

Article

Service Quality in General Insurance Sector: An Empirical Study

B. Gopalkrishna, Lewlyn L.R. Rodrigues & K.V.M. Varambally

The service quality research in the area of insurance is yet to gain full momentum despite the fact that it is one of the fastest growing service sectors. The Paper develops a metrics for service quality specifically for the insurance sector and apply the same to investigate the perception of service quality. The study reveals the service quality gaps in the insurance industry. The weaker dimensions of service quality are identified and implications are drawn to improve the existing systems, processes and practices.

B. Gopalakrishna is a Research Scholar and **Lewlyn I. R. Rodrigues** is Additional Professor in the Manipal Institute of Technology, Karnataka 576104. **K.V.M. Varambally** is Director of Manipal Institute of Management, Karnataka 576104.

Introduction

Ever since the days of Crosby (1979) measurement of quality with increased level of precision has been in progress. The focus on services became dominant with the work initiated by Parasuraman et al. (1988). Thereafter, a series of research on service quality has been carried out in a wide range of services including insurance, banks, healthcare units and hospitals, hospitality, travel and tourism, government and public services, IT and software, advertising and marketing, logistics services, library services, educational institutes, cellular services, retail etc. (Nwankwo & Richardson 1994, Gagliano & Hathcote 1994, Curry 1999, Sekhon & Kennington 2001, Oliva 2001, Sureshchandar et al. 2001, 2002, Babakus & Mangold 1992, Dutta & Sridhar 2002, Duncan & Elliot 2002, Jayawardhena 2004, Sahney, Karunes & Banwet 2004, Rodrigues 2005, Groesser & Techn 2005).

Focussing specifically on the service quality aspect of insurance business, there are three parties viz.,

the seller of insurance, insurance company and buyer of insurance products. In insurance, service quality relates to six broad aspect of business: quality of raw or original data; the quality of derived data; quality of performance of employees at all levels; quality of performance of equipment and machinery; quality of decision at all levels; quality of services related to financial aspect involved (Rosander 1985). Since the past two decades a group of researchers have conducted active research in the area of insurance. Klose (1993) discusses customer service guarantees and customer service insurance as ways to reduce consumers' perceived risk in service encounters. South (1990) has worked on Risk Insurance. Keeling (1993) has examined the various insurance options available – commercial property insurance, public liability insurance, and legal liability policies – as well as the latest developments in latent defect insurance and how this can be arranged. Atmanand (2003) has studied insurance and disaster management in the Indian context and attempted to fill the gap in the role of the insurance sector in disaster management. Axelson, Bihari-Axelson and Steen (2004) have analysed a case of third-party benchmarking in quality management in Health Insurance. Insurance research has been in the forefront since the past two decades and covered a wide spectrum of service quality aspects under the insurance sector.

Literature Review

The present research is specifically focused on service quality in the insurance sector. The significant works done exclusively in this area are focussed on two models of service quality i.e. SERVQUAL and SERVPERF. The pioneering work on SERVQUAL models was undertaken by Parasuraman et al., (1985). Their work has been influenced by those by a group of researchers (Woodward 1965, Reeves & Woodward 1970, Mintzberg 1979, Zeithaml 1981, Zaltman, LeMasters & Heffring 1982, Deshpande 1983) on various issues related to service quality. They defined the perceived service quality gap as the difference between consumer expectations and perceptions. They developed the metrics of SERVQUAL with a 22-item scale that measures service quality along five factors, viz. reliability, responsiveness, assurance, empathy and tangibles. This metrics has been adopted by a number of researchers in service quality research across a wide spectrum of service sectors.

SERVPERF model is the perception part of SERVQUAL model, which measures service quality in terms of perceptions of customers based on the performance of service providers. Sureshchandar et al (2001) conceptualizes service quality by taking in to account all the aspects of customer perceived service quality, including those already addressed in the existing instruments and those that are left out in

the empirical service quality literature. He identified five factors (dimensions) of service quality as critical from the customers' point of view. These are: 1. core service (service product); 2. human element of service delivery 3. systemization of service delivery (non-human element) 4. tangibles of service (servicescapes) and 5. social responsibility. In the present study customised SERVPERF model was used. Unlike other studies, which had comparisons across service industries, this study has been focussed on General Insurance sector alone.

