

Towards customer-driven management in hospitality education: a case study of the Higher Hotel Institute, Cyprus

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Abstract

Applying total quality management (TQM) principles in education still remains a great challenge. This paper focuses on hospitality education. Although anecdotal evidence on successful TQM implementation in various hotels can be easily found, no formal approaches on how to implement TQM to the hospitality educational process have appeared in the literature. The Higher Hotel Institute, Cyprus, has recently embarked towards the establishment of a customer-driven management culture. The paper presents and discusses the approach taken by the Institute in collecting and using service quality-related information from three principal groups: namely, future employers, staff and students, towards this goal. Future research directions are also discussed.

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Introduction

Managing for quality is one of the most important challenges that educational institutions, such as schools, colleges, and universities, face in today's competitive environment. The quest for quality is apparent in most educational reforms undertaken in different countries throughout the world. A number of successful stories about incorporating total quality management (TQM) principles in the educational setting have been reported (Dobyns and Crawford-Mason, 1991; Coate, 1994). For example, one of the most publicized TQM success stories is that of Oregon State University (OSU) (Coate, 1990) where TQM was successfully applied to a number of different processes within OSU.

However, although the improvement of quality in the educational setting has received much attention, no formal approach exists on *how* to actually apply the TQM principles and concepts to improve the quality of the services of educational institutions. In this paper, we specifically focus on hospitality education institutions. Such institutions deserve further attention as they provide the staff for the hospitality industry, which is currently considered as the world's largest industry, currently accounting for 12 percent of global consumer spending. In many countries, such as, for example, in the Mediterranean area, the hospitality industry consists of a great proportion of the GNP.

One of the core principles of TQM is the *customer focus* which emphasizes the service relationship between an organization/institution and its customers. Research and literature assign customers a decisive role in evaluating service quality of any organization (Parasuraman *et al.*, 1985, 1988, 1991, 1994; Parasuraman, 1995). This is one point highlighted by most quality gurus,

such as Deming and Juran, in their philosophies. The importance of the customer is also stressed in the Malcolm Baldrige Award criteria where most points a firm can receive are based on business results, which also include customer satisfaction.

Issues of service quality (SQ) and customer satisfaction (CS) received considerable attention in the marketing literature (Oliver, 1980; Parasuraman *et al.*, 1988; Parasuraman, 1995) as an important driver of performance. The causal relationship between SQ, CS and repurchase intentions also formed the basis of extensive research (Cronin and Taylor, 1992, etc.). Clautier and Richards (1994) examine customer satisfaction issues in a school environment. They take a more holistic approach to CS and identify the necessity to serve the needs and concerns of *all* customers of the education system. The identification of such needs implies a number of operational adjustments which, when implemented, can lead to higher levels of CS.

This article presents the research approach towards establishing a customer-driven management system at the Higher Hotel Institute, Cyprus (HHIC). HHIC is the major supplier of technical staff to the hospitality industry of Cyprus, currently accounting for more than 23 percent of the country's GNP. This research provides a direction towards establishing a formal approach for customer driven management, and enriches current understanding of service quality in the field of hospitality education.

The rest of the article is structured as follows: First, a brief description of HHIC is provided. Second, we present the methodology followed, describing the development of the instrument used and the data collection process. Next, we present results and discussion, followed by an application of quality function deployment. Concluding remarks follow.

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The HHIC

In 1995, the first hotel training programs were established at the Hotel and Catering Institute, the predecessor of the HHIC. The major goal of the Institute originally was to meet the demand of the rapidly expanding hotel industry for staff at the technical level. At that time, the courses which the Institute used to offer covered the fields of cookery, pastry, food and beverage service, front office and housekeeping.

In order to keep pace with the constantly increasing demand and the qualitative requirements of the rapidly growing tourism industry, the institute reorganizes from time to time its education programs on a more sound basis. The educational programs currently offered by the HHIC are as follows:

- Hotel and Catering Management (three years).
- Culinary Arts (three years).
- Front Office (one year).
- Housekeeping (one year).

