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**MEASURE OF SERVICE QUALITY
(A CASE STUDY : OTTOMAN RESTAURANT, KYRENIA)**

GRADUATION PROJECT (MAN 400)

ABSTRACT

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ABSTRACT

This is an applied research project measuring the quality service provision at Ottoman restaurant in Kyrenia, Northern Cyprus using SERVQUAL as the measuring instrument. Courses of action to the managers/owners of the restaurant were made toward a quality provision in services designed to match customers' needs ahead of competition and thus increasing the likelihood of survival in the longer term.

KEYWORDS: Quality Service Provision, Servqual, Small Restaurants.

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Introduction

The function of this report is to provide a clear and concise summary of the problem statement and the objectives of the study. It also outlines the scope of the research and the methods used to collect and analyze the data.

1.1 Background and Context

The study was motivated by the need to understand the factors that influence the adoption of new technologies in the workplace. This is particularly important in the context of the current digital transformation of businesses. The research aims to identify the key barriers and enablers to the adoption of new technologies and to provide recommendations for organizations to overcome these barriers.

The study is based on a review of the literature and on data collected from a survey of 100 employees in various organizations. The results of the study are presented in the following sections.

The study is organized as follows. Section 2 provides a detailed overview of the literature on the adoption of new technologies. Section 3 describes the methodology used in the study, including the survey design and the data analysis techniques.

Section 4 presents the results of the survey, including the factors that influence the adoption of new technologies. Section 5 discusses the implications of the findings for organizations and provides recommendations for the future.

The study is limited by the fact that it only focuses on the adoption of new technologies in the workplace. It does not consider the adoption of new technologies in other contexts, such as in the home or in the public sector.

Despite these limitations, the study provides valuable insights into the factors that influence the adoption of new technologies in the workplace.

SECTION I

TERMS OF REFERENCE

1.1 Introduction

This section introduces the topic area, the problem situation, the problem statement and the objectives set for this project.

1.2 Statement of Topic

The scale and importance of the hospitality industry is not difficult to see. All anyone has to do is think of the number of times in any week that they need rest outside their homes. If you add to that days away on business or pleasure and annual vacations, weekend breaks or visits to friends and relatives then the number of occasions when hospitality services are required grows highly. However, despite the size of the industry that serves these needs and glowing numbers of courses, books, journals and conferences with hospitality in their title, there is still no agreement on the scope and coverage of the industry as a whole.

The hospitality industry deals mostly with customers' implied needs. The customer is unlikely to state the implied needs, where through catering field some of these needs may be built into the contract with the client. These needs then become a series of expectations in the customer's mind; expectations about the type of food they would like, how they would like to be greeted how much they are prepared to pay and so on. If these expectations are met or exceeded then the customer will be satisfied and will have had a 'quality' experience. If, however, these unwritten expectations are not met then quality will

not have been provided for that customer and their needs will be left unsatisfied. These gaps between customer expectations and service provision have been well explored by Parasuraman, Zeithaml and Berry, (1985).

The full range of features and characteristics that go to make up any hospitality experience is extremely wide and will vary from customer to customer. Making sense of these complex expectations is difficult but the framework provided in figure 1.1 gives some guidance as to how they can be broken down. The matrix shows that the hospitality product consists of a combination of both tangible and intangible elements, relating to the physical characteristics of the provision (the product) and the interpersonal contact that occurs during the service.

Figure 1.1 The quality characteristics matrix

Characteristics of the experience	Tangible	Intangible
Product	The food and beverage products. Facilitating goods : china, glass , cutlery. Information: menu Process : eg. Aftpos * terminal.	Atmosphere Aesthetics Feelings Comfort
Service	Actions Process Speed Script Corrective action	Warmth Friendliness Care Services

*electronic funds transfer at point of service

1.3 Problem situation

Quality problems in small a restaurant will lead to customer dissatisfaction and have an adverse effect on profits in the long run. This is also true in the face of the growing number of small restaurants in Northern Cyprus engaged in a fierce competition with each other. Small restaurant owners no longer can rely on price competition but on the variety and the quality of services provided as sought by the increasingly sophisticated customers. Northern Cyprus is going through a phase where visitors to the island not only come from Turkey but also from European tourists and an increasing population of the European settlers around the coastal towns.

There is a need for the small restaurant owners in Northern Cyprus to identify the needs of their targeted segments and the gap between the service that they provide and the identified needs of their customers. As the long-term survival of their business organizations will depend on continuous quality management for customer satisfaction in advance of competition.

1.4 Statement of the problem

This project is offering a study on quality management within the hospitality industry and specifically in small restaurants. It will be an applied research to measure the current quality service provision at a selected case of a small restaurant in Kyrenia, Northern Cyprus in relation to the expectations of its targeted group of customers. The project aims to recommend courses of action to the manager/owners of the selected small restaurant toward a quality provision in services designed to match customers' needs ahead of competition and thus increasing the likelihood for survival and profits in the longer term.

1.5 Objectives of the project

The following are the objectives formulated for the study:

- 1.5.1 To understand the concept of quality within a context of a hospitality service provision.
- 1.5.2 To understand customers' expectations from a small restaurant as related to the case organization to be selected.
- 1.5.3 To measure the gap between the current services provided by the selected restaurant organization and the expectations of its targeted group of customers.
- 1.5.4 To offer recommendations to the manager/owner of the selected restaurant organization to breach the gap between the current services provided and the expectations of its targeted group of customers.

1.6 Conclusion

This section depicted the topic area, the problem situation, the problem statement, and the objectives of this project. The next section covers a brief literature review on total quality management, customers' satisfaction and hospitality industry.

SECTION II

HOSPITALITY INDUSTRY AND TOTAL QUALITY MANAGEMENT (TQM)

A BRIEF LITERATURE REVIEW

2.1 Introduction

This section is a brief review of the literature on hospitality industry and Total Quality Management (TQM) and customer satisfaction with an aim to identify and define the variables involved in quality service provision.

2.2 Hospitality industry and TQM

Total Quality Management (TQM) can be defined as a satisfaction of social shareholders via implementing effective planning, programs, policies, and strategies, as well as using human and other assets efficiently and continually within an organization. This approach will continue to be one of the hot topics among practitioners, academics, and professionals in the new millennium.

According to the literature, only a few studies have been developed on TQM readiness assessment criteria in small- and medium-sized firms. Scholars and others have a common understanding that the more clearly the TQM readiness factors are assessed, the healthier a transition can be achieved to the TQM process. The TQM literature states, Organizations, which are ready for change in climate, have more opportunity to achieve a successful implementation in a shorter period of time (Weeks, Helms, and Etkin 1995).

