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Customer Satisfaction and Service Quality in High-Contact Service Firm

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By taking attribute-based measures of service quality, this study establishes clear linkages between customer satisfaction (students) and quality (perception of their experience in the practicum program of the university). The results of this study clearly indicate that student satisfaction is more directly related to functional quality or process of service delivery. The delivery of service through implementation of clear policies and procedures contributed significantly to student satisfaction. The study recommends appropriate internal measures of efficiency and employee compensation as a means to ensure quality and customer satisfaction, and, as a whole, recommends a service marketing system for a high-contact type of service firm such as universities.

Keywords: Customer satisfaction, service quality, attribute-based measures, factor analysis

INTRODUCTION

According to Oliver (1997), there is a clear distinction between quality and satisfaction. "Satisfaction is an immediate response to consumption, while quality exists prior to and subsequent to consumption as an enduring signal of product or service excellence" (Oliver, 1997, p. 188). Despite the clear differences between quality and satisfaction, their relationship remains complex.

In this study, the researcher assumed that quality is an antecedent of satisfaction since it can be expected that after an objective comparison between expectations and perceptions resulting in a quality evaluation, this comparison is subjectively interpreted by customers, which then leads to satisfaction or dissatisfaction (de Ruyter, Bloemer, & Peeters, 1997).

According to Lovelock (1996), services that interact with people's minds have the power to shape attitudes and influence behavior. Thus, when customers are in a position of dependency or there is potential for manipulation, then strong ethical standards and careful oversights are required.

Receiving such services requires an investment of time on the customer's part. Entertainment, teaching sessions, and religious services are often delivered face to face, with customers, among many others, physically present in the same facility. If customers need to be physically present during service delivery, then they must enter the relevant service factory and spend time there while the service is performed. In many instances, they will be expected to become active participants in the creation and delivery of the service. Customer satisfaction will be influenced by such factors as: (1) encounters with service personnel; (2) appearance and features of service facilities; (3) interactions with self-service equipment; and (4) characteristics and behavior of other customers.

Frontline employees not only deliver the goods in service organizations, they are the goods

themselves. Service quality sounds good, but how does an organization achieve this, especially in the intangible service business?

This study is structured as follows: First, an overview of attribute-based measurements is provided as a measure of service quality. Subsequently, a brief discussion of satisfaction as a consequence of service quality is given, followed by an explanation and visualization of the conceptual model. After the theoretical portion, a report on the results of an empirical study of quality and satisfaction in a university setting is given. The study concludes with a discussion of the results and a number of managerial implications and recommendations.

Attribute-based Service Quality

This study focuses on the evaluation of service quality using attribute-based measurements. Attribute-based measurement refers to the general level of quality that customers consider when evaluating a service activity. In doing so, customers evaluate more than just the general result of the service that they experience. They also take into account the process through which the service is provided and various other aspects, also called attributes or dimensions, of the service (Oliver, 1997). Parasuraman, Zeithaml, and Berry (1988) differentiate between five general dimensions of service quality in consumer markets: (1) reliability, (2) responsiveness, (3) assurance, (4) empathy, and (5) tangibles. The overall evaluation of these five service dimensions results in a general (i.e. aggregated) quality judgment for the service as a whole. The most commonly used tool for measuring attribute-based service quality is the SERVQUAL instrument developed by Parasuraman et al. (1988) and Parasuraman, Berry, and Zeithaml (1991), which incorporates each of the five dimensions and measures customers' general attitudes towards these dimensions.

Service Quality and Satisfaction

The goal of service quality is very simple: customer satisfaction. Service quality focuses on satisfying customers' needs in the hundred little "moments of truth" or service encounters/experiences that make up the customers' perception of the firm. Customers generalize about the entire organization based on one moment of truth. The underlying assumption is that customer perceptions of service encounters are important elements of customer satisfaction, perception of quality, and long-term loyalty. Satisfying these moments of truth, one at a time, results in customers coming back. Customer retention is at the heart of profitable companies.

Continuous improvement efforts in an organization must be anchored on customer needs and satisfaction. It is a common mistake to focus continuous improvement on what managers and employees assume to be important to customers.

