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**Doctorate title: “Service Quality Management and Customer Satisfaction in Higher Education”**

**Project title: “Quality of services, customer satisfaction and customer behavioural intention in higher education”**

A project submitted to Middlesex University in partial fulfilment of the requirements

for the degree of

**Doctor of Professional Studies**

By

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**June 2007**

## SUMMARY

For the purpose of this project, a modified SERVQUAL instrument has been used to investigate undergraduate student perception of service quality at Cyprus College by determining if gaps existed in student expectation versus the perception of the actual experiences. The researcher acquired answers for five research questions designed to determine the relationship between service quality, student satisfaction, student behavioural intention, and certain demographic variables (gender, nationality, and number of years at the college).

The population consisted of 1,398 students, which represented the fall 2006 semester enrolment. A cluster sampling methodology was used for the selection of 434 respondents. The researcher has tested the reliability and internal consistency of the survey instrument and it was found to be reliable and have adequate internal consistency. The Cronbach's total alpha was .919.

Each research question was analysed individually using descriptive data for expectation, perceptions, and gap scores. The results of the survey indicated that there was a wide gap between student's perceived performance and expectations in twenty out of the twenty-two measured items. The most problematic dimension appears to be the Empathy and the least problematic the Tangible dimension. The researcher found that gender, nationality and number of years at Cyprus College are of a little value in predicting student's evaluation of service quality. There were, however, statistical and practical significance found in the ANOVAs for each dependent variable. In addition, the researcher has found that respondents, who stated that overall the quality

of service is good or very good, appeared to be satisfied or very satisfied with Cyprus College. The same group of respondents appeared also to be more willing than the rest of the respondents to say positive things about the college and less willing to complain if they experience a problem.

The findings were discussed among the academic and administration leaders of the college and a set of actions were decided and some have been implemented including service related procedural changes, employee motivation and training, and the establishment of a system of continuous assessment. The results that emerged from the study and the discussions can be useful for other institutions which are concerned about their own quality practices.

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## **CHAPTER ONE**

### **INTRODUCTION**

Competitive pressures confronting private higher educational institutions are forcing them to develop operations that are more efficient and pay more attention to student needs. This competitive intensity for students and financial resources challenges the ability of private colleges and universities to survive. Moreover, intensive promotion alone appears not to give an institution the customer orientation needed to attract new students and maintain its existing ones.

Higher education institutions that are sensitive to student needs and expectations, using appropriate customer focus policies can gain an opportunity to distinguish themselves from their competitors. Academic institutions must implement quality improvement strategies, systems and standards, achieving provision of excellent service quality and student satisfaction through systematic measurement of their performance. The latter may lead to high student retention rate and loyalty. This connection led researchers to emphasize quality as one of the most important factors for long-term success of educational institutions (Athiyaman, 1997; Petrouzzelis et al., 2006).

Increasingly higher educational institutions are recognising the need to place emphasis on meeting the expectations of their students through the implementation of management systems and practices such as Total Quality Management (TQM) (Sakthivel & Raju, 2006). With this perspective, the need is evident for a thorough investigation, as the one offered in this study, in

order to measure student perception of quality as well as their satisfaction within higher education institutions in general and Cyprus College in particular. At the same time the results of the study can assist in developing continuous improvement not only in the area of service quality but also on staff, processes and infrastructure. In addition, the findings of the proposed study (if it is repeated on a systematic basis) will assist Cyprus College academic leaders and administrators in tracking quality performance over time, benchmarking and diagnosing the effects of various quality initiatives.

### **1.1 The current scene: Higher Education in Cyprus**

A high level of private entrepreneurship has characterised the Cyprus economy, especially in the last 30 years. The private higher education sector is no exception to this. Private colleges were established in Cyprus as early as the 1960's; where as the University of Cyprus started its operation in the early 1990s'.

The educational system in Cyprus has evolved significantly during the past decades due to the growing need for a more educated workforce but mainly due to the rapid socio-economic development (Shaelou, 2004). Sixty-five years ago, only a very small proportion managed to complete primary school and continue studies. According to the Department of Statistics of Cyprus only 16% of Cypriots used to continue their studies in secondary schools. Throughout the years, secondary education became compulsory. Furthermore, the sustained and continued economic development in Cyprus has created a demanding employment market seeking specialised and well-educated employees. Today school leavers from both public and private

secondary schools total approximately 10,000. Nearly 75% of them continue their studies, 47% abroad and 28% in local higher education institutions (Statistics of Education, 2004/05).

In 2005/2006 out of the 30,000 Cypriot students continuing their education, around 12,700 were enrolled in higher institutions located in Cyprus. Around 60% of this group were enrolled in private higher educational institutions alongside the approximately 6,000 international students. (Ministry of Education and Culture, 2006).

After 1990, there was an increasing trend for Cypriots to attend local higher educational institutions. This resulted in the growth of private higher education in Cyprus, which by 2001 boasted more than 20 private such institutions (SEKAP, 2002).

In 2003, the leading colleges (Cyprus College, Intercollege, Frederick, and Philips) received accreditation for some of their degree programmes. This development helped them to increase their market share and improve their reputation. The market competition, however, continues to be very intense. The competition is expected to become even fiercer because two new public higher educational institutions will begin operating during the next academic year (2007/2008), namely the Technological University and the Open University.

During the academic year 2005/2006, there were 24 private colleges, classified by the Ministry of Education and Culture as private non-university higher education institutions (see Appendix A). These institutions can be divided into two major groups. A distinction is usually drawn between the leading colleges and those remaining. The reason behind this classification

is that the leading colleges are fairly comparable to public higher education institutions in terms of quality of education, number of students and faculty, infrastructure and accredited programmes of study.

The latest development in the area of private higher education in Cyprus was the 2005 passing of law 109 (I), which aims to set up the legal framework for the establishment, and operation of private universities in Cyprus. Cyprus College is one of the five institutions, which has submitted an application to become a university.

## **1.2 Outline of the history and development of Cyprus College**

Founded in 1961, Cyprus College is the oldest higher academic institution in Cyprus. The college currently has around 3,500 students and four schools (The Gregoriou School of Business Administration, The School of Science and Engineering, The School of Humanities and Social Sciences and The School of Arts and Education). Most of the programs offered by the college are accredited, including seventeen bachelor degree programs and one master degree program (as of June 2007).

Cyprus College is going through a period of rapid transformation and development. This development can be seen in the introduction of new programs of study, the increased number of staff and faculty, enrolment growth, organisational restructuring, and the expansion of its facilities. In addition, the application submitted to gain university status has brought about new challenges, which have to do with the implementation of the various aspects of the law.

The Cyprus College's aim is to ensure that these developments will help maintain and improve the quality and high standards of education offered. As the main stakeholder in this project, the college will benefit from its newly acquired knowledge and tools enabling overall improvement in the quality of services and education offered, and assisting in its effort to achieve university status.

### **1.3 Background of the Problem**

The increasing importance of the service sector and the emphasis on service quality is widely acknowledged (Aldridge & Rowley, 1998; Petruzzelis et al., 2006). According to Elliot and Healy, (2001) improved service quality can improve the firm's competitive position and contribute to its success.

Service quality is not something which naturally occurs but rather, directed and managed. The first component of service quality management is gaining an understanding of customer needs and expectations. The second component is establishing a service strategy expressed in policies and procedures which at the same time will reflect the organisation's unique service proposition (Kotler & Armstrong, 2006).

Service quality has evolved into a way of increasing customer satisfaction, targeting the attraction and creation of loyal customers. A study by Jones and Sasser (1995) suggested that loyal customers are not necessarily satisfied, but highly satisfied customers tend to be loyal.



Regarding educational institutions, Low (2000) claimed that a key element in attracting and retaining students is the provision of quality service. For this reason the process of delivering quality service and programmes to students should cover all areas of experience within the institute, especially the interaction of front-line employees (faculty, administration) with students. According to Aldridge and Rowley (1998), perceived quality derives from the consumers' overall evaluation of a service experience. Customer oriented institutions develop a culture of continuous quality improvement, because sustained and consistent quality leads to satisfaction (Harvey, 1995). Allen and Davis (1991) suggested that the topic of service quality in marketing education should be studied and understood thoroughly by both administrators and academicians. It is also important to view service quality from student's perspective.

However, it is not advisable to higher education institutions to rely on student complaints in order to measure student satisfaction because according to Vavra (1997), 50% of customers that experience a problem never complain. From the remaining 50%, the 45% complain only to front line personnel and only 5% of customers complain directly to top management.

Dissatisfied students may withdraw from the institute or they might continue their studies with poor performance. The latter also, reduces profit that an institute would have gained if the student cannot graduate. The process of attracting new customers (students) is more costly than customers' retention (Gemme, 1997; Anderson & Mital, 2000). Additionally, dissatisfied students are unlikely to recommend the educational institute to potential customers; on the contrary, via 'word of mouth' they will pass their unpleasant experiences to their social circle. Dissatisfaction in combination with possible poor student performance could negatively

impact the image of an educational institution, one of the most important criteria that students use when selecting one to attend (Parker et al., 1989).

For the needs of this project, a service quality measurement tool referred to as SERVQUAL developed by Parasuraman et al. (1988) was utilised. The SERVQUAL defines customers' satisfaction as the gap between customers' expectation and actual performance (perceived quality). If the actual performance is lower than the expected one, customers become dissatisfied and if the actual performance is higher than the expected one, customers become satisfied.

The measurement of perceived quality is used to examine if the actual service provided is perceived satisfactorily by students, and for evaluating the degree of success in implementing plans, policies and strategies targeting customer satisfaction. The results of such a survey would provide information, which can be used by academic institutions to identify the areas that students perceive as important and those requiring improvement.

The highly competitive educational environment, which exists in Cyprus, is an additional factor which necessitates the need for such a study. The competition for the private colleges comes from not only the local public higher educational institutions but also from foreign institutions, mainly in Greece and the UK and to a lesser extent the USA and Eastern European countries. Moreover, during the last decade, distance and online studies have evolved significantly, especially for graduate degree programs.

Today private colleges in Cyprus are faced with unprecedented challenges:

1. Two additional public universities will start operating during the next academic year (2007/2008).
2. The local public Universities and the Greek public universities, which attract most of the Cypriot students, charge no tuition to their undergraduate students. The large private colleges charge on the average CYP 4000 per academic year. This amount is higher than the amount paid by Cypriot students who study at British universities.
3. The classification of private colleges by the Ministry of Education and Culture as non-university higher education institutions influences negatively their image.
4. The number of high school graduates in Cyprus has remained rather stable over the last few years (around 10,000) (Source: Department of Statistics and Research).
5. The colleges undergoing the evaluation process in order to become universities have to implement structural and operational changes in order to comply with the requirements of the relevant law. The implementation of the law requires costly improvements in infrastructure and the hiring of additional, especially senior academic personnel.

All the factors outlined have forced Cyprus College and the other private colleges to become concerned with quality management issues both in the area of education and services offered to their students.

This section has pointed out the usefulness of the research for Cyprus College, markedly towards its effort in becoming a private university. The primary objective of the current

project is the measurement of the degree of student satisfaction with the level of service quality offered to students by the college. Furthermore, it aims to develop a resource allocation strategy and processes, which could potentially contribute to the maximisation of student satisfaction. Finally, the study aims to identify the dimensions of service quality and the relationship between satisfaction and behavioural intention.

This project attempts to evaluate service quality at Cyprus College from the perspective of ongoing students. It is also the opinion of the researcher that data on the impact of service quality in Cyprus higher education is presently lacking and requires further study.

#### **1.4 Theoretical Foundation**

Quality is a major concern for many organisations, and it is viewed as an essential part of their business plans in order to be better equipped to handle the challenges of the increasing competitive environment (Samat et al., 2006). Among other practices, organisations increasingly focus on the development and implementation of total quality systems. The Total Quality Management (TQM) concept does not measure customer satisfaction directly but it is relevant in developing both visionary leadership and organisational structures which are very important for quality service (Gupta et al., 2005; Samat et al., 2006).

Due to the increasing importance of the service sector, mostly in developed economies service quality research has taken a permanent role in service marketing; it also serves as an indicator of customer satisfaction and organisational performance (Russel, 2005; Seeman & O'Harra, 2006). One area in the service marketing literature that has received considerable

attention is the conceptualisation of service quality (Churchill & Supremant, 1982; Lehtinen & Lehtinen, 1982; Grönroos 1988; Brown & Swartz, 1989; Oliver & Swan, 1989a, 1989b; Bolton & Drew, 1991a, 1991b; Babakus & Boller, 1992; Bateson, 1992; Cronin & Taylor, 1992, 1994; Oliver, 1993; Zeithaml et al. 1993, 1996; Kamvounias, 1999; Sureshchandar et al., 2001; Russel, 2005;)

Parasuraman et al. (1985) found through the use of focus groups that consumers clearly support the idea that good quality service takes place when the service is meeting or exceeding what consumers expect. Also Zeithaml et al. (1990) stated that customers evaluate service experiences and the delivery process to form perceptions of service quality.

Based on this conceptual definition of service quality Parasuraman et al. (1988) developed a service quality model that resulted in SERVQUAL. The SERVQUAL instrument is designed to measure customer perceptions of service quality along five dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy).

For this study, it is assumed that the size of the expectation/perception gap would be inversely related to customer's level of satisfaction. Evidence has shown that customer satisfaction and service quality perceptions affect consumer behavioural intention in a positive way, such as praising the firm, preferring the company over others, increasing their volume of purchase and/or agreeably paying a price premium (Zeithaml & Bitner, 2000).

A survey instrument designed to measure behavioural intention will be utilised. The instrument was adopted taking into consideration the work of various researchers such as Parasuraman et al. (1985, 1988, 1990, 1991a, 1991b, 1994a, 1994b), Ruby (1998), Zeithaml et al. (1996), Combs & Mathaisel (2000), Kerlin (2000), Yu & Dean (2001), and White & Yu (2005).

### **1.5 Purposes and Value of the Project**

The underlying aim of this project is to establish a statistically valid and reliable conceptual and methodological framework to enable the analysis of the relationship between expectations and perceptions of service quality; three interrelated dependent variables were measured: service quality, student satisfaction and student behavioural intentions. A survey instrument has been utilised to establish the mechanism which will help Cyprus College management to increase student satisfaction, retention and loyalty; moreover, the findings could benefit other private academic institutions in Cyprus and abroad.

The purpose of this study consists of the following four parameters:

1. Explore service quality in the context of education.
2. Establish a reliable and valid service quality measurement instrument for evaluating service quality and student satisfaction in higher education.
3. Evaluate the relationship between service quality, customer/student satisfaction and customer/student behavioural intentions in the context of higher private education in general and Cyprus College in particular.

4. Provide a set of recommendations for the establishment of a service quality monitoring and improvement system within the higher education setting not only for Cyprus College but also for other similar institutions within and outside of Cyprus.

More specifically, the value of the proposed project and its contribution to knowledge evolves around the following two axes:

### *Theoretical Value*

1. The study aims to provide a theoretical framework for service quality measurement in the context of private higher education in general and Cyprus College in particular. The results will be disseminated to academic and professional audiences through publications in international academic journals and presentations at academic conferences.
2. The study intends to investigate and identify the degree of attention paid in the literature to the higher education sector, in terms of quality management.
3. The study seeks to evaluate service quality models and their application within the context of higher education and to assess their performance.

### *Practical Value*

1. The proposed methodological models/frameworks enable the identification of the dimensions constituting the service quality construct. This, in turn, will assist the top management of Cyprus College to concentrate on succinct areas for improvement.
2. Establish a reliable, valid and concise service quality measurement instrument and methodology for continuous assessment of service quality at Cyprus College.
3. Examine the relationship between the satisfaction of students (deriving from the provision of services) and their behavioural intentions.
4. Derive a set of recommendations for service quality improvement at Cyprus College.
5. Investigate empirically, the extent to which service quality can contribute towards the formulation of student retention strategies; it is a very important strategic issue for Cyprus College and any other educational institutions.

The findings will be disseminated to the college management through presentation and distribution of the final report, which will also include recommendations for further actions.



## **1.6 Research Objectives**

Parasuraman et al. (1988,1991a) contend that SERVQUAL will indicate where the positive or negative gaps in customer satisfaction lie, thereby assisting managers to identify the strengths and weaknesses of their organisation and service and to take corrective actions accordingly.

The set of research objectives directed towards this effort are the following:

1. To identify gaps between students expectation levels of service and their perceptions of service quality performance.
2. To identify the differences in student expectations of service quality based on students' personal characteristics.
3. To identify the differences in student perceptions of service quality based on student's personal characteristics.
4. To identify the differences in the gaps between expectations and perceptions based on student's personal characteristics.
5. To find out the relationship between service quality, student satisfaction and student behavioural intention.

The formulation and the investigation of the last research objective is based on the relevant published work of Zeithaml et al. (1996), Liljander and Strandvik (1997), Yu and Dean (2001), and White and Yu (2005).

### **1.7 Assumptions and Limitations**

The study population is limited to undergraduate students registered in the academic programs of Cyprus College who have been students of the college for at least one semester/term before the survey. As such, the results of this study cannot be generalised to other groups or to students of Cyprus College who are registered in other programs (e.g. graduate programs and programs which lead to professional qualifications) or to students at any other time than the period that the study took place. It is also assumed that the students surveyed were representative of the defined population.

The definition of the population was based on the assumption that these students had a more informed idea about what their expectations and perceptions were. In addition, it was assumed that these students were able to express their behavioural intentions freely. Finally, the results of the study were limited to the validity and reliability of the survey instrument.

## 1.8 Definition of Terms

**Disconfirmation:** Refers to the discrepancies between expectations and performance. Performance above standard is referred to as positive disconfirmation, while a performance below standard is referred to as negative disconfirmation (Oliver & Swan, 1989a).

**Expectations (E):** Refers to 'how' or 'what' individual customers feel the service provider 'should', not 'would', offer (Parasuraman et al., 1988).

**Perceptions (P):** Refers to customers' beliefs concerning the service received (Parasuraman et al., 1988).

**Perceived Quality:** Viewed as the degree and direction of discrepancy between consumers' perceptions and expectations (Parasuraman et al., 1988).

**Service Quality:** An attitude, a multidimensional construct composed of differences between perceptions (P) and expectations (E), producing the following equation,  $Q=P- E$  (Parasuraman, et al., 1988).

**SERVQUAL:** A research instrument developed and refined by Parasuraman, et al., (1988, 1991a) for measuring service quality from a customer's perspective. For the purpose of this study, the instrument used was modified to meet the needs of an educational setting.

**Gap Analysis:** A research model designed to measure service quality using the gap between expectations and actual experience of a service transaction (DiDomenico & Bonnicci, 1996).

**Consumer Satisfaction:** A value judgement on the purchase and use of a service and the comparison of the rewards and costs of the purchase of the service (Parasuraman et al., 1993). The level of satisfaction is determined by the gap between actual experiences and expectations of the consumers (Parasuraman et al., 1988). According to Cronin and Taylor (1992), there is a positive correlation between service quality and customer satisfaction.

**Consumer Dissatisfaction:** Could lead to consumer-complaining behaviour. In such a case the consumer might seek redress from the seller, engage in negative word-of-mouth communication, or take legal action against the seller. (Zeithaml et al., 1996).

**Behavioural Intentions:** Takes place when consumers say positive things, recommend the company, remain loyal to the company, give more money to the company and pay price premium or say negative things, switch to another company, complain to external agencies or do less business with the company. Behaviour intentions may be viewed as indicators that signal whether customers will remain with or defect from the company. Behavioural intentions are individual-level behavioural consequences of service quality (Zeithaml, et. al, 1996).

## **1.9 Project Structure**

Chapter One presents an overview of the educational environment in Cyprus, the background of the problem, the theoretical framework of the study, the purpose and value of the study, the research objectives as well as its limitations and underlying assumptions, and definitions of important terms used in this study. Chapter Two provides a comprehensive literature review of relevant concepts and service quality theory used to support this study. More specifically, Chapter Two provides a review of the literature, which relates to the subject of quality management, service quality, customer satisfaction and behavioural intention, the service quality models and literature relevant to service quality and customer satisfaction in the content of the higher educational environment. Chapter Three outlines the research design, research questions, sampling frame and methods, data collection procedures, instrumentation, validity and reliability issues, and data analysis methods. Chapter Four provides a presentation and analysis of the data. Finally, Chapter Five provides discussion and recommendations resulting from the study.

## CHAPTER TWO

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter examines the theoretical foundation upon which the project is based. Through the review of the relevant literature, (including concepts and instruments of service quality theory), the researcher intends to broaden the understanding of 'service quality, customer satisfaction and behavioural intention'. In addition, the achieved knowledge and understanding of these concepts are very valuable tools for the understanding, development and implementation of strategies, and the impact these strategies have in creating satisfied customers.

The literature review takes into account the need for quality in higher education and makes reference to quality management practices in general and their application to the education environment. Service quality is also examined with an emphasis on the work of some of the early researchers regarding the discrepancies between prior expectations and actual performance.

Reviewed in addition are the theoretical and methodological contribution of the work of Parasuraman et al. (1985, 1988, 1990, 1991a, 1991b, 1991c, 1993, 1994a, 1994b, 1997, 2000), the SERVQUAL model, the gap analysis and the literature related to the relationship between service quality, customer satisfaction and behavioural intention (Zeithaml et al., 1996; Liljander & Strandrik, 1997; Yu & Dean, 2001; White & Yu, 2005). The final part of the literature

review focuses on the studies in higher education using gap analysis methodology or the SERVQUAL model.

## **2.1 The Need for Quality in Higher Education**

The concepts *academic excellence* and *high quality* are not new concepts in higher education. In many European countries, the issue of quality in higher education institutions has always been in the agenda especially recently within the Bologna Process. What is also not new is the rapidly changing internal and external environment in which institutions operate and the changing public and professional perception of what makes a quality institution. However, according to Backet and Brooks (2006) colleges and universities today are under increasing pressures because of both external and internal factors, such as:

- The growing climate of accountability, principally for public universities;
- The expansion in the size of student population;
- The increasingly diverse student population resulting from targeting international markets and from widening student participation;
- The increasingly competitive environment;
- The greater expectations of students as paying customers;
- The more flexible provisions at both undergraduate and postgraduate levels; and
- The increase in collaboration among higher education institutions.

Moreover, many independent private colleges and universities with student tuition as their main source of income find their survival threatened by rising costs as they struggle to recruit and retain students.

The environmental trends outlined left higher education institutions no option but to move more and more towards the 'business' orientation of management in the higher education sector (Chan, 2001). For many academic institutions, education is no longer seen as 'civil right' but as a consumer good or investment (McVicar, 1996). However Michael (1997) points out that the administrators in the higher education sector must recognize that it is only the administrative or business aspects of higher education, and not the academic aspect that have similarities to the business sector.

Appealing to the decision makers of higher education are the new approaches and practices in management borrowed from business practices as they see the necessity to reform the higher education system in order to handle more effectively the needs and expectations of the community and the students. In addition, increasing use of quality assurance systems in higher education setting has made an impact in the areas of administration, teaching and research (Sirvanci, 2004; Mizikaki, 2006). The quality assurance (e.g. Quality Assurance Agency [QAA] in UK) and accreditation systems (e.g. Council of Educational Evaluation-Accreditation [CEEA] in Cyprus) implemented by various countries and/or through international agreements, the Bologna Process, and the European Association for Quality Assurance in Higher Education (ENQA) have also brought new dimensions in the area of quality management and quality assurance in higher education in Europe.

Most institutions today are challenged to seek new students aggressively, while these same students more than ever before have a greater selection of universities and colleges to choose from (Mergen et al., 2000; Seeman & O'Hara, 2006). This new competitive marketplace in higher education has promoted an increasing interest in the issue of quality in education. In response to



economic and competitive threats as well as accrediting requirements, many universities have initiated quality efforts including TQM. Therefore, it is relevant to review the TQM theory and examine literature related to TQM application in higher education.

## **2.2 Quality Management**

Immediately following War World II, American and Japanese were the first to contribute to development of quality management systems. More specifically Deming, Juran, Crosby and Feigenbaum were in the forefront.

The first quality movement, however, can be traced to the year 1931 when Shewart published 'Economic Control of Quality of Manufactured Products.' This publication introduced for the first time a precise and measurable definition of manufacturing control, presented techniques for monitoring and evaluating day-to-day production, and suggested a variety of ways to improve quality (Garvin, 1988).

During the late 1930s and early 1940s, Deming introduced the vital role of top management in the quality process. Deming believed that without top management support, the quality process would not succeed (Aguayo, 1990). Deming's (2000) philosophy is captured in his Fourteen Points of quality management, Table 2.1.

**Table 2.1: Deming's Fourteen Points**

1:	Create constancy of purpose for improvement of product and service
2:	Adopt the new philosophy
3:	Cease dependence on mass inspection
4:	End the practice of awarding business on price tag alone
5:	Improve constantly and forever the system of production and service
6:	Institute training
7:	Institute leadership
8:	Drive out fear
9:	Break down barriers between staff areas
10:	Eliminate slogans, exhortations, and targets for the work force
11:	Eliminate numerical quotas
12:	Remove barriers to pride of workmanship
13:	Institute a vigorous program of education and retraining
14:	Take action to accomplish the transformation

Juran was another scholar who contributed to the quality management movement. Juran (1988) developed what he called the 'quality trilogy.' The quality trilogy consists of three parts: 1) *quality planning*: the process for preparing to meet quality goals, 2) *quality control*: the process for meeting quality goals during operation, and 3) *quality improvement*: the process for breaking through to unprecedented levels of performance (Juran, 1988). According to Juran to implement the quality trilogy successfully top management must be heavily involved, establishing quality policies and goals, deploying the goals, providing necessary resources, and problem-oriented training, reviewing progress, stimulating improvement, and giving recognition.

Another leader in quality control, Crosby defined quality as any product that consistently reproduced its design specification, leading to lower manufacturing and service costs through savings in rework, scrap, and warranty expenses. Crosby emphasised the necessity of prevention rather than inspection on completed products. He also believed that competitive success was the result of a top management commitment to continuous improvement in market research, product development, and design, production, customer service, and management practices (Evans & Lindsay, 1969). Crosby introduced a 14-step program, which emphasised prevention over detection, and focused on changing culture rather than on analytical or statistical tools (Table 2.2).

**Table 2.2: Crosby's Fourteen Steps**

Step 1:	Management Commitment
Step 2:	Quality improvement Team
Step 3:	Quality Measurement
Step 4:	Cost of Quality Evaluation
Step 5:	Quality Awareness
Step 6:	Corrective Action
Step 7:	Establish an Ad Hoc Committee for the Zero defects program
Step 8:	Supervisor Training
Step 9:	Zero Defects Day
Step 10:	Goal Setting
Step 11:	Error Cause Removal
Step 12:	Recognition
Step 13:	Quality Councils
Step 14:	Do it over again

Feigenbaum (1991) introduced the term Total Quality Management (TQM), explaining that everyone within the organisational structure from top management, to the last worker has to be involved in quality control.

Moreover, Crosby (1979), Deming (1986), Juran (1988), and Feignbaum (1999), stress the importance of satisfying customers, both internal and external. The internal customers are those who participate in the manufacturing or service delivery process and the external customers are the user, the supplier, and society at large. Throughout the literature, TQM emphasises customer satisfaction, employee involvement, and continuous quality improvement. Each factor must be present in order for the application to work effectively (Crosby, 1979; Deming, 1986; Feigenbaum, 1991; Juran, 1988).

According to Douglas and Fredendall (2004), despite the fact that service organisations are large and important segments of world economies, the implementation of service quality management practices is not as well developed as those in the manufacturing domain. The theoretical foundations of TQM, however, reveal that it can be used equally successfully by both manufacturing and services.

By the end of the 1980's, higher education institutions had begun to be influenced by the experiences of business and industry in their use of quality principles resulting in the quality movement in several higher education institutions. The first three institutions to implement the TQM principles were Northwest Missouri State University in 1984, Fox Valley Technical College in 1986, and Oregon State University in 1989 (Freed et al., 1997).

Interest in the quality movement exploded during the 1990's when a large number of universities tried to implement quality management in an attempt to take measures to improve their operational effectiveness. The measures included the implementation of quality assurance practices based on international standard ISO –9001 for Quality Management Systems in Education and Training, Total Quality Management (TQM) and Business Excellence based on awards criteria (Srikanthan & Dalrymple, 2003). In addition, there are national quality standards such as the Malcolm Baldrige National Quality Award (MBNQA) in the United States and the European Foundation for Quality Management (EFQM) Excellence Award, with more emphasis on continuous improvement and process rather than on outcomes (Carlo-Mora et al., 2006; Hides et al., 2004).

Marchese (1993), Mergen et al. (2000) and Sirvanci (2004) noted that TQM in higher education implies focusing on customers, adopting a philosophy of continuous improvement, managing by fact, using benchmarking, emphasising people, and adopting appropriate structure. In other words, TQM focuses on a process that aims at improving customer satisfaction and organisational efficiency.

