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DIAGNOSTIC MODEL OF SERVICE QUALITY

DOCTORAL THESIS

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SIGNED STATEMENT OF JURY

Educational Sciences directorate designate that,

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ABSTRACT

The end of students, from almost every country, travel abroad for the responsibility educational services. It is the responsibility of higher education institutes to representational service delivery and maintain their service quality to gain a competitive There is still no consensus on how best to measure and manage quality within response education institutions. The present study describes the zone of tolerance for response to the student satisfaction level for higher restitutes. This paper presents the higher education service quality measurement entertended form. It deals with the concept of 'zone of tolerance' in judgments of representative proposed by Zeithaml, Parasuraman and Berry in 1993. The 'zone of recognized in the service-quality literature as representing a range of expected and adequate) and an area of acceptable outcomes in service mentions. It attempts to diagnose the delivery of non-academic service quality of units such as services provided by the registrar, library, faculty/school rector office, dormitories, sports and health centre etc. and academic service mention of instructors and courses in a university setting. A conceptual model, for the resourcement of zone of tolerance in higher education services, is presented in this study, mention results demonstrate that evaluation of services can be scaled according to different meeter expectations-'desired' and 'adequate'-and that students use these two types of experiences as a comparison standard in evaluating higher education services.

Higher education services, zone of tolerance, non-academic service quality,

ÖZET

serversizete hemen hemen her ülkeden öğrenciler kaliteli eğitim almak için hizmeti için seese sikelere yönelmektedirler. Yüksek eğitim kurumlarının rekabet avantajı elde esentereteri için etkili hizmet dağılımı ve hizmet kalitesini korumaları sorumlulukları esen bir konsensus oluşturulamamıştır. Bu çalışma yüksek öğrenimde eğitim gören ne beklentilerinin ve öğrenci tatmin seviyelerinin tolerans bölgesini Bu çalışma yüksek öğretim hizmet kalitesi ölçümünün genişletilmiş biçimini Calisma, Zeithaml, Parasuraman ve Berry (1993) tarafından sunulan hizmet kalitesi tolerans bölgesi' kavramı ile ilgilidir. Tolerans bölgesi, hizmet kalitesi serverinde çeşitli beklentileri temsil eden (istenilen ve yeterli) ve hizmet etkileşimlerinde sere sormuş alanı tasvir eder. Akademik olmayan idari bölümlerin yani, kayıt kabul, fakülte/okul ofisleri, rektörlük, yurtlar, spor ve sağlık merkezi gibi birimlerin en andernik (ünüversitedeki eğitmen ve derslerin) hizmet kalitesi dağılımını tanımlamayı Bu çalışmada yüksek eğitim hizmetlerinin bir standart çerçevesinde severendirilmesinde öğrencilerin iki çeşit beklentilerinin (istenilen ve yeterli) ölçümünde sere kuramsal modeli sunulmuştur.

Sözcükler: Yüksek öğretim hizmetleri, tolerans bölgesi, akademik olmayan son kalitesi, ve öğrenci memnuniyeti

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CHAPTER 1

INTRODUCTION

1.1. Aim of the study

The present study describes the zone of tolerance for students' service expectations (desired and adequate) and determines the student satisfaction level through multi-dimensional constructs of service quality and instructional quality for higher education institutes.

1.2. Objective of the study

This study presents the higher education service quality and instructional quality measurement in its extended form. It deals with a concept of 'zone of tolerance' (proposed by Zeithaml Parasuraman & Berry, 1993) in judgments of service quality and instructional quality. The 'zone of tolerance' is recognized in the service-quality literature as representing a range of expectations and an area of acceptable outcomes in service interactions. This study attempts to: 1) diagnose the service quality (non-academic services) level of administrative units such as services provided by the registrar, library, faculty/school offices, rector office, dormitories, sports and health centre etc.; 2) diagnose the instructional quality (academic services) level of instructors and courses in a university setting. A conceptual model, for the measurement of zone of tolerance in higher education services, is presented in this study, and the results are expected to demonstrate that evaluation of services can be scaled according to different types of expectations-'desired' and 'adequate'---and that students use these two types of expectations as a comparison standard in evaluating higher education services. Also this study attempts to overcome the psychometrical application problems of the existing quality scales, therefore, the

predictive/causal effect of perceived service quality dimensions and perceived instructional quality dimensions on student satisfaction level is tested for higher education services.

1.3. Importance of the study

Service quality in higher education has been the subject of considerable interest and debate by both practitioners and researchers in recent years. The literature suggests how imperative it is for educational institutions to actively monitor the quality of the services they offer and to commit to continuous improvements in order to survive the intense competition for students (Avdjieva & Wilson, 2002). In the US many academic institutions have implemented such policies in response to a reduction in student funding, complaints by employers and parents, as well as the pioneering success of such drives in many corporate businesses (Kanji & Tambi, 1999). However, since two decades many researchers have explored the aspects of service quality in higher education (Harrop & Douglas, 1996; Narasimhan, 1997; Shank, Walker & Hayes, 1995), with the majority of such investigations using student evaluations to assess quality (Rowley, 1997; Aldridge & Rowley, 1998). In order to attract and retain students, education providers need to be actively involved in understanding students' expectations and perceptions of service quality. Higher education institutions have to adapt techniques of measuring quality and managing their services in efforts comparable to those of other service business sectors. Most of the commonly used conceptual frameworks for measuring service quality are based on marketing concepts (Gummesson, 1991). These frameworks measure quality through customer perceptions (Gronroos, 1984), with customer expectations having a substantial influence on these perceptions. It is argued that only criteria that are defined by customers count in measuring quality (Zeithaml et al., 1990).

Education is a service directly impacted on by the provider. Hennig-Thurau, Langer, and Hansen (2001, p. 332) states that educational services "fall into the field of services marketing". Educational services are directed at people, and it is "people based" rather than "equipment based" (Thomas, 1978). Due to the unique characteristics of services, namely intangibility, heterogeneity, inseparability, and perishability (Parasuraman, 1986), service quality cannot be measured objectively (Patterson & Johnson, 1993). Higher education institutions are placing greater emphasis on meeting students' expectations and needs. In the services literature, the focus is on perceived quality, which results from the comparison of customer service expectations with their perceptions of actual performance (Zeithaml *et al.*, 1990, p. 23).

Coady and Miller (1993) noted that there is, however, ongoing debate on labelling students as customers. For education industry, students are customers who come to contact with service providers of an educational institution for the purpose of acquiring services. Hill (1995) mentioned that as a primary customer of higher education services, the institutions should focus on student expectations and needs. Although the primary participant in the service of education is the student, there is also a strong underlying assumption that the "customer" of education includes industry, parents, Government, and even society as a whole.

In a higher education setting, teaching is a fundamental function of the institution (Li & Kaye, 1998). Teaching can be regarded as an unique type of service (Rowley, 1996). This requires that specific terms need to be used and a more careful generalization needs to be made when applying the general service quality framework in this particular filed (Li & Kaye, 1998). Kotler and Fox (1985) proposed the use of service quality measurements of

student service components when developing higher education strategies. Ruby (1998) applied adaptations of the Parasuraman, Zeithaml and Berry (1988) SERVQUAL measurement instrument to non-classroom (outside class) higher education environments. The non-classroom environment has been the focus of extensive research and comment as an important element of the higher education experience. Kotler (1967) suggested nonclassroom service quality combines with the student's classroom experience (inside class) to form a general perception of quality teaching. On the other hand, Rowley (1996) suggested the Marsh (1982; 1987) SEEQ measurement instrument for classroom situations, which is useful in measuring instructional quality or teaching effectiveness. Tinto (1993) found that faculty actions within the traditionally defined classroom combine with faculty actions outside the classroom to provide a foundation by which the individual judges the quality of the institution. Such actions also contribute to student persistence at the institution. Therefore, literature proposes the use of SERVQUAL instrument for nonclassroom situations, non-academic service quality, for the measurement of service quality Ford, Joseph, & Joseph, 1993; Oldfield & Baron, 2000; Kotler & Fox, 1985; Ruby, 1998; Kotler, 1967; Tinto, 1993) and the use of SEEQ instrument for classroom situations, academic service quality, for the measurement of instructional quality or teaching effectiveness (Marsh's 1982; 1987; Marsh & Roche, 1997; Marsh & Dunkin, 1997; Rowley, 1996) for developing higher education service strategies.

Thus, the present study attempts to diagnose the delivery of non-academic service quality (outside classroom situations) and academic service quality (inside classroom situations) in higher education. In the present study, the assessment of non-academic service quality is defined as 'the services provided by administrative units such as registrar, library, faculty/school offices, rector office, dormitories, sports and health centre etc.' and the assessment of academic service quality is defined as 'the services provided by instructors including courses and content' in a university setting.

CHAPTER 2

LITERATURE REVIEW

2.1. The context of higher educational services

Higher education is a fast growing service industry and every day it is more and more exposed to the globalization processes (Mazzarol, 1998; Damme, 2001; O'Neil & Palmer, 2004). Service quality, emphasizing student satisfaction, is a newly emerging field of concern. During the last decade, quality initiatives have been the subject of an enormous amount of practitioner and academic discourse, and at various levels have found a gateway into higher education (Avdjieva & Wilson, 2002). Student satisfaction is often used to assess educational quality, where the ability to address strategic needs is of prime importance (Cheng, 1990). The conceptualization of service quality, its relationship to the satisfaction and value constructs and methods of evaluation have been a central theme of the education sector over recent years (Soutar & McNeil, 1996; Oldfield & Baron, 2000). Measuring the quality of service in higher education is increasingly important (Abdullah, 2006) and students should be considered as customers in the field of higher education (Tony, Stephen & David, 1994).

Like many other service organizations, universities are now concerned with market share, productivity, return on investment and the quality of services offered to the customers. Especially the quality of service influences student recommendations to others (Allen & Davis, 1991). Higher education institutions seeking to achieve success in international markets must undertake a range of activities designed to attract prospective students from around the world. It is one of significant and expensive decision that many students and their families will have ever undertaken. There are significant differences between various target markets. Thus, in order to identify these differences most of the universities have conducted research on the satisfaction level of their students. Curriculum, course contents, teaching methods and the quality level of the lecturers have been questioned (Cannon & Sketh, 1994; Hampton, 1993; Brightman, Elliot & Bhada, 1993). Indeed, understanding value from the customers' perspective can provide useful information to management for allocating resources and designing programs that promise better satisfy students (Seymour, 1992). As a consequence, which also emphasize by Bone (1995), this should elicit positive emotional responses from students with regard to their institution and generate positive word of mouth.

Literature reveals that service quality has a significant influence on students' positive word-of-mouth recommendations (Allen & Davis, 1991; Bone, 1995). Indeed, understanding value from the customers' perspective can provide information useful to management for allocating resources and designing programs that promise better satisfied students (Seymour, 1992). In general, service quality promotes customer satisfaction and encourages recommendations (Nadiri & Hussain, 2005). Customer satisfaction increases profitability, market share, and return on investment (Hackl & Westlund, 2000; Barsky & Labagh, 1992; LeBlanc, 1992; Stevens, Knutson & Patton, 1995; Legoherel, 1998; Fornell, 1992; Halstead & Page, 1992). Higher education sector should recognize the importance of service improvements in establishing a competitive advantage.

The importance of quality in service industry have attract many researchers to empirically examined service quality within a wide array of service settings such as appliance repair, banking, hotels, insurance, long distances telephone (Parasuraman *et al.*, 1985; Zeithaml *et al.*, 1990). Today, controversy continues concerning how service quality

should be measured (Cronin & Taylor, 1992, 1994; Parasuraman et al., 1988, Parasuraman, Berry & Zeithaml, 1991). One of the most controversial issues is the reliability of SERVQUAL; a scale developed to measure service quality by Parasuraman et al. (1985) based on five dimensions (tangibles, reliability, responsivenes, assurance and empathy). SERVQUAL has been used to measure service quality in business schools (Carman, 1990) banking, dry cleaning, fast food services (Cronin & Taylor, 1992) and in many other institutions. Carman (1990) analyzed the five dimensions of SERVQUAL by adding attributes that are pertinent to different situations, such as the failure rate is higher for colleges and universities than for either business or government organizations (Cameron & Tschirhart, 1992). In measuring service quality in higher education, it is important to study the meaning of service quality that relates to the situation under study. In service literatures, the practical basis of service quality measurement have been conducted on the definitions of quality in higher education (Lagrosen, Sayyed-Hashemi & Leitner, 2004), service quality dimensions (Owlia & Aspinwall, 1996; Joseph & Joseph, 1997; Lagrosen et al., 2004) perceived importance (Ford et al., 1999) service quality and student satisfaction (Rowley, 1997).

Harvey *et al.* (1992) states that "there is little evidence that the literature on service quality has had much impact on higher education. The application of service quality models to education and training is an area which requires further research and evaluation" (p. 47). Harvey (2003, p. 4) notes that 'it is not always clear how views collected from students fit into institutional quality improvement policies and processes'. Moreover establishing the conditions under which student feedback can give rise to improvement 'is not an easy task'. Indeed, Ford *et al.* (1993) have pointed out that SERVQUAL might assess students' perceptions as to the quality of their educational institutions', but not the

education itself. According to Oldfield and Baron (2000), student perceptions of service quality in higher education, particularly of the elements not directly involved with content and delivery of course units, are researched using a performance-only adaptation of the SERVQUAL research instrument. Therefore, SERVQUAL instrument is useful for measuring the service quality of non-academic services in higher education.

However, for higher education service quality research, the delivery of course units cannot be ignored, because it includes instructors who actually deliver this service which includes content and curriculum. In order to cover this gap, literature reports the term 'instructional quality', an approach to measure service quality of instructors and courses in higher education. In the literature, instructional quality is known as 'teaching effectiveness' (Marsh, 1982). Teaching effectiveness is "the degree to which one has facilitated student achievement of educational goals" (McKeachie, 1979, p. 385). Teaching effectiveness is usually measured by student evaluations. These evaluations measure the instructor quality, course quality and the quality of the interaction between instructor and students. Primarily, the quality of the interaction between instructor and students takes place in a classroom and intended to either transfer information from instructor to student or facilitate self-motivated student learning processes. Such evaluations of teaching effectiveness are important because they give insight into the quality of the learning experience for the student, and subsequently how degree programs are evaluated in terms of the attainment of their educational goals. Marsh's (1982; 1987) presented Students' Evaluation of Educational Quality (SEEQ) instrument which measures instructional quality of instructors and courses in higher education institutes. SEEQ instrument is comprised of nine dimensions called 'learning values, instructor enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, exam/grading policies, assignment, and difficulty/workload'

(2004) refers this range of expectations as the 'zone of tolerance', where 'desired service' being at the top and 'adequate service' at the bottom of the scale. According to Parasuraman (2004), if the service delivered falls within the zone, customers will be satisfied and if the service is better than their desired service level, customers will perceive the service as exceptionally good, and be delighted. However, if the service falls below the zone of tolerance, customers will not only be unsatisfied but will feel cheated and will take their custom elsewhere.

The intention of this study is to provide a practical basis for service quality and instructional quality measurement in the area of higher education services of the island Cyprus, especially for North Cyprus. Therefore, the present study attempts to use the both SERVQUAL and SEEQ instruments as the bases of measuring quality for higher education services and presents a conceptual model for the measurement of zone of tolerance in higher education services in this study. Thus, this study attempts to approach service quality (non-academic services) of administrative units e.g. services provided by the registrar, library, faculty/school offices, rector office, dormitories, sports, health centre etc. and instructional quality (academic services) of instructors and courses in a university setting, covering the gap in the literature. The measurement of expectations (desired and adequate) and perceptions are important to diagnose the students' zone of tolerance, a new approach for higher education field.

It is important to understand the conceptual background of service, quality, service quality, instructional quality before its measurement, and models measuring service quality and instructional quality, also what these models predict/effect in result of their measurement, which is student satisfaction. The concept of zone of tolerance is also elaborated in the following section.

2.2. The concept of service and service characteristics

Payne (1993) defines service as "an activity which has some elements of intangibility associated with it, which involves some integration with customers or with property in their possession, and does not result in a transfer of ownership. A change in condition may occur and production of the service may or may not be closely associated with a physical product (p. 46)". Related to this "service are the actions", thoughts and concepts opposed to products. So, services are described by their characteristics which separate them from physical goods. According to Parasuraman *et al.* (1985) and Olsen, Teare and Gummesson (1996) following are the service characteristics:

- Intangibility: Service is intangible because it is dependent on performances of people. Most services can not be counted, measured or tested. Because of intangibility, service firms may find it difficult to understand how consumers perceive the service and evaluate the service quality. Furthermore, this characteristic of services means that a consumer may not become an owner of the product as it is in manufactured goods. As an example, it can be said that a consumer may become an owner of television but not a hotel; that is, he/she uses the facilities and activities given by the hotel, and turns back only with memories, but when one buys a television he/she uses it forever.
- **Inseparability:** Production and consumption of services are inseparable. As a consequence, quality in service is not engineered at the manufacturing plant then delivered in fact to the consumer. In labour intensive services, quality occurs during service delivery, usually in an interaction between the client and the contact person

from the service firm. The service firm may have less managerial control over quality of services where consumer participation is intensive (e.g. haircut, doctor visits) because the client affects the process. In these situations, the consumer's input (description of how the haircut should look, description of symptoms) becomes critical to the quality of service performance.

- Heterogeneity: In labour intensive industries, services are known as to be heterogeneous that is why the performance often varies from producer to producer, from customer to customer, and from day to day. Consistency of behaviour from service personnel. (i.e uniform quality) is difficult to assure because what the firms intend to deliver may be entirely different from what the consumer receives. Services are non-standard and they are highly variable in their production phase because the effects of human are much more than machines and equipment during the production phase. Therefore, heterogeneity of similar services is quite common.
- **Perishability:** Service has always been a perishable unit because of the fact that it can never be stored. Services can not be stored in inventory as in manufactured goods. Furthermore, because services are produced and consumed at the same time, service firms must have a good control mechanism and power to solve the problems that might arise as a reason of non-storage.

In general there are some characteristics which differentiate services from goods. These are as follows:

- Services are intangible and may be difficult for a supplier to explain and specify, and sometimes also difficult for the customer to assess.
- The customer often takes part directly in the production of services.