A common point endorsed in the literature is that there must be a readiness survey before designing, developing, and implementing a TQM program. (Yavas 1995; Lakhe and

Mohanty 1994; Endowsman and Savage 1991; Derrick, Desai and Obrein 1989). This may help to determine TQM factors within an organization and to identify potential problems that may create resistance to TQM and will help to develop a database for future comparisons.

Walker and Salameth (1990) have stated that only a small percentage of restaurants and hotels have heard the siren call of TQM implementations even in the U.S. It is interesting to note that after 10 years, the literature regarding hotels/restaurants is still sparse. Although some viable hotels in limited geographical areas have reported that their TQM performance resulted in profit increased, employee satisfaction, and better usage of economic resources, only a few case studies have been published. As Bloomquist and Breiter (1998) indicate, "While those case studies are important in elaboration on the theme of quality management, there remain no reliable statistical data on (hotel/restaurant) industry-wide performance credited to quality management." (Bloomquist and Breiter 1998; Camison et al. 1996; Golden 1993).

The hospitality industry deals for the most part with customers' implied needs. The customer is unlikely to state them explicitly. These needs become a series of expectations in the customers' mind — expectations about the type of food they would like, how they would like to be greeted, how much they are prepared to pay and so on. If these expectations are met or exceeded then the customer will be satisfied and will have had a 'quality' experience. If, however, these unwritten expectations are not met then quality will not have been provided for that customer and their needs will be left unsatisfied. These gaps between customer expectations and service provision have been well explored by Parasuraman, Zeithaml and Berry, (1985).

In 1995-88, Parasuraman, Zeithaml and Berry, reduced the service quality elements to five general dimensions. These are: tangibles, reliability, responsiveness, assurance, and empathy. Based on these models a basic model for assessing quality in service provision is developed called SERVQUAL. This model is used as a base for investigations at the selected restaurant case in Northern Cyprus.

2.3 Total Quality Challenge for Cyprus Hotel/Restaurant Organizations

Cyprus is the third-largest island in the Mediterranean. Cyprus has a great historical heritage, conserved environment beauties, and a good climate, and after the war in 1974, the island was divided into north and south parts. No study has been conducted on how TQM can be applied in small- and medium-sized hotel/restaurant organizations in North Cyprus, which is a major deficiency since tourism is the leading sector. North Cyprus is certainly not the only country where tourism is the most important business sector. According to the World Tourism Organization (WTO) statistics, tourism in the world is expected to reach a volume of \$US 4 tourism industry in 2010 (WTO).

2.4 Servqual and TQM

In recent years small restaurants have experienced many changes that have affected management styles, board plans, payment methods, menu concepts, and service styles. These changes are in response to the demands of a customer base that is diverse in demographic characteristics, such as age, cultural background, life and educational experience, and eating habits (Bowman, McProud, Usiewicz, Gendreau, & Mitchler, 1995; Chi & Brown, 1996; Tayce, Gassenheimer, & Ingram, 1999). Customers in small restaurants want maximum choice with wide variety, flexibility and customization, and

fresh-prepared food (Buzalka, 2003; Law, 2004). Foodservice managers must be knowledgeable of expectations and perceptions of current customers that affect their satisfaction with services provided.

Hence, it is important for small restaurant food providers to measure perceived service quality and satisfaction as distinct, but related constructs. According to Asubonteng, McCleary, and Swan (1996), the multi-item SERVQUAL developed by Parasuraman, Zeithaml, and Berry (1985, 1988, 1991), is the most widely used instrument to measure expectations, perceptions, and the resulting gap. Two scales were developed to measure (1) the consumer's expectation of quality service from an ideal firm in an industry and (2) the consumer's perception of the service actually received from a specific firm in that industry. Expectations involve the consumers' service quality requirements defined as what they feel a service provider should offer rather than would offer (Parasuraman et al., 1988). Literature has shown that expectations are important in determining satisfaction (Carman, 1990; Spreng & Mackoy, 1996). Customers have two levels of expectations: predictive or what will happen and normative or what should happen (Boulding, Kalra, Staelin, & Zeithaml, 1993; Stevens, Knutson, & Patton, 1995). Service providers need to discover what customers expect because satisfaction can be increased by decreasing expectations (Carman, 1990). Becker (2000) suggested that within the general population, expectations may not be homogenous across all customers. Because these vary from one customer to the next, it is desirable to analyze expectations at the individual level.

Boulding et al. (1993) concluded that perceptions result from a combination of (1) predictive and normative expectations and (2) the reality of the service encounter. It is the evaluation of the operation's performance in comparison to a food service quality standard that a customer holds. The resulting gap, or perceived service quality, is "a global

judgment, or attitude, relating to the superiority of the service” (Parasuraman et al., 1988, p. 16). Knowing the gap between expectations and perceptions can assist foodservice managers in benchmarking their performance and making changes needed to increase satisfaction.

Satisfaction, as discussed by Oliver (1989), involves “an evaluative, affective, or emotional response” (p.1). In his book, Oliver (1997) provided a definition that he thought was consistent with theoretical and empirical evidence available to him at the time. He defined satisfaction/dissatisfaction as “the consumer’s fulfillment response, the degree to which the level of fulfillment is pleasant or unpleasant” (p.28). Therefore, satisfaction is the customer’s overall judgment of the service provider (McDougall & Levesque, 2000). Crompton and MacKay (1989) stated, “Satisfaction is a psychological outcome emerging from an experience, whereas service quality is concerned with the attributes of the service itself” (p. 368).

Oliver (1997) defined disconfirmation as the difference between the customer’s expectations of performance and the actual perceived performance of the service. He stated that satisfaction is determined by disconfirmation. If the performance is less than what the customers expect, quality is perceived to be low resulting in negative disconfirmation or dissatisfaction. Conversely, if performance meets or exceeds customer’s expectations quality is perceived to be high, resulting in positive disconfirmation or satisfaction (Bitner, 1990; Kandampully, Mok, & Sparks, 2001).

Of the numerous studies that have applied modified SERVQUAL models, few have been specifically for foodservice. Two of these are Dineserv (Stevens et al., 1995), which

measured service quality in its entirety, and TANGSERV (Raajpoot, 2002), which focused on measuring only the tangible dimension. Dineserv adopted the five factor structure of SERVQUAL: tangibles, reliability, responsiveness, assurance, and empathy. The TANGSERV instrument included a three-factor structure for Tangibles: layout/design, product/service, and ambiance/social. Items used in these two scales were considered in the development of the instrument used in this study.