The adaptation of total quality strategies has created however substantial controversy. Although some argue that total quality strategies are compatible with higher education purposes and add value to the institutions implementing them (Srikathan & Dalrymple, 2003; Backet & Brookes, 2006; Sirvanci, 2004), other researchers argue that total quality strategies can only be implemented in the area of administrative operation and not on core functions of teaching and learning (Chaffe & Sherr, 1992; Harvey, 1995b).

Based on these views, it appears that TQM in relation to higher education has to be viewed from two perspectives:

- The service to the student body from academic and general administrative functions.
- Teaching and learning functions.

Over the years, the literature review on the implementation of TQM in higher education has focused primarily on administration, faculty, and staff issues of quality satisfaction (Deming, 1994; Srikathan & Dalrymple, 2003; Backet & Brookes, 2006). It also appears that most higher education institutions implement TQM in the business and administrative areas, leaving academic issues for later (Chaffe & Sherr, 1992).

## **2.3 Service and Service Quality**

### **2.3.1 Service**

Services have grown dramatically in recent years in Cyprus and in all developed countries around the globe. In 2005, services for example accounted for 76.5% of Cyprus gross domestic product (GDP) and nearly 72% of the active workforce was employed in the service sector (Central Bank of Cyprus, 2005).

One of the earliest definitions presented by Rathmell (1966) stated that services are behavioural rather than physical entities, and have been described as 'acts, deeds, performance, or efforts'. Kotler and Armstrong (2006) defined service as an activity or benefit that one party can offer to another that is essentially intangible and does not result in the

ownership of anything. Similarly, Lovelock and Wirtz (2007) presented service as an economic activity offered by one party to another, typically without transfer of ownership, creating value from rental of, or access to, goods, labour, professional skills, facilities, network or systems singly or in combination.

The differentiation between goods and services are intangibility, perishability, inseparability of production and consumption, and heterogeneity (Parasuraman & Grewal, 2000; Lovelock & Wirtz, 2007). According to Hill (1995) intangibility is an element of service, which cannot be grasped mentally, thus making it difficult for both providers and consumers to fully comprehend because on one hand, the providers find it difficult to differentiate their offerings from those of competitors; on the other hand, consumers have a difficult time evaluating a service prior to its acquisition and consumption.

In addition, unlike physical goods, services can be consumed only as long as the consumer remains in the process. When the activity or process stops, the service ceases to exist. Thus, this indicates that services cannot be stored like physical goods but are perishable. Services are also consumed at the time they are produced, but there is no transfer of ownership. However, the consumer is an integral part of the service process. The human interaction and the labour intensity involved in the delivery of most services, makes them heterogeneous, as each service process is unique. This causes a lack of standardisation, which means that service quality can vary substantially from one service conduct to the next (Berry et al., 1985, 1991).

Another aspect of services is that in many instances consumers are part of the service delivery process. As a result, the consumer contributes directly to the quality of the provided service, and to his/her own satisfaction or dissatisfaction (Mills et al., 1983).

Higher education possesses all the fundamental characteristics of a service. Educational services are intangible, heterogeneous, inseparable from the person delivering them, simultaneously produced and consumed, and perishable, and the customer (student) participates in the delivery process (Darlaston-Jones et al., 2003).

Furthermore, Russell (2005) indicated that higher education institutions are recognising that they operate within a service industry setting and, as a sector, have begun placing more emphasis on meeting the expectations and the needs of its customers, that is, the students. Despite the fact that customers for the services of a higher education institutions may fall into five groups: the students, the employees, the employers, the government and the public sector, and the industry and wider community (Kanji & Tambi, 1999), the primary customers are the students (Hill, 1995; Wallace, 1999). Although it is generally assumed that students are the customers of the institutions that they attend, the situation is much more complicated. Among these difficulties is the terminology used; the words client, stakeholder, customer, and true customer are often used to convey different meanings.

It has also been suggested that students are in fact the 'product' rather than the customers of the higher education industry. Students' progress through their program of study just as raw material flows through the manufacturing process (Sirvanci, 1996). Through their participation



in the production process, students affect the performance and quality of the final service. It is therefore very important to measure their perceptions in issues related to service quality (Zeithaml et al., 1990; Hall, 1996). It appears that the student's multiple roles cannot be simplified or reduced to that of a customer. For this reason in order to minimize complexity, Kamvounias (1999) suggests referring to them simply as students.

The marketing concept argues that customer needs must be the central focus of the firm's definition of its business purpose, and profit can only be achieved through customer satisfaction. Many university administrators, however, continue to focus more on activities for attracting and admitting more students rather than on managing enrolments and trying to increase student retention by satisfying the admitted students (DeShields Jr et al., 2005). On the contrary, other universities have recognised that service quality initiatives needed to be undertaken because they have understood the changing conditions in higher education, such as an increasingly competitive environment (Elliot & Healy, 2001; O'Neill, 2003) and the changes of their students' needs (Nguyen et al., 2004). It is evident that in order to succeed, higher education institutions need to include service quality assessment in their efforts to be accountable for the effectiveness of their services (Di Domenico & Bonnicci, 1996; Sirvanci, 2004).

More specifically, higher education institutions need to adopt a more market-oriented approach, allowing them to develop a better understanding of their market environment, to identify their target markets, to assess target market needs, to modify their offerings to meet

those needs, and to thereby enhance customer satisfaction by delivering superior service quality.

### **2.3.2 Service Quality**

Service quality has become the focal point of competitive advantage amongst businesses, with the move towards more service-based economies. It has been argued that it is the fundamental strategy for competitiveness today (Kotler & Keller, 2007). Nevertheless, through the review of literature, it becomes clear that quality as a construct is generally difficult to define precisely. Despite the well-documented impact of quality on organisational performance and its pervasiveness in management and marketing literature, little agreement exists regarding its meaning. The term 'quality' has been variously defined, with different authors giving alternative definitions. For example, quality has been defined as:

- conformance to requirements (Crosby, 1979)
- meeting and/or exceeding customers' expectations (Grönroos, 1984; Parasuraman et al., 1985)
- a predictable degree of uniformity and dependability at a low cost with a quality suited to the market (Deming, 1986)
- fitness for use (Juran & Gryna, 1988)
- providing a better service than the customer expects (Lewis, 1989)
- producing service that meets "as much as possible" the needs of the consumers (Boomsma, 1992)

- the delivery of excellent or superior service relative to customer expectations (Zeithaml & Bitner, 2000)

A much-advocated definition of service quality is one that developed from the customer's perspective. Peters and Austin (1985) claim that customers perceive service in their own unique, idiosyncratic, end-of-the-day, emotional, irrational and totally human terms; and there is no such thing as fact and reality, only what the customer thinks is reality. Additionally, Feigenbaum (1991) contended that the prevalent business recognition is that quality must be defined in customer, not producer, terms. Quality is conformance to customer specifications; it is the customer's definition of quality, not the manager's, that counts (Berry et al., 1984). Only customers judge quality; all other judgements are essentially irrelevant (Zeithaml et. al., 1990). Grönroos (2000), too, argues that it should always be remembered that what counts is quality as perceived by customers. In view of the feature of intangibility possessed by most services in an absence of objective measures, it is appropriate to assess the quality of a firm by measuring the customer's perception of the experience during the delivery process.

In addition, the following reasons have been identified as to why it is unsafe to view quality by relying on managerial opinions of customer perceptions (Donnelly et al., 1985).

- Management may not know what specific purchase criteria users consider important.
- Management may misjudge how users perceive the performance of competitive products on specific performance criteria.
- Management may fail to recognize that user needs have evolved in response to competitive product development, technological advancement, or other market or environmental influences.

The main theme in the service marketing literature is that service quality as perceived by consumers is a function of what customers expect from a service and what they perceived is the performance of the firm in providing the service (Lehtinen & Lehtinen, 1982; Grönroos, 1984; Parasuraman et al., 1985, Grönroos, 1988).

Grönroos (1988) identifies the following six criteria of good perceived service quality:

1. *Professionalism and skill*: customers see the service provider as knowledgeable and capable to solve their problems in a professional way.
2. *Attitude and behaviour*: customers perceive a true, friendly concern for them and their problems.
3. *Access and flexibility*: customers feel that they have easy, timely access and that the service provider is prepared to show empathy to their needs.
4. *Reliability and trustworthiness*: customers can trust the service provider to keep promises and act in their best interests.
5. *Recovery*: customers know that immediate corrective action will be taken if anything goes wrong.
6. *Reputation and credibility*: customers believe that the brand image stands for good performance and acceptable value.

Expanding on the research of Grönroos, Parasuraman, et al. (1985) further defined the concept of perceived service quality and developed the SERVQUAL instrument.

Delivering quality service means conforming to customer expectations on a consistent basis. Parasuraman et al. (1985) regards service quality as the degree and direction of the discrepancy between customer perceptions and expectations of the level of services. Parasuraman et al. (1988) define service quality as the gap between customers' expectations (E) and their perception of the service provider's performance (P), producing the famous equation,  $Q=P-E$ . Service quality levels are high when the gap between perceptions of performance and desired expectation is non-existent or the former exceeds predicted expectations. Grönroos (1990) claims that service quality is subjectively judged by the clients, the disconfirmation between the perception of customers and their expectations of the service.

Cronin and Taylor (1992) and Buttle (1996) have questioned 'expectations' as a standard of measuring service quality, although the concept of perceived quality has become the foundation of most of the ongoing service quality research and theory development in service marketing.

Higher education institutions need to examine service quality expectations from the student's perspectives. If they continue only to focus on the conformance to specifications, they will overlook the importance of customers' perceptions. Understanding the service quality expectation of students would give faculty and administrators the opportunity to close the gap between these expectations and the actual perceptions of service quality. Educational institutions which define quality in student terms are more likely to stay current in major trends constantly taking place in the marketplace.

## 2.4 Customer Satisfaction and Behavioural Intention

This section will examine the relation between satisfaction/dissatisfaction and behavioural intention. According to various authors (Ham & Hayduk, 2003; Athanassopoulos et al., 2000), there is a significant correlation among service quality dimensions, customer satisfaction/dissatisfaction and behavioural intention. Behavioural intentions are favourable and the relationship with the organization is strengthening when customers are satisfied with the quality of the provided services. On the other hand, the relationship with the organisation is deteriorates when the level of satisfaction with quality of the provided services is low.

There has been considerable debate in the literature about the concepts of service quality assessment and customer satisfaction. Even though the focus of many satisfaction studies has been on the relationship between satisfaction and other variables such as service quality and loyalty, a commonly accepted definition of satisfaction has yet to be established (White & Yu, 2005). As a result, there is no mature satisfaction measurement tool (Athanassopoulos, 2000).

Strong similarities exist between the constructs of service quality and customer satisfaction, and controversy surrounds the nature of the relationship of these distinct constructs.

Oliver (1997) identified three main differences between perceived quality and satisfaction in an attempt to highlight their discrete characteristics:

- *The nature of concept:* Service quality is evaluated based on specific attributes, but satisfaction is more general.

- *The nature of judgment:* Service quality is more cognitive whereas satisfaction is more emotional.
- *The nature of expectations:* Service quality expectation is based on ideal standards of excellence, but for satisfaction is based on concrete elements such as needs and treatment.

Additionally, service quality addresses only issues of quality while satisfaction may address non-quality issues like price and value (Thomas et al., 2004).

Some researchers believe that satisfaction is a more general variable than service quality, suggesting that the later is an antecedent of the former, leading to the conclusion that perceived service quality is a component of customer satisfaction (Oliver & DeSarbo, 1988; Parasuraman et al., 1988; Ting, 2004). According to Parasuraman et al., (1985, 1988) the service quality assessment and customer satisfaction concepts are fundamentally different in terms of underlying causes and outcomes. Quality assessment appears to focus on service dimensions while satisfaction is generally seen as a broader concept, which can be described the consumer's fulfilment response.

Vavra (1997) on the other hand, suggests that service quality is a consequence of consumer satisfaction. Further, Athiyaman (1997) supports this approach with the findings in a survey carried out in an Australian university, indicating not only that perceived quality is a consequence of consumer satisfaction, but also that the effect of perceived quality on behavioural intention is greater than that of satisfaction. For the education sector, Hampton

(1993) suggested that satisfaction and service quality might actually be the same construct because satisfaction becomes part of service quality through service experience.

Other researchers argue that satisfaction is multi-dimensional, including in its formation cognitive elements related to the beliefs and expectations of a product/service, as well as affective elements that include emotions (Athanasopoulos, 2000, Yu & Dean, 2001). Emotional satisfaction refers to the set of emotional responses which take place during the consumption experience (Wong, 2004). One's positive emotion is linked to one's decision to stay and continue involvement, and can lead to positive 'word-of-mouth' behaviour (Bagozzi et al., 1999). In addition, a study undertaken by Wong (2004) indicated that service quality is positively associated with emotional satisfaction, which in turn is positively associated with customer loyalty.

Despite the debate about whether satisfaction is an antecedent to or a consequence of service quality, or indeed something else, the majority of the available literature tends to support that satisfaction is an outcome of service quality (Cronin & Taylor, 1994; Parasuraman et al., 1994a; Brady & Robertson, 2001).

Cronin and Taylor (1992) also examined the relationship between service quality, consumer satisfaction, and purchase intentions. They established three propositions for their study that stated:

1. Customer satisfaction is an antecedent of perceived service quality.
2. Consumer satisfaction has a significant impact on purchase intentions.



3. Perceived service quality has a significant impact on purchase intentions.

The results of their study indicated that propositions one and two have a significant effect on consumer satisfaction and purchase intentions, respectively. However, concerning position three, it was found that service quality does not have a significant impact on purchase intention.

There is, however, evidence which suggests that it is the satisfaction of the customer that determines future intention and behaviour towards the service (McDougall & Levesque, 2000; Zeithaml & Bitner, 2000). Behavioural intentions to return and to recommend are considered to be an outcome of overall satisfaction (Anderson & Mital, 2000; Hennig-Thurau, 2001).

Jones and Suh (2000) found that overall satisfaction has a direct influence on how likely customers were to re-use the service. Research findings indicated also that customer satisfaction impacts purchase intention, customer retention and the organisation's financial performance (Gemme, 1997; Anderson & Mital, 2000; Braun & Scope, 2003). Evidences also have shown that customer satisfaction and service quality perceptions affect consumer intentions to behave in other positive ways: Praising the firm, preferring one company over others, increasing their volume of purchases, or agreeably paying a price premium (Zeithaml & Bitner, 2000). Kau & Lou (2006) found that satisfied customers are more likely to trust the firm and talk positively about it to family and friends. Social behavioural intentions are customer behaviours that influence the behaviour of other existing and potential customers of the organisation through positive or negative behaviour (Johnston, 1998; Anderson & Mital, 2000) and word-of-mouth communication (Parker et al., 1989; Szymanski & Henard, 2001;). Social behavioural

intentions both positive and negative affect the individual customer as well as other customers by disseminating information through 'word-of-mouth'.

The study of Bendall-Lyon and Power (2004), which took place in a health service environment, indicated that satisfaction with both structure (the physical environment and physical facilities in which the service occurs) and process (the interaction with the service personnel within the environment during the service performance) attributes were found to directly influence both intention to recommend and intention to return to the healthcare provider.

A study undertaken in an educational environment by Boulding et al., (1993) found strong links between service quality and other behavioural intentions of strategic importance to a university. These included saying positive things about the school, planning to pledge to contribute money to the class upon graduation and planning to recommend the school to employers as a place from which to recruit.

The image of the academic institution is another component which influences students' behavioural intention. Institutional image has two components. The functional component is related to tangible characteristics whereas the emotional characteristics associated with the psychological dimensions (feeling and attitude towards the organisation) (Gray, 1986). A study undertaken by Nguyen and LeBlanc (2001) revealed that there is a positive relationship between image and reputation of the higher education institution and students' intention to continue their studies.

According to Dick and Basu (1994), in service organisations, satisfaction and loyalty are closely related and satisfaction is an antecedent variable of loyalty. It appears that the same causal relationship can be found in the higher education sector (Martensen et al., 1999; Goncalves et al., 2004). Based on this relationship a student satisfied with the service received is likely to develop attitudes and behaviours indicative of loyalty such as positive interpersonal communication with other potential customers about the higher educational institution (Browne et al., 1998; Guolla, 1999; Mavondo & Zaman, 2000; Tsarenko & Mavondo, 2001). These students may also show the intention to return and undertake other courses/degrees offered by the same higher educational institution (Lervik & Johnson, 2003), other forms of training and development courses, and may also continue even after graduation to maintain a relationship with the institution through donations (Henning-Thurau et al., 2001).

Furthermore, research has indicated that institutional commitment to students appears to be critical to retention and that poor academic performance is only one of the elements, which influence student withdrawal from courses (McInnis et al., 2000). In addition, a growing body of research suggests that the social adjustment of students and the sense of belonging with the institution's overall environment are important factors in reducing withdrawal rates (Gerdes & Mallinckrodt, 1994; Peel, 2000). In addition, it is found that a satisfied and loyal student positively influences teaching quality through active participation and committed behaviour. It is therefore an input of the service production process, and it contributes positively to the overall service delivery system (Rodie & Kleine, 2000).

A broad conceptualised survey instrument consisting of 13 items designed to measure behavioural intention was first introduced in 1996 by Zeithaml et al.. The scale aimed to capture five dimensions: Loyalty to company, propensity to switch, willingness to pay more, external response to a problem; and internal response to a problem. Yu and Dean (2001) and White and Yu (2005) after taking in consideration the work of Zeithaml et al. (1996) and Liljander and Strandvik (1997) developed an 11-item research instrument using a seven point Likert scale design to measure behavioural intentions in an educational environment. The proposed scale includes the following eleven statements/variables:

1. Say positive things
2. Recommend to someone else
3. Encourage friends to apply
4. First choice if pursue further study
5. Complain to other students
6. Complain to external agencies
7. Complain to employees
8. Try to switch to another school
9. Continue if the price increases
10. Willing to pay more for the same benefit
11. Would consider studying elsewhere if offered more attractive prices

## **2.5 Models for Assessing Service Quality**

Grönroos (1984) is one of the first researchers who dealt with the service quality issue from the

standpoint of service offerings. Grönroos used consumer behaviour research findings and derived the conclusion that quality of service is dependent on two variables: *expected service* and *received service*. Based on these findings Grönroos (1984) proposed a model, which demonstrate how customers perceive quality of a given service. The suggested model divides customer perception of any particular service into two dimensions:

1. **Technical quality (or outcome):** What the consumers perceive, the technical outcome of a process. This dimension is called outcome quality by Parasuraman et al. (1985) and physical quality by Lehtinen and Lehtinen (1982). More specifically technical quality is what the customers receive when the buyer-seller interaction is over.
2. **Functional quality (or process-related):** How the customers receive the technical outcome, which Grönroos refers to as the expressive performance of service (Grönroos, 1984). This is referred as quality process by Parasuraman et al. (1985) and as interactive quality by Lehtinen and Lehtinen (1982). Functional quality in other words is how the customers experience the simultaneous production and consumption process.

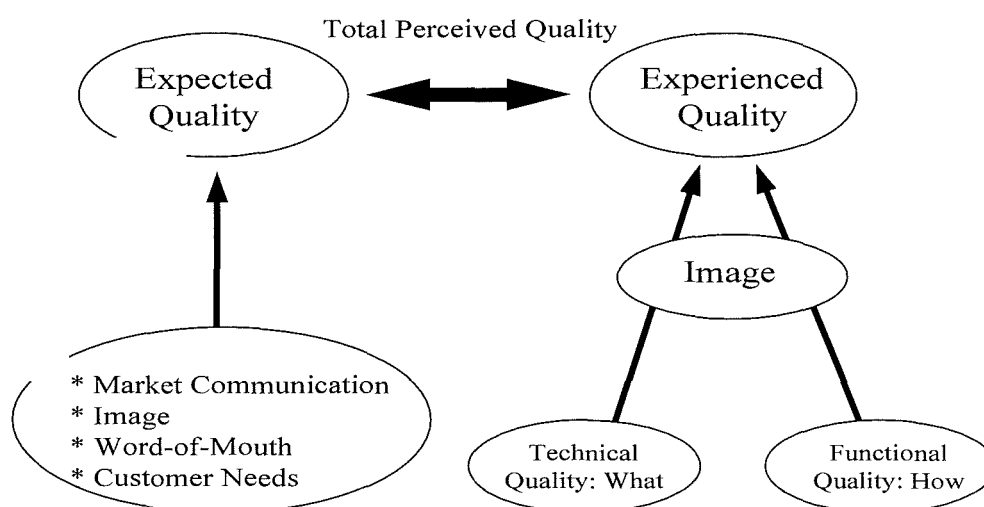
Grönroos' (1984) study concluded that both technical and functional qualities are interrelated. For instance, it was found that high level of functional quality might compensate for temporary problems with technical quality. The author also concluded that an acceptable technical quality is a prerequisite for a successful functional quality. Grönroos also pointed out that technical quality is more objective and can be more easily measured than the functional quality which appears to be more subjective and thus more difficult to measure. Finally, Grönroos determined that functional quality is more important to the perceived service than

technical quality, as long as the latter quality dimension is adequate.

Grönroos (1984) identified three important areas which may influence service quality outcome. One such element is the organisation's image and more specifically the way the customers perceive the organisation's image. It appears if a firm has a favourable image, minor mistakes will probably be forgiven. If, however, the image is negative, the impact of any mistake will often be considerably greater than it would otherwise be (Grönroos, 1990).

Grönroos (1990) stated that in forming a full assessment of service quality, the customer contrasts the perceived quality with the expected quality; this assessment is affected by a number of factors such as traditional marketing communication activities, organization's image, customer needs and word-of-mouth communication. For example, he suggested that advertising or image might create customer expectations which are not met by actual performance. Figure 2.1 summarises the relations between the components in the model.

**Figure 2.1: Grönroos Service Quality Model**



Source: Grönroos, (1990), p.41

Grönroos (1984) postulates that if technical quality is satisfactory, functional quality will be the critical component determining the perceived service quality. If the outcome fails to satisfy the customer, even the best service attitudes cannot compensate for the failure of the technical quality. That is, functional quality is dependent on technical quality. In addition, since the technical quality of most mutual competing services is similar, functional quality becomes a means for differentiation.

This model suggests that service quality is subjectively judged by the customers, and is the discrepancy between the perception of customers and their expectations. Grönroos (1984) maintains that service quality is a perceived judgement resulting from an evaluation process where customers compare their expectations with the service they perceive they have received. This disconfirmation paradigm has become the theoretical groundwork of most of the ongoing service quality research and theory development in service marketing (Grönroos, 1990; Zeithaml et al., 1990).

Parasuraman et al. (1985, 1991) developed the gap model to measure the attributes of service quality. Once again, service quality was defined as the difference between consumer expectations and their perceptions. The initial Gap Model included the determinants of service quality listed in Table 2.3.

**Table 2.3: Ten Dimensions of Service**

DIMENSION	DESCRIPTION
1. Reliability	Organisation demonstrates consistency of performance and dependability. Performing the service right the first time.
2. Responsiveness	Employees are willing and ready to provide service. Timely service.
3. Competence	Employees possess the skill and knowledge to perform the service.
4. Access	Service is easy to approach and use. Convenient hours and location.
5. Courtesy	Employees are polite, respectful, friendly and neat.
6. Communication	Explanations of service are understandable.
7. Credibility	Organisation has customer's best interests at heart by maintaining its reputation and employing trustworthy personnel.
8. Security	Freedom from danger.
9. Understanding	Employees know the customer and provide attention to customer needs.
10. Tangibles	Physical evidence of the service is satisfactory.

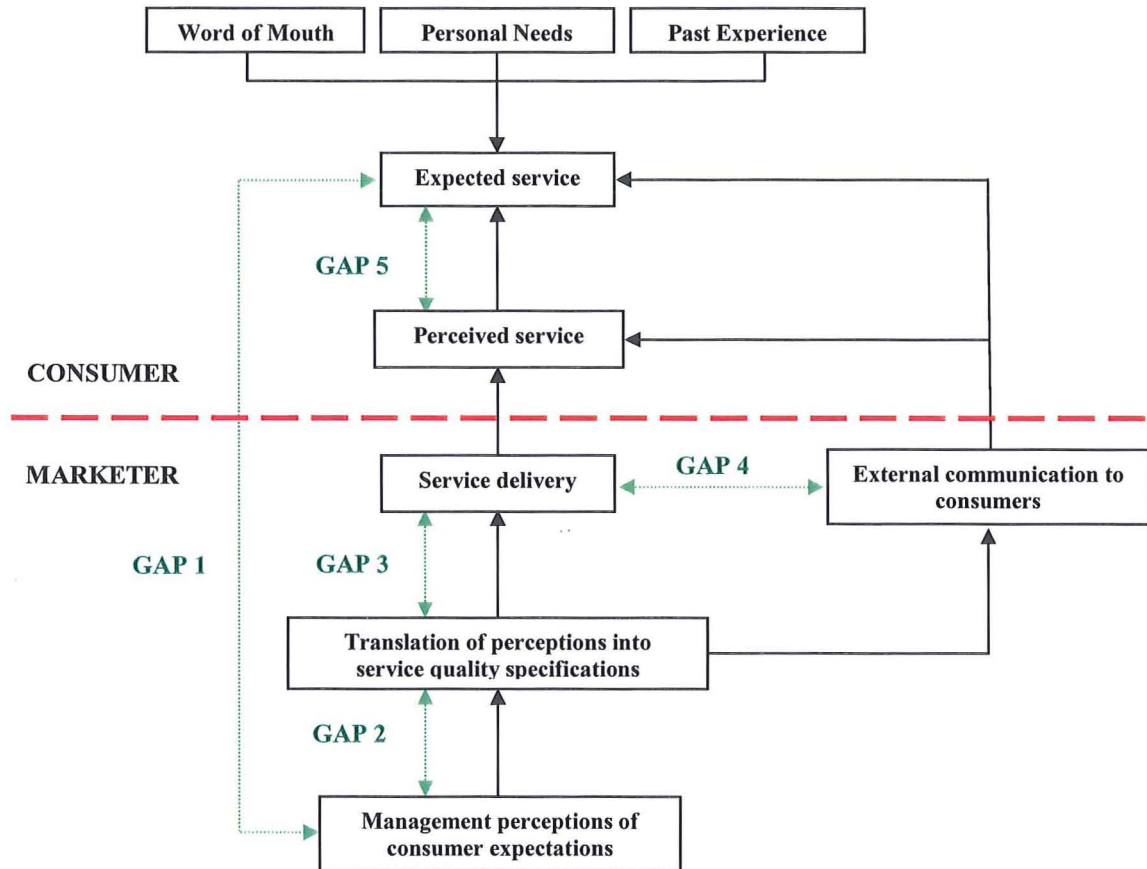
The service quality model by Parasuraman et al. (1985) indicates further that consumer perceptions of quality are influenced by four gaps occurring in the internal process of service delivery (Figure 2.2):

- **Gap 1: Customer Expectation – Management Perception:** The gap between what customers expect from an organisation and what the management understand/perceive.



Misunderstanding of customer needs could imply wrong implementation of customer focus strategies.

**Figure 2.2: Service Quality Gap Model**



Source: Zeithaml, V.A., Berry, L.L., Parasuraman, A. (1988), p. 36

- **Gap 2: Service quality specifications:** The difference between management perception and the actual designing of service specifications. Even if the management understand customer needs and expectations, it maybe difficult to transform them into service quality specifications.

- **Gap 3: Service Delivery:** Described as the gap between service specification and the actual implementation of service delivery. Despite the fact that design of service quality specification could be correct, the process of developing the actual deliverable service may shift due to factors like employees' low performance, production process problems, financial reasons, management, etc.
- **Gap 4: Communication:** Customer perception is shaped by the marketing and promotion of service offering. This gap could be caused by the inability of the organisation to communicate the actual quality of service offered to consumers. This could result in customer expectation being higher than the actual service performance or it could communicate low customer expectation leading to failure to attract customers.

Each gap is associated with those aspects of organisational factors that contribute to the nature of the gap. These factors enable an organisation to identify functions or organisational characteristics that may influence its performance in any of these gaps. Parasuraman et al. (1985) propose that organisations with significant problems in areas such as those described in Gaps 1, 2, 3, and 4 will experience service quality problems that cause customers to receive poorer service than they expect. These gaps contribute to an overall service experience. Based on this analysis, Parasuraman et al. (1985; 1988) developed **Gap 5:** the difference between expected service and perceived service. Evaluations of high and low service quality depend on how consumers perceive the actual service experience versus what they expected. Service quality, then, is a function of the magnitude and direction of the gap between expected service and perceived service.

Parasuraman et al. (1985) presented the differences between customers' paired expectation and perception statements as, '*Perceived Service Quality*,' through the creation of three possible outcomes:

1. Service quality exceeded expectations where

$$PS > ES \text{ or } PS - ES > 0.$$

Expectations exceeded means 'Quality surprise.'

2. Service quality received met expectations where

$$PS = ES \text{ or } PS - ES = 0.$$

Expectations met means 'Satisfactory.'

3. Service quality received did not exceeded expectations where

$$PS < ES \text{ or } PS - ES < 0.$$

Expectations not met means 'Unacceptable Quality.'