- Services are consumed to a large extent at the same time that they are produced, i.e. services cannot be stored or transported.
- The customer does not become owner of something when buying a service.
- Services are activities or processes and cannot therefore be tested by the customer before they are bought.
- Services often consist of a system of subservices. The customer assesses the totality of these subservices. The quality and the attractiveness of the service depend on the customer's experience of the totality.

These characteristics must be taken care of when designing, marketing, producing and delivering services. Parasuraman *et al.* (1985, p. 42) mentioned three well documented characteristics of services intangibility, heterogeneity, and inseparability must be acknowledged for a full understanding of service quality.

2.3. The concept of quality

The construct of quality as conceptualized in the services marketing literature involves perceived quality. Perceived quality is the consumer's judgement about an entity's overall excellence or superiority (Parasuraman *et al.*, 1988, p. 15). The word "quality" is derived from the latin word "qualitas" meaning "of what", (Cicero and other ancient writers seem to have used the word in the sense of "nature"). There are many definitions of the quality concept; one of them is "the quality of a product (article or service) is its ability to satisfy the needs and expectations of the customers (Bergman & Klefsjo, 1994, p. 16)". Quality has become an increasingly important means of competition in the world market. Management commitment to a strategy based on continuous quality improvement has thus to be applied more generally and systematically in any organization to enable it to keep its

position in the market. Otherwise, large shares of the market will be lost to those competitors who are more aware of the importance of quality.

2.4. The concept of service quality

The concept of service quality involves a comparison of expectations with performance as "service quality is a measure of how well the service level which is delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis (Parasuraman *et al.* 1985, p. 42)". In other words, quality is to deliver what the customer believes or he/she requires. Service quality is the final outcome of a combination of factors, all of which have a potential for a frequent and high degree of variability. Services are intangibles, unique performance or outcomes by customer-contact personel, whereby all involved individuals unique expection and perception affect the process (Langer, 1997, p. 35). According to Parasuramam *et al.* (1985) services suggest three underlying themes:

- Service quality is more difficult for the consumer to evaluate than goods quality.
- Service quality perceptions result from a comparison of consumer expectations with actual service performance.
- Quality evaluations are not made solely on the outcome of a service; they also involve the evaluations of the process of service delivery.

Expectation is one of the most widely employed as a comparison standard in the measurement of service quality (e.g. Parasuraman *et al.*, 1985; 1988; 1991; 1994). Customers compare their expected level of performance with the perceived service performance in order to judge service quality.

2.4.1. Models of service quality

The heterogeneity of most services has resulted in several service quality interpretations. Two different types of service quality models dominate the present state of research (Langer, 1997, p. 47-48). The following are the most renounced service quality models which illustrate the concepts of service quality:

2.4.1.1. Gronroos model

Gronroos (1984) model describes the perceived service quality during this process as the result of a comparison between the expected performance and the actual performance received. According to Gronroos model, customers usually evaluate a service encounter performance in two ways. The author defines these two ways as technical quality and functional quality. The technical quality describes what the customer receives from a service provider during a service encounter or transaction. Technical service qualities can usually be measured in a rather objective manner, similar to the technical dimensions of a product. Functional quality, on the other hand, includes the customer's overall evaluation of a service process delivery. This can include customer's impression of the service provider's style of the service and accompanying procedural steps. According to Gronroos, image should be considered as an additional third dimension of quality. As a result, appropriate technical quality can be considered as a prerequisite for functional quality. Gronroos empirical study also explains how, as a consequence of this interdependency temporary deficiency in technical quality can be compensated for by superior functional or process quality. The clarity and simplicity of this model, along with the consideration of a service provider's image, a factor that has been neglected in previous studies, makes it an ideal point of reference for service quality analysis. In addition, Gronroos' separation of

process and outcome quality clearly characterizes the product policy aspects of service companies.

2.5.1.2. The SERVQUAL model

SERVQUAL (service quality) model is the most popular tool of service quality, an instrument designed by marketing research team of Parasuraman *et al.* (1985). Through numerous qualitative studies, they evolved a set of five dimensions which have been consistently ranked by customers to be most important for service quality.

SERVQUAL was developed to enhance the value of an earlier service quality model by Parasuraman *et al.* (1985) known as the "gap model". It was based on a collection of data through empirical studies, the author identified four gaps which generally occurred as a result of deficiencies between common service determinants in service organizations. These factors and the subsequent four gaps lead to a significant fifth gap, which is the difference between customer expectations towards service and their actually received perceptions of the service quality. SERVQUAL is the instrument with which this fifth gap, the level of the consumers' perceived service quality, can be measured.

Parasuraman *et al.* (1985) discuss this model explaining causes of customer dissatisfaction. The model is called the "gap model", (see figure 2.1). The search for quality is the most important consumer trend of the 1980s because consumers were demanding at that time higher quality in products than ever before. Despite the fast growth of the service sector during the last decades, only a few researchers succeeded in defining and modelling service quality. In the past, a study was undertaken to investigate the concept of service quality. Focus group interviews with consumers and in-depth interviews

with executives were conducted to develop a conceptual model of service quality. The research was based on four nationally recognized service firms: retail banking, credit card, securities brokerage, and product repair and maintenance. The executive (in-depth) interviews were conducted with three of four executives in each firm. The questions were about a range of service quality issues. The focus group interviews were about the expectations and perceptions of the consumers of the services provided by those companies. After the research, it turned out that there exist commonalities between the four service firms and according to this the researchers developed their service quality model.





Source: Parasuraman et al. (1985, p. 44).

According to figure 2.1, the upper part of the model related to the customers and the lower part related to the service provider. The process in between accounts for the different steps that have to be undertaken to meet the customers demands. The expected service is a function of the customers past experience, personal needs and word of mouth communication. In summary, the gap model postulates that the process of service quality can be evaluated in terms of gaps between expectations and perceptions on the part of marketers, employees, and customers. There exists a set of key gaps regarding the perceptions of service quality from the management point of view and the tasks associated with service delivery to consumers. There exist four gaps on the side of the provider of the service, which are shown in the lower part of the model. There exists one gap on the side of the customer of the service which is shown in the upper part of the model. There are a total of five gaps of the model explained. These gaps are as follows:

- Gap 1: Consumer's expectations-management perception: Many of the • executive perceptions about what customers expect in a quality service were congruent with the customer expectations revealed in the focus groups. However, discrepancies between executive perceptions and customer expectations existed, as illustrated by the following example; the product repair and maintenance focus groups indicated that a large repair service firms was unlikely to be viewed as a high quality firm. Small independent repair firm were consistently associated with high quality. In contrast, most executive commands indicate that a firm's size would signal strength in a quality context. The service firm executives may not always understand what features connote high quality to consumers in advance, what features a service must have in order to meet consumer needs, and what level of performance on those features are needed to deliver high quality service. Service marketers may not always understand what consumers expect in a service. This lack of understanding may effect quality perceptions of consumers: Proposition 1: The gap between consumers expectations and management perceptions of those expectations will have an impact on the consumer's evaluations of service quality.
- Gap 2: Management perception-service quality specification: Managers of service firms often experience difficulty in attempting to match or exceed customer expectations. A variety of factors such as resource constraints, short term profit

orientation, market conditions, and management indifferences may account for the discrepancy between managers' perceptions of consumer established by management for a service. As an example, executives in the repair service firm were fully aware that consumers view quick response to appliance breakdowns as a vital ingredient of high quality service. However they find it difficult to establish specifications to deliver quick response consistently because of a lack of trained service personnel and wide fluctuations in demand. Apart from resource and market constraints, another reason for the gap between expectations and the actual set of specifications established for a service is the absence of total management commitment to service quality. This discrepancy is predicted to affect quality perceptions of consumers: *Proposition 2*: The gap between management perceptions of consumer expectations and the firm's service quality specification will affect service quality from the customer's viewpoint.

- Gap 3: Service quality specifications-service delivery: Executives recognize that a service firm's employees exert a strong influence on the service quality perceived by consumers and that employee performance cannot always be standardized. The problem is the pivotal role of contact personnel. In the repair and maintenance firm, for example, one executive's immediate response to the source of service quality problems was, everything involves a person-to repair person, it is so hard to maintain standardized quality. This problem leads to a third proposition: *Proposition 3*: The gap between service specifications and actual service delivery will affect service quality from the consumer's standpoint.
- Gap 4: Service delivery-external communication: Media advertising and other communications by a firm can affect consumers expectations. If expectations play a major role in consumer perceptions of service quality, the firms must be certain not

to promise more in communications than they can deliver in reality. According to Parasuraman *et al.* (1988), promising more than you can afford will raise initial expectations but lower perceptions of quality, when the promises are not fulfilled. Also external communications could influence service quality perceptions by consumers. This occurs when companies neglect to inform consumers about the special efforts to assure quality that are not visible to consumers. Making consumers aware of not readily apparent related standards could improve service quality perceptions. In short, external communications can affect not only consumer expectations about a service but also consumer perceptions of the delivered service. *Proposition 4*: The gap between actual service quality from a consumer's standpoint.

Note: These 4 gaps are the marketer's side gaps. There is another last gap, which is the consumer's side.

• Gap 5: Expected service-perceived service: The level of quality as high or low depends on how consumers perceive and what they expect from a service. For example; when a repairman fixes a broken appliance, the consumer will get satisfaction because of repairing. But if that repairman also tells more about how it can be fixed, the consumer can evaluate the level of service with excellence. Oppositely, if the consumer would not have taken that advice about how to repair the broken appliance, then when the problem occurs again he/she could not do anything and must call the repairman in advance, so the given service rate lowers. Similiar experiences, both positive and negative, were described by consumers in every focus group. It appears that judgements of high and low service quality depend on how consumers perceive the actual service performance in the context of

what they expected. *Proposition 5*: The quality that a consumer perceives in a service is a function of the magnitude and direction of gap between expected service and perceived service.

In summary, service quality as perceived by a consumer depends on the size and direction of gap 5 which, in turn, depends on the nature of the gaps associated with the design, marketing and delivery of services (gap 1, 2, 3 and 4).

Parasuraman *et al.* (1985) stated that the criteria used by consumers in assessing service quality fit ten dimensions. These ten dimensions and their descriptions served as basic structure of service quality domain from which items were delivered for the SERVQUAL scale. These dimensions are as follows:

- **Tangibles:** Which refer to the physical environment in which the service is presented, i.e. the organization, the equipment and the personnel and their clothing.
- **Reliability:** Which is the consistency of performance and dependability, e.g. punctuality and the correctness of service, information and invoice procedures.
- **Responsiveness:** Which is the willingness to help the customer.
- **Competence**: Which is the possessing of the required skills and knowledge to perform the service.
- Courtesy: Which refers to the supplier's behaviour, e.g. politeness, consideration and kindness.
- Credibility: Which means trustworthness, believability and honesty of the service provider.
- Security: Which means freedom from danger, risk and doubt.

- Access: Which is the ease of making contact with the supplier, e.g. the time the shop is open.
- **Communication:** Which is the ability of talking in a way which is understandable to the customer.
- Understanding/knowing the customer: Which involves making the effort to understand the customer's needs.

In summary, many of these dimensions are related to customers' confidence in providing the service (see figure 2.2). A good discussion of dimensions of service culty is given by Parasuraman *et al.* (1985, p.48).





Source: Parasuraman et al. (1985, p.48).

During the development of SERVQUAL, a methodology for measuring service Parasuraman *et al.* (1988) found that some of the above mentioned ten dimensions strongly correlated and as a result the number of dimensions was reduced in SERVQUAL to five, namely:

- *Tangibles* include the physical surroundings represented by the objects (e.g. interior design) and subjects (e.g. the appearance of employees);
- The *Reliability* dimensions refer to the service provider's capability of providing accurate and dependable services. Various empirical tests by the authors have shown that this is the most important service dimension from a customer's point of view;
- The term *Responsiveness* reflects a firm's willingness to assist its customers by providing fast and efficient service performances;
- The *Assurance* dimension includes such diverse facets as the firm's specific service knowledge as well as the employees polite and trustworthy behaviour;
- The term *Empathy* comprises the service firm's readiness to provide each customer with personal service (Parasuraman *et al.*, 1988, p. 46).

Here *assurance* includes competence, courtesy, credibility and security moreover *compathy* includes access, communication and understanding the customer.

The original SERVQUAL scale was composed of two sections. The first section tains 22-items for customer expectations of excellent firms in the specific service ensure. The second contains 22-items, which measure consumer perceptions of service ensure of a company being evaluated. The results from the two sections are then pared and used to determine the level of service quality. The SERVQUAL instrument been widely used to measure service quality in various service industries. However, the its popularity, it has received its share of criticism since its development. A cerable number of criticisms focused on the use of expectation as a comparison (e.g. Teas, 1994; Cronin & Taylor, 1994). According to Parasuraman *et al.* (1985; 1991) the concept of expectation has been emphasized as a key variable in the evaluation of service quality. However, Teas (1994) points out that some validity problems arise when customer expectation is used as a comparison standard. For example, expectation is dynamic in nature and may change according to customers' experiences and consumption situations. Boulding, Kalra, Staelin and Zeithaml, (1993) reject the use of expectation as a comparison standard for the measurement of service quality and recommend performance-only measurement.

The negative empirical findings concerning the measurement of expectations led to some doubt about its value. Some scholars maintain that measurement of expectations does not provide unique information for estimating service quality; they argue that performanceonly assessment has already taken into account much of this information (Cronin & Taylor, 1992; Babakus & Boller, 1992). In general, few previous studies would recommend that performance-only measurement is sufficient.

2.4.1.3. The SERVPERF model

SERVPERF (Service performance) is performance-only measure, which is the component SERVQUAL scale. Cronin and Taylor (1992) claim that it has greater predictive power SERVQUAL (disconfirmation measure). Cronin and Taylor (1992) tested the performance-based measure of service quality, dubbed SERVPERF, in four industries canking, pest control, dry cleaning and fast food). They found that this measure explained more of the variance in an overall measure of service quality than did SERVQUAL. SERVPERF is composed of 22 perception items in the SERVQUAL scale and therefore, excludes any consideration of expectations, in a later defence of their argument for a
perceptions-only measure of service quality. Cronin and Taylor (1994: cited in Buttle, 1996, p.14) acknowledge that it is possible for researchers to infer consumers' disconfirmation through arithmetic means (the P-E gap) but that "consumer perceptions, not calculations, govern behaviour". Boulding *et al.*, (1993) has also rejected the value of an expectations-based or gap-based model in finding that service quality was only influenced by perceptions.

2.4.2. Critical review of SERVQUAL model

In the SERVQUAL model some problems have been found in the process of using the instrument, raising concerus about the validity of its application (Lam, Woung & Yeung, 1997, p.3). The most commonly raised problems have been the use of difference scores, 7-point Likert scale, and the generic nature of SERVQUAL.

- The use of difference scores: Difference scores are obtained by measuring consumers' expectations about service against his/her perceptions of the service performance. Lam *et al.* (1997) noted that when people are asked to indicate the "desired level" (expectations) of a service and the "existing level" (perceptions) of the service, there is a psychological constraint that they always tend to rate higher. Babakus and Boller (1992) found that service quality, as measured in the SERVQUAL scale, relies more significantly on the perception score than on the expectation score at study of health care service indicated that consumers' evaluation of the service quality did not solely derive from a comparison of expectations with perceived performance.
- Point Likert scale: The SERVQUAL instrument uses a 7-point Likert scale, with word labels for point one and point seven only. The lack of word labels for points to six can create an interpretation problem for researchers. The scale points

may be treated as ordinal or interval in nature, depending on how one interprets the distance between points. There exists an error gap, such as when a respondant wants to rate a service somewhere between two points, but has to round it off to the nearest point. One study showed that respondents had varied interpretations of the mid-point of the scale. They may have regarded it as a "Do not know" or "Neutral".

• The generic nature of SERVQUAL: Parasuraman *et al.* (1985) claimed that servqual is applicable across a broad spectrum of services. The ten dimensions that consumers use in forming expectations and perceptions of services transcend different types of services. Carman (1990) used the SERVQUAL scale to measure service quality in four different service seffings, and found the instrument limited in application. Modifications to items and wording were found to be necessary to accommodate the new settings. Babakus and Boller (1992) also raised questions about the suitability of SERVQUAL for measuring the service quality in a wide range of services. They suggested that the domain of service quality may be very simple in some services but complex in others.

243. Criticisms of SERVQUAL model

widespread application, the scale has been subjected to a number of theoretical and

2.4.3.1. Theoretical

- Paradigmatic objections: SERVQUAL is based on disconfirmation paradigm rather than an attitudinal paradigm and SERVQUAL fails to draw on established economic, statistical and psychological theory.
- Gaps model: there is little evidence that customers assess service quality in terms of P-E gaps.
- Process orientation: SERVQUAL focuses on the process of service delivery, not the outcomes of the service encounter.
- Dimensionality: SERVQUAL's five dimensions are not universals; the number of dimensions comprising service quality is contextualized; items do not always load on to the factors which one would a priori expect; and there is a high degree of inter-correlation between the five RATER dimensions.

14.3.2. Operational

- Expectations: The term expectation is polysomic; consumers use standards other than expectations to evaluate service quality; and SERVQUAL fails to measure absolute service quality expectations.
- Item composition: four or five items can not capture the variability within each service quality dimension.
- Moments of truth (MOT): customers' assessment of service quality may vary from MOT to MOT.
- Polarity: the reversed polarity of items in the scale causes respondent error.
- Two administrations: two administrations of the instrument cause boredom and confusion.

• Variance extracted: the over SERVQUAL score accounts for a disappointing proportion of item variances.

Asubonteng, McCleary and Swan (1996) also presented a critical review of service quality; the purpose of this paper was to provide a review of the SERVQUAL research on service quality in the following areas:

- Definition and measurement of service quality; and
- Reliability and validity measures.