Application of the SERVQUAL to small restaurant foodservice operations is currently lacking. This study investigated the evaluation of customers' perceived service quality and customer satisfaction with the foodservice operation in a small restaurant called the Ottoman Restaurant operating in Kyrenia. The study used a valid and reliable online instrument (Estepa, 2004) to measure customers' perception of service quality and satisfaction in a small restaurants foodservice setting. The study also investigated whether a linear relationship between the customer's perception of service quality and their overall satisfaction rating existed.

2.5 Conclusion

This section has conducted a brief review of the literature on TQM and the hospitality industry with specific reference to Northern Cyprus. The next section will give information about the Ottoman Restaurant.

SECTION III

OTTOMAN RESTAURANT

3.1 Introduction

This sections introduces and explains the service experience, characteristics and the decorative parts of the Ottoman Restaurant.

3.2 Ottoman Restaurant

I would like to give a brief information about my restaurant in Kyrenia which the name in Turkish is 'Osmanlı Lokantası' which means the "Ottoman Restaurant" is English.

The restaurant is right in front of the Kyrenia Municipality and its address is Ramadan Cemil Avenue, Hürriyet Caddesi, no:101. The place looks like an Ottoman house which I mean the balcony of the second floor is closed with wooden coverings as well as the first floor. The entrance door is at the middle of the building. There are three silver and square shaped tables outside with twelve chairs in total right in front of the restaurant. There are two small green trees on the right hand side and the left hand side of the restaurants' outdoor.

As we enter inside the restaurant, the readily made stew Turkish food and the doner kebab is on the right side of the restaurant. There are blue ceramic coverings behind the food bar and nearly 15 kinds of food dishes are served everyday.

At the beginning of the food bar, there are knives, forks and spoons with trays under them next to the food bar there is a small table where the bread is cut and served and next to that the desert fridge where the desert, yogurts and salads are kept. The service style is self service but ofcourse if the customers ask to serve them to the table, it is the duty of the waiters to do so. There are white curtains on the windows where the outside can be seen while eating inside. Inside the restaurant there are two large chandeliers on the ceiling with many spot lights around them. The capacity of the restaurant is 52 maximum with 14 tables which two of them are in square shaped and the rest in rectangular shaped covered with white coverings and glass mirrors on them.

The chairs are very comfortable where each table has maximum capacity of chairs around them. The floor and the stairs are covered with white tiles. The colour of the walls are creamy yellow and there are green coloured wooden coverings with a meter height all around the in restaurant. On the walls there are lamps in flower shape and pictures of the mosques in İstanbul between the lamps. Also on the tables there are salt, pepper, tissues, toothpicks and ashtrays, where the ashtrays are always tried to be kept clean.

There are four employees working at the Ottoman Restaurant and they start working at 6.00 am. Three of the workers work at upstairs where the kitchen is. The cook prepares the food and his duty is to cook the food by 10. 00 am. The second cook prepares the doner kebab and makes it ready by 10.00 am. The dishwasher is responsible of cleaning the kitchen and helping the cooks when they need. The fourth employee, who is the waiter, is responsible of cleaning the dining hall of the restaurant, clean the tables and make them ready for the service. He also dries the glasses, knives, forks and spoons, prepares the tissues and the trays on the food bar for the customers to use, checks the fridges and supplies the deficient

products. By 10.00 am everything is ready for the service. The customers go to the food bar straightaway and choose their meals, any information about the foods can be taken from the cook. The customers can either carry their meals with the trays or ask the waiter to carry for them, then the drink orders are taken and served. The bill is paid over the tables or on the cashier desk.

After the lunch service the shopping for the next day and the preparations are done, the gas and the meat orders are given by the phone. The dining hall of the restaurant and the toilets are cleaned again in the afternoon. The Ottoman Restaurant is open until 7.00 pm in the evening where the service style is self service. Customers vary from local small business man, students, office workers and shopping tourists. Prices start from 6 YTL per portion and the restaurant is open seven days a week.

3.3 Conclusion

This section has given information about the Ottoman Restaurant. The main variables identified and their correlations are discussed in the next section.

SECTION IV

THEORETICAL FRAMEWORK

4.1 Introduction

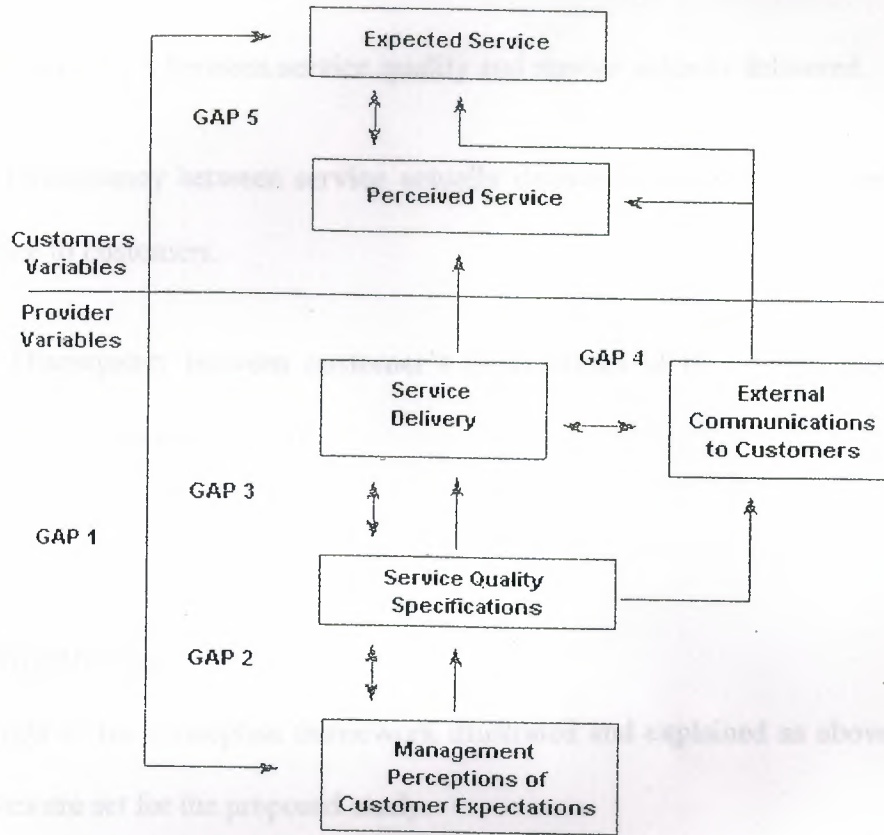
This section introduces and explains the theoretical framework of the project.

