



MEASURING SERVICE QUALITY AND STUDENT SATISFACTION IN NAAC ACCREDITED B-SCHOOLS

DR. MOHD. RAZI-UR-RAHIM*

*Assistant Professor,
Aligarh Muslim University, Aligarh.

ABSTRACT

The new generation in search for a professional career has begun to aspire for management education. Now management education has become “Mass Education” rather than “Class Education”. The exponential growth, both in number of students and institutions has adversely affected the quality of management education. This quantitative expansion without adequate preparation has resulted in a wide divergence in the quality of education provided by B-Schools. The higher management education industry in India is encountering problems related to quality standards of education, inadequate infrastructure, industry interaction, reliability issues, course curriculum, degradation in studies and low levels of student satisfaction. To control the quality degradation in management education there should be regular feedback from those who received (students) management education. This research paper is an attempt to investigate that seeks to establish a method to predict service quality perceptions, measure the gap between expectations and perceptions of students and measure the effect of service quality on user satisfaction and institution reputation.

KEYWORDS: *Mass Education, Class Education, B-Schools and institution reputation.*

INTRODUCTION

The new generation in search for a professional career has begun to aspire for management education. Now management education has become “Mass Education” rather than “Class Education”. The exponential growth, both in number of students and institutions has adversely affected the quality of management education. This quantitative expansion without adequate preparation has resulted in a wide divergence in the quality of education provided by B-Schools. The higher management education industry in India is encountering problems related to quality standards of education, inadequate infrastructure, industry interaction, reliability issues, course

curriculum, degradation in studies and low levels of student satisfaction. To control the quality degradation in management education there should be regular feedback from those who receive (students) management education. In this purview this research is being conducted.

The study investigates the extent of applicability of the SERVQUAL instrument to the Education Industry in Indian context. The research examines the relationship between service quality dimensions and overall service quality, students satisfaction and loyalty. Furthermore, this study also examines the critical factors in service quality dimensions that contribute most to satisfaction and loyalty of students. This study was conducted using a set of questionnaire to 411 post graduate management students from two different NAAC accredited categories of B-schools. The study provides results from empirical test of these relationships.

LITERATURE REVIEW

HIGHER EDUCATION: A SERVICE PRODUCT

The service products are different from tangible physical products. Services are summarized as intangible, inseparable, heterogeneous and perishable (Zeithaml et al., 1985). Services are behavioural rather than physical entities and have been described as deeds, performances, efforts and process (Rathmell, 1966). These characteristics under pinned the case for services marketing and made services a field of marketing that is distinct from the marketing of services. Higher education is a service, it is undoubtedly both intangible and heterogeneous, and is produced and consumed simultaneously when the consumers are participating in the delivery process. This meets the criterion of inseparability. Finally, education is perishable for it is impossible to store, despite the technology of video (Cuthert, 1996).

EDUCATIONAL QUALITY DEFINED

In the area of education, Cheng (1997) stated “Education quality is the character of the set of elements in the input, process and output of the education systems that provides services that completely satisfy both the internal and external strategic constituencies by meeting their explicit and implicit expectations”. In addition, Harvey and Green (1993) proposed five ways of thinking about quality in education. First, quality is regarded in terms of excellence. Second, quality is perfection or consistency, third, quality is fitness for purpose. Fourth, quality is value for money and finally, quality is transformation processes that have value-added activities. In order to look into the different aspects of quality of higher education institutions, it is essential to understand the systems approach to education. In education context, the educational institutions exhibit the behaviour of an open system, which has an environment that inputs some form of energy to the system, which undergoes transformation to give some outputs into the environment.