The major goal, and at the same time the major challenge for the HHIC today, is to offer hospitality educational programs of high quality, and prepare students to be employable by the hospitality industry after graduation. This challenge becomes imperative particularly after the liberalization of hospitality education in Cyprus and the upgrading of the institute's programs from the craft level to the supervisory and managerial level. In the last few years, HHIC has become the major provider of educated staff for the hospitality industry in Cyprus, the primary sector of Cyprus economy. More than 25 percent of the economically-active population are employed in the hospitality industry, which also accounts for more than 20 percent of the country's GDP. Tourist arrivals in 1998 were 2,800,000 with a projection of 5 percent annual increase for the period until 2003.

Methodology

In this paper, we describe the first steps taken towards the establishment of a customer-driven culture at HHIC. For HHIC this was a top-down process.

Once top management realized the importance of the Institute's service orientation, it initiated a three-step process of:

- 1 identifying HHIC's customers;
- 2 collecting and analyzing quality information from these customers; and
- 3 identifying avenues for improvement and repositioning HHIC to achieve the change.

Customer identification

Zeithaml *et al.* (1990, p. 16) suggest that:

... the only criteria that count in evaluating service quality are defined by customers. Only customers judge quality; all other judgements are essentially irrelevant. Specifically, service-quality perceptions stem from how well a provider performs *vis-à-vis* customers expectations about how the provider should perform.

Thus, organizations – teaching institutions or not – must define who their customers are in order to orientate their strategic planning towards meeting the expectations of these customers.

The first step of the research was the identification of the main customers of the HHIC. Most of the contemporary researchers and writers in the field of quality in education (Siegel and Byrne, 1994; Langford and Clearly, 1995; Sallis, 1993) assign the role of *external* customers to students, employers and the society as a whole. Any person next in line within the organization in reference who adds value to the educational service, i.e. teaching and support staff, is assigned the role of *internal* customer. Sallis (1993) specifically defines internal customers as the teachers and support staff, while he classifies external customers into three levels:

- 1 primary external customers, i.e. the learners;
- 2 secondary external customers, i.e. the parents, the governors and employers; and
- 3 tertiary external customers, i.e. the labor market, the government and society.

Adopting the above school of thought regarding the presence of two distinct types of customers – internal and external – we focus, for the purpose of this study, on two groups of external customers, and one group of internal customers. The two groups of external customers include the institute's students and the employers, i.e. managers in the hospitality industry, while the teaching staff formed the group of internal customers.

Instrument development

Sallis (1993) identified several candidates for the source of quality in education. The following factors or some combination of them should be, according to Sallis, paramount in the minds of educators:

- Well maintained buildings.
- Outstanding teachers.
- High moral values.
- Excellent examination results.
- Specialization.
- The support of parents, business and the local community.
- Plentiful resources.

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Educational Management
16/2 [2002] 66-74

- The application of latest technology.
- Strong and purposeful leadership.
- The care and concern for pupils and students.
- A well balanced curriculum.

Different instruments for assessing service quality have appeared in the marketing literature. One of the most popular instruments in the literature, known as SERVQUAL, was developed by Parasuraman *et al.* (1988). SERVQUAL, which has been used to measure service quality in a wide spectrum of services such as health care, banking, utility companies, fast food, etc., is based on capturing the gap between customers' service perceptions and expectations. The two sets of items which constitute SERVQUAL – one for addressing expectations and one for addressing perceptions – were further grouped into five general categories, reflecting five service quality dimensions as follows:

- 1 assurance;
- 2 empathy;
- 3 responsiveness;
- 4 reliability; and
- 5 tangibles.

The dimensionality and applicability of SERVQUAL has also been the subject of a number of subsequent studies (Babakus and Mangold, 1992; Cronin and Taylor, 1992; Carman, 1990).

Cronin and Taylor (1992) argued against the direct assessment of service expectations and presented SERVPERF, similar to SERVQUAL, which measures the gap between expectations and perceptions directly, using only a single set of statements. In this research we developed three different instruments for each of the different customer types identified for HHIC – i.e. staff, students, and employers – based on the above existing instruments and the research work on the quality of education. Most questions followed a 1-7 Likert-type scale. Face validity of the instruments was assessed a priori after discussions with the staff of the institute. An additional question assessing the overall quality of the HHIC was also added to the end of each questionnaire.