4.2 Conceptual framework for achieving TQM at a small restaurant: (SERVICE QUALITY IMPROVEMENT PRIORITIES)

This project is based on the theoretical model called Servqual as discussed in Section III. Servqual provides management and key players with feedback about the organizations ability to provide quality service. The results of a service quality audit assist management to identify service strengths and weaknesses (GAPS). The benefit to the organization is that specialist groups such as Marketing and Human Resources are able to support the business plans focus on customers by continuously listening to the customer - using a service quality information system - and making needed changes to the following 5 key drivers that influence customers' perceptions of service quality.

SERVQUAL DIMENSIONS	
Tangibles	The appearance of physical facilities, equipment, personnel and communication materials.
Reliability	Ability to perform the promised service dependably and accurately.
Responsiveness	Willingness to help customers and provide prompt service.
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence.
Empathy	Caring individualized attention the firm provides its customers.

This instrument assists organizations to establish ongoing listening systems to develop continuous insight about customer service needs. More informed decision making to improve service quality comes from a continuous series of snapshots taken from various angles and through different methods form the essence of systematic listening.



The possible contributing factors for each of the organizational Gaps are listed below. The challenge to the organization is to isolate which variables are influencing service quality perceptions negatively and how to eliminate them. Of key importance to the organization is Gap 1. Gap 5 relates to the overall perception your client-base has of the unit's ability to deliver on service commitments made.

Gap I: Discrepancy between actual customer expectations and management perceptions of those expectations.

Gap 2: Discrepancy between management perceptions of customer expectations and service- quality specifications.

Gap 3: Discrepancy between service quality and service actually delivered.

Gap 4: Discrepancy between service actually delivered and what is communicated about the service to customers.

Gap 5: Discrepancy between customer's expectations of the service provider and their perceptions of provider delivery.

4.3 Objectives set

In the light of the conceptual framework illustrated and explained as above, the following objectives are set for the proposed study.

4.3.1 To understand the concept of quality within a context of a hospitality service provision

4.3.2 To understand customers' expectations from a small restaurant as related to the case organization to be selected.

4.3.3 To measure the gap between the current services provided by the selected restaurant organization and the expectations of its targeted group of customers.

4.3.4 To offer recommendations to the manager/owner of the selected restaurant organization to breach the gap between the current services provided and the expectations of its targeted group of customers.

4.4 Conclusion

This section has illustrated the theoretical framework and the objectives of the study. The next section includes the methodology of the study.

SECTION V

METHODOLOGY

5.1 Introduction

This section includes the methodology of this project.

5.2 Methodology

Data were collected from a sample of small restaurant (Ottoman Restaurant) participating in kebab and traditional Turkish food in Kyrenia. Customers were mainly living in Kyrenia and the majority of whom were men.

The survey was composed of three primary scales to measure the customers' expectations, perceptions, and satisfaction. The expectation scale included 21 attributes that the customers expect from any dining center, while the perception scale asked the respondents to evaluate the performance of the Ottoman Restaurant which is operation on the same set of attributes. The three-item satisfaction scale measured the customers' overall satisfaction with the services that they receive from the facility. All scales used a 7-point Likert scale ranging from 1, strongly disagree, through 7, strongly agree.

The instrument also included a section for the customers to rank the importance of the five SERVQUAL (Parasuraman et al., 1988, 1991) dimensions in their evaluation of service quality. The demographics section included questions such as age and gender. The survey concluded with an open-ended question that provided the respondents an opportunity to indicate their comments or suggestions regarding their dining experiences at the facility.

All statistical procedures were done using the Statistical Package for Social Science (SPSS). Descriptive statistics were used to summarize means and standard deviations. Perception minus expectation gap scores per attribute and dimension were calculated and interpreted. Multiple regressions were conducted with the perception scores as the independent variable and the total satisfaction score as the dependent variable to test for a relationship between these variables.

5.3 Conclusion

This section has described the methodology of this project in relation to the characteristics of the research design. The next section will include the results and discussions of this project.

Having described the methodology of this project, the demographics of the sample used for analysis was reflective of the actual characteristics of customers. The majority of the respondents were students from universities, professionally registered engineers and architects. Table 1 provides a summary of the demographics.

Table 1. Demographic Characteristics of Respondents

Demographic Characteristic		N	%
Gender	Male	44	23.5
	Female	143	76.5
Occupation	Student	129	64.2
	Engineer	31	17.0
	Architect	25	13.3

SECTION VI

RESULTS AND DISCUSSIONS

6.1 Introduction

This is the last section of the project that includes the results and discussions.

6.2 Sample

Although 270 customers attended the questionnaire, only a total of 187 completed responses were obtained.

Based on information from a small restaurant's dining services, the demographics of the sample used for analysis was reflective of the actual characteristics of customers. The majority of the respondents were students from universities, predominantly female, with a mean age of 22. Table 1 provides a summary of the demographic information.

Table 1. Demographic Characteristic of Respondents.

<u>Demographic Characteristic</u>		<u>N</u>	<u>%</u>
Gender	Male	44	23.5
	Female	143	76.5
Classification	Student	120	64.2
	Retired	33	17.6
	Teacher	22	11.8
	Cashier	11	5.9
	Architect	1	0.5

6.3 Expectations and Perceptions

Through factor analysis, the 21 service quality attributes were categorized according to the extracted dimensions of Tangibles, Reliability, Customer Relations, and Food (Estepa, 2004). Table 2 shows the means and standard deviations for the 17 expectation and perception items retained for analysis.