2.6.1 GAPS MODEL

Parasuraman, Zeithaml, and Berry (1985) provide a well-known framework for measuring service quality known as “GAP Model” of perceived service quality, which has defined service quality as the gap between consumers’ expectations and their perceptions of how the service is performed. This model has five gaps:

Gap 1: Consumer expectation –Management perception gap

Gap 2: Management perception –Service quality specification gap

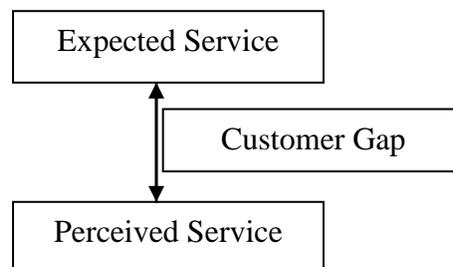
Gap 3: Service quality specifications –Service delivery gap

Gap 4: Service delivery –External communication gap

Gap 5: Expected service –Experienced service gap (Parasuraman, Zeithaml and Berry, 1985)

The central focus of the gaps model is the customer gap (Exhibit 1), the difference between customer expectations and perceptions. Expectations are the reference points customer have coming in to a service experience; perceptions reflects the service as quality as actually received. The organizations will want to close this gap- between what is expected and what is received- to satisfy their customers (Zeithaml and Bitner, 1996).

EXHIBIT 1: SHOWING THE CUSTOMER GAP



Customer expectations are the standards or reference points for performance against which service experiences are compared and are often formulated in terms of what a customer believes should or will happen (Zeithaml and Bitner, 1996). The model examining the discrepancy between the expectation and perception is often referred to as disconfirmation model (Oliver 1979, 1980; Churchill and Surprenant 1982). To manage service quality, it is important to know what customers expect is the most critical step in delivering service quality (Zeithaml et al., 1990). Regarding the definition of expectation Parasuraman et al. (1988) indicate expectation as desires, wants, normative expectation, and ideal standards. Whether or not these expectations are met, it influences perceived service quality (Hill, 1995).

METHODOLOGY

This study attempts to examine the customers' (students) perceptions and expectations of service quality in NAAC accredited B-schools in Uttar Pradesh and National Capital Region (NCR) of India. This will help in evolving a model of service parameters that B-schools could adopt in order to have competitive advantage.

RESEARCH QUESTIONS

RQ1: To investigate the extent of applicability of the SERVQUAL instrument to the Education Industry in Indian context.

RQ2: To understand and prioritize the dimensions of service quality as valued by students.

RQ3: To assess satisfaction level of students on various dimensions of service quality.

The result from the study can be used to give valuable information on the elements and the dimensions, which have been given a priority by students in assessing the quality of services and satisfaction. The information can be used by the management of B-schools to adopt effective service quality strategy which could include the need for modification of the work structure, the relationship with students and teamwork, and cross-functional group problem solving. The B-schools should assess service quality regularly as service quality perceptions of students are always changing. The study can also be used by the accrediting organizations for accreditation purposes.

INSTRUMENT AND MEASUREMENT SCALE

The questionnaire developed for the study incorporates the 23 items of SERVQUAL model. Two types of measurement scales were used: nominal and interval. The two types of response format were chosen: dichotomous close-ended and labeled scales. For information pertaining to respondents' demographics a dichotomous close-ended question format was used and to obtain respondent's perception towards education service quality, labeled scale response format was used.

ADMINISTRATION OF QUESTIONNAIRE

The target population of this study was defined as the regular MBA students of NAAC accredited B-schools situated in U. P and NCR of India. The sample frame comprised of the students of NAAC accredited B-schools in U.P. and NCR only. The strata show heterogeneous population. The population is more suited to stratified random sampling method. The data analysis technique employed is Structural Equation Modeling (SEM), which is very sensitive to sample size and less stable when estimations are made based on small samples (Tabachnick & Fidell, 2001; Garson, 2007). It was decided to target a total of around 500 respondents from NAAC accredited B-schools located in Uttar Pradesh and National Capital Region of India. In all 544 students were randomly approached, of these 478 agreed to participate in the study, 67 responses were incomplete in various respects and thus had to be discarded. This resulted in a total of 411 responses. It included students from Jamia Hamdard, Inderaprashta, CSJM and Rohilkhand University. Most of the respondents were from Jamia Hamdard and CSJM University.

ASSESSMENT, REFINEMENT AND VALIDATION OF MEASUREMENT SCALES

To assess and refine the measurement scales in terms of unidimensionality, reliability and validity, two main approaches are Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) (Sureshchandar et al., 2002).

