T.C.

MARMARA ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

İŞLETME ANABİLİM DALI

SAYISAL YÖNTEMLER (İNG) BİLİM DALI

STATISTICAL ANALYSIS OF TOTAL SERVICE QUALITY: AN APPLICATION IN TURKISH TOURISM SECTOR

Yüksek Lisans Tezi

MEHMET KASIM YAĞIZ

İstanbul, 2013

T.C.

MARMARA ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

İŞLETME ANABİLİM DALI

SAYISAL YÖNTEMLER (İNG) BİLİM DALI

STATISTICAL ANALYSIS OF TOTAL SERVICE QUALITY: AN APPLICATION IN TURKISH TOURISM SECTOR

Yüksek Lisans Tezi

MEHMET KASIM YAĞIZ

Danışman: PROF.DR. RAUF N. NİŞEL

İstanbul, 2013

T.C.

MARMARA ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜ

TEZ ONAY BELGESİ

İŞLETME (İNGİLİZCE) Anabilim Dalı SAYISAL YÖNTEMLER (İNGİLİZCE) Bilim Dalı TEZLİ YÜKSEK LİSANS öğrencisi MEHMET KASIM YAĞIZ'nın STATISTICAL ANALYSIS OF TOTAL SERVICE QUALITY: AN APPLICATION IN TURKISH TOURISM SECTOR adlı tez çalışması, Enstitümüz Yönetim Kurulunun 17.07.2013 tarih ve 2013-28/49 sayılı kararıyla oluşturulan jüri tarafından oy birliği / ~~oy çokluğu ile~~ Yüksek Lisans Tezi olarak kabul edilmiştir.

Tez Savunma Tarihi .....31.../....07.../.....2013

	Öğretim Üyesi Adı Soyadı		**İmzası**
1.	Tez Danışmanı	Prof. Dr. RAUF NURETTİN NİŞEL	
2.	Jüri Üyesi	Yrd. Doç. Dr. ARZU BALOĞLU	
3.	Jüri Üyesi	Yrd. Doç. Dr. VAROL GÜNYAŞAR	

GENERAL KNOWLEDGE

Name and Surname : Mehmet Kasım Yağız

Field : Business Administration

Programme : Quantitative Methods

Supervisor : Prof. Dr. Rauf N. Nişel

Degree awarded and rate : Master – July 2013

Keywords : Service Quality, Tourism sector

Statistical analysis

ABSTRACT

**STATISTICAL ANALYSIS OF TOTAL SERVICE QUALITY: AN
APPLICATION IN TURKISH TOURISM SECTOR**

Tourism industry is the one of the most profitable sector in the world. This in turn brings about competition. Tourism businesses has worked to improve service quality to remain in this competitive environment. The aim of this study is to determine the factors which will be affected on total service quality and conduct the statistical analyses of these factors. A total of 55 employees were asked questions, 245 employees were reached. Collected data were purified from the extreme values and outliers. Then, Statistical methods which were Reliability Analysis, Principal Component Analysis (PCA), Multiple Regression and Correlation Analysis (MRCA), ANOVA (Factorial Experiments) and Measure of Association and Correlation (MAC) were used. MRCA and ANOVA analyses which were interpreted initial (before PCA) and modified (after PCA) were performed and results were evaluated for two parts. In initial model, public cultural level had difference on total service quality, and in modified model, it was revealed that company quality had difference on total service quality. Also in MAC, it was seen that there was a relationship between gender and total service quality.

GENEL BİLGİLER

İsim ve Soyadı : Mehmet Kasım Yağız

Anabilim Dalı : Business Administration

Programı : Quantitative Methods

Tez Danışmanı : Prof. Dr. Rauf N. Nişel

Tez Türü ve Tarihi : Yüksek Lisans – July 2013

Anahtar Kelimeler : Hizmet Kalitesi, Turizm sektörü İstatiksel analiz

ÖZET

TOPLAM HİZMET KALİTESİNİN İSTATİKSEL ANALİZİ: TÜRKİYE TURİZM SEKTÖRÜNDE BİR UYGULAMA

Turizm endüstrisi dünyadaki en karlı sektörlerden biri haline gelmiştir. Bu da rekabeti beraberinde getirmektedir. Turizm işletmeleri bu rekabet ortamında tutunabilmek için hizmet kalitesi konusunda iyileştirmeler yapmaktadırlar. Bu çalışmanın amacı da turizm sektöründe toplam hizmet kalitesini etkileyebilecek faktörlerin belirlenmesi ve bu faktörlerin istatistiksel olarak analizlerinin yapılmasıdır. Çalışanlara toplam 55 soru sorulmuş olup, 245 çalışana ulaşılmıştır. Öncelikle toplanan veriler uç değerlerden arındırılma işlemi yapılmıştır. İstatiksel metot olarak RA (Güvenirlilik Analizi), PCA(Asal Bileşenler Yöntemi), Çoklu Regresyon ve Korelasyon Analizi (MRCA) , ANOVA (Faktöriyel Deneyler) ve MAC kullanılmıştır. MRCA ve ANOVA analizleri başlangıç (PCA öncesi) ve değiştirilmiş (PCA sonrası) olmak üzere iki kısımda yapılmış ve çıkan sonuçlar iki şekilde değerlendirilmiştir. Başlangıç modelde halkın kültürel seviyesinin toplam hizmet kalitesi üzerinde bir fark oluşturduğu, değiştirilmiş modelde ise şirket kalitesinin fark oluşturduğu ortaya çıkmıştır. Ayrıca MAC analizinde cinsiyet ile toplam hizmet kalitesi arasında anlamlı bir ilişki olduğu görülmüştür.

ACKNOWLEDGEMENTS

LIST OF TABLE

LIST OF FIGURE

Page No.

ABBREVIATIONS

TQM   Total Quality Management

LQI   Lodging Quality Index

CSR   Corporate Social Responsibility

CC   Catogerized Core Concept

PCA   Principal Component Analysis

KMO   Kaiser-Meyer-Olkin

RA   Reliability Analysis

MRCA   Multiple Regresion and Correlation Analysis

MAC   Measure of Association and Correlation

CONTENTS

3. MEASURING SERVICE QUALITY IN TOURISM SECTOR

4. A PROPOSED CONCEPTUAL MODEL FOR MEASURING TOTAL SERVICE QUALITY IN TURKISH TOURISM SECTOR

5. METHODOLOGY

6. FINDINGS

CHAPTER 1

1. INTRODUCTION

1.1 The importance of the research

Nowadays, every company tries to survive against growing competition. This situation is not different in tourism sector. As tourism industry is labor intensive sector, tourism businesses especially hotels are affected several factors. For this reason hotel companies wants to receive precaution against these factors. Since total service quality can affect the tourism industry, this concept is important for tourism. Also this study includes the employees' perspective. This perspective can offer valuable outcomes for hotel managers.

1.2 The aim of the research

The main purpose of this study is to find out the relationship or difference between total service quality (dependent variable) and external variables (service quality, total quality management, public cultural level, historic location of city, customer loyalty, employee satisfaction, brand image, municipality main services, social responsibility) and demographic variables (gender, job, age, dependants, net income, marital status, education, year of study) on five stars hotel with employees' perspective through the statistical analysis.

CHAPTER 2

2. TOTAL QUALITY MANAGEMENT IN TOURISM SECTOR

In this section, overview, the importance and implementation of Total Quality Management in Tourism sector were mentioned below.

2.1 Reviews about TQM

In modern meaning, the origins of TQM go back to the pioneer work of several quality leaders, namely W. Edward Deming, Joseph M. Duran, Armand Feigenbaum and countless other people that have studied and practiced (http://www.tqe.com/TQM.html, 2013).

In the early 1980s when W. Edward Deming first introduced TQM to adopt philosophy in Japan manufacturing industry, In West organisations did not expect successful result, thus they rejected Deming's principles. After the following years, Japanese manufacturing industry managed quality and production successfully with TQM principles. Yet even in 1995, decade years after Hewlett-Packard's abrupt introduction of TQM to the USA, domestic companies were still struggling with the theory and practical use of TQM. That is not to say TQM has not been successful. The magazine *Electronic Business* in 1992 conducted a survey for a report showed that there were not any companies contacted that could have ended their TQM program, more than 90 percent of 70 companies using TQM had indicated that their quality had improved when compared with their competitors (Talha, 2004, p.15).

After that many organizations in the West started to be seriously interested in quality management there were many attempts to suggest models and frameworks to improve the quality (Oakland, 2003, p.18).

2.1.1 Definitions of TQM

Total quality management has been given definitions by many authors. A first definition provided by John S. Oakland in his book Total Quality Management follows:

TQM is an approach to improving the competitiveness, effectiveness and flexibility of a whole organization. It is essentially a way of planning, organizing and understanding each activity, and depends on each individual at each level. For an organization to be truly effective, each part of it must work properly together towards the same goals, recognizing that each person and each activity affect and in turn are affected by others. TQM is also a way of ridding people's lives of wasted effort by bringing everyone into the processes of improvement, so that results are achieved in less time (Oakland, 2003, p.30).

Miller (1996, p.157) defined TQM as:

An going process whereby top management takes whatever steps necessary to enable everyone in the organization in the course of performing all duties to establish and achieve standards which meet or exceed the needs and expectations of their customers, both external and internal.

Mishra and Sandilya (2009, p.142) described it as "a culture/philosophy advocating total commitment to customer satisfaction through continuous improvement and innovation in all aspect of business"

With a similar definition from Bhat (2010, p.54) is "Total Quality Management (TQM) is a philosophy that involves everyone in an organization in a continual effort to improve quality and achieve customer satisfaction."

Mishra and Sandilya (2009, p.143) noted that "TQM is a combination of social-technical process towards doing the right things (externally everything right (internally),

first time and all the time with economic availability considered at each state of each process."

The following Table 1 summarizes the TQM

Table 1: What is Total Quality Management?

• Intense focus on the customer- both external and internal customers.
• Concern for continuous improvement – quality can always be improved.
• Improvement in the quality of everything the organization does -not only related to final product, but also to services, response to complaints and the like.
• Accurate measurement of every critical performance variable in the company's operations.
• Empowerment of employees – TQM involves the people on the line in the improvement process. Teams are empowered for finding and solving problems.

Source: (Bhat, 2010, p.55)

2.1.2 Philosophy of TQM

Even Though TQM will probably continue to developing and presenting new concepts and principles but the fundamental principles of quality Gurus such as Deming, Juran, and others will still have an important role in building quality culture. The several philosophies are explained as under:

W. Edward Deming believed that the implementations of 14 points are numerous, to small-sized companies as well as to large ones, to the service industry as well as to manufacturing. They apply to a division within a company. Deming's laws, the nature of laws are found in many manufacturing and service sectors, and these laws are applied. Therefore, these substances should not be neglected.

Deming's 14 points as follows:

1. "Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.

2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on mass basis by building quality into the product in the first place.

4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.

5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

6. Institute training on the job.

7. Institute leadership. The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.

8. Drive out fear, so that everyone may work effectively for the company.

9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.

10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of work force.

11a. Eliminate work standards (quotas) on the factory floor. Substitute leadership.

  b. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

12a. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, *inter alia*, abolishment of the annual or merit rating and of management by objective.

13. Institute a vigorous program of education and self-improvement.

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job. "

(Deming, 1992, p.24)

Juran's ten steps are importance as Deming's 14 points in the organizations.

"Juran's ten steps to quality improvement were:

1. Start with building awareness of the need and opportunity for improvement.
2. Set realistic goals for improvement.
3. Organize to achieve goals through quality council, identification of problems and further remedial actions.
4. Train personnel.
5. Continue the projects to solve the problem if any.
6. Monitor progress.
7. Recognize the achievers.
8. Communicate results to all concerned.
9. Maintain records.
10. Continue the improvement for the success of company.

(Mishra and Sandilya, 2009, p.144)

Deming and Juran have numerous similar total quality management approaches. 'They both identify training as being important and they advocate continuous improvement, but Juran is in favor of setting goals and monitoring scores, which is favored by public sector leisure providers.' The opposite view of Deming: he advocates elimination of numerical quotas and goals along with targets and slogans. (Williams and Buswell, 2003, p.41)

2.1.3 Principles of TQM

There is no agreement for principles of TQM which quality proponent identifies with. Though, many researchers have summarized and set apart the quality principles and concept, the major principles of TQM are controversial matter. An investigation of TQM involving research published between 1989 and 2000 in all different kinds of industries was done by Sila and Ebrahimpour. They found many critical nine success factors for implementation. These are identified below:

- Customer focus

- Customer satisfaction

- Employee training

- Top management and leadership

- Commitment and personnel involvement

- Teamwork

- Employee involvement

- Continuous improvement and innovation

- Quality information and performance measurement

(Sila and Embrahimpour, 2002, p.923)

In the view of literature, the meaning of these concepts that the above explained below.

2.1.3.1 Customer Focus

The initial, and most important, principle of TQM is the company's center on its customers. Quality is defined as meeting or exceeding customer expectations. The aim is to first identify and afterward meet customer necessities. Hence, we can say that quality is *customer driven*. Nevertheless, it is not always easy to decide what the customer needs, since sensitivities and preferences change. Organizations are necessary to repetitively gather information with focus groups, market surveys, and consumer interviews to stay in tune with what customers need (Reid and Sanders, 2005, p.147).

Zairi (2000, p.393) stated that customer focus means that through focusing on our customers, we can detect our strengths and drawbacks and consider our performance from a competitive perception.

2.1.3.2 Customer Satisfaction

Choppin (1995, p.48) noted that Long-standing satisfaction of customer needs will be an aim of any total quality organizations.

Organizations to seek to ensure customer satisfaction and repeat business has to add value to its customers. Once is not enough to sell to the customer, organizations should consider the long-term will do. Some organizations which do not take into consideration this, thus customers who are not satisfied will pass rival firms or respond to requests for products or services will find (Seetharaman and Sreenivasan, 2006, p.692).

Customer satisfaction is a relative concept, this concept vary from customer to customer. In addition to this, Customer satisfaction may even change on a daily basis. For instance, while one customer may consider some product or service completely satisfactory, another may not. Each individual defines quality with regard to customer requirements and means at particular point of time (Bhat, 2010, p.56).

2.1.3.3 Employee Training

Each employee is given responsibility of quality, not just basically knowledgeable of what is expected.

Employees must be shaped in accordance with the company's philosophy of commitment to continuous improvement, be informed about goals of company, and be made to feel a part of the company. Proper training contains, all owned by the company's values and the properties of the product or service quality (Motwani, 2001, p.298).

2.1.3.4 Top management and leadership

Top management is responsible for providing information and explaining quality objectives and policies to the employees of companies. In addition, in the quality management process the participation of top management can motivate employees to take a more active role in quality studies (Kumar, Garg and Garg, 2011, p.41).

The top management of companies set a task to reach a common vision for overall company. Employees can be more motivated in the process of achieving companies goals, thus they should establish and maintain internal working order (Lal, 2008, p.148).

Leaders oversee the interests of company for a purpose and establish direction of the company for this purpose. At same time they should provide a comfortable working environment for employees and ensure the full participation in the organizations. This may be allowed to carry out the objectives set by the organizations (Mishra and Sandilya, 2009, p.138).

2.1.3.5. Commitment and Personnel Involvement

Each level of employees forms the basis of organizations. As long as the benefit of the organization and the employees' ability to use their full involvement makes it possible (Lal, 2008, p.149).

2.1.3.6. Teamwork

According to Dean and Bowen (1994, s.395):

Teamwork is partnership between leaders and nonleaders, between tasks, and between consumers and providers. The primary type of teamwork is centered on the familiar supposition that nonmanagerial staffs can make critical roles to organizations once they have the authority and essential preparation. Teamwork among functions is based on the idea that organizations terms cannot be effective if subunits stress their own results over those of others. The norm of collaboration with customers and suppliers is centered on the perceived benefits (e.g., synergy, loyalty) of partnerships.

2.1.3.7 Employee Involvement

Employee involvement in quality management is crucial in achieving and sustaining high levels of quality. Employee may have to be permitted to take precautionary and if essential corrective actions without management support. Employees must be involved in quality management by encouraging them to use quality control tools and techniques to track performance and detect areas necessitating enhancement (Bhat, 2010, p.56).

2.1.3.8 Continuous Improvement and Innovation

Total quality management involves constant and assessable improvement at entirely points of the organization, extending from company performance to individual employee performance, such that continuous process improvement, endlessly, becomes a crucial component of success (Choppin, 1995, p.49).

2.1.3.9 Quality information and performance measurement

As a process, performance measurement is not solely oriented collecting data associated with a presumed performance goal or standard. Performance measurement is better thought of as a total management system including prevention and detection aimed at succeeding conformance of the work product or service to your customer's needs. Furthermore, it is concerned with process optimization over improved efficiency and effectiveness of the process or service. These activities occur in a continuous cycle, allowing preferences for growth and improvement of the employment process or product as better systems are determined and implemented (http://www.orau.gov/pbm/handbook/1-1.pdf, 2013).

2.1.4 Tourism relation to TQM

The tourism sector has not ignored quality issues. Actually, quality tourism has become one of the future global tourism policy issues with regard to the rapid enlargement of the tourism industry, which is to become one of the most important economic sectors. Numbers of public and private organizations at all points: *international, national, regional and entrepreneurial* has demonstrated worries about quality tourism. Nevertheless, the rising number of dissatisfied tourists shows that the recent programs meant quality development in hospitality have not been valuable. This leads to recent quality problems in tourism, and possible methods of quality development in tourism. To resolve these issues, it is initially essential to observe various ideas aimed at quality enhancement in tourism (Augustyn, 1998, p.145).

2.1.5 Importance of TQM in Tourism Sector

Quality is not static as the wishes and needs of tourists and hospitality customers vary, partially owing to continuous socioeconomic environmental activities. Additional resources possibly needed to cope with new demands, and problems that have not come about before may arise. Every situation with regard to quality should be defined uniquely and will necessitate different approaches to satisfy guests and optimize the business functions and improvements. Quality may have a start point. Nonetheless, there is no end point. If a destination, hospitality or leisure business does not improve its quality, it will be in arrears as well as lose competitiveness in view of the fact that competitors make continuous improvements. The only method to be competitive and continue to exist is through having a philosophy of continuous developments, and pursuing and implementing that philosophy (Editor, 2000, p11).

The theories of TQM are as essential to any organization as they are to manufacturing, since competing in the universal market more effectively has become a great concern for almost all modern organizations. Service organizations covering a very wide range of distinguished organizations such as health care, education, banking, insurance, hotels, transport, etc., to name only a few, involve an extremely great number of people in a diversity of work processes. Such a system most often makes direct interaction with a very large diversity of customers. The diversity of customers is perceived by common attributes such as cultural, economic, religious, etc. and is classified in terms of *pluralistic* hopes in relation to the service. The various requirements and conflicting priorities offered by diversified customers, and efforts taken by the system under the same class to meet these requirements, also differ both *spatially* and *temporally*. Since the community becomes highly developed reasonably, matured culturally, and knowledgeable educationally, the communal demands for quality services raise (Lahke and Mohanthy, 1995, p.139).

The total quality management of a tourism product is both possible and necessary. By means of tourist demands becoming increasingly complicated, the aim of the tourism industry should be to satisfy and exceed tourist expectations. Building on the example and good results of the manufacturing sectors, the service sector has accepted

the rule of business by which productivity, quality and profit represent a singular unity. This has provided the motive for the improvement and development of quality tourism services (Holjevac, 2008, p.1032-1033).