Item	Mean	SD
Expectation 1: Cleanliness	4.05 ± 1.02	
Expectation 2: Comfort	4.07 ± 1.02	
Expectation 3: Food quality	4.11 ± 1.02	
Expectation 4: Service quality	4.13 ± 1.02	
Expectation 5: Price	4.15 ± 1.02	
Expectation 6: Location	4.17 ± 1.02	
Expectation 7: Atmosphere	4.19 ± 1.02	
Expectation 8: Staff	4.21 ± 1.02	
Expectation 9: Facilities	4.23 ± 1.02	
Expectation 10: Hygiene	4.25 ± 1.02	
Expectation 11: Safety	4.27 ± 1.02	
Expectation 12: Reliability	4.29 ± 1.02	
Expectation 13: Customer Relations	4.31 ± 1.02	
Expectation 14: Food	4.33 ± 1.02	
Expectation 15: Service	4.35 ± 1.02	
Expectation 16: Price	4.37 ± 1.02	
Expectation 17: Location	4.39 ± 1.02	
Expectation 18: Atmosphere	4.41 ± 1.02	
Expectation 19: Staff	4.43 ± 1.02	
Expectation 20: Facilities	4.45 ± 1.02	
Expectation 21: Hygiene	4.47 ± 1.02	
Expectation 22: Safety	4.49 ± 1.02	
Expectation 23: Reliability	4.51 ± 1.02	
Expectation 24: Customer Relations	4.53 ± 1.02	
Expectation 25: Food	4.55 ± 1.02	
Expectation 26: Service	4.57 ± 1.02	
Expectation 27: Price	4.59 ± 1.02	
Expectation 28: Location	4.61 ± 1.02	
Expectation 29: Atmosphere	4.63 ± 1.02	
Expectation 30: Staff	4.65 ± 1.02	
Expectation 31: Facilities	4.67 ± 1.02	
Expectation 32: Hygiene	4.69 ± 1.02	
Expectation 33: Safety	4.71 ± 1.02	
Expectation 34: Reliability	4.73 ± 1.02	
Expectation 35: Customer Relations	4.75 ± 1.02	
Expectation 36: Food	4.77 ± 1.02	
Expectation 37: Service	4.79 ± 1.02	
Expectation 38: Price	4.81 ± 1.02	
Expectation 39: Location	4.83 ± 1.02	
Expectation 40: Atmosphere	4.85 ± 1.02	
Expectation 41: Staff	4.87 ± 1.02	
Expectation 42: Facilities	4.89 ± 1.02	
Expectation 43: Hygiene	4.91 ± 1.02	
Expectation 44: Safety	4.93 ± 1.02	
Expectation 45: Reliability	4.95 ± 1.02	
Expectation 46: Customer Relations	4.97 ± 1.02	
Expectation 47: Food	4.99 ± 1.02	
Expectation 48: Service	5.01 ± 1.02	
Expectation 49: Price	5.03 ± 1.02	
Expectation 50: Location	5.05 ± 1.02	
Expectation 51: Atmosphere	5.07 ± 1.02	
Expectation 52: Staff	5.09 ± 1.02	
Expectation 53: Facilities	5.11 ± 1.02	
Expectation 54: Hygiene	5.13 ± 1.02	
Expectation 55: Safety	5.15 ± 1.02	
Expectation 56: Reliability	5.17 ± 1.02	
Expectation 57: Customer Relations	5.19 ± 1.02	
Expectation 58: Food	5.21 ± 1.02	
Expectation 59: Service	5.23 ± 1.02	
Expectation 60: Price	5.25 ± 1.02	
Expectation 61: Location	5.27 ± 1.02	
Expectation 62: Atmosphere	5.29 ± 1.02	
Expectation 63: Staff	5.31 ± 1.02	
Expectation 64: Facilities	5.33 ± 1.02	
Expectation 65: Hygiene	5.35 ± 1.02	
Expectation 66: Safety	5.37 ± 1.02	
Expectation 67: Reliability	5.39 ± 1.02	
Expectation 68: Customer Relations	5.41 ± 1.02	
Expectation 69: Food	5.43 ± 1.02	
Expectation 70: Service	5.45 ± 1.02	
Expectation 71: Price	5.47 ± 1.02	
Expectation 72: Location	5.49 ± 1.02	
Expectation 73: Atmosphere	5.51 ± 1.02	
Expectation 74: Staff	5.53 ± 1.02	
Expectation 75: Facilities	5.55 ± 1.02	
Expectation 76: Hygiene	5.57 ± 1.02	
Expectation 77: Safety	5.59 ± 1.02	
Expectation 78: Reliability	5.61 ± 1.02	
Expectation 79: Customer Relations	5.63 ± 1.02	
Expectation 80: Food	5.65 ± 1.02	
Expectation 81: Service	5.67 ± 1.02	
Expectation 82: Price	5.69 ± 1.02	
Expectation 83: Location	5.71 ± 1.02	
Expectation 84: Atmosphere	5.73 ± 1.02	
Expectation 85: Staff	5.75 ± 1.02	
Expectation 86: Facilities	5.77 ± 1.02	
Expectation 87: Hygiene	5.79 ± 1.02	
Expectation 88: Safety	5.81 ± 1.02	
Expectation 89: Reliability	5.83 ± 1.02	
Expectation 90: Customer Relations	5.85 ± 1.02	
Expectation 91: Food	5.87 ± 1.02	
Expectation 92: Service	5.89 ± 1.02	
Expectation 93: Price	5.91 ± 1.02	
Expectation 94: Location	5.93 ± 1.02	
Expectation 95: Atmosphere	5.95 ± 1.02	
Expectation 96: Staff	5.97 ± 1.02	
Expectation 97: Facilities	5.99 ± 1.02	
Expectation 98: Hygiene	6.01 ± 1.02	
Expectation 99: Safety	6.03 ± 1.02	
Expectation 100: Reliability	6.05 ± 1.02	
Expectation 101: Customer Relations	6.07 ± 1.02	
Expectation 102: Food	6.09 ± 1.02	
Expectation 103: Service	6.11 ± 1.02	
Expectation 104: Price	6.13 ± 1.02	
Expectation 105: Location	6.15 ± 1.02	
Expectation 106: Atmosphere	6.17 ± 1.02	
Expectation 107: Staff	6.19 ± 1.02	
Expectation 108: Facilities	6.21 ± 1.02	
Expectation 109: Hygiene	6.23 ± 1.02	
Expectation 110: Safety	6.25 ± 1.02	
Expectation 111: Reliability	6.27 ± 1.02	
Expectation 112: Customer Relations	6.29 ± 1.02	
Expectation 113: Food	6.31 ± 1.02	
Expectation 114: Service	6.33 ± 1.02	
Expectation 115: Price	6.35 ± 1.02	
Expectation 116: Location	6.37 ± 1.02	
Expectation 117: Atmosphere	6.39 ± 1.02	
Expectation 118: Staff	6.41 ± 1.02	
Expectation 119: Facilities	6.43 ± 1.02	
Expectation 120: Hygiene	6.45 ± 1.02	
Expectation 121: Safety	6.47 ± 1.02	
Expectation 122: Reliability	6.49 ± 1.02	
Expectation 123: Customer Relations	6.51 ± 1.02	
Expectation 124: Food	6.53 ± 1.02	
Expectation 125: Service	6.55 ± 1.02	
Expectation 126: Price	6.57 ± 1.02	
Expectation 127: Location	6.59 ± 1.02	
Expectation 128: Atmosphere	6.61 ± 1.02	
Expectation 129: Staff	6.63 ± 1.02	
Expectation 130: Facilities	6.65 ± 1.02	
Expectation 131: Hygiene	6.67 ± 1.02	
Expectation 132: Safety	6.69 ± 1.02	
Expectation 133: Reliability	6.71 ± 1.02	
Expectation 134: Customer Relations	6.73 ± 1.02	
Expectation 135: Food	6.75 ± 1.02	
Expectation 136: Service	6.77 ± 1.02	
Expectation 137: Price	6.79 ± 1.02	
Expectation 138: Location	6.81 ± 1.02	
Expectation 139: Atmosphere	6.83 ± 1.02	
Expectation 140: Staff	6.85 ± 1.02	
Expectation 141: Facilities	6.87 ± 1.02	
Expectation 142: Hygiene	6.89 ± 1.02	
Expectation 143: Safety	6.91 ± 1.02	
Expectation 144: Reliability	6.93 ± 1.02	
Expectation 145: Customer Relations	6.95 ± 1.02	
Expectation 146: Food	6.97 ± 1.02	
Expectation 147: Service	6.99 ± 1.02	
Expectation 148: Price	7.01 ± 1.02	
Expectation 149: Location	7.03 ± 1.02	
Expectation 150: Atmosphere	7.05 ± 1.02	
Expectation 151: Staff	7.07 ± 1.02	
Expectation 152: Facilities	7.09 ± 1.02	
Expectation 153: Hygiene	7.11 ± 1.02	
Expectation 154: Safety	7.13 ± 1.02	
Expectation 155: Reliability	7.15 ± 1.02	
Expectation 156: Customer Relations	7.17 ± 1.02	
Expectation 157: Food	7.19 ± 1.02	
Expectation 158: Service	7.21 ± 1.02	
Expectation 159: Price	7.23 ± 1.02	
Expectation 160: Location	7.25 ± 1.02	
Expectation 161: Atmosphere	7.27 ± 1.02	
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Expectation 243: Reliability	8.91 ± 1.02	
Expectation 244: Customer Relations	8.93 ± 1.02	
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Expectation 246: Service	8.97 ± 1.02	
Expectation 247: Price	8.99 ± 1.02	
Expectation 248: Location	9.01 ± 1.02	
Expectation 249: Atmosphere	9.03 ± 1.02	
Expectation 250: Staff	9.05 ± 1.02	
Expectation 251: Facilities	9.07 ± 1.02	
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Expectation 314: Location	10.33 ± 1.02	
Expectation 315: Atmosphere	10.35 ± 1.02	
Expectation 316: Staff	10.37 ± 1.02	
Expectation 317: Facilities	10.39 ± 1.02	
Expectation 318: Hygiene	10.41 ± 1.02	
Expectation 319: Safety	10.43 ± 1.02	
Expectation 320: Reliability	10.45 ± 1.0	