The review in the literature suggests that there is still more work to be done to find a suitable measure for service quality. There are more problems with the most popular measure, SERVQUAL, which involves the subtraction of subjects' service expectations from the service delivery for specific items. The differences are averaged to produce a total score for service quality. Cronin and Taylor (1992) found that their measure of service performance (SERVPERF) produced better results than SERVQUAL. Their non-difference score measure consisted of the perception items used to calculate SERVQUAL scores. These measures assessed service quality without relying on the disconfirmation paradigm. Future research might examine the relative merit of this approach. There is an issue of mether a scale to measure service quality can be universally appreciable across industries. Carman (1990) note that it takes more than a simple adaptation of SERVQUAL items to address services quality effectively in some situations. Managers are advised to consider which issues are important to service quality in their specific environments and to modify be scale as needed. Much of the emphasis in recent research has moved from describing be data to testing hypotheses. More elaborate research designs and analytical techniques have been employed. The area seems to be established in any study. The area needs

improved conceptualization on key constructs and more comparable measures across research efforts. It is important to have a common scale or definition for valid comparison across studies.

Thus SERVQUAL, however, has not been without criticisms. Particular research efforts by Cronin and Taylor (1992) cast doubts about the validity of the disconfirmation paradigm advocated by Parasuraman *et al.* (1985, 1988). These authors questioned whether or not customers routinely assess service quality in terms of expectations and perceptions. They advance the notion that service quality is directly influenced only by perceptions of service performance. Accordingly, they developed an instrument of service performance (SERVPERF) that seems to produce better results than SERVQUAL (Asubonteng *et al.*, 1996).

Another major criticism on SERVQUAL scale, reported in the literature, is about its dimensionality problem. Several researchers (Carman 1990; Cronin & Taylor 1992; Parasuraman *et al.*, 1985; 1988; 1991; Teas 1994) argue that the number of dimensions and the nature of SERVQUAL construct may be industry specific. The fit of five-dimensions of SERVQUAL carried out in different service activities has always been an important question in several studies that these dimensions proposed in SERVQUAL do not replicate. In many studies, the SERVQUAL scale has been found uni-dimensional (Angur, Nataraajan & Jahera, 1999; Babakus & Mangold, 1992; Babakus & Boller, 1992), sometimes two-dimensional (Karatepe and Avci, 2002; Ekinci, Prokopaki & Cobanoglu, 2003; Nadiri & Hussain, 2005) and sometimes with even ten dimensions (Carman, 1990). It has also been argued that performance-only (SERVPERF) measure explains more of the

variance in an overall measure of service quality than SERVQUAL instrument (Cronin & Taylor, 1994).

2.5. The concept of instructional quality

Marsh (1982) described the concept of instructional quality as "teaching effectiveness." Teaching effectiveness is "the degree to which one has facilitated student achievement of educational goals" (McKeachie, 1979, p. 385). Teaching effectiveness is usually measured by student evaluations. These evaluations measure the instructor quality, course quality and the quality of the interaction between instructor and students. Primarily, the quality of the interaction between instructor and students takes place in a classroom and intended to either transfer information from instructor to student or facilitate self-motivated student learning processes. Such evaluations of teaching effectiveness are important because they give insight into the quality of the learning experience for the student, and subsequently how degree programs are evaluated in terms of the attainment of their educational goals.

The student evaluation of instructors has been widely used as a major tool for judging the effectiveness of a course and an instructor. The tool was originally developed in 50's and 60's to provide an instructor feedback regarding the course. However, these days, the same tool and concept are used by many institutions for evaluating courses. The objectives and implication of the evaluation are not clear to many. There is no theoretical foundation, or model, to show that the student rating is an indication of course effectiveness or evaluation constructs. It does not offer constructive evaluation, or any valid measurement which can accurately provide a valuable assessment of the course effectiveness. Researchers have been trying to identify what effective teaching is and how it can be measured. However, there is no consensus with methodology, factors or dimension of effective teaching. The research and the conclusions are influenced by the researcher's opinion and biases. The majority confirm the idea that teaching effectiveness is multi-perspective in nature (Abrami, d'Apollonia & Rosenfield, 1997; Marsh & Dunkin, 1997; Young & Shaw, 1999). Majority of research rely on a correlational analysis among factors in an attempt to identify which one has a high impact on "effectiveness." However, the method, the measurement objectives, and the conclusions are all subject to question and interpretation. For example, all the researchers report a significant correlation between "a well organized course" and "effectiveness." But, they also report that not all the organized courses are an indication of effectiveness of a teacher, nor all the effective teachers with high ratings are well organized (Young & Shaw, 1999). Generally, the research supports that the ratings are highly correlated with the instructors' personality and traits (Feldman, 1986; Murray, Rushton & Paunonen, 1990). Majority of research in measuring effectiveness of a course and instructor is a survey instrument evaluated by student ratings.

2.5.1. Models of instructional quality

A number of researchers have put some efforts into developing an instrument for measuring instructional quality.

2.5.1.1. The SEEQ model

Early work by Marsh's (1982; 1987) on the Students' Evaluation of Educational Quality (SEEQ) instrument is an example. This questionnaire was designed to measure students' experience in higher education institutions. Marsh's (1982; 1987) instructional quality instrument asks students to rate specific characteristics of the class and the instructor—such as degree of organization, skill in stimulating discussion, rapport with students—but factor analysis of these items yields the following key components of effective teaching:

- Learning/value of the course: challenge to students, value of material, amount of learning, increase in understanding.
- Instructors enthusiasm: dynamism, energy, humor, style.
- Organization of presentations and materials: use of previews, summaries, clarity of objectives, ease of note-taking, preparation of materials.
- Group interaction: stimulating discussion, sharing idea/knowledge exchange, asking questions of individual students, asking questions to entire class.
- Rapport or student-teacher relations: friendliness toward students, accessibility, interest in students.
- Breadth of coverage: contrasting implications, conceptual level, and giving alternative points of view.
- Exams/grading: value of examination feedback, fairness of evaluation procedures, content-validity of tests.
- Assignments/readings: educational value of texts, readings.
- Workload/difficulty: perceptions of course difficulty, amount of work required, course pace, number of outside assignments.

Marsh (1987) noted that student ratings are used variously to provide and are mended for purposes of:

- Formative feedback to faculty about the effectiveness of their teaching;
- A summative measure of teaching effectiveness to be used in personnel decisions;
- Information for students to use in the selection of courses and instructors;
- An outcome or a process description for research on teaching.

Marsh's (1982; 1987) SEEQ instrument measures instructional quality of instructors and courses in higher education institutes. The SEEQ instrument was based on 35-items comprising multi-dimensional construct for measuring instructional quality. SEEQ is a valid and reliable source of mean score data used to evaluate instructional quality of over a half-million students. Recent work (Greenwald & Gillmore, 1997; Marsh & Roche, 1997; Watkins, 1994) demonstrates that student course evaluations are valid measures of instructional effectiveness. In other words, students know what makes for a good educational experience and what makes for a bad one.

2.5.1.2. Comparison of instructional quality models

The content of evaluation instrument varies by researchers. However, nine factors reported by Marsh (1987) is typical. In addition to Marsh's work, other researchers have also made some contributions to the development of an instrument for measuring instructional quality, sometimes called 'teaching quality'. Three instruments, named Course Perception Questionnaire (Ramsden & Entwistle, 1981; Ramsden 1991), Endeavour (Marsh & Roche, 1993) and Feldman (Feldman, 1984), respectively, are discussed frequently in the literature. The review by Marsh and Dunkin (1997) demonstrated the internal consistency, stability, generalisability and construct validity of these instruments for measuring teaching effectiveness. Rowley (1996) also reviewed these instruments and concluded that these three instruments are well constructed, have been thoroughly tested and shown to have clearly defined factor structures which provide measures of distinct components of teaching effectiveness. Although these instruments were developed independently, on inspecting the items and dimensions from each instrument, it is found that a lot of similarity exists (see table 2.1).

SEEQ's model	Feldman's model	Ramsden's model	Endeavour model
Learning/value	Perceived	-	Student accomplishments
	outcome/impact		
Learning/value	Intellectual challenge	The provision of a	Students'
		challenging and	accomplishments
		academic environment	1
Instructor enthusiasm	Stimulation of interest	Enthusiasm and interest	
		ofteacher	
Instructor enthusiasm	Enthusiasm	Enthusiasm and interest	-
		of teacher	
Organization/clarity	Preparation and	Organization	Organization/planning
	organization		
Organization/clarity	Clarity and	Clarity of explanation	Presentation clarity
	understandability		
Organization/clarity	Clarity of objectives	Clear goals and	Organization/planning
		standards	
Group interaction	Class discussion	Encouragement of	Class discussion
		student's independence	
		and active learning	
Individual rapport	Respect for students	Concern for and	Personal attention
		availability to students	
Individual rapport	Availability/helpfulness	Concern for and	Personal attention
		availability to students	
Breadth of coverage	Subject knowledge	-	1
Breadth of coverage	Intellectual	-	-
	expansiveness		
Examination/grading	Fairness, impartiality	Assessment methods	Grading/exams
	Classroom management	Organization	-
Examination/grading	Feedback to students	Feedback on learning	Grading/exams
Assignments/readings	Values of course material	Course materials	-
Assignments/readings	Supplementary materials	Course materials	-
Workload/difficulty	Difficulty/workload	Appropriate workload	Workload
-	Elocutionary skill	-	-
-	Sensitivity to class		-
	progress		

Table 2.1: Comparison of the elements contained in instructional quality measurement instruments

However, does measurement of instructors and courses, by using any survey instrument, are the bases for instructional quality? What other factors could be important for measurement? One of the apparent factors is curriculum itself. The following section identify the basic curricular elements (Klein, 1985) that effective teachers are required to use them while instruction.

3.5.3. Elements of an effective teaching

The purpose of this section is to compare the SEEQ instrument with the factors that affect the technical planning and implementation of effective teaching, when used for the evaluation of instructional quality. Klein (1985) reported nine curricular elements for effective teaching:

- **Objectives:** Objectives provide directions in learning, they give the specific aims of education.
- **Content:** Each program is dependent on the subject matter to be taught. Careful consideration must be given to the scope and sequencing of the content
- Learning materials and resources: In an organized subject matter based curriculum design the most commonly used learning material is the textbook.
- Learning activities: The curriculum designer must carefully state learning activities in relation to the explicit and implicit objectives. These activities must be set up to foster the behavioural changes of the students. Keep the student focused on learning of a body of content. These activities are planned to keep students motivated to learn.
- **Teaching strategies:** Selection of the teaching strategies is very important in the design. Should be planned as an inherent part of the activities. Appropriate methods should be used to assist students and to attain the stated behavioural objectives or to make students learn the defined body of content.
- Evaluation procedures: Evaluation procedures are the techniques that are used to assess the amount of achievement the student has acquired in the behavioural objectives and the content. In classroom situations only periodic determinations are possible.

- **Grouping:** Total group setting is the main type of grouping. A student is placed in a group with other students who are at a similar place in their progress towards the specified objectives. Usually students with similar learning abilities are grouped together.
- **Time:** There are so many subjects that the teachers want the students to learn to cope with their constantly developing environments. Hence, time is a limited resource and students and instructors are expected to make full use of it in a regular classroom setting.
- Space and environment: Usually classroom is used as a space. Special rooms may also be used such as libraries, instructional materials center, music room, art room, laboratories, or sports facilities. Sometimes space may be chosen outside the boundary of the institute.

Although literature reports that SEEQ instrument is a reliable and a valid measure of instructional quality. On inspecting the items and dimensions SEEQ instrument with nine curricular elements of Klein (1985), it is found that a lot of similarity exists (see table 2.2). Therefore, it can be concluded that SEEQ instrument includes the important curricular elements for effective teaching (proposed by Klein, 1985), except time, space and environment.

Klein's curricular elements	SEEQ's model
Objectives	Learning/value, Organization/clarity
Content	Breadth of coverage
Learning materials and resources	Breadth of coverage
Learning activities	Individual rapport, Assignments/readings, Workload/difficulty
Teaching strategies	Organization/clarity
Evaluation procedures	Examinations/grading
Grouping	Group interaction
Time	
Space and environment	
	Instructors' enthusiasm

Table 2.2: Comparison of the curricular elements contained in SEEQ instrument

2.5.4. Critical review of SEEQ model

Teaching is a fundamental function of the higher education institution (Li & Kaye, 1998). Teaching can be regarded as an unique type of service (Rowley, 1996). This requires that specific terms need to be used and a more careful generalization needs to be made when applying the general service quality framework in this particular filed (Li & Kaye, 1998). Kotler and Fox (1985) proposed the use of service quality measurements of student service components when developing higher education strategies. Ruby (1998) applied adaptations of the Parasuraman *et al.* (1988) SERVQUAL measurement instrument to non-classroom higher education environments. The non-classroom environment has been the focus of extensive research and comment as an important element of the higher education experience. Kotler (1967) suggested non-classroom service quality teaching. Tinto (1993) found that faculty actions within the traditionally defined classroom combine with faculty actions outside the classroom to provide a foundation by which the individual judges the quality of the institution. Such actions also contribute to student persistence at the institution. Literature proposes the use of SERVQUAL instrument for non-classroom situations, non-academic service quality, for the measurement of service quality (Ford *et al.*, 1993; Oldfield & Baron, 2000; Kotler & Fox, 1985; Ruby, 1998; Kotler, 1967; Tinto, 1993) and the use of SEEQ instrument for the measurement of instructional quality for classroom situations, academic service quality, for the measurement of instructional quality or teaching effectiveness (Marsh's 1982; 1987; Marsh & Roche, 1997; Marsh & Dunkin, 1997; Rowley, 1996) for developing higher education service strategies.

2.6. The concept of zone of tolerance

The zone of tolerance provides a range within which customers are willing to accept variations in service delivery. Although there are relatively few studies that have focused on prescribing norms in measuring zone of tolerance for service quality. However, a few studies reveals that the zone of tolerance framework allows one to assess customer expectations in a manner not afforded by the traditional SERVQUAL framework (Walker & Baker, 2000). By incorporating two service expectation levels, desired and adequate, practitioners should be better able to assess their level of delivered service quality and determine more precisely where resources are needed. Therefore, this method gives practitioners a more useful tool than the traditional SERVQUAL (desired expectations only) format for formulating effective marketing strategy. Incorporating the zone of tolerance framework will help practitioners better identify key service components and deliver on them more consistently (Walker & Baker, 2000). The concept of zone of tolerance is quite useful as a way into exploring the dynamic aspects of the relationship between service process and service output (Johnston, 1994). Kennedy and Thirkell (1988) see it as a middle condition in the outcome of the disconfirmation model. A poor quality service will cause dissatisfaction, while a good quality service causes delight. An

acceptable quality (confirmation rather than disconfirmation) results in satisfaction. Other authors like DeCarvalho and Leite (1999) and Caruana, Ewing and Ramaseshan (2000) supports the use of zone of tolerance for measurement and improvement of service quality. Cavana, Corbett and Lo (2007) reports that zone of tolerance provide information about what areas and attributes that are in need to be improved. Yap and Sweeney (2007) also support the zone of tolerance concept. Teas and DeCarlo (2004) reports that zone of tolerance provides diagnostic value by capturing the range of service within which a firm meets customer expectations. Therefore, the zone of tolerance can also provide insight into the relative importance of each dimension of SERVQUAL (tangibles, reliability, responsiveness, assurance, and empathy). Moreover, the gap model (between perceptions and expectations) proposed by Parasuraman *et al.* (1991) provides a means of analysing the situation, so that practical steps can be taken to improve service quality.

2.6.1. The nature of zone of tolerance

Barry and Parasuraman (1991) found that the customers' service expectation exists at two levels, the *desired* level and the *adequate* level. The desired service level describes the service that the customer hopes to receive. This level is made up by a mix of what the customer believes "can be" and "should be". The adequate level describes what the customer finds acceptable. This level reflects the customer evaluation of what the service "will be", or in other words the customers *predicted* service level. Between these two levels there is a *zone of tolerance*, which is a range of service performance that the customers finds satisfactory. A level below the zone of tolerance will lead to customer frustration and decrease customer loyalty, hence dissatisfaction. A level above the tolerance zone will lead to positively surprised customers and strengthen the loyalty, hence satisfied customers. To illustrate this Berry and Parasuraman *et al.* (1991) describes a customer at a bank. The customer wishes to have a check cashed in three minutes (desired service level). However due to past experiences the customer knows that factors such as number of customers in the waiting line, time of day etc. might increase the number of minutes to be served. This results in the customer being willing to tolerate a total transaction time of ten minutes (adequate service level). This means that the customer will be satisfied with the speed of the service if the total transaction time is between three to ten minutes (zone of tolerance). It is therefore considered a good strategy for service companies to aim to please customers by promising what they can deliver, then delivering more than what was promised.

Parasuraman *et al.* (1994) modified their SERVQUAL model to measure two aspects of service quality:

- The gap between *perceived service* and *desired service*—referred to as 'measure of service superiority' (MSS);
- The discrepancy between *perceived service* and *adequate service* (or minimum service)—referred to as 'measure of service adequacy' (MSA).

Parasuraman *et al.* (1994) suggest three alternative service-quality measurement formats. These were as follows:

• The first was a *three-column format* that generates separate ratings of desired, adequate, and perceived service using three identical, side-by-side scales. This requires computation of the 'perceived-desired difference' (for MSS) and the 'perceived-adequate difference' (for MSA). Its operationalisation of service quality is thus similar to that of SERVQUAL—although it does not repeat the battery of items.

- The second was a *two-column format*. In contrast to SERVQUAL, this format generates direct ratings of the service-superiority gap (MSS) and the service-adequacy gap (MSA) using two identical scales.
- The third was a *one-column format*. This format also generates direct ratings of the service-superiority gap and the service-adequacy gap. However, the questionnaire is split into two parts—with Part I containing one set of scales (for MSS) and Part II containing the same set of scales (for MSA). Thus, this format involves repeating the battery of items (as in SERVQUAL).

The three-column format SERVQUAL is the largest development by to Parasuraman *et al.* (1994), and it is claimed that this can be used for managers for diagnostic purposes and it offers the opportunity for using the perception items separately for predicting purposes. Despite the potential diagnostic value, there have been very few reported empirical studies using this instrument (Cavana *et al.*, 2007).