The gap analysis is similar to a value change in which the output from one gap affects the level of quality in the next gap. A large gap in the initial stages of the process could result in a large deviation from expected service performance. The gap model is an inferred disconfirmation (perception-minus-expectations) technique that seeks to measure the difference between customers' expectations and the actual performance (Parasuraman et al., 1985, 1988). As Petruzzellis et al. (2006) argued 'Customers are satisfied when the service fits their expectations, or very satisfied when the service is beyond their expectations, or completely satisfied when they receive more than they expected. On the contrary, customers are dissatisfied when the service is below their expectations, and when the negative gap is high they tend to communicate the negative aspect' (p.352).

Nevertheless, other authors such as Oliver (1989), Cronin and Taylor (1992), Teems (1993), Brown et al. (1993a, 1993b), Arnould et al. (2002), and Firdaus (2006) recommend the use of performance-based models, which follow direct disconfirmation techniques, and which provide an absolute measure of service performance experience (perception only). One such model is the SERVPERF model introduced in 1992 by Cronin and Taylor.

SERVPERF uses the original SERVQUAL seven-point scale, but it measures only the service quality experience. It is based on a similar framework as SERVQUAL but it measures the customers' perception only as an 'attitude', by claiming that customers' expectations are misleading (Cronin & Taylor, 1992). The relationship of those two methods can be represented in a simplified equation as:  $SERVPERF = SERVQUAL$  with out service quality expectations. SERVQUAL compares the perception of the service received with expectations, while SERVFERF, uses only the perception for the measure service quality.

According to Cronin and Taylor (1992) the usage of direct measurement offers better validity with the elimination of the difference score measurement. Cronin and Taylor (1992), in a comparison of the SERVQUAL and SERVPERF results, claimed that SERVPERF outperformed SERVQUAL. Yuksel and Rimmington (1998) stated that only performance is the most reliable and valid measurement of satisfaction. In a response to the above claims, Parasuraman et al. (1996), questioned the practical usefulness of SERVPERF. They stated that managers are more interested in accurate identification of service shortfall than the precise identification of service or accurate explanation of perceived variance of service quality. More

specifically, SERVQUAL according to Parasuraman et al., SERVQUAL is more preferable among managers who are interested in the use of a more practical diagnostic tool.

### **2.5.1 SERVQUAL**

SERVQUAL is a two-part instrument, with 22 items measuring expectations of customers and 22 similarly worded items measuring perceptions or experiences of customers to measure service quality. It is a multiple-item scale for measuring consumer perceptions of service quality (Parasuraman et al., 1985, 1988, 1991a). SERVQUAL was designed as a diagnostic instrument to assess where strengths and weaknesses of service lie within a business or institution. The first part of the questionnaire asks customers to indicate the level of service they would expect from an organisation. The second part asks customers to evaluate the service performed by a specific service organisation.

In the development of the original SERVQUAL instrument, the author took into consideration the research outcome of Grönroos (1984) and Lehtinen and Lehtinen (1982). In the original design of SERVQUAL instrument, Parasuraman et al. (1985) collected data from respondents in five service categories (appliance repair and maintenance, retail banking, long distance telephone, securities brokerage, and credit cards). In 1988, Parasuraman, et al. tested the service quality model developed in 1985. The result was the development of the SERVQUAL.

In addition, the authors based the model on perceived quality and the definition given by Zeithaml (1988) that 'service quality is an overall evaluation similar to the attitude; related but

not equivalent to satisfaction ... and results from a comparison of expectations with perceptions of performance' (p.15).

The final instrument was a result of several studies conducted over a period of years. The initial process began with focus group interviews, conducted by Parasuraman et al. (1985). The original SERVQUAL instrument reflected the criteria used by customers in assessing the service quality fit of 10 dimensions: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding and knowing the customer, and access. These criteria were established from their exploratory research, serving as the foundation for the SERVQUAL instrument (Parasuraman et al., 1988). The development of the final instrument resulted from numerous revisions and extensive use of factor analysis to determine the five distinct dimensions of quality service as offered by Parasuraman et al. (1985, 1988, 1990, 1991b). The five dimensions are as follows:

1. **Tangibles:** The physical conditions of facilities, equipment, communication materials and appearance of personnel.
2. **Reliability:** The ability to perform the promised service dependably, on time, and accurately.
3. **Responsiveness:** The willingness to help customers, to deal effectively with complaints, and to provide prompt service.
4. **Assurance:** The knowledge and courtesy of employees and their ability to inspire trust and confidence.

5. *Empathy*: The provision of individual attention, recognition, and care to customers.

Each of the five distinct dimensions is represented in the 22-item SERVQUAL scale. Three dimensions, Tangibles, Responsiveness, and Assurance, have four items each, and the other two dimensions, Reliability and Empathy, have five items each. The instrument also contains a section designed to ascertain customers' assessment of the relative importance of the five dimensions.

Based on these quality dimensions, Parasuraman et al. (1988) developed a series of standard questions/statements to measure the stated gaps and to what extent they exist respectively in a given organisation. These questions/statements address different roles like customers (Gap 5), management (Gaps 1 and 2) and service contact personnel (Gap 3 and 4). The standard questionnaire firstly measures the respondent's expectation of a service and then the actual perception of the service delivered by the organisation. Since both expectations and perceptions are measured using 22 parallel questions/statements, a total of 44 questions/statements are required. The use of a seven-point Likert scale with 7 indicating 'strongly agree' and 1 'strongly disagree' is recommended for the measurement.

Parasuraman et al. (1988) tested the SERVQUAL instrument for reliability and validity, through its application in five service organizations (banking, credit cards, product repairs, insurance, and telephones). They have found SERVQUAL to be reliable, exhibiting high internal consistency. More specifically, the research indicated reliability to be the most critical dimension, regardless of the service being studied. The authors claimed that the five dimensions

of service quality as determined by the results of factor analysis appeared to be fairly consistent across their studies resulting in a scale reliability of approximately .90. By examining the extent to which the items represented the construct's domain the SERVQUAL instrument was judged to have content validity. Convergent validity was investigated by contrasting SERVQUAL scores to responses to a question about overall service quality ratings while high regression scores supported the authors' claims for construct validity (Parasuraman et al., 1991c).

Zeithaml et al., in 1993 have introduced significant changes to the SERVQUAL instrument. The introduced changes have taken in consideration some of the issues that had reflected a lack of consensus between the authors and other researchers in the understanding of customer service quality and customer satisfaction. Zeithaml et al. have expanded the SERVQUAL model to include the relationship among customer service expectation, service level antecedents, perceived service, service quality, customer satisfaction, and other relevant parameters. More specifically, they extended the Gap 5 concept labelling it the zone of tolerance. In this case, the customer expectancy of service quality is measured in two levels, namely:

1. *Desired Service*: The level of service representing a combination of what customers believe can be and should be provided
2. *Adequate Service*: The minimum level of service customers are willing to accept during the process of service delivery



### **2.5.1.1 Criticism of SERVQUAL**

The perception of service quality has been studied extensively during the past few decades, with most studies based on the disconfirmation paradigm (Seth et al., 2005). However, despite its popularity, widespread application and numerous citations in service quality related literature, SERVQUAL has been subject to a number of both theoretical and operational criticisms.

A number of researchers have questioned the necessity of measuring customer expectations (Cronin & Taylor, 1992; Brown et al., (1993), Teas (1993); Buttle, 1996; Yuksel & Remington, 1998; Arnould et al., 2002). They have questioned the definition of service quality as the gap between customers' expectations and perceptions and have raised questions about SERVQUAL as a two-part instrument for measuring service quality. They have also questioned the use of difference scores, and more particularly the use of expectations as a comparison standard in measuring service quality. Cronin and Taylor (1992) compare these expectation-perception gaps versus perception only, through the introduction and use of the SERVPERF instrument and claimed that measurement of service performance alone is sufficient for the measurement of service quality. In addition, according to Cronin and Taylor (1992; 1994) SERVQUAL is paradigmatically flawed because of its weak adoption of the disconfirmation model. They criticize Parasuraman et al. for their hesitation to define service quality in an attitudinal terms despite the fact that Parasuraman et al. (1998) had claimed that service quality was similar in many ways to an attitude.

Some of the researchers debate whether the dimensions of the SERVQUAL instrument are consistent across industries (Babakus & Boller, 1992; Cronin & Taylor, 1992; Teas, 1993).

Carman (1990) after testing the generic qualities of the SERVQUAL instrument in three service settings (a type of retailer, a business school placement centre, and a dental school patient clinic) suggested that SERVQUAL needed to be customized to the specific service and that more replication and testing of the SERVQUAL dimensions and measures are needed before accepting it as a valid generic measure of perceived service quality. Carman found that SERVQUAL was consistent in many areas but needed some changes when adapting the instrument to a particular setting. More specifically, Carman found that only Tangible, Reliability, and Security dimensions were present in all three different service settings, and that Responsiveness and Empathy dimensions were relatively weak in some of the settings. Finally, Carman argued that the five dimensions are not generic and that users of these scales should add items on new factors such as the original ten dimensions.

Validity problems in relation to the measurement of expectation and the practicalities of administering the instrument have also been raised in relation to the SERVQUAL instrument. It has been questioned whether it is practical to ask consumers about their expectation of a service immediately before consumption and their perception of performance immediately after the service as the expectations with which the consumer will compare their experience may be altered as a result of the service experience (Grönroos, 2000). It has also been suggested by Grönroos that expectations may not be clear enough in a consumer's mind to act as a suitable benchmark against which perceptions can be compared, and that expectations are something that can be biased by previous service encounters. However, Grönroos admitted that theoretically, a comparison of expectations and experiences makes sense, because expectations influence the consumer's perception of the quality of service.

Brown et al. (1993) administered two surveys using a difference score questionnaire and a non-difference score questionnaire in the business courses of a single university. The study revealed three instances where the use of difference scores to measure service quality could lead to psychometric problems: reliability, discriminant validity, and errors induced by variance restriction. According to Brown et al. the problems occur because a measure with low reliability may possess discriminant validity simply because it is unreliable. Similarly, the study revealed that variance restriction takes place when expectation component scores used to calculate the difference score is consistently higher than the experience component.

Buttle (1996) raises the issue of 'socially acceptable' answers and the problem that respondents may record high expectations because they believe this is what the researcher wants to hear. Further to that, Clow and Vorhies (1993) argue that when expectation and experience evaluation are measured simultaneously, respondents will indicate that their expectations are greater than they actually were before the service encounter. Similarly, Babakus and Boller (1992) have also found that the dominant contributor to the gap scores was the perception score because of a generalized response tendency to rate expectation higher.

Furthermore, Babakus and Boller (1992) have suggested that the instrument needs better wording for some of the scale items, while Lewis (1993) has criticised the SERVQUAL suggested scale for its lack of verbal labelling for points two to six. Lewis believes that the absence of the mid point label might cause confusion to respondents who might interpret it as 'don't know' or 'do not understand.'

### **2.5.1.2 Responses to Criticisms of SERVQUAL**

In response to criticism of the SERVQUAL model, Parasuraman et al. published various articles with the intention to respond to the objections and raised concerns regarding the appropriateness of the SERVQUAL instrument.

In response to Cronin and Taylor's (1992) claims related to the value of expectation measurement, Parasuraman et al. (1994a, 1994b) defended their initial position, maintaining that their previous research work (1985, 1988) and the existing service quality literature had provided strong backing for defining service quality as the discrepancy between customers' expectations and perceptions. In addition, Parasuraman et al. referred to the conceptual work in the service quality literature presented by Grönroos (1988); this supported the disconfirmation of the expectations conceptualisation of service quality and their work (Parasuraman et al., 1985, 1988) concerning the importance of the gap analysis in determining overall service quality. In turn, Parasuraman et al. stated that Cronin and Taylor's work does not justify their claim that the disconfirmation paradigm is flawed.

Parasuraman et al. (1991c) responded to Carman's (1990) criticism of SERVQUAL questioning the universal applicability of the instrument across all service industries by arguing that the SERVQUAL items represent core evaluation criteria for the measurement of service quality. However, Parasuraman et al. agreed that the individual SERVQUAL items should be viewed as a basic framework for assessing service quality and that content-specific items should supplement when appropriate. More specifically the SERVQUAL model, according to Parasuraman et al. (1994a), provides a basic skeleton through its expectation and perception

format, encompassing statements for each of the five-quality dimensions. According to the authors, the core of the instrument when necessary can be adapted or supplemented to fit the characteristics of the specific research needs of a particular organisation. They have also suggested that the wording of the questions needs to be tailored to the specific service application, using terminology with which respondents can identify (Parasuraman et al., 1991c).

Parasuraman et al. (1994a, 1994b) acknowledged also that they had re-examined and amended their views about the relationship between customer satisfaction and service quality after taking in to consideration research work and related literature that presented service quality perception as an antecedent of customer satisfaction. They have also rejected Cronin and Taylor's claim that a performance-based measure such as SERVPERF is superior to the SERVQUAL measure.

Brown et al. (1993) in their criticism, they have addressed the issue of psychometric concerns about the SERVQUAL conceptualisation. Parasuraman et al. (1993) rejected the claims of Brown et al. concerning high correlation and low reliability of the SERVQUAL instrument. They have stated that this claim does not create serious threats, because the construct being manipulated is an expectation minus perception difference score. In reality, the studies of both research groups, Parasuraman et al. and Brown et al., actually indicated a rather moderate correlation between the SERVQUAL's experience and perception measurements. Regarding the issue of the reliability of the SERVQUAL instrument, Parasuraman et al., revealed that the Brown et al. investigation showed very strong reliability for both components of SERVQUAL (0.94 for expectations and 0.96 for perceptions). Regarding the issue of inflated discriminant validity because of low reliability, Parasuraman et al rejected the claim by indicating that the

reliability of the SERVQUAL instrument has been shown to be consistently high in many studies. They acknowledged, however, the concerns related to the variance restriction, since there are higher mean values and low standard deviations for the expectation component of SERVQUAL relative to the perception component. According to Parasuraman et al., this concern has limited relevance, notably if the gap scores are used only for diagnostic purposes. In addition, Arambewela and Hall (2006) stated that the practical application of the measurement approach is the major strength of the SERVQUAL instrument over other measures. Furthermore, the instrument has practical implications for organisations, trying to improve the global perception of their service quality (Furrer et al., 2000).

Despite a great deal of criticism addressed on theoretical and operational grounds, SERVQUAL has been successfully used in many different settings around the world and for different types of service organisations. Since its introduction, SERVQUAL has been widely acclaimed as a major contribution to academic and expressly, marketing research literature (Furrer et al., 2000).

### **2.5.2 Applications and Extensions of SERVQUAL**

Although SERVQUAL is far from being generally accepted by academics, it has been adapted to measure service quality in a variety of settings – probably more than any other service quality measurement method. The growing popularity of the SERVQUAL instrument can be seen by the diversity of its application in research pursuits ranging from service quality assessment, competitor analysis, and segmentation to customer profiling, covering both the services and manufacturing industries (Furrer et al., 2000).

Other than the educational setting, SERVQUAL has been tested and used to measure service quality in various contexts. Published studies using the SERVQUAL model include:

- Hospitality (Gabbie & O'Neill, 1996; Ingram & Daskalakis, 1999; Dean & White, 1999; Juwaheer 2004; Olorunniwo, 2006)
- Banking (Angur et al., 1999; Avckiran, 1999; Lassar et al., 2000; Newman, 2001; Zhu et al., 2002; Yaras et al., 2004)
- Healthcare (Andaleeb, 1998; Hoxley, 2000; Hasin et al., 2001; Wong, 2002; Curry & Sinclair, 2002; Mostafa, 2004; Wisnieswski & Wisnieswski, 2005; Lim & Tang, 2006)
- Professional services (Phillip & Hazlett, 2001)
- Public services (Wisniewski, 2001; Brysland & Curry, 2001; Orwig et al., 1997)
- Transportation (Durvasula et al., 1999; Sultan & Merlin, 2000; Frost & Kumar, 2001; Huang et al., 2006)
- Telecommunication (Van der Wal et al., 2002)

In addition, the model has been used in many other organizational settings such as dental services, car serving, accounting firms, architectural services and a variety of other industrial, commercial and not for profit settings (Buttle, 1996). There are also a number of studies using SERVQUAL, which address service-quality measurement in the business-to-business marketing of services (Dracula & Mehta, 1999), in the field of internal service quality in the internal supply chain of consumer-supplier relationships (Aunty & Long, 1999; Farmer et al., 2001) as well as on front-line employees and support staff (Frost & Kumar, 2000).

SERVQUAL has been successfully adapted in different service settings. Research on the extension of the SERVQUAL scale has been successfully undertaken resulting in variations of SERVQUAL either dedicated to a distinct type of organisation or to a certain kind of organisational setting. An extension constructed for a distinct type of organisation is the Banking Service Quality (BSQ) measure (Bahia & Nantel, 2000) which has been designed to measure service quality in banking.

The Association of Research Libraries (ARL) has also used the SERVQUAL instrument for the development of LibQUAL. More than 500 libraries have participated in LibQUAL, including public libraries as well as those found in colleges and universities; it has been used in libraries of law and health sciences. LibQUAL has expanded internationally, with participating institutions in Canada, the U.K., and Europe ([www.libqual.org](http://www.libqual.org) - Searched 2006).

Frost et al. (2000) explores the extent to which the construct of service quality plays a part in an internal marketing setting. A conceptual model known as the 'Internal Service Quality Model – INTSERVQUAL' was designed based on the original gap model developed by Parasuraman et al. (1985). The model evaluates the dimensions, and their relationships, that determine service quality among Singapore Airline internal customers – front-line staff – and internal suppliers – support staff.



## 2.6 Measuring Service Quality in Higher Education

Much of the published work on service quality aspects of higher education has concentrated on creating and implementing new and innovative academic programs to improve course content and teaching methodology (Joseph, et al., 1999; O'Neill, 2003). However, the increasingly competitive environment has forced many higher education institutions to becoming increasingly more responsive to the student needs and, as a result, it is not surprising that the quality of services being offered has begun to receive attention (O'Neill, 2003).

Researchers concerned with measuring service quality in the higher education sector have carried out both qualitative and quantitative studies, some using focus groups to identify attributes before developing and administering a quantitative instrument. A number of these researchers have sought to adopt on, or adapt, the SERVQUAL model.

Boulding et al. (1993) have used a research instrument, containing 36 items to study expectations and perceptions associated with the delivery of services in an educational setting. After assessing students' behavioural intentions, the study concluded that the higher the students' perceptions of a university's overall service quality, the more likely these students would be to recommend their school to others. It was also found that high student expectations of what a university will provide during future service encounters leads to higher perceptions of quality after the student is exposed to the actual service.

Schwartz (1996) used a modified SERVQUAL instrument to compare the views of two age groups of students concerning the service quality at Texas Tech University. The traditional (ages 24 and under) and non-traditional students (ages 25 and over). The respondents, were asked to compare service quality (expected and received) from support staff with that from faculty. The study indicated that there is no significant difference in the expectations or perceptions of traditional versus non-traditional students, or in students' expectations of support staff versus faculty.

Hampton (1993) designed a research instrument based on SERVQUAL to research college student satisfaction with professional service quality; and then applied this methodology to examine students' perceptions of service delivery. Hampton's questionnaire contained 45 attributes which were grouped in seven dimensions (a) quality of education here (b) teaching (c) social life-personal (d) social life-campus (e) campus facilities (f) effort to pass courses and (g) student advising. The questionnaire also contained one question on overall satisfaction. The study suggested that the gap between customer perception and expectation is the general definition of consumer satisfaction and that perhaps university education is one of those services in which satisfaction and service quality are one and the same. Hampton found a negative correlation between the gap scores and overall satisfaction, which supported the hypothesis that as the gap increases, overall satisfaction decreases. The research results indicated also that there is a significant relationship between students' perceptual gaps and their evaluation of service quality, and that expectation/experience gaps could be a measure of service quality for the professional services delivered by institutions of higher education.

Kearney and Kearney (1994) used the gap analysis to study how the gap between transfer student expectations and perceptions were related, using an initial and a follow-up investigation. The objective of the study was to explore how the gaps (assessed at two different times), students' initial expectation (1989 survey), and later perception (1993 survey) were related to persistence and graduation. Kearney and Kearney (1994) found that there were large gaps between the experiences and initial expectations of multiple transfer students. The students were particularly dissatisfied with the university's academic characteristics, which had been the most important factors to them when they coming to the school. Based on this finding, the authors, suggested that higher education institutions must take steps to influence student expectations by improving their communication with newly admitted students.

DiDomenico and Bonnici (1996) conducted a study based on a gap analysis method using Parasuraman's et al. (1985) 10 original service dimensions: responsiveness, reliability, tangibles, communication, competence, access, credibility, courtesy, understanding and knowing the customer, and security. The student asked respondents to compare the level of current service provided to an ideal level of service. DiDomenico and Bonnici (1996) reported differences between the expectation and perception scores as a gap score. The research results indicated that Tangibility was the only dimension that surpassed students' expectations. All the other variables scored in the negative. The lowest scores were for Reliability, followed by Responsiveness and Competence. The study concluded that offering outstanding service quality, as perceived by the customer, could create a competitive advantage. In order to achieve and maintain this competitive advantage, higher education institutions must first determine where they stand in the eyes of the students. High tuition cost, made students increasingly critical about

what they are receiving for is money. The author suggested that in order for any institution to overcome the intense competition within higher education, academic institutions need to not only provide better service to the students but also systematically evaluate the quality of services offered.

Kerlin (2000) conceptualised student satisfaction with the service processes of selected student educational support services at Everett Community College, using the SERVQUAL instrument (22-item survey). The study was designed to examine five specific student and academic support service areas: registration, financial aid, counselling, career planning and library services. The results suggested a significant difference between genders with female respondents having higher mean expectation than males. The author has also indicated that the competition among academic institutions is increasing their desire to deliver high quality service in order to attract and retain students. Some variables, which can influence service quality and may affect satisfaction are accessible and prompt service, knowledgeable assistance and personal attention. Satisfaction may influence a student's desire to attend, retention, and word-of-mouth recommendations. Academic institutions according to Kerlin, need to take advantage of the SERVQUAL and its ability to offer a targeted method of identifying areas that can improve student satisfaction. In addition, Kerlin argues that the systematic measurement of service quality would be helpful to higher education institutions; it would aid in building a database and reference points about student satisfaction with service quality in their efforts to be accountable for the effectiveness of their services. This is especially true for private universities.

Ruby (1998) researched student satisfaction at a group of ten Midwestern Christian colleges by examining various student support services, namely academic records, admissions, career services and financial aid. He found that students evaluate service quality differently depending on the department to which they belong. Females have a tendency to both expect and perceive higher levels of service quality than males. However, a reasonable relationship between satisfaction and commitment to the institution was established.

Anderson and Zwelling (1996) conducted a study separately across four clinics at the University of Houston medical school. The researchers used a revised SERVQUAL instrument in order to identify which areas in these clinics were in need of improvement in terms of customer perceptions of service quality. When the results were compared, the researchers were able to identify that significant differences existed in customer expectations in ten of the fifteen items, but a significant difference in perceptions surfaced in only one of the items when the four clinics were compared. They were also able to identify that of the five attributes of the SERVQUAL scale, one dimension, Reliability, was the most important one across all four clinics. Although all four clinics scored similarly on perceptions of service quality, due to the size of the gap measured between expectations and perceptions at some of the clinics, customers from these clinics could be classified as dissatisfied customers. Therefore, the role of expectations in influencing customer levels of satisfaction and dissatisfaction cannot be disregarded when measuring service quality across a number of different sites.

Anderson (1995) used a revised SERVQUAL instrument to evaluate student perceptions of service quality in an academic advising office at the University of Houston. It was a two-stage research with the first one to take place prior to the implementation of a total quality management program and the second one to take place after its implementation. For the research instrument, only 16 out of the 22 statements were used because some of the statements were not applicable to the nature of the service offered. The expectation section of the instrument was administered before obtaining a service, and the perception sections after receiving the service. The gap analysis undertaken was designed to provide a benchmark against which to compare the post implementation survey results. A comparison of the benchmark survey with the follow-up survey indicated changes in both expectations and perceptions. The research results indicated that the longer students were enrolled with the institution, the lower the student's expectations and perceptions regarding the quality of service from the academic advising office. According to Anderson, the adaptation of the specific SERVQUAL instrument gave management information with which to improve services provided to students. In addition, the author suggested that the same study with the same methodology and instrument should be repeated every year. This approach would give managers the opportunity to document the effects of their efforts to improve the service quality of the academic advising office.

Ham and Hayduk (2003) also used a SERVEQUAL instrument in order to analyse perceived service quality and the significant correlation between service quality dimensions, customer satisfaction and behavioural intention in two universities (private Southern Wesleyan University and public Western Michigan University). According to the results of the study,

there is no significant correlation between perceived service quality and gender, age or income differences. In addition, the study has shown that although positive and negative correlations exist between service quality, customer satisfaction and behavioural intentions, the responses of subjects from public versus private academic institutions were similar. Ham and Hayduk suggested that due to the competitive environment in today's higher education setting, changing demographics and the failure rate of universities, there are two options available for the management of academic institutions. First, there is a need to change student perception through freshman orientation sessions or a discussion at the beginning of the first class in each course. The study has indicated that such practices can increase student satisfaction and improve retention rate. The second option is to try to change the perception of faculty and administrators through training, underscoring the influence that their behaviour and involvement has on student perceived service quality, satisfaction, and behavioural intention.

Wolverton (1995) used a modified version of gap analysis for the needs of a qualitative study. Wolverton's objective was the identification of gaps in organisational communication that influence stakeholder expectations and perceptions of quality for an educational program of a single university. The participants in the study were doctoral students, program faculty, administrators, program graduates, prospective employers, and students in another university's educational administration program. Wolverton's revised gap analysis model incorporated the following six areas in the study: internal information, external information, vision, education performance, communication, and quality. Wolverton found gaps in five areas of the organisation's internal and external communications systems. Differences were in (a) student expectations and faculty perceptions of student expectations (b) practitioner expectations,

program faculty and administrator perceptions of practitioner expectations (c) administrator expectations for the program and faculty perceptions of administrator expectations (d) the education program students, faculty, and administrators would like to see delivered and each group's perceptions of the program that is actually delivered and (e) the program and what is communicated about the program. Finally, Wolverson concluded that the SERVQUAL model potential lies in its use as a diagnostic tool.

Arambewela and Hall (2006) investigated the relationship between SERVQUAL dimensions of Reliability, Responsiveness, Assurance, Empathy and Tangible, country of origin and satisfaction among four groups of postgraduate business students from four Asia countries (China, India, Indonesia, and Thailand) studying in five different universities in Victoria, Australia. The findings indicated significant differences between country of origin and student satisfaction. More specifically the study revealed that all SERVQUAL dimensions have an impact on student satisfaction, though there were variances in the impact of each dimension, with the Tangible dimension being the most significant in forming satisfaction among all groups of students. According to the authors one of the major challenges faced by universities, is the increasing diversity of overseas students originating from variety of countries. The findings of this study are therefore useful for educational institutions in developing of a segmented approach in targeting services to students from different countries.



## **2.7 Managerial Implications and Practical Use**

This study can contribute to the academic theory of service quality, customer satisfaction and behaviour intentions, and at the same time may serve as a guide for management in higher educational settings in their efforts to evaluate service quality and student satisfaction problems.

According to Parasuraman et al., the SERVQUAL instrument can be adapted to any service organisation after customising it to the organisational setting. Additionally, the service quality gaps will help the managers (academic and administrators) of the college to diagnose where performance improvements can best be targeted. The largest negative gaps combined with assessment of where expectations are highest give an indication which service areas require improvement. Moreover, the gap analysis model should guide management to discover quality problems and find appropriate ways to close service gaps, conspicuously the perceived service quality gap.

## **2.8 Summary**

The empirical study of service quality has emerged from the disconfirmation paradigm (Oliver, 1977, 1989; Churchill & Surprenant, 1982) and the model of perceived service quality defined and developed by Parasuraman et al. (1985, 1988). Providing quality service is considered an essential strategy for success in today's competitive environment. Research done using customer perspective is essential for organisations that want to remain or become consumer

oriented. The competitiveness and the complexity of the education market locally and internationally fuel the need for investigating service quality and student satisfaction. Especially since students participate in producing the service, thereby affecting the performance and quality of the final service (Zeithaml et al.,1990).

The research studies and other related literature reviewed in this chapter, indicated strong evidence supporting that SERVQUAL is an appropriate instrument, which, with appropriate modifications and adaptations can successfully evaluate service quality. Inherent within the SERVQUAL model is the notion that the use of expectation minus perception gaps will appropriately identify service areas, which require improvement. In addition, the researcher recognises that the gap analysis methodology can be a useful diagnostic tool in efforts to understand service quality, customer (student) satisfaction, and customer behavioural.

Chapter Three presents the research questions and discusses research methodology, issues such as survey and sampling design, the development of the research instrument, and its reliability.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### **3.0 Introduction**

The literature review chapter identified and critically evaluated methodologies, models, and instruments in the field of service quality, customer satisfaction, and behavioural intention. The aim behind this thorough review of the literature was to avoid inappropriate methods and invalid practices, which could lead to poor data collection and/or inability to answer the research questions.