Data collection

The data collection period took place during a three-month period in 1998. Students' questionnaires were personally distributed to a random sample of 400 students, out of which 122 returned the questionnaires fully completed, exhibiting a response rate of 30.5 percent. The content of the questionnaire had been explained either individually or in groups. The students had the opportunity to

ask and clarify any questions raised. Newcomers, i.e. students with no considerable experience of HHIC, were excluded from the sample. Non-response bias was also examined by matching characteristics of the students responding to those who did not respond. No apparent problems were identified.

Employers' questionnaires were sent by mail to the general managers, or members of the top management group of 140 hotels in the main tourist areas of the country, where most of the institute's students are typically employed during their industrial training. Clarifications were given either during a personal visit to the hotels or over telephone conversations. Finally, a follow-up personal visit to the ones who did not respond resulted in a total of 37 questionnaires being fully completed, a response rate of 26 percent.

Staff questionnaires were distributed and explained to all members of the teaching staff – a total of 23 instructors – during a staff meeting. The response rate observed was 100 percent.

Results and discussion

Employers' questionnaire

Descriptive statistics of the data collected through the instrument given to the potential employers revealed that there is plenty of room for improvement for most of the features of quality of educational service provided by HHIC. For example, one of the questions assessed the balance in curriculum between general management business skills and hospitality operational knowledge. The mean was 4,080, with 64 percent of the responses providing ratings below five out of seven.

Thus, deviations from the maximum level of the scale used, can point towards potential room for improvement. Such deviations by themselves, however, are not enough to identify *priorities* for improvement. Importance weights must be placed on each of the attributes assessed in order to prioritize potential improvements. Assessing weights directly would, however, deem the questionnaire very lengthy and time consuming. Thus, we established such importance weights indirectly (Rust *et al.*, 1994). To this end, we established Pearson correlation coefficients, between each question and the single question assessing the overall quality of educational services offered by the HHIC. The higher the correlation coefficient the higher the perceived importance the employers give to the specific characteristic of the HHIC is,

with respect to overall quality of the Institute.

The strongest correlation was the one between staff competence and the overall quality of educational services ($r = 0.77$). This suggests that staff competence is perceived as one of the most important drivers towards overall quality of the HHIC, from the employers' perspective[1]. Other features strongly correlated with the overall quality of educational services offered by the HHIC appeared to be the following, in an order form:

- Contribution of physical facilities to the mission of HHIC ($r = 0.72$).
- Up-to-date equipment ($r = 0.54$).
- Visual appealing of physical facilities ($r = 0.53$).
- Curriculum core content common to other internationally recognized programs combined with additional material relating to the Cypriot environment ($r = 0.52$).
- Willingness of HHIC staff to provide information and relevant service to employers who are interested in employing HHIC students for industrial training ($r = 0.50$) and HHIC graduates for permanent employment ($r = 0.48$).

We also examined synergies between different drivers of quality – as perceived by employers – by examining Pearson correlations coefficients among them. Some of the most important synergies observed were as follows:

- Competence of staff with quality of staff ($r = 0.72$) and with the quality of educational programs ($r = 0.75$).
- Whether the HHIC curriculum reflects the needs of the hospitality industry with:
 - Participation of the hospitality industry in the development of the HHIC curriculum ($r = 0.41$).
 - Promotion of partnership between the hospitality industry and the hospitality education ($r = 0.43$).
 - Fair treatment of students during industrial placement by their employers ($r = 0.53$).
- Participation in curriculum development with:
 - Cultural, environment and gender sensitivity of curriculum ($r = 0.44$).
 - Consideration of employers suggestions in the process of educational programs development ($r = 0.62$).
 - Individualized attention to employers' needs ($r = 0.49$).

Based on these results, the following five factors were identified as the general dimensions that must be improved in order

for employers' perceptions of service quality of HHIC to be improved[2]:

- 1 Staff competence.
- 2 Staff quality.
- 3 Building and educational facilities.
- 4 Participation of industry in curriculum development.
- 5 Industrial placement service.