Zeithaml *et al.* (1993) proposed that customer expectation (as a comparison standard) can be considered from two perspectives: *narrow* and *broad*. According to the *narrow* perspective, customer expectation is a belief in the future performance of a product. According to the *broad* perspective, expectation is multi-dimensional and associated with different levels of performance. The authors then classified expectations into *desired* and *adequate* categories. They defined *desired service* as the level of service that customers hope to receive. This is a mixture of what customers believe the level of performance *can be* and *should be* (Zeithaml *et al.*, 1993). They claimed that this corresponds to customer evaluation of service quality. The *adequate service* expectation was defined as the lower level of performance that consumers will accept. The authors noted that this level of

expectation is comparable to minimum tolerable expectation. This was termed 'predictive expectation', and is associated with customer satisfaction. The area between desired service and adequate service was called the *zone of tolerance*, and represents the range of service performance that customers will tolerate.

Zeithaml *et al.* (1993) also report that... "as conceptualised in the customer satisfaction/dissatisfaction literature, assessments of customer satisfaction results from a comparison of predicted service with perceived service. Predictive service, however, is not the comparison standard that customers use in service quality assessments. Instead, service quality assessments are a function of two other comparisons. Consistent with the services marketing literature, service quality assessments, called gap 5 in the gaps model of service quality (Parasuraman *et al.* 1985), involve comparisons with desired and adequate, rather than predicted service (p. 18)".

The inherent nature of services makes consistent service delivery difficult across employees in the same firm and even by the same service employee from day to day. The extent to which the customers are willing to accept this variation is the zone of tolerance (Lovelock & Wright, 1999). Therefore, service performance that is above the minimum tolerable level will ensure satisfaction. More importantly, consumers will tolerate services that are equivalent to their minimum tolerable expectation. In the view of Zeithaml *et al.* (1993), consumers will tolerate service performance if it is equal to the 'adequate' service level. Therefore a zone of tolerance occurs when the service performance is between the desired expectation and the adequate expectation. In addition, the 'bottom line' for satisfaction occurs when the perceived service performance is equal to the adequate service expectation.

2.7. The concept of student satisfaction

In the services marketing literature for higher education research, the concept of student satisfaction is referred as 'customer satisfaction' or 'consumer satisfaction'. The concept of customer satisfaction has a long history in marketing thought. Since Westbrook and Reilly (1983: cited in Yi, 1990) defines customer satisfaction as "an emotional response to the experiences provided by, associated with particular products and services purchased, retail outlets, or even molar patterns of behaviour such as shopping and buyer behaviour, as well as the overall market place (p. 69)". According to Bitner, Booms and Tetreault (1990) the interaction between the employees and customers in service delivery is essential to the satisfaction or dissatisfaction of customers.

According to the disconfirmation paradigm (Oliver, 1980), customer satisfaction is the result of an evaluation process whereby the customer compares her expectations of how the service should perform with the actual experience with the service. Positive, negative or share confirmation of expectations will either alter or maintain current levels of the customer's image of the supplier and her subsequent satisfaction with and intent to remain with the supplier. Studies of customer behaviour emphasize customer satisfaction as the core of the post-purchase period. Because customer satisfaction presumably leads to repeat purchases and favourable word-of-mouth publicity, the concept is essential to marketers. In saturated markets customer satisfaction is thought to be one of the most valuable assets of a firm. Customer satisfaction serves as an exit barrier, thereby helping the firm to retain its customers (Fornell, 1992).

It is always the customer who judges the quality of the product, whether it is a good or service. To find out which specific factors are important to customer satisfaction and lead customer's satisfaction, we have to listen to the customer's decision in order to make serious efforts to gain their loyalty. Kano (1984: cited in Bergman & Klefsjo, 1994, p.280-283) developed a model for customer satisfaction, where quality dimensions are separated into three groups: basic needs, expected needs, and exciting requirements. The basic needs are expected to be there in all customers, if we dissatisfied the customers with these needs they will be unhappy. We cannot get a satisfied customer by fulfilling only the basic needs. The expected needs are those needs such as the customers are aware of and want to have satisfaction, but they are not always necessary. The exciting experiences are items the producer has to find out by himself. They are surprises that the customers are not aware of. The development of technology makes it possible to satisfy the needs of customers.

Taylor (1995: cited in Bergman & Klefsjo, 1994, p.280-283) explains the reasons for the increase in importance of customer satisfaction in the business world. The author claims that there are four problems, which affect customer satisfaction:

- **Comparative world peace:** After 1945 when there was an increasing growth and prosperity happening worldwide people had more money and time which gained them "choice". Therefore, the customers started getting harder to satisfy.
- **Communications and travel:** With increased media and travel opportunities people got to experience different cultures and products. Once again choice was widened, giving people a chance to compare products and prices. The customers became more demanding.
- **Technology:** As the name suggests technology has lead to increased competition and has given way to ease of transportation and communication, which have led to worldwide customer awareness.

• Legislation: This refers to government and inters government legislation with particular reference to the removal of trade barriers, and other man made forces, which operate against open market competition.

The author concludes that through reaching customer expectations, a company can improve quality internally. Sometimes it is possible to change dissatisfaction to excitement. By treating a disappointed customer very well you can win a loyal customer. Here it is important that people in the front line have sufficient knowledge and possibilities to act rapidly and take corrective action when faults occur. For instance, an airline company often gives you their very best service if some trouble occurs. Many companies have taken customer satisfaction as their top priority with a carefully designed customer satisfaction framework. A customer is the most important person for companies. Even if many companies still have deficiencies in their dissatisfaction measurement and feedback, this is not the most important problem, these satisfaction measurements are not good indicators of customer satisfaction. It is important but not enough to know that customers are not dissatisfied. We need to know to what extent they are satisfied or delighted. We also need to know what attribute to improve in order to make our customers even more delighted. That information can be obtained from systematic customer surveys, interviews and focus groups where representative groups from interesting market segment are asked to discuss the quality of products under study.

2.7.1. Distinction between customer satisfaction and service quality

Conceptually customer satisfaction and service quality are two different constructs in extensive literature review. It has been found that there is no consensus, how these two constructs are similar. Dobholker (1993) explained that the concept of customer satisfaction and service quality may be completely separate, partially overlap or be indistinguishable. These are different conceptualizations, which may all be valid and simply based on perspectives. These similarities and differences between constructs are discussed in terms of disconfirmation, transactional verses global perspective, and the inclusion of cognitive and effective factors, the controversies in the conceptualization and addressed. It was also suggested that "casual link between the two constructs be predicted based on situational factors and/or customer differences, rather than being pre-determined by the restricted conceptualization construct (p. 16)", the author also pointed the service quality can be conceptualized as cognitive evaluation, while customer satisfaction be conceptualized as a combination of cognitive and effective factor.

2.7.2. Measuring customer satisfaction

Pizam and Ellis (1999) explained that customer satisfaction measurement (CSM) has two basic roles, providing information and enabling communication with customers. Reasons for measuring customer satisfaction may differ from organization to organization. Naumann (1995: cited in Pizam & Ellis, 1999) however suggested the following five:

- To get close to customer in order to better understand which attributes are the most important to customers and which attributes affect decision making process
 and so on.
- 2. Measure continuous improvement the attributes significant to the customer are linked directly to value added processes in the firm and are put into a form consistent with the internal measurement used to evaluate the process.
 - 3. To achieve customer driven improvements not all customers are an equally valuable source of innovation. This requires creation of a comprehensive database that not only tracks sales, but sources of innovation.

- 4. To measure competitive strengths and weaknesses this is done by determining customer perceptions of competitive choices.
- 5. To link CSM data to internal systems.

Customer satisfaction measurement is a way of evaluating quality. Such ratings are often the most accurate indicator of a company's future profit. Customer satisfaction allows firms to assess product or service performance. Satisfaction can be characterized as a post purchase evaluation of product quality given pre purchased expectations. Once the evaluation stage is over the firm will try to maximize the customer satisfaction and try to reach an optimal level of satisfaction. Having passed through the new millennium, we are now in an age when the customer is "king", perceptions mean everything. The customer attitude towards products or services is the ultimate measure of market success. Therefore, satisfied and repeat customers are the core of any successful business. Over time different scholars have developed various types of customer satisfaction theories. Before we look at these theories, it is essential to understand the concept of "customer satisfaction" clearly. These theories add value to the comprehensive understandability of the readers.

2.7.3. An overview of customer satisfaction theories

Yi (1990) explains the customer satisfaction theories in detail, which are as follows:

2.7.3.1. Expectancy disconfirmation theory

According to this theory, the customer has pre-purchase expectations about the performance of the good or service being purchased. These expectations consist of the customer's beliefs and perceptions. The theory claims that the purchasing process begins with customer expectations and continues till the actual performance has been experienced

(the expectations and the performance is compared). After the comparison, if the two performances in question (expected-perceived) match, than the confirmation occurs. In the case of perceived performance being greater than expected, the result will be positive. On the other hand if perceived performance is less than expected the result will be negative. Disconfirmation on the other hand is simply when expectations and perceptions are not equal (do not match). Disconfirmation usually occurs before satisfaction. Oliver (1980) claims that the judgment of satisfaction is based on:

- 1. Expectations: these include what customers perceived.
- 2. Result of comparison: between expectations and perceived performance.

As a result we see that:

- a) Confirmation and positive disconfirmation leads = Satisfaction,
- b) Negative disconfirmation = dissatisfaction.

In expectancy disconfirmation theory the author argues that a customer's expectation has direct effect on the final satisfaction given by the consumption of the good or service. Anderson and Sullivan (1990) states that expectations and perception of disconfirmation levels have a positive effect on customer repurchase intention. Therefore, expectations create a base for satisfaction. According to disconfirmation the satisfaction level may fluctuate (see figure 2.3).

Figure 2.3: Illustration of the relationship between expectations, perception, disconfirmation and satisfaction



Source: Anderson and Sullivan (1990, p. 127).

Morris (1976: cited in Woodruff, Cadotte, & Jenkins, 1983) claims that a product performance is judged according to individuals' cultural norms, these norms may have a direct effect on perceived performance.

2.7.3.2. Assimilation theory

According to the theory if the result of the comparison between expectations and perceived performance, is close to each other, expectations have an effect on satisfaction. Therefore, when the gap between expectations and performance is small, similarities can be seen between two (Johnson & Fornell, 1991) but the gap must be within acceptance range. In the theory information related with the level of expectations and performances, experiments, and easiness of judging performance are essential elements. Theory claims that individuals are reluctant to accept the new ideas, which are contrary to the ones in their mind. Customers may not be confirming any variations for that reason. So, customers' judgments of assimilation will be parallel to their pre-purchase expectations. They will try to achieve identical or similar outcomes. Anderson and Sullivan (1990) state that perceived

product performance is affected positively from the expected product performance as shown below in figure 2.4.





There's a direct relation between expectations and perceived performance.

27.3.3. Assimilation-contrast theory

This theory claims that there are various latitudes of acceptance and rejections in one's perceptions. Basically, this means that high expectations about the product quality result in more favourable ratings, while low expectations lead to less favourable ratings. However, if the difference between expectations and performance is too large and falls into rejection **cone**, than a contrast fact occurs and consumer magnifies the perceived disparity. This beory suggests that promotional messages need to exaggerate product performance **clightly**, keeping within expectance range in order to prevent a contrast effect. Therefore, we can see that assimilation effect occurs for moderate disconfirmation whereas contrast effect result for large disconfirmation assimilation-contrast theory can explain negative or

Source: Anderson and Sullivan (1990, p. 127).

positive effects of disconfirmed expectations as a function of disconfirmation magnitude, it is difficult to pin point the magnitude necessary for the effect to occur.

2.7.3.4. Cognitive theory

This theory differs from the rest, which describes satisfaction as a static dependent variable. Cognitive theory, on the other hand, claims that satisfaction is a dynamic part of the purchase process and a factor that directly affect the re-purchase intention. Furthermore, satisfaction is an intermediary between pre-purchase and post purchase. The model developed by La-Barbera and Mazursky (1983) shows that consumption of the product is a determinant of the re-purchase intention level. So intention for now (I_T) can be measured by considering previous intention that is a form of adoption (I_{T-1}) , intermediary between pre-purchase intention (SAT)₁, current attitude level (ATT_T).

 $I_T = f(I_{T-1}, SAT, ATT_T)$

The model shows the dynamic side of the customers' satisfaction and dissatisfaction in a consecutive purchase process. Satisfaction is seen to have a great effect on attitudes and assessment of intention. Past purchase intentions affect the next purchase intention. So re-purchase shows the satisfaction while giving up purchase shows dissatisfaction.

2.7.3.5. Cognitive dissonance theory

This theory states that disconfirmed expectations create a state of "dissonance" or psychological discomfort (Frestinger 1957: cited in Yi, 1991). When an individual receives two ideas, which are dissonant he/she will try to reduce the mental discomfort by changing

one or both of the ideas in order to make them more consonant. If a disparity exists between product expectations and product performance, consumers may try to reduce psychological tension by changing their perception of the product. Many studies support this theory (e.g. Cardozo, 1965; Olshavsky & Miller, 1972; and Olson & Dover, 1979: cited in Yi, 1991). However, the problem is that it is difficult to show that disconfirmation arouses dissonance.

2.7.3.6. Equity theory

This theory, well received by psychologists and social scientists, is being used in various customer satisfaction fields. This theory asserts that individuals compare their outcome/input ratios with those of others with whom they are in relationship (e.g. Adams, 1963: cited in Yi, 1991). The basis for comparison is the degree of equity, which customers perceive between what they have received and what the other persons have received relative to their respective inputs. Satisfaction is thought to exist when an individual perceives that the outcome-to-input ratios are fair. Therefore, we can say that during the process of purchase not only customers' expectations and needs are important, but also their time, cost, experiments and other customer expectations and communication is important. According to the theory, money, time, and effort that customer will spend for the purchase process are considered as equity costs. Corresponding benefits are expected to those costs. In other words, customers judge the performance of goods and services purchased with their costs (time, money, effort). If the result is positive; customer has received certain level of performance that he/she deserves. But this fails to provide ultimate satisfaction. For ultimate satisfaction and equity, customer compares her/his comprise results and others that ultimate satisfaction can be achieved.

17.3.7. Comparison level theory

This theory was developed by Thibaut and Kelley (1959: cited in Yi, 1991), suggests that setisfaction guides both pre and post consumption processes. La-Barbera and Mazursky (1983) said that satisfaction occurs from the difference between certain judgment levels encomes of different expectations and improved by interpersonal communication. The beory tries to use today's experience and outcomes to provide a dynamic view in order to evaluate future experiences.

17.3.8. Adaptation level theory

This theory has a dynamic point of view which focuses on repurchase intention in the light of today's satisfaction, plus previous outcomes of experiences. This theory has psychological roots and it claims that past experiments form a background for the judgment of the next experiments.

27.3.9. Attribution theory

According to the theory, positive or negative purchase experiences are related with threedimensional results. These results show how performance of goods and services are bundled in other theories. Oliver and DeSarbo (1988) pointed out these as, causal location, tability, and controllability. The value of satisfaction is based on internal factors rather than externals. Internal factors can be related with effort, and ability, while external ones with chance and inconvenience. So, while satisfaction defines mostly internal factors, pleasure and appreciation defines external ones. Basically internal factors are seen to be more dominant than external ones, while judging the quality of a good or service.

2.7.4. Critical review of customer satisfaction

One of the most critical issues in customer satisfaction research is the nature of the study setting used to model the two constructs. The debate focused on two data generation methods: experimental designs and field surveys, although experiments were a popular study design among many researchers (Bolton & Drew, 1991; Churchill & Surprenant, 1982). Yi (1990) stated that customer satisfaction is central concept in modern marketing thought and practice. Realization of its importance has led to a proliferation of research on the subject over the past decades. Existing studies, however, are divergent in regard to key concepts and their interrelationships, and there is a need for integrating these diverse studies. Parasuraman *et al.* (1988) help researchers to define the issue as follows:

- Perceived quality versus objective quality: Many reserchers have emphasised the difference between objective and perceived quality. Some authors note that consumers do not use the quality of term in the same way as reserchres and marketers, defined it conceptually. The conceptual meaning distinguish between mechanistic and humanistic quality, mechanistic quality involves an objective aspect or feature of a thing or event, humanistic quality involves the subjective response of people to objects and is therefore a higly relativistic phenomenon that differs between judges.
- Quality as attitude: Olshausky (1985: cited in Parasuraman *et al.*, 1988) views quality as form of overall evaluation of a product, similar in many ways to attitude. Holbrook (1985: cited in Parasuraman *et al.*, 1988) concurs, suggesting that quality acts as a relatively global value judgement. Exploratory research conducted by Parasuraman *et al.* (1985) supports the nations that services quality is an overall evaluation similar to attitude.

- Quality versus satisfaction: Oliver (1981: cited in Parasuraman et al., 1988) summarizes current thinking on satisfaction as "satisfaction is a psychological state resulting when the emotion surrounding disconfirmed expectation is coupled with the consumers prior feelings about the consumption experience (p.27)". This and other definitions in literature and most all measures of satisfaction related to a specific-transaction. Oliver (1981: cited in Parasuraman et al., 1988) summarizes the transaction-specific nature and differentiates it from attitude as "attitude is the consumer's relatively enduring affective orientation for a product store or process (e.g. customer service) while satisfaction is the emotional reaction following a disconfirmation experience which acts on the base attitude level and is consumption specific. Attitude is therefore measured in terms more general to product or store and is less situationally oriented (p. 42)". Consistent with the distinction between attitude and satisfaction, is a distinction between the service quality and satisfaction: perceived service quality is a global judgment, or attitude, relating to the superiority of the service, where as satisfaction is related to the specific transaction.
- **Expectations compared to perceptions:** The extensive focus group interview conducted by Parasuraman *et al.* (1985) support the nation that services quality, as percived by consumers, stems from a comparison of what they feel service firms should offer (i.e., from their expectations) with their perceptions of the performance of firms providing the service. Perceived service quality is therefore viewed as the degree and direction of discrepancy between consumers' perceptions and expectations.