Table 2. Perception, Expectation, and Gap Scores for Each Item and Each Extracted Dimension^a

Dimensions	Perceptions Mean \pm SD	Expectations Mean \pm SD	Gap
Dimension 1: Tangibles^b			
Employees of _ Ottoman Restaurant are neat and appropriately dressed.	4.69 \pm 1.24 5.43 \pm 1.27	5.20 \pm 1.35 5.72 \pm 1.23	-0.51 -0.29
The service and dining areas at _ Ottoman Restaurant are thoroughly clean.	5.12 \pm 1.40	5.72 \pm 1.49	-0.60
Customers can be confident that safe food practices are followed in the preparation and service of food.	4.88 \pm 1.61	5.45 \pm 1.75	-0.58
Ottoman Restaurant has visually appealing serving and dining areas.	4.71 \pm 1.51	5.20 \pm 1.48	-0.49
The food presentation at _ Ottoman Restaurant is appealing.	4.47 \pm 1.59	4.87 \pm 1.72	-0.40
Employees of _ Ottoman Restaurant can answer questions about the menu, ingredients, and methods of preparation.	4.35 \pm 1.60	4.78 \pm 1.60	-0.42
_ Ottoman Restaurant has operating hours convenient to all their customers.	3.85 \pm 2.01	4.68 \pm 2.11	-0.82
Dimension 2: Reliability			
Ottoman Restaurant provides their services at the time they promise to do so.	5.30 \pm 1.31 5.51 \pm 1.41	5.70 \pm 1.20 5.87 \pm 1.23	-0.40 -0.36
_ Ottoman Restaurant effectively communicates service hours.	5.46 \pm 1.61	5.68 \pm 1.59	-0.22
_ Ottoman Restaurant is consistent and reliable.	5.29 \pm 1.59	5.65 \pm 1.40	-0.36
_ Ottoman Restaurant performs the service right the first time.	5.27 \pm 1.40	5.73 \pm 1.23	-0.46

At Ottoman Restaurant, items on the printed menus are available throughout the service period.	5.01 ± 1.57	5.57 ± 1.56	-0.56
Dimension 3: Customer Relations	5.08 ± 1.30	5.46 ± 1.29	-0.38
Employees of Ottoman Restaurant are willing to help customers.	5.25 ± 1.42	5.73 ± 1.39	-0.48
Employees of Ottoman Restaurant are courteous with customers.	5.25 ± 1.41	5.59 ± 1.40	-0.34
Ottoman Restaurant gives customers individual attention.	4.74 ± 1.45	5.06 ± 1.48	-0.32
Dimension 4: Food	4.67 ± 1.64	5.17 ± 1.64	-0.50
Ottoman Restaurant offers a variety of food choices.	5.02 ± 1.77	5.52 ± 1.70	-0.50
The portion sizes offered at Ottoman Restaurant are appropriate.	4.32 ± 1.87	4.82 ± 1.93	-0.50

^a A 7-point Likert scale ranging from 1, strongly disagree to 7, strongly agree was used.

^b Dimension mean score = (Σ item scores) / number of items in dimension

The range for perceptions scores was from a low of 3.85 ± 2.01 to a high of 5.51 ± 1.41 on a 7 point scale ranging from 1, strongly disagree to 7, strongly agree. Data show that on average, the Ottoman Restaurant performed best in reliability ($MbSD = 5.3 \pm 1.3$) and poorest in the food dimensions ($M \pm SD = 4.67 \pm 1.64$). The Ottoman Restaurant performed well in the following attributes: providing their services when they were promised ($M bSD = 5.51 \pm 1.41$), effectively communicating the hours of operation ($M bSD = 5.46 \pm 1.61$), and appearance of the employees ($M \pm S'D = 5.43 \pm 1.27$). Perception scores indicated that management needs to concentrate efforts on improving the customers' perceptions in three key areas: (1) portion sizes that are available, (2) ability of employees to answer questions about the menu items, and (3) convenience of the operating hours that the dining hall has set. These findings are also reflective of sentiments expressed by the customers in their responses to open-ended questions.