2.2 TQM practices in tourism sector

Quality management initiatives of enterprises producing goods, tourism has entered the field later. The main reason for this is, on the understanding that the difficulty of measuring and controlling the quality of service. However, the development of tools to measure the quality of service has brought dynamism of quality management in the tourism sector (Kurgun, 1999, p.27).

On the implementation of quality management in the tourism sector and sub-sectors of the industry in general is seen that an understanding of the spread, especially large enterprises have developed rapidly TQM practices. American Malcolm Baldridge National Quality Award in 1993, the Ritz-Carlton and the most important and successful example has been in the field of tourism management. Ritz-Carlton and other international chain hotels, this group has developed the following applications in the field of hospitality, samples are taken from all over the world. Turkey in the mid-90s in the hospitality sector entrepreneurs in the world of quality management practices undertaken by some of the following are examples. This is the first time in many years in Turkey; Turkish chain TURTEL, TQM in coastal areas has been built. After these years, the sector on the implementation of TQM in the richness of an increased awareness and implementation has begun to occur. In the same period, the period for which they are adapted to the management of the quality of travel businesses. For example, in 1996, a Turkish tour operator market as Austria Vasco tourism started work, system design, quality management, quality manual, as measurement of consumer satisfaction measurement applications. Turkish Airlines also has set quality objectives by the year 1995, and his staff started to provide training in that direction (Pırnar, 2002, p.113-114).

Managing to Quality of tourism enterprises requires the use of different instruments. However, beyond that, all the resources of the business to manage a strategic perspective require a considered and planned way. This is necessary for the

competitiveness refers to a systematic approach to all applications. Furthermore, improving the ability to adapt elements of the external environment is the objectives and outputs of quality management. This point of view will be created with the quality system, necessary for the implementation of quality management organizational structure, responsibilities, and resources, a set of principles (Kurgun, 1999, p.11).

2.2.1 The Need for implementation of TQM in tourism sector

To stay alive on the market an organization must think about the survival of the corporation, ensuring profitability on short period and long period. Following studies in some company in Romania, it was found that the quality costs, with regard to the earnings are as high as or higher than profit. In the hospitality industry, by means of practicing and certificating the quality management systems and food safety, the units get initial the employees and managers satisfaction. Therefore, is obtained customer satisfaction, for the reason that merely satisfied people can provide a real hospitality. The importance of quality management results from its major purpose, to attain in efficient and effective conditions only products that meet all customer needs. They are obliged to abide by the society necessities, through applied standards and specifications, to take into account all parts concerning customer and environment security (Stan and others, 2009, p.1515-1516).

Quality management in hospitality industry depends on the survival of some principles such as (Stoichitoiu, 2006):

To Top management:

- My priority customers are the staff.
- The main power source is confidence.
- I am the model for my staff.

For Employees:

- Consumer problem is my problem as well.

- I don't suggest my services continually, but I'm always enthusiastic to be helpful.

- I do not serve, I'm not unskilled, and I'm in service to assist.

(Stan and others, 2009, p.1516).

Su and Long stated their study on quality improvement of tourism in China by implementing Total Quality Management. It should initially consider the need of implementing TQM in tourism industry in China prior to "planning" detailed four implementing strategies. These are:

a. Modernizing Tourism Industry via TQM
b. Balancing Industry Profits with Social Responsibilities
c. Solving Serious Quality Problems involved in Tourism Industry
d. Satisfying Demand of Tourism Consumers"

(Su and Long, 2009, p.1644).

Total quality management is known to practice the following advantages. The advantages a company can expand by introducing a TQM system have been confirmed in reality. These consist of:

- Improved quality of products and services
- Greater customer satisfaction
- Better competitive ability and market strength
- Reduced business costs
- Increased business profits
- Greater employee satisfaction
- Enhanced management quality
- Better company reputation and reliability
- Increased social responsibility and ethics.

(Holjevac, 2008, p.1030).

2.2.2 Implementations of TQM in the world

PMT Hotels implemented benchmarking and definition and implementation of Quality Standards elaborated according to hotels' organizational and structural constraints, control of quality standards respect through a mystery guest program and also implemented an online guest satisfaction survey (PMT Hotels, 2013).

(Motwani and Kumar, 1996, p.9-10) has summarized the implementation of total quality management in tourism industry as following:

ANA Hotel San Francisco implemented a quality improvement training programme that vigilantly balances the customer's position of view with the hotel's tactical planning requirements.

Avant Hotel (UK) was the first hotel recipient of the British Quality Standard 5750. With the aim of receiving this certification, the management established quality requirement for each product, determined assignable causes of error and identified ways of improving product performance.

Choice Hotels initiated a satisfaction guarantee programme at all its Sleep Inn brand properties. Field education, with a special emphasis on empowerment, has been the programmes foundation.

Country Lodging by Carlson has sustained its Absolute Guest Satisfaction programme with an "I Promise" campaign which will advance empower employees to offer quality service.

Day's Inn Sunburst to help innkeepers and owners keep up with Sunburst necessities, Days has introduced a QA certificate programme and in print a training manual and management guide.

English Lakes Hotels rooted in a four-day training experience in the Disney University at Orlando, the directors developed their own expectation policy and method for communicating a quality service philosophy for their employees.

Four Seasons At this organization, the approach to achieving quality is derived from seven essential principles, named the seven Cs: comprehension, corporate culture, compromise, credibility, control of quality standards, creativity and continuity.

Hampton Inn In 1989 launched its 100 Percent Satisfaction Guarantee programme, promising high-quality accommodations, friendly and efficient service and clean, relaxed environment. Other quality efforts contain: guest satisfaction rating system, guest assistance and quality index. The personal commitment of top management to ensure understanding of its guarantee at the property spaced it out.

Hilton Hotels Corp. to improve its quality of service upgraded its reservation systems and implemented an express check-in service system. The company offers a Zip in Check in to all credit-card-paying guests when they book a hotel reservation.

Howard Johnson in the area of quality, the chain began providing consumers with internal quality guarantee ratings of its properties since autumn 1994.

Marriott-Copley Plaza Boston, to increase the quality of their service, delivery efficiency, and guest satisfaction, the hotel has assigned one person the task of setting the room table, therefore eliminating second trips to correct mistakes on initial deliveries.

Novotel Group has designed a five-part guest satisfaction programme in order to provide a zero-defect service for guests.

Opryland bases greatly on its employee-training programme to arise a positive guest experience. All new hotel employees are essential to attend a 15.5-hour orientation programme, which focuses on customer relations and standards.

Ramada Franchise Systems declared a tightening of quality assurance standards, raising the level of acceptance scores for all its 800-plus properties from 370 to 400 (out of 500 possible points)

Red Lion Hotels & Inns Vancouver provided a four-step hospitality checklist to all its staff as a method to remember the company's customer-service aims.

The gold quality standards at Ritz-Carlton includes a credo, motto, three steps of service, and 20 Ritz-Carlton Basics. The basics are an integral part of the company's daily quality improvement communication to staff to improve its guests satisfaction programme, the hotel is focusing on four key areas: hiring the right people, orientation, teaching essential skills and inculcating proper manners.

Scott's Hotels Ltd as part of their quality system implementation, the company invested between 40 to 60 hours per employee in training. An important aim was to ensure that every employee understood the following total quality principles: all employees have a role to play, listening to the customer is vital, and changes were needed in the way in which the total quality was practiced in order to sustain continuous improvements.

Sofitel introduced the Golden Key Quality Challenge, which pits its seven US hotels against each other; employees at the winning property each win a color television set. Awards are based on cumulative positive notations on guest-comment cards, guest surveys and internal quality-check audits.

Travel Lodge enhanced advertising programme to reflect Travel Lodge's system wide commitment to guest satisfaction. Its new slogan, "Stay satisfied, stay with Travel Lodge" reflects the organization's approach towards quality. Also, quantified its quality assurance standards for all its properties.

Waldorf-Astoria initiated a quality-focused, problem-solving team process called TIGRE (Teams Improving Guest-Related Experience) (Motwani and Kumar, 1996, p.9-10).

2.2.3 Implementations of TQM in the Turkey

Turtel top management has the authority and responsibility to create quality policies. Quality policies set by the top management in the following format:

- Produce high quality products and services
- Satisfying Customers
- Design, implement and present the product and service rightly, monitor procedures and introductions and train employees for this.

- Instantly fix error.

- Continuous improvement

- Awareness of social responsibility to contribute to society.

Limak International Hotels Resorts management TQM practices are as follows:

- Food Safety

- Safety of Employees and Guests

- Sustainability

- Environmental protection systems

- Recommendation systems for employees

- No changing the shape of work

- Continuous improvement

- Attempts to establish a single system.

Limak hotel managers using the above-mentioned applications have expressed that they minimize loss of manpower and system failures (Saatçioğlu, 2001).

CHAPTER 3

3. MEASURING SERVICE QUALITY IN TOURISM SECTOR

In this part, the definition of service quality, dimensions and measurement techniques are presented. Total quality management in tourism was mentioned in the previous section. Since tourism is service sector, the service quality should be considered. In addition, as total quality management is often applied concrete concepts .To adapt to tourism sector, firstly service quality for tourism should be examined.

3.1 Service Quality in Tourism Sector

Due to understanding of service quality in tourism, the characteristic of service for tourism should be described. Many researcher and practitioner recognized that tourism, hospitality, and leisure services have several characteristics that differentiate them to physical goods.

As it is compared between tourism industries and manufacturing industry, the meaning of product in manufacturing is physical good, but in tourism industry is itself. Service in tourism have many parts which are related to the appearance and nonappearance sides. Appearance side can be service offering. The other side can be background workings which are unseen to customer (Kandampully, 2001, p. 15-16).

Moreover, Saunders and Graham (1992, p.245) stated that "major distinctions between service and manufacturing organizations are that the product: is tangible and ephemeral; is perishable; frequently involves the customer in the delivery of product; is not perceived as a product by employees". Therefore, the service product has major characteristics which are mentioned by (Kandampully, 2001) are intangibility which is described as untouched, unseen, untasted, unheard or unsmelled characteristics such as for tourism catering as well as the atmosphere of a lobby. Inseparability of production and consumption, heterogeneity, consistency, perishability.

This is reflected in the concepts examined in terms of tourism services that there are problems which occur more or less.

3.1.1 Service Quality Concept

The diversity of conceptions in the services, Researchers and practitioners reveal the complexity in developing a single adequate model that explains all aspects of service quality. After all, it is difficult to discover a single model allows every aspect of something as complex as how people make a subjective assessment of a personal knowledge. Furthermore this is what service quality is basically all about –the subjective assessment of complex human experience (Kandampully, 2007, p.77).

Hoffman (2008, p.319) defined this concept as "service quality is an attitude formed by a long-term, overall evaluation of firm's performance."

Kordupleski, Rust and Zahorik (1993, p. 85) gave a suitable definition of service quality as the "extent to which the service, the service process and the service organization can satisfy the expectations of the user."

Parasuraman, Berry and Zeithaml (1985, p.42) defined service quality as a "measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis."

Bhat (2010, p.640) stated that,

"The definitions of quality that apply to manufactured products apply equally to service products. The very nature of service implies that it must respond to the needs of the customer the service must meet or exceed customer expectations."

3.1.2 Service Quality Dimensions

Kandampally (2001) realized that service quality is the result of a complex association of a number of dimensions. Through the years, researchers have been on a quest to identify the most significant components of service quality. A variety of factors have been identified as contributing to service quality (Kandampally, 2001, p.54).

Many researchers and practitioners investigated service quality dimensions at several ways. Then, they found different ways. In common dimensions are mentioned below:

Gronroos (1984) identified three components of service quality respectively; technical quality, functional quality and the corporate image.

Figure 1: Dimensions of Service Quality
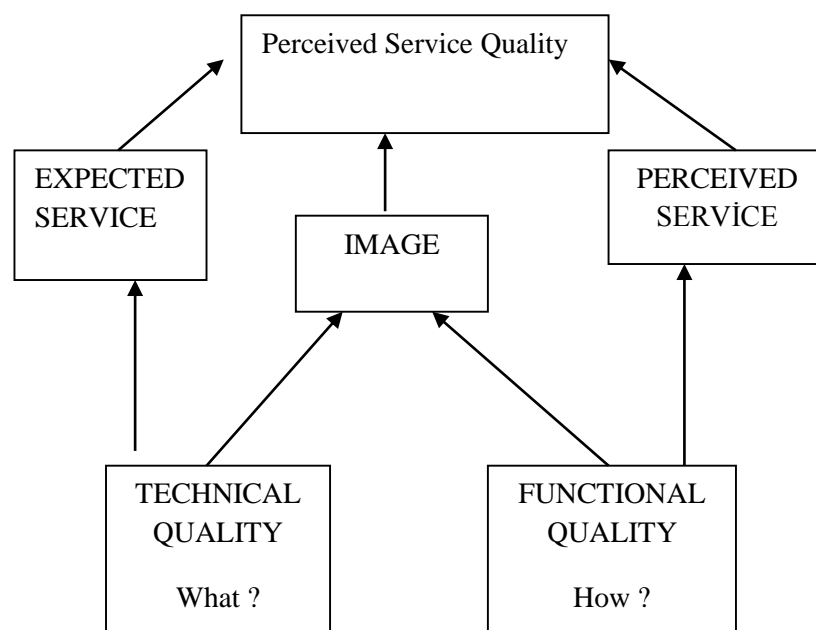
Source: (Gronroos, 1984, p.40)

1) Technical Quality: *what* the consumer receives as a result of his interactions with a service firm

2) Functional Quality: *How* he gets the technical outcome—or technical quality—functionally, is also important to him and to his view of the service he has received.

3) Corporate Image: is the result of how the consumers perceive the firm. (Gronroos, 1984, p.38-39)

Then, Haywood and Farmer (1988) argue that three dimensions of service quality. These are professional judgment, physical processes and people's behavior.

Figure 2: Dimensions of Service Quality

Professional
judgement

Physical
process

People's
behaviour
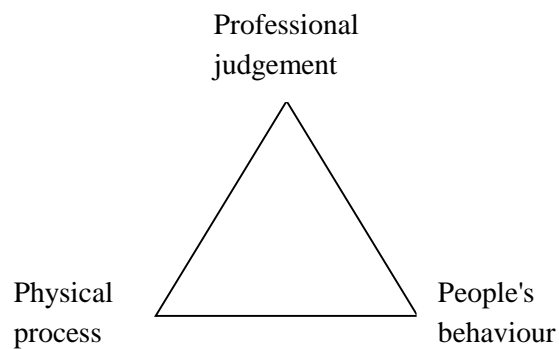
Source: (Haywood and Farmer, 1988, p.23)

However, these dimensions are based on only behavioral terms. This is restriction of the understanding of service quality.

Rust and Oliver (1994) suggested a simple three dimensional model. They said that overall perception of service quality is based on the customer's perception of service quality is based on the customer's evolution of three dimensions of the service interface:

- Service product
- Service delivery
- Service environment

(Kandampully, 2007, p.89)

Figure 3: The three-dimensional model of service quality

Service
Quality

Service
Product

Service
Delivery

Service
Environment

As their study is simple, their perception of service quality has only service product, service delivery and service environment.

Dabholkar and various colleagues (2000) developed a multilevel model of retail service quality relating primary dimensions and subdimensions. In accordance with them, the primary dimensions contain physical aspects, reliability, and personal interaction, whilst the subdimensions cover appearance, convenience, promise, "doing it right, "inspiring confidence, and being courteous and helpful (Kandampully, 2007, p. 90)

Figure 4: Model of service quality

Correspondingly, Brady and Cronin (2001, p.38-39) proposed a hierarchical model to conceptualize perceived service quality. Their model recommended three primary levels of service quality-interaction quality, physical environment quality, and outcome quality. In turn, each of these was conceived to have three subdimensions;

- Interaction quality consists of attitude, behavior and expertise
- Physical environment quality was made up of the subdimensions of ambient conditions, design, and social factors; and

- Outcome quality was conceived as being made up of the subdimensions of waiting time, tangibles, and valence (variable personal factors that affect experience)

Figure 5: Hierarchical Model of Service quality
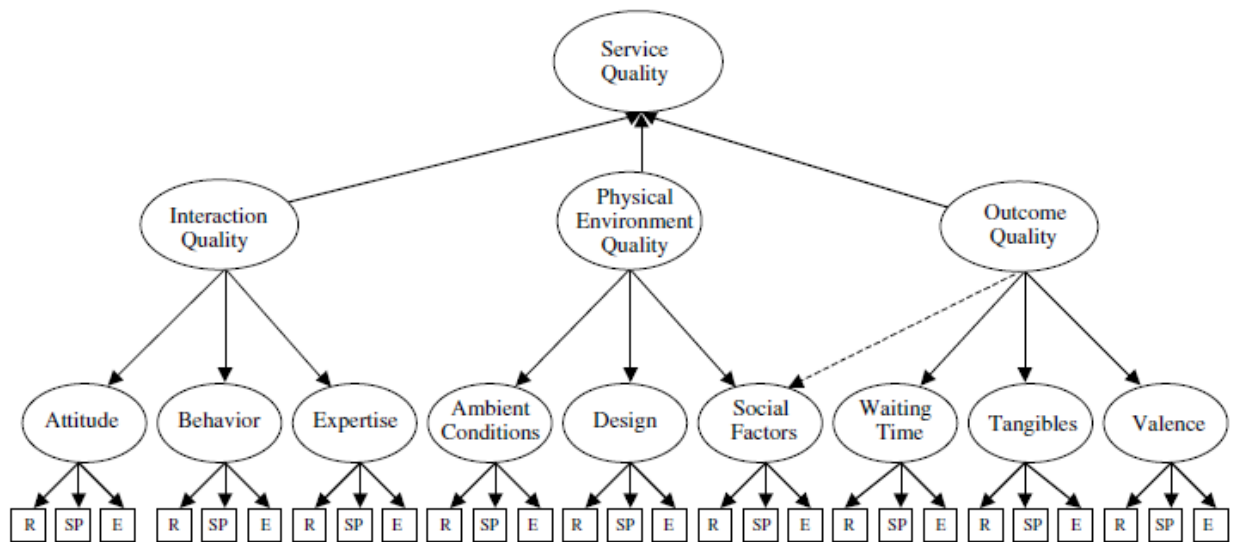
Source: Brady and Cronin (2001, p.35)

As Dabholkar and other colleagues (2000) and Brand and Cronin (2001) determined service quality dimensions and divided those into subdimensions, these dimensions are more complicated than the earlier work except SERVQUAL.

Parasuraman, Zeithaml, and Berry are among the most recognized researchers in the area of service quality. Their development and refinement of the SERVQUAL battery has produced a generic measure of service quality through the examination of twenty-two service items, which factor into ten dimensions of service quality.