SUMMARY OF EFA AND CFA FOR SCALE ASSESSMENT AND VALIDATION

Phase	Step	Factor Analysis	Type of Test
Preliminary Assessment	1	EFA for individual scale	Unidimensionality, Reliability (Cronbach Alpha)
	2	EFA for all scales together	Convergent Validity, Discriminant Validity
Confirmation	3	CFA for individual scale	Unidimensionality, Convergent Validity, Composite Reliability
	4	CFA for selected pairs of scales	Discriminant Validity
	5	CFA for all scales together	Overall Measurement Model

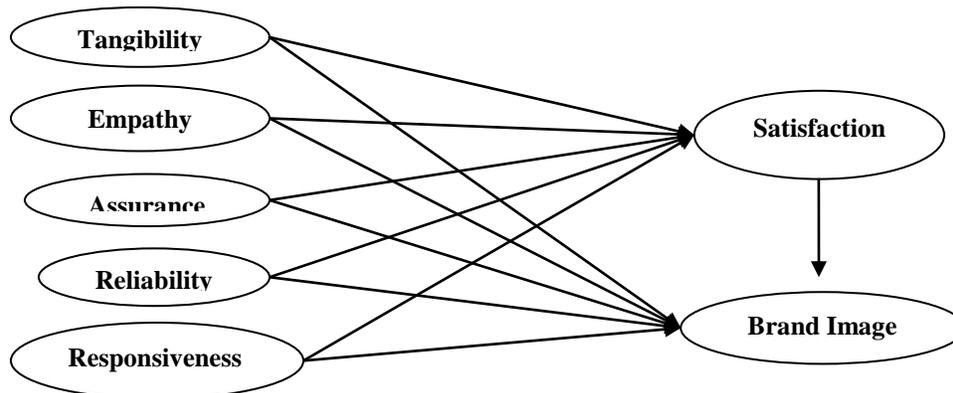
Source: Adapted from Hau, L N (2005).

DATA ANALYSIS STRATEGY

The data were analyzed using SPSS 18.0 and Lisrel 8.5 Structural Equation Modelling software. Statistical tools like Exploratory Factor Analysis (EFA), Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity, Confirmatory factor Analysis (CFA), Cronbach's reliability test and Chi-square test was carried out.

HYPOTHESIZED STRUCTURAL MODEL

The structural model, consisting of seven constructs, is shown in Exhibit 2 SEM was applied to measure the relationships between the independent variables and dependent variables simultaneously.

EXHIBIT 2: HYPOTHESIZED STRUCTURAL MODEL

Source: Prepared by the Researcher

ANALYSIS AND FINDINGS

The means of Perception ranged from 4.63 to 5.28 i.e. Neither Agree, Nor Disagree to Moderately Agree, whereas means for GAP ranged from – 1.87 to – 0.83. This implies that perception of the respondents is less than their expectations. However, the scores were tightly packed around the mean (standard deviation 1.31 to 1.52 for Perception and 1.39 to 1.79 for GAP), indicating that most respondents share similar opinions towards perception and gap. In relation to range, unlike the variance value, a large range for each variable was observed in case of GAP. Respondents had strong opinion regarding visually appealing physical facilities, staff gives personal attention to students, staff behaviour should instill confidence, keep students informed about time of service and convenient teaching hours. In case of Perception and GAP, the data was slightly skewed towards negative (– 1.07 to – 0.55 for Perception and – 0.89 to – 0.13 for GAP) and the kurtosis ranges from – 0.19 to 0.86 for perception and 0.14 to 1.31 for GAP.

DEMOGRAPHIC PROFILE OF THE SAMPLE

Frequency distributions containing data about gender, semester of study (MBA) and age were calculated for all the respondents. The respondents were predominantly male (83.45%). Students of MBA-I semester and MBA-III semester were equally represented in the survey (50%). Majority of students were less than 21 year of age (72.02%), while the students between the ages 21 to 29 year of age were 24.09%.