Students' questionnaire

As in the case of employers' questionnaire, descriptive statistics identified important pitfalls in the delivery of HHIC educational services. Furthermore, correlation coefficients were identified between each question and all other questions – in order to identify potential synergies between the attributes – and, particularly, the correlation with the question regarding the overall quality of educational service in the students' questionnaire.

Unlike the case of the students' questionnaires, no factor analysis was performed on the data because of the small sample size of the employers' responses.

The strongest correlation coefficient observed ($p < 0.01$) was the one between overall service quality and library facilities, which assesses whether the library offers all necessary reference books, journals and audio-visual aids. Other drivers of quality follow in this order:

- Effective communication between HHIC management and students.
- Modern culinary equipment and utensils for kitchen and pastry workshops.
- Overall quality of educational facilities.
- Flexible restaurant for alternative layouts and functions.
- Overall quality of educational programs.
- Support of learning process through tutoring.
- Library environment for self-study.
- Staff competence.
- Willingness to provide prompt solutions (responsiveness).
- Individualized attention to students' needs.

From the above, it is evident that the institute should emphasize among others on the following areas:

- Improving the library of the institute.
- Improving the communication between students and HHIC management.
- Building and educational facilities, including facilities for food and beverage education.
- Building individualized attention to students' needs, that is students' affairs system.

Staff questionnaire

A similar approach was also followed to elicit quality-related information from the staff. From the analysis of data collected through the staff questionnaire useful lessons were also derived towards identifying areas for improvement:

- There is a need to communicate the mission of the Institute to all members of the staff in order to achieve a coherent approach towards the implementation of its role.
- The institute's vision should be modified to reflect a place of excellence in hospitality studies, both locally and internationally, promoting the interests of students and serving the needs of the hospitality industry for qualified staff. Quality of educational services is the core element of most ideas provided.
- If the institute is to acquire a customer-driven management, a new culture placing the customers best interest at heart should be established.
- Organizational climate has to be improved, particularly in terms of human relations, communication, involvement and participative decision making, recognition, team work, reward system, ongoing training and career opportunities.

Teachers are both customers and suppliers. As customers they receive the benefits of certain processes in the school they work for. As suppliers they provide other customers, i.e. students, colleagues, subordinates and supervisors with learning opportunities and support.

In order for an institution to serve the needs of its customers, customer orientation must lie at the heart of every stakeholder and every provider, both individually and collectively within the given system. To do this, the whole organization must have a clear direction towards quality. Langford and Cleary (1995) compare the two cases of having or not having a clearly defined direction within any system:

- ... when a system is moving in the same direction, organized around the same purpose and providing clear benefit to its customers, it is orderly and predictable; when it is not,
- ... it is chaotic and wasteful of its resources.

This is true in any organization, whether it provides a manufactured product, a tangible service or an environment.

After discussing with the top management of the Institute, the following were identified as the areas that the HHIC expects its staff to excel in:

- 1 contribution;
- 2 competency;
- 3 continuous improvement;
- 4 collaboration; and
- 5 commitment.

These five Cs indicate five dimensions which have a primary effect on the quality of educational service. In order, however, for the staff to provide the five Cs they should enjoy the right organizational climate. The data collected through the staff questionnaire provide enough evidence that there is enough room for improvement of the organizational climate.

Current research supports a strong relation between employees' perceptions of their organization's service climate and customers' perceptions of the quality of service (Schneider and Bowen, 1993). This is due to the psychological and physical closeness that exists between employees and customers in service encounters. Schneider and Bowen (1993) underline the personal and psychological experience of delivering a service:

Many services, then, are judged for quality based on seemingly tangential cues experienced during the delivery process.

Furthermore, service organizations have only a flimsy and permeable boundary between themselves and their customers. This is valid for the HHIC of which one type of external customers, students, have a permanent psychological and physical contact with their teachers and other staff members. In order for this contact to be upgraded, improvement in organizational climate becomes an imperative.