Figure 6: Dimensions of SERVQUAL

Determinants of Service Quality	W.O.M.	Personal Needs	Past Experience

Determinants of Service Quality:

1. Access
2. Communication
3. Competence
4. Courtesy
5. Credibility
6. Reliability
7. Responsiveness
8. Security
9. Tangibles
10. Understanding/ Knowing the Customer

→ Expected Service
→ Perceived Service

Expected Service → Perceived Service Quality
Perceived Service → Perceived Service Quality
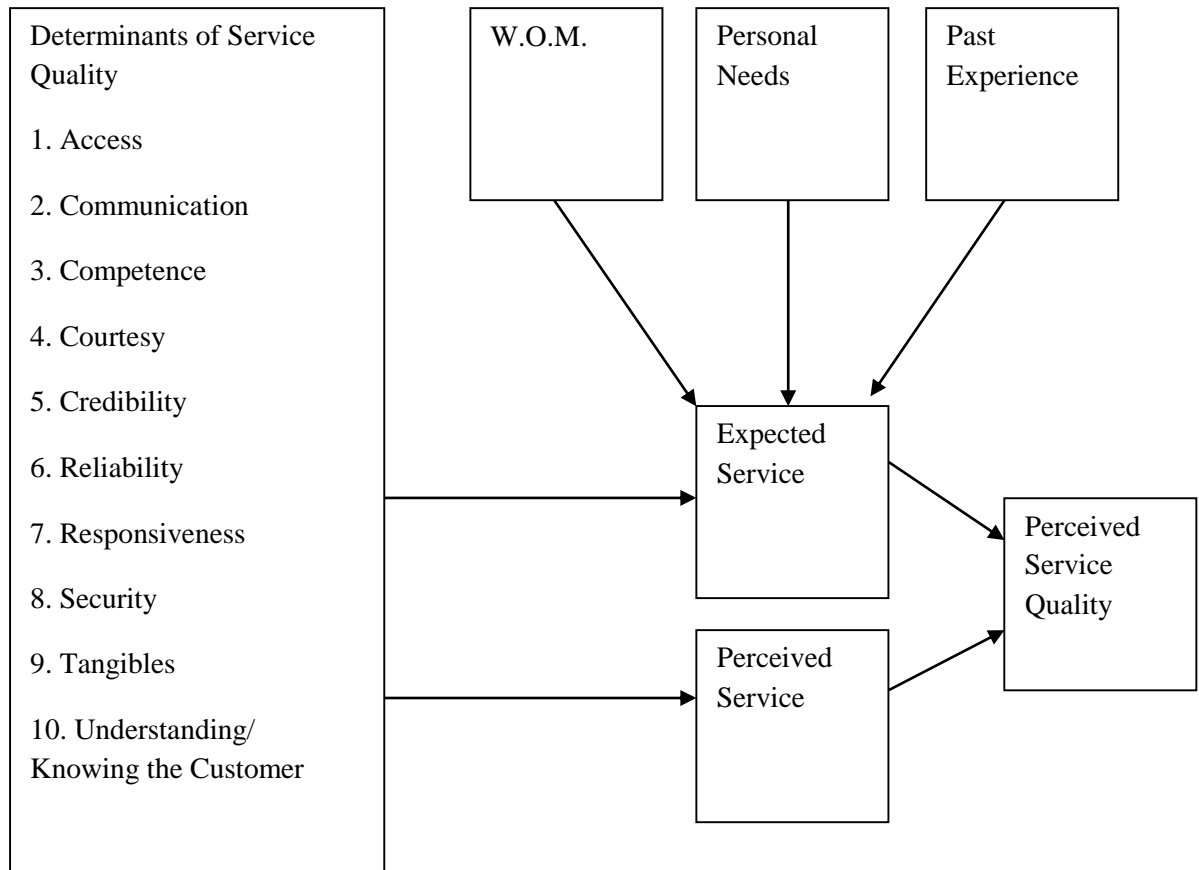
Source: Parasuraman, Zeithaml and Berry (1985, p.48)

Ten Dimensions of Service Quality are explained in detail below:

Table 2: Explanations of Ten Dimensions of SERVQUAL

RELIABILITY involves consistency of performance and dependability. It means that the firm performs the service right the first time. It also means that the firm honors its promises. Specifically, it involves:

-accuracy in billing;

-keeping records correctly;

-performing the service at the designated time.

RESPONSIVENESS concerns the willingness or readiness of employees to provide service. It involves timeliness of service:

-mailing a transaction slip immediately;

-calling the customer back quickly;

-giving prompt service (e.g., setting up appointments quickly).

COMPETENCE means possession of the required skills and knowledge to perform the service. It involves:

-knowledge and skill of the contact personnel;

-knowledge and skill of operational support personnel;

-research capability of the organization, e.g., securities brokerage firm.

ACCESS involves approachability and ease of contact. It means:

-the service is easily accessible by telephone (lines are not busy and they don't put you on hold);

-waiting time to receive service (e.g., at a bank) is not extensive;

-convenient hours of operation;

-convenient location of service facility.

COURTESY involves politeness, respect, consideration, and friendliness of contact personnel (including receptionists, telephone operators, etc.). It includes:

-consideration for the consumer's property (e.g., no muddy shoes on the carpet);

- clean and neat appearance of public contact personnel.

COMMUNICATION means keeping customers informed in language they can understand and listening to them. It may mean that the company has to adjust its language

for different consumers-increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. It involves:

-explaining the service itself;

-explaining how much the service will cost;

-explaining the trade-offs between service and cost;

-assuring the consumer that a problem will be handled.

CREDIBILITY involves trustworthiness, believability, honesty. It involves having the customer's best interests at heart.

Contributing to credibility are:

-company name;

- company reputation;

- personal characteristics of the contact personnel;

- the degree of hard sell involved in interactions with the customer.

SECURITY is the freedom from danger, risk, or doubt. It involves:

-physical safety (Will I get mugged at the automatic teller machine?);

-financial security (Does the company know where my stock certificate is?);

-confidentiality (Are my dealings with the company private?).

UNDERSTANDING/KNOWING THE CUSTOMER involves making the effort to understand the customer's needs. It involves:

-learning the customer's specific requirements;

-providing individualized attention;

-recognizing the regular customer.

TANGIBLES include the physical evidence of the service:

-physical facilities;

-appearance of personnel;

-tools or equipment used to provide the service;

-physical representations of the service, such as a plastic credit card or a bank statement;

-other customers in the service facility

Source: (Parasuraman, Zeithaml, Berry, 1985, p.47)

Based on the study of literature review on service quality, the researchers point out that the core dimensions of service quality may be reduced to five general dimensions; tangibles, reliability, responsiveness, assurance and empathy.(Parasuraman 1988, p23)

Tangibles: Physical facilities, equipment, and appearance of personnel

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

 (Parasuraman 1988, p23)

3.2 Measuring Service Quality in Tourism Sector

In this part of this section, it is determined by adapting especially SERVQUAL and some of the other measurements improving service quality in the hospitality industry .In the international arena, the literature on models of service quality measurement applied to tourism businesses that have been identified by many studies.

Available literature provides plenty of service quality measurement methods proposed by various researchers. In recent years, numerous studies have focused on service quality in the hotel industry. The outcomes of these studies have produced several contributions in relation to understanding the dimensional structure of service quality of hotels (Akbaba, 2006, p.172).

To measure the quality of service in the tourism industry is following models, these models will be described by specifying the characteristics and dimensions of the sides of examining and incomplete.

Table 3: Popular Models of Measuring Service Quality in the Hospitality industry

NO	MODEL	RESEARCHER
1	Holserv	Mei, Dean and White, 1999
2	Hotelzot	Nadiri and Hussain, 2005
3	TourServQual	Eraqi, 2006
4	The Lodging Quality Index (LQI)	Getty and Getty, 2003
5	Servqual	Parasuraman, Zeithaml and Berry, 1985, 1988, 1991,

3.2.1 Measuring Service Quality with HOLSERV Instrument

Mei, Dean and White (1999) described that definition of service quality and its measurement for hospitality industry. Their study is based on SERVQUAL instrument which is proposed by Parasuraman, Zeithaml and Berry (1985).

As they have made some changes for applying service quality dimensions for hospitality industry, an original assurance item: "Guests feel safe in their transactions with employees", an item which was unclear meaning of "transactions", they replaced by

"Guests feel safe in the delivery of service". As we look at the whole picture, they modified or deleted eight items to the SERVQUAL scale, leaving a total of 27 items and 5 dimensions. They measured the questionnaire items with seven point scale which is consistent with the prior work of Parasuraman and others (1985). Moreover for measuring overall service quality, a single rating ten-point scale (1 = very poor, and 10 = excellent) were used to enable identification of the best predictor of overall service quality (Mei, Dean and White, 1999, p.138).

They found that three dimensions of service quality in hospitality industry in Australia consist of "employees, tangibles and reliability" with ordering high relation to service quality. HOLSERV is not a final model and this should be developing for more reliable conclusion. Since HOLSERV is one-column questionnaire format, this makes more suitable comparing to SERVQUAL which includes two-column format.

3.2.2 Measuring Service Quality with HOTELZOT Instrument

Nadiri and Hussain (2005) found empirical support for HOTELZOT instrument in service quality. They also focused on service quality in island destinations (Northern Cyprus) and their study explains service quality in terms of the zone of tolerance in the hospitality industry.

They used the questionnaire which was based on service expectations ("adequate" and "desired") and service perceptions. It had a three-column format. There were 23 items in all – 22 items for measuring according to the SERVQUAL scale (adopted from Parasuraman et al., 1991), and one item for measuring customer satisfaction. A five-point Likert scale was used for data collection – with 1 being "strongly disagree" and 5 being "strongly agree".

Figure 7: Service Quality Gap Model
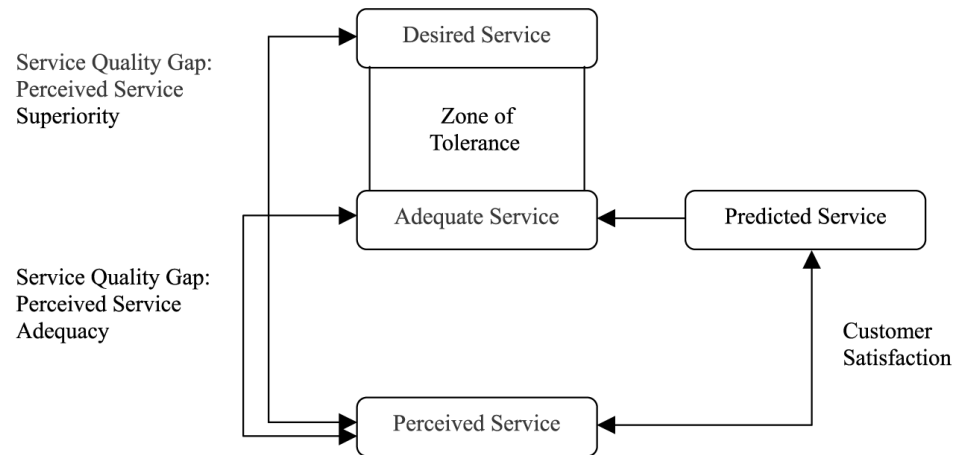
Source: Nadiri and Hussain (2005), p.264

The gap of this study was defined as follows:

- The zone of tolerance for hotels was calculated as the difference between the desired service and the adequate service.

- The MSS (measure of service superiority) was calculated as the difference between the desired service and the perceived service.

- The MSA (measure of service adequacy) was defined as the difference between adequate service and perceived service.

The application of HOTELZOT is complex measurement and is used the model on only island destination, so we have not known this model is relevant applicability on hospitality industry. Also this empirical study is not common usage or knowledge in the literature. However the HOTELZOT instrument should be study in the hospitality industry and if result is favorable, then it can be used.

3.2.3 Measuring Service Quality with TSERVQUAL Instrument

Eraqi (2006) determined that internal customers (staff) and external customers, operating in the Egypt on business and the environment through a survey of the service quality of three titles which are tourism organization management attitudes towards quality, the health of tourism business environment, offering suitable opportunities for

31

training and a fair mechanism for performance measurements and 15 propositions, were asked to evaluate with Likert scale: 1-5 (strongly disagree-strongly agree). To measure the external customer satisfaction it was used Likert scale and it has been suggested three options (good, fair, and weak) for each question/statement (Eraqi, 2006, p. 484).

He stated that for improving tourism service quality it is necessary to achieve three requirements:

- internal customer satisfaction (employee satisfaction)
- external customer satisfaction (tourists satisfaction)
- the efficiency of processes.

He also added that tourism industry in Egypt does not support the internal customer satisfaction as the lack of an appropriate system for encouraging people to be creative and innovative. Further, he explained that in the area of the external customer satisfaction is still a need for things to be done such as the environmental conditions improvements, internal transport quality enhancement, increasing people awareness, and improving the level of safety and security conditions (Eraqi, 2006, p.469).

Since this instrument considered only internal customer satisfaction, external customer satisfaction and the efficiency of process, the model ignore the SERVQUAL dimensions which are mostly accepted for many researchers. Therefore, the usability of TSERVQUAL is not sufficient for service quality due to the lack of completeness.

3.2.4 Measuring Service Quality with SERVQUAL Instrument

SERVQUAL part was mentioned in service quality dimensions section. Shortly sum up SERVQUAL, one of the most widely used instruments to measure service quality is the SERVQUAL scale developed by Parasuraman (1985), and then refined in 1988 and 1991. The model on which SERVQUAL is based proposes that customers evaluate the quality of service on 22 items (proposition) and five distinct dimensions: reliability, responsiveness, assurance, empathy and tangibles (Mei, 1999, p. 137).

Several researches show that SERVQUAL is most popular measurement of service quality. And according to many research, SERVQUAL continuous to play important role for measuring the service quality. Due to the complexity of hospitality industry, the measurement should be adapted for hospitality industry.

3.2.5 Measuring Service Quality with LQI Instrument

Getty and Getty (2003) argued that the purpose of their study was to produce a quality perception scale that can be adapted to the individual lodging property. And they also stated that LQI can serve as a benchmark on which improvements can be assessed.

They determined that lodging quality index (LQI) ,which is based on SERVQUAL instrument and was used ten dimensions of SERVQUAL, has 26 items and 5 dimensions which are consisting of tangibility, reliability (includes original reliability and credibility dimensions), responsiveness, confidence (includes original competence, courtesy, security, and access dimensions) and communication (includes original communication and understanding dimensions).

Since LQI is adaptation of SERVQUAL for lodging industry, it can be used in the hospitality industry instead of SERVQUAL. The other reason is SERVQUAL is not adequate for measuring hospitality or lodging industry, but LQI is likely to use for measuring service quality in hospitality industry. And it is more suitable to evaluate some unique features of hospitality industry.

CHAPTER 4

4. A PROPOSED CONCEPTUAL MODEL FOR MEASURING TOTAL SERVICE QUALITY IN TURKISH TOURISM SECTOR

In this chapter, we can suggest that factors which is influenced on total service quality. Then definition of these factors and impact on total service quality are explained.

Due to the lack of sufficient source about effectiveness of the total service quality in the literature, we need a construction model for measuring effectiveness of total service quality in hospitality industry which can cover the insufficient models of service quality. As Lodging Quality Index (LQI) is more advantages than the other service quality measurement, it is used to measure service quality.

The following subsections or factors can be thought that is effect on total service quality. In other words, it is believed that the external variables which are customer loyalty, environmental harmony, municipality main services, public cultural level, corporate responsibility, employee satisfaction, historic locations of city and total quality management has an effect on effectiveness of total service quality.

4.1 Total Service Quality

According to Wilkins et al. (2007) described total service quality as for hotel industry "the sum of the physical, service and quality food and beverage components". He also added that concept of total quality facilitates monitoring hotel performance over time.

4.2 Customer Loyalty

Definition of customer loyalty is complex. There is generally three different ways which are behavioral, attitudinal, composite measurements.

As it is explained for these approaches below:

The definition of customer with behavior approach is meant "consistent, repetitious repurchase behavior as an indicator of loyalty" Moreover, the definition of

customer loyalty with attitudinal approach is meant "attitudinal data to reflect the emotional and psychological attachment inherent in loyalty. In addition to this, the definition of customer loyalty with composite measurement is meant "combine the attitudinal and behavioral approaches and measure loyalty by customers' product preferences, tendency of brand-switching, frequency of purchase, recency of purchase and total amount of purchase" (Bowen and Chen, 2001, p.213-214).

As customer in hotel is tourist, customer loyalty in tourism sector means tourist loyalty. It can be defined as repurchasing intentions or staying same hotel. Since tourist loyalty has positive meaning, it can be affect total service quality positively.

4.3 Environmental harmony

To make the definition of environmental harmony, harmony is necessary to know the definition. Generally, harmony is perceived as beauty. Environmental harmony can be defined as environment beauty which is the symmetry or attractive appearance, etc... For example, the overall image of the city to be symmetrical, that the city attracts people from environmental harmony to be made. Other aspect of this issue is perceived, to be less of CO_2, as well as to have a certain level of noise can be detected.

4.4 Municipality main services

From Wikipedia definition of municipal services refers to basic services that residents of a city expect the city government to provide in exchange for the taxes which citizen pay. Municipality main services includes sanitation, water, streets, schools, fire department, transportation, etc. (http://en.wikipedia.org/wiki/Municipal_services, 2013). Those services are fundamental needs for people. If some of these services does not exist, then many dissatisfaction people increases in the city. For example, when tourist came to city, they faced some municipality main service problem. This affects their perception of the total service quality negatively.

4.5 Public Cultural Level

The Oxford Dictionary culture definition is "the arts and other manifestations of human intellectual achievement regarded collectively" and the other its definitions is

more understandable "the ideas, customs, and social behavior of a particular people or society" It can be thought culture means people's social behavior to anyone. (http://oxforddictionaries.com/definition/english/culture, 2013). Public cultural level can be defined as the level of the social behavior of human. This affects tourist perception of city or country. The greater cultural level can make the better experience of hospitality.

4.6 Corporate Social Responsibility (CSR)

Social responsibility has become one of the key business trends. Corporate responsibility is a concept which has been constantly evolving from its emergence as method for companies to make charitable donations and show their societies (Banerjee and Shastri, p.1).

CSR can be generally defined as "actions that appear to further some social good, beyond the interests of the firm and that is required by law" (McWilliams and Siegal, 2001, p. 117).

CSR has many benefits for tourism sector. Social responsibility projects in hotel industry are supposed to be make knowledge of hotel positively.

4.7 Brand Image

Brand image can be defined as "the current view of the customers about brand". And also definition of brand image is "it is set of beliefs held about a specific brand." Summarize these definitions means that "Brand image is the customer's net extract from the brand" (http://www.managementstudyguide.com/brand-image.htm, 2013). Gronroos (1984) described brand image as the result of how the consumers perceive the firm.

Brand image is vital importance for tourism sector especially hotels and hospitality. For example, when tourist prefers a hotel in the catalog, the one of the criteria of tourist is brand image of hotel. Also the brand image of hotel can be negative or positive impact on employees.

4.8 Employee Satisfaction

Employee satisfaction is the terminology used to describe whether employees are happy and fulfilling their desires and needs at work. Many measures support that employee satisfaction is a factor in employee motivation, employee goal achievement and positive employee morale in work place (Sageer, Rafat and Agarwal, 2012, p.32).

As employees in the hospitality industry are not satisfied, the hotel business generally is affected. Employee satisfaction is main attentions for hospitality management or total service quality.

4.9 Historic Locations of city

It is widely known that tourist come to city for some reasons. They have many reasons such as sun, sand, sea, sightseeing ...etc. Also historical places attract tourist to city. Many tourists want to learn and travel history of city. This is also a positive effect on the overall perspective of the services (total service quality) offered.