2.7.5. Criticisms of customer satisfaction theories

Yi (1991) mentioned that the suggested theories have all explained the effects of expectations and disconfirmation on perceived product performance. They all differ in predicting effects of expectations and disconfirmation, and in specifying the conditions under which the effects are likely to occur. However, these theories all have their pros and cons:

- Expectancy disconfirmation: In a study of flu shots, Oliver (1980: cited in Yi, 1991) found that disconfirmation is positively related to customer satisfaction. Positive disconfirmation (perceived performance above the expectation) increased customer satisfaction while negative disconfirmation (perceived performance below expectation) decreased customer satisfaction. Attitudes were also hypothesized to have a positive effect on customer satisfaction. Bearden and Teal (1983: cited in Yi, 1991) supported the theory, and suggested the adoption level theory as an explanation. Both expectation and disconfirmation were found to have significant affects on customer satisfaction with auto repair service. They used disconfirmation as a moderator variable. So, it is seen that there are mixed antecedents of customer satisfaction suggesting that the effects of expectation, disconfirmation performance and attitudes on customer satisfaction may be more complex than hypothesized by the original expectation-disconfirmation model.
- Comparison level theory: La-tour and Peat (1979: cited in Yi, 1991) criticized the confirmation-of-expectation paradigm because the approach assumes that the main determinant of customer satisfaction is the predictive expectations. They argued that customers past experience and other consumers experience with similar products must be taken into account. La-tour and Peat (1980: cited in Yi, 1991)

conducted a field experiment to test the comparison level theory. They assessed the affects of prior experience, situational-induced expectations, and other consumer's experiences on customer satisfaction. Their results showed that situation ally-induced expectations has little affect on customer satisfaction. While expectations based on prior experience were major determinants of customer satisfaction. This suggests that consumers pay less attention to manufacturer provided information when they have personal experience and information about other consumer's experiences. Swan and Martin (1981: cited in Yi, 1991) also supported the comparison level theory since they found that satisfaction with an automobile was not related to the disconfirmation of (predictive) expectations but the disconfirmation of comparison level.

- Assimilation-contrast theory: Many studies have found that a consumer's perception of product performance is assimilated toward expectations, supporting the assimilation effect (Anderson, 1973; Olshavsky & Miller 1972; Olson & Dover 1976: cited in Yi, 1991). Olshavsky and Miller (1972: cited in Yi, 1991) investigated the effects of both understatement and overstatement of product quality or product ratings. The results support the theory in that the overstatement leads to better ratings while understatement yields less favourable ratings of the product. So, it seems judgment of product performance seems to be displaced toward the manipulated expectations, whether positively or negatively disconfirmed although the assimilation-contrast theory can explain negative or positive effects of disconfirmed expectations as a function of disconfirmation magnitude and it is difficult to pinpoint the magnitude necessary for the contrast effect to occur.
- Cognitive dissonance theory: Support for the dissonance theory has been provided by several studies (e.g. Cardozo 1965; Olshavsky & Miller 1972; Olson & Dover

1979: cited in Yi, 1991). The dissonance Theory and assimilation theory predicts the same effect on expectations. Olson and Dover (1979: cited in Yi, 1991) found that perceptions on product attributes are affected by expectations, and suggested the dissonance theory as an explanation. The problem with the theory is that it is difficult to demonstrate that disconfirmation arouses dissonance.

• Equity theory: Fisk and Young (1985: cited in Yi, 1991) tested the equity theory is a customer satisfaction context. Disconfirmation of equity expectations was experimentally manipulated as means of creating consumer dissatisfaction. In particular, expectations for waiting time and price of an airline service were confirmed or disconfirmed in a factorial design. Results supported the hypothesis that inequity results in dissatisfaction and reduces the intention to repurchase the product, which means that inequitable waiting and pricing led to consumer dissatisfaction.

2.8. Summary of the literature review

The present study explores the conceptual background of the constructs: service quality, structional quality and student satisfaction before its measurement. It explains the models measuring service quality and instructional quality. The concept of zone of tolerance is elaborated in this section. The first section of this paper examined literature to assist author to develop the conceptual framework for this research. This study then presents methodology for the study, including conceptual model and a sound method for conceptual the zone of tolerance and student satisfaction level for higher education.

In short, the assessment of *desired* and *adequate* expectations might be valuable in determining and monitoring service performance and student satisfaction. In addition, this mformation can be used as an internal benchmark to enhance the existing level of service quality. This study therefore draws on Zeithaml *et al.*'s (1993) model in developing its methodology.

CHAPTER 3

METHODOLOGY

3.1. Measures

There are three measures in this study namely: service quality, instructional quality and student satisfaction. Among these measures, *service quality* and *instructional quality* are the multi-dimensional constructs and are independent variables of the study and *student satisfaction* being the dependent variable of the study.

The *service quality* construct is consists of five dimensions: tangibles, reliability, responsiveness, assurance and empathy, whereas, the *instructional quality* construct is consists of nine dimensions: learning values, instructors' enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, exams/grading policies, assignments and workload difficulty.

3.2. The conceptual model

The present study proposes a conceptual model for measurement of zone of tolerance in higher education services for the higher education sector (see figure 3.1). This model expands upon previous work (described above) by incorporating two levels of expectations—desired and adequate. *Desired* expectations represent the level of service that a student hopes to receive from a university—a blend of what a student believes 'can be' and 'should be' offered. This differs from Parasuraman *et al.*'s (1988) conceptualization—hich refers only to what the service 'should be'. *Adequate* expectations represent a lower level of expectation. They relate to what a university student considers to be an 'acceptable' level of performance. Desired expectations are deemed to remain relatively stable over time,
whereas adequate performance expectations may vary with time. The difference between these two levels of service-quality and instructional-quality expectation is deemed the *zone* of tolerance for higher education. The zone of tolerance may be defined as "the extent to which students recognize and are willing to accept heterogeneity" (Zeithaml *et al.*, 1993, p. 6). In the model, predicted service describes the actual service received/perceived by students. It describes the student satisfaction level which should be \geq to adequate service to predict student satisfaction. If it is found to be \leq to adequate service then students are likely to be dissatisfied. The *zone of tolerance* in the model is tested using the dimensions of service quality (SERVQUAL) and instructional quality (SEEQ) scales. Thus students' expectations, rather than having only one level are bounded by upper and lower limits in higher education services.



Figure 3.1: The conceptual model: Zone of tolerance in higher education services

It has been more than a decade since the SERVQUAL and SEEQ instruments were first reported in the literature. Since that time the instruments have been widely used and criticized. Indeed, quite a debate has arisen over how best to measure service quality over the efficacy of SERVQUAL and instructional quality over the efficacy of SEEQ. It is apparent that there is little consensus of opinion and much disagreement over a number of conceptual and operational issues. The purpose of this study is also to review this debate, to identify the key areas of agreements or disagreements, and as a result to identify methodological directions for future research, service quality dimensions (SERVQUAL) and instructional quality dimensions (SEEQ) are tested with a gap analysis (perceptionminus-expectation) verifying that there is any significant difference between expectation scores and perception scores of students in evaluating higher education services.

In the remaining part of the figure 3.1, the present study further describes the conceptual model for the measurement of the perceived service quality and perceived instructional quality with student satisfaction in the higher education sector. In the model, only perceptions of SERVQUAL and SEEQ scales are used, which is also called performance-only approach. The causal analysis is performed with service quality and instructional quality dimensions to predict student satisfaction.

3.2. Sampling

The sample used for the study consists of students studying at Near East University, Niccosia, North Cyprus. The data was collected in May and June 2008. The sample was selected on the basis of a non-probability convenience sampling technique (Aaker, Kumar & Day, 1995). A total of 500 questionnaires were distributed to university students. Of

65

these, 350 questionnaires were returned. In all, 330 questionnaires were found to be useful, which represents a 66% response rate from the original sample of 500.

3.3. Data collection

The questionnaire was based on service expectations ('adequate' and 'desired') and service perceptions and it will follow a three-column format The meaning of service expectations will be briefly explained to all of the respondents prior to the questionnaire being evaluated. There are 59-items in all—22-items for measuring service quality (non-academic services), based on SERVQUAL scale (adapted from Parasuraman *et al.*, 1991, p. 446-449), and 33-items for measuring instructional quality (academic services), based on SEEQ scale (adapted from Marsh, 1982, p. 90-91) and 4-items for measuring student satisfaction (see appendix for survey items). A pilot test was conducted using 50 student responses. As a result of the pilot study, the instrument was reworded for measuring service quality and for the zone of tolerance within the higher education sector. A five-point Likert type scale (Likert, Roslow & Murphy, 1934) was used for data collection, with '1' being 'strongly disagree' and '5' being 'strongly agree'. The survey instrument was back-translated (Aulakh & Kotabe, 1993) for Turkish Cypriot national students. The survey instrument was applied in English to nationalities other than Turkish.

3.4. Data analysis

Descriptive measures such as means, standard deviations, and frequencies were calculated. University students' service expectations (adequate and desired) and service perceptions were measured using the survey instrument described above. Particular measures relevant to this study were defined as follows:

- The zone of tolerance for higher education was calculated as the difference between the desired service and the adequate service.
- The measure of service superiority (MSS) was calculated as the difference between the desired service and the perceived service.
- The measure of service adequacy (MSA) was defined as the difference between adequate service and perceived service.

The conceptual model's dimensions were also calculated with a 'gap analysis' as the difference between perceptions and expectations using paired *t*-tests. Psychometric properties of the scale (such as reliability) were tested, and the dimensionality of the scale was confirmed through an exploratory factor analysis. Regression analysis was performed to produce causal results. The results are computed in light and guidance of Churchill (1979), Hair, Anderson, Tatham & Grablowsky (1979), Norusis (1985) and Nunnally's (1978) proposed methods.

CHAPTER 4

FINDINGS

4.1. Dimensions of the model

The results of exploratory factor analysis demonstrated that the conceptual model's instrument failed to form its particular assumed dimensions—non-academic service quality: tangibles, reliability, responsiveness, assurance, and empathy; and academic service quality: learning values, instructor enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, exam/grading policies, assignment and workload difficulty—both the scales are found to be uni-dimensional. This study maintains the framework of conceptual model as its five dimensions for non-academic service quality and nine dimensions for academic service quality and further reports the dimensionality problem for the following reasons: first, the primary purpose of this study was to demonstrate attitude differences in the zones of tolerance rather than to examine the factor structure of the dimensions, and second, because the Cronbach alphas were comparable to toose found by other researchers, it was exceeding 0.70, a suggested level by Churchill (1979) and Nunnally (1978), thus the five dimensional framework for non-academic service quality was employed.

4.2. Demographics

Table 4.1 shows that most of the respondents were males (59.1%). The majority of the respondents were between the ages of 21 and 25 (82.8%). With respect to education, 89.5% of the respondents were the students of undergraduate programs. Respondents' field of redy was distributed in thirteen faculties and three schools, among them 15.6% students rere from the faculty of engineering. Most of the respondents were in their second year of university education (42.7%). In terms of academic achievement, 30.9% of the students had a CGPA between 3.00-3.49. In terms of respondents' nationality, 28.2% were Turkish Cypriots, and the remaining was categorized as foreigners from various other countries (including Far East Asia, the Middle East, Europe and Africa).

	Frequency (F)	Percentage (%)
Gender		
Female	135	40.0
Male	195	50.1
Total	330	100.0
Age		100.0
20 and below	12	10.7
21-25	42	12.7
26-30	215	82.8
Total	220	4.5
Program of study	550	100.0
English proficiency school	10	2.0
Undergraduate	10	3.0
Masters	295	89.5
Doctorate	13	3.9
Total	12	3.6
Field of study (faculty/school)	330	100.0
English preparatory school	10	
Ataturk faculty of education	10	3.0
Faculty of architecture	31	9.4
Faculty of arts and sciences	33	10.0
Faculty of communication	29	8.8
Faculty of dentistry	21	6.4
Faculty of economics and administrative sciences	9	2.7
Faculty of engineering	44	13.3
Faculty of fine arts and design	51	15.6
Faculty of health and acience	11	3.3
Faculty of law	C	1.5
Faculty of maritime studios	27	8.2
Faculty of martine studies	1	2.1
Faculty of phormacy	9	2.7
school of physical advantian and manta	8	2.4
school of tourism and hotal management	14	4.2
Fotal	21	6.4
A cademic year	100	100.0
First year	40	
econd year	42	12.7
Chird year	141	42.7
Fourth year or above	96	29.1
Fotal	220	15.5
(cademic achievement (CCPA)	330	100.0
lo credite earned	10	
00 or below	10	3.0
00-2 40	12	3.6
150.2.00	84	25.6
00-3 49	12	21.8
50 or above	102	30.9
oral	50	15.1
lotionality.	330	100.0
attonatily		
urkish Cyphols	93	28.2
oreigners	237	71.8
Utal	330	100.0

Table 4.1: Demographic breakdown of the sample (n= 330)

NTHT

4.3. Zone of tolerance for higher education services

4.3.1. Non-academic services

The results in table 4.2 demonstrate that the mean desired service level was higher than the mean adequate service level, and that the mean perceived service level was higher than the mean adequate service level. The respondents' perceived service (as received) was therefore within the zone of tolerance for higher education. When the width of zone of tolerance was examined, the results demonstrated a narrow zone of tolerance (see graph 4.1). Width of zone of tolerance is found to be less than 20% of the point-of-scale used (e.g. 5-point Likert scale). Perceived service level (predicted service) is found to be close to the desired service level, which reflects Zeithaml et al.'s (1993) proposition "the higher the level of predicted service, the higher the level of adequate service and narrower zone of tolerance" (p. 9). MSS is found to be positive and MSA is found to be negative within the zone of tolerance. The MSS was within the zone of tolerance, but the MSA was below the zone of tolerance. The same relationship was found in terms of non-academic service dimensions: tangibles, reliability, responsiveness, assurance and empathy. It can therefore be concluded that the respondents had a narrow zone of tolerance on each dimension of non-academic services. The mean of predicted service level was also higher than the mean of adequate service level, which explains student satisfaction in the model. The reliability (internal consistency) of each service level (expected and perceived) exceeded the suggested level of 0.70 (Nunnally, 1978) in non-academic services, which suggests that the measures [were] free from random error and thus reliability coefficients (Cronbach alpha) estimate the amount of systematic variance (Peter, 1979). The high alpha values indicated good internal consistency among the items, and the high alpha value for the overall scale indicated that convergent validity was met (Parasuraman et al., 1991). The results obtained in this study are therefore reliable.

Table 4.2: Zone of tolerance for non-academic services

	Means	Standard	Cronbach
		deviation	alpha
Adequate service expectations	2.84	0.21	0.89
Tangibles	2.86	0.23	
Reliability	2.81	0.28	
Responsiveness	2.83	0.27	
Assurance	2.87	0.24	
Empathy	2.81	0.27	
Desired service expectations	4.54	0.24	0.72
Tangibles	4.59	0.31	
Reliability	4.51	0.39	
Responsiveness	4.55	0.39	
Assurance	4.55	0.41	
Empathy	4.53	0.35	
Perceived service received	4.20	0.62	0.95
Tangibles	4.19	0.65	
Reliability	4.20	0.70	
Responsiveness	4.20	0.75	
Assurance	4.20	0.70	
Empathy	4.21	0.64	
MSA ^a	- 1.37	0.62	0.94
Tangibles	- 1.33	0.65	
Reliability	- 1.39	0.75	
Responsiveness	- 1.37	0.78	
Assurance	- 1.34	0.70	
Empathy	- 1.40	0.68	
MSS ^b	0.34	0.58	0.90
Tangibles	0.40	0.70	
Reliability	0.31	0.68	
Responsiveness	0.45	0.75	
Assurance	0.34	0.76	
Empathy	0.32	0.65	
Zone of tolerance ^c :	1.71	0.34	0.81
Tangibles	1.73	0.39	
Reliability	1.70	0.54	
Responsiveness	1.72	0.50	
Assurance	1.67	0.50	
Empathy	1.71	0.45	
Student satisfaction	4.27	0.70	0.77

Notes:

^aMeasure of service adequacy (adequate service level – perceived service level) ^bMeasure of service superiority (desired service level – perceived service level) ^cDesired service level – adequate service level





4.3.2. Academic services

The results in table 4.3 also show that the mean desired service level was higher than the mean adequate service level, and that the mean perceived service level was higher than the mean adequate service level. The respondents' perceived service was therefore within the zone of tolerance for higher education. Similarly (as above for non-academic services), width of zone of tolerance is also found to be less than 20% of the point-of-scale used. Perceived service level (predicted service) is found to be close to the desired service level. MSS is found to be positive and MSA is found to be negative within the zone of tolerance. The same relationship was found in terms of academic service dimensions: learning values, instructors' enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, exams/grading policies, assignments and workload difficulty. It can therefore be concluded that the respondents had also a narrow zone of tolerance on each

dimension of academic services. The mean of predicted service level was also higher than the mean of adequate service level, which explains student satisfaction in the model. The reliability of each service level (expected and perceived) exceeded the suggested level of 0.70 (Nunnally, 1978) in academic services as well. The results obtained in the study are therefore reliable.