The link between service quality and satisfaction should be given attention to elaborate on the added value of a combined approach for measuring service quality. Satisfaction can be described as a customer's cognitive and affective evaluation of a product or service, which is being delivered to him/her by a specific provider (Oliver, 1997). The issue of the sequential order of quality and satisfaction in services has caused considerable debate in the literature (de Ruyter et al., 1997).

In order to determine the sequence of these two constructs, it is useful to focus on their similarities and their differences first. Oliver (1997) discusses differences between quality and satisfaction, which are based on six fundamental levels: (1) whether experience with the service is required; (2) which dimensions consumers use to form judgements; (3) the nature of the standards used; (4) the degree of cognitive and affective content; (5) the existence of other conceptual antecedents; (6) the primary temporal focus.

Customer Focus and Satisfaction Measures

Customer focus and satisfaction measures assess whether service or quality meets expectations. The formula for service quality is: Results – Expectations = Service Quality. Customers' perception of service quality is directly related to their experiences relative to expectations.

Customer focus and satisfaction measures are quite varied. They include both soft and hard measures. Soft measures center on customer

perception. What people say and what they do may be different. Soft measures help you understand what customers think of your service or product relative to your competition. Hard measures keep you informed about what they are actually buying. Soft measures for customer satisfaction include surveys, focus groups or interviews, and observation. Hard measures include customer retention levels, market share, number of referrals from other customers, and revenue.

Customer satisfaction surveys are written or telephone measures that determine level of satisfaction with various facets of the product or service. Surveys are one of the most often used quality tools, especially for service companies where the relationship with the customer is vital.

A customer needs assessment tells which specific needs are or are not fulfilled by the company's product or service. Customer needs cannot be easily assessed by written surveys as most people don't like to write. Likewise, customers don't spend their waking hours thinking about the nuances of the company's service or product. Most have a hard time articulating their specific needs. A trained interviewer can help customers clearly define what specific needs are met by a service or product. Thus, the main tools for customer needs assessment should center on focus groups or interviews, customer advisory groups, observation, and predictive measures of customer satisfaction and dissatisfaction (quality data).

RESEARCH OBJECTIVES

Given the ideas presented above, the following research propositions are developed:

By taking attribute-based measures of service quality, the researcher hopes to establish clear linkages between customer satisfaction (students) and quality (perception of their experience in the practicum program of the university).

In addition, this researcher also aims to recommend appropriate internal measures of efficiency and employee compensation as a means to ensure quality and customer satisfaction.

As a whole, this study seeks to recommend a service marketing system for a high-contact type of service firm such as universities. High-contact services are those in which customers visit the service facility in person and are actively involved with the service organization and its personnel throughout the service delivery.

METHODOLOGY

Data Collection

This researcher collected the course evaluation survey form accomplished by 217 Practicum3 students at the end of the ten-month practicum period for school year 2001-2002. The respondents are part of the last batch under the old Entrepreneurship Practicum program of the Business Management Department of De La Salle University-Manila. The course evaluation survey form contains 26 closed-ended Likert scale questions. The five-point Likert scale is one of the least biased scales since it offers more accurate calibration of the answers in a customer satisfaction survey. Having more than five points does not necessarily increase accuracy (Kessler, 1995).

The researcher also formulated a questionnaire to be administered to the 12 Practicum advisers. This questionnaire directly lifted questions from the student course evaluation survey, but the questions were re-worded to fit the requirement of assessing the perceived level of service quality provided by the advisers, together with the Business Management Department. Out of the 12 questionnaires, seven were returned for a 58% response rate.

Data Analysis

Factor Analysis Technique. This researcher used factor analysis to condense (summarize) the information contained in a number of original variables into a smaller set of new, composite dimensions or variates (factors) with a minimum loss of information (Hair, Anderson, Tatham, & Black, 1998). The researcher primarily chose the factor analysis technique to satisfy the need of

identifying structure through data summarization and data reduction.

Factor analysis can identify the structure of relationships among either variables or respondents by examining the correlation between the variables or the correlation between the respondents. The study has data on 202 respondents in terms of 26 characteristics. The objective therefore, was to summarize the characteristics by using the correlation matrix of the variables. The use of this correlation matrix of variables is referred to as R factor analysis, which identifies the latent dimensions of the variables. Table 9 contains the characteristics or variables measured in the course evaluation form survey.

