# The Effects of Service Quality on Customer Satisfaction in Case of Dissatisfied Customers

Byung-Suh Kang<sup>1</sup>, Chul-Ho Cho<sup>2†</sup>, and Jong-Deuk Baek<sup>3</sup>

1.2 The College of Business Administration, Kyung Hee University, Seoul, Korea E-mails: 1bskang@khu.ac.kr, 2rocho@unitel.co.kr

<sup>3</sup> The College of Business Administration, University of South Carolina, Columbia, SC, U.S.A. E-mail: bi98125@kebi.com

#### **Abstract**

In this study, we investigated the effects of service quality on customer satisfaction in education service industry, focusing on the opinion of dissatisfied customers who have decided to switch the service provider. Additionally, in professional service industries such as law, hospital, and education, customers expect visible results which are often ignored in earlier service quality studies. Customer's comprehensive assessment of the professional service depends on both process quality experienced during service delivery and service result perceived after service delivery. The hypotheses on the causal relationships among service quality, customer satisfaction, intention to switch service provider, and service performance were tested by using Structural Equation Model.

Key Words: Service Quality, Customer Satisfaction, Dissatisfied Customers

#### 1. Introduction

Corporate value is determined by adding up all its customer value (Wayland and Cole, 1997), which is derived from relationship between organization and customer. Therefore, corporate value comes from customer relationship and the size of its value is varying by depth and width of the relationships. Today's advanced information technologies, which make it possible to manage customer relationship on the personal level (personalized services), lead corporate to make the relationship more effective than ever (Zeithaml and Binter, 1998).

However, it is difficult to provide satisfactory quality service for customer because the value is invisible. Customer value is defined as the ratio of benefits over costs which are evaluated by customer. And each customer recognizes the value of services differently based

<sup>†</sup>Corresponding Author

on his/her own experience and knowledge. According to Heskett et al. (1997), the value of goods and services perceived by customers is equivalent to the result created for them as well as the quality of the process used to deliver the results. For example, good body condition after treatment plays a critical role in evaluating medical services. Moreover, results significantly influence on the customer perception for satisfaction in the professional service industry such as law, hospital and education. Therefore, customer perception of results as well as process quality must be considered to assess service quality comprehensively.

Many companies still feel difficult in offering quality service in that services are mainly delivered through human interaction between customer and service employee. Results with a big deviation from customer expectation cause various negative reactions such as quitting future purchasing and negative Word Of Mouth (WOM). According to Reichheld and Sasser (1992), 15~20 percent of customers who experienced service failures would stop their repurchasing on the average. Moreover, these people have much willingness to spread their bad service experience to neighbors. Such negative WOM would destruct company's customer relationship.

On the other hand, service failure can provide opportunities for management to attain effectiveness and flexibility through innovating recovery activities. Service employees can also play an innovative role in improving service delivery system by suggesting better policy and procedure or innovating a new way of service delivery (Fitzsimmons and Fitzsimmons, 1998). Therefore, managing customer complaints and developing effective service recovery strategies would lead company to retain more customers, prevent negative WOM, and improve service performances simultaneously (Stephen et al., 1998). Satisfaction of dissatisfied customers through service recovery can make them stronger loyal group than common customer group.

In this study, we empirically investigated the effects of service quality on customer dissatisfaction through structural equation model. It would be more difficult to get correct opinion about service from satisfied customers than from dissatisfied ones. Thus, this study was conducted on the basis of the opinions of dissatisfied customers who decided to quit their repurchase or shift service provider in education industry. A research framework was developed to illustrate casual effects between service quality dimensions and service performances by operating the level of dissatisfaction and the intention of quitting repurchase. The research model included casual relationships among service quality, customer dissatisfaction, intention to switch purchase, and service performance such as WOM and company image. For this empirical study, data were collected from customers of a private education service company.

## 2. Theoretical Background and Research Hypotheses

Private education service market has been highly competitive in Korea because of market

saturation. And harsh economic condition forced parents to change buying pattern from big institutional to private education services. Customers, parents and children, want more personalized service owing to high compassion and interest in education.