4.10 Total Quality Management

In chapter 2, since to extent to which total quality management were examined and defined, we are not repeatedly explained these dimensions.

4.11 Service Quality

Service quality and its dimensions were mentioned in Chapter 3. For this reason, we are not discussed these dimensions.

4.12 Demographic Variables

Demographic variables are determined as net income, gender, age, marital status, education, job and the year of study.

4.13 Proposed Conceptual Research Model for Measuring Total Service Quality

After explaining all of the constructs, the figure below that summarizes the theoretical model of this study is constituted

Figure 8: A Proposed Conceptual Model for Measuring Total Service Quality

External Variables

1) Service Quality

-Tangibility
-Reliability
-Responsiveness
-Confidence
-Communication
2) Environmental harmony
3) Municipality main services

4) Historic Locations of city

5) Public Cultural Level

6) Social Responsibility

7) Brand Image

8) Customer Loyalty

9) Employee Satisfaction

10) Total Quality Management

-Customer focus
-Customer satisfaction
-Employee training
-Top management
-Leadership
-Commitment
-Personnel involvement
-Teamwork
-Employee involvement
-Continuous improvement
-Innovation
-Quality information
-Performance measurement

Core Concept

Effectiveness of Total Service Quality

Demographic Variables

-Net income

-Gender

-Age

-Marital Status

-Education

-Job

-Year of study

5. METHODOLOGY

5.1 Aim of the Research

This research aims on the achieving to identify and analyze which factors are more effective impact total service quality. The research was conducted in Alanya and Antalya six five star hotels among the employees. Two of them are in Alanya and the other four is in Antalya.

5.2 Structure of the Research Data

5.2.1 Target population definition

In our research the target population is employees in the five star hotels. The sample unit of target population is total service quality. Our sampling unit is five star hotels. Our research covers the Alanya and Antalya. The survey period is in between 21th of May 2013 and 21th of June 2013.

5.2.2 Characteristics of the sample

Our sample data has 245 employees. The demographic variables are following:

Gender, Marital Status, Age, The year of study, job, dependants, education, net income.

For gender characteristic, the number male is 148 (70.5%) and the number of female is 53 (25.2%). This means for our data that male employees are more than females.

For marital status, single number which is 117 (49.4%) is more than married 120 (50.6%).We examined for the year of study.

The mean of the year of study is 6.5113 means that in general employees are experienced.

When it has been determined, the highest number of department of job is Food and Beverage and its number 120 (49.0%), lowest number of department is personnel which has 4 employees (1.6 %)

When we consider the age of the employees, mean of the age is 29.6411. Then it can be said that in general the employee is in middle ages. The youngest employee is 16 and eldest employee is 55 years old.

Then, the education level is volatile, but high value condensed in High School category .It consists of 80 employees. (32.7%). The lowest category is master degree whose number is 7 (2.9 %).

The mean of net income is 1518 TL which is more than the minimum wage. The high percentage value is 9.4 % which is 1100 TL.

5.2.3 Tool of Collection Data

To collect the data, the questionnaire is used in our research. The questionnaire based on 55 questions which are prepared for the five stars hotels in Alanya and Antalya. In the distribution of questionnaire it was used three ways which are mail, online survey and the post. And the research data were collected.

Likert-type scale (with 5 scale points) was used in our research. Our questionnaire consisted of two sections. One is core concept and external variables questionnaire. The other section involves demographic questions. The 47 of 55 questions has external and core concept. The rest of 8 questions are demographic.

The demographic variables involves interval, nominal and ordinal scale.

Labels of scale points are based on degree of intensity (Disagree, Slightly Agree, Moderately Agree, Strongly Agree, and Definitely Agree). As we can see the appendix in questionnaire, it is ordered from negative to positive label.

5.3 Adjusted data for the extreme value

In our analysis the data need to be purified the extreme values and outliers, because these values causes biased results. The other reason is that these values negatively affects the normality and homoscedasticity test and homogeneity.

5.4 Statistical methods to be used in Research analysis

Following methods are to be used in different stages of the analysis. At the first stage MRCA and ANOVA will be performed for initial research model. At the second stage PCA, RA will be performed to construct the modified research model in order to reduce independent (external) variables to an optimum number in order to perform MRCA more effectively. The MRCA and ANOVA will be performed for modified research model. And at the final stage MAC will be performed in order to analyze the effect of demographic variables on the core concept of our Research model.

5.4.1 Principal Component Analysis

Principal Component Analysis (PCA) is a method of factor analysis. The main objective of principal components analysis (PCA) is to reduce the dimension of the observations (Härdle and Simar, 2012, p250). PCA is also used when the objective is to summarize most of the original information (variance) in a minimum number of factors for prediction purposes (Hair, Black, Babin and Anderson, 2010, p.98).

Component factor analysis is most appropriate when:

• Data reduction is a primary concern, focusing on the minimum number of factors needed to account for the maximum portion of the total variance represented in the original set of variables, and

• Prior knowledge suggests that specific and error variance represent a relatively small proportion of the total variance. (Hair, Black, Babin and Anderson, 2010, p.98).

In our thesis the reason of the preferring exploratory method is that the number of external variables which cannot be predicted and assumed independent each other

through PCA categorize with determining new component and purpose to generate less number of component model.

PCA categorizes variables instead of omitting variables. After the result of PCA, these categorized external variables have grouped and each of them generates multi-item instrument which cannot have single item.

As the above paragraph, since variables or items are divided into groups or instruments by categorizing by PCA, instruments which are used in PCA must have more than items. PCA variables categorize instead of omitting. After performing PCA, these variables are divided non single instruments. Thanks to PCA, we have captured new profiles.

To summarize PCA,

- Reduces the number of variables by categorizing,
- Orders categories according to their important positions
- Sort in order of importance is attached to the variables within the category.

5.4.1.2 Stages of Principal Component Analysis

1) Measure of sampling adequacy (MSA)

MSA is to quantify the degree of intercorrelations among the variables and the appropriateness of factor analysis. This index ranges from 0 to 1, reaching 1 when each variable is perfectly predicted without error by the other variables. The measure can be interpreted with the following guidelines: 0.80 or above, meritorious; 0.70 or above, middling; 0.60 or above, mediocre; 0.50 or above, miserable; and below 0.50, unacceptable. The researcher should always have an overall MSA value of above 0.50 before proceeding with factor analysis (Hair, Black, Babin and Anderson, p.103).

2) Bartlett Test of Spherecity

Method of determining the appropriateness of factor analysis examines the entire correlation matrix. The Bartlett test of sphericity, a statistical test for the presence of correlations among the variables, is one such measure. It provides the statistical significance that the correlation matrix has significant correlations among at least some of the variables. The increasing the sample size causes the Bartlett test to become more sensitive in detecting correlations among the variables (Hair, Black, Babin and Anderson, p.103).

Table 4: Building Table based on PCA results

Number of Component	C1	C2	C3	C_n	TOTAL
% of explained variation					
Labels of components					
Composition of variables within each component					

5.4.2 Reliability Analysis

The reliability of a measure indicates the extent to which it is without bias (error free) and ensures consistent measurement across time and across the various items in the instrument. In other words, the reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the "goodness" of a measure (Sakeran and Bougie, 2010, p.181).

One common type of measure is a scale in which the participants' scores are based on the sum (or mean) of their responses to a set of items. In cross-sectional studies in which the measures are collected on a single occasion, the most commonly used measure of reliability (internal consistency) is coefficient alpha (Cronbach, 1951). Coefficient alpha represents the mean of the correlations between all of the different possible splits of the scale into number of halves. (Cohen, Cohen, West and Aiken, 2003, p.129)

RA is used to measure both internal consistency and stability. Internal consistency refers to the consistency between items in multi-item instruments. To be consistency instruments, relationship between items according to Cronbach's α (Cronbach, 1951). The generally agreed upon lower limit for Cronbach's alpha is 0.70, although it may decrease to 0.60 (Hair, Black, Babin and Anderson, 2010, p. 124)

Stability means that the ability of a measure to remain the same over time-despite uncontrollable testing conditions or the state of the respondents themselves - is indicative of its stability and low vulnerability to changes in the situation. Two tests of stability are test-retest reliability and parallel-form reliability. The reliability coefficient obtained by repetition of the same measure on a second occasion is called test-retest reliability. The parallel-form reliability means that when responses on two comparable sets of measures tapping the same construct are highly correlated (Sekaran and Bougie p.181-182).

5.4.3 Multiple Regression and Correlation Analysis

The reason of conducting Multiple Regression and Correlation Analysis (MRCA) is that whether relationship between external variable and core concept and in situation of finding of this relationship is valid , what is the contribution of which is to determine the magnitude of the external variables.

MRCA has 5 stages:

1) Linearity
2) Multicollinearity
3) Homoscedasticity
4) Normality of error terms
5) F-test and Adjusted r^2
6) Autocorrelation Analysis
7) t-test and Beta Coefficient

These stages or assumptions will be explained below.

5.4.3.1 Linearity

Linearity of the relationship between dependent and independent variables represents the degree to which the change in the dependent variable is associated with the independent variable. The concept of correlation is based on a linear relationship, thus making it a critical issue in regression analysis (Hair, Black, Babin and Anderson, 2010, p.180).

Checking the linearity assumption in simple regression is easy because the validity of this assumption can be determined by examining the scatter plot of Y (dependent variable) versus X (independent variable). A linear scatter plot ensures linearity. When the linearity assumption does not hold, transformation of the data can sometimes lead to linearity (Chatterjee and Hadi, 2006, p.86).

5.4.3.2 Multicollinearity

Multicollinearity is a key issue in interpreting the regression variable is the correlation among the independent variable. The simplest and most obvious means of identifying collinearity is an examination of the correlation matrix for the independent variables. The presence of high correlations is the first indication of substantial collinearity. Lack of any high correlation values, however, does not ensure a lack of collinearity. Collinearity may be due to the combined effect of two or more other independent variables which is termed multicollinearity.

The two most common measures for assessing both pairwise and multiple variable collinearity are tolerance and its inverse, the variance inflation factor.

A direct measure of multicollinearity is **tolerance**, which is defined as the amount of variability of the selected independent variable not explained by the other independent variables. The tolerance value should be high, which means a small degree of multicollinearity (i.e., the other independent variables do not collectively have any substantial amount of shared variance).A second measure of multicollinearity is the **variance of inflation factor** (VIF), which is calculated simply the inverse of the tolerance value. The VIF value should be low (Hair, Black, Babin and Anderson, 2010, p.197-198).

5.4.3.3 Homoscedasticity

Homoscedasticity is called constant variance. The graphical examination of the residuals suggests that the form of the regression model was properly specified, but the variance of the residual is not constant (heteroscedasticy). The estimation of regression coefficient are unbiased in this situation, but that the standard errors may be inaccurate (Cohen, Cohen, West and Aiken, 2003, p.145).

Besides examination of residual graphics, there is several tests used to determine absolutely whether variation of homoscedasticity is or not. Among this tests, Spearman rho can be considered and tested correlation between absolute error terms and independent variable (Orhunbilge, 2002, p.232).

Spearman rho correlation coefficient

$$r_s = 1 - \frac{6 \sum D^2}{N(N^2 - 1)}$$

is calculated above formula In the formula, N means population size or sample size, D^2 represents that square of the difference of rank of each two variables (Orhunbilge, 2002, p.206).

5.4.3.4 Normality of Error terms

Normality of error terms is that for any value of the independent variable, the residuals around the regression line are assumed to have a normal distribution. Violations of the normality assumption do not lead to bias in estimates of the regression coefficients. The effect of violation of the normality assumption on significance tests and confidence intervals depends on the sample size, with problems occurring in small samples. In large samples, nonnormality of the residuals does not lead to serious problems with the interpretation of either significance tests or confidence intervals (Cohen, Cohen, West and Aiken, 2003, p.120).

Specific statistical tests for normality are also available in all the statistical programs. The two most common are the Shapiro-Wilks test and a modification of the

Kolmogorov-Smirnov test. Each calculates the level of significance for the differences from a normal distribution (Hair, Black, Babin and Anderson, 2010, p.72).

5.4.3.5 F-test

F-test is common in regression analysis to determine the overall significance of the model. In multiple regression, this test determines whether at least one of the regression coefficients is different from zero. F-test for overall significance are

$$H_0: \beta_1 = 0$$

$$H_a: \beta_1 \neq 0$$

The F value is computed directly by

$$F = \frac{SS_{reg}/df_{reg}}{SS_{err}/df_{err}} = \frac{MS_{reg}}{MS_{err}}$$

Where $df_{reg} = k$

df_{err}=n-k-1

k=the number of the independent variables

The values of the sum of squares (SS), degrees of freedom (df), and mean squares (MS) are obtained from the analysis of variance table, which is produced with other regression statistics as standard output from statistical software packages (Black, 2010, p.493).

5.4.3.6 Adjusted r^2

Adjusted r^2 is also called adjusted coefficient of determination. This measure involves an adjustment based on the number of independent variables relative to the sample size. In this way, adding nonsignificant variables just to increase the r^2 can be discounted in a systematic manner. The adjusted r^2 - not only reflects overfitting, but also

the addition of variables that do not contribute significantly to predictive accuracy (Hair, Black, Babin and Anderson, 2010, p.190).

5.4.3.7 Autocorrelation Analysis

Autocorrelation analysis is performed if F-test is significant. A problem that arises in regression analysis when the data occur over time and the error terms are correlated; also called serial correlation (Black, 2010, p.815).

When autocorrelation occurs in a regression analysis, several possible problems might arise. First, the estimates of the regression coefficients no longer have the minimum variance property and may be inefficient. Second, the variance of the error terms may be greatly underestimated by the mean square error value. Third, the true standard deviation of the estimated regression coefficient may be seriously underestimated. Fourth, the confidence intervals and tests using the t and F distributions are no longer strictly applicable (Black, 2010, p.617).

One way to test to determine whether autocorrelation is present by using Durbin-Watson test.

In the Durbin-Watson test, D is the observed value of the Durbin-Watson statistic using the residuals from the regression analysis. A critical value for D can be obtained from the values of α, n, and k by using Durbin-Watson Statics Table, where α is the level of significance, n is the number of data items, and k is the number of predictors. The Durbin-Watson tables include values for dU and dL. These values range from 0 to 4. If the observed value of D is above dU, we fail to reject the null hypothesis and there is no significant autocorrelation. If the observed value of D is below dL, the null hypothesis is rejected and there is autocorrelation. Sometimes the observed statistic, D, is between the values of dU and dL. In this case, the Durbin-Watson test is inconclusive (Black, 2010, p.617).

Table 5: Autocorrelation Criteria

Autocorrelation	No Decision	No Autocorrelation		No Decision	Autocorrelation

0   d_{lower} d_{upper} 2 $4-d_{upper}$ $4-d_{lower}$ 4

d<2   **d>2**
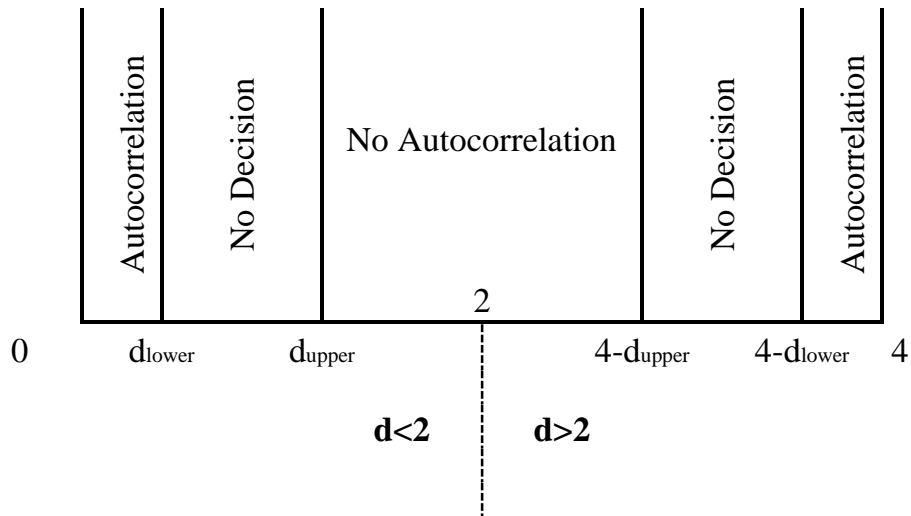
5.4.3.8 T-test

The t value of variables in the equation, as just calculated, measures the significance of the partial correlation of the variable reflected in the regression coefficient As such, it indicates whether the researcher can confidently say, with a stated level of error, that the coefficient is not equal to zero (Hair, Black, Babin and Anderson, 2010, p.209).

5.4.3.9 Beta Coefficient

Beta coefficient is standardized regression coefficient that allows for a direct comparison between coefficients as to their relative explanatory power of the dependent variable. Whereas regression coefficients are expressed in terms of the units of the associated variable, thereby making comparisons inappropriate, beta coefficients use standardized data and can be directly compared (Hair, Black, Babin and Anderson, 2010, p.153).

5.4.4 Measures of Association and Correlation

MAC is used to determine whether there is a relationship between core concept and demographic variables. For determining of the relationships, It is necessary to be same scale levels for each variables If the relationship between two variables with

different scale levels any of them, higher scale level variables is transformed to lower level scale.

More information about the scales in the table below:

Table 6: The measurement of scale type

Power of Scale	Type of Scale	Defining characteristic of the scale	Descriptive	Inferential	Type of data	Type of method
			Reliability	Validity		
			Type of measure	Type of Test		
Low	Nominal $\left(\begin{array}{c}Categoric\\data\end{array}\right)$	(1) Equivalance	• Mod • Cramer's V	• Chi-square • Test	Qualitative	NonParametric Methods
	Ordinal $\left(\begin{array}{c}Ordered\\data\end{array}\right)$	(1) Equivalance (2) Less than, more than	• Medyan • Kendall's Tau • Spearman's Rou	• Kendall Test • t-test	Qualitative	NonParametric Methods
	Interval	(1) Equivalance (2) Less than, more than (3) Known distance	• Aritmetic Mean • Pearson's r	• t-test • z-test • F-test	Quantitative	Parametric Methods
High	Ratio	(1) Equivalance (2) Less than, more than (3) Known distance (4) Known ratio	• Geometric Mean • Pearson's r	• z-test • f-test	Quantitative	Parametric Methods

Source: Prof. Dr. Rauf Nişel, Survey Methods Class Notes at Marmara University, 2012

Power of scale is measured by following 2 properties:

1) The accuracy of validity

2) Informative feature

Since demographic variables which are used in model measure different scale levels, in the first stage, scale levels of all of the demographic variables are determined. The reason of measuring Likert-type scale of core concept, scale level is determined interval scale. When relationship between core concept and nominal scaled demographic variable is investigated, the core concept needs to transform to nominal scale. SPSS transforms automatically when relationship between ordinal scale variable and high level scaled (interval or ratio) variable are determined by categorizing. And it is reduced to ordinal scale level. For this reason, in ordinal scale level relationship analysis, there is no transforming process in SPSS.

If scale level variables are nominal or ordinal, measurement of this relationship is defined "association". To put it more generally, relationship between qualitative variables are measured by association measures.

If scale levels of variables are interval or ratio, in other words if variables are quantitative measures of relationship are called correlation.