Designing the Factor Analysis. This researcher designed the factor analysis using the following procedures:

1. *Correlations among variables*. Using SPSS Ver. 10 to calculate the correlation matrix of the input data (responses of 202 students in 26-Likert scale questions), an R-type factor analysis was employed by choosing the option of grouping variables rather the respondents or cases.
2. *Selection of variables and measurement*. Variables for factor analysis are generally assumed to be of metric measurement. This researcher also chose the variables that have the same Likert scale measurement. Questions #4 through #25 of the survey were measured through a five-point Likert scale while questions #1 through #3 employed a three-point Likert scale. Question #26, which evaluated the overall satisfaction of students in the Practicum program, was excluded from the factor analysis since it does not specifically ask for an attribute-based assessment of the Practicum program. Instead, the mean rating of question #26 was used as the dependent variable for the stepwise regression performed in the latter part of the study, which finally assessed the determinants or variables that affect student satisfaction.
3. *Selection of the sample size*. According to Hair et al. (1995), the preferred sample size to factor analyses should be 100 or larger. As a general rule, the minimum is to have at least five times as many observations as there are variables to be analyzed, and the more acceptable size would have a ten-to-one ratio. Thus, the researcher used 20 variables (or characteristics) with at least ten cases (or responses) each to minimize the chance of "overfitting" the data (i.e. deriving factors that are sample-specific with little generalizability).

Assumptions in Factor Analysis. The critical assumptions underlying factor analysis are more conceptual than statistical.

1. From a statistical standpoint, departures from normality, homoscedasticity, and linearity apply only to the extent that they diminish the observed correlation. In fact, some degree of multicollinearity is desirable, because the objective is to identify interrelated sets of variables.

   In addition to the statistical bases, the researcher also ensured that the data matrix has sufficient correlations to justify the application of factor analysis. In the correlation matrix, there were substantial numbers of correlations greater than 0.30 which made factor analysis appropriate.

   The Bartlett test of sphericity also measures the presence of correlations among the variables. It provides the statistical probability that the correlation matrix has significant correlations among at least some of the variables.

Table 1
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.940
Bartlett's Test of Sphericity	Approx. Chi-Square	3551.604
	df	231
	Sig	.000

Another measure to quantify the degree of intercorrelations among the variables and the appropriateness of factor analysis is the measure of sampling adequacy (MSA). This index ranges from 0 to 1, reaching 1 when each variable is perfectly predicted without error by the other variables. The measure can be interpreted with the following guidelines: 0.80 or above, meritorious; 0.70 or above, middling; 0.60 or above, mediocre; 0.50 or above, miserable; and below 0.50 unacceptable. The study yielded an MSA of .940 indicating the appropriate use of factor analysis. (See Table 1.)

2. The conceptual assumptions underlying factor analysis relate to the set of variables and the sample chosen. A basic assumption of factor analysis is that some underlying structure does exist in the set of selected variables. The researcher avoided mixing dependent and independent variables in a single factor analysis since the derived factor scores will be used to support dependence relationships in the stepwise regression. The final question in the survey which evaluates overall satisfaction of students in the Practicum program was excluded.

Deriving Factors and Assessing Overall Fit. This researcher utilized principal component analysis since empirical research demonstrated similar results with that of the common factor analysis. In most applications, both component analysis and common factor analysis arrive at essentially identical results if the number of variances exceeds 30.

Criteria for the Number of Factors to Extract. The Latent Root Criterion or eigenvalues was used to account for the variance of at least a single variable if it is to be retained for interpretation. Only factors having latent roots or eigenvalues greater than 1 are considered significant, thus, SPSS yielded eigenvalues greater than 1 for the first three component factors extracted. (See Table 2.)