INSTRUMENT VALIDITY AND RELIABILITY

EFA results showed that five constructs were immediately acceptable (Table 1 for Perception and Table 2 for GAP) Using the latent root or eigenvalue greater than 1 criterion, the results show that only one factor was extracted. The variance explained by the extracted factor ranged from 51.198% to 72.908% for Perception and 46.198% to 65.749% for GAP, while the factor loadings were all in acceptable range. Thus, it would be safe to say that the five constructs viz. Tangibility, Reliability, Responsiveness, Assurance, and Empathy were unidimensional. The

Cronbach alpha in case of the five constructs was above the threshold of 0.70 (range is from 0.811 to 0.913 for Perception and 0.808 to 0.904 for GAP). The item-total correlation values, which ranged from 0.565 to 0.843 for Perception and 0.573 to 0.797 for GAP, were also in acceptable range.

TABLE 1: EFA AND RELIABILITY TEST RESULTS – ORIGINAL INSTRUMENT – PERCEPTION

Construct/Items	Factor Loading	Variance Extracted	Eigenvalue	Item-total Correlation	Cronbach Alpha
Tangibility		72.908	3.554		0.913
Visually Appealing Physical Facilities	0.9664			0.565	
Institute with up-to-date Facilities	0.9509			0.617	
Neat Well Dressed and Visually Appealing Staff	0.9518			0.627	
Efficient handling mechanism in delivery of services	0.9712			0.602	
Materials associated with the education services	0.9612			0.716	
Reliability		68.360	3.515		0.841
Special Need Students	0.985			0.617	
Problems due to Critical Incidents	0.964			0.649	
Meet Time Commitment	0.955			0.763	
Keep Error Free Records	0.895			0.645	
Perform Service right the first time	0.845			0.716	
Responsiveness		58.852	2.893		0.839
Prompt Service to Students	0.961			0.787	

Always Willing to Help Students	0.958			0.734	
Staff Behaviour should Instill Confidence	0.854			0.841	
Keep Students informed about time of Service	0.810			0.786	
Staff never too busy to respond to Student's request	0.847			0.748	
Assurance		51.198	2.218		0.811
Assures campus placement	0.953			0.617	
Consistently Courteous Staff	0.913			0.843	
Knowledge to Answer Students' Queries	0.936			0.747	
Individual Attention to Students	0.812			0.762	
Empathy		58.661	2.688		0.826
Staff gives Personal Attention to Students	0.926			0.791	
Student's Best Interest at Heart	0.940			0.732	
Understand Specific Needs of Students	0.933			0.639	
Convenient teaching hours	0.928			0.573	

TABLE 2: EFA AND RELIABILITY TEST RESULTS – ORIGINAL INSTRUMENT – GAP

Construct/Items	Factor Loading	Variance Extracted	Eigenvalue	Item-total Correlation	Cronbach Alpha
Tangibility		46.198	3.337		0.904
Visually Appealing Physical Facilities	0.957			0.573	
Institute with up-to-date Facilities	0.974			0.616	
Neat Well Dressed and Visually Appealing Staff	0.942			0.546	
Efficient handling mechanism in delivery of services	0.968			0.585	
Materials associated with the education services	0.820			0.693	
Reliability		54.714	3.333		0.864
Special Need Students	0.821			0.664	
Problems due to Critical Incidents	0.741			0.734	
Meet Time Commitment	0.968			0.749	
Keep Error Free Records	0.962			0.718	
Perform Service right the first time	0.889			0.639	
Responsiveness		65.466	2.641		0.838
Prompt Service to Students	0.828			0.784	
Always Willing to Help Students	0.890			0.797	
Staff Behaviour should Instill Confidence	0.817			0.717	

Keep Students informed about time of Service	0.811			0.743	
Staff never too busy to respond to Student's request	0.798			0.765	
Assurance		65.749	2.139		0.808
Assures campus placement	0.821			0.639	
Consistently Courteous Staff	0.890			0.742	
Knowledge to Answer Students' Queries	0.817			0.740	
Individual Attention to Students	0.830			0.721	
Empathy		52.190	2.638		0.837
Staff gives Personal Attention to Students	0.883			0.658	
Student's Best Interest at Heart	0.878			0.699	
Understand Specific Needs of Students	0.826			0.673	
Convenient teaching hours	0.853			0.576	