Quality function deployment

In this section, we present an application of a process extensively used in TQM, known as quality function deployment (QFD) (Hauser and Clausing, 1988). QFD was developed in Japan and used extensively by Toyota and its suppliers. Behara and Chase (1993) present an application of QFD to a service environment with what they call "service quality deployment". The main goal of QFD is to prioritize the most important operational design characteristics in order to most effectively meet customers' needs. Here, we describe how QFD was applied to HHIC after completion of the data analysis obtained by the empirical part of our research.

The main tool of QFD is the QFD matrix (Figure 1). In the matrix, the rows represent customer requirements. The first column is typically used to assign the importance of each requirement on some Likert scale, while

Figure 1
Quality function deployment matrix (staff)

Relationship

Strong	⊕	5
Medium	∅	3
Weak	○	1

Quality requirements for the management	Importance 1 - 5	Internal customer requirements										
		Facilitator	Foster Change	Trust Builder	Leader	Process Oriented	Timely Decisions	Fair Arbitrator	Consistent	Continuous Improvement	Accessible	Knowledgeable
Staff Communication	5	⊕										
Role of Committees	1		∅									
Class size/Facilities	3		○							∅		
Computer Facilities	3						∅		⊕	∅		
Workshop Equipment	4		∅				∅		⊕	∅		
Office Space	1						○		○			
Privacy	2											
Recognition	5			∅				⊕	⊕			⊕
Secretarial Help	3	∅				∅	○			⊕		
Student Help	5			⊕	∅			○			∅	
Telephone Answering	1	○										
Human Relations	5	⊕		∅	∅				∅		∅	
Office Equipment	3		∅				∅			○		∅
Salary	5		○					⊕				∅
Parking	1	○										
Staffroom	2	○								○		
Travelling Funds	1											○
Environment	4	∅	∅				∅		⊕	⊕		○
Internal customer importance ranking	Absolute	75	44	55	30	9	46	55	96	70	30	54
	Relative	2	7	4	8	9	6	4	1	3	8	5

the remaining columns specify the system elements required to meet these customer requirements. A correlation scale of strong (weight of 5), medium (weight of 3), and weak (weight of 1) is typically used to describe the relationship between each system design and each customer requirement, if any. The results on the bottom of the QFD matrix include absolute values and relative rankings that enable one to focus on those quality characteristics/requirements that are most important to meeting customers' needs.

Staff house of quality

After presenting to the staff the findings from the empirical part of the study, they were asked to form a working group of ten

members, representing all subject areas taught. After given detailed instructions on how QFD functions, the staff identified 18 requirements which impact their performance. They then assigned importance values for each one of the 18 requirements.

In the meantime, the board of directors of the institute, within its policy to improve the working environment, decided on 11 quality requirements that the institute has control over and it should emphasize on. These quality requirements are shown in the roof of the house of quality (Figure 1). The group of ten teaching staff members worked with a spokesperson of the board of directors from row to row, reaching a consensus on the correlation weights to be given to each cell in the matrix.

Next, they determined the absolute values at the bottom of the house. For example, for the first quality requirement (design element) of "facilitator" the absolute value was found by multiplying the importance value for the internal customer requirement of staff communication (in this case 5) by the correlation value (5) to get a total score. This value was then added to the values resulted for each internal customer requirement correlated with facilitator, after multiplying the relevant importance by the correlation value. Likewise, absolute values were estimated for all quality requirements for the management of the school (design elements). Finally, these absolute values were converted to the relative ranking, given in the last row of the matrix. From the relative rankings, the top five quality characteristics of the management of the school were identified:

- 1 be consistent;
- 2 act as a facilitator;
- 3 aim for continuous improvement;
- 4 act as a fair arbitrator; and
- 5 act as a trust builder.

If the management wants to improve organizational climate and working environment, it has to give priority to the above five quality requirements. Such improvements will have a spill-over effect on external customer perceptions on service quality.

For instance, the management of the institute should be "consistent" with what is declared as a quality working environment. This makes people feel that they are in good hands and have the feeling of assurance since they work for the HHIC. The second top priority for the staff in terms of quality requirements is that of "facilitator". That means that the management should make things easier and intervene to improve organization climate and remove barriers.