Table 2
Eigenvalues

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.397	51.807	51.807	11.397	51.807	51.807
2	2.357	10.714	62.521	2.357	10.714	62.521
3	1.443	6.558	69.078	1.443	6.558	69.078
4	.813	3.695	72.774			
5	.726	3.298	73.072			
6	.590	2.680	78.752			
7	.550	2.498	81.250			
8	.520	2.362	83.612			
9	.445	2.022	85.634			
10	.411	1.867	87.501			
11	.376	1.708	89.210			
12	.362	1.644	90.853			
13	.310	1.408	92.261			
14	.290	1.318	93.579			
15	.261	1.188	94.767			
16	.251	1.143	95.910			
17	.200	.907	96.817			
18	.173	.787	97.604			
19	.162	.735	98.340			
20	.144	.655	98.995			
21	.115	.523	99.518			
22	.106	.482	100.000			

Extraction Method: Principal Component Analysis.

Interpreting the Factors. Three steps were involved in the interpretation of the factors and the selection of final factor solution. First, the initial unrotated factor matrix was computed to assist in obtaining a preliminary indication of the number of factors to extract. (See Table 3.)

Table 3
Unrotated Factors

Component Matrix[a]

	Component		
	1	2	3
C4	.563	.647	.108
C5	.443	.715	-3.43E-02
C6	.448	.646	.134
C7	.612	.596	9.655E-02
C8	.550	.505	-.103
M9	.791	-.211	.249
M10	.822	-.211	.255
M11	.769	-.295	.158
M12	.788	-.131	.119
M13	.740	-.147	.406
M14	.563	-.137	-.248
M15	.679	1.668E-02	.324
B16	.827	-1.16E-02	7.738E-02
B17	.838	-.208	.142
B18	.668	-.114	-3.84E-02
B19	.741	-.153	.210
B20	.755	-.157	.194
P21	.849	-8.70E-02	-.368
P22	.800	-8.39E-02	-.432
P23	.790	-.107	-.432
P24	.736	-.109	-.426
P25	.830	-.151	-.309

Extraction Method: Principal Component Analysis.

[a]3components extracted.

Secondly, factor loadings contained in the factor matrix were considered. In interpreting factors, a decision must be made regarding which factor loadings are worth considering. Factor loadings are the correlation of each variable and the factor. Loading indicates the degree of correspondence between the variable and the factor, with higher loadings making the variable representative of variable loadings. Lastly, the decision to simplify the factor structure through rotational methods was made through the VARIMAX rotational approach. With the VARIMAX rotational approach, the reference axes of the factors are turned about the origin until some other position has been reached. VARIMAX rotation provides high loadings of close to -1 or +1. With this, interpretation is easiest when the variable-factor correlations are close to +1 or -1, thus indicating a clear positive or negative association between the variable and the factor. A variable-factor correlation close to 0 indicates a clear lack of association. (See Table 4.)

Table 4
Rotated Factors Using VARIMAX Technique

Rotated Component Matrix[a]

	Component		
	1	2	3
C4	.231	.136	.822
C5	3.611E-02	.167	.825
C6	.167	4.797E-02	.778
C7	.278	.182	.793
C8	.147	.319	.667
M9	.789	.301	.136
M10	.814	.315	.149
M11	.749	.375	4.202E-02
M12	.680	.389	.197
M13	.824	.136	.190
M14	.202	.504	.321
M15	.672	.138	.308
B16	.639	.425	.317
B17	.757	.413	.147
B18	.494	.441	.151
B19	.709	.293	.166
B20	.711	.315	.166
P21	.414	.804	.215
P22	.339	.825	.193
P23	.341	.823	.168
P24	.306	.787	.146
P25	.459	.756	.154

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

[a]3components extracted.

Significance of factor loadings. In determining a significance level for the interpretation of loadings, a stricter level is usually employed to counter the effects of larger correlation standard errors. Several guidelines were used to determine

significance of factor loadings: (1) the larger the sample size, the smaller the loading to be considered significant; (2) the larger the number of variables being analyzed, the smaller the loading to be considered significant; and (3) the larger the number of factors, the larger the size of the loading on later factors to be significant for interpretation.

