

A maximization model to satisfy the perceived quality in education

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Abstract

The education sector has a special position within the service industry, due to relatively long-term customer loyalty and repurchase behavior. These characteristics increase the importance of perceived and presented quality levels related to customer satisfaction in this sector. The main purpose of this research is to model empirically the relationships between perceived service quality and satisfaction in elementary and secondary education. The fieldwork of the research was conducted in a private school. Factor analysis, regression analysis, and linear programming were used respectively as quantitative analysis. Decision support was provided to the school administrators according to the results obtained from the proposed model.

1. Introduction

Customer satisfaction and quality concepts continue to attract the attention of researchers and practitioners in a wide variety of disciplines. In studies with a focus on production, the relationships between the concepts of customer satisfaction, design quality, convenience quality and usage quality are explored, whereas in studies with marketing focus the relationships between customer satisfaction, expected quality, perceived quality and service quality are examined (Russel and Taylor, 1998; Anderson and Sullivan, 1993; Bitner, 1992; Zeithaml, 1988; Garvin, 1988; Takeuchi and Quelch, 1983; Lehtinen and Lehtinen, 1982; Churchill and Suprenant, 1982). On the other hand, in the context of industrial sectors, the role played by service industries has been improving in terms of a number of indicators (Cronin and Taylor, 1992; Bateson, 1989). In these sectors, customer satisfaction mostly exhibit a marketing-focused characteristic through quality competition. The education sector has a special position within the service industry, because long term customer loyalty and repurchase behavior are observed in this sector. These

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characteristics increase the significance of customer satisfaction and perceived service quality (Rozen and Suprenant, 1998; Parasuraman *et al.*, 1994).

The main purpose of this research is to model empirically the nature of the relationships between perceived service quality and satisfaction in elementary and secondary education.

The specific objectives of the study are as follows:

1. To define the perceived service quality and satisfaction criteria of the parents of students in elementary and secondary school education.
2. To group the criteria that have the highest correlation in their interaction with each other.
3. To identify the interaction between groups that maximizes the satisfaction.

In order to realize the above identified objectives, the most popular private school among the six top schools giving elementary and secondary education in Antalya was chosen. There are three reasons to choose a private school for this application. First, the public schools, compared to the private schools, lack tangibles¹, social and sporting facilities. Secondly, public schools do not necessarily motivate themselves to create customer satisfaction. Lastly, the bureaucratic proceduralisation faced by the researchers during the fieldwork stage in public schools is too complex and time consuming.

Furthermore, there is a bulk of research in the literature on perceived service quality and measurement of service quality in universities (Oldfield and Baron, 2000; Owlia and Aspinwall, 1998; LeBlanc and Nguyen, 1997; Athiyaman, 1997; DiDomenico and Bonnici, 1996). There is, however, limited research on service quality in elementary and secondary education. Putting the focus on elementary and secondary education is the contribution of this paper.

2. Perceived service quality and satisfaction in education

Service quality perceptions result from a comparison of consumer expectations with actual service performance (Parasuraman *et al.*, 1985). Customer satisfaction, on the other hand, is an evaluation process by consumers between perceived quality and expected value which takes place after consumption (Hutcheson and Moutinho, 1998). Customer satisfaction emerges with emotions that result from usage or consumption and will be positive when it meets or exceeds the product's expected quality level for customers or vice versa.

While some authors argue that satisfaction is an antecedent of service quality (Bitner, 1992; Bolton and Drew, 1991), other researchers claim

¹ Tangibles refer to the attributes that are associated with the physical environment in public schools where the service is produced and consumed.