5.4.4.1 Analysis of the Relationship between Variables at nominal scale

One way to determine whether there is a statistical relationship between two variables is to use the chi square test for independence. A cross classification table is used to obtain the expected number of cases under the assumption of no relationship between the two variables. The chi square based measures of association are often used to determine the strength of relationships where at least one of the variables is nominal.

Cramer's V coefficient is the preferred measure among X^2 based measures. It generally has a maximum value of 1 when there is a very strong relationship between two variables.

Phi coefficient which is the measure of association is a measure which adjusts the chi square statistics by the sample size. Phi is most easily defined as

$$\Phi = \sqrt{\frac{X^2}{n}}$$

Both these coefficients are based on χ^2 (chi-square) test of independence (Gingrich, 2004, p.774). The SPSS computer program gives the significance level for these measures of association when these measures are requested. If in chi-square test Sig. ≤ 0.05, then it means that there is a relationship. If Sig. > 0.05 whatever correlation coefficients is valued, this concludes that there is no relationship.

If contingency table is 2x2 table, Fischer-Exact test is alternatively used when Chi-square test are not interpreted. This test is used for only 2x2 tables. As can be considered this, the designing of more than two categories, in order to reduce the frequency per category and small sample size exceeds %20 limit, thus Chi-square test is not interpreted.

5.4.4.2 Analysis of Relationship between variables at Ordinal and Interval Scale

While there are many measures of association for variables which are measured at the ordinal or higher level of measurement, correlation is the most commonly used approach. The correlation coefficient usually given the symbol r and it ranges from -1 to +1 (Gingrich, 2004, p.795).

A correlation coefficient can be produced for ordinal, interval or ratio level variables, but has little meaning for variables which are measured on a scale which is no more than nominal. Spearman's rho is calculated for ordinal scales. For interval and ratio levels, the most commonly used correlation coefficient is Pearson's r (Gingrich, 2004, p.796).

5.4.5 ANOVA (Factorial Experiments)

Factorial Experiments are experiments that investigate the effects of two or more factors or input parameters on the output response of a process. Factorial experiment

design, or simply factorial design, is a systematic method for formulating the steps needed to successfully implement a factorial experiment. Estimating the effects of various factors on the output of a process with a minimal number of observations is crucial to being able to optimize the output of the process. In a factorial experiment, the effects of varying the levels of the various factors affecting the process output are investigated. Each complete trial or replication of the experiment takes into account all the possible combinations of the varying levels of these factors (Batra and Jaggi, 2003, p.1).

If no interactions are present, the next step is the analysis of the main effects**.**

The reason to perform the Factorial Experiments (ANOVA) is that regression analysis is not capable of the measuring nominal scale. And also interaction of the external variable is not determined in MRCA. In addition, MRCA is based on relationship between independent variable and dependent variable and the contribution of the demographic variable is not considered in MRCA. The analysis is based on one to one relationship between independent and dependent variable, but Factorial Experiments (ANOVA) have advantages for these issues.

As the factorial experiments are used for measuring demographic and external variables on dependent variable, factors and covariate variables have been determined .In our study, external variables (which consist of service quality, environmental harmony, municipality main services, historic locations of city, public cultural level, social responsibility, brand image, customer loyalty, employee satisfaction, total quality management), age ,education, net income, year of study , dependants are considered as covariate variables as their scale is interval. Since gender and marital status and job are nominal scale, they are considered as factor variables.

5.4.6 Proposed Research Model for ANOVA (Factorial Experiments)

Factors

Gender

Marital Status

Job

Covariate

Age

Net income

Education

Year of study

Dependants

Service Quality

Environment Harmony

Municipality main services

Historic locations of city

Public cultural level

Social responsibility

Brand Image

Customer loyalty

Employee satisfaction

Total quality management

Dependent variable

Effectiveness of Total Service Quality

6. FINDINGS

In this part of the study, the collected data is to find out with determined research methods.

6.1 Reliability Analysis (RA)

We begin to analyze our collected data by applying reliability analysis because of having dimensions of service quality and its subgroup total quality management questionnaires.

Firstly the subgroup of service quality which are tangibility, reliability, responsiveness, communication and confidence are examined. After that total quality management dimensions are determined.

6.1.1 Reliability Analysis for Tangibility Instrument

As we mentioned before, tangibility has 8 items which are "Internal decorations", " Staff appearance& tidiness", "Attractiveness(external)", " Hotel facilities", the RA must be conducted. Our desirable result is Cronbach alpha is greater than 0.70. When it was performed the tangibility items, internal decoration and attractiveness (external) items are extracted from model.

Table 7: Reliability Statistic

Cronbach's Alpha	N of Items
.825	7

Source: SPSS Software, RA output

Table 8: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
tanID1	21.7746	26.657	.479	.820
tanSAT	20.9108	28.478	.465	.818
tanID2	21.5258	25.109	.650	.788
tanHotelfac1	21.9390	27.227	.530	.808
tanHOTfac2	21.1596	26.408	.649	.789
tanHOTfac3	21.1784	25.704	.665	.785
tanHOTfac4	20.8920	28.050	.574	.802

Source: SPSS Software, RA output

As it can be seen in the table, Cronbach's Alpha = 0.825 > 0.70 which is reliability criteria. Thus, the internal consistency of tangibility items is satisfied. According to the table, internal decoration1 is high, but hotel facility4 is lowest variable in tangible items. The tangibility subgroups are combined and the label is named "Tangibility".

6.1.2 Reliability Analysis for Reliability Instrument

Reliability has 4 items which are "Orders done by staff", "Facilities of rooms", "Timely accommodation", "Rooms delivered to customers". After performing RA, due to the reducing Cronbach's Alpha, "timely accommodation" is omitted from our model. Moreover, the remaining items constitute the new "Reliability" item.

Table 9: Reliability Statistic

Cronbach's Alpha	N of Items
.714	4

Source: SPSS Software, RA output

Table 10: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
relta	**11.7260**	**6.944**	**.464**	**.675**
RelRDTcust	**11.6442**	**6.984**	**.534**	**.634**
relFOR	**11.8798**	**6.415**	**.530**	**.635**
relODBS	**11.4231**	**7.385**	**.484**	**.663**

Source: SPSS Software, RA output

Since the result of our Cronbach's Alpha value (0.721) is greater than 0.70, the internal consistency of reliability item is fulfilled.

6.1.3 Reliability Analysis for Responsiveness Instrument

We early mentioned that the responsiveness has 3 items. As we reminded these items, these are "Respond for requests", "Speed of Service", "Giving information offering service".

According to our RA results of Responsiveness Scale, Cronbach's Alpha (0.802) is greater than 0.7 0 which is reliability criteria. Speed of Service1 and Speed of Service3 is eliminated due to RA results.

Table 11: Reliability Statistic

Cronbach's Alpha	N of Items
.802	**3**

Source: SPSS Software, RA output

Table 12: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
respSOS2	**8.5110**	**3.216**	**.630**	**.750**
respGIOS	**8.5683**	**3.123**	**.627**	**.753**
respRFR	**8.5683**	**2.990**	**.690**	**.686**

Source: SPSS Software, RA output

The leading factor of Responsiveness is "Speed of Service2" and lowest item is "Respond for requests". New responsiveness components are obtained by summated the items which are "Speed of Service2", "Giving information offering service" and "Respond for requests".

6.1.4 Reliability Analysis for Confidence Instrument

As the confidence scale has 5 items which are "Security", "Competence", "Staff of politeness", "Courtesy" and "Access", the RA is also conducted whether our scale has internal consistency or not. RA result is that due to the fact that Cronbach's Alpha value (0.710) is greater than 0.70, the internal consistency of confidence scale is obtained.

Table 13: Reliability Statistic

Cronbach's Alpha	N of Items
.710	**2**

Source: SPSS Software, RA ouput

Table 14: Item-Total Statistics

Item-Total Statistics			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
confSOP	**4.4573**	**.927**	**.551**	.[a]
confCOUR	**4.5385**	**.842**	**.551**	.[a]
a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.			

Source: SPSS Software, RA output

"Access"," Competence" and "Security" items are eliminated after performing RA. The remaining items which are Staff of politeness, Courtesy are summed and named "Confidence".

6.1.5 Reliability Analysis for Communication Instrument

As the confidence scale has 4 items which are "Communication", "Understanding1", "Understanding2" and "Understanding3", RA is also conducted whether our scale because of internal consistency . RA result is that due to the fact that Cronbach's Alpha value (0.723) is greater than 0.70, the internal consistency of communication scale is obtained.

Table 15: Reliability Statistic

Cronbach's Alpha	N of Items
.723	2

Source: SPSS Software, RA output

Table 16: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
commUND3	4.0179	1.108	.575	.[a]
CommUND1	4.4215	.776	.575	.[a]
a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.				

Source: SPSS Software, RA output

"Communication" and "Understanding2" items are eliminated after performing RA. The remaining items which are Understanding1 and Understanding3 are summed and named "Communication".

6.1.6 Reliability Analysis for Service Quality Instrument

As service quality scale has 5 items are previously obtained from RA which are "Tangibility", "Reliability", "Responsiveness", "Confidence", "Communication", RA is conducted for internal consistency. RA result is that due to the fact that Cronbach's Alpha

value (0.827) is greater than 0.70, the internal consistency of service quality scale is obtained.

Table 17: Reliability Statistic

Cronbach's Alpha	N of Items
.827	**3**

Source: SPSS Software, RA output

Table 18: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Responsiveness	**17.5381**	**8.192**	**.814**	**.667**
Confidence	**21.3619**	**14.758**	**.695**	**.774**
Communication	**21.9095**	**14.657**	**.652**	**.802**

Source: SPSS Software, RA output

"Tangibility", "Reliability" are omitted after conducting RA. The remaining items are summated and named "Service Quality".

6.1.7 Reliability Analysis for Total Quality Management Instrument

As total quality management scale has 10 items which are "Tangibility", "Reliability", "Responsiveness", "Confidence", "Communication", RA is conducted for internal consistency. RA result is that due to the fact that Cronbach's Alpha value (0.935) is greater than 0.70, the internal consistency of total quality management scale is obtained.

Table 19: Reliability Statistic

Cronbach's Alpha	N of Items
.891	**11**

Source: SPSS Software, RA output

Table 20: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
perfmea	40.9198	59.913	.518	.889
CustSat	40.4118	61.856	.596	.882
emptra	40.8663	59.590	.628	.880
teamw	40.6684	60.169	.593	.883
quainf	40.7594	60.678	.635	.880
empinv	40.8235	59.286	.645	.879
innov	40.4064	59.802	.720	.875
Leadershiip	40.2674	61.842	.678	.879
Commitment	40.2353	62.977	.597	.883
TopManagement	40.4920	60.058	.630	.880
contimp	40.7807	61.237	.578	.883

Source: SPSS Software, RA output

"Customer Focus" item is omitted after conducting RA. The remaining items are summated and named "Total Quality Management".

Since all external variables are obtained single-item, we conduct PCA analysis.

6.2 Principle Components Analysis (PCA)

We analyze our collected data by applying factor analysis on total service quality questions. In factor analysis Principal Component Method and Varimax Rotation were performed.

To conduct the PCA, Bartlett Test results must be desirable level. Thus KMO > 0.50 and Bartlett Test result must be Sig. $\leq (\alpha = 0.05)$.

6.2.1 PCA analysis for Total Service Quality Instrument

If there is more number of external variables, this number can be reduced by performing PCA. As our data has 8 external variables and 2 of them is eliminated by extreme values and outlier criteria, external variables are summated and labeled.

As KMO = 0.464 < 0.50 and Bartlett test is significant Sig. 0.000 ≤ (α = 0.05), PCA stages have undesirable results. As we can see the correlation matrix, "Total Quality Management" has high interrelation with the service quality, thus, "Total Quality Management "variable is eliminated. KMO increased from 0.464 to 0.576. Then new component is following:

Table 21: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.576**
Bartlett's Test of Sphericity	Approx. Chi-Square	**89.978**
	df	**21**
	Sig.	**.000**

Source: SPSS Software, PCA output

Table 22: Total Variance Explained

Comp onent	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2.338**	**33.400**	**33.400**	**2.107**	**30.102**	**30.102**
2	**1.253**	**17.905**	**51.305**	**1.399**	**19.983**	**50.085**
3	**1.059**	**15.130**	**66.435**	**1.144**	**16.350**	**66.435**
4	**.932**	**13.309**	**79.744**			
5	**.649**	**9.270**	**89.014**			
6	**.506**	**7.231**	**96.245**			
7	**.263**	**3.755**	**100.000**			
Extraction Method: Principal Component Analysis.						

Source: SPSS Software, PCA output

Table 23: Rotated Component Matrix

Rotated Component Matrix[a]			
	Component		
	1	2	3
newbraima	**.849**	**.137**	**.004**
newcustloy	**.812**	**.060**	**-.060**
servqual	**.717**	**.168**	**.066**
newsocaRes	**.060**	**.870**	**-.061**

newhisloc	**.354**	**.670**	**.038**
municima	**-.173**	**.186**	**.816**
publicc	**.233**	**-.330**	**.682**
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Source: SPSS Software, PCA output

The following conclusion is obtained by using above two tables.

Table 24: Classification of variables into components

Number of Component	C1	C2	C3	TOTAL
% of explained variation	**30.102**	**19.983**	**16.350**	**66.435**
Labels of components	**Company Quality**	**Social Facilities**	**Public Facilities**	
Composition of variables within each component	• Brand Image • Customer loyalty • Service Quality	• Social Responsibility • Historic Locations of City	• Municipality main services • Public cultural level	

There is said to be leading of C1 (30.102) is greatest explanation and lowest is C3 (16.350).

6.3 Modified Research Model (After performing PCA and RA)

After performing RA and PCA, Our research model is modified as we can see in the following table:

Figure 9: Modified Research Model (After Performing PCA and RA)

External Variables

C1- Company Quality
   1) **Service Quality**
   ❖ Responsiveness
      • Respond for requests
      • Speed of Service2
      • Giving information offering service
   ❖ Confidence
      • Competence
      • Staff of politeness
      • Courtesy
   ❖ Communication
      • Understanding1
      • Understanding3
   2) **Brand Image**
   3) **Customer loyalty**
C2- Social Facilities
   • Social Responsibility
   • Historical Location of City
C3- Public Facilities
   • Public Cultural Level
   • Municipality main services

Core Concept

Effectiveness of Total Service Quality

Demographic Variables

-Net income

-Gender

-Age

-Marital Status

-Education

-Job

-Year of study

-The number of dependents

6.4 Multiple Regression and Correlation Analysis and ANOVA (Factorial Experiments for Initial and Modified Research

In this part of our study, MRCA and ANOVA (Factorial Experiments) will be performed and the results will be interpreted in terms of relationship and difference for initial and modified research model.

6.4.1 Multiple Regression and Correlation Analysis (MRCA) for Initial Model

In this part of our study, the findings about MRCA for initial model will be discussed.

MRCA is carried out to test the initial research model. Since the initial model which means that PCA is not performed has two (2) independent variables (public cultural level and municipality main services). MRCA is performed for testing the relationship between independent variables and dependent variable (total service quality). The assumptions of MRCA will be checked.

6.4.1.1 Findings about linearity for initial research model

The linearity assumption is tested and the result is given above correlation matrix table.

Table 25:Correlations Matrix for Linearity

Correlations		Totalservicequal	municima	publicc
Pearson Correlation	Totalservicequal	**1.000**	**.163**	**.298**
	municima	**.163**	**1.000**	**.129**
	publicc	**.298**	**.129**	**1.000**
Sig. (1-tailed)	Totalservicequal	**.**	**.057**	**.002**
	municima	**.057**	**.**	**.107**
	publicc	**.002**	**.107**	**.**
N	Totalservicequal	**95**	**95**	**95**
	municima	**95**	**95**	**95**
	publicc	**95**	**95**	**95**

Source: SPSS Software, MRCA output

The above table shows that all independent variables does not hold the linearity criteria, since the all components is lower than 0.70. The linearity assumption can be tolerated, so we will continue to perform the next assumption.

6.4.1.2 Findings about multicollinearity for initial research model

Since the correlation between two independent variables is lower than 0.70 (0.129) Thus, there is no multicollinearity.

6.4.1.3 Findings about homoscedasticity for initial research model

The third assumption is homoscedasticity. As it can be seen in Test of homoscedasticity table. Public cultural level $(0.052 > 0.05)$, but municipality main services has lower than 0.05, so municipality main services is extracted and MRCA is performed again.

Table 26:Test of Homoscedasticity

Correlations				absoluteresidual	municima	publicc
Spearman's rho	absoluteresidual	Correlation Coefficient		**1.000**	**-.262**[*]	**-.200**
		Sig. (2-tailed)		**.**	**.010**	**.052**
		N		**95**	**95**	**95**
	municima	Correlation Coefficient		**-.262**[*]	**1.000**	**.105**
		Sig. (2-tailed)		**.010**	**.**	**.291**
		N		**95**	**111**	**103**
	publicc	Correlation Coefficient		**-.200**	**.105**	**1.000**
		Sig. (2-tailed)		**.052**	**.291**	**.**
		N		**95**	**103**	**122**
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: SPSS Software, MRCA output

After performing MRCA again, the test of homoscedasticity is given below:

Table 27:Test of Homoscedasticity

Correlations				
			absoluteresidual	publicc
Spearman's rho	absoluteresidual	Correlation Coefficient	**1.000**	**-.200**
		Sig. (2-tailed)	**.**	**.052**
		N	**95**	**95**
	publicc	Correlation Coefficient	**-.200**	**1.000**
		Sig. (2-tailed)	**.052**	**.**
		N	**95**	**122**

Source: SPSS Software, MRCA output

As we can see homoscedasticity assumption is held from the above table. (Sig. $0.052 > 0.05$), the other assumptions will be checked.

6.4.1.4 Findings about Normality Error terms for initial research model

The fourth assumption is Normality Error terms. To check this assumption, Kolmogorov-Smirnov test is used. As the result of test is insignificant ($0.000 < 0.05$) from the below Test for Normality which is undesirable situation, the normality assumptions does not hold. Public cultural variable is extracted from the model and the other assumptions are not performed.

Table 28:Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	**.162**	**114**	**.000**	**.898**	**114**	**.000**
a. Lilliefors Significance Correction						

Source: SPSS Software, MRCA output

6.4.2 Factorial Experiments (ANOVA) for initial research

The first assumption of Factorial experiments is that Levene's test must be insignificant. Levene's Test value is insignificant result from the table which is desirable situation, since Sig. 0.763 is greater than 0.05 for initial research. ANOVA can be interpreted for initial research.

Table 29:Levene's Test of Equality of Error Variances

Dependent Variable:Totalservicequal			
F	df1	df2	Sig.
.091	1	88	.763
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
a. Design: Intercept + municima + publicc + Gender			

Source: SPSS Software, ANOVA output

As we can see from the Test of Between-Subjects Table, the main effect of covariate variable (public cultural level) has difference on total service quality due to the result of (Sig. 0.002 <0.05).