Interpreting a Factor Matrix. The factor matrix was interpreted by looking for the highest factor loading of the first variable horizontally from left to right. Using the guideline for significance of factor loading in Table 5, the study used ± .40 as significance level for factor loadings since the sample size is more than 200 respondents with 22 variables. Thus, in Table 5, variable C4 has the highest factor loading in factor/component 3 at .822 (which is above the 0.40 significance level). After the highest loading (largest absolute factor loading) was identified, it was underlined as significant. The next variable (C5) was inspected for highest significant factor loading by moving horizontally from left to right, with loading of .825 as the highest and above .40 significance level, and was eventually underlined. This procedure was continued for each variable until all variables have been underlined once for their highest loading on a factor. Thus, the following factor loadings were identified as significant for each variable:

Labeling the Factors. After obtaining a factor solution in which all variables have significant loading on a factor, assignment of some meaning to the pattern of factor loadings was made. Variables with higher loadings were considered as more important and having greater influence on the name or label selected to represent a factor or a component. Thus, Factor 1 had 11 significant positive loadings with M13 ("Need to consult students for any change in policies") and M10 ("Allow enough time to disseminate information about the program") having the highest factor loadings. All variables in factor 1 have positive signs indicating positive relation with other variables. These 11 significant variables grouped together as a single factor all belong to the method of implementation and department support categories, thus, this can be best named as *implementation* of policies and procedures of the program. These variables having positive signs indicate that the more the Business Management Department supports the implementation of Practicum policies, the more effective will be the implementation of policies and procedures of the Practicum program.

For Factor 2, the three most significant factor loadings were identified in terms of the Practicum Coordinator's ability to provide assistance and support to Practicum students (P21, P22, P23, P24, and P25). The Practicum Coordinator's ability to support students is positively related to her ability

Table 5
Variables with more than .40 Factor Loading

Factor 1	Factor 2	Factor 3
M9 = .789	P21 = .804	C4 = .822
M10 = .814	P22 = .825	C5 = .825
M11 = .749	P23 = .823	C6 = .778
M12 = .680	P24 = .787	C7 = .793
M13 = .824	P25 = .756	C8 = .667
M15 = .672	M14 = .504	
B16 = .639		
B17 = .757		
B18 = .494		
B19 = .709		
B20 = .711		

to focus the Practicum program on the various aspects of managing the business venture (M14).

For Factor 3, the most significant loadings were noted in the ability of the mentors to stimulate the students' interests in business (C4), and to learn from the Practicum program (C5). Alongside these variables were the mentors' ability: to make the program challenging (C6); to make the Practicum program a way to prepare the students for their careers (C7); to make the students apply management theories learned in class to the Practicum experience (C8).

Using Factor Analysis with Multiple Regression. From the data summarization undertaken, factor analysis provided a clear understanding of which variables act in concert and how many variables were expected to have impact on the analysis. Factor analysis provides the basis for creating a new set of variables that incorporate the character and nature of the original variables in a much smaller number of new variables using factor scores. Factor score is a composite measure created for each observation on each factor extracted in the factor analysis. SPSS computed for the factor weights in conjunction with the original variable values to calculate each observation's score. The factor score can then be used to represent the factor(s) in subsequent analyses.

The study utilized factor scores as inputs to the stepwise procedure of multiple regression. This technique sequentially enters variables based on the additional predictive power over variables in the model. Instead of using 22 variables as independent variables, only three (3) factors were used to determine their relationship to overall student satisfaction in the Practicum program (variable O26).

Assumptions in Multiple Regression Analysis. The three assumptions addressed for the individual variables are linearity, constant variance and normality.

First, scatterplots of the individual variables did not indicate any nonlinear relationships between the dependent variable and the independent variables. Second, tests for heteroscedasticity revealed normal histogram for all variables. Lastly, the test for normality showed through visual examination of the normal probability plots of the residuals, that values fall along the diagonal line with no substantial or systematic departures. Thus, the model was found to meet the assumption of normality.

Multivariate Multiple Regression: Stepwise Estimation. In Model 1 (see Table 6), when a single independent variable (X_1 = Implementation) was used to calculate the regression equation for predicting the dependent variable, overall student satisfaction (Y), the correlation coefficient R was .45, representing 45% degree of association of Y and X_1.

The coefficient of determination (R^2) indicates the percentage of total variation of Y explained by X_5. Using the value of X_1 reduces the error of predicting the dependent variable by 20.2%.

The standard error of estimate represents the standard deviation of the actual dependent values around the regression lines. The standard error was .88.