In private education service, a tutor visits customer's home to deliver the service. Since the learning ability of student is various from students, education service is highly personalized. According to Schmenner's classification of service (1986), services such as educational, medical service and law services are classified as professional service, which is characterized by both high labor intensive and high interaction between customer and service employee. Moreover, in such professional services, customers have specific purchase objectives and the degree to which such objectives are achieved influence on the comprehensive assessment of service quality.

#### 2.1 Service Quality

A review of literature on service quality highlights the important dimensions of quality. Parasuraman, Berry and Zeithaml (1988) define service quality as the gap between expectations and perception of service quality (SERVQUAL), and indicated five service quality dimensions. American Customer Satisfaction Index (Fornell et al., 1996) also defines service quality as the degree to which a product or service provides customer requirements (customization) and how these requirements are met (reliability). However, such definitions of service quality primarily focus on service delivery process only.

In service, customers buy results as well as delivery process. Service results include both physical and mental change of state of customers after service delivery. If results do not fulfill customer's requirements to a certain acceptable degree, he/she perceives that delivered services are poor regardless of favorable delivery process. Consequently, such perception deteriorates the service value. Therefore, results are positively related with perception of service quality and customer value. According to Heskett et al. (1997), customer quality value is determined by both service quality and results in their customer value equation.

Letinen and Letinen (1982) proposed three views of service quality; interaction, physical, and corporate quality. From the customer's perspective, they defined quality as two dimensions at a higher level of perceived service quality: process quality and output quality. According to the Albert et al. (2000), such definition of service quality is similar to that of Gröroos (1984). Gröroos emphasized two main dimension of service quality in his model; one is technical quality or what customer receives and another is functional quality or how a service is provided.

In this study, we assumed that the result quality has strong relationships with the extent that customer's purchase objectives are achieved. And the result quality is one of the important factors of service quality. Therefore, service quality has two dimensions composed of process quality and result quality. In professional service, customer wants specific result such as improvements of creativity and productivity. The value of educational service is perceived when result is achieved with favorable process quality. In order words, parents and children want both process quality and result quality.

But research on the relationship between process quality and result quality is very few. To deliver new service, company must know customers' needs that play critical role in the result. And then company needs to design the proper tutoring procedures and materials for the effective service delivery. Some earlier research assumes result will be fulfilled if service is delivered by pre-designed process. However, such an assumption often fails to explain reasons why people leave. In general, process quality is assessed during the whole period of service delivery and result quality is assessed when service delivery is finished. Thus, we put hypothesis on the relationship between process quality and result quality as follows:

H1: Process quality will be positively related to result quality.

H1-1: Procedures quality will be positively related to result quality.

H1-2: Materials quality will be positively related to result quality.

#### 2.2 Service Quality and Customer Satisfaction

Many researchers strongly support casual relationship between service quality and customer satisfaction (Cronin and Taylor, 1992, 1994; Oliver, 1993; Reidenbach et al., 1990; Woodside et al., 1989). Service quality is considered as the antecedents to customer satisfaction. According to the Cronin and Taylor (1992), service quality appears to be only factors contributing to the customer satisfaction judgments. Spreng and Mocoy (1996) also provide supports for service quality as an antecedent to satisfaction.

However, only perception of service process was considered. As indicated earlier part of this study, we defined service quality both process quality and result quality. Process quality includes all customer experience during Moment Of Truth (MOT) and result quality means the extent to which customer condition changed after service delivery.

In short, service results that fulfill most of customer requirements influences on customer satisfaction by reinforcing comprehensive assessment of service quality. In education service, student's improvement of capabilities on solving problems would increase customer satisfaction. Thus, we put hypothesis on the relationship between service qualities as follows:

H2-1: Process quality will be positively related to customer satisfaction.

H2-1-1: Procedure quality will be positively related to customer satisfaction.

H2-2-2: Materials quality will be positively related to customer satisfaction.

H2-2: Result quality will be positively related to customer satisfaction.