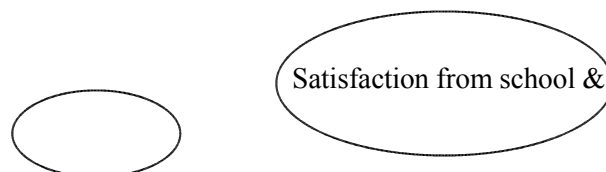
that service quality leads to satisfaction (Parasuraman *et al.*, 1994; Cronin and Taylor, 1992). According to Rozen and Suprenant (1998), to assess the service relations and to comprehend the nature of those relations, it is necessary to measure both the perceived service quality and satisfaction. This measurement is necessary but not sufficient. The interaction between perceived service quality and satisfaction should not be isolated and the nature of this relationship should properly be evaluated. In the education sector where long term consumption or usage, customer loyalty, and repurchase behavior are common, there is a double-sided interaction between perceived quality and satisfaction. In education, it is clear that perceived service quality leads to satisfaction and satisfaction leads to repurchase behavior (Bloemer *et al.*, 1998; Patterson and Spreng, 1997; LeBlanc and Nguyen, 1997). The existence of a moderate causal relationship in the direction from satisfaction to service quality cannot be denied. For example, a parent's expectation level from the service given by school will be much stronger when he/she exhibits repurchase behavior due to his/her service satisfaction. This will induce the school to improve its quality.

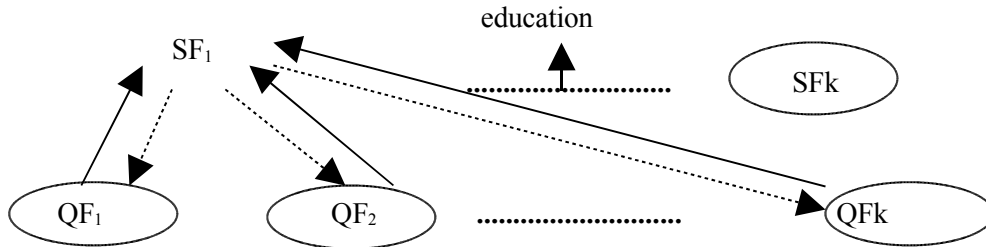
The education sector has the above mentioned common characteristics with its quality and satisfaction dimensions. On the other hand, it has some distinctive characteristics within itself related to this dimension. The most important of these features is the decision making customer identity in quality and satisfaction issues. In elementary and secondary education, parents are the main decision makers rather than the students. Therefore, parents constitute the customer focus of elementary and secondary education.

3. The model

It is possible to classify the modelling approaches in two major groups. First, models based on maximizing satisfaction and second, models based on minimizing dissatisfaction. The prospect theory, which emphasizes that the cost of dissatisfaction is greater than the benefits of the satisfaction, constitutes a base for the second group of modelling (Hutcheson and Moutinho, 1998). The proposed model here which is designed for maximizing the customer satisfaction through simultaneous interaction of perceived service quality criteria and which accepts the existence of a causal relationship directed from satisfaction to perceived service quality forms a sample for the first group (Figure 1).

Figure1
The Relationship Between Satisfaction and
Perceived Service Quality Factors in the Educational Institution





Note: The arrows between SFk and QF are not drawn to avoid complexity
 SF_i denotes the factor scores of *i*th satisfaction factor and QF_i denotes the factor scores of *i*th quality perception factor

The general mathematical formulation of the model is as follows:

$$\begin{aligned} \text{Max. } Z^i &= f(\text{SF}_i) & i=1, \dots, m & \quad (1) \\ B^L &\leq g_L (\sum \text{QF}_j + \sum \text{SF}_i) \leq B^U & j=1, \dots, n; L = 1, \dots, k-1, L \neq k; k=m+n \end{aligned}$$

In the model, *m* and *n* are the numbers of satisfaction and perceived service quality equations, respectively. B^L ve B^U are the lower and upper values of factor scores that belong to the L^{th} factor.

The LP model (1) was designed to specify the activities that maximize the total satisfaction of students' parents. In the model, how the quality criteria related to educational, individual and social development are perceived by parents and how this perception in turn affects the satisfaction level are measured. The main assumption here is that satisfaction affects the perceived service quality to some extent. In doing so, decision support can be provided to school principals in specifying the priorities in their strategy.

4. Sample and data

4.1. Stage one: Drafting the survey questionnaire and assessing its validity

Before preparing a draft survey questionnaire, the related literature was reviewed. Parents' perceived service quality and satisfaction criteria were identified by interviewing a sample of school principals, teachers, and parents. Moreover, the views of potential customers were evaluated. Parents of private and public kindergarten students and elementary school senior students' parents were potential customers. A group of 200 potential customers were selected by quota sampling and were questioned on their opinions and expectations from private schools. At this stage, a questionnaire containing mostly open-ended questions was used. Using the views obtained both from school customers and potential customers, a draft survey questionnaire was prepared and discussed with faculty

member having experience in this area. A pilot study was conducted with a group of parents to ensure the quality of the questionnaire.