Research Methodology

The research has been carried out on a stratified random sampling basis with a sample size of 618. The primary data collection was through self-administered questionnaire. The procedure adopted was to distribute 2500 questionnaires. On regular follow-up 632 questionnaires were collected (Response rate - 25.3%) out of which 14 were discarded as they were incomplete. Pilot run was conducted for a focus group of 35 insurance holders and the questionnaire was modified based on the suggestions. The secondary data was through meta-analysis and in-depth interviews with the frontline staff, customers and managers of insurance companies. The study groups consisted of small and medium scale industrial customers of general insurance companies. The strata included two types of companies viz., private and public and three regions viz., high volume, medium volume and low

volume of business. The respondents (insurance policy holders) were based in India; however, the service providers included several multi-national companies. Statistical tools such as descriptive statistics, factor analysis, hypothesis testing using t-test and Analysis of Variance (ANOVA) were used to analyse the data.

The metrics used in this research is the customised SERVPERF instrument. The instruments have been slightly modified to fit into the specific requirements of the insurance sector. The SERVPERF instrument considers service quality as a measure of perception alone. The 40 item scale has been reduced through factor analysis into five factors, which have been considered to be the five key service quality dimensions.

Findings

The findings of this research are grouped under the following two categories. The first part refers to the descriptive statistics which gives the general perceptions of the customers on insurance sector service quality and the second part deals with the hypothesis testing and drawing inferences so as to enhance the quality of service in the General Insurance sector.

Descriptive Statistics Analysis

The analyses of descriptive statistics made some key revelations on service quality perception. The analysis has been

made by using customised SERVPERF instruments which have been widely used in service quality measurement. Following are the inferences drawn through the analyses.

Insurance providers give more importance to 'Tangibles of Service' (Servicescape) and less importance to 'core service'. Social responsibility' is given least importance by the insurance companies in comparison to the other dimensions.

- 1) The small scale companies, which are insured, have perceived that insurance providers give more importance to 'Tangibles of Service' (Servicescape) and less importance to 'core service'. 'Social responsibility' is given least importance by the insurance companies in comparison to the other dimensions both in region-wise as well as ownership-wise classification. Lesser importance to social responsibility would result in lowering the 'service quality index (SQI)' (Sureshchandar et al. 2003) towards small scale industries. this is a primary factor which forms a 'gap' between customer expectation and service provided.
- 2) There is a subtle difference between the perceptions of the service provided by private sector and public sector insurance providers with reference to the five service quality dimensions. The service quality of private insurance providers is slightly better than that of the public sectors, as indicated by the mean score (table 2).
- 3) It is surprising to note that the 'human element', which is the basic requirement of any service sector, have been ranked poorly among the five dimensions of service quality. This calls for immediate attention from the service providers so that they provide the necessary training and development programs to their employees to enhance their skills.
- 4) Reliability, comprising human element and core service, ensures keeping up of service promises, error-free and accurate service. So, this further emphasizes the need for providing training in these areas, as these two dimensions also influence 'reliability'.
- 5) Non-human element comprising standardized and simplified delivery processes, enhancement of technological capability i.e. information and communication tools, fool-proof procedures and processes is moderately perceived by the customers but poorly perceived by the private sector customers. Hence, the private sector needs to consider this seriously and upgrade their facilities and IT infrastructure.

Reliability & Validity of the Instruments

In this research Cronbach's alpha value has been used in order to assess the internal consistency of the results

Table 1: Descriptive Statistics – SERVPERF (Region-wise)

Dimensions	High Volume Region (N = 180)			Medium Volume Region (N = 243)			Low Volume Region (N = 195)			Combined Sample (N = 618)		
	Mean	%	Std. dev. R	Mean	%	Std. dev. R	Mean	%	Std. dev. R	Mean	%	Std. dev. R
1. Core services	3.5394	70.788	0.6416	3	3.5801	71.602	0.6207	3	3.4501	69.002	0.6259	3
2. Human element	3.4801	69.602	0.6386	4	3.4824	69.648	0.6245	4	3.3583	67.166	0.6208	4
3. Non human element	3.5778	71.556	0.5430	2	3.6268	72.536	0.5532	2	3.4598	69.196	0.5008	1
4. Tangibility	3.6377	72.754	0.7146	1	3.6527	73.054	0.7072	1	3.4589	69.178	0.7236	2
5. Social Responsibility	3.3572	67.144	0.5918	5	3.3592	67.184	0.5707	5	3.2546	65.092	0.6006	5

Correlation:

Bombay & Vadodara are in total agreement with Overall Ranking (1**); Udupi & SK have correlation of 0.849** with Overall Ranking.