Regarding the issue of appropriateness, the result of the Bartlett's Test of Sphericity and KMO measure (Hau, 2005) indicated that the degree of inter-correlations among the items was suitable for EFA procedures (Chi-square = 2167.237, $df = 88$ and $sig. = 0.000$, KMO = 0.910 for Perception and Chi-square = 1871.872, $df = 88$ and $sig. = 0.000$, KMO = 0.915 for GAP). Factor Correlation test was carried out on the five factors. Factor 1, 2, 3, 4 and 5 showed correlation with one another factors (Table 3)

TABLE 3: FACTOR CORRELATION MATRIX – MODIFIED INSTRUMENT

		Perception				
		Factor 1 (TAN)	Factor2 (REL)	Factor 3 (RES)	Factor 4 (ASS)	Factor 5 (EMP)
Perception	Factor 1 (TAN)	1.000				
	Factor2 (REL)	0.735	1.000			
	Factor 3 (RES)	0.759	0.767	1.000		
	Factor 4 (ASS)	0.416	0.544	0.772	1.000	
	Factor 5 (EMP)	0.420	0.557	0.399	0.557	1.000

		GAP				
		Factor 1 (TAN)	Factor2 (REL)	Factor 3 (RES)	Factor 4 (ASS)	Factor 5 (EMP)
GAP	Factor 1 (TAN)	1.000				
	Factor2 (REL)	0.757	1.000			
	Factor 3 (RES)	0.382	0.475	1.000		
	Factor 4 (ASS)	0.506	0.596	0.358	1.000	
	Factor 5 (EMP)	0.440	0.308	0.459	0.570	1.000

The results of CFA (Table 4) support the scales giving us the various constructs viz. Tangibility, Reliability, Responsiveness, Assurance and Empathy (Chi-Square = 320.265, dF = 88, P-value =

0.00, RMSEA = 0.0718, NFI = 0.986, CFI = 0.983 for Perception and Chi-Square = 282.224, dF = 88, P-value = 0.00, RMSEA = 0.0698, NFI = 0.975 and CFI = 0.983 for GAP). Discriminant validity was evidenced by the inter-construct correlations that were significantly less than one (Anderson et al., 1988).

TABLE 4: CFA SUMMARY – PERCEPTION AND GAP

Goodness of Fit Statistics	Recommendation (Garson, 2007)	Perception	GAP
Degree of Freedom (dF)		88	88
Normal Theory Weighted Least Squares Chi-Square (P = 0.0)		320.265	282.224
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.0718	0.0698
Normed Fit Index (NFI)	> 0.95	0.986	0.975
Non-Normed Fix Index (NNFI)	> 0.95	0.980	0.981
Comparative Fit Index (CFI)	> 0.90	0.983	0.983
Root Mean Square Residual (RMR)	< 0.10	0.098	0.088
Standardized RMR	< 0.08	0.0560	0.049
Goodness of Fit Index (GFI)	> 0.90	0.941	0.929
Adjusted Goodness of Fit Index (AGFI)	>0.90	0.904	0.931

MODEL ANALYSIS

The structural equation model followed conventional linkages between service quality constructs, overall satisfaction and loyalty of the students towards the institute i.e. building the brand image of the institute. The model employed maximum likelihood estimation. Two versions of the model were estimated. Version 1 was for perception and version 2 for GAP. The estimated relationships are presented in Table 5. The relations between independent and dependent variables in the present study, as assessed by SEM, show that there is a significant direct and positive relationship between nearly all independent and dependent variables, thus indication sufficient criterion validity.