Subsequently, with the support of the information obtained from the pilot study, the final survey questionnaire was developed. The items included in the survey were aimed to measure the following major characteristics (see Table 1):

i) The contribution of physical facilities and equipment to educational quality. The perceived service quality criteria in this part consist of 14 items. These items are maintenance and cleanliness of the school buildings, width and comfort of the classrooms, availability of computers, library and laboratory facilities, sport facilities, meeting rooms, recreational facilities etc.

ii) The contribution of schools' educational and social services to educational quality. There are 13 items of perceived service quality criteria in this part. These include the suitability of education programs to the corresponding grade levels, to develop students' competencies in research, exploring, interpreting and creating, to prepare students for the future to increase students' self-confidence, to develop students' ability to express themselves, to help students acquire skills and hobbies, to promote students' environmental awareness and responsibility.

iii) Parents' satisfaction level of the results that the school has obtained in various fields. There are 11 items in this part which aim to measure the school's ability in producing well-educated human resources, teaching students general knowledge, culture and social skills, discovering their hidden skills and abilities, preparing them for university education and so on.

iv) Demographic information. These items include data on the respondents' age, gender, education, disposable income, and occupation.

v) General satisfaction: this item evaluates the general satisfaction level of parents regarding the services provided by the school.

In the first three parts, the items were rated on a five-point Likert scale ranging from excellent to poor. In the parts aiming to measure student satisfaction and perceived service quality, a five-point Likert scale or semantic differential scale was used (Bahia and Nantel, 2000; Graeme *et al.*, 1998; Athiyaman, 1997; Crosby, 1992). The "no idea" option in the five-point Likert scale was used to identify whether parents had information about services and quality levels at the time of satisfaction measurement. In the general satisfaction question, a four-point scale was used ranging from 'very satisfied' to 'dissatisfied'.

This survey was based on the application of a probability sampling approach. There were 1096 students in the elementary and secondary levels of the school. The sample size was found as 421 at a %95 confidence level. Each sample was selected from the student list by simple

random sampling. The parents of these students constituted the sample of the research.

4.2. Stage two: Application

To minimize the systematic and random errors and problems to be faced during the application process, a training seminar was given to interviewers. They distributed the questionnaires to the predetermined parents. Respondents were asked to fill in the questionnaires. Some of the respondents were called to check whether the interviewers had performed their tasks. This process continued for two weeks. Of all the questionnaires, 388 were found suitable for analysis. 33 questionnaires could not be evaluated due to a number of factors like the unwillingness to participate, absence at the time of appointment, and wrong or incomplete filling of the questionnaires. As a result, usable questionnaires were obtained with a 92 per cent response rate.

As the demographic attributes such as education and income level of the student's parents show similarities, it can be said that the sample size of 388 represents the target population (Zikmund, 1993). The target population includes the families of the students.

5. Analysis

SPSS 6.0 for Windows Statistical Package was used for quantitative analysis (Norusis, 1992). The data were analyzed initially with descriptive statistics including frequencies, means, and standard deviations. Next, the factor analysis which is presented as one of the techniques of satisfaction measurement by Bachelet was used (Bachelet, 1992). The three different criteria groups containing 14, 13, and 11 items respectively were factor analyzed, using principal component analysis with orthogonal varimax rotation. Two factors were obtained from each of the groups. The items and factor loadings regarding these factors are shown in Table 1.