**Correlation is significant at the 0.01 level (2-tailed).

Table 2: Descriptive Statistics – SERVPERF (Ownership-wise)

Dimensions (N=435)	Public Sector Company (N=183)			Private Sector Company (N = 618)			Combined Sample					
	Mean	% Mean	Std. dev.	R	Mean	% Mean	Std. dev.	R	Mean	% Mean	Std. dev.	R
1. Core services	3.4107	68.214	0.6493	3	3.8043	76.086	0.4795	2	3.5272	70.544	0.6299	3
2. Human element	3.3236	66.472	0.6283	4	3.7254	74.508	0.5347	3	3.4426	68.852	0.6291	4
3. Non human element	3.8678	77.356	0.4940	1	3.4303	68.606	0.5137	5	3.5882	71.764	0.5380	1
4. Tangibility	3.4414	68.828	0.7080	2	3.9338	78.676	0.6201	1	3.5872	71.744	0.7187	2
5. Social Responsibility	3.256	65.12	0.6140	5	3.5074	70.148	0.4731	4	3.3256	66.512	0.5875	5

Correlation:

Overall and Public Sector are in total agreement (1**); Practically no correlation between Private and Combined Sample (0.000**)

*Correlation is significant at the 0.01 level (2-tailed)

All the values are greater than the minimum requirements there by indicating that the instruments are considerably reliable, as far as their internal consistency is concerned.

across the items within a test. The instruments used in this research already have a proved validity, as they are the derivatives of valid instruments used by various researchers including Ahire et al (1996), and Sureshchandar et al (2003). Further, the data has been subjected to content, criterion and construct validity. In addition, item

validation has been performed using statistical procedure.

Item-wise 'reliability' using Covariance Matrix has been calculated for the instrument used in this research (table 3). The values of Alpha Cronbach value of above 0.6 is considered to be the criteria for demonstrating internal consistency of new scales and established scales respectively (Nunnally, 1988). All the values are greater than the minimum requirements there by indicating that the instruments are considerably reliable, as far as their internal consistency is concerned.

Table 3: Item-wise SERVPERF Performance Reliability using Covariance Matrix

	SERVQUAL Service quality Dimensions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
1.	Core service	13.915	4.3496	0.7510	0.8592
2.	Human element of service	13.998	4.2842	0.7832	0.8516
3.	Non human element of service	13.882	4.7833	0.6998	0.8722
4.	Tangible of service	13.855	4.1506	0.7008	0.8749
5.	Social responsibility	14.116	4.5345	0.7354	0.8633

Alpha Cronbach Reliability: 0.8913

Factor Analysis using Principal Component Analysis (PCA) method with Varimax Rotation through Kaiser Variation was used to generate factors. The results of the analysis indicating the percentage variance and Eigen Values are given in table 4. The required numbers of factors have been forced and only factor loadings above 0.4 were considered. The percentage variance extracted by the given number of factors in SERVPERF is 60.76. Thus, with a reasonable degree of confidence, it can be concluded that the instruments used

have measured what they were expected to measure.

Gap Analysis

The gap analysis based on ownership-wise classification of insurance sector was performed and the results are shown in figures 1 and 2. The salient features are:

- Equal gap exists among all the 5 dimensions in ownership-wise comparisons.

Table 4: Factor Analysis of SERVPERF Variables

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
15	.750				
12	.710				
14	.673				
22	.658				
11	.653				
13	.651				
10	.632				
17	.614				
24	.611				
16	.600				
21	.583				
23	.528				
06	.523				
35	.509				
19		.459			
09		.386			
02		.722			
08		.655			
01		.639			
03		.620			
18		.586			
07		.555			
20		.525			
40		.485			
38		.470			
29			.800		
32			.775		
30			.743	.348	
31			.718		
33	.453		.695		
12	.314		.640		
25	.348		.503		
27				.846	
28			.341	.778	
05		.464		.564	
26		.323	.380	.496	
38					.754
37					.745
36	.379	.423			.461
39		.316	.323		.396
Eigen values	40.693	7.109	4.705	4.233	4.020
% Variance	18.503	14.484	13.633	8.046	6.095

Extraction: Principal Component Analysis, Varimax Rotation, Converged in 13 iterations.

- Tangibles of services, Non-human element and Core services are most satisfying in private sectors.