Utilising the SERVQUAL instrument, this project examines undergraduate students' perceptions of the quality of services offered at Cyprus College by determining if gaps existed in the students' expectations versus the perceptions of their actual experiences with the quality of college services delivered. Further, the project was designed to investigate the relationship between service quality, satisfaction and behavioural intention. Service quality literature indicates that there is a positive relationship between customer satisfaction and customer retention. This same phenomenon could be a factor in college student retention and loyalty behaviour.

#### **3.1 Research Design**

The methodology adopted was based on a triangulation framework. Triangulation combines several research methodologies to study a single phenomenon. This methodology has been

used extensively for many years in the area of social and behavioural sciences (Denzin, 1978; Pelto & Pelto, 1978).

The rationale behind the adoption of triangulation for the purpose of this project lies in the incapacity of any single approach or conceptual and methodological framework to adequately explain/analyse the theoretically complex phenomenon of service quality.

As Dreher and Hayes (1993) postulated, the combination of empirical and theoretical paradigm, enables the researcher to 'zero in' on the information sought. This, in turn, increases the researcher's confidence in the findings, and reduces problems of bias and validity (Jack & Raturi, 2006).

Thus for the purposes of this project, in addition to the extensive review of the existing relevant literature, the following empirical and methodological paradigms were also examined:

- a.) The methodological/empirical framework of SERVQUAL (Parasuraman et al., 1988).
- b.) The conceptual paradigms as proposed by Grönroos (1984, 1990) and Parasuraman et al. (1985, 1988, 1991, 1993, 1994).
- c.) The 13-item scale developed for service oriented organisations by Zeithaml et al. (1996), the emotion scale developed by Liljander and Strandvik (1997), and the emotion scale adopted in a higher education setting by White and Yu (2005).

- d.) A panel discussion/focus group with the participation of selected administrative and academic managers of Cyprus College (exploratory research) and the formation of a committee for the examination of results as well as the development of recommendations and implementation strategies.
- e.) Design and implementation of a survey (including research design, research questions, sampling frame and methods, data collection, operationalisation of variables, validity and reliability testing, and data analysis).

For the purpose of this study, a quantitative research methodology was build from current literature using SERVQUAL for the evaluation of services in higher education settings. Moreover, the systematic collection of data using the same research methodology and survey instruments allows management to compare findings and measure the success or failure of implemented policies and procedures (Mark et al., 2003).

The findings produced will provide an initial analysis of student satisfaction and lay the groundwork for a more systematic measurement of student satisfaction with the service quality offered at Cyprus College on an annual basis. The ultimate goal, however is the management (administrative and academic) of the college to use these findings to improve existing policies or introduce new policies and practices, improving the quality of services offered to students.

### **3.2 Research Questions**

Parasuraman et al. (1988, 1991b, 1991c) contend that SERVQUAL indicates where the positive or negative gaps in customer satisfaction lie, thereby assisting managers to identify the strengths and

weaknesses of their organisations and services and to take corrective actions accordingly. A set of research questions directed towards such a strategy include the following:

1. Are there any gaps between student expectations of service and their perceptions of service quality performance?
2. Are there significant differences in student expectations of service quality based on gender, number of years at Cyprus College, and nationality?
3. Are there significant differences in student perceptions of service quality based on gender, number of years at Cyprus College, and nationality?
4. Are there significant differences in the gaps between expectations and perceptions of service quality based on gender, number of years at Cyprus College, and nationality?
5. What is the relationship between service quality, student satisfaction and student behavioural intention?

The analysis will take in to consideration the following key statements related to behavioural outcomes included in the developed survey instrument: Say positive things about the college, recommend the college to someone who seeks their advice, encourage friends and relatives to consider the college for their educational needs, continue their studies at the college even if they had to pay higher tuition, transfer to another college if they experience problems, and complain to college employees and/or external agencies if they experience problems with the college. The formulation and the investigation of the last research question is based on the relevant published work of Parasuraman et al. (1994), Zeithaml et al. (1996), Liljander and Strandvik (1997), Yu and Dean (2001) and White and Yu (2005).

### **3.3 Population and Sample**

The population consisted of undergraduate students registered for Diplomas (two-year study) and Baccalaureate (four-year study) degree who had completed at least one semester/term (students who were admitted and registered at the college during or before the Spring semester/term of 2006) at Cyprus College. The intention was to include in the survey research subjects with sufficient knowledge and exposure/experience to/with the different college services offered.

The following group of undergraduate students were excluded from the sample population and did not complete the survey:

Students who:

1. Were registered in their first semester of their programme or
2. Had been given advanced standing (transfer students) and were in the programme for the first time.
3. Were registered as part-time and were not pursuing a degree.
4. Were registered in non-academic degree programmes (two-year and three-year professional degree programmes and students who were registered for external qualifications – Association of Certified and Chartered Accountants and Certified Accounting Technicians).
5. Were registered only for intensive English language courses (International students).

6. Were full-time employees or whose parents were full time employees of the College at the time of the survey.

The total number of students qualified to be surveyed was 1,389. The sample size for the study consisted of 434 students (451 surveys were collected but 17 of them were found to be incomplete and/or unsuitable for use by the researcher), which represents 31.4% of the population. It should be noted that the whole process was designed to ensure the representativeness of the results. The level of certainty (confidence level) that was decided to be adopted for the purpose of this study was at 95%. Furthermore, the sample that was selected for the purpose of the survey provided a  $\pm 3.9\%$  confidence interval.

In order to achieve a representative sample, the researcher created subsets (groups of classes) which included classes offered throughout the day-morning, afternoon and night, different days of the week and in a variety of course subjects and levels (e.g. first year, second year courses, etc.). The questionnaires were distributed to students during the beginning of the class period to control (reduce) the influence of past experience on formulating expectations (Zeithaml et al., 1993). The survey took place five weeks after the beginning of classes (during the second week of November 2006). This particular time period was selected to ensure that students had been sufficiently exposed to the different services offered to them prior to the survey.



For the administration of the survey, five experienced researchers/interviewers were picked and appropriately trained and supervised by the researcher. All five of them were highly qualified and experienced members of the Cyprus College Research Centre.

Taking into consideration the nature and objectives of the study, as well as the selection criteria of the sample, the researcher chose the one stage cluster sampling method as the most appropriate strategy. More specifically, the following steps recommended by Zikmund et al. (2003) were followed. First, the population was divided into mutually exclusive and exhaustive subsets (offered courses). Second, a random sample of the subsets was selected. Then all of the population elements in the selected subsets for the sample were used (all students attending the selected courses were surveyed once).

Cluster sampling methodology in education is normally used when not all the members of the selected population are able to participate. One weakness of the particular sampling method is that commonly used inferential statistics to prove or disprove hypotheses may not be appropriate for analysing data (Suskie, 1997). Since it was not a goal to use inferential statistics, this drawback does not create any serious consideration.

To eliminate the possibility of obtaining duplicate data, or to avoid including students, who were not part of the defined population, detailed instructions were followed before the distribution of the questionnaire while students not qualifying were marked in the class roster and asked not to complete the questionnaire.

Given probable duplications of students in classes, student absences on the days the survey was administered, the number of students who were not qualified to be part of the population, and possible non-participation of some students, it was estimated that 750 seats (registered students) were needed to form the sample frame in order to collect at least 450 completed surveys. With an average class size of 23, it was calculated that 34 classes would be singled out to participate.

The eligible classes numbered 443. Following cluster sampling methodology, each class was listed using its code in alphabetical order, numbered, and a random number was used to select 34 classes. The enrolment at that time in those classes yielded a total of 782 seats. Out of the 782 seats, 143 of them were eliminated because some students did not qualify to be part of the population or their names appeared more than once in the rosters of the selected courses.

### **3.4 Development of the Research Instrument**

In this study, the intention was to identify the gap between expectations and perceptions of service quality as well as to measure student satisfaction and student behavioural intention through the use of the survey.

A self-administrated questionnaire was used in this study to measure students' expectations and perceptions of service quality at Cyprus College (see Appendix C). The instrument's first page included information on the purpose of the study and instructions for its completion. Because the questionnaire was anonymous, respondents felt reassured that their responses would be kept confidential. The questionnaire was divided in five sections.

The survey instrument used in this study is an adapted version of the SERVQUAL survey, which includes twenty-two items that measure five dimensions of service quality on a five-point Likert-type scale. The format of the survey instrument is adapted from that used by Ruby (1996) and Kerlin (2000). The questionnaire can be found in Appendix C. The SERVQUAL authors have not restricted the use of the instrument, but on the contrary, they have suggested modifications in order to reflect the service being evaluated without affecting the reliability and validity of the instrument (Parasuraman et al., 1988; Parasuraman et al., 1991c). For example, modifications included the addition of the name of the institution and the use of the word 'student' instead of 'customer' in the items.

A panel was formed consisting of the Deans of the three Schools, the Directors of Planning and Development (representing the offices of the Registrar and the Bursar), and representatives from Admissions, Student Affairs, and Management Information System as well as a senior researcher from the College Research Centre to review the original 22 SERVQUAL items; They also suggested revisions, both in terms of content and design, that were more appropriate for an educational environment. The panel members met twice and recommended several revisions consistent with those of Parasuraman's et al. (1988) regarding modifications to SERVQUAL after reviewing and discussing the research objectives and the proposed research instrument. The panel also evaluated the survey instrument for content and face validity.

The panel members were selected to take part for three basic reasons. Firstly, because of their experience and involvement in the services offered to students, secondly because the findings can be a valuable source of information for their respective departments, and thirdly this collective decision making approach could eliminate any form of insider researcher bias.

The questionnaire used consisted of five parts; each part was designed (in respective order):

1. to measure respondent's expectations
2. measure respondent's perceptions
3. to rate the overall service quality and satisfaction
4. to measure student's behavioural intention, and
5. to collect information about the profile of the respondents.

Part one and two of the questionnaire consisted of two sets of 22 statements. The first part was constructed to measure the respondents' service expectation and the second perception. The intention was to measure the perceived service quality, which is the gap between expectations and perceptions of service quality received based on the five dimensions developed in the Service Quality Gaps Model. The five dimensions include reliability (statements 4, 9, 11, 14, and 16), responsiveness (statements 1, 8, 10, and 15), assurance (statements 2, 12, 13, and 22), empathy (statements 3, 5, 7, 18, and 20), and tangibles (statements 6, 17, 19, and 21).

The two sets of statements were designed to produce separate ratings of expectation and perceived service. The researcher did not use a two-column format but chose to measure

expectation and perception separately using two different pages. The researcher took in to consideration the suggestion of Clow and Vorhies (1993). These authors indicated that when expectation and experience evaluation are measured simultaneously, respondents tend to indicate that their expectations are greater than they actually were before the service encounter.

The survey required calculating disconfirmation scores between expectation and perception levels of service using labelled five-point balanced scale. In order to reduce respondent confusion and frustration and increase response rate, the researcher opted for the five- point rather than the seven-point scale after reviewing the findings of the pilot study and the recommendations of Babakus and Mangold (1992). The use of the simplified scale also allowed the researcher to use verbal labelling for all points of the scale, something not done in the original instrument. This omission has been criticized by Lewis (1993) who also believes that absence of label, notably at the mid point, might be interpreted as 'don't know' or 'do not understand'.

The five-point scale used to measure respondents expectations of the quality of services available was labelled as follows: 'very unimportant' (1), 'unimportant' (2), 'neither unimportant nor important' (3), 'important' (4), and 'very important' (5). For measuring student's perception of the provided services, a five-point balanced scale was also applied. The labels in this case were as follows: 'very dissatisfied' (1), 'dissatisfied' (2), 'neither dissatisfied nor satisfied' (3), 'satisfied' (4), and 'very satisfied' (5). For all the scales used in the survey instrument response 'do not know/no answer' (6) was allowed despite the fact that such answers offer no value to the research since they are excluded from the analysis.

However, the use of such an option gives the opportunity to the respondents to avoid answering questions, which do not represent their true knowledge. In some cases questionnaires remain uncompleted by respondents who feel that they are being forced to choose an answer that they do not want to give (Creative Research Systems, 2003).

In part three of the questionnaire, respondents were asked to rate the overall quality of service provided by Cyprus College and also to indicate their level of satisfaction/dissatisfaction with the provided service. In the first instance, a 5-point scale was used with labelling 'very poor' (1), 'poor' (2), 'neither poor nor good' (3), 'good' (4), and 'very good' (5) where in the second instance a statement measuring students' feelings toward the college (student satisfaction/dissatisfaction) was measured using a 5-point scale but with labels 'very dissatisfied' (1), 'dissatisfied' (2), 'neither dissatisfied nor satisfied' (3), 'satisfied' (4), and 'very satisfied' (5). In both questions the respondents had again the option of choosing not to answer or of stating their lack of knowledge (6).

In addition, part four of the questionnaire consists of nine statements/questions conceived to assess students' positive loyalty behavioural intentions and student complaints, which depend on the students' general assessment and attitude toward perceived service quality and student satisfaction/dissatisfaction. For this part of the questionnaire, the 13-item scale developed for service-oriented organisations by Zeithaml et al. (1996) was taken in to account. The specific 13-item scale structure includes loyalty behavioural intention questions, which concern saying positive things about the company, recommending the company to someone who seek advice,

encouraging friends and relatives to use the company, considering the company as first choice from which to buy services or doing more business with the company in the next few years.

The 11-item behavioural intention scale developed by White and Yu (2005) for a higher institutional setting was also consulted. The scale consists of three positive emotion items, four negative emotion items, and two other emotions, regret and disappointment. The scale included statements, regarding student complaints (to other students, to external agencies, and to college employees).

Once again, the panel discussed, evaluated and made recommendations on the set of variables. Recommendations included wording changes on some of the statements used in the scale proposed by White and Yu (2005) and incorporating in to the questionnaire 9 items from the proposed behavioural intention scale (see Appendix C). It was agreed by the panel members that two of items/statements, referring to tuition level changes should be left out because the college tuition is regulated/by the Ministry of Education and Culture and any reference to it could cause confusion, and possibly creating the impression that the college is planning a tuition increase.

In analysing behaviour intentions, subjects were required to respond to statements on a five-point scale that ranged from 'not likely at all' (1) to 'very likely' (5). Points 2 to 4 also had verbal tags ('Highly unlikely' (2), 'neither unlikely nor likely' (3), and 'highly likely' (4)). As before, choice (6) gave option to choose not to answer or to state their lack of knowledge.

Earlier consumer behaviour research practices were utilised to identify the demographic variables needed to determine attitudes (Wells & Prensky, 1996). These were developed as follows:

1. Gender was indicated by the respondent using a categorical question where male was coded 1 and female was coded 2.
2. Mode of study was indicated by the respondent using a categorical question where 'Full time' was coded 1, and 'Part time' was coded 2.
3. The student's nationality was also classified using a categorical question where 'Cypriot student' was coded 1, and 'International student' was coded 2.
4. The student's length of period completed at Cyprus College was indicated by the respondent using a categorical question where 'Less than one year' was coded 1, 'One year' was coded 2, 'Two years' was coded 3, 'Three years' was coded 4, and 'Four years or more' was coded 5.

The language of the modified SERVQUAL instrument was English since it was directed to both Cypriot and foreign students. Even though Cyprus College's main language of instruction is English and the defined population included only students who meet the college English language proficiency admission criteria, the researcher believes that this is one of the limitations of the study. It is a limitation because, for almost all of the respondents, English is not their first language.



### **3.5 Reliability and Validity of the Research Instrument**

#### **3.5.1 Reliability**

Reliability is concerned with the consistency, accuracy and predictability of research findings. The reliability of a measure refers to the extent to which the measurement process is free from random error (Zickmund, 2003). In this study, Cronbach alpha (Cronbach, 1951) is adopted to gauge the internal consistency of the measurement instrument. Internal consistency is an indicator of how well the various items complement each other in their measurement of different aspects of the same construct (Litwin, 1995). Hence Cronbach alpha is adopted in this study to assess the reliability of the measurement.

In the SERVQUAL study and most subsequent replication studies, the Cronbach alpha coefficient, an indicator of internal consistency reliability, have been over 0.7 (Asubonteng et al., 1996), which is suggested by Nunnally (1978) as a minimum level of acceptance in social science studies. For exploratory research, a general reliability of 0.50 – 0.60 is considered sufficient (Nunnally, 1978).

Parasuraman, et al. (1988) reported reliability coefficients for the five dimensions of service quality ranging from 0.72 for tangibles to 0.86 for empathy, with a total score of 0.92 reliability. Parasuraman, et al. (1991) also reported that other researchers found SERVQUAL reliability coefficients ranging from 0.53 to 0.93. There is also an indication from cross-cultural research that the scale may produce different Cronbach alpha when the same research take place in more than one geographic setting. Ford et al. (1999) computed alphas for a

QERVQUAL application in the higher education contexts of both New Zealand and the USA. The New Zealand study produced lower Cronbach alpha (ranging from 0.683 to 0.851) in all five dimensions compared to those in the USA (ranging from 0.705 to 0.889).

### **3.5.2 Validity**

The validity of a measurement scale is the extent to which it is a true reflection of the underlying variable that it is attempting to measure. Alternatively, validity is the extent to which the scale fully captures all aspects of the construct to be measured. Validity is concerned with the question: Are we measuring what we think we are measuring? Assessing the validity of a measurement scale includes examining three different types: content validity, predictive validity, and construct validity (Churchill, 1991; Nunnally, 1978). The current study addressed content validity through literature review and the pilot study since content validity is concerned with how well the scale or instrument represents the content of the property or characteristics being measured (Churchill, 1991).

Previous research using SERVQUAL has reported acceptable validity (Babakus & Boiler, 1992; Carman, 1990). In addition, Caruana et al. (2000) after testing the validity of the SERVQUAL instrument, concluded that respondents were generally capable of distinguishing between desired and adequate types of expectation.

### 3.6 Pilot Study

Questionnaire pre-testing/piloting offers many benefits, including the opportunity to experiment with various approaches to a given quotation or statement, wording choices for clarity, and understandability as well as examination of the content and the effect of different question sequences. More importantly however, pre-testing can give potential insight into the existence of position bias in either the questions or possible answers (Zikmund, 2003). Also following Suskie's (1997) recommendations about the need for piloting survey research before the actual one takes place, a draft of the adapted SERVQUAL survey was given to a volunteer group of eleven students fifteen days prior to the actual administration of the survey. These eleven students were volunteers recruited by the researcher. The group consisted of six female and five male students, three of whom were foreign students. Besides, the group comprised students who had studied at the college for at least one year. None of the participants were personally known to the researcher and all were excluded from the actual survey.

After introducing the purpose and objectives of the study, the survey was introduced by the researcher using a pre-written script. All volunteers then completed the survey within 20 minutes and subsequent discussion was encouraged. Volunteers were asked to comment on wording, format, clarity, and content. In order to acquire richer data from the volunteers the researcher encouraged them to discuss some of their experiences at the college. This approach allowed the researcher to gain some insights into their interpretation of service quality.

It was not the intention to use the volunteers as a focus group that would contribute data to the study. Though some focus group strategies were followed in order to make effective use of the pilot group, the typical outcomes of a focus group were not pursued. Nonetheless, the extended discussion did result in some changes to the survey.

Based on the student comments, discussion and the researcher's own perceptions of weaknesses in the instrument, wording was refined in the instructions, and other minor wording changes in the questionnaire were made for clarity purposes.

The eleven completed surveys from the pilot test were tallied to assure that the format of the survey was conducive to efficient and effective data entry and analysis. As stated previously the results were not included in this study.

### **3.7 Survey Administration and Data Collection**

The college adopted the SERVQUAL survey and the study methodology as part of its goal to systematically assess student satisfaction as well as to support the self-study report necessary for the university application process (see Appendix D). The Dean of Academic Affairs has approved the effort (see Appendix B). The college Research Centre (RC) and top management (academic and administrative) assisted in reviewing and refining the instrument and the underlying methodology of the study.

Via email, the Dean of Academic Affairs informed all faculty members about the intention and scope of the study. The faculty members were informed two weeks before the survey was distributed that a number of courses would be selected and they would be asked to take class time to assist in the administration of the survey. Once the classes were selected through the cluster sampling methodology described, the appropriate number of surveys (matched to the class enrolment) were prepared. Each questionnaire was accompanied by a cover letter, which explained the purpose of the survey to the student, identified the expected time for completion and assured the student of anonymity. The script, which was read by the researcher in class, also assured the students of anonymity, and asked them not to complete the survey if they had already done so in another class. Though the students were not explicitly informed that their participation was voluntary, the language of the cover letter indicated that they were invited to participate and cooperate. Neither a reward nor a penalty was offered to the student for completing or not completing the survey.

The survey was administrated from November 6 to November 10, 2006. The intention was to complete the survey within the shortest possible time period. Since the researcher was associated with some of the services being assessed, all completed surveys were returned to an appointed senior researcher of the RC to avoid the appearance of bias in data collection, editing and analysis.

After all the completed questionnaires were centrally edited for completeness and consistency, and subsequently coded, a junior researcher at RC performed data entry. Each usable survey was numbered and the data was entered with all responses linked to the number of the survey. After

being cleaned from possible data entry mistakes the data was loaded into SPSS for processing and analysis.

All responses were anonymous. Since no personal identification data, such as name or student number, was marked on the surveys, the survey data was not linked to existing student records at the college.

### **3.8 Data Analysis**

SPSS (Statistical Package for the Social Sciences) was employed to perform the data analysis. Several steps were taken to organize and analyse the data.

The first set of 22 questions, henceforth identified as 'Expectations', and the second set of 22 questions, henceforth identified as 'Perceptions', were analysed to determine the frequency and means of the responses. Both the expectations set and the perceptions responses were broken into two groups: those who rated a service on the 1-5 scale, and those with 'do not know or no answer' response; only the former group of responses were noted. The gap between expectations and perceptions on each of the items was reviewed in terms of the most positive and most negative gaps.

In preparation for the analysis of the second, third and fourth research questions, data were re-grouped for gender, nationality, and number of years at the college.

The following data analysis methods were used:

- Descriptive statistics: Standard descriptive statistics such as means, standard deviations and variances were reported for all variables to analyse the data set. Ranges and frequency distributions, and cross tabulations were used to assess the accuracy of data entry and for the needs of the research questions all questions/statements included in the questionnaire.
- One way analysis of variance (ANOVA): A one-way analysis of variance (ANOVA) was conducted using each of these categories as the independent variable or factor and the responses to expectations or perceptions as the dependent variable. An analysis was also conducted using those categories as the independent variable or factor and the gap score as the dependent variable. An analysis of variance compares the variance of means between groups to that of the variance of means within groups in order to determine whether one mean differs significantly from another. Significance at the .05 level was held to be creditable.
- Regression analysis: The primary purpose of regression analysis was to determine the importance weights indirectly (in the form of beta coefficients) by using unweighted or 'raw' scores, etc., as independent variables (perceived service quality and student satisfaction/dissatisfaction influence on behavioural intentions).
- Reliability analysis: Cronbach's alphas were computed for each set of variables measuring the same dimension to provide evidence of reliability. Reliability analysis was utilised for expectation and perceptions of service quality.

### **3.9 Ethical Considerations**

A number of issues were considered when conducting this study in order to make the process ethically sound. The participants in the study were informed of the purpose of the research and their consent was obtained. The researcher has explained to the research participants (students and management [both administrative and academic]) the purpose, aims, nature, and duration of the proposed study.

In terms of confidentiality and participants' anonymity both were fully secured. Furthermore, the respondents participated in the survey voluntarily, and the use of self-administrated questionnaire reduced the possibility of error or bias caused by the presence of the interviewer.

Moreover, experienced researchers were purposely selected to carry out the administration of the survey and not the faculty teaching the selected courses in order to minimise any bias which could have been caused due to their authority positions. Of course, it has to be mentioned that students at Cyprus College assess each course they are registered for towards the end of each semester/term. Therefore, the respondents were familiar with the instructions and procedures required for the completion of a questionnaire.

In addition, the researcher obtained approval for conducting the study from the Dean of Academic Affairs and followed the college's research policy.



Beyond the factors already examined, the researcher was fully aware of the pros and cons which could derive out of his current position within the College and his role as an insider researcher. Robson (2002) classifies the insider researcher as someone who carries out a study in their work setting.

According to Kvale (1995), with insider research, the concept of validity becomes problematic because of the researcher's involvement with the subject of the study. More specifically someone may question the researcher's objectivity and results may be distorted.

In order to overcome these weaknesses, the researcher had involved all the college's management in the process by asking them to participate in two panel discussions and in the design of the research instrument. In addition, the data was collected by the RC of the college. These precautions were taken by the researcher in order to overcome the question of objectivity and distortion of results.

Conversely, there are also many cited advantages of insider research. Some argue that insiders have knowledge to which the outsider is not privy (Rooney, 2004). In addition, Hockey (1993) stated that the insider researcher has the ability to share the social world of the participants and therefore is less likely to experience culture shock but on the contrary, the participants will show understanding and appreciation. Hockey offers a further advantage for insider research, namely that there is a possibility to enhance rapport with the research participants. Robson (2002) on the other hand states that 'over familiarity' and 'taken-for-granted-assumptions' can

lead to 'thinking as usual' and the replacement of truth with truism can easily take place. These conditions might lead to the lack of objectivity.

Of course, the issue of objectivity is a challenging one for any researcher. Bell (1993) suggests that seeking objectivity is an impossible goal and that the insider researcher must strive to accomplish it. However, examining all factors - the researcher's extensive experience with quantitative research, the awareness through out this project of possible objectivity problem, and the previously outlined detailed precautions taken - the researcher feels confident that subjectivity has been overcome.

### **3.10 Summary**

This chapter has provided a description of the research methodology and procedures that were utilised in conducting the analysis of the collected data. In addition the chapter incorporated a description of the methods and statistical techniques that were employed to ensure reliability and validity of the survey instrument.

The methodological foundation followed generated a sufficient response for an analysis of the research questions. Descriptive statistics and analysis of variance techniques will be used to present the data in Chapter Four, and a discussion will follow in Chapter Five.

## **CHAPTER FOUR**

### **DATA ANALYSIS**

#### **4.0 Introduction**

The results are discussed by first examining the demographic characteristics of the respondents, the reliability of the survey, and then by analysing the data with respect to each of the five research questions. Descriptive statistics are used to analyse the raw data, and a one-way analysis of variance (ANOVA) is used to determine statistical significance between groups for the first four research questions. Research question five was addressed using descriptive statistics, the Pearson product moment correlation coefficient and simple linear regression analysis.

#### **4.1 Demographic Characteristics**

The profile of the respondents is described in Table 4.1. The table also includes some demographic indicators of Cyprus College's actual student body, always within the parameters of the defined population.

Fifty-four percent of the respondents indicated male gender and 46% female gender. This compares very favourably with enrolment data drawn from the total defined population, which indicates that 53% were male and 47% female.

Twenty-five percent of the respondents have been attending Cyprus College for one year or less, 17% for two years, 28% for three years and 31% for four or more years. The characteristics of the respondents compare favourably with enrolment data drawn from the defined population, as indicated by Table 4.1.

**Table 4.1: Demographic Characteristics of Respondents**

<b>Base: All interviewed</b>		<b>N</b>	<b>%</b>	<b>Actual</b>
		<b>434</b>	<b>100</b>	<b>%</b>
Gender	• Male	234	54%	53%
	• Female	200	46%	47%
Duration at Cyprus College	• Less than 1 year	24	6%	4%
	• 1 year	81	19%	22%
	• 2 years	75	17%	21%
	• 3 years	121	28%	24%
	• 4 years or more	133	31%	29%
Mode of study	• Full time student	388	89%	87%
	• Part time student	46	11%	13%
Nationality	• Cypriot student	369	85%	84%
	• International student	65	15%	16%

The respondents were also asked to indicate whether where full-time students (registered for four or more courses) or part-time students (registered for three or less students). Eighty-nine percent of the respondents appeared to be full-time students and 11% part-time during the fall semester of 2006.

The results compare favourably with enrolment data drawn from the total defined population, which indicates that 87% of the students were registered for four or more courses during the fall semester of 2006 and only 13% were registered for three or less courses.

The percentages associated with nationality of the respondents were very similar to those of the defined population. Eighty-five per cent of the SERVQUAL respondents were Cypriots and 15% international students.

The analysis of the demographic characteristics of the sample has determined that the sample population is representative of the defined population in terms of gender, duration of study, mode of study, and nationality.

#### 4.3 Reliability Analysis

**Table 4.2: Reliability Analysis**

Cronbach's alpha					
Responsiveness	Assurance	Empathy	Tangible	Reliability	Total
.712	.756	.746	.641	.796	.919

The Cronbach's alpha for each of the five dimensions of service quality is presented in Table 4.2. In this study, Cronbach alpha was calculated by taking the expectation less perception scores (P-E) for each survey item representing the dimensions of service quality and calculating the Cronbach alphas for all items representing each dimension (Responsiveness,

Assurance, Empathy, Tangible, and Reliability). The Cronbach's alpha for service quality dimensions ranges between .712 and .796, except for tangibility, which is .641. The total alpha of .919 indicates that the five dimensions of SERVQUAL are internally reliable (Nunnally, 1978).