Table 1
Factor Loadings Obtained from Factor Analysis

T	Items	Item Definitions	Factor Loading	
			F ₁	F ₂
The content richness of physical facilities and hardware to educational quality.	V04a	Maintenance and cleanliness of the school buildings	.681	-.012
	V04b	Heating, illuminating and air-conditioning of the school buildings	.596	.108
	V04c	Width and comfort of the classrooms	.631	.163
	V04d	Computer laboratories	.256	.707
	V04e	Science laboratory	.088	.807
	V04f	Special major workshops	.131	.790
	V04g	Meeting rooms	.566	.261
	V04h	Sporting facilities	.630	.230
	V04i	Dining-hall and canteen buildings	.658	.112
	V04j	Library	.267	.677
	V04k	Infirmary	.090	.700
	V04l	School garden and Recreation	.563	.134
	V04m	Maintenance and cleanliness of the toilets	.594	.203
	V04n	Service busses	.369	.353
Educatioanal and soical service presented by the school			Factor Loading	
			F ₃	F ₄
	V07a	The suitability of education programs to the grade levels	.654	.267
	V07b	The ability to encourage students to active learning	.772	.417
	V07c	The ability to develop students' competencies of researching, exploring, interpreting and creating	.750	.403
	V07d	The ability to make students gain free thinking and debating competencies	.740	.384
	V07e	The ability to instil discipline, order and responsibility	.567	.519
	V07f	The ability to prepare students for the university entrance examination	.374	.886
	V07g	The ability to prepare students for the future world	.564	.826
	V07h	The ability to instil self-confidence	.768	.492
	V07i	The ability to have students speak fluently and express themselves	.758	.398
	V07j	The ability to have students acquire skills and hobbies	.738	.508
	V07k	The ability to have students acquire joy in and habit of reading	.729	.368
V07l	The ability to accustom students to a balanced diet	.682	.249	
V07m	The ability to have students acquire environmental awareness and respect	.744	.180	

S ati sf ac tio n le ve l fr o m th e re su lts ob tai ne d by th e sc ho ol in va ri ou s fie ld s.	Items	Item Definitions	Factor Loading	
			F ₅	F ₆
	V18a	The ability to have students to achieve university entrance examination	.254	.736
	V18b	The ability of school to prepare well-educated people for society	.611	.504
	V18c	The ability to teach the English language	.427	.628
	V18d	The ability to teach a second language	.127	.780
	V18e	The ability to have students acquire general knowledge, culture	.815	.292
	V18f	The ability to have students acquire social skills	.781	.268
	V18g	The ability to have students acquire success motivation	.838	.295
	V18h	The ability to have students acquire creative attitude and behavior	.846	.241
	V18i	The ability to have students prepare for life	.366	.635
	V18j	The general image of the school in society	.727	.313
	V18k	General impression	.759	.266

Table 2 shows the results of the factor analysis in terms of factor name and the explained variance. The six factors identified in Table 2 can be described as follows:

Factor 1 (F1), the general facilities factor, consisted of such items as the maintenance and cleanliness of the school buildings, heating, illumination and air-conditioning of the school buildings, the width and comfort of the classrooms, meeting rooms, sporting facilities, dining-hall and canteen buildings, school garden, and recreation etc. Factor 2 (F2), the educational facilities factor, related to computer laboratories, science laboratories, special major workshops, library, and infirmary. Factor 3 (F3), the individual development factor, was loaded with the variables which describe the suitability of education programs to the grade levels, the ability to encourage students to active learning, the ability to develop students' competencies for research, exploring, interpreting and creating, the ability to make students gain free thinking and debating competencies, the ability to instil self-confidence etc. Factor 4 (F4), the educational development factor, was concerned with such dimensions as the ability to prepare students for the university entrance examination and the ability to

prepare students for the future world. Factor 5 (F5), the educational satisfaction factor, involved dimensions related to the ability of the school to train well-educated people, the ability to give students general knowledge, culture, the ability to provide students with social skills, the ability to give students success motivation, and the ability to impart to students creative attitude and behavior, etc. Factor 6 (F6), the social and cultural satisfaction factor, was concerned with the ability to have students to achieve the university entrance examination, the ability to teach the English language, the ability to teach a second language and the ability to help students prepare for life.

