FREE RECORDS	YOUR FITNESS CENTER INSISTS ON ERROR FREE RECORDS
CUSTOMER ORIENTEDNESS	V11	PROMPT SERVICE	YOUR GYMNASIUM GIVES YOU PROMPT SERVICE
	V16	COURTEOUSNESS	EMPLOYEES OF YOUR GYMNASIUM IS CONSISTENTLY COURTEOUS WITH YOU
	V20	PERSONAL ATTENTION	YOUR GYMNASIUM HAS EMPLOYEES WHO GIVE YOU PERSONAL ATTENTION
	V22	UNDERSTANDING CUSTOMER NEEDS	YOUR GYMNASIUM HAS EMPLOYEES WHO GIVE YOU PERSONAL ATTENTION

Table 7. Standardized regression weights of the model

PATH			LOADING	SE	CR
V9	<---	RL	1.000		
V8	<---	RL	.914	.136	6.717
V7	<---	RL	1.168	.156	7.485
V6	<---	RL	1.074	.150	7.154
V26	<---	AMB	1.000		
V23	<---	AMB	.979	.096	10.227
V2	<---	AMB	1.013	.090	11.208
V1	<---	AMB	.797	.099	8.016
V22	<---	CUST	1.000		
V20	<---	CUST	.771	.185	4.157
V16	<---	CUST	1.038	.147	7.049
V11	<---	CUST	1.136	.159	7.157
V27	<---	CONV	1.000		
V25	<---	CONV	1.448	.103	14.025
V24	<---	CONV	1.290	.110	11.776
V19	<---	CONV	1.516	.115	13.277

Table 8: Chi-Squared Difference Results

Sr. No.	Combination	Unconstrained Chi-square	Df	Constrained Chi-square	Df	Difference in Chi-Square
1	RL&AMB	152.87	98	172.606	99	19.736
2	RL&CUST	152.87	98	201.231	99	48.361
3	RL&CONV	152.87	98	184.648	99	31.778
4	AMB&CUST	152.87	98	170.485	99	17.615
5	AMB&CONV	152.87	98	158.223	99	5.353
6	CUST&CONV	152.87	98	210.578	99	57.708

Table 9: Model fit indices for the Structural Equation Model

Model Fit Indices	Obtained value
CMIN (expressed as χ^2)	299.450
CMIN/df (df: Degrees of Freedom)	1.907
NFI	.907
TLI	.927
CFI	.950
RMESA	.049

Table 10: Summary of hypothesis testing

Hyp	Predictors (s)	Outcome	R Square	Unstandardized B value	Sig.	Status
H1	Reliability (RL)	Overall Satisfaction (OS)	0.72	.258	.00	Supported
	Ambiance (AMB)			.255	00	
	Customer orientedness (CUST)			.192	00	
	Convenience			.137	00	
H2	Reliability (RL)	Loyalty (L)	0.75	0.958	00	Supported
	Ambiance (AMB)			0.479	00	
	Customer orientedness (CUST)			0.352	00	
	Convenience			0.127	00	
H3	Overall Satisfaction (OS)	Loyalty (L)	0.68	0.84	.04	Supported