Table 30: Tests of Between-Subjects Effects

Dependent Variable:Totalservicequal							
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[b]
Corrected Model	14.414[a]	3	4.805	4.230	.008	12.690	.844
Intercept	82.699	1	82.699	72.806	.000	72.806	1.000
municima	.732	1	.732	.645	.424	.645	.125
publicc	11.653	1	11.653	10.259	.002	10.259	.886
Gender	.084	1	.084	.074	.786	.074	.058
Error	97.686	86	1.136				
Total	1625.000	90					
Corrected Total	112.100	89					
a. R Squared = .129 (Adjusted R Squared = .098)							
b. Computed using alpha = .05							

Source: SPSS Software, ANOVA output

Since the interactions of factors and covariate are not significant result, the table is not shown.

6.4.3 Multiple Regression and Correlation Analysis (MRCA) for Modified Model

To test our modified research model we performed multiple regression analysis.

When we conducted multiple regression analysis for total service quality, to understand the relationship between total service quality and components which are company quality (C1) and social facilities (C2), public facilities (C3) constituted after the results of PCA and RA.

6.4.3.1 Findings about linearity for modified research model

In MRCA, First assumption is linearity. As we can see the correlations matrix, linearity criteria between total service quality and C1, C2 and C3 are calculated. Due to correlation coefficients which are respectively ($0.599 < 0.70$ and Sig. $0.00 < 0.05$), ($0.045 < 0.70$ and Sig. $0.359 > 0.05$) and ($0.178 < 0.70$ and Sig. $0.00 > 0.05$). These means that there is only relationship between total service quality and C1, because the correlation of C1 is significant. For this reason C2 and C3 are extracted from our model. Although C1 variable (0.599) is less than 0.70, the linearity assumption can be tolerated. The MRCA is performed again without C2 and C3 components.

Table 31:Correlations Matrix for Linearity

Correlations		Totalservicequal	C1	C2	C3
Pearson Correlation	Totalservicequal	1.000	.599	.045	.178
	C1	.599	1.000	.360	.021
	C2	.045	.360	1.000	-.068
	C3	.178	.021	-.068	1.000
Sig. (1-tailed)	Totalservicequal	.	.000	.359	.077
	C1	.000	.	.001	.433
	C2	.359	.001	.	.294
	C3	.077	.433	.294	.
N	Totalservicequal	66	66	66	66
	C1	66	66	66	66
	C2	66	66	66	66
	C3	66	66	66	66

Source: SPSS Software, MRCA output

MRCA is performed with C1 variable. The linearity assumptions of C1 is rechecked from correlations matrix.

Table 32: Pearson Correlations Matrix for Linearity

Correlations			
		Totalservicequal	Cc1
Pearson Correlation	Totalservicequal	**1.000**	**.541**
	C1	**.541**	**1.000**
Sig. (1-tailed)	Totalservicequal	**.**	**.000**
	C1	**.000**	**.**
N	Totalservicequal	**89**	**89**
	C1	**89**	**89**

Source: SPSS Software, MRCA output

The linearity does not hold due to the value 0.541 is lower than 0.70 from the correlations matrix, but we can tolerate the linearity assumption.

6.4.3.2 Findings about multicollinearity for modified research model

Since C1 (Company Quality) is single variable, there is no multicollinearity issues. Thus, the multicollinearity assumption is satisfied.

6.4.3.3 Findings about homoscedasticity for modified research model

The third assumption is homoscedasticity. As it can be seen in Test of homoscedasticity table. Spearman's rho has insignificant result ($0.113 > 0.05$), this means that there is a homoscedasticity which is desirable result.

Table 33: Test of Homoscedasticity

Correlations				
			absolute	Cc1
Spearman's rho	absolute	Correlation Coefficient	**1.000**	**-.169**
		Sig. (2-tailed)	.	.113
		N	89	89
	Cc1	Correlation Coefficient	**-.169**	**1.000**
		Sig. (2-tailed)	.113	.
		N	89	92

Source: SPSS Software, Correlation output

Thus, now we will continue to check the next assumptions.

6.4.3.4 Findings about Normality error terms for modified research model

As we can see in Test of Normality, the normality assumption does not hold due to the Kolmogorov-Smirnov (Sig.0.000 < 0.05) which is undesirable result. The other assumptions are not checked.

Table 34: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.196	89	.000	.852	89	.000
a. Lilliefors Significance Correction						

Source: SPSS Software, MRCA output

6.4.4 Factorial Experiments (ANOVA) for modified research

From the below Levene's Test of Equality Error Variances table, the test result is insignificant (0.500 > 0.05) which is desirable situation. This means that the variances have homogeneity.

Table 35:Levene's Test of Equality of Error Variances

Dependent Variable:Totalservicequal			
F	df1	df2	Sig.
.460	1	63	.500
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
a. Design: Intercept + C1 + C2 + C3 + Gender			

Source: SPSS Software, ANOVA output

Levene's Test is insignificant and the main effects of covariate C1 (Company Quality) has significant results (Sig. 0.000 < 0.05). The main effects of covariate C2 (Social facilities) and C3 (Public facilities) and gender which are respectively (Sig. 0.113 > 0.05), (Sig. 0.972 > 0.05) is insignificant

Table 36:Tests of Between-Subjects Effects

Dependent Variable:Totalservicequal							
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[b]
Corrected Model	28.252[a]	4	7.063	10.645	.000	42.580	1.000
Intercept	.578	1	.578	.871	.354	.871	.151
C1	25.353	1	25.353	38.211	.000	38.211	1.000
C2	1.719	1	1.719	2.591	.113	2.591	.354
C3	1.606	1	1.606	2.421	.125	2.421	.334
Gender	.001	1	.001	.001	.972	.001	.050
Error	39.810	60	.663				
Total	1240.000	65					
Corrected Total	68.062	64					
a. R Squared = .415 (Adjusted R Squared = .376)							
b. Computed using alpha = .05							

Source: SPSS Software, ANOVA output

For this reason, the main effect of covariate C1 (Company Quality) makes difference or influence on total service quality.

6.5 Measures for Association and Correlation (MAC)

MAC is to examine the relationship (correlations or associations) between dependent variable (core concept) and demographic variable. The scale types of demographic variables are determined. Gender, marital status and job are examined as nominal scale. Year of study, net income, age, dependants are determined as interval scale. Education is ordinal scale.

To analyze between nominal scaled demographic variables and core concept (dependent variable), firstly core concept is categorized by median in our data is 3 (1-5 scale). If value is lower than 3 and equal ($n \leq 3$), then the new value is assigned 1 and If value is greater than 3, then the new value is assigned 2.Thus, the new core concept which is labeled "cc" which is recoded from interval to nominal scale.

6.5.1 Measures for Association and Correlation (MAC) for Gender

As gender is in nominal scale, the transformation of Core concept is needed, the categorized core concept is used for this analysis. In other words, it is used "cc" in our analysis. We used chi-square test because our test result showed that number of cells which have expected frequency less than 5 per cell does not exceed the 20% of total number of cells in contingency table

The result of Pearson Chi-Square is significant from the following Chi-Square table due to the fact that the Sig. 0.002 is lower than 0.05.Thus; there is a significant relationship between total service quality and gender.

Table 37: Gender * cc Crosstabulation

Count				
		cc		Total
		1.00	2.00	
Gender	1.00	23	125	148
	2.00	19	34	53
Total		42	159	201

Source: SPSS Software, MAC output

Table 38:Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	**9.737**ᵃ	**1**	**.002**		
Continuity Correctionᵇ	**8.548**	**1**	**.003**		
N of Valid Cases	**201**				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.07.					
b. Computed only for a 2x2 table					

Source: SPSS Software, MAC output

To summarize the findings about MAC, there is only one significant relationship between gender and total service quality and the other demographic variables which are year of study, dependants, age, net income, education, marital status, job is insignificant.

6.6 Finalized Research Model

After performing MRCA, MAC and Factorial Experiments, the following model is obtained:

Figure 10: Result of MAC for Finalized Research Model based on demographic variables

Demographic Variable Gender	→	**Core Concept** Effectiveness of Total Service Quality
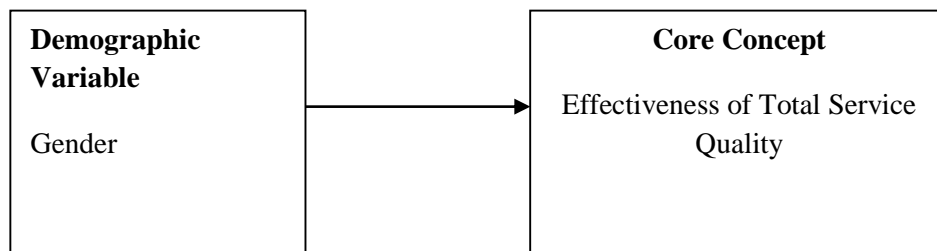
6.7 Model Construction based on differences (Factorial Experiments) for initial research

Figure 11: Result of ANOVA for Finalized Research Model (based on initial research model)

Covariate	Dependent variable
Covariate Public Cultural Level	**Dependent variable** Effectiveness of Total Service Quality
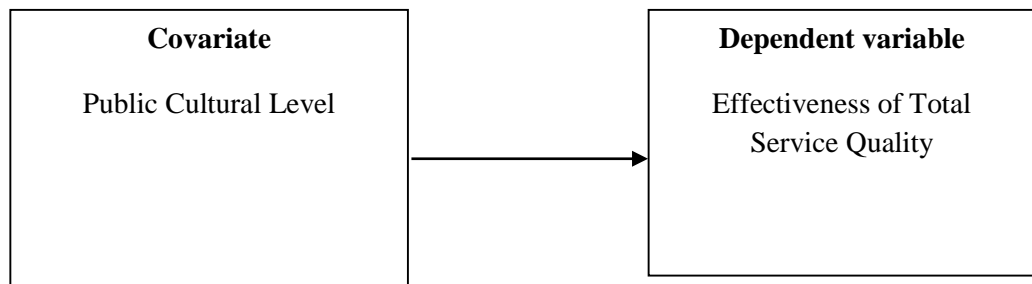
6.8 Model Construction based on differences (Factorial Experiments) for modified research

Figure 12: Result of ANOVA for Finalized Research Model (based on modified research model)

Covariate	Dependent variable
Covariate C1(Company Quality)	**Dependent variable** Effectiveness of Total Service Quality
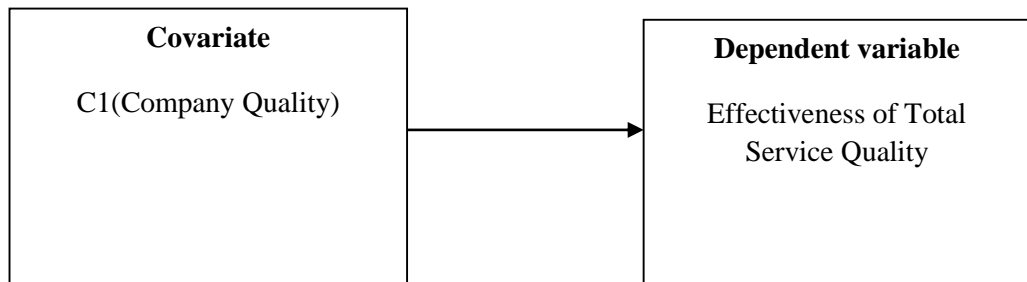
7. CONCLUSION

In our study effectiveness of total service quality in tourism sector (five star hotels) was to be measured based on variables taken place in our proposed model obtained after extensive literature review. Survey was prepared and conducted in five star hotels in Alanya and Antalya and the number of employees were reached 245. 55 questions were used to measure the effectiveness of total service quality. Collected data or surveys were purified from extreme values and outliers.

Multiple Regression and Correlation Analyses (MRCA) and ANOVA (Factorial Experiments) were discussed in terms of initial and modified research model.

In MRCA for initial model, as the normality assumptions did not hold, it was not found any relationship between independent variables (public cultural level and municipality main services) and total service quality.

Then, for the interpretation of difference ANOVA (factorial experiments) for initial model was conducted. It was seen that public cultural level had significant differences on dependent variable (Total service quality).

Further, In MRCA for modified model, after Principal Component Analysis (PCA) and Reliability Analysis (RA), the external variables are determined as service quality, brand image, corporate social responsibility, customer loyalty, historical locations of city, public cultural level and municipality main services. These variables were divided into three components which are ordered and labeled C1 (Company Quality), C2 (Social Facilities) and C3 (Public Facilities). As a result of perceiving the total quality management and service quality were same from PCA correlations table, total quality management was eliminated. These components formed the modified research model. The results of internal consistency of these components were significant level. Further, in the result of MRCA, Since C3 (Public facilities) and C2 (Social Facilities) had multicollinearity issue, these components had no contribution to effectiveness of total service quality. They were extracted from data. And MRCA was conducted again without C2 (Social facilities) and C3 (Public facilities). But the result of normality of error terms. Thus it was said that model was invalid and C1 (Company

Quality) also was extracted from model. It was not found any relationship between components (C1, C2, and C3) and total service quality.

Then another model was constructed based on differences not relationship. Validation of this model ANOVA (factorial experiments) was performed. The main effect of covariate C1 (Company Quality) was found to be significant and made differences on total service quality.

After Multiple Regression and Correlation Analysis (MRCA) and ANOVA (Factorial Experiments) performing for initial and modified research models, Measure of Associations and Correlations (MAC) was performed due to the analysis of demographic variables. The result of MAC showed that there was a significant relationship between gender and total service quality. Also, it was found that female employees perceived effectiveness of total service quality higher than male. This may be result from the male employees worry about losing their job. One perspective is that female employees may be more relaxed than male. Another is that male employees may work more difficult conditions.

Although there was no relationship between total service quality and independent variable or components for initial and modified MRCA model, it was considered that covariate public cultural level and C1(Company Quality) covariate variables separately made difference on total service quality. This can be interpreted as in case of high public cultural level, perception of effectiveness of total service quality was high. When C1 (Company Quality) was high, the effectiveness of total service quality was perceived high.

8. LIMITATION

In our study, as homogeneity and normality test did not hold original data, the purification of data was conducted. In other words, the extraction of extreme and outlier values made our data more reliable results for performing Multiple Regression and Correlation Analysis (MRCA) and ANOVA (Factorial Experiments).

9. REFERENCES

Books

Banerjee, P.M. & V. Shastri. (2010). **Social Responsibility and Environmental Sustainability in Business**. SAGE Publications.

Bhat, K. Shridhara. (2010). Total **Quality Management Text & Cases**. Mumbai, IND: Himalaya Publishing House.

Black, K. (2010). **Business Statistics For Contemporary Decision Making**. Hoboken: John Wiley & Sons.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). **Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences**. London: Lawrence Erlbaum Associates.

Deming, W. (1992). **Out of Crisis**. 9rd. United States of America: Massachusetts Institute of Technology

Gümüşoğlu, Ş. (2007). **Hizmet Kalitesi Kavramlar, Yaklaşımlar ve Uygulamalar**. Ankara: Detay Yayıncılık.

Hair Jr., J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). **Multivariate Data Analysis**. Pearson Prentice Hall.

Härdle, W., & Simar, L. (2007). **Applied Multivariate Statistical Analysis**. Berlin: Springer.

Hoffman, K. D., & Bateson, J. E. (2008). **Service Marketing Concept, Strategies & Cases** .4th. USA: Cengage Learning.

Kandampully, J. (2007). **Services Management**. Australia: Pearson Education.

Kandampully, J., Mok, C., Sparks, B., & editors. (2001). **Service quality management in hospitality, tourism, and leisure**. Bingham: The Haworth Hospitality Press.

Mishra, R. and A. Sandilya. (2009). **Reliability and Quality Management**. Daryaganj, Delhi, IND: New Age International.

Oakland, J. (2003). **Total Quality Management text with cases**. 3rd. Oxford: Elsevier.

Orhunbilge, N. (2002). Uygulamalı Regresyon ve Koreasyon Analizi. İstanbul: İ.Ü. İşletme Fakültesi

Pırnar, İ. (2002). **Turizm Sektöründe Kalite Yönetimi**. Ankara: Seçkin Yayınları.

Reid, R. and N. Sanders. (2005). **Operations Management An Integrated Approach**. 2nd. John Wiley & Sons.

Rust, R. T., R. L. Oliver. (1994). Service **quality: New directions in theory and practice**. SAGE Publications.

Sekaran, U., & Bougie, R. (2010). **Research Methods for Business A Skill-Building Approach**. Chichester: John Wiley & Sons Ltd.

Shewhart, W. A., & Wilks, S. S. (2006). **Regression Analysis by Example**. New Jersey: John Wiley & Sons.

Williams, C. and J. Buswell. (2003). **Service Quality in Leisure and Tourism**. Cambridge, MA, USA: CABI Publishing.

Journals

Akbaba, A. (2006). **Measuring service quality in the hotel industry: A study in a business hotel in Turkey**. Hospitality Management. *25*.2, 170-192.

Amy Wong Ooi, M., Dean, A. M., & White, C. J. (1999). **Analysing service quality in the hospitality industry**. Managing Service Quality. *9*.2, 136-143.

Augustyn, M. M. (1998). **The road to quality enhancement in tourism**. International Journal of Contemporary Hospitality Management. 10.4, 145 - 158

Bowen, J. T. & S. L. Chen. (2001). **The relationship between customer loyalty and customer satisfaction**. International Journal of Contemporary Hospitality Management. 13.5, 213 - 217

Brady, M. K., & Cronin, J. J. (2002). **Performance-only measurement of service quality: a replication and extension**. Journal of Business Research. *55*.1, 17-31.

Brady, M. K., & Cronin, J. J. (2001). **Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach**. Journal of Marketing. 65.3, 34-49.

Choppin, J. (1995). **Total quality management - what isn't it?**. Managing Service Quality. 5.1, 47-49.

Cronbach, L. J. (1951). **Coefficient Alpha and The Interval Structure of Tests**. Psychometrika. 16.3, 297-334.

Cronin, J., & Taylor, S. A. (1992). **Measuring Service Quality: A Re-examination and Extension**. Journal of Marketing. 56.3, 55-68.

Dabholkar, P. C. (2000). **A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement IssuesThrough a Longitudinal Study**. Journal of Retailing. 76.2, 139-173.

Dean, J. W. & Bowen, D. E. (1994). **Management theory and total quality: Improving research and practice through theory development**. The Academy of Management Review. 19, 392–418.

Editor, S. P. (2000). **Quality Research in Tourism and Hospitality**. Journal of Quality Assurance in Hospitality & Tourism. 1.1, 1-12.

Eraqi, M. I. (2006). **Tourism services quality (TourServQual) in Egypt: The viewpoints of external and internal customers**. Benchmarking: An International Journal. 13.4, 469 - 492.

Frochot, I., & Hughes, H. (2000). **HISTOQUAL: The development of a historic houses assessment scale**. Tourism Management. 21.2, 157-167.

Getty, J. M., & Getty, R. L. (2003). **Lodging quality index (LQI): assessing customers' perceptions of quality delivery**. International Journal of Contemporary Hospitality Management. 15.2, 94-104.

Grönroos, C. (1984). **A Service Quality Model and Its Marketing Implications**. European Journal of Marketing. 18.4, 36-44.

Haywood-Farmer, J. (1988). **A Conceptual Model of Service Quality.** International Journal of Operations & Production Management. 8.6, 19-29.

Holjevac, I. A. (2008). **Business ethics in tourism – As a dimension of TQM.** Total Quality Management & Business Excellence. 19.10, 1029-1041.