## 2.3 Relationship between Customer Satisfaction and Intention to Switch Service Provider

Many studies indicate that purchasing experience gives influence on the attitude of customers and on the repurchase intention of future (Olson and Dover, 1976; Fishbein and Ajzen, 1975). And service literatures (Binter, 1990; Boulding et al., 1993; Cronin and Taylor, 1992) that examined behavioral intention variable suggested that satisfaction and service quality be related to customers' switching behaviors. Satisfactory experiences reinforce service royalty on the service. However, experiences of dissatisfaction devastate the company image and also results in negative WOM as well as immediate drops of profit. Therefore, poor service experiences would make customers move to competitors.

John and Sasser (1995) classified customers into four sub-groups by the level of their satisfaction: Apostles, Mercenaries, Hostages and Terrorist. "Apostles" are those who are not only royal customers but also are so satisfied that positively recommend the service to others. "Mercenaries" are those who switch service providers to obtain a low price. "Hostages" are highly dissatisfied but have few or no alternatives. "Terrorist" has alternatives and switches their supplier, expressing their dissatisfaction with previous service suppliers. All customers except the "Apostles" have higher probability to switch service provider without second thought when they are facing dissatisfactory service experiences.

Satisfaction of perceived service quality that is assessed by comparing expectation to actual performance perception affects royalty (Binter, 1990). And the rate of repurchase is also increasing as the level of satisfaction increases. Reversely, switching service providers increases when satisfaction level drop below critical level. Therefore, we put hypothesis on the relationship between customer satisfaction and intention to switch as follows:

H3: Customer dissatisfaction gives negative influence on the intention to switch service provider.

## 2.4 The Relationship between Intention to Switch Service Provider and Negative Performance

Generally, highly satisfied customers believe that they buy a service that consistent with their preference or needs. In other word, they believed that they get exactly what they want and need want to get. Therefore, royal customers play pivotal role in assuring company's future performance. However, no every satisfied customer becomes and customer satisfaction doesn't increase with linearity. Thus, there is a point where customer satisfaction increases abruptly (4 out 5-point scale). Based on such pattern, John and Sasser (1995) concluded that all customers except royal customers are likely to switch their service provider.

Customers' switching behavior gives direct influence on company's performance by dropping profits. Moreover, negative WOM, although it is indirect, profoundly impairs company's

service value and image, permeating fast and widely to potential customers. Customers are likely to think WOM more reliable than other communication channels, in that WOM are based on their neighbors' real experiences. Based on indicated theories, we put hypothesis on the relationship between intention to switch service provider and performance as follows;

- H4-1: Intention to switch service provider will be positively related to intention of negative WOM.
- H4-2: Intention to switch service provider will be positively related to company's negative image.

Based on the hypotheses developed in the above, the research model is constructed as in Figure 1.

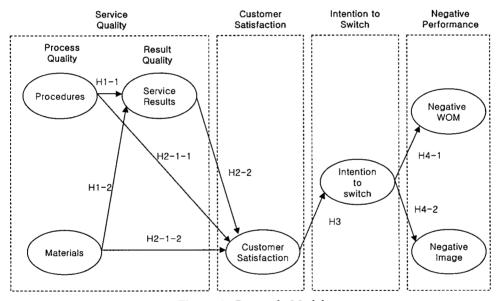


Figure 1. Research Model

### 3. Research Methodology

#### 3.1 Constructs and Measurement.

#### 3.1.1 Service Quality

Service quality can be measured by customer's comprehensive recognition after service delivery because service is experienced and assessed during service. From this perspective, service quality can be measured through Service Package that is composed of supporting facility, facilitating goods, explicit services, and implicit services (Fitzsimmons and Fitzsimmons, 1998). In many studies, service quality is composed of different constructs, depending on the generic characteristics of industry by nature.

In this study, we employed Service Package in defining service quality constructs because we focused on the private education service industry where "Materials" is prerequisite to deliver the service. In the private education service, tutor delivers explicit education service with tutoring materials within service delivery system designed by service provider. We put components of both service delivery procedure and tutor into one construct, "Procedures" because they are highly interrelated. And "Service Result" is defined as perception of effectiveness of education in this study.