Table 2
Factor Definitions and Test Results

Factor Codes	Definition	Items	Cronbach Alpha	Tests	Explained Variance
F ₁	General facilities	(4a,4b,4c,4g,4h,4i,4l,4m)	0.788	KMO ¹ : 0.871 BTS ² : 1512.68 (p<.0005)	45.9
F ₂	Educational facilities	(4d,4e,4f,4j,4k)	0.818		
F ₃	Individual improvements	(7a,7b,7c,7d,7e,7h,7i,7j,7k,7l,7m)	0.907	KMO ¹ : 0.924	57.1
F ₄	Educational improvements	(7f,7g)	0.720	BTS ² : 2413.23 (p<.0005)	
F ₅	Educational satisfaction	(18b,18e,18f,18g,18h, 18j,18k)	0.924	KMO ¹ : 0.926	65.8
F ₆	Social and cultural satisfaction	(18a,18c,18d, 18i)	0.753	BTS ² : 2619.95 (p<.0005)	

¹ Kaiser-Meyer-Olkin test, ² Bartlett's test of sphericity

As seen in Table 2, Kaiser-Meyer-Olkin and Bartlett statistics are within acceptable limits (Everitt and Dunn, 1991). The items were also analyzed using Cronbach Alpha to assess internal consistency and reliability. Each groups' reliability coefficients ranged from 0.72 to 0.92, well above the minimum value 0.70 that is considered acceptable (Peterson, 1994).

To examine the relations between the six factors obtained from the factor analysis, stepwise regression analysis was used (Gujarati, 1995). The factor scores matrix was employed for this analysis (Dunteman, 1994). The proposed model is based on the assumptions that satisfaction is a result of perceived service quality and there is a causal relationship directed from satisfaction to service quality. Thus, both satisfaction and perceived service quality were taken as dependent variables, respectively. Table 3 presents the results of the regression analysis. It can be seen that general facilities, educational facilities and the activities that contribute to students' individual development lead to educational satisfaction. As such, social and cultural satisfaction is affected by general facilities, educational facilities, and educational improvement.

Table 3
Multiple Regression Results

Independent variables	Dependent variable Beta weights (p value)					
	F1	F2	F3	F4	F5	F6
F5 (Educational satisfaction)	0.183(0.000)	0.152(0.004)	0.378(0.000)	-	-	0.214(0.000)
F6 (social and cultural satisfaction)	0.184(0.000)	0.191(0.000)	-	0.339(0.000)	-0.205(0.000)	-
F1 (general facilities)	-	-0.13(0.012)	0.214(0.000)	-	0.153(0.000)	0.182(0.000)
F2 (Educational facilities)	-0.107(0.023)	-	-	0.148(0.000)	0.128(0.003)	0.158(0.000)
F3 (Individual improvements)	0.283(0.000)	-	-	0.382(0.000)	0.448(0.000)	-
F4 (Educational improvements)	-	0.173(0.002)	0.303(0.000)	-	0.115(0.02)	0.430(0.000)
R ²	0.212	0.118	0.432	0.373	0.345	0.272
F Ratio	25.90	12.90	97.48	76.19	40.41	35.72
P	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The C constant in the regression equation is omitted since it is too small.

Linear Programming (LP) models were established in which the satisfaction equation is an objective function and the other equations are the constraints system (Sengupta, 1981). These two LP models which maximize satisfaction have produced the final solution values of the highest interaction between the perceived service quality and satisfaction factors. The formulations of the model for this stage can be shown as follows:

$$\begin{aligned}
 \text{Max } Z^1: & 0.153 F_1 + 0.129 F_2 + 0.448 F_3 + 0.115 F_4 - 0.206 F_6 \\
 & -3.946 \leq -0.108 F_2 + 0.283 F_3 + 0.183 F_5 + 0.185 F_6 \leq 2.612 \\
 & -2.227 \leq -0.130 F_1 + 0.174 F_4 + 0.152 F_5 + 0.191 F_6 \leq 2.077 \\
 & -3.213 \leq 0.214 F_1 + 0.303 F_4 + 0.378 F_5 \leq 2.003 \quad (2) \\
 & -2.306 \leq 0.134 F_2 + 0.324 F_3 + 0.107 F_5 + 0.354 F_6 \leq 2.198 \\
 & -2.408 \leq 0.182 F_1 + 0.158 F_2 + 0.430 F_4 - 0.214 F_5 \leq 2.303
 \end{aligned}$$

$$\begin{aligned}
 \text{Max } Z^2: & 0.182 F_1 + 0.158 F_2 + 0.430 F_4 - 0.214 F_5 \\
 & -3.946 \leq -0.108 F_2 + 0.283 F_3 + 0.183 F_5 + 0.185 F_6 \leq 2.612 \\
 & -2.227 \leq -0.130 F_1 + 0.174 F_4 + 0.152 F_5 + 0.191 F_6 \leq 2.077 \quad (3) \\
 & -3.213 \leq 0.214 F_1 + 0.303 F_4 + 0.378 F_5 \leq 2.003 \\
 & -2.306 \leq 0.134 F_2 + 0.324 F_3 + 0.107 F_5 + 0.354 F_6 \leq 2.198 \\
 & -2.862 \leq 0.153 F_1 + 0.129 F_2 + 0.448 F_3 + 0.115 F_4 - 0.206 F_6 \leq 2.391
 \end{aligned}$$