Table 4.3: Zone of tolerance for academic services

	Means	Standard	Cronbach
	1	deviation	alpha
Adequate service expectations	2.77	0.62	0.96
Learning values	2.63	0.54	
Instructors' enthusiasm	2.57	0.63	
Course organization	2.69	0.73	
Breadth of coverage	2.79	0.82	
Group interaction	2.80	0.76	
Individual rapport	2.83	0.76	
Exams/grading policies	2.82	0.80	
Assignments	2.95	0.84	
Workload difficulty	2.84	0.82	
Desired service expectations	4.61	0.36	0.95
Learning values	4.69	0.38	
Instructors' enthusiasm	4.69	0.39	
Course organization	4.57	0.45	
Breadth of coverage	4.50	0.60	
Group interaction	4.54	0.47	
Individual rapport	4.52	0.47	
Exams/grading policies	4.63	0.54	
Assignments	4.70	0.37	
Workload difficulty	4.63	0.44	
Perceived service received	3.47	0.74	0.93
Learning values	3.44	0.83	
Instructors' enthusiasm	3.38	0.89	
Course organization	3.51	0.85	
Breadth of coverage	3.51	0.87	
Group interaction	3.51	0.83	
Individual rapport	3.45	0.77	
Exams/grading policies	3.38	0.87	
Assignments	3.52	1.05	
Workloaddifficulty	3.55	0.89	
MSA ^a	- 0.70	0.76	0.93
Learning values	- 0.81	0.78	
Instructors' enthusiasm	- 0.80	1.00	
Course organization	- 0.82	1.01	
Breadth of coverage	- 0.72	0.92	
Group interaction	- 0.70	0.96	
Individual rapport	- 0.61	1.00	
Exams/grading policies	- 0.56	0.93	
Assignments	- 0.57	1.23	
Workload difficulty	- 0.71	1.04	
MSS ^b	1.13	0.74	0.94
Learning values	1.24	0.88	
Instructors' enthusiasm	1.30	0.86	
Course organization	1.06	0.90	
Breadth of coverage	1.98	0.97	
Group interaction	1.02	0.88	
Individual rapport	1.07	0.81	
Exams/grading policies	1.24	0.98	
Assignments	1.18	1.09	
Workload difficulty	1.07	0.86	

	Means	Standard	Cronbach
		deviation	alpha
Zone of tolerance ^c :	1.83	0.76	0.94
Learning values	2.06	0.72	
Instructors' enthusiasm	2.11	0.81	
Course organization	1.88	0.98	
Breadth of coverage	1.71	1.01	
Group interaction	1.73	0.99	
Individual rapport	1.68	1.06	
Exams/grading policies	1.81	0.99	
Assignments	1.75	0.99	
Workload difficulty	1.77	0.91	
Student satisfaction	3.86	0.98	0.72

Contd. Table 4.3: Zone of tolerance for academic services

Notes:

Measure of service adequacy (adequate service level – perceived service level) Measure of service superiority (desired service level – perceived service level) Desired service level – adequate service level





Zone of tolerance for academic services

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4.4. Distribution of respondents' values between expectations and perceptions

4.4.1. Non-academic services

Table 4.4 demonstrates that respondents had relatively high expectation scores (mean => 4.60) regarding the non-academic service dimensions. The following items were rated high: 'physical facilities are visually appealing', 'employees are neat in appearance, 'error-free records', 'employees tell you exactly when services will be performed', and 'individual attention'. However, relatively low expectation scores (mean =< 4.50) were found for 'materials associated with service are visually appealing', 'promises to do something by a certain time', 'employees give you prompt service', and 'best interest at heart'. This indicates that respondents were sensitive about tangibles, reliability, responsiveness and empathy dimensions of non-academic services.

As shown in table 4.4, a relatively high respondent perception score (mean \Rightarrow 4.25) was found for 'modern looking equipment', 'physical facilities are visually appealing', 'safe transactions', 'individual attention', and 'convenience of operating hours'. However, there was a relatively low perception score (mean = 4.15) for 'materials associated with service are visually appealing', 'performs the service right the first time', 'behaviour of employees instils confidence in students', and 'personal attention'. The low perception score(s) in the elements of tangibles, reliability, assurance and empathy dimensions of non-academic service quality shows the students' sensitive areas, which needs considerable efforts for improvements.

It should be noted that all the perception scores for all service items for nonacademic services were lower than the expectation scores—implying that all service items suffered from a service-quality shortfall. The largest gap scores (mean => -0.40) were found with respect to tangibles, assurance and empathy dimensions of non-academic services, such as 'physical facilities are visually appealing', 'employees have a neat appearance', 'materials associated with service are visually appealing', 'behaviour of employees instils confidence in students', and 'personal attention'.

The paired-sample *t*-tests (between the respective expectation and perception means of all the items) showed that they were significantly different. The overall negative mean differences indicate that the expected service quality was not experienced by the respondents, and that the quality of service provided by the university did not meet expectations. Nevertheless, the shortfall did not seem to undermine the overall service quality and student satisfaction. The results in table 4.4 show just a reasonable score for student satisfaction (mean = 4.15 and 4.39). It is therefore concluded that the non-academic dimensions of conceptual model are a good predictor of student satisfaction for North Cyprus universities.

Service quality dimensione	Expectations	Perceptions	Gap ^a	t-value
Service quanty unitensions	means (SD)	means (SD)	mean	
Tangibles				
NEU has modern looking equipment				
NEU's physical facilities are visually appealing	4.59(0.49)	4.28(0.82)	- 0.31	5.93*
NEU's employees have a neat appearance	4.70(0.46)	4.28(0.82)	- 0.42	7.90*
Materials associated with the service are visually empedies of NET	4.64(0.48)	4.19(0.88)	- 0.45	8.42*
Reliability	4.42(0.69)	4.00(0.84)	- 0.42	7.77*
When NEU promises to do something by a contain time, it does				
When you have a problem. NEU shows a sincers interest in the	4.40(0.74)	4.21(0.79)	- 0.19	3.69*
NEU performs the service right the first time	4.53(0.63)	4.21(0.91)	- 0.32	5.88*
NEU provides its services at the time it arguments to the	4.52(0.66)	4.13(0.90)	- 0.39	6.96*
NEU insists on error-free records	4.53(0.63)	4.22(0.78)	- 0.31	6.08*
Responsiveness	4.60(0.70)	4.24(0.81)	- 0.36	6.38*
Employees of NELL tell you exactly when comises 111				
Employees of NEU give you prompt convices will be performed.	4.60(0.51)	4.24(0.82)	- 0.36	6.94*
Employees of NEU are always willing to to the	4.50(0.72)	4.17(0.86)	- 0.33	5.83*
Employees of NEU are power tee how the busice of the second	4.54(0.64)	4.21(0.87)	- 0.33	6.10*
Assurance	4.57(0.60)	4.18(0.92)	- 0.39	6.90*
The behaviour of employees of NETTime" of the state of th				
You feel safe in your transactions with NEV instits confidence in students.	4.55(0.60)	4.15(0.89)	- 0.40	7.11*
Funloyees of NEU are consistently and the second states in the	4.55(0.60)	4.26(0.84)	- 0.28	4.85*
Employees of NEU have the lower 1.1	4.56(0.66)	4.22(0.89)	- 0.35	5 98*
Employees of NEO have the knowledge to answer your questions.	4.52(0.64)	4.18(0.81)	- 0.34	6.32*
NELL gives you individual attention				0.02
NEU has operating house converting to U in a l	4.64(0.63)	4.26(0.90)	- 0.37	6.43*
NEU has operating nours convenient to all its students.	4.53(0.72)	4.34(0.78)	- 0.19	3 48*
NEU has employees who give you personal attention.	4.52(0.55)	4.03(0.78)	- 0.49	9.87*
Employees of STELL and the test of the second secon	4.46(0.64)	4.22(0.73)	- 0.25	4 49*
Simployees of NEU understand your specific needs.	4.52(0.64)	4.23(0.76)	- 0.29	5 57*
Summer satisfaction	(0.27	5.51
an nappy from the service quality of NEU.		4,15(0,93)		
overall, I am a satisfied student.		4 39(0 73)		

Table 4.4: Distribution of respondents' values between non-academic expectations and perceptions

Note: SD: Standard deviation, all the standard deviations are in parenthesis; ^aGap mean is defined as perception mean – expectation mean; *t-test (two-tailed) with probability < 0.05

4.4.2. Academic services

Table 4.5 show that respondents had relatively high expectation scores (mean => 4.70) regarding the academic service dimensions. The following items were rated high: 'your interest in the subjects is increasing', 'you learn and understood the subject materials in classes', 'instructors enhance presentations with the use of humour', 'you are encouraged to ask questions and are given meaningful answers', 'methods of evaluating student work are fair and appropriate', and 'required readings /texts are valuable'. However, relatively low expectation scores (mean = < 4.50) were found for 'instructors give lectures that facilitate mking notes', 'instructors contrast implications of various theories', 'instructors present the ackground or origin of ideas/concepts developed in class', 'instructors discuss current evelopments in subjects', 'you are encouraged to participate in class discussions', 'you are nvited to share ideas and knowledge', and 'instructors are accessible to students during office burs or after class'. This indicates that respondents were sensitive about learning values, estructors' enthusiasm, course organization, breadth of coverage, group interaction, dividual rapport, exams/grading policies and assignments dimensions of academic services. The low perception score(s) in the elements of learning values, instructors' enthusiasm, readth of coverage, group interaction, individual rapport and exams/grading policies, Emensions of academic service quality identify the room for improvements.

As shown in table 4.5, a relatively high respondent perception score (mean => 3.60) is found for 'proposed objectives agree with those actually taught so you know where the uses are going', 'instructors present point of views other than his/her own when 'propriate', 'instructors discuss current developments in subjects', 'you are encouraged to the class discussions', 'instructors make students feel welcome in seeking advice in or outside of class', and 'courses pace is fast'. However, there was a relatively

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low perception score (mean =< 3.40) for 'you are learning something which you consider valuable', 'instructors are dynamic and energetic in conducting the courses', 'Instructors contrast the implications of various theories', 'instructors present the background or origin of ideas/concepts developed in class', 'you are encouraged to express your own ideas and/or questions?', 'Instructors have a genuine interest in individual students', 'instructors are accessible to students during office hours or after class', and 'examinations/graded materials test course content as emphasized by instructors'.

Also in the case of academic services, all the perception scores for all service items were lower than the expectation scores—implying that all service items suffered from an instructional-quality shortfall. The largest gap scores (mean => - 1.30) were found with respect to learning values, instructors' enthusiasm, group interaction and exams/grading policies dimensions of academic services, such as 'your interest in the subjects is increasing', instructors are dynamic and energetic in conducting the courses', 'instructors enhance presentations with the use of humour', 'you are encouraged to express your own ideas and/or questions?', 'methods of evaluating student work are fair and appropriate', and 'examinations/graded materials test course content as emphasized by instructors'.

In this case, the paired-sample *t*-tests also showed that they were significantly different. The overall negative mean differences indicate that the expected instructional quality was not experienced by the respondents, and that the quality of instruction provided by the university did not meet expectations. Nevertheless, the shortfall did not seem to indermine the overall instructional quality and student satisfaction. The results in table 4.5 show just a reasonable score for student satisfaction (mean = 3.81 and 3.90). It is therefore

concluded that the academic dimensions of the conceptual model are also a good predictor of student satisfaction for North Cyprus universities.

Instructional quality dimensions	Expectations means (SD)	Perceptions means (SD)	Gap ^a mean	t-value
Exams/grading policies				
Feedback on examinations/graded materials is valuable. Methods of evaluating student work are fair and appropriate. Examinations/graded materials test course content as emphasized by instructors.	4.54(0.75) 4.78(0.55) 4.59(0.64)	3.44(1.10) 3.48(1.09) 3.25(1.25)	- 1.10 - 1.30 - 1.35	15.87* 20.25* 17.63*
Required readings /texts are valuable. Readings, home-works, etc., contribute to appreciation and understanding of the subject. Workload difficulty	4.74(0.44) 4.68(0.52)	3.51(1.26) 3.55(1.19)	- 1.23 - 1.14	17.94* 15.73*
Courses are difficult. Workload of courses is heavy. Courses pace is fast. Significant hours per week are required outside of class to study. Student satisfaction	4.56(0.70) 4.69(0.58) 4.59(0.72) 4.68(0.65)	3.48(1.09) 3.54(1.06) 3.66(0.95) 3.55(1.16)	- 1.08 - 1.15 - 0.93 - 1.14	17.02* 17.03* 16.01* 17.83*
I am happy from the instructional quality of NEU. Overall, I am a satisfied student. Note: SD: Standard deviation, all the standard deviations in the standard deviation.		3.81(1.15) 3.90(1.19)		

Contd. Table 4.5: Distribution of respondents' values between academic expectations and perceptions

Note: SD: Standard deviation, all the standard deviations are in parenthesis; ^aGap mean is defined as perception mean – expectation mean; *t-test (two-tailed) with probability < 0.05

1992; Babakus & Boller, 1992) and sometimes with even ten dimensions (Carman, 1990) or two-dimensional (Karatepe & Avci, 2002; Ekinci, et al., 2003; Nadiri & Hussain, 2005). On the other hand, the present study was unable to identify the previous research which has criticised the dimensionality problem of SEEQ scale.

Dimensions and	Eigenvalue variance	% of variance	Cumulative variance %	Factor loadings
icilis				
Service quality	15.05	45.63	45.63	
When you have a problem	it.0.84	0.00		
TELL performs the service	right the first time.			0.83
You feel safe in your trans	sactions with NEU.			0.82
Employees of NEU give y	ou prompt service.			0.79
VELL gives you individual	attention.			0.79
Employees of NEU are al	ways willing to help you.			0.78
Then NEU promises to d	o something by a certain	time, it does so.		0.78
Employees of NEU are ne	0.78			
EII has operating hours	0.77			
Employees of NEU tell vo	0.75			
Employees of NEU under	0.74			
Employees of NEU are co	0.74			
EII has modern looking	0.73			
ELL insists on error-free		0.73		
Tenlouses of NELL have	0.73			
Employees of NEO nave	0.72			
EU has employees who	0.71			
TEU s physical facilities	0.68			
EU provides its service.	0.67			
ne benaviour of employ	0.66			
EU's employees have a	the cervice are visually	appealing at NEU	J.	0.56
aterials associated with	at at hoart	abbenne arrest		0.56

Notes:

Maiser Meyer - Olkin Measures of Sampling Adequacy: 0.78 p<0.000 Eartlett's Test of Sphericity: 21503.45 mincipal component analyses with a varimax rotation Overall reliability score: 0.93

	Table 4.7: Result	s of exploratory	factor analy	sis for	academic	services s	scale
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Dimensions and items	Eigenvalue	% of variance	Cumulative variance %	Factor loadings			
Instructional quality	11.00	540(
Courses page is fast	11.90	54.20	54.26				
Courses pace is fast.				0.83			
Proposed objectives agree with those octually taught as use to be a set of the set of th							
Proposed objectives agree w	ith those actually taug	ht so you know v	here the courses are going	g. 0.83			
orkioad of courses is heavy	y.			0.83			
student of evaluating student	it work are fair and ap	propriate.		0.82			
and a structors are enthusiastic at	bout teaching courses.			0.81			
instructors present point of v	iews other than his/her	r own when appr	opriate.	0.79			
instructors are irrendly towar	as individual students	•		0.78			
discuss current de	velopments in subject	S.		0.76			
significant nours per week at	re required outside of a	class to study.		0.72			
instructors give lectures that	facilitate taking notes.			0.70			
examinations/graded materials test course content as emphasized by instructors.							
instructors make students feel welcome in seeking help/advice in or outside of class.							
instructors are dynamic and energetic in conducting the courses.							
You are learning something which you consider valuable.							
Tou are invited to share their ideas and knowledge.							
Courses are difficult.							
Instructors' explanations are always clear.							
our interest in the subjects is increasing.							
ou are encouraged to partici	ipate in class discussic	ons.		0.63			
keadings, home-works, etc., o	contribute to appreciat	ion and understa	nding of the subject.	0.63			
instructors' style of presentati	ion holds your interest	during class.		0.62			
ou are encouraged to expres	ss your own ideas and/	or questions?		0.62			
equired readings /texts are v	aluable.			0.60			
rou are encouraged to ask questions and are given meaningful answers.							
instructors present the background or origin of ideas/concepts developed in class.							
astructors enhance presentations with the use of humour.							
nstructors have a genuine interest in individual students.							
nstructors contrast the implications of various theories.							
ou find your courses intelled	tually challenging and	l stimulating.		0.56			
ou learn and understood the	subject materials in cl	asses.		0.54			
eedback on examinations/gra	ided materials is valua	ible.		0.51			
structors are accessible to st	udents during office h	ours or after clas	s.	0.50			

otes:

Kaiser Meyer - Olkin Measures of Sampling Adequacy: 0.93 Bartlett's Test of Sphericity: 6766.86 p<0.000 Principal component analyses with a varimax rotation Overall reliability score: 0.95

4.6. Results of stepwise regression analysis

The final statistical analysis was to conduct a stepwise regression analysis. Since regression analysis is "the technique used to derive an equation that relates the criterion variables to one or more predictor variables; it considers the frequency distribution of the criterion variable, when one or more predictor variables are held fixed at various levels" (Churchill, 1995, p. 887). At the first stage, for non-academic services, regression analysis was used having tangibles, reliability, responsiveness, assurance and empathy as the independent variables and student satisfaction as the dependent variable. The regression analysis was first confirmed by testing the assumptions of normality, linearity, homoscedasticity, and independence of esiduals, revealing that "the residuals are normally distributed about the predictor dependent uriable scores, residuals have straight line relationship with the predicted dependent variable cores, the variance of residuals about predicted dependent variable scores is the same for all redicted scores" and "errors of prediction are independent of one another" (Tabachnick & recell, 1996, p. 136-139). Moreover, there is no evidence of multicollinearity problem since erance values were high (all were higher than 0.50), therefore multicollinearity was not a creat to substantive conclusion of this study. The results in table 4.8 shows that the eccession model significantly predicted student satisfaction with non-academic services ($R^2 =$ F = 108.75, p<0.000). This analyses also indicated that the dimensions of tangibles (β = (30, t = 5.18, p < 0.000) and empathy ($\beta = 0.51$, t = 8.22, p < 0.000) were statistically equificant whereas the dimensions of reliability ($\beta = -0.07$, t = -0.97, p > 0.05), responsiveness = 0.09, t = 1.42, p > 0.05) and assurance ($\beta = 0.03$, t = 0.47, p > 0.05) were statistically resignificant in predicting students' overall satisfaction with non-academic services. seconding to the beta and probability values, higher education authorities should give priority the reliability, responsiveness and assurance elements of service to influence students' effaction in non-academic services.

On the other hand, at the second stage, for academic services, regression analysis was used having learning values, instructors' enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, exams/grading policies, assignments and workload difficulty as the independent variables and student satisfaction as the dependent variable. At this stage, he regression analysis was also confirmed by testing the assumptions of normality, linearity, homoscedasticity, and independence of residuals. Moreover, there is no evidence of multicollinearity problem at this stage as well. The results in table 4.8 shows that the regression model significantly predicted student satisfaction with academic services $(R^2 = 0.58, F = 49.87, p < 0.000)$. This analyses also indicated that the dimensions of instructors' enthusiasm ($\beta = 0.30, t = 5.18, p < 0.000$), course organization ($\beta = 0.83, t = 3.90$, p<0.000), breadth of coverage (β = -0.18, t = -2.53, p<0.000), group interaction (β = 0.24, t = 3.43, p<0.000), individual rapport ($\beta = 0.30$, t = 3.18, p<0.000) and assignments ($\beta = 0.34$, t =3.01, p<0.000) were statistically significant whereas the dimensions of learning values ($\beta = -$ 0.07, t = -1.15, p > 0.05), exams/grading policies ($\beta = 0.17$, t = 1.80, p > 0.05) and workload difficulty ($\beta = -0.29$, t = -1.41, p > 0.05) were statistically insignificant in predicting students' overall satisfaction with academic services. According to the beta and probability values, higher education authorities should give importance to the learning values, exams/grading policies and workload difficulty elements of service to influence students' satisfaction in academic services.