Student house of quality

The goal of the implementation of QFD for students was to translate the "voice of students" into management characteristics in order to improve the educational services provided to students. In this analysis, 12 students and a spokesperson of the management of the institute were involved. A similar approach was used as in the case of the teaching staff house of quality. The management of the institute also identified a list of key factors which were deemed important towards improving the educational service provided to the students. These are shown in the roof of the house of quality (Figure 2). The top five design

requirements derived from the input of the students group are as follows:

- 1 student participation in curriculum design;
- 2 reinforcing learning;
- 3 curriculum development;
- 4 budget allocation; and
- 5 teaching staff industrial experience.

A number of important lessons were derived from this part of the study. For instance, students perceive their participation in curriculum design as an issue of top priority. They believe that they must have stronger voice in the process of deciding what they should learn. Second, they believe that the management of the institute should give more emphasis on supporting their learning through other means apart from class contact, i.e. through tutoring, participation in education projects, upgrading of industrial training, etc. These quality drivers should be emphasized by school management if a customer-driven culture is to be established towards the improvement of educational services.

The results of the aforementioned houses and of the empirical study were subsequently discussed with the Institute's management, and a steering committee was formed in order to act on the improvement of the different characteristics identified.

Concluding remarks

In this paper, we demonstrate the approach taken at HHIC, Cyprus, towards establishing a customer-driven management system. Although anecdotal evidence from applying TQM principles in educational institutions has been increasing, no formal approaches towards achieving this goal have been presented in the literature.

The approach followed by the institute began with the identification of its primary customers. Quality information collected via questionnaires identified not only the areas that required immediate attention, but also their importance. Finally, applying QFD can help translate the voice of the customers into actionable management characteristics.

This study provided the first steps towards improving the institute's delivered quality, but at the same time generated a number of questions which identify different research avenues. These include exploring not only utilizing different means of data collection methods but also incorporating such feedback in a continuous improvement approach. The authors are currently focusing their efforts towards that direction.

Figure 2
Quality function deployment matrix (students)

Relationship

Strong	⊕	5
Medium	⊖	3
Weak	○	1

Quality requirements for the management	Importance 1 - 5	Teaching Staff Qualifications	Teaching Staff Industrial Experience	Workshop & Classroom Equipment	Internal & External Environment	Support Services	Reinforcing Learning	Evaluating Learning	Library Hours	Computer Support	Teaching Staff time	Teaching Staff Morale	Budget allocation	Students' participation in Curriculum design	Curriculum Development
		Internal customer requirements													
Teaching ability of Teaching Staff	5	⊖	⊖									⊕			
Knowledge of Teaching Staff	5	⊕	⊕												
Teaching Methods	4			⊕			⊕			⊖	⊖		⊖		
Tutoring	3	○					⊖	⊖			⊕	⊕			
Reference Library	4								⊕	⊖			⊕		
Computer Hardware	4									⊖			⊕		
Computer Software	4									⊖			⊕		
Curriculum Flexibility	5										⊕		⊖	⊕	
Technical Skills	5	○	⊕	⊕			⊕	⊖		○			○	⊕	⊕
Theoretical Support	4	⊕	⊖				⊕	⊖	⊕	○				⊕	⊕
Human Relation Skills	4	○	⊖				⊕							⊕	⊕
Language Skills	5	○		⊖			⊕	⊖	○	○				⊕	⊕
Learn how to learn	5	⊖	○				⊕	⊖		○		⊖		⊕	⊕
Problem Solving	5	⊖	⊖				⊕	⊖	○	○		⊖		⊕	⊕
Time Table Convenience	4												○	⊕	
Students Welfare	3					⊕	⊕						⊕		
Internal customer importance ranking	Absolute	107	109	60	15	15	175	81	50	74	30	54	111	185	140
	Relative	6	5	9	13	13	2	7	11	8	12	10	4	1	3

Notes

- 1 The correlation coefficient between staff competence and overall quality was statistically different ($p < 0.05$) from the remaining correlation coefficients between other attributes and overall quality.
- 2 Unlike the case of the students' questionnaires, no factor analysis was performed on the data because of the small sample size of the employers' responses.

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