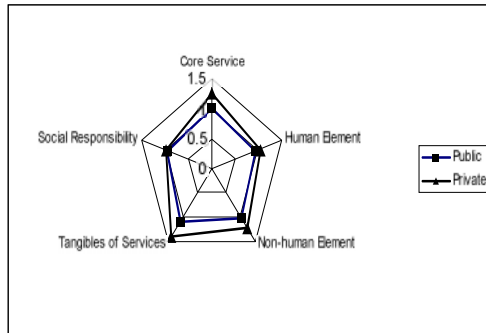


Fig. 1: Radar Diagram SERVPERF (Ownership-wise)

- Tangibles of service, Core service, and Non-human element are the most satisfying dimensions in Vadodara and Bombay.

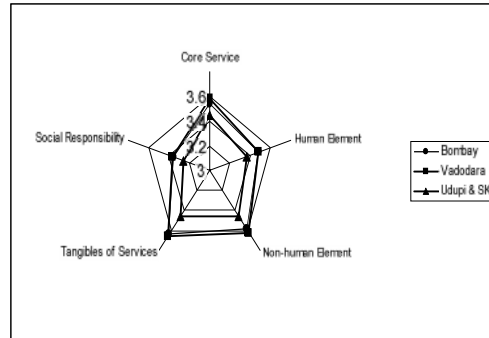


Fig. 2: Radar Diagram SERVPERF (Regionwise-wise)

- Gap exists in all 5 dimensions between Udupi & SK and the other two regions.

Hypothesis Testing

The perceptions of the customers on service quality, and also, the difference in perceptions with reference to the type

of ownership and region-wise operation are vital sources from which inferences could be drawn and suggestions made to enhance the service quality. Accordingly, two main hypotheses and ten sub-hypotheses have been tested in this research. The results of hypotheses and the t-test and ANOVA tables are given in tables 5-9.

Table 5: Descriptive Statistics – SERVPERF (Ownership-wise)

Hypothesis Number	Hypothesis	Result
H ₁	There is a significant difference in the perception of 'Service quality' (SERVPERF) of the Insured region-wise	Rejected Null Hypothesis
H ₂	There is a significant difference in the Perception of 'Service quality' (SERVPERF) of the Insured, based on 'type of ownership' (Private or Public)	Rejected Null Hypothesis

Table 6: ANOVA SUM of SERVPERF(Region-wise)

	Sum of Squares	df	Mean Square	F	Sig.
Dimension Between	12.347	2	6.174	15.690	0.000
Groups	1214.651	3087	0.393		
Within Groups	1226.998	3089			
Total					

Table7: ANOVA SUM of SERVPERF (Ownership-wise)

	Sum of Squares	df	Mean Square	F	Sig.
Dimension Between	101.368	1	101.368	278.087	0.000
Groups	1125.631	3088	0.365		
Within Groups	1226.998	3089			
Total					

Table 8: Sub-hypotheses Testing Result

Hypothesis Number	Hypothesis	Result
H ₁₋₁	There is a significant difference in the perception of Core service by the small scale industry insurance policy holders region-wise.	Failed to Reject Null Hypothesis
H ₁₋₂	There is a significant difference in the perception of Human element by the small scale industry insurance policy holders region-wise.	Failed to Reject Null Hypothesis
H ₁₋₃	There is a significant difference in the perception of Non human element by the small scale industry insurance policy holders region-wise.	Rejected Null Hypothesis
H ₁₋₄	There is a significant difference in the perception of Tangibles by the small scale industry insurance policy holders region-wise.	Rejected Null Hypothesis
H ₁₋₅	There is a significant difference in the perception of Social responsibility by the small scale industry insurance policy holders region-wise.	Failed to Reject Null Hypothesis
H ₂₋₁	There is a significant difference in the perception of Core service by the small scale industry insurance policy based on 'type of ownership'.	Null Hypothesis Rejected
H ₂₋₂	There is a significant difference in the perception of Human element by the small scale industry insurance policy holders based on 'type of ownership'.	Null Hypothesis Rejected
H ₂₋₃	There is a significant difference in the perception of Non human element by the small scale industry insurance policy holders based on 'type of ownership'.	Null Hypothesis Rejected
H ₂₋₄	There is a significant difference in the perception of Tangibles by the small scale industry insurance policy holders based on 'type of ownership'.	Null Hypothesis Rejected
H ₂₋₅	There is a significant difference in the perception of Social responsibility by the small scale industry insurance policy holders based on based on 'type of ownership'.	Null Hypothesis Rejected