Non-academic services	$R^2 = 0.63$	F = 108.75	p<0.001
Independent variable: Tangibles, re	liability, responsiveness, assu	rance and empathy	
Dependent variable: Student satisfac	ction		
Independent variable	β ^a	t-value	p ^b
Tangibles	0.30	5.18	0.001
Reliability	- 0.07	- 0.97	0.336
Responsiveness	0.09	1.42	0.157
Assurance	0.03	0.47	0.663
Empathy	0.51	8.22	0.001
Academic services	$R^2 = 0.58$	F = 49.87	p<0.001

Table 4.8: Results of stepwise regression analysis

Independent variable: Learning values, instructors' enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, exams/grading policies, assignments and workload difficulty Dependent variable: Student satisfaction

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Independent variable	β ^a	t-value	p ^b
Learning values	- 0.07	- 1.15	0.250
Instructors' enthusiasm	0.30	5.18	0.001
Course organization	0.83	3.90	0.001
Breadth of coverage	- 0.18	- 2.53	0.001
Group interaction	0.24	3.43	0.001
Individual rapport	0.30	3.18	0.001
Exams/grading policies	0.17	1.80	0.073
Assignments	0.34	3.01	0.001
Workload difficulty	- 0.29	- 1.41	0.161

Note:

Standardized coefficient

p<0.05

CHAPTER 5

DISCUSSION AND IMPLICATIONS

In the context of higher education, striving for high quality is not a new strategy. Institutions have always held academic excellence and high quality as the highest goals. Achieving these goals was easier in a time of abundant resources and favourable demographics. The environment has changed. Institutions are facing decreasing enrolments and revenues while costs and competition for students are increasing. Given that higher education is in the service sector, it follows that all these strategies are relevant to higher education, and that higher education institutions should necessarily differentiate themselves from one another by meeting or exceeding their students' service expectations. The importance of this study can be viewed from two dimensions: theoretical and practical. This study fills an important gap in the higher education service quality literature by proposing the conceptual model 'zone of tolerance in higher education services'. The proposed model can be effectively used as a diagnostic tool in the higher education sector. The objective of this study was to describe the range of zone of tolerance for students' service expectations and to determine the level of students' satisfaction with higher education. The findings demonstrate that the conceptual model proposed in the study is reliable. The concept of zone of tolerance helps practitioners to analyse the effectiveness of service quality and to identify problem areas that need improvement (Lo, Cavana & Corbett, 2002).

This study indicates that the measurement of service quality in higher education can reliability be assessed by non-classroom situations (outside class) together with classroom situations (inside class) as non-academic and academic service quality. The measurement

of a zone of tolerance is a reliable new method for determining service variations in higher education. The findings reveal that students have a narrow zone of tolerance-which indicates that these students are not likely to accept heterogeneity in the quality of the services provided by their university. The notion to define a narrow or broad perspective in zone of tolerance is related to its width. If the width of zone of tolerance is found to be less than 20% of the point-of-scale used, it should be considered 'a narrow zone of tolerance'. If the width is found greater than 60% of the point-of-scale used, it should be considered 'a broad zone of tolerance'. In the remaining case of the middle condition, the neutral zone of tolerance exists. The results in figure 5.1 confirm that services can be evaluated according to two different types of expectations-desired and adequate. In other words, students use two different types of expectations (desired and adequate) as a standard of comparison in the evaluation of services. This finding confirms that expectations can be deemed to be antecedents of student satisfaction. The proposition of Zeithaml et al. (1993) with respect to the use of 'desired expectation' and 'adequate expectation' as a comparison standard was supported by the results.





Note:

Mean values are presented in parenthesis (a,b). ^aNon-academic services ^bAcademic services t = t-value *p<0.000 In terms of gap analysis, the findings reveal that the students' perceived a shortfall in both the non-academic and academic service quality provided by the university, implying that these students' expectations of service quality were not met with respect to tangibles, assurance, empathy [non-academic] and learning values, instructors' enthusiasm, group interaction, exams/grading policies [academic] services. Similar shortfall findings were drawn by Lam and Zhang (1998), Ekinci *et al.*, (2003) and Kozak, Karatepe & Avci (2003), Nadiri and Hussain (2005) in their studies. The overall evaluation of service quality in higher education was determined by the both non-academic and academic service quality dimensions of the model in this study.

In this study, a gap analysis measurement scale is an indicator for measuring student satisfaction. As previously noted, some scholars have argued that measurement of expectations does not provide the information necessary for estimating service quality; they argue that a performance-only measure (such as SERVPERF) is a better predictor of service quality (Cronin & Taylor, 1992; Babakus & Boller, 1992; Boulding *et al.*, 1993). In general, previous studies do suggest that a SERVPERF measurement (performance-only approach) is sufficient. However, it has been acknowledged that such an approach limits the explanatory power of service-quality measurement (Parasuraman *et al.*, 1994) because assessment of desired and adequate expectations might be valuable in determining and monitoring service performance and student satisfaction. In addition, this information may be used as an internal benchmark to enhance the level of service quality. This study attempts to diagnose the non-academic service quality of administrative units such as the services provided by the registrar, library, faculty/school offices, rector's office, dormitories, sports centre, health centre etc., and academic service quality of instructors,

courses and content. The findings of this study are therefore important for practitioners in the higher education sector.

This study further investigates the performance-only approach by using regression analysis, taking into account the perceived service received by students for non-academic and academic services. The results in figure 5.1 show that:

- Students are likely to become more demanding in terms of the level of service they consider to be satisfactory. It is obvious from the results that tangibles, empathy, instructors' enthusiasm, course organization, breadth of coverage, group interaction, individual rapport, and assignments dimensions of non-academic and academic service quality are the predictors of student satisfaction in higher education. Higher education authorities should maintain their level of service delivery to keep the students satisfied.
- According to the non-significant beta and probability values found in the results, higher education authorities should give priority to the reliability, responsiveness, assurance, learning values, exams/grading policies and workload elements of service to influence students' satisfaction for non-academic and academic service quality in higher education.

5.1. Management implications

As competition for students has increased in higher education, student retention has received increased attention. Since service quality and student satisfaction are important factors in retention, it is important that universities measure service quality and use the tools of continuous improvement. Coate (1990) reports that "quality is what our customers tell us it is, not what we say it is. Progress can only be determined and improved by

measurement". For higher education institutions, the conceptual model (adapted SERVQUAL and SEEQ instruments) is an initial attempt to measure service quality. The results of this study have a number of practical implications for authorities (university management) seeking to identify the range of tolerance and level of student satisfaction in their respective institutes of higher education. Given that students are likely to become increasingly more demanding in terms of the level of service they consider to be adequate, institutes of higher education will find it challenging to fulfil all of the students' service quality requirements. Further, authorities should also pay attention to the tangibles, assurance, empathy (non-academic) and learning values, instructors' enthusiasm, group interaction, exams/grading policies (academic) components of their offer if they are to improve the quality of their services.

Finally, the gap raises some issues about how authorities should monitor quality and prioritize resources to anticipate students' needs more effectively. Questions might also be asked about the extent to which authorities are really aware of the needs of their students and the methods they employ to assess the ongoing changing needs of students. For nonacademic services, higher education authorities should ensure that employees are well trained and understand the level of service that the university expects to provide for their students. Ensuring that employees are well trained, and paying attention to other factors that are required for the provision of a high level of service quality might incur increased costs, but will result in improved student satisfaction. On the other hand, for academic services, higher education authorities must inform instructors to maintain the delivery of instructional service at adequate level of students' expectations.

5.2. Limitations and avenues for future research

This research has certain limitations: first, the sample in this study is small and is limited to students studying at only Near East University. There are a total of six universities in North Cyprus, other universities should also be included in the sample for further research on service quality in higher education in North Cyprus. Students from other universities in North Cyprus may have different expectations from their respective institutions. Second, this study used non-probability convenience sampling technique, further research may use stratified random sampling technique to provide more sound results (Aaker et al., 1995). Third, the study used 5-point Likert sacle (Likert et al., 1934) for student ratings, however, 7-point Likert scale is more sensitive and may bring interesting results. Forth, this study examined the influence of five factors (non-academic services) and nine factors (academic services) on students' zones of tolerance for higher education. As proposed by Zeithaml et al. (1993), there might be other factors that determine the width of the zone of tolerancesituational factors, advertising, price, retention, and word-of-mouth such as recommendation. Subsequent empirical research should address the impact of these factors on student expectations. Additionally, the students' responses may be influenced by the short-term or underlying characteristic personality or mood (affect). Future studies might investigate the relationship between service quality assessment and mood in a higher education environment. Finally, many issues raised by Zeithaml et al. (1993) remain to be explored-for example, how marketing strategies can be designed to manage adequate service-level expectations, the role of predicted service in influencing how students evaluate service quality, and how the higher education sector can use the zone of tolerance concept to formulate marketing strategies effectively.

5.3. Conclusion

This study provides higher education service quality researchers with useful guidelines for future research that may result in more rigorous theoretical and methodological processes. The terms 'student satisfaction' and 'quality' have been central to the philosophy of the higher education authority, and their importance continues with the promise of a renewed, foreseeable prosperity for the higher education of the future. Nevertheless, higher education research has been instrumental in assisting higher education authorities with valuable knowledge to assist them with their constant pursuit to gain competitive advantage. If a higher education institution is providing improved service quality, it results an increase in student satisfaction. Satisfied and happy students are likely to be motivated in their studies (Elliott & Shin, 2002), which result success and better career opportunities for them, eventually the business sector will demand more graduates from such institutions. Also, satisfied and happy students are likely to recommend their institutions to further students (Navarro, Iglesias & Torres, 2005), which result student retention and eventually attract new students. In other words service quality can influence student recommendations of their program to others, as well as their future monetary contributions in support of their university (Allen & Davis, 1991). One of the important suggestions to practitioners based on present study using the conceptual model's scale (a modified version of SERVQUAL and SEEO scales) is that higher education authorities should maintain service levels according to the students' desired expectations if they are to please them. In addition, the use of an expectation scale (incorporating 'gap theory') provides diagnostic information about the level of service performance from the students' perspective. The use of a zoneof-tolerance method provides useful information to higher education authorities for developing quality-improvement strategies and student recruitment strategies. Although this study was conducted in North Cyprus, we believe that universities in other countries will benefit from these research findings.

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APPENDIX

Questionnaire – English Language

NEAR EAST UNIVERSITY INSTITUTE OF EDUCATIONAL SCIENCES QUESTIONNAIRE OF HIGHER EDUCATION SERVICES

Dear Respondents;

The aim of this study is to describe the zone of tolerance for students' service expectations (desired and adequate) and determine the student satisfaction level through 'non academic services-service quality' and 'academic services-instructional quality' provided by the university.

Important Notes:

Minimum Expected Service: The minimum level of service performance you consider is adequate.

Desired Expected Service: The level of service performance you desire.

Perceived Service: The level of perceived service performance you receive.

All the questions in the questionnaire are open for discussion. The questions do not have nominal scale questions e.g. "Yes" or "No" answers. This research is based on five-point Likert scale, answers will measure the respondents' participation level. As a respondent your identification will stay anonymous. The questions do not keep any record of your identify. All the data will be evaluated by computer as mean of the total. The approximate time for the completion of this questionnaire will take only 15 minutes. Thanking you in advance for filling this questionnaire and wish you all the best.

An example – How to fill the questionnaire?

SECTION I

Please put an 'X' sign for the appropriate answer.

(1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree

Item	Min Ser	nimun vice	n Exp	ected		Desi Serv	red Ex ice	pect	ed		Perceived Service
NEU has modern looking equipment.	1	2	3 X	4	5	1	2	3	4 X	5	1 2 3 4 5 X
In this question respondent marked for "My Minimum Expected Service Level" an	"X" sig	n to c	hoice 1	numbe	r 3, v	which is	"Neut	ral",	"My	Desir	red Expected Service Level"
has an "X" sign to choice number 4, which is "Agree", and "My Perceived Service	Level"	has a	1 "X"	sign to	choi	ice num	ber 5, •	which	h is "S	Strong	gly Agree".

SECTION I: NON-ACADEMIC SERVICES

This section asks you rank the 'service quality level' of administrative units such as services provided by the registrar, library, faculty/department/school offices, rector office, dormitories, sports and health centre etc. in your university.

* Non-academic services (service quality)—is described as the quality of service outside the classroom.

Please put an 'X' sign for the appropriate answer.

(1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree

Items	Minimum Expected Service										Per	ceive	d Ser	vice	
Tangibles												14	1.2.2	- Instanti	1
1. NEU has modern looking equipment.	1	2	3	4	5	1	2	3	4	5		2	3	4	5
2. NEU's physical facilities are visually appealing.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
3. NEU's employees have a neat appearance.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4. Materials (e.g. pamphlets or brochures) associated with the service are visually appealing at NEU.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Reliability															1- 10-
5. When NEU promises to do something by a certain time, it does so.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
6. When you have a problem, NEU shows a sincere interest in solving it.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7. NEU performs the service right the first time.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8. NEU provides its services at the time it promises to do so.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9. NEU insists on error-free records.	1	2	3	4	5	1	2	3	4	5	-1	2	3	4	5
Responsiveness															
10. Employees of NEU tell you exactly when services will be performed.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11. Employees of NEU give you prompt service.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
12. Employees of NEU are always willing to help you.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Items	M Se	inimu rvice	m Exp	pected		De Se	sired	Expe	ected		Pe	rceiv	ed Se	rvice	
13. Employees of NEU are never too busy to respond to your requests.	1	2	3	4	5	1	2	3	4	5	1	2	3	1	
Assurance											(and the second	0.2			0
14. The behaviour of employees of NEU instils confidence in students.	1	2	3	4	5	1	2	3	4	5	10		2		11 - WELL
15. You feel safe in your transactions with NEU.	1	2	3	4	5	1	2	3	4	5	AR STRAN	2	2		5
16. Employees of NEU are consistently courteous with you.						1						4	3	4	5
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
17. Employees of NEU have the knowledge to answer your questions.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	
Empathy														194.5	3
18. NEU gives you individual attention.	1	2	3	4	5	1	2	3	4	5		2	3	A	
19. NEU has operating hours convenient to all its students.	1	2	3	4	5	1	2	3	4	5	1	7	3		D .
20. NEU has employees who give you personal attention.	1	2	3	4	5	1	2	3	1	5	1	4			10 10 10 10 10 10 10 10 10 10 10 10 10 1
21. NEU has your best interest at heart.	1	2	3	4	5	1	2	2		5		4	3	and solution	5
22. Employees of NEU understand your specific needs.				-			4		4	3	Tax .	4	5.	4	5
	1	2	3	4	5	1	2	3	4	5.	1	2	3	4	5

SECTION II: ACADEMIC SERVICES

This section asks you to rank the 'instructional quality level' of the instructors and courses of your university.

* Academic services (instructional quality)—is described as the quality of service inside the classroom.

Please put an 'X' sign for the appropriate answer. (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree

Items	Minimum Expected Des Service Service										Pe	rceiv	ed Se	rvice	
Learning		11100				00	IVICE				17/m (1)		a galla-	Stor The Part	
 You find your courses intellectually challenging and stimulating. 2. 	1	2	3	4	5	1	2	3	4	5		2	3	4	14 14 14 14 14 14 14 14 14 14 14 14 14 1
2. You are learning something which you consider valuable.	1	2	3	4	5	1	2	3	4	5	100 m	2	3	4	
3. Your interest in the subjects is increasing.	1	2	3	4	5	-1.	2	3	4	5	1	2	3	4	
4. You learn and understood the subject materials in classes.	1	2	3	4	5	1	2	3	4	5	1	2	л З	4	5
Instructors' enthusiasm						34 34	10 - S S.	-	- 12-		and the second	and a start of the	A COLORED STATE	Sala and	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
5. Instructors are enthusiastic about teaching courses.	1	2	3	4	5	i	2	3	4	5	1	2	3	4	2.5
6. Instructors are dynamic and energetic in conducting the courses.	1	2	3	4	5	1	2	3	4	5	1	2	3		
7. Instructors enhance presentations with the use of humour.	1	2	3	4	5	1	2	3	4	5		2	3		5
8. Instructors' style of presentation holds your interest during class	1	2	2	4	-						9-11-114 A	172 -			a land
Organization/clarity		4	5	4	3		14	3	4	5	mal ma	2	3	4	5
9. Instructors' explanations are always clear.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
10. Course materials are well prepared and carefully explained.	1	2	3	4	5	1	2	3	4	5		2	3	4	5
11. Proposed objectives agree with those actually taught so you know where the courses are going.	1	2	3	4	5	1	2	3	4	5	1	2	3		5
12. Instructors give lectures that facilitate taking notes.	1	2	3	4	5	1	2	3	4	5		2	2		5
Group interaction						1.8 24	0	1.1.1.2				Carlos and	And and they	North Care	
13. You are encouraged to participate in class discussions.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Items	Mi Sei	nimur rvice	m Exp	ected		De	sired rvice	Expe	cted		Pe	rceive	d Ser	vice	
14. You are invited to share their ideas and knowledge.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
15. You are encouraged to ask questions and are given meaningful answers.	1	2	3	4	5	1	2	3	4	5	- Financia	2	3	4	5
16. You are encouraged to express your own ideas and/or questions?	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Rapport				. 1			1	f		<u></u>	1. 1. 1.	the second second	1 - 7.03	S. 1 15.20180-	21
17. Instructors are friendly towards individual students.	1	2	3	4	5	1	2	3	4	5	I	2	3	4	5
18. Instructors make students feel welcome in seeking help/advice in or outside of class.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
19. Instructors have a genuine interest in individual students.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
20. Instructors are accessible to students during office hours or after class.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Breadth of coverage								1 3 7 7	1		- Scowell	an 25 47 - 5	The Prince	8-1-7-6-9-1	0.255
21. Instructors contrast the implications of various theories.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
22. Instructors present the background or origin of ideas/concepts developed in class.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
23. Instructors present point of views other than his/her own when appropriate.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
24. Instructors discuss current developments in subjects.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Examinations/grading				1		A/	23 1.78 Mar		6	1	124 24 m		and the second s	- R. A. Herry	a state of space
25. Feedback on examinations/graded materials is valuable.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
26. Methods of evaluating student work are fair and appropriate.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
27. Examinations/graded materials test course content as emphasized by instructors.	1	2	3	4	5	1	2	3	4	5	I	2	3	4	5
Assignments	1	1	-1	1			1	_			1- M. S.	and the start is	1 Berthe	1. 1. 1.	1 18 Martin
28. Required readings /texts are valuable.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

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Items	Min Ser	nimur vice	n Exp	ected	-	Des Ser	ired vice	Expec	eted		Per	ceive	d Ser	vice	
29. Readings, home-works, etc., contribute to appreciation and understanding of the subject.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Workload/difficulty															
30. Courses are difficult.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
31. Workload of courses is heavy.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
32. Courses pace is fast.	1	2	3	4	5	i	2	3	4	5	1	2	3	4	5
33. Significant hours per week are required outside of class to study.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

SECTION III: OVERALL SATISFACTION

This section asks you to rank the 'overall satisfaction level' of academic and non-academic services received.