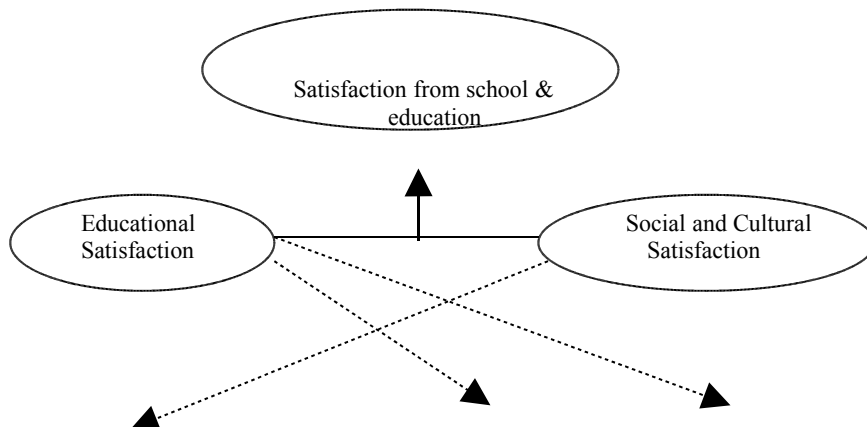
In the LP model (2) the regression equation which had been obtained from educational satisfaction (dependent variable) and other factors (independent variables) was used as the objective function. The constraints are the regression equations which were derived from taking those factors, excluding educational satisfaction, as independent variables. Taking into consideration the mutual relationship between satisfaction and perceived quality, the basic variables that maximize the educational satisfaction were sought. The right-hand side values in the model are the lowest and highest values in the factor scores matrix. The LP problem in (3) is established to obtain the variable composition that maximizes the social and cultural satisfaction. Both LP problems were calculated by the LINDO statistical package. The optimal solution values are shown in Table 4. The factors that are not in the optimal solution have zero values and have no effect in maximization.

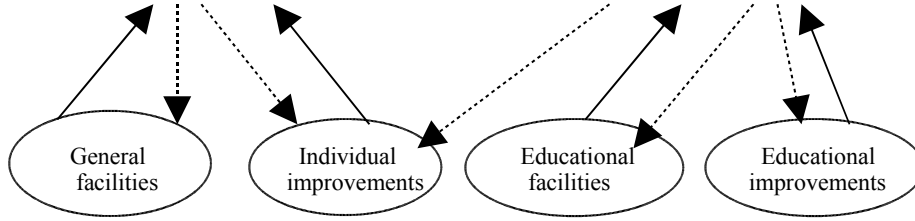
Table 4
Optimal Solution Values of the Linear Programming Model

Solution of model (2)	Solution of model (3)
Max F5: 4.47	Max F6: 5.06
F1=9.36	F2=14.06
F2=6.78	F3=6.61
	F6=0.89

Table 3 illustrates that the individual development and general facilities are among the most influential variables on educational satisfaction. When the interaction between satisfaction and perceived service quality is taken into consideration, it can be seen that the same factors take place in the optimal solution which maximizes the educational satisfaction (see Table 4). The same is valid for social and cultural satisfaction. The general model explaining the natural relationship between perceived service quality and satisfaction in Figure 1 can be transformed into another model that describes the structure in the school under study (Figure 2).

Figure 2
The Relationship Between Satisfaction and Perceived Service Quality Factors in the School Under Study





The correlation statistics between general satisfaction variable and educational satisfaction that examine the construct validity of the model were found to be statistically significant ($r=0.32$, $p=0.000$). As such, the correlation between the general satisfaction and social and cultural satisfaction was also statistically significant ($r=0.31$, $p=0.000$).