In summary, process quality was defined as both Procedures and Materials constructs. For measurement, we developed 5 items for Materials construct and 12 items (6 items about delivery system and 6 items about tutor) for Procedures construct and 8 items for Service Result construct. All items for service quality are measured by the Likert 5-point scale.

#### 3.1.2 Customer Satisfaction

Customer satisfaction can be measured by one comprehensive item (Cronin and Taylor, 1992; and Oliver, 1993) or plural items. Focusing on opinions of customers who decided to switch their service providers, we included two items for customer dissatisfaction with each one for process and result, respectively. The Likert 5-point scale was employed.

#### 3.1.3 Intention to Switch Service Provider and Negative Performance

In general, unsatisfied customers complain about products or experiences and show their unfavorable attitudes that negatively influence on business performance. For correct measurement, we used "Intention to Repurchase" for a surrogate of "Intention to Switch." Because respondents decided to quit their repurchase, we believe responses would be biased if we asked them directly "how much do you have an intention to switch service provider?" Therefore, we questioned "Will you continue to repurchase the service if your complaint will be corrected quickly and satisfactorily?" and reverse the score to get data for intention to switch. In summary, one item was used for intention to switch service provider with 5-point Likert type scale.

Negative performances, which result from switching provider, were measured through negative WOM and negative company image. What gives more serious effects on service performance is negative WOM as WOM spreads to many people very quickly (Zeithaml and Binter, 1996). Four items for negative WOM and five items for negative company image were developed and measured by 5-point Likert type scale.

#### 3.2 Framing Questionnaire and Date Collection

We surveyed on customers in private education industry. In Korea, more than about 200

companies of various sizes are competing in the private education service industry and market place is very restricted. According to market share and popular preference of learners, one major company was selected from this study.

In order to find measurement items and significant main factors, we implemented a pilot test through FGI (focus group interview) with 50 students and 10 consultants of companies. During the pilot study, education service delivery system was carefully analyzed and the initial questionnaire was made for test. To eliminate possible defects and improve validity, we carefully implemented pretest with it in the field. After several times of modification, we finally developed suitable survey questionnaire for the research.

And data were collected from customers who informed that they would switch their service provider or quit buying the service in the whole country. We explained about the purpose of the survey by telephone and got approval of surveying and mailed questionnaire to customers. 513 out of 720 questionnaires were gathered and analysis was based on 291 responses after eliminating 222 responses because these responses were not fully answered or seem to be suspicious in reliability. Therefore, actual response rate was 40 percent. To analyze data collected in this study, we used SPSS11.5 and AMOS4.0 as analysis tool.

### 4. Data Analysis and Hypothesis Test Results

#### 4.1 Unidimensionality

#### 4.1.1 Exploratory Factor Analysis and Reliability Analysis

We started from exploratory factor analysis because there are few studies on the education service quality of education service. This is one of reason we spent lots of time in pilot study. Exploratory factor analysis was implemented with oblique rotation that can identify the extent to which each of factors is correlated. After exploratory factor analysis, several variables, which seem to violate validity, were deleted. The factor of "Intention to switch" was excluded in this analysis since this variable was composed only 1-item. Seven out of Procedures variables, one out of Materials variables, three out of Result Quality variables, and one out of Negative Image variables were deleted for unidimensionality. The results of exploratory factor analysis and reliability (chronbach  $\alpha$ ) are summarized in Table 1. And now that six factors were extracted and the variables for each factor were exactly the same as we assumed. These six factors explained 58% out of total variance and loadings for each factor were above 0.30, satisfying recommended level (Hair et al., 1995). Additionally, the value of chronbach alpha for assessing reliability of factors was above 0.70 (Nunnally, 1978). All constructs included in our framework have acceptable validity and reliability.