Please put an 'X' sign for the appropriate answer.

(1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree

Items	Perceived Service
Student satisfaction	
1. I am happy with the service quality of NEU.	1 2 3 4 5
2. I am happy with the instructional quality of the NEU.	1 2 3 4 5
3. Overall, I am a satisfied student in regards to service quality.	1 2 3 4 5
4. Overall, I am a satisfied student in regards to instructional quality.	1 2 3 4 5

SECTION IV: DEMOGRAPHICS

Gender

() Female

() Male

Program of study

() Associate degree program

() Undergraduate degree program

() Master degree program

() Doctorate degree program

Academic year

- () First year() Second year() Third year
- () Fourth year or above

Academic achievement (CGPA)

() No credits earned
() 1.99 or below
() 2.00-2.49
() 2.50-2.99
() 3.00-3.49
() 3.50 or above

Nationality

() Turkish Cypriots() Turkish

() Other

(Please specify)

Age

() 20 and below () 21-25 () 26-30 () 31-above

Field of study (faculty/school)

() English Preparatory School () Ataturk Faculty of Education () Faculty of Architecture () Faculty of Arts and Sciences () Faculty of Communication () Faculty of Dentistry () Faculty of Economics and Administrative Sciences () Faculty of Engineering () Faculty of Fine Arts and Design () Faculty of Health and Science () Faculty of Law () Faculty of Maritime Studies () Faculty of Performing Arts () Faculty of Pharmacy () School of Physical Education and Sports () School of Tourism and Hotel Management

Questionnaire – Turkish Language

YAKIN DOĞU ÜNİVERSİTESİ EĞİTİM BİLİMLERİ ENSTİTÜSÜ YÜKSEK ÖĞRENİM HİZMET KALİTESİ ANKETİ

Sayın Cevaplayıcı;

Bu araştırmanın amacı, öğrencilerin hizmet beklentileri (en düşük ve arzulanan) ile ilgili tolerans kuşağını belirlemek ve üniversite tarafından sağlanan "akademik olmayan hizmetlerin kalitesi" ve "akademik hizmetler-öğretim kalitesi" ile ilgili öğrenci memnuniyet seviyesini belirlemesidir.

Önemli Açıklamalar:

En Düşük Seviyedeki Hizmet Beklentim: Düşündüğüm en düşük seviyedeki hizmet performansının yeterliliği. Arzulanan Seviyedeki Hizmet Beklentim: Arzu ettiğim hizmet performansının seviyesi. Algılanılan Hizmet Seviyesi: Algıladığım hizmet performans seviyesi.

Elinizde bulunan anketteki soruların her biri bir yargıda bulunmaktadır. Soruların *doğru* veya *yanlış* diye bir cevabı yoktur. Beşli ölçekler kullanılarak hazırlanan bu sorularda, cevaplayıcıların sorulara *katılım düzeyi* ölçülmek istenmiştir. Cevaplayıcı olarak kimliğinizin gizli tutulması, bu araştırmanın en temel ilkelerinden birisidir. Zaten sizlere kimliğiniz ile ilgili herhangi bir bilgi sorulmayacaktır. Bu araştırmaya ilişkin veriler tamamen bilgisayar ortamında ve toplu olarak değerlendirilecektir. Anketin tahmini cevaplama süresi en fazla 10 dakikadır. Bize zaman ayırdığınız ve anketi doldurmayı kabul ettiğiniz için şimdiden *teşekkür eder*, çalışmalarınızda *başarılar dileriz*.

Örnek Soru-Anket nasıl doldurulacak?															
I. BÖLÜM															
Lütfen aşağıdaki soruları size uygun gelen seçeneğe göre işa	retleyiniz.														
(1) Hiç katılmıyorum, (2) Katılmıyorum, (3) Katılıp katılma	dığımdan emin d	eğilim,	, (4) K	atılıyo	rum ve	e (5) K	esinlik	le katı	lıyorun	n					
Soru	En I Hizi	Düşük net Be	Seviy	edeki m		Arz Hiz	zulana zmet B	n Sevi eklent	yedeki im		Algı Hizı	ladığı net Se	m Etti viyesi	ğim	
YDU, modern görünüşlü ekipmana sahiptir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Bu soruda cevaplayıcı 3 nolu seçeneğin üzerine X işareti koyarak, en düşük seviyedeki beklentisine "Katılıp katılmadığımdan emin değilim", 4 nolu seçeneğin üzerine X işareti koyarak, arzulanan beklenti seviyesine "Katılıyorum" ve 5 nolu seçeneğin üzerine X işareti koyarak da, tecrübe ettiği (yaşadığı) servis seviyesine de "Kesinlikle katılıyorum" şeklinde görüş belirtmiştir.

BÖLÜM I: AKADEMİK OLMAYAN HİZMETLER

Bu bölüm üniversitenin idari birimleri (Ör. Öğrenci işleri, kütüphane,fakülte/Yüksekokul/bölüm idari personeli, tektorlük birimi, yurtlar, spor ve saglık merkezi) taratından sunulan hizmetlerin "hizmet kalite seviyesi"'ni değerlendirmeniz istenmektedir.

• Akademik olmayan hizmetler (hizmet kalitesi) – derslik dışı hizmetlerin kalitesini anlatmaktadır.

Lütfen aşağıdaki soruları size uygun gelen seçeneğe göre işaretleyiniz.

(1) Hiç katılmıyorum, (2) Katılmıyorum, (3) Katılıp katılmadığımdan emin değilim, (4) Katılıyorum ve (5) Kesinlikle katılıyorum

Sorular	En Hi	Düşü zmet]	ik Sev Bekler	iyedel 1tim	ki	Ar Hi	zulan zmet	an So Bekle	eviyed entim	leki	Al Hi Sev	giladı zmet viyesi	ğım İ		
Fiziksel Özellikler												in Manual I	A. harrister and		
1. YDÜ modern görünüşlü ekipmana sahiptir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
2. YDÜ'nun fiziksel imkanları görsel olarak çekicidir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
3. YDÜ'nun çalışanlarının görünüşleri (kılık-kıyafet) düzgündür.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4. YDÜ'nun hizmetle ilgili materyalleri (broşür ve formlar gibi) görsel olarak çekicidir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Güvenirlilik															1 10000 1000
5. YDÜ vaat ettiklerini, belirli bir zaman içerisinde yerine getirmektedir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
6. Karşılaştığınız herhangi bir sorunu çözebilmek için, YDÜ samimi bir şekilde ilgi gösterir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7. YDÜ, ilk seferinde ve doğru olarak hizmetini sunar.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8. YDÜ, servislerini tam olarak sunmayı vaat ettiği zamanda yerine getirir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9. YDÜ, hizmetlerini hatasız olarak sunmaya çalışır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Heveslilik							- <u>*</u>				dan a sta		-langer		SEST AND
10. YDÜ çalışanları, hizmetin tam olarak ne zaman sunulacağı konusunda bilgi verir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11. YDÜ çalışanları, hizmet verirlerken dakiktirler.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
12. YDÜ çalışanları, hizmet vermeye isteklidirler.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Sorular	En Hiz	Düşü İzmet E	k Sevi Beklen	yedek tim	i	Arz Hiz	zulan zmet l	an Se Beklei	viyed	eki	Alg Hiz Sev	ıladığ met iyesi	ţīm		
13. YDÜ çalışanları, hiçbir zaman isteklerime cevap verebilmek için çok meşgul değildirler.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Güven															
14. YDÜ çalışanlarının davranışları müşterilere güven vericidir.	1	2	3	4	5	1	2	3	4	5	1	2	3 Justin	4	5
15. YDÜ ile olan işlemleriniz sırasında kendinizi güvende hissedersiniz.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
16. YDÜ çalışanları, size sürekli olarak nazik davranırlar.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
17. YDÜ çalışanları, sorularıma cevap verebilecek bilgi birikimine sahiptirler.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Empati															
18. YDÜ sizinle bireysel olarak ilgilenir.	1	2	3	4	5	1	2	3	4	5	Land Contraction	2	3.	4	5
19. YDÜ bütün öğrencileri için uygun çalışma saatleri vardır.	1	2	3	4	5	1	2	3	4	5	I	2	3	4	5
20. YDÜ size kişisel ilgi gösteren çalışanlara sahiptir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
21. YDÜ benim için en iyi olanı istemektedir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
22. YDÜ çalışanları, benim tam olarak ne istediğimi anlar.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

BÖLÜM II: AKADEMİK HİZMETLER

Bu bölümde öğretim üyelerinin ve derslerin "öğretim kalite seviyesi" değerlendirmeniz istenmektedir.

• Akademik hizmet (öğretim kalitesi) – derslikler içerisindeki hizmet kalitesi anlatılmaktadır.

Lütfen aşağıdaki soruları size uygun gelen seçeneğe göre işaretleyiniz.

(1) Hiç katılmıyorum, (2) Katılmıyorum, (3) Katılıp katılmadığımdan emin değilim, (4) Katılıyorum ve (5) Kesinlikle katılıyorum

Sorular	En	Düşü zmet l	ik Sev Bekler	iyedel	ki	Ar	zulan	an Se	eviyed	leki	Al	gıladı	ğım l	Hizm	et
Öğrenme	1.000	State -	ound			111	Lince	DEKI	mun	67 X S.	Se	viyesi		- Forth Sanda	2351 18 21
1. Dersleri entelektüel olarak geliştirici ve özendirici bulurum.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
2. Değerli bulduğun şeyleri öğrenmektesin.	1	2	3	4	5	1.5	2	3	4	5		2	3	4	5
3. Konulara olan ilgin artmaktadır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4. Konu ile ilgili materyali sınıf ortamında öğrenir ve anlarım.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Eğitmenlerin İstekliliği						1.200	1 3/3.7	a state of the sta	19		- 4. J	1.20	Section of the sectio		
5. Eğitmenler dersleri öğretmeye isteklidir.	1	2	3	4	5	1	2	3	4	5	1000	2	3	4	5
6. Eğitmenler dersleri yönetmekte dinamik ve enerjiktirler.	1	2	3	4	5	1	2	3	4	5		2	3	4	5
7. Eğitmenlerin anlatım şekilleri/sunumları eğlendiricidir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8. Eğitmenlerin sunum şekilleri derse ilgimi çeker.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Organizasyon/açıklık						15-3	and the second	· Caller	TP ST		and a stand and a stand	A TONY Y	The second	and the second	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
9. Eğitmenlerin anlatımları her zaman açıktır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
10. Ders materyali iyi hazırlanmış ve dikkatli şekilde açıklanmıştır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11. Öngörülen amaçlarla öğretilenlerin uyumlu olması nedeni ile derslerin gidişatını takip etmek mümkündür.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
12. Eğitmenlerin ders veriş şekli not almayı kolaylaştırır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Sorular	En Hi	Düşü zmet	ik Sev Bekler	iyedel	ki	Ai	zular	an Se	eviye	deki	Al	gıladı	iğım l	Hizm	et
Grup Etkileşimi	1		D VILLO			1.1.1	Linci	DERIE	mum		36	viyesi		- The faile	1,222 - 8.
13. Sınıf tartışmalarına katılmak için teşvik edilirsiniz.	1	2	3	4	5	1	2	3	4	5	清	2	3	4	5
14. Fikir ve bilgilerinizi diğerleri ile paylaşmak için yüreklendirilirsiniz.	1	2	3	4	5	1	2	3	4	5	I	2	3	4	5
15. Soru sormak için cesaretlendirilir ve mantıklı cevaplar alırsınız.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
16. Kendi fikirlerinizi ifade etmek ve/veya soru sormak için cesaretlendirilirsiniz.	1	2	3	4	5	1	2	3	4	5	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	2	-3	4	5
Dostça İlişkiler							16 4 50	y 742 *		1	1 2 2 2 2 2	5 11-14-5 11-1	AND AND AND AND AND AND AND AND AND AND	The Barris	12.4
17. Eğitmenler öğrencilere karşı arkadaşça yaklaşır.	1	2	3	4	5	1	2	3	4	5	15	2	3	4	5
18. Eğitmenler öğrencilerin sınıf içi ve dışı ortamlarda yardım ve tavsiye istemek için yaklaşımlarını içtenlikle karşılar.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
19. Eğitmenler öğrencilere karşı gerçekten ilgi gösterir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
20. Eğitmenler öğrenciler için sınıf dışında ve ofis saatlerinde ulaşılabilirdir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Geniş Kapsam						10 10		1-4 - 1	-		- 11a - 21 - 2	3.	17	and the second	
21. Eğitmenler farklı teorilerin uygulamalarını mukayese eder.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
22. Eğitmenler sınıfta fikir/konseptlerin geçmişini ve temelini anlatır.	1	2	3	4	5	1	2	3	4	5	Carlor	2	3	4	5
23. Eğitmenler uygun olan durumlarda kendilerinin dışındaki diğer kişilerin bakış açılarını da anlatır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
24. Eğitmenler konularla ilgili en yeni gelişmeleri de tartışır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Sinavlar/değerlendirmeler(notlama)				1		$\mathbf{z}_{1} \in \mathbb{R}^{n}$	Section 1	1.19.00	2.4.2	CARDON!	- Stall	「「	and the second second	1.19.18	Contraction of the second
25. Sınavlar/notlanmış materyallerle ilgili geri beslemeler değerlidir.	1	2	3	4	5	1	2	3	4	5		2	3	4	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
26. Öğrencilerin çalışmalarını değerlendirme metotları adil ve uygundur.	1	2	3	4	5	1	2	3	4	5	記書を見	2	3	1 34 - 34 - 74	5
27. Sınavlar/değerlendirmeler eğitmenin ders içeriğinde belirttiği konuları ölçer.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Sorular Ödevler/çalışmalar	En Düşük Seviyedeki Hizmet Beklentim			Arzulanan Seviyedeki Hizmet Beklentim				leki	Algıladığım Hizmet Seviyesi						
28. Okunması istenen şeyler yararlıdır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
29. Okumalar, ödevler ve diğer talepler konuların anlaşılmasına ve değerlendirilmesine katkı yapar.	1	2	3	4	5	1.	2	3	4	5	1.1	2	3	4	5
İş yükü/zorluklar				1				115 57-1	2.7.1			1278	當時的	and the state	
30. Dersler zordur.	1	2	3	4	5	1	2	. 3	4	5	1	2	3	4	5
31. Derslerin yükü ağırdır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
32. Derslerin gidişatı (veriliş şekli) hızlıdır.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
33. Sınıf dışında haftalık olarak önemli miktarda çalışma saati gereklidir.	1	2	3	4	5	1	2	3	4	5	1	2	3	4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	5

BÖLÜM III: GENEL MEMNUNİYET

Bu bölüm akademik ve akademik olmayan hizmetlerden "genel memnuniyet seviyesini" değerlendirmeyi hedeflemektedir.

Lütfen aşağıdaki soruları size uygun gelen seçeneğe göre işaretleyiniz. (1) Hiç katılmıyorum, (2) Katılmıyorum, (3) Katılıp katılmadığımdan emin değilim, (4) Katılıyorum ve (5) Kesinlikle katılıyorum

Sorular Öğrenci Memnuniyeti	Algılanan Hizmet Seviyesi
1. YDÜ'nün hizmet kalitesinden memnunum.	1 2 3 4 5
2. YDÜ'nün eğitim kalitesinden memnunum.	1 2 3 4 5
3. Ben hizmet kalitesinden memnun(tatmin) olan bir öğrenciyim.	1 2 3 4 5
4. Ben eğitim kalitesinden memnun(tatmin) olan bir öğrenciyim.	1 2 3 4 5

BÖLÜM IV: DEMOGRAFIK ÖZELLIKLER

() Diğer_

cinsivet	Yaş	
() Bayan	() 20 ve altı	
() Dayan	() 21-25	
() Вау	() 26-30	
	() 21 ve iistii	
Kayıtlı Olduğu Program () Ön Lisans () Lisans () Yüksek Lisans () Püktere	Eğitim Aldığı Alan (Fakülte/Yüksekokul) () İngilizce Hazırlık Okulu () Atatürk Eğitim Fakültesi () Mimarlık Fakültesi () Fen-Edebiyat Fakültesi	
() Doktora	() İletisim Fakültesi	
Akademik Yıl () Birinci Yıl () İkinci Yıl () Üçüncü Yıl () Dört Yıl ve yukarı	 () Diş Hekimliği Fakültesi () İktisadi ve İdari Bilimler Fakültesi () Mühendislik Fakültesi () Güzel Sanatlar ve Tasarım Fakültesi () Sağlık Bilimleri Fakültesi 	
Akademik Başarı (CGPA) () Henüz Kredi kazanmadı () 1.99 ve altı () 2.00-2.49 () 2.50-2.99 () 3.00-3.49 () 3.50 ve üstü	 () Hukuk Fakültesi () Denizcilik Fakültesi () Sahne Sanatları Fakültesi () Eczacılık Fakültesi () Beden Eğitim ve Spor Yüksekokulu () Turizm ve Otelcilik Yüksekokulu 	
Uyruk () Kıbrıslı Türk () Türk	(Tritler holisticie)	

(Lütfen belirtiniz)