Table 9: Dimension- wise ANOVA for Testing Sub- hypothesis

		Sum of Squares	df	Mean Square	F	Sig.
acvs	Between Groups	1.868	2	.934	2.365	0.95
	Within Groups	242.921	615	.395		
	Total					
avhe	Between Groups	2.025	2	1.013	2.572	0.77
	Within Groups	242.126	615	.394		
	Total	178.591	617			
avsr	Between Groups	1.438	2	.719	2.091	.124
	Within Groups	211.498	615	.344		
	Total	212.936	617			

Service quality standardization across the regions and type of ownerships is not practised by the Insurance sector.

There is a significant difference in perceptions of the insured based on region-wise and ownership-wise classifications of insurance companies. This is a clear indication that service quality standardization across the regions and type of ownerships is not practised by the Insurance sector. The following are the specific suggestions to standardize the quality of service across sectors.

- Automation and computerization, wherever possible, is the easiest way to standardize services across regions. Even though its cost effectiveness is questionable, for large volume of customers, it would surely be beneficial in the long run.
- Establishment of execution rules for sequence of service from policy marketing to claim settlement have to be made available and also a mechanism has to be generated to ensure that these rules are followed without fail. Customer feedback in this regard could be of immense help.
- On a regular basis Training and Development programs have to be conducted to the employees on topics such as: claims processing and handling, issues related to underwritings, marketing of products, risk assessment, E-insurance, etc.
- Zeithaml et al., (1990) emphasized on the operating procedures in order to ensure task standardization. The hypothesis testing undertaken in this research indicated the significant difference in perception of service quality across regions, thus

demanding task standardization. Training programs to familiarise all the concerned officials on the flow of data and information will have to be provided at all the concerned levels in all the branches to ensure conformity.

Conclusion

This paper has focussed on service quality in the Insurance sector. The research has yielded a metrics to evaluate the service quality in the Insurance sector. The metrics is validated and tested in an environment where several multi-national insurance companies are vying to capture the small scale industries General Insurance market. The research has revealed the pitfalls in the service quality such as giving more importance to 'Tangibles of service' and less importance to 'Core service'. This requires immediate consideration, as it is against the recommended practice of providing quality service. 'Social responsibility' is also a dimension which needs to be strengthened by the insurance providers.

The research has yielded results on the service quality enhancement program. The research findings are limited by the size of the sample and its restriction to one country in selecting the respondents. However, as several of the insurance providers are multi-national companies having their presence felt in several countries, the service provided by them is a reflection of the experience gained by them across the globe, and in

that sense, the findings may be generalized to a great extent.

References

- Ahire, S.L., Golhar, D.Y. & Waller, M.A. (1996), "Development and Validation of TQM Implementation Constructs", *Decision Sciences*, 27 (1): 23-56.
- Atmanand (2003), "Insurance and Disaster Management: the Indian Context," *Disaster Prevention and Management*, 12 (4), General Review, <http://www.Emeraldinsight.com/Insight/> Last accessed 14th July 2007.
- Axelsson, R., Susanna, B.A. & Lars, S. (2004), "Quality Management in Health Insurance: A Case of Third Party Benchmarking", *International Journal of Public Sector Management*, 17 (3): 264-74.
- Babakus, E. & Mangold, G.W. (1992), "Adapting the SERVQUAL Scale to Hospital Services: An Empirical Investigation", *Health Services Research*, 26 (6): 767-86.
- Crosby, P.B. (1979), *Quality is Free*, NY: McGraw-Hill.
- Paula Y.K. Kwan (1996) "Application of TQM in Education: Retrospect and Prospect", *International Journal of Educational Management*, 10 (5): 25-35.
- Curry, A. (1999), "Innovation in Public Service Management", *Managing Service Quality*, 9 (3): 180-90
- Deshpande, R. (1983), "Paradigms Lost: On Theory and Method in Research in Marketing", *Journal of Marketing*, 47 (Fall): 101-10.
- Duncan, E. Elliott (2002), "Customer Service Quality and Financial Performance among Australian Retail Financial Institutions" *Journal of Financial Services Marketing*, 7 (1): 25-41.