Dimension Construct		No. of initial variables	No. of variables after factor analysis	Cronbach α	
Process Quality	Procedures	12	5	0.8231	
	Materials	5	4	0.7286	
Result Quality	Service Result	8	5	0.8299	
Customer Satisfaction		2	2	0.7387	
Negative WOM		4	4	0.9244	
Negative Image		5	4	0.7613	

Table 1. Exploratory factor analysis and Reliability

#### 4.1.2 Confirmatory Factor Analysis

In order to assure validity of constructs, we implemented Confirmatory Factor Analysis (CFA), using AMOS package. In confirmatory factor analysis, researcher can take control over the specification of indicators for each factor by hypothesizing that a specific factor is loaded with the relevant indicators. Moreover, Confirmatory Factor Analysis is particularly useful in the validation of scale for the measurement of specific construct (Hair et, al., 1995). Because there is no single statistical test that best describes the strength of model's prediction, we used multi-criteria to evaluate the results of Confirmatory Factor Analysis:  $GFI(\geq 0.9)$ ,  $AGFI(\geq 0.9)$ ,  $RMSR(\leq 0.05)$ ,  $NFI(\geq 0.9)$ ,  $CFI(\geq 0.9)$ , and  $\chi^2$ , p-value( $\geq 0.05$ ). CFA result summarized at Table 2 shows that the fit indices of all constructs except "Negative WOM" fulfill the recommended level and that loadings are significant. In case of "Negative WOM." although some indices such as  $\chi^2$ , p-value and AGFI are not acceptable, the other fit indices surpass the recommended criteria. When judging from multi-criteria, the fitness of the construct, "Negative WOM," is marginally acceptable.

**AGFI RMSR**  $\chi^2$ Dimension Construct no. **GFI NFI CFI** p d.f 0.968 5 0.989 0.014 0.979 Procedures 0.992 7.942 5 0.159 **Process Quality** Materials 4 0.993 0.967 0.013 0.984 0.992 3.966 0.138 2 0.991 Result Quality Service Result 5 0.933 0.983 0.0081.000 0.493 5 4.406 Negative WOM 4 0.970 2 0.849 0.012 0.978 0.980 20.059 0.000 0.998 0.992 0.004 0.996 Negative Image 1.000 0.974 0.615 2

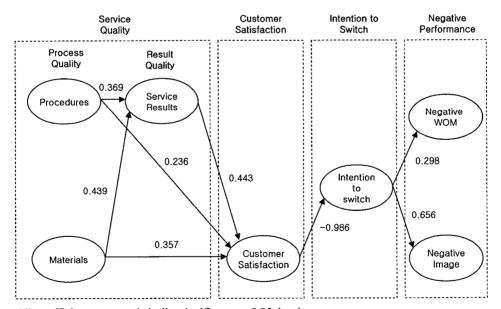
Table 2. Confirmatory Factor Analysis

Additionally, we analyzed Measurement Model to confirm the construct validity from the point of a comprehensive view. In Measurement Model, researchers can specify the indicators for each construct and assess the reliability of each construct for estimating the causal relationship (Hair et al., 1995). The results of Measurement Model indicated sufficient evidence for GFI, CFI, and RMSR, showing marginal supports for AGFI and NFI ( $\chi^2$  =

368.684, df = 255, p = 0.00, GFI = 0.908, AGFI = 0.883, NFI = 0.891, CFI = 0.963, RMR = 0.022). Loadings for proposed construct were all statistically significant at the 0.05 significance level. Therefore, all constructs have construct validity. In addition, both Composite Reliability and Variance Extracted of each construct were computed for assessing reliability of the Measurement Model. Values of the Composite Reliability were above 0.70, a commonly used threshold value, and Values of Variance Extracted also were above 0.50, a suggested guideline.

#### 4.1.3 Hypothesis Test

To test causal relationship between constructs in the research model, we used Amos 4.0 that provides a graphic module as a method for analyzing Structural Equation Modeling. Goodness-of-fit indices were as follow:  $\chi^2 = 401.197$ , df = 267, p = 0.000, GFI = 0.901, AGFI = 0.880, NFI = 0.882 CFI = 0.957, RMSR = 0.025. Indices such as GFI, CFI and RMSR have acceptable values surpassing common threshold and AGFI and NFI are marginally acceptable. Moreover, sample size (n = 291) exceeds the recommended sample size (n = 200, Hotler, 1983). Therefore, overall assessment of model fit indices provides sufficient supports that the research model is acceptable. Figure 2 shows coefficients of causal relationship between constructs.



Note: All coefficients are statistically significant at 0.05 levels.