The higher Cronbach alpha coefficient indicates a high internal homogeneity amongst items of the measure. Nunnally (1978) suggests that for social research, a Cronbach alpha coefficient of at least 0.7 is required.

#### **4.4 Research Question One**

**Are there any significant gaps between student expectations of service and their perceptions of service quality performance?**

Data for this question were analysed by reviewing the respondents' *expectations*, *perceptions* and the subsequent *gaps* between expectations and perceptions.

For the analysis, Part One and Part Two of the SERVQUAL questionnaire were used. Part One asks respondents: 'How important are the following characteristics in determining the quality of service you expect to receive at a typical college/university?'. Twenty-two items followed. The respondents answered the question on a five-point scale with 1 (very unimportant), 2 (unimportant), 3 (neither unimportant nor important), 4 (important), and 5 (very important). The purpose of Part One was to elicit the students' *expectations* of service quality for a typical college.

Part Two of the SERVQUAL survey asked respondents: 'How accurately do you believe the characteristics which follow describe your experience of the quality of service offered at Cyprus College.' Respondents scored each item for the same five services as in Part One. The respondents answered the question on a five-point scale with 1 (strongly disagree), 2 (disagree), 3 (neither disagree nor agree), 4 (agree), to 5 (strongly agree). The purpose of Part Two was to elicit the students' *perceptions* of actual service quality at Cyprus College on the twenty-two items, which cluster under the five different dimensions as conceptualised in the SERVQUAL model. In both parts, students were able to respond, 'do not know' or 'no answer' if they were not familiar with the service.

The tables which follow represent the gap scores for each one of the five dimensions (responsiveness, assurance, empathy, tangible, and reliability) which are computed by comparing the expectations and perceptions of each individual respondent and then computing the mean of all of the gaps. A negative gap indicates that perception of service quality falls below expectations. A positive gap indicates that perceptions of service quality exceeded expectations. Respondents who scored only an expectation or a perception, instead of both, are excluded since no gap score could be computed.

Reviewing expectations and perceptions can be illuminating, but the essence of the SERVQUAL instrument focuses on the concept that *gaps* between expectations and perceptions indicate customer satisfaction or dissatisfaction. There is, however, no pre-set benchmark for judging how good or bad a gap is based on the magnitude of the gap.

#### 4.4.1 Responsiveness Dimension

**Table 4.3: Responsiveness Dimension: Gap Analysis**

RESPONSIVENESS Attributes	Expectation		Perception		Gap (P.E)	t-value	Sig.
	Mean	St. Deviation	Mean	St. Deviation			
1.Service is prompt	4.34	0.88	3.77	0.90	-0.57	10.048	.000
8.Employees are willing to help	4.49	0.82	3.83	0.90	-0.66	11.339	.000
10.Tell students when the service will be provided	4.25	0.87	3.73	0.92	-0.52	8.85	.000
15. Employees not too busy to help	4.17	0.87	3.54	1.04	-0.63	9.98	.000

In Table 4.3 it can be observed that the respondents assigned very high expectations in all items in the Responsiveness dimension (all mean scores are above 4 points), ranging from mean scores of 4.17 (Employee never too busy to respond to students) to 4.49 (Employees always willing to help students). From the perceived performance aspect, all items received scores below 4 points. The highest rating is recorded for item 'Employees always willing to help students' (Mean 3.83). It appears that for the Responsiveness dimension, all four items had significantly large negative service quality gaps ( $p = .000$ ;  $< .05$ ) of more than .5 points.



#### 4.4.2 Assurance Dimension

**Table 4.4: Assurance Dimension: Gap Analysis**

ASSURANCE Attributes	Expectation		Perception		Gap (P.E)	t-value	Sig.
	Mean	St. Deviation	Mean	St. Deviation			
2. Employees who are consistently courteous	4.47	0.82	3.80	0.91	-0.67	13.20	.000
12. Employees instil confidence	4.27	0.78	3.74	0.92	-0.52	9.40	.000
13. Knowledgeable employees	4.60	0.72	3.94	0.93	-0.65	12.42	.000
22. Accurate and confidential service	4.24	0.88	3.77	0.92	-0.47	8.89	.000

It can be observed in Table 4.4 that the respondents assigned very high expectations in all items in the Assurance dimension (all mean scores are above 4 points), ranging from 'Accurate and confidential services' (mean 4.24) to 'Knowledgeable Employees' (mean 4.60). From the perceived performance aspect, all items received scores below 4 points. The highest ratings are recorded for the item 'Knowledgeable Employees' (Mean 3.94) and the item 'Consistently courteous employees' (mean 3.80). It appears once again that for the Assurance dimension all four items had significantly large negative service quality gaps ( $p = 0.000; < .05$ ), ranging from 0.47 to 0.67.

#### 4.4.3 Empathy Dimension

**Table 4.5: Empathy Dimension: Gap Analysis**

EMPATHY Attributes	Expectation		Perception		Gap (P.E)	t-value	Sig.
	Mean	St. Deviation	Mean	St. Deviation			
3. Provide personal attention	4.35	0.89	3.65	1.00	-0.70	12.76	.000
5. Understanding needs of students	4.46	0.76	3.66	0.97	-0.80	13.76	.000
7. Policies that have the student's best interests	4.14	0.89	3.64	2.73	-0.50	3.58	.000
18. Provides individual attention	4.18	0.88	3.62	1.02	-0.56	9.84	.000
20. Convenient operating hours	4.26	0.91	3.64	1.05	-0.62	10.03	.000

Table 4.5 shows that the respondents assigned very high expectations in all items in the Empathy dimension (all mean scores are above 4 points), ranging from 'Policies that have student's best interests at heart' (mean 4.14) to 'Understanding needs of students' (mean 4.46). From the perceived performance aspect, all items received scores below 4 points. The highest rating is recorded for the item 'Understanding the specific needs of student' (mean 3.66). The other items have also received mean scores around 3.64 points. It appears that for the Empathy dimension, all five items had significantly large negative service quality gaps ( $p = 0.000$ ;  $< .05$ ), consisting of more than 0.5 points.

Overall, the attributes of the Empathy dimension received the lowest perception mean scores of all the rest of the dimensions and the highest negative service quality gap. According to the

findings, the Empathy dimension appears to be the most problematic area, thus requiring the greatest improvement.

#### 4.4.4 Tangible Dimension

**Table 4.6: Tangible Dimension: Gap Analysis**

TANGIBLE Attributes	Expectation		Perception		Gap (P.E)	t-value	Sig.
	Mean	St. Deviation	Mean	St. Deviation			
6. Attractive materials	4.16	0.82	3.79	0.87	-0.38	7.31	.000
17. Visual appealing physical facilities	3.69	1.08	3.69	0.99	0.00	0.19	.842
19. Employees neat, professional appearance	3.71	1.06	3.70	0.90	-0.01	0.42	.966
21. Modern-looking equipment	4.04	0.98	3.71	0.99	-0.33	5.69	.000

It can be observed in Table 4.6 that the respondents assigned expectations, which range from ‘Employees with neat, and professional appearances’ (mean 3,71) to ‘Visually appealing material’ (4.16). From the perceived performance aspect, all items received scores below 4 points. The highest rating is recorded for item ‘Attractive materials’ (mean 3.79). It appears that for two items ‘Visually appealing physical facilities’ and ‘Employees with neat, and professional appearances’ the negative service quality gaps were not significant ( $p = 0.000; < .05$ ). The remaining two items however have significantly negative service quality gaps ( $p = 0.000; < .05$ ), of less than 0.4 points.

#### 4.4.5 Reliability Dimension

**Table 4.7: Reliability Dimension: Gap Analysis**

RELIABILITY Attributes	Expectation		Perception		Gap (P.E)	t-value	Sig.
	Mean	St. Deviation	Mean	St. Deviation			
4. Providing services at the promised time (deadlines)	4.43	0.86	3.74	0.94	-0.69	11.84	.000
9. Keeping/Having accurate records	4.09	0.95	3.73	0.89	-0.37	7.75	.000
11. Providing services as promised	4.39	0.86	3.67	0.97	-0.71	12.34	.000
14. Dependability in handling service problems	4.26	0.88	3.65	1.00	-0.60	9.6	.000
16. Performs services correctly	4.15	0.85	3.70	0.88	-0.45	8.04	.000

It can be seen in the above table (4.7) that the respondents assigned very high expectations in all items in the Reliability dimension (all mean scores are above 4 points), ranging from 'Keeping accurate records' (mean 4.09) to 'Providing services as promised' (mean 4.39). From the perceived performance aspect, all items received scores below 4 points. The highest ratings are recorded for the item 'Providing service at the promised time' (Mean 3.74) and the item 'Keeping accurate records' (mean 3.73). It appears that for the Assurance dimension all four items have significantly large negative service quality gaps ( $p = 0.000$ ;  $< .05$ ).

Thus the answer to the Research Question One is affirmative in terms of the difference between the respondents' expectations and perceptions. It appears from the analysis that twenty out of the twenty-two measured items have significantly large negative service quality

gaps ( $p = 0.000$ ;  $< .05$ ). Only the items of the Tangible dimension appear to have zero or small negative service quality gaps. More specifically one item ('Visually appealing physical facilities') had no gap (0.00) and another item ('Employees with neat, and professional appearances') had a negative gap, but it was not significant ( $p = 0.000$ ;  $< .05$ ). The most problematic dimension appears to be the Empathy and the least problematic the Tangible dimension

#### **4.5 Research Question Two**

**Are there significant differences in student *expectations* of service quality based on gender, nationality and number of years at Cyprus College?**

Data for Research Question Two is analysed using a one-way analysis of variance and 95% confidence level. For the analysis, Part One of the questionnaire was used. Part One of the SERVQUAL survey asks respondents to indicate: 'How important are the following characteristics in determining the quality of service you expect to receive at a typical college/university?'. The respondents answered the question on a five-point scale with 1 (very unimportant), 2 (unimportant), 3 (neither unimportant nor important), 4 (important), and 5 (very important). In addition, students were able to respond, 'do not know' or 'no answer' if they were not familiar with the service.

The purpose of Part One is to elicit the students' *expectations* of service quality for a typical higher education institution for twenty-two items.

Respondents rating of their service quality expectations served as the dependent variable and gender, mode of study, nationality and number of years at the college as the independent variable in Table 4.8, 4.9, and 4.10, respectively. The data is reported separately for gender, nationality, and number of years at Cyprus College.

#### **4.5.1 Expectation by Gender**

Table 4.8 provides the mean scores by gender and indicates the significance at the .05 level. The items for which there is a statistical significance are shaded in yellow. The findings indicate that the female respondents had higher expectations than the male respondents in 21 out of the 22 measured attributes/items. The items for which females respondents had higher expectations than males are shaded in green.

For female respondents, the mean scores ranged from 3.65 to 4.67 with five items having mean scores above 4.5. For the male respondents, the mean scores ranged from 3.70 to 4.53 with one item having a mean score above 4.5. Both groups reflect the lowest expectation mean scores in the Tangible dimension and the highest expectation means scores in the Assurance dimension.

For seven items, the differences between male and female responses are statistically significant at the .05 level. The items for which there was statistical significance are shaded in yellow. These items are:

<b>Table 4.8: Expectation by Gender</b>		<b>Expectation</b>		<b>Gap</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>					
<b>Attributes</b>	<b>Mean-Females</b>	<b>Mean - Males</b>			
1. Service is prompt	4.36	4.33	0.03	.754	
8. Employees are willing to help	4.55	4.43	0.12	.118	
10. Tell students when the services will be provided	4.30	4.21	0.09	.286	
15. Employees not too busy to help	4.26	4.09	0.17	.049	
<b>ASSURANCE</b>					
<b>Attributes</b>					
2. Employees consistently courteous	4.56	4.39	0.17	.029	
12. Employees instil confidence	4.33	4.22	0.11	.145	
13. Knowledge employees	4.67	4.53	0.14	.041	
22. Accurate and confidential services	4.29	4.20	0.08	.323	
<b>EMPATHY</b>					
<b>Attributes</b>					
3. Provide personal attention	4.46	4.25	0.21	.014	
5. Understanding needs of students	4.51	4.42	0.09	.250	
7. Policies that have the student's best interests	4.15	4.14	0.01	.875	
18. Provide individual attention	4.24	4.12	0.10	.162	
20. Convenient operating hours	4.40	4.14	0.26	.004	
<b>TANGIBLE</b>					
<b>Attributes</b>					
6. Attractive materials	4.24	4.10	0.14	.083	
17. Visually appealing physical facilities	3.65	3.73	-0.08	.478	
19. Employees neat, professional appearance	3.72	3.70	0.03	.781	
21. Modern-looking equipment	4.10	3.99	0.12	.226	
<b>RELIABILITY</b>					
<b>Attributes</b>					
4. Providing services at the promised time	4.50	4.38	0.12	.154	
9. Keeping/Having accurate records	4.21	4.00	0.21	.027	
11. Providing services as promised	4.44	4.34	0.09	.260	
14. Dependability in handling service problems	4.36	4.17	0.20	.021	
16. Performs services correctly	4.19	4.11	0.08	.312	

1. Employees not too busy to help (Responsiveness)
2. Employees constantly courteous (Assurance)
3. Knowledgeable employees (Assurance)
4. Provide personal attention (Empathy)

5. Convenient operating hours (Empathy)
6. Keeping/Having accurate records (Reliability)
7. Dependability in handling service problems (Reliability)

The answer to Research Question Two, then is affirmative in terms of the difference between the responses of the females and males. There are significant differences based on gender in seven out of the 22 items ( $p=0.000$ ;  $<.05$ ). The Tangible dimension appears to be the only dimension, which did not have any items with significant differences between genders ( $p=0.000$ ;  $<.05$ ). Despite the differences between mean expectation scores, though, both female and male respondents tend to rate the items in the questionnaire similarly for both their low and high expectations. In sum, female respondents have higher expectations than males.

#### **4.5.2 Expectation by Nationality**

Table 4.9 provides the mean scores by nationality (Cypriot students vs. international students) and indicates significance at the .05 level. The findings indicate that the Cypriot students (respondents) had higher expectations than the international students (respondents) in 21 out of the 22 measured attributes/items. The only item in which foreign students had higher expectations than native students is 'Accurate and confidential services'. The items for which Cypriot students had higher expectations than foreign students are shaded in green.

For Cypriot students, the mean scores ranged from 3.73 to 4.61, with only one item having a mean score above 4.5 and four items having mean scores below 4. For the foreign students,



the mean scores ranged from 3.52 to 4.48, with eight items having mean scores below 4.0. Both groups had their lowest expectation mean scores in the Tangible dimension. The Cypriot students showed their highest expectation mean scores in the Assurance dimension and the foreign students, in the Reliability dimension.

<b>Table 4.9: Expectation by Nationality</b>		<b>Expectation</b>		<b>Gap</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>					
<b>Attributes</b>	<b>Cypriot</b>	<b>International</b>			
1. Service is prompt	4.34	4.33	0.02	.908	
8. Employees are willing to help	4.49	4.48	0.00	.974	
10. Tell students when the services will be provided	4.27	4.13	0.15	.220	
15. Employees not too busy to help	4.23	3.82	0.41	.001	
<b>ASSURANCE</b>					
<b>Attributes</b>					
2. Employees consistently courteous	4.52	4.19	0.32	.017	
12. Employees instil confidence	4.29	4.16	0.12	.246	
13. Knowledge employees	4.61	4.55	0.06	.551	
22. Accurate and confidential services	4.28	3.98	0.30	.012	
<b>EMPATHY</b>					
<b>Attributes</b>					
3. Provide personal attention	4.38	4.16	0.22	.105	
5. Understanding needs of students	4.49	4.32	0.16	.118	
7. Policies that have the student's best interests	4.19	3.89	0.30	.036	
18. Provide individual attention	4.23	3.86	0.38	.002	
20. Convenient operating hours	4.29	4.10	0.19	.125	
<b>TANGIBLE</b>					
<b>Attributes</b>					
6. Attractive materials	4.23	3.78	0.46	.000	
17. Visually appealing physical facilities	3.73	3.49	0.24	.115	
19. Employees neat, professional appearance	3.74	3.52	0.22	.132	
21. Modern-looking equipment	4.07	3.86	0.22	.109	
<b>RELIABILITY</b>					
<b>Attributes</b>					
4. Providing services at the promised time	4.47	4.23	0.24	.097	
9. Keeping/Having accurate records	4.10	4.05	0.05	.732	
11. Providing services as promised	4.40	4.34	0.06	.622	
14. Dependability in handling service problems	4.30	4.03	0.26	.029	

For seven items, the differences between native and foreign students are statistically significant at the .05 level. The items for which there is a statistical significance are shaded in yellow. These items are:

1. Employees not too busy to help (Responsiveness)
2. Employees constantly courteous (Assurance)
3. Accurate and confidential services (Assurance)
4. Policies that have the student's best interests (Empathy)
5. Provide personal attention (Empathy)
6. Attractive material (Tangible)
7. Dependability in handling service problems (Reliability)

Thus, the answer to Research Question Two is that there are significant differences based on nationality in seven out of the 22 items. Summarising, Cypriot students have higher expectations than foreign students.

#### **4.5.3 Expectation by number of years at Cyprus College**

For analysis, the data was grouped into two categories. The first category consisted of respondents who had been students at the college for up to two years referred to as the first group in the text and the second category of respondents who had been at the college for three or more years referred to as the second group.

Table 4.10 provides the mean scores by number of years the respondents have been at Cyprus College and indicates significance at the .05 level. The findings revealed that the respondents

of the second group (three or more years) had higher expectations than the respondents of the first group (up to two years) in 15 out of the 22 measured attributes/items, including all five

<b>Table 4.10: Expectation by Number of Years at the College</b>		<b>Expectation</b>		<b>Gap</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>					
<b>Attributes</b>	<b>Up to 2 years</b>	<b>3 or more</b>			
1. Service is prompt	4.31	4.36	-0.06	.521	
8. Employees are willing to help	4.41	4.54	-0.14	.087	
10. Tell students when the services will be provided	4.25	4.25	0.00	.973	
15. Employees not too busy to help	4.08	4.23	-0.15	.079	
<b>ASSURANCE</b>					
<b>Attributes</b>					
2. Employees consistently courteous	4.48	4.46	0.01	.858	
12. Employees instil confidence	4.24	4.29	-0.05	.553	
13. Knowledge employees	4.53	4.64	-0.11	.130	
22. Accurate and confidential services	4.27	4.22	0.06	.522	
<b>EMPATHY</b>					
<b>Attributes</b>					
3. Provide personal attention	4.32	4.37	-0.05	.565	
5. Understanding needs of students	4.47	4.46	0.01	.890	
7. Policies that have the student's best interests	4.03	4.22	-0.19	.030	
18. Provide individual attention	4.19	4.17	0.02	.858	
20. Convenient operating hours	4.26	4.27	-0.01	.883	
<b>TANGIBLE</b>					
<b>Attributes</b>					
6. Attractive materials	4.05	4.24	-0.19	.017	
17. Visually appealing physical facilities	3.75	3.66	0.09	.395	
19. Employees neat, professional appearance	3.67	3.73	-0.06	.569	
21. Modern-looking equipment	4.10	4.00	0.10	.315	
<b>RELIABILITY</b>					
<b>Attributes</b>					
4. Providing services at the promised time	4.38	4.47	-0.08	.336	
9. Keeping/Having accurate records	4.00	4.16	-0.16	.092	
11. Providing services as promised	4.37	4.40	-0.03	.750	
14. Dependability in handling service problems	4.18	4.31	-0.13	.139	
16. Performs services correctly	4.08	4.20	-0.13	.133	

items of the Reliability dimension, three each in Responsiveness and Empathy and two each in Assurance and Tangible. In one item the mean score is the same for both groups, while in the remaining six items, the respondents of the first group (up to two years) recorded higher expectations mean scores than the respondents of the second group (three or more years). Shaded in green are the items for which respondents who had been students at the college for up to two years had higher perception scores than respondents who had been students at the college for three or more years.

For respondents belonging to the first group (up to two years), the recorded mean scores ranged from 3.67 to 4.53, with only one item having a mean score above 4.5 and two items having mean scores below 4. For the respondents belonging to the second group (three or more years), the mean scores ranged from 3.66 to 4.64, with two items having mean scores above 4.5, and two items having mean score below 4.0. Both groups recorded their lowest expectation mean scores in the Tangible dimension and the highest in the Assurance and Responsiveness dimensions.

For only two items the differences between the first group (up to two years) and the second group (three or more years) responses are statistically significant at the .05 level. The items for which there is statistical significance are shaded in yellow. These items are:

1. Policies that have the student's best interests (Empathy)
2. Attractive material (Tangible)

The respondents who had been students at Cyprus College for three or more years appeared to have higher expectations than the respondents who had been students at the college for up to two years. The answer to Research Question Two is that the majority of the items have a very marginal gap, and there are significant differences based on the number of years at Cyprus College in only two out of the 22 items.

#### **4.6 Research Question Three**

**Are there significant differences in student *perceptions* of service quality based on gender, nationality and number of years at Cyprus College?**

Data for Research Question Two is analysed using one-way analysis of variance and a 95% confidence level. For the analysis, part two of the questionnaire was used. Part Two of the SERVQUAL survey asks respondents to indicate: “How accurately do the following characteristics describe their experience of the quality of service offered at Cyprus College?”. Twenty-two items followed. The respondents answered the question on a five- points scale from 1 (strongly disagree), 2 (disagree), 3 (neither disagree nor agree), 4 (agree), to 5 (strongly agree). In addition students were also able to respond, ‘do not know’ or ‘know answer’ if they were not familiar with the service. The purpose of Part Two is to elicit the students' *perception* of service quality offered at Cyprus College.

Respondents rating of their service quality perception (experience) served as the dependent variable and gender, nationality and number of years at the college as the independent variable in table 4.11, 4.12, and 4.13 respectively. The data is reported separately for gender, nationality, and number of years at Cyprus College.

#### 4.6.1 Perception by Gender

Table 4.11 provides mean scores by gender. The items for which there are significant differences between males and females at the point .05 level are shaded in yellow. For female respondents, the mean scores, ranged from 3.44 to 4.94 and for the male respondents ranged

<b>Table 4.11: Perception by Gender</b>		<b>Perception</b>		<b>Gap</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>					
<b>Attributes</b>	<b>Mean – Females</b>	<b>Mean-Males</b>			
1. Service is prompt	3.75	3.78	-0.03	.771	
8. Employees are willing to help	3.75	3.89	-0.14	.119	
10. Tell students when the services will be provided	3.75	3.71	0.04	.667	
15. Employees not too busy to help	3.50	3.57	-0.07	.471	
<b>ASSURANCE</b>					
<b>Attributes</b>					
2. Employees consistently courteous	3.88	3.72	0.16	0.76	
12. Employees instil confidence	3.73	3.75	-0.02	.852	
13. Knowledge employees	3.94	3.94	0.00	.983	
22. Accurate and confidential services	3.85	3.69	0.16	.077	
<b>EMPATHY</b>					
<b>Attributes</b>					
3. Provide personal attention	3.62	3.67	-0.06	.560	
5. Understanding needs of students	3.56	3.75	-0.20	.041	
7. Policies that have the student's best interests	3.44	3.82	-0.37	.173	
18. Provide individual attention	3.66	3.58	0.07	.451	
20. Convenient operating hours	3.56	3.72	-0.16	.108	
<b>TANGIBLE</b>					
<b>Attributes</b>					
6. Attractive materials	3.83	3.75	0.07	.384	
17. Visually appealing physical facilities	3.68	3.70	-0.02	.819	
19. Employees neat, professional appearance	3.63	3.76	-0.13	.155	
21. Modern-looking equipment	3.78	3.65	0.13	.189	
<b>RELIABILITY</b>					
<b>Attributes</b>					
4. Providing services at the promised time	3.62	3.84	-0.22	.017	
9. Keeping/Having accurate records	3.70	3.75	-0.05	.557	
11. Providing services as promised	3.62	3.72	-0.10	.294	
14. Dependability in handling service problems	3.70	3.61	0.09	.369	
16. Performs services correctly	3.66	3.74	-0.07	.384	

from 3.58 to 3.94. It is important to mention that all statements for both groups had a mean score

below 4. The findings also indicated that female respondents had recorded higher perceptions than males in seven items and male respondents in 14 items. One item (Knowledgeable employees) had the same mean score for both groups. The items for which female respondents had higher perception mean scores than males are shaded with green.

Both groups recorded their lowest perception mean scores in the Empathy dimension and the highest perception mean scores in the Tangible and Responsiveness dimension.

For two of the items, the differences between male and female responses were statistically significant at the .05 level. The items for which there is statistical significance are the following:

1. Accurate and confidential service (Assurance)
2. Understanding needs of students (Empathy)

The answer to Research Question Three is that there are significant differences based on gender in two of the twenty-two items. It appears, however, from the overall findings that the female respondents are less satisfied than the male with the quality of the provided services at Cyprus College.

#### 4.6.2 Perception by Nationality

<b>Table 4.12: Perception by Nationality</b>		<b>Perception</b>		<b>Gap</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>					
<b>Attributes</b>	<b>Cypriot</b>	<b>International</b>			
1. Service is prompt	3.83	3.44	0.39	.004	
8. Employees are willing to help	3.83	3.83	0.00	.985	
10. Tell students when the services will be provided	3.76	3.54	0.22	.124	
15. Employees not too busy to help	3.58	3.27	0.32	.029	
<b>ASSURANCE</b>					
<b>Attributes</b>					
2. Employees consistently courteous	3.81	3.74	0.07	.059	
12. Employees instil confidence	3.77	3.62	0.15	.319	
13. Knowledge employees	3.97	3.78	0.19	.137	
22. Accurate and confidential services	3.75	3.84	-0.09	.469	
<b>EMPATHY</b>					
<b>Attributes</b>					
3. Provide personal attention	3.66	3.58	0.08	.578	
5. Understanding needs of students	3.67	3.61	0.07	.627	
7. Policies that have the student's best interests	3.67	3.48	0.19	.621	
18. Provide individual attention	3.62	3.60	0.02	.860	
20. Convenient operating hours	3.64	3.63	0.01	.947	
<b>TANGIBLE</b>					
<b>Attributes</b>					
6. Attractive materials	3.83	3.57	0.25	.032	
17. Visually appealing physical facilities	3.73	3.48	0.25	.059	
19. Employees neat, professional appearance	3.70	3.70	0.00	.995	
21. Modern-looking equipment	3.78	3.73	0.05	.385	
<b>RELIABILITY</b>					
<b>Attributes</b>					
4. Providing services at the promised time	3.78	3.48	0.30	.049	
9. Keeping/Having accurate records	3.74	3.67	0.06	.686	
11. Providing services as promised	3.72	3.38	0.35	.044	
14. Dependability in handling service problems	3.71	3.34	0.36	.024	
16. Performs services correctly	3.75	3.44	0.31	.008	

Table 4.12 provides the mean scores by nationality (Cypriot students vs. international students), and indicates significance at the .05 level. The findings indicate that the Cypriot



respondents had higher perceptions than the foreign students 19 out of the 22 measured attributes/items. Two items (Employees willing to help and Employees neat, professional appearance) had the same mean scores for both groups. The items for which Cypriot students respondents have higher perception mean scores than the foreign students respondents are shaded with green.

For Cypriot students, the mean scores ranged from 3.58 to 3.97 and for the foreign students, the mean scores ranged from 3.34 to 3.84. The native students recorded their highest expectation means scores in the Assurance dimension and the foreign students, in the Tangible dimension.

For seven items, the differences between native and foreign responses are statistically significant at the .05 level. The items for which there is statistical significance are shaded in yellow. These items are:

1. Service is prompt (Responsiveness)
2. Employees not too busy to help (Responsiveness)
3. Attractive material (Tangible)
4. Providing services at the promised time (Reliability)
5. Providing service as promised (Reliability)
6. Dependability in handling service problems (Reliability)
7. Perform services correctly (Reliability)

None of the items which were statistically significant, are found in the Assurance and Empathy dimensions. Four out of the eight items which were statistically significant, on the other hand were from the Reliability dimension, two from the Responsiveness dimension and one from the Tangible dimension.

Therefore the answer to Research Question Three is that there were differences based on nationality in 19 out of the 22 items from which seven of the differences were statistically significant. To conclude, Cypriot students had higher expectations than foreign students.

#### **4.6.3 Perception by Number of Years at Cyprus College**

For analysis, the data was grouped into two categories. The first category consisted of respondents who had been students at the college for up to two years referred as the first group in the text and the second category, of respondents who had been at the college for three or more years (the second group).