Students perceive Tangibility, followed by Assurance, Responsiveness, Reliability and lastly Empathy to be having direct impact on Satisfaction. Tangibility builds satisfaction, though its impact on loyalty is low. However Assurance followed by Reliability, Responsiveness and Empathy affect Loyalty to a greater extent. GAP in case of Reliability, Responsiveness, Empathy, Assurance and Tangibility (respectively) not only affects satisfaction but also the loyalty. As the parameter estimates as per to expectations, satisfaction was having high impact on loyalty. Original model also showed the positive impact of satisfaction and loyalty. The low value of standard error in case of loyalty in modified model indicates that the parameter can be reasonably determined by the data in hand (Diamantopoulos et al., 2000).

TABLE 5: PARAMETER ESTIMATES FOR MODIFIED MODEL

Structural Path Relation	Perception				GAP			
	Un-standardized Estimate	Std. Error	t- Value	Standardized Estimate	Un-standardized Estimate	Std. Error	t-Value	Standardized Estimate
Satisfaction Tangibility	0.283	0.086	3.291	0.436	0.204	0.064	3.185	0.056
Satisfaction Empathy	0.476	0.539	0.883	0.187	0.066	0.149	0.446	0.096
Satisfaction Reliability	0.475	0.640	0.743	0.288	0.398	0.456	0.873	0.350
Satisfaction Responsiveness	0.388	0.374	1.037	0.393	0.236	0.512	0.461	0.331
Satisfaction Assurance	0.255	0.432	0.591	0.414	0.433	1.074	0.403	0.087
Loyalty Tangibility	0.338	0.217	1.788	0.704	0.211	0.851	0.248	0.026
Loyalty Empathy	0.660	0.867	0.761	0.771	0.069	0.104	0.663	0.189
Loyalty Reliability	0.546	0.419	1.303	0.879	0.390	0.400	0.975	0.483
Loyalty Responsiveness	0.822	0.827	0.994	0.774	0.186	0.228	0.815	0.253
Loyalty Assurance	0.660	0.831	0.794	1.873	0.099	0.284	0.351	0.166
Loyalty Satisfaction	0.477	0.213	2.241	1.741	0.074	0.086	0.861	1.631

CONCLUSION

EFA results showed that five constructs were immediately acceptable and the factor loadings were all in acceptable range. The five constructs were unidimensional. The Cronbach alpha in case of the five constructs was above the threshold of 0.70 and therefore retained. After establishing the unidimensionality and reliability of each scale, all 23 items were jointly subjected to a common factor analysis. No item loaded highly on more than one factor. Factor Correlation test was carried out on the five factors. Factor 1, 2, 3, 4 and 5 showed correlation with one another. CFA applied to each of the five scales showed that 5 measurement scales are over-identified and do not need any refinements. The standardized regression coefficients of all items were within the range. Therefore, it was safe to conclude that the five scales possess convergent validity. The results also confirm the composite reliability of these five scales. It was thus concluded that these scales were satisfactory in terms of reliability. Discriminant validity was evidenced by the inter-construct correlations that were significantly less than one. Analysis of data through EFA showed that the five constructs were unidimensional and reliable. It also revealed that items loaded on five factors each. CFA results conclude five scales possess convergent validity and composite reliability. All the scales possess discriminant validity. CFA also suggests that the five-dimensional conceptualization fitted the data. Thus, the “classical” five-dimensions of SERVQUAL could be validated in case of higher education industry in India.

It is not surprising that students understand the concept of quality with regards to higher education in different ways. The relationship between independent and dependent variables, as assessed by SEM, shows that there is a significant and positive relationship between service quality dimensions, overall satisfaction and loyalty of students towards the institute which builds the brand. Tangibility followed by Assurance, Responsiveness, Reliability and Empathy dimensions of service quality as received by students having direct impact on Satisfaction. On the other side the gap in service quality as observed by the students on the dimensions as Reliability, Responsiveness, Empathy, Assurance and Tangibility respectively affects students' satisfaction to a greater extent. The five dimensional factors also build loyalty. The services as received by the students explore the direct relationship between the service quality dimensions and loyalty. Assurance being the number one factor in building Loyalty followed by Reliability, Responsiveness, Empathy and Tangibility. A slight gap in the service quality delivered affects Loyalty. The most affecting dimension in building Loyalty are Reliability, Responsiveness, Empathy, Assurance and Tangibility in the same order. The parameter estimates and original model showed a positive impact of Satisfaction and Loyalty.