Figure 2. Hypothesis Result

The causal relationship between Process Quality and Results Quality (H1) was statistically

significant Both coefficient ( $\beta$  = 0.369) from "Procedures" to "Service Results" and coefficient ( $\beta$  = 0.439) from "Materials" to "Service Results" were all statistically significant. Hence, H1 that process quality gives significant influence on result quality was accepted.

Hypothesis 2, which assumes the casual relationship between Service Quality and Customer Satisfaction, was also supported. Both coefficient( $\beta$  = 0.236, t = 2.949) from "Procedures" to "Customer Satisfaction" and coefficient( $\beta$  = 0.357, t = 3.881) from "Materials" to "Customer Satisfaction" were statistically significant. And casual relationship between "Service Result" and "Customer Satisfaction" was also meaningful( $\beta$  = 0.443, t = 4.944). Hence, both process quality and result quality effect positively on Customer Satisfaction. Thus, H2-1 and H2-2 were all supported.

Highly satisfied customers would like to have little intention to quit repurchase or switch service provider ( $\beta = -0.986$ , t = -8.213). Thus, Hypothesis 3 was supported. Highly satisfied customers are likely to be a royal customer and this result is coincident with the results of earlier research (John and Sasser, 1995; Heskett, 1997).

Finally, the effects of "Intention to Switch" on both "Negative WOM" and "Negative Image" were found significant with  $\beta = 0.298(t = 4.186)$  and  $\beta = 0.656(t = 6.109)$ , respectively. Customers who have higher intention to switch the company are more likely to have negative experiences by "Negative WOM." and negative perception about the company image. Table 3 shows coefficients and test result of causal relationship between constructs.

Hypothesis	Path	Std. path coefficient	t-value	Test result
H1-1	Procedures → Service Result	0.369	3.998	adoption
H1-2	Materials → Service Result	0.439	4.865	adoption
H2-1-1	Procedures → Customer Satisfaction	0.236	0.949	adoption
H2-1-2	Materials → Customer Satisfaction	0.357	3.881	adoption
H2-2	Service Result → Customer Satisfaction	0.443	4.944	adoption
Н3	Customer Satisfaction → Intention to Switch	-0.986	-8.213	adoption
H4-1	Intention to Switch → Negative WOM	0.298	4.186	adoption
H4-2	Intention to Switch → Negative Image	0.656	6.109	adoption

Table 3. Hypothesis Analysis Result

#### 5. Conclusions and Limitations

In this study, we developed hypotheses on the relationships among Service Quality, Consumer Dissatisfaction, Intention to switch, and Negative Performance, and tested them through SEM to find their significance in all hypotheses. In the other previous studies, the Service Quality dimension was constructed with focusing only service delivery process, ig-

noring its result. But, we introduced Result Quality into the Service Quality dimension. The research framework gives several managerial implications.

Firstly, we confirmed that Service Quality includes Process Quality and Result Quality and that the significant effects of Process Quality on Result Quality. Result Quality denotes the degree to which customer's objectives achieved as a result of education service delivery. Therefore, a company has to consider how do help customers to achieve their objectives when designing its service quality.

Secondly, this study gives implication about importance of customer retention management. Intention to switch strongly influences on Negative WOM and Negative Image. Dissatisfied customers have much willingness to spread their bad experience to neighbors. Thus, negative WOM will deteriorate potential customer basement, influencing company's future success and performance. Service company needs to develop capabilities to effectively manage customer relationship by focusing on the service delivery process and the result. And effective recovery strategy is also necessary for retaining customers.

This study provides useful basis for service quality of private education service industry in Korea. However, it also has limitations that this study had been implemented in specific type of industry of professional service. Therefore, it is limited to generalize our results into whole professional service industry. For such generalization needs more supplementary research for other professional services such as law and hospital. To tell an additional limitation, this study was implemented with customers with the intention of switching or quitting a service on a specific company and performance level of this group and was low. Therefore reliability of some response may be distorted. Future research should be implemented in consideration of this limitation.