The range for expectations scores was from a low of 4.68 ± 2.11 to a high of 5.87 ± 1.23 . The customers also have the greatest mean expectation for the reliability dimension ($M \pm SD = 5.70 \pm 1.20$). Although the food dimension had the lowest expectation score, the mean of 5.17 ± 1.64 on a 7-point scale, indicated that customers have high normative expectations. Customers had highest expectations for the attributes of services being available at the time that management has promised ($M + S'D = 5.87 \pm 1.23$), employees who are willing to help customers ($M + SD = 5.73 \pm 1.39$), and service being performed right the first time ($M \pm SD = 5.73 \pm 1.23$). Customers had the lowest expectations for employee knowledge of the menu items ($MISD = 4.78 \pm 1.60$), portion sizes ($M + SD = 4.82 \pm 1.93$), and operating hours ($M + SD = 4.68 \pm 2.11$). The customers may not be able to compare the expectations for these attributes to other settings such as high class restaurants, wherein expectations for these attributes would be relatively high.

6.4 Perceived Service Quality

Parasuraman et al. (1994) suggested that the gap analysis is accurate in identifying service shortfalls in an operation. Addressing these identified shortfalls is a foundation for planning strategies to ensure customer experiences that are consistent with their expectations and thus increasing the probability of satisfaction (Kandampully et al., 2001). The data showed that in general, the customers' perceptions of the service quality in the Ottoman Restaurant did not meet their expectations (Table 2). This is evidenced by all the perception minus expectation gap scores being negative, ranging from -0.22 to -0.82 .

Although the customers had low expectations about the convenience of the operating hours, portion sizes, and the knowledge of employees, these attributes had the widest gaps. This implied that having low expectations about an attribute does not necessarily suggest that those expectations are easily met or that the respondents are not as critical in evaluating performance on these attributes. On the other hand, the smallest gaps existed with the employees' appearance, ability to provide individual attention, and the effectiveness in communicating service hours. This suggests that these attributes are three of the facility's strongest points.

In general, the largest mean gaps were for the tangible (-0.51) and food (-0.50) dimensions. Management should consider concentrating on these shortfalls and improving the attributes under each dimension. On the other hand, the smallest mean gap was with the customer relations (-0.38) dimension, indicating that the staff is perceived to be generally courteous,

willing to help customers, and give individual attention. The reliability dimension was not much different at -0.40 , indicating that the Ottoman Restaurant is perceived to be relatively reliable and consistent. However, because these gaps were negative, improvement is still desirable to increase the operation's capacity to meet the customers' expectations.

6.5 Customer Satisfaction

Table 3 shows the customer satisfaction evaluation of the services offered by the Ottoman Restaurant. The results indicated that the customers were more satisfied with the service that they received from the employees of the restaurant in comparison to the quality and variety of food offered. Although they are not necessarily dissatisfied, the data showed that overall satisfaction level of customers was relatively low on a 7-point scale. The scores on the three items also suggested that customers' satisfaction with overall dining experience can be attributed to their satisfaction with the employees.

Table 3. Customer Satisfaction Scores^a

Statement	Mean \pm SD
I am satisfied with the service that I receive from employees at _____ dining center	5.26 \pm 1.473
I am satisfied with the quality and variety of food offered at _____ dining center.	4.30 \pm 1.871
Overall, I am satisfied with the dining experience at _____ dining center.	4.82 \pm 1.632

^a Evaluation was made on a 7-point Likert scale ranging from 1, strongly disagree to 7, strongly agree.

6.6 Other Findings

Besides the quantitative measurements in the instrument, the customers were also asked to provide any comments and suggestions for the operation. Additionally, the customers were asked to enumerate any quality attributes that they use to evaluate their dining experience. Eight attributes were identified in the responses, namely:

convenience and appropriate meal hours, variety of food choices, food quality attributes, availability of healthy options, efficient staff, value for the money, novelty, and ability to offer suggestions. This further supports the importance of measuring and benchmarking perceived service quality and customer satisfaction in this segment.

6.7 Conclusion and Applications

Meyer and Conklin (1998) suggested that successful small restaurant facilities give their consumers a central role in the operations. Bojanic and Kashyap (2000) agreed that a customer-oriented approach is vital in the marketing concept. As implied by these authors, the study found that focusing on the customer can provide the foodservice manager an opportunity to identify important product and service attributes that affect customer perceptions of value and satisfaction. The study showed that as perceptions of service quality attributes increase, the level of customer satisfaction also increases. Hence, this emphasizes the need for management to monitor and constantly work to improve performance on the different attributes.

6.8 Applications

The evaluation of service quality and satisfaction involves many aspects simply because it is a human behavioural measurement. These expectations and perceptions vary from one customer to another. Further research can focus on factors that cause the variances in these

evaluations. Demographic factors such as gender, age, or cultural background may be areas of interest, especially in more diverse populations than the one studied in this research.

The expectations scale and demographics portion can establish a benchmark for the foodservice manager. A matched survey can be administered to measure the performance of the facility. Reducing the length of the questionnaire may also encourage response rates to increase. Separate administrations could also minimize the effect of the customers' familiarity on their expectation ratings.

Foodservice managers can use this instrument as a baseline for a longitudinal benchmarking program. Having a baseline will give foodservice managers a means of comparing their performance from year to year. Foodservice managers can use the data to determine if they are performing well or poorly in the specific aspects of the service experience. It is much easier to improve services if management knows what needs to be improved. Having this information will help managers allocate funds or resources towards areas that most need improvement. Furthermore, data can be used to track fluctuations in expectations and resulting perceptions of changes that management may decide to implement.

This information can also be used to develop employee-training programs to deal with service shortfalls identified in the operation. As results of this project have shown, satisfaction with employees contributes significantly to the overall customer satisfaction. Management should emphasize the need for employees to be knowledgeable of the food served.

REFERENCES

- Asubonteng, P., McCleary, K.J., & Swan, J.E. (1996). SERVQUAL revisited: A critical review of service quality. *The Journal of Services Marketing*, 10(6), 66-81.
- Becker, C. (2000). Service recovery strategies: The impact of cultural difference. *Journal of Hospitality and Tourism Research*, 24(4), 526-538.
- Bitner, M.J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing*, 54(2), 69-82.
- Bojanic, D. C., & Kashyap, R. (2000). A customer oriented approach to managing noncommercial foodservice operations. *Journal of Restaurant & Foodservice Marketing*, 4(1), 5-18.
- Boulding, W., Kalra, A., Staelin, R., & Zeithami, V.A. (1993). A dynamic process of service quality: From expectations to behavioral intentions. *Journal of Marketing Research*, 30, 7-17.
- Bowman, M.K., McProud, L.M., Usiewicz, R.A., Gendreau, M., & Mitchier, J.B. (1995). Evaluation of the effectiveness of point-of-choice nutrition information on consumer perceptions of food quality and value in a university food service. *Journal of the National Association of College and University Food Services*, 17. Retrieved February 3, 2004, from www.nacufs.org/resources/publications/journal/old/evaluation.asp
- Brown, T. J., Churchill, Gilbert A. Jr., & Peter, J. P. (1993). Improving the measurement of service quality. *Journal of Retailing*, 69(1), 127-139.
- Buzalka, M. (2003). A cross-segment business forecast. *Food Management*, 38(2), 34-50.
- Carman, J.M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing*, 66(1), 33-55.