Hence the research concludes that the five SERVQUAL dimensional factors having positive relationship not only with satisfaction of students but also build Loyalty among the students towards the institute. Satisfaction due to services received by the students build the Loyalty. Satisfaction also affects the overall perception that institute satisfy students' need and affects the Gap between overall perception and expectation that institute satisfy student's needs. Whereas Loyalty built, influences the students to recommend the institute to their friends and other students.

The major managerial implications of the study are

- The findings exemplify that mere focus on perceived service quality is insufficient to develop long-term loyalty. Mediating effect of customer satisfaction also needs to be looked into.
- In order to meet the objectives of the service delivered, service staff must be well trained for keeping good relationship with students and for addressing students' enquiries.

Although this study had a number of constraints, the research was successfully conducted. The study also opens the new directions for the future researches.

REFERENCE

- Anderson, J C and Gerbing, D W (1988), Structural equation modeling in practice: A review and recommended two-step approach, *Psychological Bulletin*, 103(3), pp.411-423.
- Churchill, G A Jr. and Supernant, C (1982), "An investigation into the determinants of customer satisfaction", *Journal of Market Research*, XIX (November), pp. 491-504
- Cuthert, P F (1996), "Managing service quality in Higher Education: Is SERVQUAL the answer?" *Managing Service Quality*, 6(2), pp. 11
- Diamnathopoulos, A. & Siguaw, J. (2000), *Introducing LISREL: A guide for the uninitiated*. London: Sage Publications
- Garson, G D (2007), PA 765: Quantitative Research in Public Administration. Retrieved September 1, 2007 from www2.chass.ncsu.edu/garson/pa765/index.htm.
- Harvey, L and Green, D (1993), Defining 'Quality': Assessment and Evaluation in Higher Education. 18(1), pp. 9-34.
- Hau, L N (2005), *Acquiring marketing knowledge through international joint ventures*, Doctoral Thesis, University of Western Sydney. Retrieved April 15, 2008, from library.uws.edu.au/adt-NUWS/uploads/approved/adt-NUWS20061010.143634/public/01Front.pdf.
- Hill, F M (1995), "Managing service quality in higher education: the role of the student as primary consumer", *Quality assurance in education*, 3(3), pp. 10-21.
- Oliver, R L (1979), "Product dissatisfaction as a function of prior expectation and subsequent disconfirmation: New Evidence in L R Day, & K H Hunt (Eds.)", *New dimensions of Consumer Satisfaction and Complaining Behaviour*, Bloomington: Indian University.
- Oliver, R L (1980), "A cognitive model of the antecedents and consequences of satisfaction decisions", *Journal of Marketing Research*, No. XVII, November, pp. 460-469.
- Parasuraman, A, Zeithaml, V A and Berry, L L (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, 4(4), pp. 41-50.

Parasuraman, A, Zeithaml, V A and Berry, L L (1988), “SERVQUAL: A multiple Item scale for measuring consumer perception of service quality”, *Journal of Retailing*, 64(1), pp. 12-37.

Rathmell, J M (1966), “What is meant by services”, *Journal of Marketing*, Vol. 30, pp. 32-36.

Tabachnick, B G and Fidell, L S (2001). *Using multivariate statistics*, 4th ed., Boston: Allyn & Bacon

Zeithaml, V A, Parasuraman, A and Berry, L L (1985), “Problems and Strategies in Services Marketing”, *Journal of Marketing*, Vol. 49, pp. 33-46.

Zeithaml, V A, Parasuraman, A and Berry, L L (1990), *Delivering service quality: Balancing customer perceptions and expectations*, Free Press, New York, NY.

Zeithaml, V A, and Bitner, M J (1996), “Service marketing integrating customer focus across the firm”, second edition, Irwin McGraw-Hill Publications, Mexico City, pp. 26-28.