6. Discussion and conclusions

The studies examining service quality usually include comparisons between expectations and performance. In the majority of the studies the existence of a one-way influence of perceived service quality on satisfaction is accepted. In educational sector where long-term customer loyalty and short-term repurchase behavior is observed, a two-way relationship exists. In other words, while perceived service quality leads to satisfaction, satisfaction, in turn, affects the service quality. Furthermore, it can be said that service quality in elementary and secondary education have not received due attention in empirical research. The present study aims to model the relationships between customer satisfaction and perceived service quality in elementary and secondary education. The study makes a contribution to the present accumulation of knowledge on which service criteria have to be improved in order to maximize the satisfaction.

Factor analysis was used to classify service quality and satisfaction criteria. Four quality factors and two satisfaction factors were obtained. In order to examine the existing relationships between perceived service quality and satisfaction, stepwise regression analysis was applied (Dunteman, 1994; Everitt and Dunn, 1991). In the regression analysis, individual improvements were found to be the most important factor increasing educational satisfaction. In the regression equation in which the individual improvement factor is a dependent variable, the educational satisfaction was seen as the factor which made the highest contribution to the individual improvement. This indicates the existence of a two-way interaction between the two variables. The same situation is valid between the social and cultural (F6) and the educational improvement factors (F4).

An adverse relationship is seen between general facilities (F1) and educational facilities (F2). A similar negative relationship is also seen

between educational satisfaction (F5) and social and cultural satisfaction (F6). This situation was further discussed with the decision makers in the school. They indicated that when they increased investment in general tangibles like buildings, sporting facilities, conference rooms, they had to decrease or postpone investments in educational tangibles in the fields of computing, physics, chemistry and so on. As a result of this, the perceived quality level decreases. They made a similar interpretation for F5 and F6. One of the purposes of the LP optimization model proposed in this study is to produce a compromise solution between such conflicting factors.

To model empirically the relationships between the perceived service quality and satisfaction, and to identify which service criteria need improvement to maximize the satisfaction, LP technique was used. From the optimal solution of the LP model, satisfaction factors which have the potential for maximization can be ranked. As seen in Table 4, the maximum value of the social and cultural satisfaction is greater than the value of educational satisfaction. In order to increase the general satisfaction, the school should first assess the factors of educational facilities and educational improvements which maximize the social and cultural satisfaction. The school administrators should examine the underlying variables of these factors. For example, the educational development factor consists of the following two variables: the ability to prepare students for the university entrance examination and the ability to prepare students for the future. Using the same approach, the school administration should improve the criteria such as computer laboratory, library, infirmary etc. in order to maximize the social and cultural satisfaction. The results obtained from the model provide decision support to the school administration in specifying the priority strategies in their decisions.

In those systems having many criteria for quality in terms of number and variety, this model can be proposed as a convenient analytical approach in determining the most contributing criteria to customer satisfaction. The model proposed is applicable to all private schools. At the same time, it can be applied to universities with simple modifications. In such a situation, the sample should consist of students rather than students' parents. Furthermore, the model is suitable for the banking sector in which long- term customer loyalty and repurchase behavior is a critical concern. The model also enables the post-optimality analysis.

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Özet

Eğitimde tatmin ve algılanan hizmet kalitesi için bir maksimizasyon modeli

Eğitim sektörü hizmet endüstrisinde özel bir yere sahiptir. Zira, nispi olarak uzun süreli müşteri bağlılığı ve tekrar satın alma davranışı yoğun biçimde bu sektörde söz konusudur. Bu özellikler eğitim sektöründe müşteri tatmini ile ilgili algılanan ve sunulan kalite düzeylerinin önemini artırmaktadır. Araştırmanın ana amacı ilköğretimde algılanan hizmet kalitesi ile müşteri tatmini arasındaki ilişkileri deneysel olarak modellemektir. Araştırmanın saha çalışması özel bir okulda gerçekleştirilmiş ve verilerin analizinde faktör analizi, regresyon analizi ve doğrusal programlama ardışık olarak kullanılmıştır. Modelden elde edilen sonuçlar doğrultusunda okul yöneticilerine karar desteği sağlanmıştır.