- Dutta, A. & Sridhar, V. (2002), "Modeling Growth of Cellular Services in India: A System Dynamics Approach" Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS'03), IEEE Computer Society.
- Gagliano, K.B. & Hathcote, J. (1994), "Customer Expectations and Perceptions of Service Quality in Apparel Retailing", *Journal of Services Marketing*, 8 (1): 60-9.
- Groesser, S. & Techn D. (2005), "Modeling the Health Insurance System of Germany: A System Dynamics Approach", System Dynamics Conference Proceedings, 2005.
- Jayawardhena, C. (2004), "Measurement of Service Quality in Internet Banking: The Development of an Instrument", *Journal of Marketing Management*, 20: 185-07.
- Keeling R (1993), "Latest Developments in Latent Defects Insurance," *Property Management*, 11 (3) (<http://www.Emeraldinsight.com/Last> accessed on 12th July, 2007)
- Klose, A.J. (1993), "Commentary: Customer Service Insurance", *Journal of Services Marketing*, 7 (1): 5.
- Mintzberg, H. (1979), "An Emerging Strategy of Direct Research", *Administrative Science Quarterly*, 24 (Dec): 582-89.
- Nwankwo, S. & Richardson, B. (1994), "Measuring and Achieving Quality Customer Service in the Public Sector", *Managing Service Quality*, 14 (6): 32-36.
- Oliva, R. (2001), "Cutting Corners and Working Overtime: Quality Erosion in the Service Industry", *Management Science*, 47 (7).
- Parasuraman, A., Zeithaml, V. & Berry L. L. (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research", *Journal of Marketing*, 49 (Fall): 41-50.
- Parasuraman, A., Zeithaml, V. & Berry, L.L. (1988), "SERVQUAL: a Multiple Item Scale for Measuring Consumer Perceptions of Quality", *Journal of Retailing*, 64 (1): 12-40.
- Reeves, T.K. & Woodward, J. (1970), "The Study of Managerial Control," in *Industrial Organisations: Behaviour and Control*, J Woodward, ed. London: Oxford University Press.
- Rodrigues, L.L.R. (2005), "Service Quality Measurement in Engineering Institutions: Empirical Study and QFD Based Implications", National Seminar on Quality in Service Sector and Managerial Challenges, Organized by Manipal Institute of Management, 21-22, May, Manipal.
- Rosander, A.C. (1985.), "Application of Quality Control in the Service Industry", ASQC Quality Press.
- Sahney, S., Banwet, D.K. & Karunes, S. (2004), "A SERVQUAL and QFD Approach to Total Quality Education A Student Perspective", *International Journal of Productivity and Performance Management*, 53 (2): 143-166.
- Sekhon, H. & Kennington, C. (2001), "Buyer Seller Relationships in the UK Insurance Market: Is the Key Competitive Advantage?", *Journal of Financial Services Marketing*, 5(3): 207-14.
- South A. (1990), "Completion Risk Insurance", *Journal of Property Finance*, 1, (2), (<http://www.Emeraldinsight.com/Insight/>)
- Sureshchandar, G.S., Rajendran, C., & Anantharaman, R.N. (2001), "The Relationship between Service Quality and Customer Satisfaction-a Factor Specific Approach", *Journal of Services Marketing*, 16 (4): 363-79
- Sureshchandar, G.S., Rajendran, C., Anantharaman R.N., & Kamalanabhan, T.J. (2002), "Management's Perception of Total Quality Service in the Banking Sector of a Developing Economy - a Critical Analysis", *International Journal of Bank Marketing*, 20 (4): 181-96

- Sureshchandar, G.S., Rajendran, C., & Anantharaman, R.N. (2003), "Customer Perception of Service Quality in the Banking Sector of a Developing Economy :a Critical Analysis", *International Journal of Bank Marketing*, 21 (5): 233-42
- Woodward, J. (1965), *Industrial Organization: Theory and Practice*, Oxford University Press.
- Zaltman, G., LeMasters, K. Heffring, M. (1982), *Theory Construction in Marketing: Some Thought on Thinking*, Wiley, New York.
- Zeithaml, V. A. (1981), "How Consumer Evaluation Processes Differ Between Goods and Services", in J.H. Donnelly & W. R. George (Ed.), *Marketing of Services*, Chicago: American Marketing Association, 186-190.
- Zeithaml, V.A., Parasuraman, A. Berry, L.L. (1990), *Developing Quality Service—Balancing Customer Perceptions and Expectations*, Free Press, New York.