#### References

- 1. Binter, M. J.(1990), "Evaluating Service Encounters: The effects of Physical Surroundings and Employee Responses," *Journal of Marketing*, Vol. 54, No. 2, pp. 69-82.
- Boulding, W., Kalra, A., Staelin, R., and Zeithaml, V. A.(1993), "A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions," *Journal of Marketing Research*, Vol. 30(February), pp. 7-27.
- 3. Cronin, J. J., Jr. and Taylor, S. A.(1992), "Measuring Service Quality: A Reexamination and Extension," *Journal of Marketing*, Vol. 5, pp. 55-68.
- 4. Fishbien, M. and Ajzen, I.(1975), Belief, Attitude, Intention and Behavior. Reading, Massachusetts, Addison-Wesley.
- 5. Fitzsimmons, J. and Fitzsimmons, M. J.(1998), Service Management, McGraw-Hill.
- 6. 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(October), pp. 7-18.
- 7. Gronroos, C.(1984), "A Service Quality: The Six Criteria of Good Perceived Service Quality," *Review of Business*, Vol. 9(Winter), pp. 10-13.
- 8. Hair, J. F., Anderson, R. E., Tatham, R. L., and Black, W. C.(1995), *Multivariate Data Analysis With Reading*, Prentice Hall.
- 9. Heskett, J. L., Sasser Jr. W. E., and Schlesinger, L. A.(1997), *The Service Profit Chain*, The Free Press.
- 10. Hoetler, J. W.(1983), "The Analysis of Covariance Structures: Goodness-of-Fit Indices," Sociological Methods and Research, Vol. 11, pp. 325-344.
- 11. Johnes, T. O. and Sasser, Jr. E.(1995), "Why Satisfied Customer Defect," *Harvard Business Review*, Nov-Dec, pp. 88-99.
- 12. Lehtinen, U. and Lehtinen, J. R.(1982), "Service quality a study of dimensions," unpublished working paper, Service Management Institute, Helsinki, pp. 439-60.
- 13. Nunnally, J. C.(1978), Psychometric Theory, 2nd ed., McGraw-Hill, New York, NY.
- 14. Oliver, R. L.(1993), "Cognitive, affective and attribute bases of the satisfaction response," *Journal of Marketing Research*, Vol. 20(December).
- 15. Olson, J. C. and Dover, P.(1976), "Effects of Expectation creation and Disconfirmation on Belief Elements of Cognitive Structure," in Advances in Consumer Research, Vol. 3.
- Reidenbach, R. E. and Sandifer-Smallwood, B.(1990), "Exploring Perceptions Hospital Operations by a Modified SERVQUAL Approach," *Journal of Health Care Marketing*, Vol. 10, pp. 47-55.
- 17. Reichheld, F. F. and Sasser, Jr. W. E.(1990), "Zero Defection: Quality Comes to Service," *Harvard Business Review*, Vol. 68, pp. 105-111.
- 18. Spreng, R. A. and Mackoy, R. D.(1996), "An Empirical Examination of a Model of Perceived Service Quality and Satisfaction," *Journal of Retailing*, Vol. 59, pp. 201-214.
- 19. Stephen, S. T., Stephen, W. B., and Murali, C.(1998), "Consumer Evaluation of Service Complaint Experiences: Implications for Relationship Marketing," Vol. 62, No. 2, pp. 60-76.
- 20. Schmenner, R. W.(1986), "How Can Service Business Survive and Prosper?" Sloan Management Review, Vol. 27, No. 3(spring), pp. 21-32.
- 21. Wayland, R. E. and Cole, P. M.(1997), Consumer Connections: New Strategies for Growth, Harvard Business Press.
- 22. Woodside, A. G., Frey, L. L., and Daly, R. T.(1989), "Linking Service Quality, Customer Satisfaction, and Behavioral Intention," *Journal of Health Care Marketing*, Vol. 9, pp. 5-17.
- 23. Zeithaml, V. A., Berry, L. L., and Parasuraman, A.(1988), "Communication and Control Process in the Delivery of Service Quality," *Journal of Marketing*, Vol. 52, pp. 35-48.
- 24. Zeithaml, V. A. and Binter, M. J.(1996), Service Marketing, McGraw-Hill.