Table 6
Model Summary

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.450[a]	.202	.198	.88	
2	.591[b]	.349	.342	.80	
3	.664[c]	.441	.432	.74	1.896

a. Predictors: (Constant) implementation
b. Predictors: (Constant) implementation, mentoring services
c. Predictors: (Constant) implementation, mentoring service, practi coord
d. Dependent Variable: O26

With the addition of another dependent variable into the model, mentoring service (X_2) increased R, and R2 (.591 and .349), respectively. The standard error also declined with the addition of X_2. Model 3 further added another variable called Practicum Coordinator support (X_3) into the equation which further improved the capability of the model to explain the variation in Y.

Table 7
Analysis of Variance (ANOVA)

ANOVA[d]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.886	1	37.886	48.900	.000[o]
	Residual	149.532	193	.775		
	Total	187.418	194			
2	Regression	65.459	2	32.730	51.527	.000[o]
	Residual	121.958	192	.635		
	Total	187.418	194			
3	Regression	82.682	3	37.886	48.900	.000[o]
	Residual	104.736	191	.548		
	Total	187.418	194			

a. Predictors: (Constant) implementation
b. Predictors: (Constant) implementation, mentoring services
c. Predictors: (Constant) implementation, mentoring service, practi coord
d. Dependent Variable: O26

The *F* value indicates that for Models 1, 2, and 3, all the variables (X_1, X_2, and X_3) which entered the equation were all significant and met the significance level at 95% confidence interval.

Table 8
Coefficients

Coefficient[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.877	.063		45.644	.000		
	implementation	.442	.063	.450	6.993	.000	1.000	1.000
2	(Constant)	2.870	.057		50.274	.000		
	implementation	.449	.057	.457	7.852	.000	1.000	1.000
	mentoring service	.389	.059	.384	6.589	.000	1.000	1.000
3	(Constant)	2.865	.053		54.019	.000		
	implementation	.454	.053	.462	8.536	.000	.999	1.001
	mentoring service	.405	.055	.399	7.373	.000	.997	1.003
	practi coord.	.303	.054	.304	5.604	.000	.997	1.003

a. Dependent Variable: O26

For Model 1, with only X_1 as the dependent variable, the value .450 is the standardized regression coefficient (b_1). Thus, the predicted value for each observation is the constant (2.877) plus the regression coefficient (.450) times the value of the independent variable ($Y = 2.877 + .450X_1$).

For Model 2, with both X_1 and X_2 as independent variables, the standardized regression coefficient of X_1 increased to .457, while X_2 (mentoring service) has a value of .384. Standard error of X_1 declined from .063 to .057. Thus, $Y = 2.870\ .457X_1 + .384X_2$.

Finally, with the inclusion of all variables (X_1, X_2 and X_3) into the equation, X_1 has a higher standardized regression coefficient of .462. X2 has a higher regression coefficient at .399; while X3 contributes a regression coefficient of .304 to the equation. Thus, the regression equation is $Y = 2.865 + .462X1 + .399X2 + .304X3$.

A small standard error of .063 implies a more reliable prediction. The variance inflation factor (VIF) measures the degree to which each independent variable is explained by the other independent variables. Tolerance is the amount of variability of the selected independent variable not explained by the other independent variables. Thus, very small tolerance values and large VIF values denote high collinearity. The suggested tolerance value of .10 corresponds to a 90% correlation, while a VIF above 5.3 would have a correlation of more than .90. All three models (see Table 8) showed no multicollinearity with VIF values of 1.000 and tolerance level ranging from .997 to 1.000.

Student Satisfaction Mean Rating versus Mentors' Perceived Service Quality Provided. This researcher also took the mean rating of the Practicum students' satisfaction for both overall and individual categories. Similarly, the mentors' mean rating of the perceived level of service quality they provided was also computed in Table 9.