Chi, C., & Brown, N. E. (1996). Attributes affecting purchase of residence hall meal plans by Pacific-Asian students at a land-grant institution. *Journal of the National Association of College and University Food Services*, 18. Retrieved January 30, 2004, from www.nacufs.org/resources/publications/journal/article3/Article3.asp.

Crompton, J.L., & MacKay, K.J. (1989). Users' perceptions of the relative importance of service quality dimensions in selected public recreation programs. *Leisure Sciences*, 1], 367-375.

Estepa, A. (2004). Developing a web-based multiple-item scale for measuring perceived service quality and satisfaction in the university foodservice setting. Unpublished master's thesis, Kansas State University.

Fournier, S., & Mick, D.G. (1999). Rediscovering satisfaction. *Journal of Marketing*, 63(4), 5-23.

Kandampully, J., Mok, C., & Sparks, B. (2001). *Service Quality Management in Hospitality, Tourism, and Leisure*. New York: The Haworth Hospitality Press.

Law, J. (2004). Station Innovation. *Food Management*, 39(6), 30-42.

McDougall, G.H.G, & Levesque, T. (2000). Customer satisfaction with services: Putting perceived valued into the equation. *Journal of Services Marketing*, 14(5), 392-410.

Meyer, M. K., & Conklin, M. T. (1998). Variables affecting high school students' perceptions of school foodservice. *Journal of the American Dietetic Association*, 98(12), 1424-1429.

Akit, T. B., Mizikaci, B., & Mizikaci, F. *Total Quality Management in Higher Education:*

Can TS-EN- Iso 9000 Quality System Implementations be an appropriate tool? Egitim

YOnetimi, 2000, no 21, 9-19.

Burkhalter, B.B. (1996) How can institutions of higher education achieve quality within the new economy'? *Total Quality Management*, 7, pp. 153-160.

Crumrine, B., and Runnels, T. (1991). *Total Quality Management in vocational-technical education*. Norman, OK: Moore-Norman Vo-Tech Center. (ED 340 846).

Derning, W. E. (1986). *Out of crisis*. Cambridge: MIT Centre for Advanced Engineering Study.

Hackman, J.R. & Wagerman, R. (1995) Total quality management: empirical, conceptual, and practical issues, *Administrative Science Quarterly*, 40, pp. 309-342.

Kanji, G.K & Malek, T. (1999). Total quality management in UK higher education institutions.

Total Quality Management, 10 (1), 129-152.

Koch, J. V. & Fisher, J. L. (1998). Higher education and total quality management. *Total Quality Management*, 9, 659-669.

Lewis, R. G & Smith, H. D. (1994.) *Total Quality in higher education*. St. Lucie Press; Florida.

Mizikaci, F. (2001). *Evaluation of the Tourism and Hotel Management Program in the Vocational School of Social Sciences at Bakent University in terms of Total Quality Management principles*. (Unpublished Dissertation). Ankara: Turkey.

Seymour, D., and Collet, C. (1992). *Total quality management in higher education: A critical assessment*. Methuen: MA: Goal/QPC.

Sporn, B. (1996). *Adaptation in higher education*. Paper presented at 18th Annual FAIR Forum: Higher Education in the Marketplace. Budapest.

Sutcliffe, W., and Pollock J. (1992). "Can the total quality management approach used in industry be transferred to institutions of higher education?" *Vocational Aspect of Education*, 44(1), 11-27.

Tribus, M (1990). *Three Systems of Total Quality*. Coral Springs;Tribus.

Worthen, B.R. and Sanders, J.R. (1973). *Educational evaluation: Theory and practice*. Worthington: Charles A. Jones Pub. Co.

Waks, S., and F. Moti, (1999). Application of the total quality management principles and ISO 9000 standards in engineering education. *European Journal of Engineering Education*, Vol. 24(3), pp. 249-259.12

Akşit, T. B., Mizikaci, B., & Mizikaci, F. *Total Quality Management in Higher Education:*

Can TS-EN- Iso 9000 Quality System Implementations be an appropriate tool? Egitim Yonetimi, 2000, no 21, 9-19.

Burkhalter, B.B. (1996) How can institutions of higher education achieve quality within the new economy'? *Total Quality Management*, 7, pp. 153-160.

Crumrine, B., and Runnels, T. (1991). *Total Quality Management in vocational-technical education*. Norman, OK: Moore-Norman Vo-Tech Center. (ED 340 846).

Derning, W. E. (1986). *Out of crisis*. Cambridge: MIT Centre for Advanced Engineering Study.

Hackman, J.R. & Wagerman, R. (1995) Total quality management: empirical, conceptual, and practical issues, *Administrative Science Quarterly*, 40, pp. 309-342.

Kanji, G.K. & Malek, T. (1999). Total quality management in UK higher education institutions. *Total Quality Management*, 10 (1), 129-152.

Koch, J. V. & Fisher, J. L. (1998). Higher education and total quality management. *Total Quality Management*, 9, 659-669.

Lewis, R. G & Smith, H. D. (1994.) *Total Quality in higher education*. St. Lucie Press; Florida.

Mizikaci, F. (2001). *Evaluation of the Tourism and Hotel Management Program in the Vocational School of Social Sciences at Bakent University in terms of Total Quality Management principles*. (Unpublished Dissertation). Ankara: Turkey.

Seymour, D., and Collet, C. (1992). *Total quality management in higher education: A critical assessment*. Methuen: MA: Goal/QPC.

Sporn, B. (1996). *Adaptation in higher education*. Paper presented at 18th Annual FAIR Forum: Higher Education in the Marketplace. Budapest.

Sutcliffe, W., and Pollock J. (1992). "Can the total quality management approach used in industry be transferred to institutions of higher education?" *Vocational Aspect of Education*, 44(1), 11-27.

Tribus, M (1990). *Three Systems of Total Quality*. Coral Springs; Tribus.

Worthen, B.R. and Sanders, **J.R.** (1973). *Educational evaluation: Theory and practice*.

Worthington: Charles A. Jones Pub. Co.

Waks, S., and F. Moti, (1999). Application of the total quality management principles and ISO 9000 standards in engineering education. *European Journal of Engineering Education*, Vol. 24(3), pp. 249-259.12

APPENDIX 1