Table 4.13 provides the mean scores by number of years the respondents had been at Cyprus College and indicates significance at the .05 level. The findings indicate that the respondents of the first group (up to two years) had higher perception mean scores than the respondents of the second group (three or more years) in 11 out of the 22 measured attributes/items, including all four items of the Responsiveness dimension, two each in Empathy, Tangible, and Reliability, and one in Assurance. In two items, the mean scores were the same for both groups. Shaded in green are the items for which respondents who had been students at the

<b>Table 4.13: Perception Number of Years at Cyprus College</b>		<b>Perception</b>		<b>Gap</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>					
<b>Attributes</b>	<b>Up to 2 years</b>	<b>3 or more</b>			
1. Service is prompt	3.80	3.74	0.06	.512	
8. Employees are willing to help	3.84	3.81	0.03	.736	
10. Tell students when the services will be provided	3.75	3.71	0.04	.659	
15. Employees not too busy to help	3.62	3.48	0.14	.173	
<b>ASSURANCE</b>					
<b>Attributes</b>					
2. Employees consistently courteous	3.78	3.81	-0.03	.749	
12. Employees instil confidence	3.72	3.76	-0.04	.674	
13. Knowledge employees	3.91	3.97	-0.06	.521	
22. Accurate and confidential services	3.78	3.76	0.02	.867	
<b>EMPATHY</b>					
<b>Attributes</b>					
3. Provide personal attention	3.64	3.65	0.00	.966	
5. Understanding needs of students	3.75	3.60	0.15	.132	
7. Policies that have the student's best interests	3.52	3.73	-0.20	.465	
18. Provide individual attention	3.58	3.64	-0.06	.553	
20. Convenient operating hours	3.73	3.58	0.15	.138	
<b>TANGIBLE</b>					
<b>Attributes</b>					
6. Attractive materials	3.79	3.79	0.00	.979	
17. Visually appealing physical facilities	3.74	3.66	0.07	.449	
19. Employees neat, professional appearance	3.67	3.72	-0.06	.538	
21. Modern-looking equipment	3.79	3.65	0.14	.158	
<b>RELIABILITY</b>					
<b>Attributes</b>					
4. Providing services at the promised time	3.70	3.76	-0.06	.496	
9. Keeping/Having accurate records	3.63	3.79	-0.17	.076	
11. Providing services as promised	3.68	3.67	0.02	.857	
14. Dependability in handling service problems	3.64	3.66	-0.01	.905	
16. Performs services correctly	3.72	3.69	0.03	.729	

college for up to two years had higher perception scores than respondents who had been students at the college for three or more years.

For respondents belonging to the first group (up to two years), the mean scores ranged from 3.67 to 4.53, with only one item having a mean score above 4.5 and two items having mean scores below 4. For the respondents belonging to the second group (three or more years), the mean scores ranged from 3.66 to 4.64, with two items having mean scores above 4.5 and with another two items having mean score below 4.0. Both groups recorded their lowest expectation mean scores in the Tangible dimension and the highest in the Assurance and Responsiveness dimensions.

The answer to Research Question Three is that there are no items with differences between the first and the second group responses, which were statistically significant at the .05 level. It appears, however that the respondents who had been students at Cyprus College for three or more years had marginally higher perception than the respondents who had been students at the college for less than three years in the Reliability dimension. Other than that, the differences in perception between the two groups are not significant ( $p: 0.000; <0.5$ ).

#### **4.7 Research Question Four**

**Are there significant differences in the gaps between expectations and perceptions of service quality based on gender, nationality, and number of years at Cyprus College?**

The SERVQUAL model posits that customer satisfaction and dissatisfaction are functions of the magnitude and direction of the gap between expectations and perceptions. There is no-preset benchmark of what constitutes a good or a bad gap score.

Data for Research Question Four is analysed using a one-way analysis of variance, employing a 95% confidence level. Respondents' gaps between service quality expectations and perceptions served as the dependent variable, and gender and ethnicity served as the independent variables in table 4.14, 4.15, and 4.16, respectively. The data is reported separately for gender, nationality, and number of years at Cyprus College.

#### **4.7.1 Gaps by Gender**

Table 4.14 provides the mean gap scores by gender. The items for which there are statistically significant differences between males and females at the .05 are highlighted in yellow.

For all 22 items in Table 4.14, there were statistically significant differences between male and female gap scores in only six items. The six items where the gaps were significant indicate that the females had a significantly larger negative gap score than males.

Three of the differences occurred in the Empathy dimension, two were in Reliability, one in Responsiveness, and none in Assurance and Tangible dimensions. These items are:

1. Employees are willing to help (Responsiveness)
2. Provide personal attention (Empathy)
3. Understanding needs of students (Empathy)
4. Convenient operating hours (Empathy)
5. Providing services at the promised time (Reliability)
6. Keeping/Having accurate records (Reliability)

<b>Table 4.14: Gap by Gender</b>	<b>Gap – Females</b>	<b>Gap – Males</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>			
<b>Attributes</b>	<b>(P-E)</b>	<b>(P-E)</b>	
1. Service is prompt	-0.60	-0.55	.542
8. Employees are willing to help	-0.80	-0.54	.014
10. Tell students when the services will be provided	-0.55	-0.50	.602
15. Employees not too busy to help	-0.76	-0.52	.074
<b>ASSURANCE</b>			
<b>Attributes</b>			
2. Employees consistently courteous	-0.68	-0.66	.783
12. Employees instil confidence	-0.59	-0.46	.231
13. Knowledge employees	-0.73	-0.59	.291
22. Accurate and confidential services	-0.77	-0.51	.412
<b>EMPATHY</b>			
<b>Attributes</b>			
3. Provide personal attention	-0.84	-0.58	.029
5. Understanding needs of students	-0.95	-0.67	.026
7. Policies that have the student's best interests	-0.71	-0.32	.145
18. Provide individual attention	-0.58	-0.54	.833
20. Convenient operating hours	-0.84	-0.42	.002
<b>TANGIBLE</b>			
<b>Attributes</b>			
6. Attractive materials	-0.41	-0.35	.702
17. Visually appealing physical facilities	0.03	-0.03	.554
19. Employees neat, professional appearance	-0.09	0.06	.221
21. Modern-looking equipment	-0.33	-0.34	.631
<b>RELIABILITY</b>			
<b>Attributes</b>			
4. Providing services at the promised time	-0.88	-0.54	.009
9. Keeping/Having accurate records	-0.51	-0.25	.012
11. Providing services as promised	-0.82	-0.63	.103
14. Dependability in handling service problems	-0.66	-0.56	.435
16. Performs services correctly	-0.53	-0.37	.174

For female respondents, the gap scores were all negative except one (Visually appealing physical facilities). The negative gap scores for females ranged from -0.09 to -0.95. The study also indicated that the female respondents had higher negative gap scores than males in twenty items. The negative gap scores for male respondents ranged from -0.03 to -0.67. For male

respondents, the gap scores were also all negative except one (Employees neat, professional appearance). The items for which female respondents had higher gap scores than males are shaded in green.

The answer to the Research Question Four is that there are six significant differences in the mean gap scores between male and female respondents, but these differences are not found in the majority of the items. In sum, overall female respondents appeared to be less satisfied than males with the service quality offered at Cyprus College.

#### **4.7.2 Gaps by Nationality**

Table 4.15 provides the mean gap scores by nationality. The items for which there are statistically significant differences between Cypriot students and the international students at the .05 level are highlighted in yellow.

For all 22 items in Table 4.15, there were statistically significant differences between native students and international students gap scores in only three items (One each in the Responsiveness, Assurance, and Reliability dimensions). These items are:

1. Service is prompt (Responsiveness)
2. Accurate and confidential service (Assurance)
3. Perform service correctly (Reliability)

<b>Table 4.15: Gap by Nationality</b>	<b>Gap – Cypriots</b>	<b>Gap – International</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>			
<b>Attributes</b>	<b>(P-E)</b>	<b>(P-E)</b>	
1. Service is prompt	-0.52	-0.89	.018
8. Employees are willing to help	-0.66	-0.66	.910
10. Tell students when the services will be provided	-0.51	-0.59	.900
15. Employees not too busy to help	-0.65	-0.56	.588
<b>ASSURANCE</b>			
<b>Attributes</b>			
2. Employees consistently courteous	-0.71	-0.46	.083
12. Employees instil confidence	-0.52	-0.54	.974
13. Knowledge employees	-0.63	-0.76	.456
22. Accurate and confidential services	-0.53	-0.14	.004
<b>EMPATHY</b>			
<b>Attributes</b>			
3. Provide personal attention	-0.72	-0.58	.473
5. Understanding needs of students	-0.81	-0.72	.492
7. Policies that have the student's best interests	-0.52	-0.41	.152
18. Provide individual attention	-0.61	-0.26	.050
20. Convenient operating hours	-0.65	-0.46	.620
<b>TANGIBLE</b>			
<b>Attributes</b>			
6. Attractive materials	-0.41	-0.21	.065
17. Visually appealing physical facilities	0.00	-0.02	.889
19. Employees neat, professional appearance	-0.04	0.17	.298
21. Modern-looking equipment	-0.30	-0.13	.570
<b>RELIABILITY</b>			
<b>Attributes</b>			
4. Providing services at the promised time	-0.69	-0.75	.520
9. Keeping/Having accurate records	-0.37	-0.38	.676
11. Providing services as promised	-0.67	-0.96	.101
14. Dependability in handling service problems	-0.59	-0.69	.950
16. Performs services correctly	-0.40	-0.72	.009

The gap scores for the native students were all negative except one (Visually appealing physical facilities). The negative gap scores for native students ranged from -0.04 to -0.81. The study also indicated that the native students had higher negative gap scores than foreign students in ten items. The negative gap scores for foreign students ranged from -0.02 to -0.96.



For the foreign students, the gap scores were all negative. The items for which native students have higher gap scores than foreign students are shaded in green.

Additionally, the study indicates that native students had greater negative gap scores than foreign students in all items of the Empathy dimension and foreign students had greater negative gap scores than native students in all items of the Reliability dimension.

The answer to Research Question Four, is that there are some significant differences in the mean gap scores between native and foreign students, but not in the majority of the items. Concluding, native students were less satisfied than foreign respondents mainly within the Empathy dimension while foreign students were less satisfied than native students within the Reliability dimension.

#### **4.7.3 Gaps by Number of Years at Cyprus College**

For analysis, the data was grouped into two categories. The first category consisted of respondents who had been students at the college for up to two years referred to as the first group and the second category of respondents, who had been at the college for three or more years (the second group).

Table 4.16 provides the mean gap scores by the number of years the respondents had been at Cyprus College. The items for which there were statistically significant differences between respondents who had been students at the college for up to two years and the respondents who

<b>Table 4.16: Gap by Number of Years at Cyprus College</b>	<b>Gap-Up to 2 years</b>	<b>Gap – 3 or more</b>	<b>Sig.</b>
<b>RESPONSIVENESS</b>			
<b>Attributes</b>	<b>(P-E)</b>	<b>(P-E)</b>	
1. Service is prompt	-0.51	-0.62	.252
8. Employees are willing to help	-0.56	-0.73	.180
10. Tell students when the services will be provided	-0.50	-0.54	.683
15. Employees not too busy to help	-0.46	-0.75	.032
<b>ASSURANCE</b>			
<b>Attributes</b>			
2. Employees consistently courteous	-0.70	-0.66	.786
12. Employees instil confidence	-0.52	-0.53	.974
13. Knowledge employees	-0.62	-0.68	.438
22. Accurate and confidential services	-0.50	-0.46	.778
<b>EMPATHY</b>			
<b>Attributes</b>			
3. Provide personal attention	-0.67	-0.72	.635
5. Understanding needs of students	-0.72	-0.85	.224
7. Policies that have the student's best interests	-0.50	-0.49	.057
18. Provide individual attention	-0.60	-0.53	.498
20. Convenient operating hours	-0.52	-0.69	.221
<b>TANGIBLE</b>			
<b>Attributes</b>			
6. Attractive materials	-0.26	-0.46	.050
17. Visually appealing physical facilities	-0.01	0.01	.940
19. Employees neat, professional appearance	-0.01	-0.01	.972
21. Modern-looking equipment	-0.31	-0.35	.947
<b>RELIABILITY</b>			
<b>Attributes</b>			
4. Providing services at the promised time	-0.68	-0.70	.828
9. Keeping/Having accurate records	-0.37	-0.37	.717
11. Providing services as promised	-0.69	-0.73	.925
14. Dependability in handling service problems	-0.54	-0.65	.552
16. Performs services correctly	-0.35	-0.51	.212

had been students at the college for three or more years at the .05 level are highlighted in yellow.

For all 22 items in Table 4.16, there were statistically significant differences between the first and the second group gap scores in only one item in the Responsiveness dimension (Employees not too busy to help).

The gap scores for the respondents of the first group (up to two years) were all negative. The negative gap scores for this group of respondents ranged from  $-0.01$  to  $-0.72$ . The study also indicated that this group of respondents had higher negative gap scores than respondents of the second group (three or more years) in only four items. The negative gap scores for respondents belonging to the second group (three or more years) ranged from  $-0.01$  to  $-0.85$ . For this group of respondents, the gap scores were also all negative. The items for which respondents belonging to the first group (up to two years) had higher gap scores than respondents belonging to the second group (three or more years) are shaded in green.

Moreover, the study indicates that the respondents who had been students at Cyprus College for three or more years had greater negative gap scores than the rest of the respondents in all items of the Responsiveness and in four out of five items of the Reliability dimension.

The answer to Research Question Four, is that there are significant differences in the mean gap scores between respondents who belong to the first group (up to two years) and the respondents who belong to the second group (three or more years), but in only one of the items. In brief, the respondents who were students at the college for three or more years

appeared to be less satisfied than the respondents who had been students at the college for up to two years with the offered quality of service at Cyprus College.

#### **4.8 Research Question Five**

**What is the relationship between service quality, student satisfaction and student behavioural intention?**

The analysis of the findings is presented in separate sections. The first section, labelled 'Descriptive Analysis, provides a description of the questions of Part Three and Four of the questionnaire. The second section is labelled 'Correlation Coefficient and Linear Regression Analysis.'

Part Three of the questionnaire survey asks respondents: 'How would you rate the overall quality of service provided by Cyprus College?' and 'Overall, how satisfied are you with Cyprus College?' The respondents answered the question on a five-point scale. In addition, respondents were also able to respond, 'do not know' or 'no answer'. Part Four of the questionnaire was comprised of nine statements, designed to measure respondent's behavioural intention. The respondents answered the question on a five-point scale, but were also able to respond, 'do not know' or 'no answer'. For the analysis, the two questions of Part Three of the questionnaire were cross-tabulated with the demographic characteristics of the respondents and the nine statements/questions of Part Four of the questionnaire.

## 4.8.1 Descriptive Analysis

### 4.8.1.1 Overall Quality of Service and Behavioural Intention

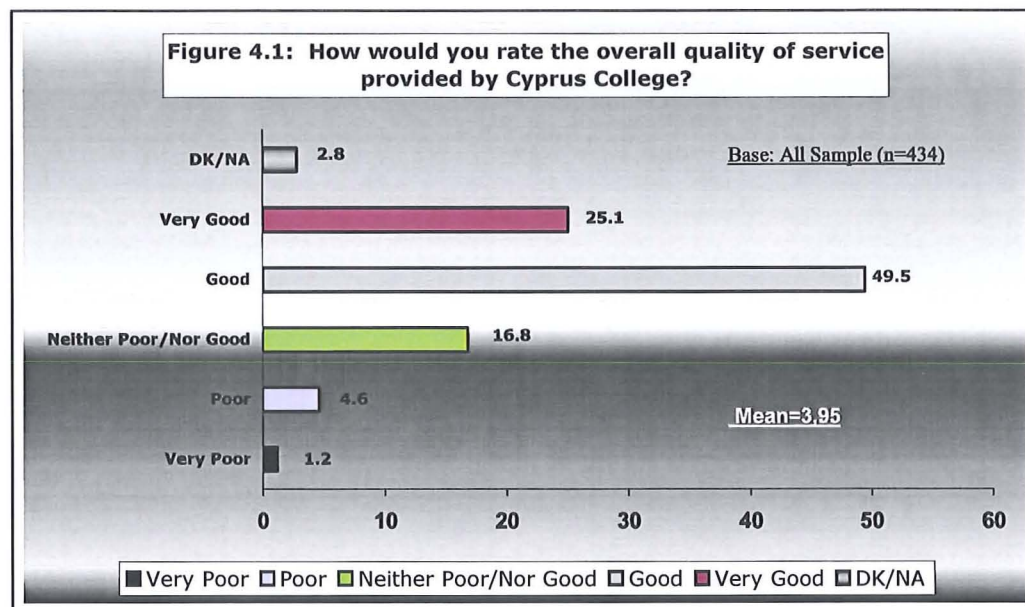
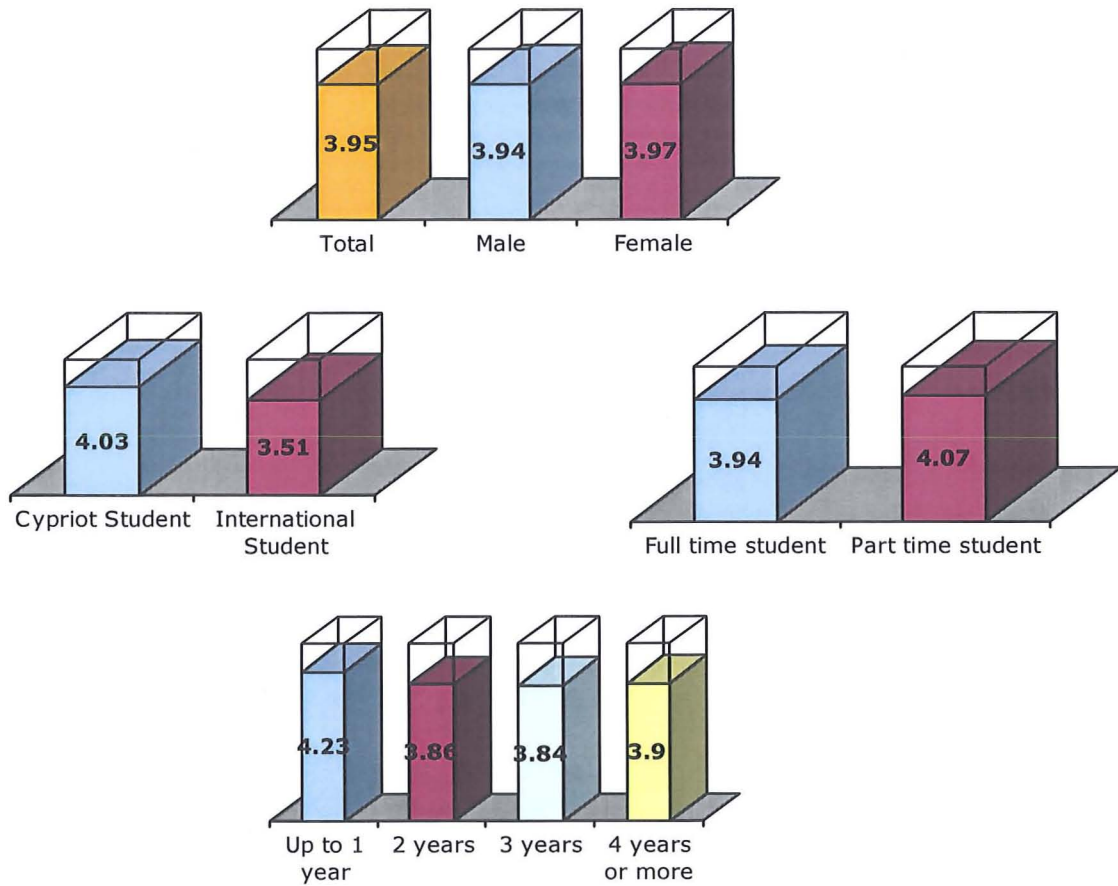


Figure 4.1 presents the respondents' rating on the overall quality of service provided by Cyprus College.

It appears that the majority of the respondents (74.6%) stated that the overall quality of the service provided by the college was either good (49.5%) or very good (25.1%). Only 5.8% of the respondents stated that the overall quality of the services provided was either poor or very poor. The total mean score is 3.95.

Figure 4.2 presents the mean scores of the answers given by the respondents based on their demographic characteristics. Regarding the overall quality of service provided by the college, the study revealed the following information:

**Figure 4.2: How would you rate the overall quality of service provided by Cyprus College (by demographics)?**



- Even though the study indicates that female respondents had higher negative gap scores than males in 20 out of the 22 items, female respondents rated the quality of the provided service only marginally higher than the male respondents (3.97 vs. 3.94). In addition, female respondents had recorded substantially higher expectations than males (higher mean scores) in 21 out of the 22 items, while both female and male respondents had recorded similar perception mean scores (range from 3.44 to 4.94 vs. 3.58 to 3.94). It appears that perception (actual performance) alone could influence the way the respondents measure the overall quality of the provided services.

- Even though the study indicates that there are only few significant differences in the mean gap scores between native and international students, the native students appeared to rate the quality of the provided service substantially higher than international students (4.03 vs. 3.51). In addition, native students recorded both higher expectations and higher perceptions mean scores than international students. These findings also indicate that perception (actual performance) alone could influence the way the respondents measure the overall quality of the provided services.
- Respondents who studied part-time at the college rated the service provided higher than the respondents who studied full-time at the college (4.07 vs. 3.51).
- Respondents who studied at the college one year or less, appeared to rate the service provided substantially higher than the respondents who studied at the college for two or more years (4.23 vs. [3.86, 3.84 and 3.9]).

Table 4.17 presents a cross tabulation of the overall quality of service provided by Cyprus College with the set of behavioural intention statements (see Part Four of the questionnaire). The table presents the findings in three columns. The first row presents the mean scores provided by the respondents who stated that the overall quality of services is either poor or very poor; the second column presents the mean scores for those who stated that the provided quality of services is good or very good; and the third column, those who stated that the overall quality of services is neither poor nor good.

The study indicates that when faced with the a problem the respondents, who rated the overall quality of the service provided by Cyprus College as either poor or very poor, would be more

**Table 4.17: Likelihood of taking the following actions, regarding the overall quality of service provided by Cyprus College**

	Very Poor/ Poor	Good/ Very Good	Neither Poor/Nor Good
Say positive things about Cyprus College to other people	2.76	4.06	3.23
Recommend Cyprus College to someone who seeks advice about college education	2.72	4.14	3.32
Encourage friends and relatives to consider Cyprus College for their educational needs	2.6	4.08	3.28
Consider Cyprus College as your first choice if you wish to pursue higher studies	2.43	3.6	2.78
Continue your studies at Cyprus College even if you had to pay higher tuition	2	2.94	2.49
Transfer to another college if you experience a problem	3.62	3.3	3.77
Complain to other students if you experience a problem	3.63	3.53	3.81
Complain to Cyprus College's employees if you experience a problem	3.75	3.72	3.66
Complain to external agencies if you experience a problem	3.48	2.99	3.27

Respondents who had rated the overall quality of service provided by the college as either good or very good were more inclined than those who rated the provided service either poor or very poor to:

- Continue their studies at the college even if they had to pay higher tuition (2.94 vs. 2)
- Consider Cyprus College as their first choice if wishing to pursue higher studies (3.6 vs. 2.43)



- Encourage their friends and relatives to continue their studies at Cyprus College (4.8 vs. 2.6)
- Recommend Cyprus College to someone who seeks advice about college education (4.14 vs. 2.27)
- Say positive things about Cyprus College to other people (4.06 vs. 2.76)

The study also revealed that respondents who found the quality of the service provided neither poor nor good were more willing than the rest of the respondents, to complain to other students and/or transfer to another college if they had a problem.

‘Continue your studies at Cyprus College even if you had to pay higher tuition’ is the statement which has the smallest mean score in all three categories (2, 2.94 and 2.49 respectively).

The answer to the Question Five is that there is a relationship between service quality and behavioural intention. As noted previously, those rating overall level of service as poor or very poor are more likely than those rating as good or very good to complain to external agencies, to other students, to college employees, and/or transfer to another college if they experience a problem.

Conversely, respondents who stated that the overall quality of the service provided is either good or very good appeared more inclined than the rest of the respondents to say positive

things about the college, recommend it to others and consider it as their first choice if they choose to pursue a higher degree.

In addition, the study has shown that foreign students, full-time students and those who have been at the college for more than a year appeared to rate the overall level of service quality lower than the respondents who had other demographic characteristics.

Finally, it can be said that all the respondents appeared unwilling to continue their studies at the college if they had to pay higher tuition.

#### 4.8.1.2 Overall Satisfaction with Cyprus College and Behavioural Intention

Graph 4.3 presents how satisfied the respondents were with Cyprus College. It appears that the majority of the respondents (66.1%) stated that they were either satisfied (46.3%) or very satisfied (19.8%). A significant percentage (23.3%) stated that they were neither dissatisfied nor satisfied, while 7.8% appeared to be dissatisfied or very dissatisfied overall with the college. The total mean score is 3.79

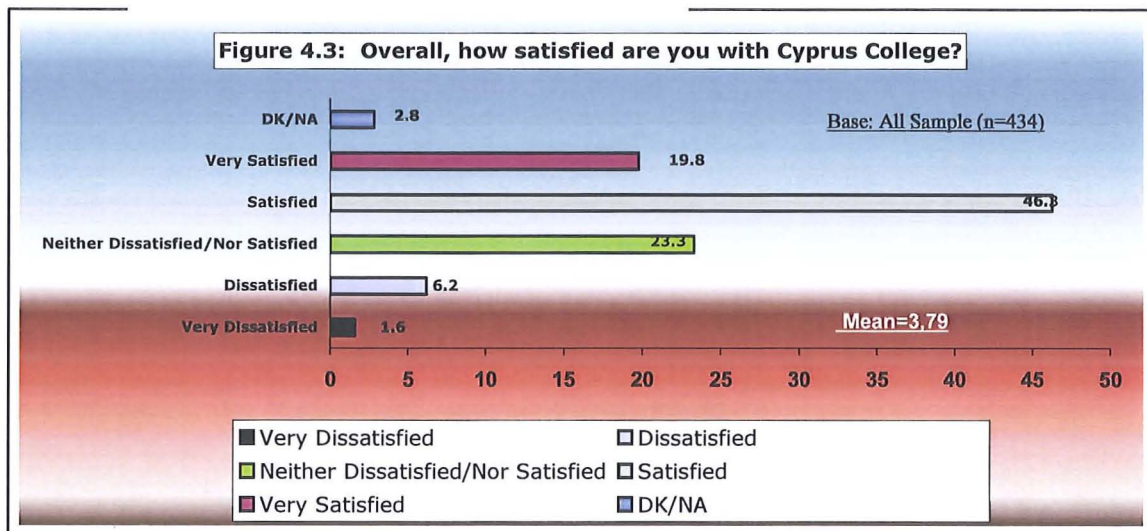
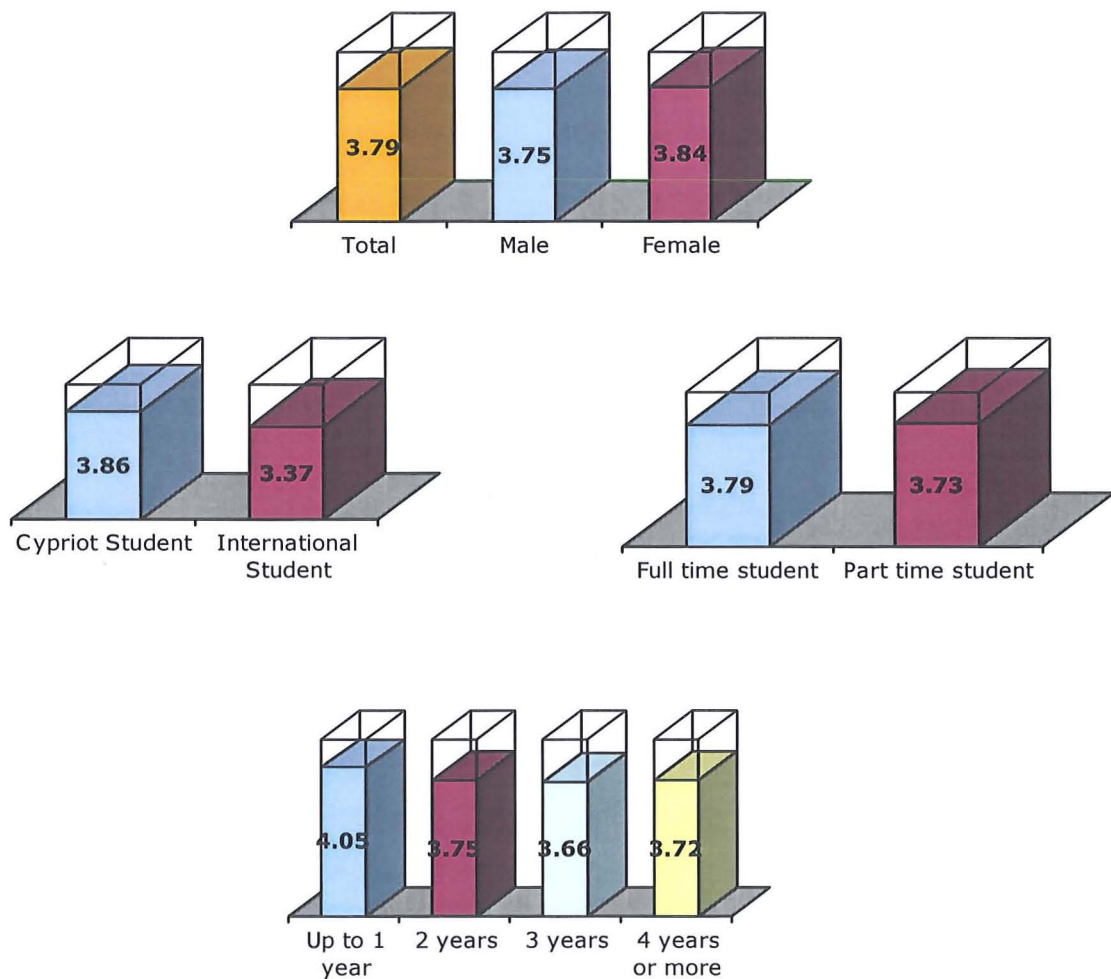


Figure 4.4 presents the mean scores for each of the demographic characteristics of the respondent. The study revealed the following regarding the respondents' level of satisfaction with the overall quality of service provided by the college:

**Figure 4.4: Overall, how satisfied are you with Cyprus College (by demographics)?**



- Female respondents appeared to be more satisfied than males (3.84 vs. 3.75)
- Native students who participated in the survey appeared to be more satisfied than international students (3.86 vs. 3.37)

- Full-time students appeared to be marginally more satisfied than part-time students (3.79 vs. 3.73)
- Respondents who had studied at the college one year or less appeared to be more satisfied than the students who had studied at the college for more than one year (4.05 vs. [3.75, 3.66, and 3.72]).