Table 9
Mean Ratings for Both Student Satisfaction and Faculty Perception of Service Provided

Code	Variable Name	Student Mean Rating	Faculty Mean Rating	Variance
M11	Clear procedures	3.54	4.33	-0.79
M14	Program covers all business aspects	4.14	4.83	-0.69
M13	Consultation with students	3.02	3.67	-0.65
M12	Easy to follow procedures	3.73	4.33	-0.60
M10	Adequate time for information dissemination	3.44	4.00	-0.56
B16	Availability of department support and assistance	3.63	4.17	-0.54
B20	Students' suggestions are given attention	3.31	3.83	-0.52
M15	Flexibility of policies and procedures	3.40	3.83	-0.43
B17	Dissemination of information about changes in the program	3.41	3.83	-0.42
M9	Clear policies	3.49	3.83	-0.34
C8	Application of management theories	3.90	4.17	-0.27
B19	Enriching seminars and workshops	3.57	3.83	-0.26
C4	Stimulate interest in business	3.93	4.17	-0.24
C7	Adequate career preparation	3.73	3.83	-0.10
C5	Learned a lot from the program	4.10	4.17	-0.07
C6	Challenging program	4.10	4.17	-0.07
O26	Overall satisfaction with the program	2.88	2.33	0.55

In terms of the overall satisfaction of the students with the Practicum program experience, the students' mean rating was higher than that of the faculty advisers' perception of student satisfaction. However, all the variables' student mean ratings were lower than that of the faculty advisers, indicating a gap between the service quality experienced by the students as against that perceived by the faculty advisers.

RESULTS OF THE STUDY

The results of this study clearly indicate that student satisfaction is more directly related to functional quality or process of service delivery (Gronroos, 1990). The delivery of service through implementation of clear policies and procedures contributed significantly to student satisfaction. The quality of mentoring given by Practicum advisers contributed more significantly than the Practicum Coordinator's ability to support Practicum students, in terms of policies and information dissemination.

For the establishment of customer satisfaction, it is crucial to achieve a high level of overall service quality perceived by customers. This overall service quality can be established by paying thorough attention to the various industry specific attributes of service quality, such as having competent faculty members and Practicum Coordinators; and establishing quality both in planning and implementation of internal procedures within the service provider's organization (the University's department). In addition, the variables in Table 9, which showed the highest gap between satisfaction level and perceived level of service provided, should be immediately addressed. These include implementing clear procedures; and making sure that the program covers all aspects of business operations, and that the students are consulted before making any changes in the Program.

In addition, the faculty advisers also pointed out weaknesses that they have observed in the program: (1) unrealistic cost assumptions; (2) failure to provide students with other financing assumptions; (3) inadequate preparation in terms of scanning the environment; (4) the fact that some students take for granted the efforts of the adviser; (5) three terms being seen as too long; (6) most students not being task-oriented; (7) too many assumptions and restrictions; (8) difficulty of monitoring students' performance; (9) quality assessment on production; (10) control mechanism on finance and money matters; (11) too many members in a group (causing free riders); and (12) limited sales opportunities due to legal requirements.

In the university setting where faculty members exercise authority over students, incident-based quality measurement may not be fully utilized in gauging student satisfaction. Students anonymously fill out course and faculty evaluation forms and fail to answer open-ended questions or sensitive questions such as "what are the weaknesses of the program?" This is due to their fear of getting low grades or even failing the subject if they do answer such questions.

MANAGERIAL IMPLICATIONS

From a managerial perspective the results clearly indicate the importance of high levels of perceived overall service quality, since it will contribute to both customer satisfaction and trust between the organization and its customers. More specifically, this requires focusing on training and development of the service employee who is in contact with the customer. Developing training programs, empowering advisers to undertake concrete actions, offering adequate reward systems—these are some of the measures that can be taken to increase the mentors' and coordinator's quality level. In addition, the provision of high-quality equipment and supplies should be another major consideration for the organization's management.

Furthermore, service providers should give customers the opportunity to talk about both positive as well as negative experiences with the organization. More importantly, increased

knowledge on this last category of critical incidents is of great importance to the customer's evaluation of the provider, since negative incidents have a strong negative impact on customer satisfaction. Incorporating customer suggestions for improvement should ultimately result in better performance by the service provider. Negative experiences do not necessarily mean that customer satisfaction with the organization will drop dramatically. The negative impact can be compensated for as long as the overall service quality is perceived to be high enough. In particular, focusing on internal planning processes can function as a safety net and should enable a company to reduce the negative effect caused by a negative experience.

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