Karunaratne, M. K., & Jayawardena, L. N. (2010). **Assessment of Customer Satisfaction in a Five Star Hotel - A Case Study**. Tropical Agricultural Research , 258-265.

Khan, M. (2003). **ECOSERV Ecotourists' Quality Expectations**. Annals of Tourism Research. 30.1, 109–124.

Kılıç, B., & Eleren, A. (2009). **Turizm sektöründe Hizmet Kalitesi Ölçümü Üzerine Bir Literatür Araştırması**. Alanya İşletme Fakültesi Dergisi. 1.1, 91-118.

Kordupleski, R. E., Rust, R. T., & Zahorik, A. J. (1993). **Why Improving Quality Doesn't Improve Quality (Or Whatever Happened to Marketing?)**. California Management Review. 35.3, 82-95.

Kumar, R., D. Garg and T. Garg (2011). **TQM success factors in North Indian manufacturing and service industries**. The TQM Journal. 23.1, 36 – 46.

Kurgun, O.A. (1999). **TS-EN-ISO Kalite Güvence Standartlarının Büyük ölçekli Otel işletmelerinde Uygulanması**, (Yayınlanmamış Doktora Tezi), Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Turizm İşletmeciliği ABD, İzmir.

Lakhe, R.R., R.P. Mohanty. (1995). **Understanding TQM in service systems**. International Journal of Quality & Reliability Management. 12.9, 139 - 153

Lal, H. (2008). **Organizational Excellence Through Total Quality Management**. Daryaganj, Delhi, IND: New Age International, 465.

McAlexander JH, K. D. (1994). **Service quality measurement**. Journal of Health Care Marketing. 14.3, 34-40.

McWilliams, A., Siegal, D., (2001). **Corporate social responsibility: a theory of the firm perspective**. The Academy of Management Review. 26.1, 117–127.

Mei, A. W. O., A. M. Dean & C. J. White. (1999). **Analysing service quality in the hospitality industry**. Managing Service Quality. 9.2, 136 - 143.

Miller, W. (1996). **A Working Definition for Total Quality Management (TQM) Researchers**. Journal of Quality Management. 1.2, 149-159.

Motwani, J. (2001). **Critical factors and performance measures of TQM**. The TQM Magazine. 13.4, 292-300.

Nadiri, H., & Hussain, K. (2005). **Diagnosing the zone of tolerance for hotel services**. Managing Service Quality. 15.3, 259 - 277.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). **A Conceptual Model of Service Quality and Its Implications for Future Research**. Journal of Marketing. 49.4, 41-50.

Parasuraman, A. Zeithaml, V. A. and Berry, L .L. (1988). **Servqual; A multiple-item scale for measuring consumer perception**. Journal of Retailing. 64.1, 12-40.

Ramsaran-Fowdar, R. R. (2007). **Developing a service quality questionnaire for the hotel industry in Mauritius**. Journal of Vacation Marketing. 13.1, 19-27.

Sageer, A., S. Rafat & P. Agarwal. (2012). **Identification of variables affecting employee satisfaction and their impact on the organization**. Journal of Business and Management. 5.1, 32-39.

Saunders, I. W., & Graham, M. A. (1992). **Total quality management in the hospitality industry**. Total Quality Management. 3.3, 243-255.

Seetharman, A., J. Sreenivasan and L. Boon (2006). **Critical Success Factors of Total Quality Management**. Quality & Quantity. 40. 675-695.

Sıla, I. and M. Ebrahimpour. (2002). **An investigation of the total quality management survey based research published between 1989 and 2000: A literature review**. International Journal of Quality & Reliability Management. 19.7, 902 – 970.

Stoichitoiu, D. G. (2006). **Management systems and tourism services quality, Increase the quality of tourism services in Romania in line with EU requirements**, **Ministry of Transport, Constructions and Tourism.** National Authority for Tourism, Bucharest

Sureshchandar, G., Rajendran, C., & Anantharaman, R. (2002). **The relationship between service quality and customer satisfaction – a factor specific approach**. Journal of Services Marketing. 16.4, 363-379.

Talha, M. (2004). **Total quality management (TQM): an overview**. The Bottom Line: Managing Library Finances. 17.1, 15 – 19

Tribe, J., & Snaith, T. (1998). **From SERVQUAL to HOLSAT: holiday satisfaction in Varadero, Cuba**. Tourism Management , 19.1, 25-34.

Wilkins, H., B. Merrilees, C. Herington. (2007). **Towards an understanding of total service quality in hotels**. International Journal of Hospitality Management. 26.4, 840-853.

Zairi, M. (2000). **Managing customer satisfaction: a best practice perspective**. The TQM Magazine. 12.6, 389 – 394.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). **The Behavioral Consequences of Service Quality**. Journal of Marketing . 60.2, 31-46.

Internet

Batra, P.K., Jaggi S. Factorial Experiments. Indian Agricultural Statistics Research Institute. www.iasri.res.in/ebook/EB_SMAR/e-book_pdf files/Manual III/5-Factorial-Expts.pdf [28June 2013]

Gingrich, P. (2004a). **Measure of Association.** University of Regina, Department of Sociology and Social Studies. http://uregina.ca/~gingrich/ch11a.pdf [28 June 2013].

Gingrich, P. (2004b). **Measure of Correlation**. University of Regina, Department of Sociology and Social Studies. http://uregina.ca/~gingrich/corr.pdf [28 June 2013].

PMT Hotels. **Quality Management Program**. 2012. http://www.pmthotels.com/en/qualite/programme-de-gestion-par-la-qualite (27 February 2013).

Saatçioğlu, H. (2001). **Limak International Hotels & Resort'de toplam kalite yönetimi(tky)**. http://www.turizmdosyasi.com/haber_detay.asp?haberID=5600&HaberBaslik=hakan-saatcioglu-yaziyor-limak-international-hotel (11 March 2013).

http://www.managementstudyguide.com/brand-image.htm (21 May 2013)

http://www.tqe.com/TQM.html (15 February 2013)

http://www.orau.gov/pbm/handbook/1-1.pdf (13 March 2013)

http://en.wikipedia.org/wiki/Municipal_services (24 May 2013)

http://oxforddictionaries.com/definition/english/culture (24 May 2013)

Conferences

Stan, E., E. Gabroveanu, R. Andrei and N. Radneantu (2009). **The Need for Implementation of Quality Management Systems in Hospitality Industry and Importance of Its Certification**. Annals of DAAAM for 2009 & Proceedings of the 20th International DAAAM Symposium. 20.1, p.1726-9679.

Su, C., P. Long. (2009). **Study on Quality Improvement of Tourism Industry in China -by implementing Total Quality Management**. Fourth International Conference on Computer Sciences and Convergence Information Technology.

Talib, F., Z. Rahman and M. Qureshi, (2012). **Total Quality Management Practices in Indian Hospitality Industry: Some Key Findings from Survey**. National Conference on Emerging Challenges for Sustainable Business. 1866-1888.

10. APPENDICES

10.1 OUTPUTS

10.1.1 Reliability Analysis Outputs

10.1.1.1 Tangibility Instrument

Reliability Statistics	
Cronbach's Alpha	N of Items
.795	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
tanID1	25.7333	29.804	.456	.781
tanID2	25.4667	27.513	.678	.741
tanSAT	24.8571	32.046	.414	.785
newtanATTR	24.9476	34.184	.198	.818
tanHotelfac1	25.9000	30.282	.515	.770
tanHOTfac2	25.1143	29.518	.625	.754
tanHOTfac3	25.1381	28.550	.664	.746
tanHOTfac4	24.8429	31.530	.525	.770

10.1.1.2 Responsiveness Instrument

Reliability Statistics	
Cronbach's Alpha	N of Items
.676	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
respSOS2	16.6186	8.209	.574	.567

newrespSOS	**16.6791**	**9.256**	**.183**	**.754**
respGIOS	**16.6651**	**8.420**	**.516**	**.591**
respRFR	**16.6698**	**7.979**	**.602**	**.553**
respSOS3	**17.1256**	**8.615**	**.387**	**.645**

Reliability Statistics

Cronbach's Alpha	N of Items
.773	**4**

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
respSOS2	**12.2752**	**6.256**	**.598**	**.708**
respGIOS	**12.3257**	**6.036**	**.618**	**.696**
respRFR	**12.3257**	**5.870**	**.675**	**.667**
respSOS3	**12.7936**	**6.432**	**.434**	**.798**

10.1.1.3 Confidence Instrument

Reliability Statistics

Cronbach's Alpha	N of Items
.429	**5**

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
newConfSEC	**16.6373**	**7.326**	**.070**	**.498**
confCOMP	**16.8186**	**6.632**	**.290**	**.325**
confSOP	**16.2304**	**6.819**	**.426**	**.266**
confCOUR	**16.2941**	**6.514**	**.459**	**.234**
confACCS	**17.3137**	**6.896**	**.060**	**.533**

Reliability Statistics

Cronbach's Alpha	N of Items
.574	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
newConfSEC	13.0599	4.908	.199	.663
confCOMP	13.2535	4.783	.351	.508
confSOP	12.6406	5.176	.463	.443
confCOUR	12.7373	4.741	.502	.398

Reliability Statistics

Cronbach's Alpha	N of Items
.701	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
confCOMP	9.0304	2.702	.435	.740
confSOP	8.4130	3.073	.571	.560
confCOUR	8.5130	2.810	.575	.539

10.1.1.4 Communication Instrument

Reliability Statistics

Cronbach's Alpha	N of Items
.313	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
newcommCOMM1	12.2626	5.494	-.083	.674
commUND3	11.0556	5.586	.341	.113
CommUND2	11.6010	5.205	.247	.159
CommUND1	11.4596	5.042	.358	.052

Reliability Statistics

Cronbach's Alpha	N of Items
.720	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
commUND3	7.9224	3.540	.552	.634
CommUND2	8.4475	2.936	.480	.720
CommUND1	8.3333	2.810	.615	.535

10.1.1.5 Service Quality Instrument

Reliability Statistics

Cronbach's Alpha	N of Items
.784	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
tang	45.8877	57.606	.695	.809
rel	55.3743	93.494	.771	.669

res	**57.8984**	**113.350**	**.707**	**.718**
conf	**61.7380**	**133.216**	**.562**	**.775**
comm	**62.2460**	**128.928**	**.683**	**.757**

Reliability Statistics	
Cronbach's Alpha	N of Items
.808	**4**

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
rel	**30.5330**	**24.209**	**.626**	**.831**
res	**33.1320**	**29.819**	**.798**	**.670**
conf	**36.9949**	**41.505**	**.633**	**.781**
comm	**37.4924**	**40.159**	**.695**	**.760**

10.1.1.6 Total Quality Management Instrument

Reliability Statistics	
Cronbach's Alpha	N of Items
.887	**12**

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
perfmea	**45.7772**	**63.639**	**.525**	**.883**
CustSat	**45.2826**	**65.253**	**.617**	**.877**
emptra	**45.7283**	**63.215**	**.627**	**.876**
teamw	**45.5217**	**64.043**	**.588**	**.878**
quainf	**45.6359**	**64.331**	**.632**	**.876**
empinv	**45.6739**	**63.445**	**.624**	**.876**

contimp	**45.6630**	**64.706**	**.586**	**.878**
innov	**45.2717**	**63.445**	**.726**	**.871**
newCustFoc	**44.8370**	**71.711**	**.279**	**.892**
Leader	**45.1250**	**65.804**	**.686**	**.874**
VAR00085	**45.0978**	**66.821**	**.600**	**.878**
VAR00084	**45.3641**	**63.555**	**.636**	**.875**

10.1.2 Principal Component Analysis Outputs

Correlation Matrix									
		municima	publicc	newbraima	newhisloc	newsocaRes	newcustloy	servqual	totalqual
Correlation	municima	**1.000**	**.109**	**.226**	**-.169**	**-.018**	**.064**	**-.259**	**-.145**
	publicc	**.109**	**1.000**	**.017**	**-.064**	**-.276**	**.095**	**.301**	**.323**
	newbraima	**.226**	**.017**	**1.000**	**-.093**	**-.095**	**.795**	**-.057**	**-.107**
	newhisloc	**-.169**	**-.064**	**-.093**	**1.000**	**.254**	**.015**	**.170**	**.221**
	newsocaRes	**-.018**	**-.276**	**-.095**	**.254**	**1.000**	**-.021**	**-.010**	**.104**
	newcustloy	**.064**	**.095**	**.795**	**.015**	**-.021**	**1.000**	**-.081**	**-.025**
	servqual	**-.259**	**.301**	**-.057**	**.170**	**-.010**	**-.081**	**1.000**	**.737**
	totalqual	**-.145**	**.323**	**-.107**	**.221**	**.104**	**-.025**	**.737**	**1.000**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.464**
Bartlett's Test of Sphericity	Approx. Chi-Square	**110.227**
	df	**28**
	Sig.	**.000**

Rotated Component Matrix[a]			
	Component		
	1	2	3
servqual	**.885**	**-.061**	**.093**
totalqual	**.877**	**-.032**	**.158**
publicc	**.581**	**.088**	**-.541**
newcustloy	**.017**	**.940**	**.023**
newbraima	**-.063**	**.938**	**-.091**

	-.087	-.002	.748
newsocaRes	-.087	-.002	.748
newhisloc	.253	.028	.671
municima	-.266	.233	-.368
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 4 iterations.			

10.1.3 Multiple Regression and Correlation Analysis Outputs

Correlations					
		Totalservicequal	Cc1	Cc2	Cc3
Pearson Correlation	Totalservicequal	1.000	.599	.045	.178
	C1	.599	1.000	.360	.021
	C2	.045	.360	1.000	-.068
	C3	.178	.021	-.068	1.000
Sig. (1-tailed)	Totalservicequal	.	.000	.359	.077
	C1	.000	.	.001	.433
	C2	.359	.001	.	.294
	C3	.077	.433	.294	.
N	Totalservicequal	66	66	66	66
	C1	66	66	66	66
	C2	66	66	66	66
	C3	66	66	66	66

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.644[a]	.414	.386	.80209	2.034
a. Predictors: (Constant), C3, C1, C2					
b. Dependent Variable: Totalservicequal					

ANOVA[b]					
Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	28.234	3	9.411	14.629	.000a
	Residual	39.887	62	.643		
	Total	68.121	65			
a. Predictors: (Constant), Cc3, Cc1, Cc2						
b. Dependent Variable: Totalservicequal						

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.768	.822		-.934	.354		
	Cc1	.124	.020	.661	6.340	.000	.868	1.152
	Cc2	-.077	.044	-.183	-1.750	.085	.864	1.157
	Cc3	.075	.048	.151	1.553	.126	.993	1.007
a. Dependent Variable: Totalservicequal								

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Cc1	Cc2	Cc3
1	1	3.858	1.000	.00	.00	.00	.01
	2	.096	6.343	.00	.00	.28	.59
	3	.038	10.085	.09	.09	.69	.37
	4	.008	22.051	.91	.91	.02	.03
a. Dependent Variable: Totalservicequal							

Before extraction of outlier and extreme values
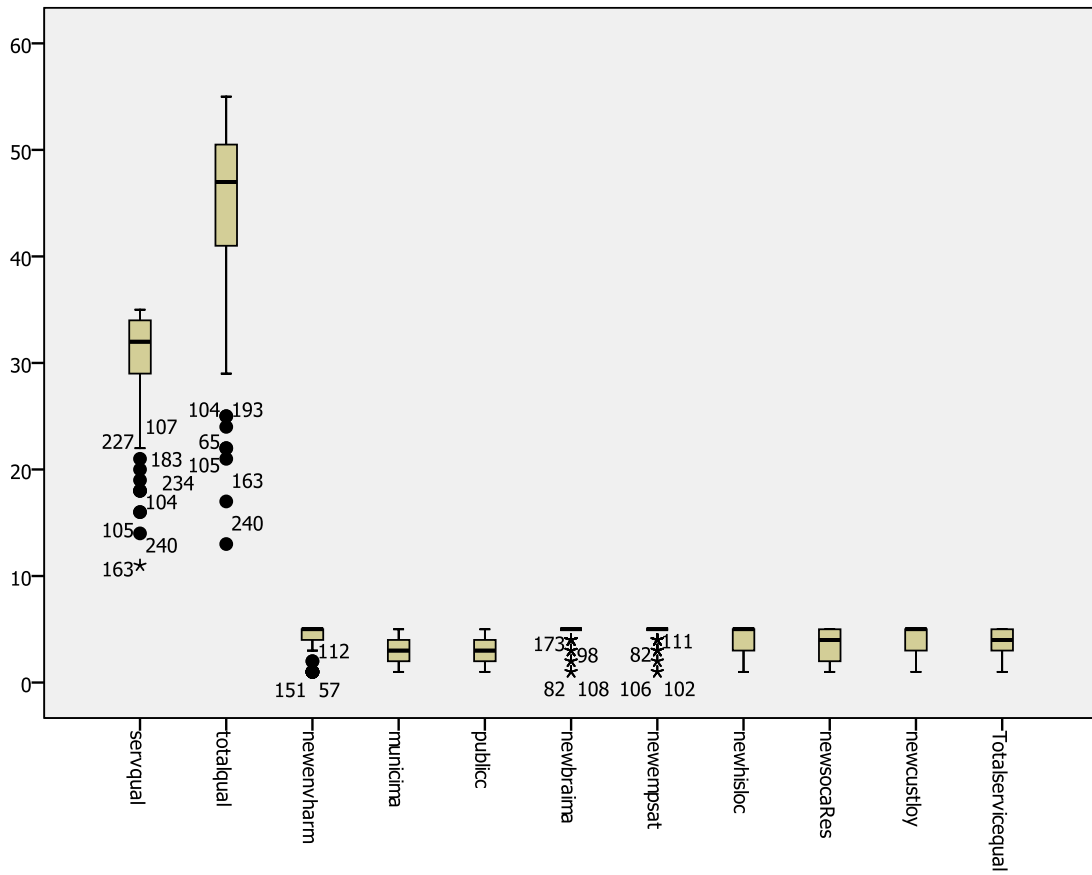
After extraction of outlier and extreme values
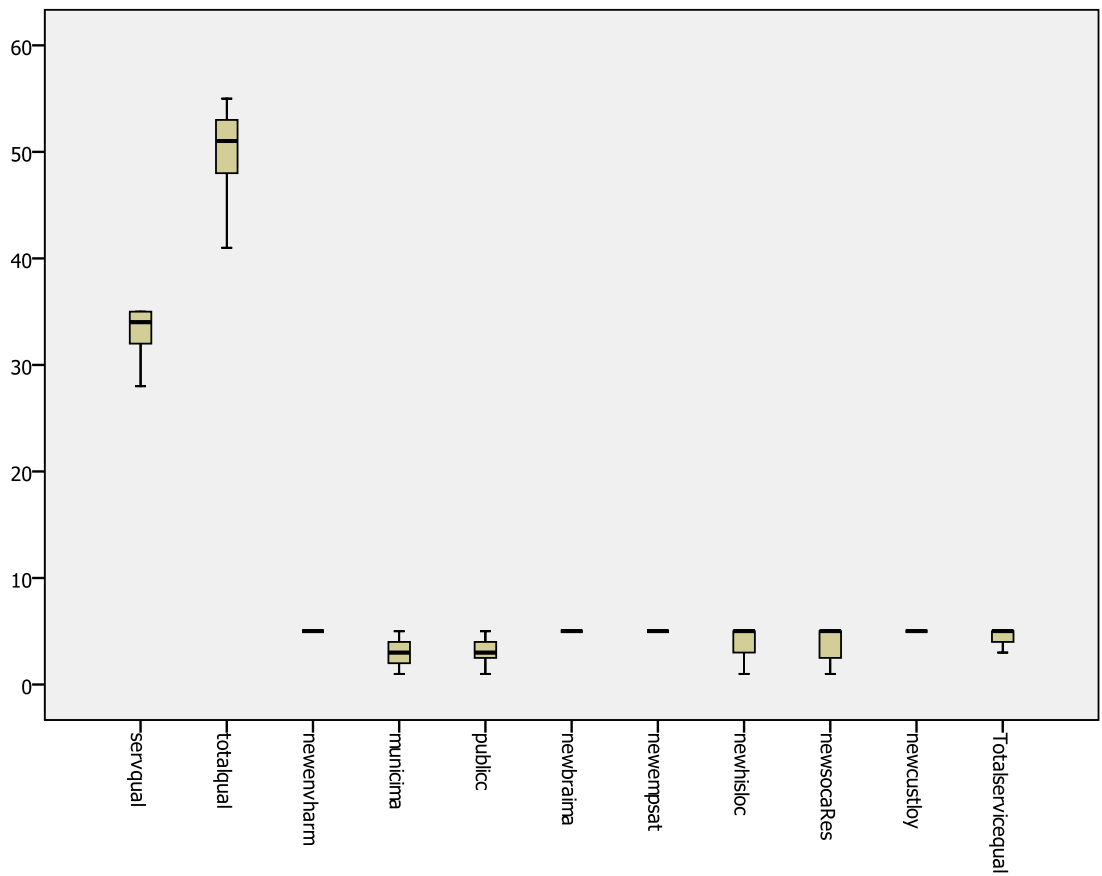
10.1.4 Measure of Association and Correlation Analysis Outputs