Table 4.18 presents a cross tabulation of the stated level of satisfaction with the quality of service provided and the set of behavioural intention statements (see Part Four of the questionnaire). The table presents the findings in three columns. The first row presents the mean scores provided by the respondents who stated that overall they were dissatisfied or very dissatisfied with Cyprus College; the second row presents the mean scores for those who stated that they were provided satisfied or very satisfied, and the third row, those who stated that they were neither dissatisfied nor satisfied.

The study indicated that if experiencing a problem the respondents who stated that overall they were either dissatisfied or very dissatisfied with Cyprus College are more inclined to respond more negatively than those who stated that they were satisfied or very satisfied with the college in the following four items/statements:

- Complain to external agencies (3.26 vs. 2.97)
- Complain to other students (3.56 vs. 3.5)
- Transfer to another college (3.73 vs. 3.29)

**Table 4.18: Likelihood of taking the following actions, by overall level of satisfaction with Cyprus College.**

	Very Dissatisfied/Dissatisfied	Satisfied/Very Satisfied	Neither Dissatisfied / Nor Satisfied
Say positive things about Cyprus College to other people	2.62	4.19	3.23
Recommend Cyprus College to someone who seeks advice about college education	2.61	4.25	3.34
Encourage friends and relatives to consider Cyprus College for their educational needs	2.47	4.2	3.29
Consider Cyprus College as your first choice if you wish to pursue higher studies	2.24	3.72	2.84
Continue your studies at Cyprus College even if you had to pay higher tuition	1.93	3.06	2.35
Transfer to another college if you experience a problem	3.73	3.29	3.6
Complain to other students if you experience a problem	3.56	3.5	3.83
Complain to Cyprus College's employees if you experience a problem	3.67	3.75	3.58
Complain to external agencies if you experience a problem	3.26	2.97	3.27

Furthermore, respondents claiming that they were satisfied or very satisfied with the college appeared more inclined than those who stated that overall they are dissatisfied or very dissatisfied with Cyprus College to:

- Continue their studies at the college even if they had to pay higher tuition (3.06 vs. 1.93)
- Consider Cyprus College as their first choice if wishing to pursue higher studies (3.72 vs. 2.24)

- Encourage their friends and relatives to continue their studies at Cyprus College (4.2 vs. 2.47)
- Recommend Cyprus College to someone who seeks advice about college education (4.25 vs. 2.61)
- Say positive things about Cyprus College to other people (4.19 vs. 2.62)
- Complain to Cyprus College employees (3.75 vs. 3.67)

The study also imparted that respondents who stated that they were neither dissatisfied nor satisfied with Cyprus College were more willing than the rest to complain to other students if they had a problem.

‘Continue your studies at Cyprus College even if you had to pay higher tuition’ is the statement, which has the smallest mean score in all three categories (1.93, 3.06, and 2.35, respectively).

The answer to the Research Question Five is that indeed, there is a relationship between service quality and behavioural intention. Certainly, the respondents communicating that overall they were either dissatisfied or very dissatisfied with Cyprus College appeared more willing than the rest of the respondents to complain to external agencies, and/or to transfer to another college if they experienced a problem.

On the other hand 'satisfied' or 'very satisfied' respondents appeared more willing than the rest of the respondents to say positive things about the college, recommend it to others, and consider it as their first choice if choosing to pursue a higher degree.

Moreover, the study has shown that foreign students, male students and students who have been at the college for more than a year are less satisfied with the college than are the rest of the respondents with different demographic characteristics.

Finally, it is safe to say that overall the respondents appeared unwilling to continue their studies at the college if they had to pay higher tuition.

#### **4.8.2 Correlation Coefficient and Linear Regression Analysis**

One objective of the data analysis is to evaluate the direction and magnitude of the relationship between stated overall quality of college services and the summed gap scores and to observe how well we can predict the mean gap score from these overall ratings. The Pearson product-moment correlation coefficient has been used to measure this relationship and simple linear regression models have been used for the prediction purpose. Linear regression computes an equation that relates predicted Y scores to X scores. The regression equation includes a slope weight for the independent variable,  $B_{slope}$ , and an additive constant

$$B_{constant} : Y = B_{slope} X + B_{constant} .$$

The results are presented in Tables 4.19 and 4.20.

<b>Table 4.19: Pearson Product-Moment Correlation</b>	<b>Composite gap score</b>		
	<b>N</b>	<b>Pearson Correlation</b>	<b>Sig.</b>
Overall, I am satisfied with my experience at Cyprus College	434	-.361*	0.000
Overall, I am satisfied with service quality at Cyprus College	434	-.357*	0.000
*Correlation significant at 0.01 level (2-tailed)			

The correlation coefficient between the composite gap score and the rating of experience at Cyprus College is -.361 while between the composite gap score and the rating of service quality it is -.357. Both coefficients are statistically significant at the 1% level. Thus, as the composite gap score between expectation and perception increases the overall ratings of experience and quality decrease.

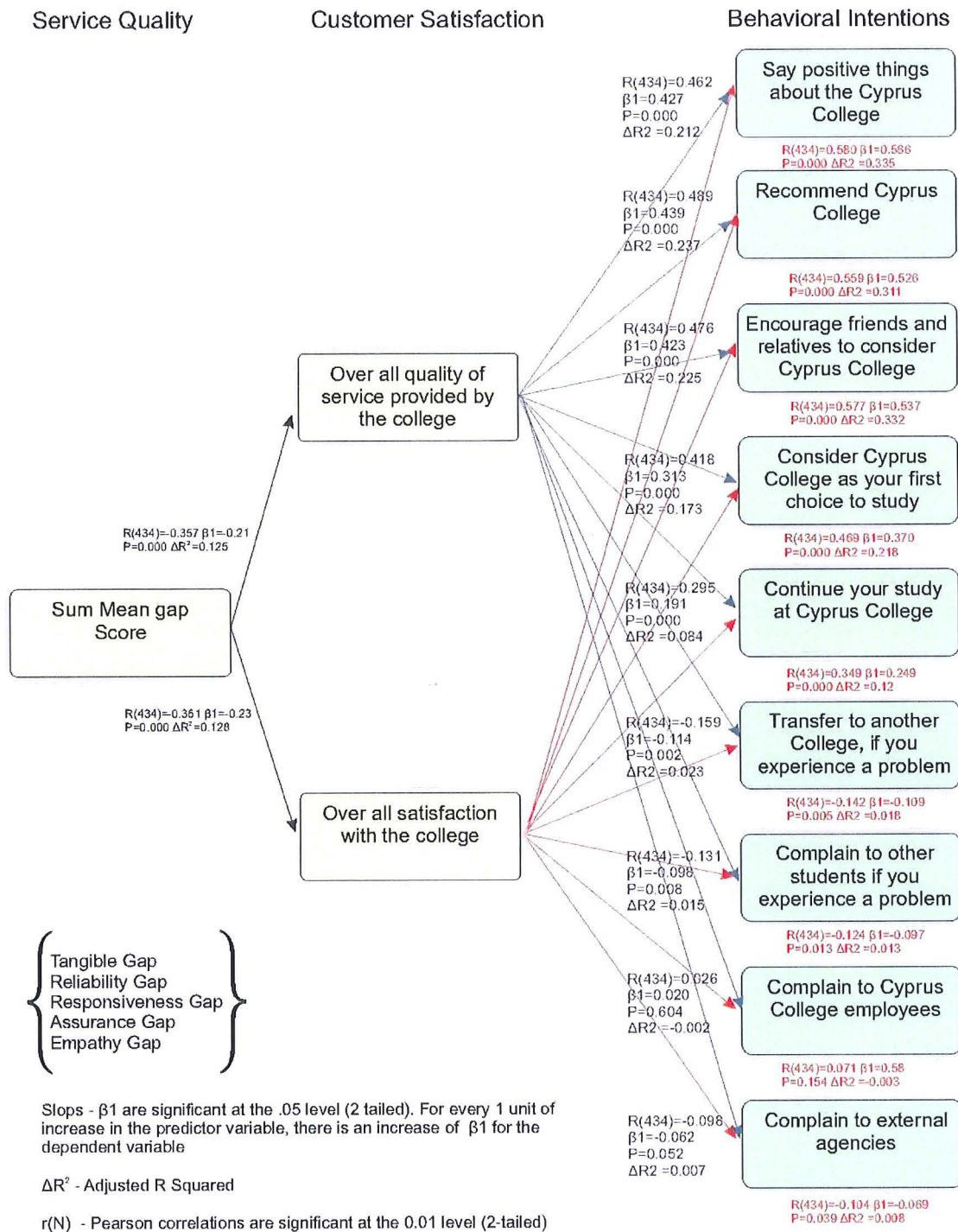
Once the significance between the composite gap score and overall satisfaction has been established, the researcher examined the prediction of:

- (1) The composite of mean gap score given the overall satisfaction rating, and
- (2) The overall satisfaction rating given the behavioural intention of a student.

Both of the above objectives were examined using simple linear regression models, as shown in the figure below and the results are given in Table 4.21.



**Figure 4.5: Regressions and correlations describing relationships between sum gap mean scores, satisfaction mean score, and behavioural intention mean scores.**



**Table 4.20 Simple Linear Regression**

Dependent Variable	Independent Variable	Coef. ( $\beta$ )	p-value	Adj. R <sup>2</sup>
<b>Mean gap score</b>	Overall Quality of Service provided by C.C.	0.210	0.000	0.125
	Overall Satisfaction with C.C.	0.230	0.000	0.128
<b>Overall Quality of Service provided by Cyprus College</b>	Say positive things about Cyprus College to other people	0.427	0.000	0.212
	Recommend Cyprus College to someone who seeks advice about college education	0.439	0.000	0.237
	Encourage friends and relatives to consider Cyprus College for their educational needs	0.423	0.000	0.225
	Consider Cyprus College as your first choice if you wish to pursue higher studies	0.313	0.000	0.173
	Continue your studies at Cyprus College even if you had to pay higher tuition	0.191	0.000	0.084
	Transfer to another college if you experience a problem	-0.114	0.002	0.023
	Complain to other students if you experience a problem	-0.098	0.008	0.015
	Complain to Cyprus College's employees if you experience a problem	0.020	0.604	0.002
	Complain to external agencies if you experience a problem	-0.062	0.052	0.007
<b>Overall Satisfaction with Cyprus College</b>	Say positive things about Cyprus College to other people	0.566	0.000	0.335
	Recommend Cyprus College to someone who seeks advice about college education	0.526	0.000	0.311
	Encourage friends and relatives to consider Cyprus College for their educational needs	0.537	0.000	0.332
	Consider Cyprus College as your first choice if you wish to pursue higher studies	0.370	0.000	0.218
	Continue your studies at Cyprus College even if you had to pay higher tuition	0.249	0.000	0.249
	Transfer to another college if you experience a problem	-0.109	0.005	0.018
	Complain to other students if you experience a problem	-0.097	0.013	0.013
	Complain to Cyprus College's employees if you experience a problem	0.580	0.154	0.003
	Complain to external agencies if you experience a problem	-0.069	0.039	0.008

Figure 4.5 and Table 4.20 present the results of the 20 Simple Linear Regression Models that were examined. In the first two regression models, the dependent variable is the gap score and the independent variables are Overall Quality of Service provided by Cyprus College and the Overall Satisfaction with Cyprus College. In the second nine regression models, the dependent variable is Overall Quality of Service provided by Cyprus College and the independent variables are the nine behavioural intentions. In the last nine regression models, the dependent variable is Overall Satisfaction with Cyprus College and the independent variables are the nine behavioural intentions. In the third and fourth columns of Table 4.20, the value of the regression coefficient ( $\beta$ ) and its significance (p-value) is given for each of the twenty simple linear regression models presented. In the last column the adjusted coefficient of determination (Adj.  $R^2$ ) is given.

As far as the first regression model is concerned, the coefficient for Service Quality is 0.210 while that of Overall Satisfaction is 0.230. Both coefficients are significant at the 1% level. Therefore an increase of 1 unit in Service Quality Rating widens the gap score by 0.21 units, while an increase of 1 unit in Overall Satisfaction Rating enlarges the gap score by 0.23 units. The coefficients of determination (Adjusted  $R^2$ ) are 0.125 and 0.128, respectively. That is, around 12.5% of the variation in the gap score is explained by the service quality score, while 12.8% of the variation in the gap score is explained by the overall satisfaction score.

When the behavioural intentions of the students is applied in trying to predict service quality all attributes are significant at the 1% level except the variables 'Complain to Cyprus College's employees if you experience a problem' and 'Complain to external agencies if you

experience a problem.’ The first five intentions have a positive  $\beta$  coefficient while ‘transfer to another college’ and ‘Complain to other students’ have a negative  $\beta$  coefficient. The adjusted  $R^2$  are very low for these last two intentions, 2.3% and 1.5%, respectively. The highest adjusted  $R^2$  is 23.7% (Recommend Cyprus College to someone who seeks advice about college education). This intention also has the highest  $\beta$  coefficient; as the intention to recommend Cyprus College increases by 1 unit, the quality of service score goes up by 0.439 units. Also, ‘Say positive things about Cyprus College to other people’ and ‘Encourage friends and relatives to consider Cyprus College for their educational needs’ have comparable coefficients of determination, 21.2% and 22.5%, respectively. The corresponding  $\beta$  coefficients are 0.427 and 0.423.

When the behavioural intentions of the students is used to try and predict the overall satisfaction, the same picture is repeated: significant  $\beta$  coefficients for the first seven intentions, positive correlation with the first five and negative with the other two, low coefficients of determination for transfer and complaints and high for the first three incentives (recommendation attributes).

#### **4.9 Summary of Major Findings**

The summary of the findings is presented in two sections. The first section presents the major findings of the research questions one through four and the second section the major findings of the research question five.

In response to the first four research questions, respondent's expectations and perceptions of service quality, and the gaps between those expectations and perceptions were explored. The differences in the responses of female and male, native and international students, as well as by the number of years the respondents had been Cyprus College students, were also examined. The part of the summary which follows presents the findings relevant to Part one and Part two of the questionnaire.

#### **4.9.1 Expectations**

1. Overall, the respondents expressed expectations ranging from 3.69 to 4.60 (mean scores). Twenty out of the twenty-two items had mean score above 4.00. The higher expectation mean scores were recorded in the Assurance and Empathy dimensions and the lowest for the Tangible dimension.
2. The differences between females and males in their expectations were significantly different in seven of the 22 items ( $p = 0.000$ ;  $< .05$ ). Female respondents had higher mean expectation scores than males in 21 of the 22 items. The differences were most pronounced in the Assurance and Reliability dimensions.
3. The differences between native and international students were significantly different in seven of the 22 items ( $p = 0.000$ ;  $< .05$ ). Native students had higher mean expectation scores than foreign students in 21 of the 22 items. The differences were most pronounced in the Assurance and Empathy dimensions.
4. The differences among the respondents who had been students at Cyprus College for up to two years and those who had been students for three or more years were significantly different in only two of the 22 items ( $p = 0.000$ ;  $< .05$ ). Respondents who

have been students at the college for three or more years had higher mean expectation scores than the respondents who had been at the college for less than three years in 15 of the 22 items. Both groups recorded their lowest expectation mean scores for the Tangible dimension and the highest for the Assurance and Responsiveness dimensions. The differences were most pronounced in the Reliability dimension.

#### **4.9.2 Perception**

1. Overall, the respondents expressed perception scores ranging from 3.54 to 3.94 (mean scores). The higher perception scores were recorded for the Tangible dimension and the lowest for the Empathy dimension.
2. The differences between females and males in their perception were significantly different in two of the 22 items ( $p = 0.000$ ;  $< .05$ ). Female respondents had higher mean perception scores than males in 7 of the items and male respondents in 14 items. The differences were most pronounced in the Empathy dimension.
3. The differences between native and international students were significantly different in seven of the 22 items ( $p = 0.000$ ;  $< .05$ ). Native students had higher mean perception scores than foreign students in 20 of the 22 items. The differences were most pronounced in the Reliability and Responsiveness dimensions.
4. There are no items with differences between the respondents who had been students at the college for up to two years and the respondents who had been students for three or more years, which is statistically significant at the .05 level. Respondents who had been students at the college for three or more years had higher mean perception scores

than the respondents who had been at the college for up to two years in 11 of the 22 items. Both groups recorded similar perception mean scores in all five dimensions.

### 4.9.3 Gaps

1. It appears from the overall analysis that twenty out of the twenty-two measured items have significantly large negative service quality gaps ( $p = 0.000; < .05$ ). Only the items of the Tangible dimension appear to have a zero or small negative service quality gap. More specifically, one item ('Visually appealing physical facilities') had no gap (0.00) and another item ('Employees with neat, and professional appearances') had a negative gap, but it was not significant ( $p = 0.000; < .05$ ). The most problematic, dimension appears to be the Empathy and the least problematic the Tangible dimension.
2. The study also reflected that the female respondents had higher negative gap scores than male respondents in 20 out of the 22 items. There are also significant large gaps between the two groups in six of the items ( $p = 0.000; < .05$ ).
3. The study uncovered that the native students had greater negative gap scores than foreign students in all items of the Empathy dimension and the foreign students had greater negative gap scores than native students in all items of the Reliability dimension. There are also significant differences in three of the items ( $p = 0.000; < .05$ ).
4. In addition, the study showed that the respondents who had been students at Cyprus College for three or more years had greater negative gap scores than the rest of the respondents in all items of the Responsiveness and four out of the five items of the Reliability dimension. There are significant differences in only one of the items ( $p =$

0.000; < .05). However, overall the respondents who were at the college for three or more years appeared to be less satisfied than the respondents who had been students at the college for up to two years.

#### **4.9.4 Service Quality, Satisfaction and Behavioural Intention**

1. It appears that the majority of the respondents (74.6%) stated that the overall quality of the service provided at Cyprus College was either good or very good, with a total mean score of 3.95 out of 5. Female students, native students, part-time students and students who were registered at the college for up to 1 year appeared to rate service quality more positively than respondents who belonged to other demographic categories.
2. Respondents who rated the overall quality as good or very good are more likely to complain or transfer to another college if they experience a problem and less likely to say positive things or recommend the college to others.
3. The majority of the respondents (66.1%) also stated that overall they were satisfied or very satisfied with Cyprus College, with a total mean score of 3.79 out of 5. Female students, native students, part-time students and students who were registered at the college for up to 1 year appeared to be more satisfied with the college than respondents who belonged to other demographic categories.
4. Respondents who were satisfied overall with the college appeared to be less willing to complain or transfer to another college if they experience a problem and more likely to say positive things or recommend the college to others.
5. Overall, the respondents appeared to be unwilling to continue their studies at the college if they had to pay higher tuition.



6. The respondents had given overall service quality higher rating than overall satisfaction with the college (3.95 vs. 3.79).
7. It appears that in most cases examined there is a direct relationship between service quality, satisfaction/dissatisfaction and student behavioural intention.

## CHAPTER FIVE

### **DISCUSSION AND RECOMMENDATIONS**

#### **5.1 Summary and Discussion of Findings**

The purpose of the study was to use the service quality model to investigate undergraduate student perception of the service quality at Cyprus College. Even though Cyprus College uses survey research methods to analyse student satisfaction with courses and teachers, the effort to examine the quality of the service encounter within the provided services represents an additional and different perspective on student satisfaction and on assessment strategies. The SERVQUAL instrument was applied to elicit student responses in order to compare their perceptions with their expectations and determine if gaps existed in student expectation versus the perception of their actual experiences with the service provided. Additionally, the study examined the relationship of selected demographic characteristics with expectation, perception and existing gaps. Finally, the study investigated the extent by which service quality and satisfaction affect behavioural intentions.

Recent literature on the future of higher education urges educational leaders to not only incorporate service quality strategies into their organisation but also to keep it as priority. More specifically, it is argued that educational leaders should view education as a market commodity and that educational institutions must try to achieve efficiency and competitive advantage through differentiation. One way of achieving this competitive edge is through providing quality service.

Service quality can be achieved through the increase of employee job satisfaction, reduction of

errors, and improvement of processes. The results are the increase of customer retention and the stimulation of word-of-mouth advertising.

Lack of quality, on the other hand, results in complaints, loss of customers and thus loss of income. This can cause major problems, particularly for private academic institutions like Cyprus College, which financially depend almost entirely on student tuition.

Important to the construct of this study is the relative importance of the service quality dimensions to the respondents. The findings indicate that the appearance of the physical facilities (tangible) is of less importance than other factors: college reliability, responsiveness and follow through an assurance of promised services as well as personal individual attention (empathy). This finding coincides with the perspective of DiDominico and Bonnici (1996), who indicated that in many of the studies using SERVQUAL, tangible gap is an area in which the service organisation generally surpasses student expectations. It is therefore important for the college management team to concentrate on developing recommendations and to take corrective action that will improve the dimensions considered to be of greater importance (higher expectation) and those most problematic (have the greater negative gap) for the respondents. The most important and the most problematic dimension appeared to be the Empathy dimension while Responsiveness, Assurance and Reliability dimensions also need considerable improvement.

The Empathy, Responsiveness and Assurance dimensions consist of attributes which are directly related to the way key service personnel handle or behave during the service delivery. The study has indicated that the specific dimensions required significant improvement; therefore, the college top management team needs to take immediate action. The actions need to have both short term

(e.g. offer training and improve communication) and long-term horizon (e.g. systematic measurement of service performance and development of service quality culture).

Similarly, the college management, in order to overcome the problems appearing in the Reliability dimension, need to evaluate the existing service delivery procedures with the intention to become more dependable and to provide service faster.

When service quality assessment classified according to students' gender, significant differences occur. Female students have higher disconfirmation compared to male students. More specifically the study has indicated that female respondents had greater negative gap scores than males in 20 out of the 22 items. This study shows similar results with the one carried out by Ruby (1996). In his study, Ruby (1996) found that female students tend to assess the expected and the perceived service quality differently than male students.

When students were classified according to their country of origin (native vs. international students), the study uncovered that the international students had greater negative gap scores than native students in all items of the Reliability dimension. Due to visa and other government regulations, international students have to obtain or update regularly number of documents from the college. These documents must be provided on time and be accurate. The study shows that international students are not satisfied with the Reliability dimension of the performed service. It is therefore essential for the management of the college to find ways to improve the existing delivery system taking in consideration the specific needs of the international students.

Kearny and Kearny (1994) suggested that higher education institutions must try to influence student expectations by improving their communication with newly admitted students (e.g. orientation program for new students). This is even more important for new international students.

When students were classified according to the number of years they have been students at Cyprus College, this study found significance differences on the disconfirmation of service quality. The study showed that the respondents who had been students at Cyprus College for three or more years had higher mean expectation scores than the respondents who had been at the college for less than three years in 15 of the 22 items. The differences were most pronounced in the Reliability dimension. In addition, the study shows that the respondents who had been students at the college for three or more years had greater negative gap scores than the rest of the respondents in all items of the Responsiveness and in four out of the five items of the Reliability dimension. Similar results were also obtained when the respondents were asked to rate their satisfaction with the overall quality of the service offered as well as with the college itself. More specifically, students who have been at the college three or more years appeared to be less satisfied with the quality of the provided services than were the rest of the respondents.

The above findings indicate once again the importance of continuous assessment, review and improvement of existing service delivery procedures. DiDomenico and Bonnici (1996) claimed that in order for any institution to overcome the intense competition within higher education, institutions need to not only provide better service to the students but also continually/systematically evaluate the quality of services offered.

The study also reveals that there is a direct relationship between service quality, satisfaction/dissatisfaction and students behavioural intention. More specifically, satisfied students are more willing to say positive things about the college, recommend it to others and continue their studies at the college than are dissatisfied students. At the same time, dissatisfied students are more willing to leave the college, complain and say negative things about the college.

These specific findings indicate the importance of sending out satisfied students as ambassadors of the college and they also signal to the management that service quality measurement and improvement needs to be an ongoing process. It is therefore important to create not only the mechanisms but also the culture which will produce constantly high service quality and thus student satisfaction and loyalty. In order to achieve this goal, the college needs to invest in the development of its employees and in their working conditions (physical and non-physical) because employees are the key actors of the service process. According to Ruben et al. (2007), there is a direct relationship between service quality and employee satisfaction.

The findings were reviewed by college academic leadership and the directors of the different departments with the intention to develop several strategies across campus which, upon their implementation, will contribute positively towards service quality improvements. Overall, the findings were very well received.

More specifically, the results of the study were presented to and discussed with the college President and the members of the Executive Committee. After the discussion it was agreed that an ad-hoc committee should be established with the responsibility of carrying out a more detailed and

structured analysis of the findings and developing an action plan which will include recommendations and implementation plans. The ad-hoc committee consists of the researcher (who is the Director of Administration), the Vice-Rector, the Director of Planning and Development, the Director of Human Resources, and the Director of Admissions. The committee has already produced a set of recommendations, some of which are already in the implementation phase.

The discussion in the following sections delves into the recommendations made by the committee and their implementation process.

## **5.2 Administrative Implications and Recommendations**

### **5.2.1 Service Specific Recommendations**

Even though learning remains the university mission, changing conditions make it necessary for the management of higher education institutions to adopt practices used by other industries in order to overcome problems deriving from intense competition; thus the quest is to maintain high quality both academically and in the service offered to students. Some of the most important elements of student service accountability include assessing and improving services in such a way that students are treated respectfully and provided with timely service that is accessible and personalised.

As mentioned in Chapter Two, if an institution fails to perform as the student was led to expect, the student will revise his or her attitude towards the institution and may transfer to another or stay

and speak negatively about the institution.

Because the magnitude and trend of the gaps found in the study, the messages are clear, particularly regarding Responsiveness, Assurance, Empathy and Reliability Dimensions. The college's top management took action. Through out extensive discussion the members of the ad-hoc committee evaluated options for improvement in a straightforward manner and several solutions, seen as financially feasible and practically viable, are already in progress.

For example, the Registrars Office has identified employee behaviour, service-related knowledge and convenient office hours as impending issues. It is now considering alternative staffing options and employee training as well as evaluation and redesign of procedural aspects in order to reduce service delivery time and to improve communication between management and line staff, notably when handling difficult cases.

In the case of international students, the offices of the Registrar and Admissions have evaluated the existing information packages given to foreign students or posted in the college Web site with the intention to simplify them and make them more user-friendly. Further, it was agreed that the Office of Student Affairs would assist these students regarding renewal of student visas.

The Admissions Office has additionally provided more information about student services to newly registered students (including new international students) at the student orientation seminars, adding additional information about procedures; contact names will be listed in the student orientation handbook and on the college web page. Similarly, the Deans of Schools,



following recommendation of the committee, have asked that all faculty members provide information related to student advising and other relevant issues during the first meeting of those teaching first year courses.

Finally, upon the recommendation of the committee the college management have agreed to create a more service-oriented climate throughout the college community. The intention is to foster the new climate through the following initiatives:

- Develop and implement mandatory, ongoing customer service training for all 'front-line' staff, including student workers, to ensure that students are consistently treated with respect, kindness and concern for their individual needs.
- Develop and implement an ongoing reward and recognition program to honour excellent student service.
- Cross-train key student service personnel to ensure timely access to accurate information in response to student inquiries.
- Establish an on-going student feedback mechanism, such as a web page, to evaluate progress.
- Establish mechanism of identification of complains in order to provide immediate solutions.

With regards to the later, Kotler and Fox (1995) reported that students, who complain after experiencing a problem and are responded to immediately, even if the response does not turn out in their favour, can in many instances become more loyal than students who pronounce themselves

satisfied.