10.1.4.1 Gender

Statistics		
Gender		
N	Valid	**201**
	Missing	**9**

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	**148**	**70.5**	**73.6**	**73.6**
	2.00	**53**	**25.2**	**26.4**	**100.0**
	Total	**201**	**95.7**	**100.0**	

Missing	System	**9**	**4.3**		
Total		**210**	**100.0**		

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	**-.220**	**.002**
	Cramer's V	**.220**	**.002**
N of Valid Cases		**201**	

10.1.4.2 Marital Status

Statistics

Martialstatus

N	Valid	**237**
	Missing	**8**

Martialstatus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	**117**	**47.8**	**49.4**	**49.4**
	2.00	**120**	**49.0**	**50.6**	**100.0**
	Total	**237**	**96.7**	**100.0**	
Missing	System	**8**	**3.3**		
Total		**245**	**100.0**		

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	**2.118ᵃ**	**1**	**.146**		
Continuity Correctionᵇ	**1.523**	**1**	**.217**		
Likelihood Ratio	**2.176**	**1**	**.140**		
Fisher's Exact Test				**.186**	**.108**
Linear-by-Linear Association	**2.102**	**1**	**.147**		
N of Valid Cases	**129**				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.29.	
b. Computed only for a 2x2 table	

10.1.4.3 Year of Study

Statistics		
Yearofstudy		
N	Valid	**221**
	Missing	**24**
Mean		**6.5113**

Yearofstudy					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	**26**	**10.6**	**11.8**	**11.8**
	2.00	**34**	**13.9**	**15.4**	**27.1**
	3.00	**29**	**11.8**	**13.1**	**40.3**
	4.00	**25**	**10.2**	**11.3**	**51.6**
	5.00	**16**	**6.5**	**7.2**	**58.8**
	6.00	**12**	**4.9**	**5.4**	**64.3**
	7.00	**7**	**2.9**	**3.2**	**67.4**
	8.00	**21**	**8.6**	**9.5**	**76.9**
	9.00	**3**	**1.2**	**1.4**	**78.3**
	10.00	**5**	**2.0**	**2.3**	**80.5**
	11.00	**3**	**1.2**	**1.4**	**81.9**
	12.00	**2**	**.8**	**.9**	**82.8**
	13.00	**6**	**2.4**	**2.7**	**85.5**
	14.00	**2**	**.8**	**.9**	**86.4**
	15.00	**7**	**2.9**	**3.2**	**89.6**
	16.00	**7**	**2.9**	**3.2**	**92.8**
	17.00	**1**	**.4**	**.5**	**93.2**
	18.00	**2**	**.8**	**.9**	**94.1**
	19.00	**3**	**1.2**	**1.4**	**95.5**

	20.00	6	2.4	2.7	98.2
	22.00	2	.8	.9	99.1
	26.00	1	.4	.5	99.5
	32.00	1	.4	.5	100.0
	Total	221	90.2	100.0	
Missing	System	24	9.8		
Total		245	100.0		

Correlations				
		Totalservicequal	Yearofstudy
Totalservicequal	Pearson Correlation	1	.095
	Sig. (2-tailed)		.324
	N	126	110
Yearofstudy	Pearson Correlation	.095	1
	Sig. (2-tailed)	.324	
	N	110	119

10.1.4.4 Job

Statistics		
Job		
N	Valid	223
	Missing	22
Mean		3.1704

Job					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	.4	.4	.4
	1.00	23	9.4	10.3	10.8
	2.00	120	49.0	53.8	64.6
	3.00	23	9.4	10.3	74.9
	4.00	5	2.0	2.2	77.1
	5.00	12	4.9	5.4	82.5
	6.00	4	1.6	1.8	84.3

	7.00	9	3.7	4.0	88.3
	8.00	26	10.6	11.7	100.0
	Total	223	91.0	100.0	
Missing	System	22	9.0		
Total		245	100.0		

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.299[a]	8	.138
Likelihood Ratio	14.111	8	.079
Linear-by-Linear Association	2.161	1	.142
N of Valid Cases	117		
a. 13 cells (72.2%) have expected count less than 5. The minimum expected count is .18.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.324	.138
	Cramer's V	.324	.138
N of Valid Cases		117	

10.1.4.5 Age

Statistics		
Age		
N	Valid	209
	Missing	36
Mean		29.6411

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.4	.5	.5
	16.00	3	1.2	1.4	1.9
	17.00	2	.8	1.0	2.9
	18.00	3	1.2	1.4	4.3
	19.00	5	2.0	2.4	6.7
	20.00	7	2.9	3.3	10.0
	21.00	5	2.0	2.4	12.4
	22.00	5	2.0	2.4	14.8
	23.00	15	6.1	7.2	22.0
	24.00	11	4.5	5.3	27.3
	25.00	13	5.3	6.2	33.5
	26.00	14	5.7	6.7	40.2
	27.00	13	5.3	6.2	46.4
	28.00	12	4.9	5.7	52.2
	29.00	9	3.7	4.3	56.5
	30.00	9	3.7	4.3	60.8
	31.00	3	1.2	1.4	62.2
	32.00	11	4.5	5.3	67.5
	33.00	7	2.9	3.3	70.8
	34.00	7	2.9	3.3	74.2
	35.00	7	2.9	3.3	77.5
	36.00	3	1.2	1.4	78.9
	37.00	6	2.4	2.9	81.8
	38.00	9	3.7	4.3	86.1
	39.00	4	1.6	1.9	88.0
	40.00	6	2.4	2.9	90.9
	42.00	4	1.6	1.9	92.8
	43.00	2	.8	1.0	93.8
	44.00	4	1.6	1.9	95.7
	45.00	2	.8	1.0	96.7
	47.00	2	.8	1.0	97.6
	48.00	2	.8	1.0	98.6
	50.00	2	.8	1.0	99.5
	55.00	1	.4	.5	100.0
	Total	209	85.3	100.0	
Missing	System	36	14.7		
Total		245	100.0		

Correlations			Age	Totalservicequal
Age	Pearson Correlation		**1**	**.174**
	Sig. (2-tailed)			**.083**
	N		**109**	**100**
Totalservicequal	Pearson Correlation		**.174**	**1**
	Sig. (2-tailed)		**.083**	
	N		**100**	**126**

10.1.4.6 Net Income

Statistics		
NetIncome		
N	Valid	**149**
	Missing	**96**
Mean		**1518.3188**

NetIncome		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.50	**1**	**.4**	**.7**	**.7**
	500.00	**1**	**.4**	**.7**	**1.3**
	600.00	**4**	**1.6**	**2.7**	**4.0**
	640.00	**2**	**.8**	**1.3**	**5.4**
	680.00	**1**	**.4**	**.7**	**6.0**
	700.00	**1**	**.4**	**.7**	**6.7**
	725.00	**1**	**.4**	**.7**	**7.4**
	770.00	**1**	**.4**	**.7**	**8.1**
	773.00	**4**	**1.6**	**2.7**	**10.7**
	780.00	**2**	**.8**	**1.3**	**12.1**
	800.00	**5**	**2.0**	**3.4**	**15.4**
	850.00	**4**	**1.6**	**2.7**	**18.1**
	870.00	**1**	**.4**	**.7**	**18.8**
	900.00	**2**	**.8**	**1.3**	**20.1**
	901.00	**1**	**.4**	**.7**	**20.8**

930.00	1	.4	.7	21.5
940.00	4	1.6	2.7	24.2
960.00	1	.4	.7	24.8
980.00	1	.4	.7	25.5
1000.00	10	4.1	6.7	32.2
1045.00	1	.4	.7	32.9
1050.00	3	1.2	2.0	34.9
1070.00	1	.4	.7	35.6
1078.00	1	.4	.7	36.2
1100.00	14	5.7	9.4	45.6
1110.00	1	.4	.7	46.3
1111.00	1	.4	.7	47.0
1158.00	1	.4	.7	47.7
1165.00	1	.4	.7	48.3
1200.00	5	2.0	3.4	51.7
1245.00	1	.4	.7	52.3
1250.00	2	.8	1.3	53.7
1300.00	4	1.6	2.7	56.4
1340.00	2	.8	1.3	57.7
1350.00	3	1.2	2.0	59.7
1400.00	3	1.2	2.0	61.7
1405.00	3	1.2	2.0	63.8
1450.00	2	.8	1.3	65.1
1460.00	3	1.2	2.0	67.1
1475.00	1	.4	.7	67.8
1500.00	4	1.6	2.7	70.5
1523.00	1	.4	.7	71.1
1600.00	1	.4	.7	71.8
1650.00	1	.4	.7	72.5
1670.00	1	.4	.7	73.2
1700.00	1	.4	.7	73.8
1750.00	2	.8	1.3	75.2
1800.00	6	2.4	4.0	79.2
1850.00	1	.4	.7	79.9
1930.00	1	.4	.7	80.5
2000.00	7	2.9	4.7	85.2
2040.00	1	.4	.7	85.9
2385.00	1	.4	.7	86.6
2450.00	1	.4	.7	87.2

	2500.00	4	1.6	2.7	89.9
	2550.00	1	.4	.7	90.6
	3000.00	2	.8	1.3	91.9
	3200.00	1	.4	.7	92.6
	3250.00	1	.4	.7	93.3
	3500.00	3	1.2	2.0	95.3
	3600.00	1	.4	.7	96.0
	4000.00	2	.8	1.3	97.3
	4590.00	1	.4	.7	98.0
	5000.00	2	.8	1.3	99.3
	7000.00	1	.4	.7	100.0
	Total	149	60.8	100.0	
Missing	System	96	39.2		
Total		245	100.0		

Correlations

		Totalservicequal	NetIncome
Totalservicequal	Pearson Correlation	1	.174
	Sig. (2-tailed)		.135
	N	126	75
NetIncome	Pearson Correlation	.174	1
	Sig. (2-tailed)	.135	
	N	75	80

10.1.4.7 Education

Statistics

Education		
N	Valid	233
	Missing	12
Mean		2.4464

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	.4	.4	.4
	1.00	55	22.4	23.6	24.0
	2.00	80	32.7	34.3	58.4
	3.00	40	16.3	17.2	75.5
	4.00	50	20.4	21.5	97.0
	5.00	7	2.9	3.0	100.0
	Total	233	95.1	100.0	
Missing	System	12	4.9		
Total		245	100.0		

Correlations				
			Totalservicequal	Education
Spearman's rho	Totalservicequal	Correlation Coefficient	1.000	.049
		Sig. (2-tailed)	.	.601
		N	126	116
	Education	Correlation Coefficient	.049	1.000
		Sig. (2-tailed)	.601	.
		N	116	125

10.1.4.8 Dependants

Statistics		
Dependants		
N	Valid	167
	Missing	78
Mean		1.6527

Dependants					
		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	.00	53	21.6	31.7	31.7
	1.00	20	8.2	12.0	43.7
	2.00	48	19.6	28.7	72.5
	3.00	33	13.5	19.8	92.2
	4.00	8	3.3	4.8	97.0
	5.00	3	1.2	1.8	98.8
	6.00	1	.4	.6	99.4
	8.00	1	.4	.6	100.0
	Total	167	68.2	100.0	
Missing	System	78	31.8		
Total		245	100.0		

Correlations			Totalservicequal	Dependants
Totalservicequal	Pearson Correlation		1	.022
	Sig. (2-tailed)			.847
	N		126	81
Dependants	Pearson Correlation		.022	1
	Sig. (2-tailed)		.847	
	N		81	87

10.2 QUESTIONNAIRE

ANKET FORMU

Değerli Personel,

Aşağıdaki çalışma Marmara Üniversitesi İşletme- Sayısal Yöntemler(ING) Anabilim Dalında yürütülmekte olan " Toplam hizmet kalitesinin istatiksel analizi: Türkiye turizm sektöründe bir uygulama" isimli yüksek lisans tezinin araştırması olup, sonuçları sadece bilimsel amaçlı kullanılacaktır. **Soruları eksiksiz doldurmanızı** rica eder, yardımınız için teşekkür ederiz.

Yüksek Lisans Öğrencisi: Tez Danışmanı:

Arş. Gör.Mehmet Kasım Yağız   Prof.Dr. Rauf Nişel

LÜTFEN HER SORU İÇİN TEK BİR ŞIK İŞARETLEYİNİZ.	Katılmıyorum	Az Katılıyorum	Az Çok Katılıyorum	Çok Katılıyorum	Kesinlikle Katılıyorum
1) Tangibility-Internal decorations1) Otelimizin ön bürosu görsel olarak son derece dikkat çekicidir.					
2) Performance measurement) Otelimizde performans değerlendirmesi yapılır.					
3) Relability-Timely accomodation Müşterilerimizin rezervasyonları etkili biçimde yapılır.					
4) Environmental harmony Otelimizin çevreyle uyumu kötüdür.					
5) Municipality main services Otelimiz belediyenin hizmetlerini yeterli görür.					
6) Tangibility- Staff appearance& tidiness Çalışma arkadaşlarım düzgün ve temiz görünüşlüdür.					
7) Effectiveness of Total Service Quality Otelimizin toplam hizmet kalitesi son derece yeterlidir.					
8) Public Cultural Level Şehirdeki yerel halkın kültürel seviyesi yüksektir.					
9) Tangibility-Attractiveness(external) Otelin dış çehresi görsel olarak kötüdür.					
10) Tangibility-Internal decorations2 Restorantımızın genel görünüşü çok güzeldir.					
11) Confidence-Security Otelimiz güvenli bir çevrede değildir.					
12) Customer Satisfaction Otelimiz müşterinin memnuniyetini sağlar.					
13) Tangibility- Hotel facilities1					

Otelimizde bulunan alışveriş yerleri çekicidir.					
14) Employee Training Otelimizde eğitime tabi tutulurum.					
15) Confidence-Competence Yerel gezilecek yerleri bilirim.					
16) Communication-Communication1 Müşterilerimizin faturalarıyla ilgili açıklama yapılmaz.					
17) Social Responsibility Müşterilerimizin odası tam zamanında hazırlanır.					
18) Confidence-Staff of politeness Müşterilerimize çok saygılı davranırım.					
19) Brand Image Otelimiz çevrede pek tanınmaz.					
20) Confidence-Courtesy Müşterilerimizin sorunlarına cevap verirken son derece naziğimdir.					
21) Tangibility-Hotel facilities2 Otelimizin aydınlatılması çok iyidir.					
22) Responsiveness- Speed of Service2 Müşterilerin sorunlarını hızlıca çözerim.					
23) Employee Satisfaction Otelde çalışmaktan memnun değilim.					
24) Relability-Facilities of rooms Otelimizde TV, radyo, ışıklar ve diğer mekanik aletler düzgün şekilde çalışır.					
25) Teamwork Otelimizde takım çalışması vardır.					
26) Responsiveness-Speed of Service Müşterilerimizin isteklerine gecikmeli cevap veririz.					
27) Quality information Otelimizde kalite ile ilgili bilgilendirme yapılır.					
28) Tangibility-Hotel facilities3 Otelimizin içi ve dışı iyi muhafaza edilmiştir.					
29) Employee Involvement Otelimizde görüşümüz alınır.					
30) Relability-Orders done by staff Müşterilerimize ödedikleri hizmetleri eksiksiz sunarız.					
31) Historic Locations of City Müşterilerimiz için tarihi yerlerin bir önemi yoktur.					
32) Tangibility-Hotel facilities4 Otelimiz çok temizdir.					
33) Responsiveness-Giving information offering service Müşterilerimize otelimiz hakkında gerekli bilgiler veririz.					
34) Social Responsibility Otelimizin sosyal sorumluluk projeleri yoktur.					
35) Confidence-Access Otelimiz etkinlikler açısından uygundur.					
36) Continuous improvement Otelimizde her alanda sürekli bir şekilde iyileştirme yapar.					
37) Customer Loyalty Otelimizin müşteri sadakati düşüktür.					

38) Communication-Understanding3 Müşterinin isteklerine karşı saygı gösteririm.					
39) Innovation Otelimiz yeniliklere açıktır.					
40) Responsiveness-Respond for requests Müşterilerin sorularına cevap vermede çok istekliyim.					
41) Customer Focus Otelimiz müşteriyle ilgilenmez.					
42) Communication-Understanding2 Rezervasyon yapan personel müşterinin özel isteklerini yerine getirir.					
43) Responsiveness-Speed of Service3 Oda servisimiz çok hızlıdır.					
44) Communication-Understanding1 Müşterilerimize resepsiyonda tek tek ilgi gösteririz.					
45) Leadership Otelimizin yönetimiyle iyi geçinirim.					
46) Commitment Otelimize son derece bağlıyımdır.					
47) Top Management Otelimizin üst yönetimi son derece yeterlidir.					

1) Cinsiyetiniz: Erkek Kadın

□ □

2) Medeni Durumunuz: Evli Bekar

□ □

3) Yaşınız: …………

4) Öğrenim Durumunuz: İlköğretim Lise Önlisans Lisans Yüksek Lisans

□ □ □ □ □

5) Otel işletmelerinde kaç yıldır
çalışıyorsunuz? …………

6) Hangi departmanda Yiyecek Kat Satış ve
çalışıyorsunuz? Ön Büro İçecek hizmetleri Pazarlama

□ □ □ □

Muhasebe Personel Teknik Servis Diğer
(belirtiniz):

□ □ □ ....

7) Aylık Net Geliriniz: …………

8) Bakmakla yükümlü olduğunuz kişi sayısı (siz hariç): ....