### **5.2.2 Continuous Assessment**

The members of the committee have agreed to implement a systematic assessment of the quality of the provided services because in the end, the only sustainable source of competitive advantage is the organisation's ability to learn faster than its competition. According to Bolton and Drew (1991b), many service organisations have developed feedback systems that rely on survey data; after allowing for decisions/strategies to be implemented, they then evaluate the changes with subsequent survey data, referred to as before and after survey. Similarly, Total Quality Management methods characterise this concept as continuous improvement with customer satisfaction as the ultimate goal (Dew & Nearing, 2004).

Gap analysis offers an organisation a disciplined methodological approach. Through this measurement, the college can gain valuable information about areas of improvement. The systematic administration of the SERVQUAL survey can help the college build a valuable data bank over a period. In addition, longitudinal studies can be very beneficial for the college, allowing it to identify and analyse areas which have been improved and/or areas which are problematic. For example, Parasuraman et al. (1993) note that if SERVQUAL scores for certain areas have declined significantly from one period to another, managers can assess whether this is due to higher expectations, lower perceptions or both. In the current competitive educational environment, this form of systematic analysis could help expand student base, reduce student turnover, improve institutional image and potentially increase enrolment.

On the basis of the literature reviewed, the research methodology followed and the recognition of the importance of the continuous assessment, the researcher developed the 'Service Quality and Student Satisfaction Survey Protocol,' which can be found in Appendix D. The objectives of the student satisfaction survey are to identify:

1. The level of satisfaction of students with college resources and services.
2. The areas of strength or concern in order to assist the management of the college in improving services offered.

The college management has adopted the Protocol and it will become part of the Quality Assurance System of the college.

In addition and in order to enhance the student satisfaction the management of the college according to Bell and Shieff (1990) need to continuously investigate and improve additional quality dimensions such as: Qualification credibility (accreditation and recognition of degree programs), visibility of the college and its programs (publicity, promotion, networking and activities), professional credibility and competence of academic personnel, and course content/curriculum.

### **5.2.3 Employee Satisfaction and Service Quality**

The members of the committee have also agreed that the employees are the driving force behind any successful implementation of service quality program since customer satisfaction is directly related to employee satisfaction.

Student retention and recruitment are priorities of higher education institutes; therefore all employees need to be involved in service quality management. During the service delivery, the service provider and the customer interact and communicate. Employees have the ability to make the customers' experience positive or negative based on this interaction and communication process. According to Harris (2000), customer service is anything we do for the customer that enhances the customer experience.

According to Ruben et al. (2007), there is a very direct relationship between service quality and employee satisfaction. Therefore, in order to improve student satisfaction, the college needs to first understand and enhance its existing environment, markedly the satisfaction and attitude of its employees. The efforts should be towards creating a positive work environment, improving communication, supporting a team approach and providing training and recognition.

Implicit in all this is the clear message to every employee and especially to the management team of the college, that all aspects of the college experience have the potential for strengthening or weakening service quality. It is therefore important for the college leadership to fully understand that every department (academic and administrative) of the college needs to adopt service quality improvement initiatives. The main objective of the organisation in this case should be to provide support to all employees in order to work productively and to enjoy their work, which, as a result, could elevate campus attitude and increase the chance that students will encounter positive employees at every level. The myth which has been perpetuated in many academic institutions is that faculty are not in the business of satisfying students as customers; it is time to be abandon this

outdated mode of thinking.

The SERVQUAL instrument developed by Parasuraman et al. (1985; 1988; 1990) indicates that gaps in organisational structures are the main elements, which cause quality problems and subsequent customer dissatisfaction. These gaps can be either widened or reduced by employee development.

The findings of the survey revealed that the quality of the services provided need significant improvement. Given the results of the survey, the management now has interest in improving student satisfaction, accepting the belief that high quality and satisfied employees contribute to high quality service; thus, some of the first steps being discussed at Cyprus College are:

- 1) Improved communication among the members of the management team (academic and administrative) and between management and line staff through the increase of departmental and cross-departmental meetings, and through better utilisation of the intranet system.
- 2) Development of a service improvement plan, with employee input through the creation of service quality improvement groups/committees at both departmental and college levels.
- 3) Achieve participative management with Empowerment (management vests many aspects of decision-making or approval authority in employees). The intention is to give employees the opportunity to be more responsible, help them through training to improve their leadership skills and create teamwork in the workplace.

In order to achieve most of the above, the members of the college management team have decided to apply the 'Investors In People Standards' (IIP), with the evaluation stage beginning in March of this year (2007)(see Appendix E). One of the most recognised and respected marks of good practice in Europe, the IIP is a proven business improvement framework designed to improve an organisation's performance through the development of its people. The IIP highlight the unique link between individual and organisational growth and effectively aligns organisational needs with recruitment, training and other human resource practices (Investor In People, 2007). The intention is to increase employee performance, motivation, job satisfaction and improvement of the overall working environment. The evaluation and the implementation of the standards taking place with the assistance of external consultants.

Comm, et al. (2000) also suggests the adaptation of the SERVQUAL instrument for the measurement of employee satisfaction in the workplace (gap between expectations or importance of work and perceptions of work). The suggestion is to undertake the survey in a systematic way in order to record and, through organisational actions/policies, to minimise the discrepancies between employee expectations and perceptions. An annual employee culture audit survey using an adopted SERVQUAL instrument or another survey instrument is also examined by the Human Resource Department of the college.

#### **5.2.4 Building Quality Culture**

Where quality is defined as fitness for purpose, quality in higher education means trying to enact the aims of the institution by setting up a system aligned with those aims. To do this requires having or building the appropriate culture - a very difficult task which demands time and

commitment from the part of top management.

The culture in every organisation provides employees with a sense of organisational identity and generates a commitment to beliefs and values that are larger than themselves (Daft, 1998; Buchanan & Huczynski, 2004). According to Daft (1998) the organisational cultures serve two critical functions in an organisation. The first one calls it internal integration; it ensures that members of the organisation develop a collective identity that allows them to work together effectively. The second one, referred to as external adaptation, measures how well the organisation meets its goals and interfaces with external stakeholders.

According to Short (2006), the implementation of the quality principles can change the culture of higher education institutions. This can be achieved by designing into the structure, systems and process, high degrees of interrelatedness and interdependence. The power of the quality culture comes from the synergy of the whole system, by linking the mission of the organization to measurable outcomes (Short, 2006). The committee members decided that building quality culture must be the ultimate goal of Cyprus College in order to build and maintain high quality service standards thus differentiating itself from the competition.

### **5.3 Research Implications and Recommendations**

1. One study might be to compare service quality in two higher education institutions in Cyprus, one public university and one private college/university.

2. Future research might consider increasing the sample size in order to identify whether or not students from one discipline have different expectations and/or different perception than students from another academic discipline.
3. If Cyprus College receives the status of the university before the end of the year (2007), it would be interesting to compare the results of this survey with the results of next year's survey in order to investigate the influence of image in measuring both perception and expectation.
4. Future research might delve into the issues and/or activities, and/or prior experience can influence student expectations (e.g., family, friends, high-school teachers, educational counsellors and promotional material).
5. Other projects might also look into how employees rate expectation and perception related to service quality and then compare that with the results of a similar survey undertaken by students.

#### **5.4 Conclusion**

The results of the study supports previous research published mainly by Parasuraman et al. (1985, 1990, 1991a, 1991b, 1993, 1996), Boulding et al (1993), Hampton (1993), DiDomenico and Bonnicci (1996), Zeithaml et al. (1996), Ruby (1998), Kerlin (2000), Ham & Hayduk (2003), White & Yu (2005), and Arambewela and Hall (2006) in the area of service quality,



customer satisfaction and customer behavioural intention. These issues are global and affect all organisations, large or small, profit or non-profit, local and global. The study indicated that there is a significant correlation among perceived service quality, student satisfaction and student behavioural intention in a higher education setting.

The research findings turned out to be a very valuable tool for Cyprus College management in its effort to improve the quality of the services provided. In addition, the methodological foundation used for this study became a useful tool for the establishment of a system for continuous assessment.

## **GLOSSARY:**

- EFQM:** European Foundation for Quality Management is the body managing the EFQM excellence model. It was introduced at the beginning of 1992 as the framework for assessing organizations for the European Quality Award.
- QAA:** The Quality Assurance Agency for Higher Education was established in 1997, to provide an integrated quality assurance for UK higher education. It has the responsibility to safeguard the public interest in sound standards of higher education qualifications, and to encourage continues improvement in the management of the quality of higher education.
- BNQP:** The Foundation for the Malcolm Baldrige National Quality Award was created in 1987, to provide recognition among manufacturing, service, education and small businesses. The award is the highest level of national recognition for quality that a United State company can achieve.
- ISO:** The International Organization for Standardization was established in Geneva, Switzerland and it is composed of about 100 countries. The ISO's objective is to promote development of standards worldwide to improve operating efficiency and productivity and reduce cost.

ENQA: The European Network for Quality Assurance in Higher Education was established in 2000 to promote European co-operation in the field of quality assurance. In November 2004 the General Assembly transformed the Network into **the European Association for Quality Assurance in Higher Education (ENQA)**. The idea for the association originates from the European Pilot Project for Evaluating Quality in Higher Education (1994-95), which demonstrated the value of sharing and developing experience in the area of quality assurance. Subsequently, the idea was given momentum by the Recommendation of the Council (98/561/EC of 24 September 1998) on European co-operation in quality assurance in higher education and by the Bologna Declaration of 1999.

CEEAB: Cyprus Educational Evaluation and Accreditation Board is the body responsible for the evaluation and accreditation of programs of study offered by Private Tertiary Education Institutes in Cyprus.

TQM: Total Quality management is an approach to quality management based on continuous improvement, and active involvement of everyone within an organization in the improvement process.

IPS: Investors in People Standards is a tool for business improvement. The standard are used as a foundation, to open fresh possibilities for improvement by embracing a wide range of people management issues such as an objective, detailed and thorough analysis of your people management systems; an accurate measure of how well they are working; fresh and challenging insights into how you can continue to develop; and clear guidance on where there is room for improvement

BOLOGNA Bologna Process launched in 1999 by the Ministers of Education and university leaders of 29 countries, **the Bologna Process aims to create a European Higher Education Area (EHEA) by 2010.** The Bologna Process aims to facilitate mobility by providing common tools (such as a European Credit Transfer and accumulation System – ECTS and the Diploma Supplement) to ensure that periods of study abroad are recognised. These tools are used to promote transparency in the emerging European Higher Education Areas by allowing degree programmes and qualifications awarded in one country to be understood in another.

The Bologna Process also includes the promotion of European co-operation in quality assurance as one of its ten objectives. The current structural and curriculum reform provide an opportunity for universities to reflect upon management practices and to review programmes and teaching methods with the aim of ensuring their quality.

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**- APPENDICES -**

**APPENDIX A:**  
**HIGHER EDUCATION SYSTEM IN CYPRUS**

## Higher Education System of Cyprus

The state universities in Cyprus are the following:

- The University of Cyprus
- The Open University of Cyprus
- The Cyprus University of Technology

The law stipulating the establishment of the University of Cyprus passed by the House of Representatives in 1989 and the university admitted its first students in 1992. The University's programmes cover a wide spectrum of scholarly disciplines, ranging from the study of economy and technology to humanities and arts. The University of Cyprus has already earned the respect of the international academic community and the appreciation of the Cypriot society. The law stipulating the establishment of the Open University of Cyprus passed by the House of Representatives in 2002. This new university applies open and distance methods of teaching and learning, widening access to higher education for larger segments of the population especially for adults. The Open University of Cyprus accepted its first students in September 2006. The law establishing the Cyprus University of Technology passed by the House of Representatives in December 2003. The Cyprus University of Technology, which will accept its first students in September 2007, aspires to become a pioneering university offering high level training and research in the fields of science and technology.

State universities in Cyprus offer programmes of study at the first (*Ptychio*), second (Masters) and third (Doctorate) cycle level. The European Credit Transfer System (ECTS) is applied to all programmes. A first cycle programme consists of four academic years of full time study (240 ECTS) and leads to the award of a *Ptychio*. Each academic year consists of two semesters. In parallel to attending a first cycle programme, a student may enroll in a minor programme consisting of 60 ECTS. A minor programme may be completed within the normal duration of the first cycle programme (four academic years) provided that the student will be in a position to undertake a heavier workload than normally and given that some courses could count both towards the minor and the major programmes of studies.

The *Apolyterion* (School Leaving Certificate) or equivalent qualification is a prerequisite for access to a first cycle programme at public universities. The competitive entrance examinations, the *Pancyprian* Examinations, are used to rank the candidates for admission to a particular programme in the two conventional universities (The University of Cyprus and the Cyprus University of Technology). Admission of special categories of students, over and above the quota for standard entry, is granted through special University procedures on the basis of social, economic and other criteria. Admission to a minor programme and/or transfer from another university-level institution is granted through internal procedures of the university and the Departments offering the programmes. The admission procedure at the Open University of Cyprus requires the submission of the relevant application by the candidate.

The second cycle programme (Masters), at public universities, consists of three to four semesters of full time study (90-120 ECTS), and leads to the award of a *Magister Artium* Degree or *Magister Scientiae* Degree. A thesis is not an obligatory component of second cycle programmes. In case there is a thesis, the workload corresponding to it cannot be more than half of the overall workload of the programme. The minimum qualification for admission to a second cycle (Masters) is a *Ptychio* or equivalent qualification.

The third cycle programme (Doctorate) at public universities (duration: 3 - 8 academic years) leads to the award of a *Didactoriko Diploma*. A Doctorate programme consists of postgraduate courses corresponding to at least 60 ECTS, a comprehensive examination, presentation of a research proposal to a three-member Committee, and the defense of an original research Thesis before a five-member Examination Committee which includes at least one external member. The minimum qualification for admission to a third cycle programme is a *Ptychio* or equivalent qualification. A doctorate student who has a *Magister* or equivalent degree may be partially or fully exempted from the required courses.

The approval of the law 109 (I)/2005 by the House of Representatives and its enforcement on July 29, 2005 completed the legal framework for the establishment and operation of private universities in Cyprus. Private universities will offer programmes covering a wide range of fields including Education, Social Sciences, Economic Sciences, Engineering and Arts.

Higher education in Cyprus is also provided by a number of State Higher Education Institutes, and an even greater number of Private Institutions of Higher Education, none of which has university status.

State Institutions of Higher Education offer vocational programmes of study (Short cycle programmes) which lead to the following qualifications: Certificate (duration: 1 academic year), Diploma (duration: 2 academic years) and Higher Diploma (duration: 3 academic years). These programmes do not provide access to second cycle programmes. The Higher Technical Institute, offers programmes of technological direction (duration: 3 academic years, 180 ECTS) which lead to the award of first cycle qualification that provides direct access to second cycle programmes. The Mediterranean Institute of Management offers management programmes at a postgraduate level, leading to the award of a Postgraduate Diploma. The *Apolyterion* or equivalent qualification is a prerequisite for access to the programmes offered by State Higher Education Institutes granted that candidates have succeeded in the *Pancyprian* Examinations which rank them to the various programmes of study.

Currently, 24 Private Institutions of Higher Education are registered with the Ministry of Education and Culture and offer programmes of study at the undergraduate and postgraduate levels both academic and vocational. The majority of their programmes are taught in English, attracting students from Europe, Asia



and Africa. The *Apolyterion* or equivalent qualification is also a prerequisite for access to first cycle programmes of study offered by private institutions of higher education.

The competent body for quality assurance and accreditation of the programmes offered by Private Institutions of Higher Education is the Council for Educational Evaluation-Accreditation (*Symvoulio Ekpedeftikis Axiologisis Pistopiisis, SEKAP*), which is a member of ENQA. At present, a number of programmes offered by the Private Institutions, have been evaluated and accredited by *SEKAP*. These programmes fall into the following categories:

- Academic and Vocational programmes of study (Short cycle programmes) lead to the following qualifications: Certificate (duration: 1 academic year), Diploma (duration: 2 academic years) and Higher Diploma (duration: 3 academic years).
- First cycle programmes (duration: 4 academic years), lead to the award of a Bachelor Degree.
- Second cycle programmes, (duration: 1 - 2 academic years) lead to the award of a Masters Degree. The prerequisite for access to these programmes is a *Ptychio*, or Bachelor, or equivalent qualification.

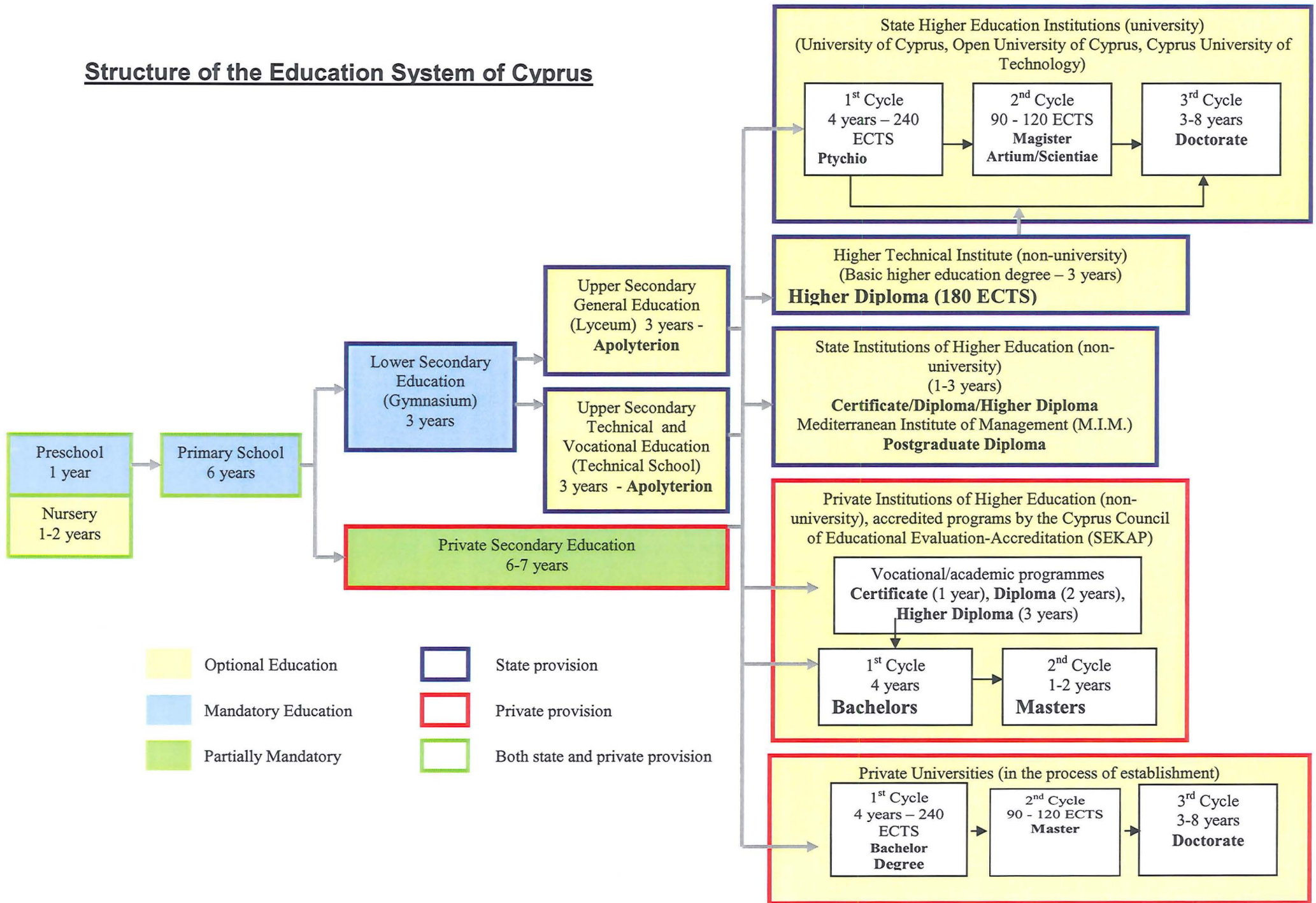
First and Second Cycle Programmes offered by Private Institutions of Higher Education which are accredited by *SEKAP* are also recognised by the Cyprus Council for the Recognition of Academic Qualifications (*Kypriako Symvoulio Anagnorisis Titlon Spoudon, KYSATS*), as equivalent to the corresponding qualifications awarded by university level institutions.

*KYSATS* is the competent national body for the recognition of higher education qualifications. *KYSATS* recognises equivalence, or equivalence-correspondence for first cycle titles, or just equivalence for postgraduate titles (second or third cycle). *KYSATS* may also recognize joint degrees.

The establishment of the *Cyprus Quality Assurance and Accreditation Agency* is examined and promoted by the relevant government departments. The aim of this Agency is to promote quality assurance in both the public and the private institutions of higher education, through various measures which include external accreditation and development of internal quality culture. These efforts are in line with the Berlin Communiqué, the ENQA Standards and Guidelines on QA, as accepted by the Bergen Communiqué and the Agreement on Quality Assurance in the EU.

20 March 2007

# Structure of the Education System of Cyprus



**APPENDIX B:**

**PERMISSION TO UNDERTAKE THE STUDY**

15 September 2006

**Dr. Andreas Orphanides**  
Dean of Academic Affairs  
Cyprus College

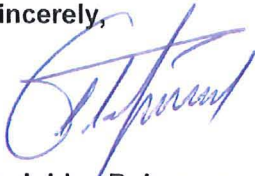
Dear Dr. Orphanides

**Re: Requesting permission to distribute "Service Quality" surveys to Cyprus College students**

This is a request to distribute questionnaires to several classes during the first two weeks of November (both morning, afternoon, and night courses). The intention is to distribute the self-administrated questionnaires at the beginning of the selected classes. The time required for the completion of the questionnaire is about 20 minutes and it has to be done in class. However, any recommendations are appreciated.

Thanking you in advance for your assistance. I look forward to receiving your response.

Sincerely,



**Evi Polycarpou**  
Director of Administration

Please sign this request if permission is granted

Signature: .....



Date: .....

17/9/2006

**APPENDIX C:**

**THE RESEARCH INSTRUMENT**

## **Service Quality and Student Satisfaction Survey**

**Dear Student,**

The College is inviting you to participate in a survey, which aims to assess student's satisfaction with the college services.

The purpose of this study is twofold:

1. To determine your expectation of the quality of service a typical college should offer, and
2. To determine your perception of whether this quality of service exists at Cyprus College.

It will take you approximately 20 minutes to complete this survey. Your cooperation is greatly appreciated, and you can be assured that the collected information will be treated with the utmost confidentiality and seriousness.

Please also note that neither your name nor student number is required and your responses will be used anonymously.

Thank you for taking the time to complete this survey.

## PART ONE: Service Quality – expectation

Please indicate how important are the following characteristics in determining the quality of Service you expect to receive at a typical college/university.

**Do not think about Cyprus College. Instead, think about what you would expect of the quality of services at a typical college/university.**

### SERVICE CHARACTERISTIC

### RATING

(Circle the number which best represents your answer)

**Note: DK/NA** (Don't Know, Not Applicable)

	Very Unimportant	Unimportant	Neither Unimportant nor Important	Important	Very Important	DK/NA
1. Employees who provide prompt (without delay) service to students.	1	2	3	4	5	6
2. Employees who are consistently courteous (polite) with students.	1	2	3	4	5	6
3. Employees who give students personal attention.	1	2	3	4	5	6
4. Providing services at the time they promised to do so.	1	2	3	4	5	6
5. Employees who demonstrate (show) an understanding of the specific needs of students.	1	2	3	4	5	6
6. Materials associated with the service (e.g. clear forms, informative material, signs, etc.) will be visually appealing.	1	2	3	4	5	6
7. Policies that have the students' best interests at heart.	1	2	3	4	5	6
8. Employees who are always willing to help students.	1	2	3	4	5	6
9. Keeping/Having accurate (error-free) records.	1	2	3	4	5	6
10. Employees who tell the students exactly when the services will be performed.	1	2	3	4	5	6
11. Providing services as promised.	1	2	3	4	5	6
12. Employees who instil (cause) confidence in students that the service will be provided correctly	1	2	3	4	5	6
13. Employees who have the knowledge to answer students' questions.	1	2	3	4	5	6
14. Dependability in handling student's service problems when they occur (take place).	1	2	3	4	5	6
15. Employees will never be too busy to respond to students' requests.	1	2	3	4	5	6
16. Performs services correctly/right the first time.	1	2	3	4	5	6
17. Visually appealing (Good looking) physical facilities.	1	2	3	4	5	6
18. Providing individual attention to student needs.	1	2	3	4	5	6
19. Employees who have neat, professional appearance.	1	2	3	4	5	6
20. Operating hours that are convenient to students.	1	2	3	4	5	6
21. Modern-looking equipment.	1	2	3	4	5	6
22. Services provided in an atmosphere, which secures (provides) accuracy and confidentiality.	1	2	3	4	5	6

## PART TWO: Service quality - Perception

Please indicate how accurately you believe the characteristics in the left hand column describe your experience of the quality of service offered at Cyprus College.

Think only about Cyprus College when answering the questions, which follow.

<u>SERVICE CHARACTERISTIC</u>	<u>RATING</u>					
(Circle the number which best represents your answer)	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	DK/NA
<b>Note: DK/NA (Don't Know, Not Applicable)</b>						
1. Employees are providing prompt (without delay) service to students.	1	2	3	4	5	6
2. Employees are consistently courteous (polite) with students.	1	2	3	4	5	6
3. Employees are giving students personal attention.	1	2	3	4	5	6
4. Services are provided at the promised time.	1	2	3	4	5	6
5. Employees are demonstrating (show) an understanding of the specific needs of the students.	1	2	3	4	5	6
6. The materials that are associated with the service are visually appealing (e.g. clear forms, informative material, signs, etc)	1	2	3	4	5	6
7. Policies have the students' best interests at heart	1	2	3	4	5	6
8. Employees are expressing willingness to help students.	1	2	3	4	5	6
9. Records are kept accurately (error-free).	1	2	3	4	5	6
10. Students are informed when they can expect services to be performed.	1	2	3	4	5	6
11. Services are provided as promised.	1	2	3	4	5	6
12. Employees instil (cause) confidence in students that the service will be provided correctly	1	2	3	4	5	6
13. Employees have the knowledge to answer students' questions.	1	2	3	4	5	6
14. Employees show a sincere interest in handling student's service problems if they occur (take place).	1	2	3	4	5	6
15. Employees never acting too busy to respond to student's requests.	1	2	3	4	5	6
16. Employees perform services correctly/right the first time.	1	2	3	4	5	6
17. Physical facilities are visually appealing (Good looking).	1	2	3	4	5	6
18. Employees are providing individual attention to student needs.	1	2	3	4	5	6
19. Employees have neat, professional appearance.	1	2	3	4	5	6
20. Operating hours are convenient for the students.	1	2	3	4	5	6
21. Equipments are modern looking.	1	2	3	4	5	6
22. Services are provided in an atmosphere, which secures (provides) accuracy and confidentiality.	1	2	3	4	5	6



**PART THREE: Overall rating of the overall quality and satisfaction of the provided at Cyprus College (Circle the number which represents your answer; Note: DK/NA (Don't Know, Not Applicable) )**

1. How would you rate the overall quality of service provided by Cyprus College?

Very Poor	Poor	Neither Poor nor Good	Good	Very Good	DK/NA
1	2	3	4	5	6

2. Overall, how satisfied are you with Cyprus College?

Very Dissatisfied	Dissatisfied	Neither Dissatisfied nor Satisfied	Satisfied	Very Satisfied	DK/NA
1	2	3	4	5	6

**PART FOUR: Behavioural intention**

Based on your overall experience with Cyprus College's services on campus, please indicate how likely you are to take the following actions. Circle the number that best indicates the likelihood of taking each action.

**How likely are you to**

(Circle the number which best represent your answer)  
**Note: DK/NA (Don't Know, Not Applicable)**

	Not Likely at all	Highly unlikely	Neither Unlikely nor Likely	Highly Likely	Very Likely	DK/NA
1. Say positive things about Cyprus College to other people.	1	2	3	4	5	6
2. Recommend Cyprus College to someone who seeks your advice about college education.	1	2	3	4	5	6
3. Encourage friends and relatives to consider Cyprus College for their educational needs.	1	2	3	4	5	6
4. Consider Cyprus College as your first choice if you wished to pursue further study (e.g. Bachelors and/or Masters Degree).	1	2	3	4	5	6
5. Continue your studies at Cyprus College even if you had to pay higher tuition fees..	1	2	3	4	5	6
6. Transfer to another college if you experience a problem with Cyprus College's services.	1	2	3	4	5	6
7. Complain to other students if you experience a problem with Cyprus College's services.	1	2	3	4	5	6
8. Complain to Cyprus College's employees if you experience a problem with Cyprus College's services.	1	2	3	4	5	6
9. Complain to external agencies, such as the Ministry of Education if you experience a problem with Cyprus College's services.	1	2	3	4	5	6

## **PART FIVE: Personal information**

The following demographic information is important in helping us understand the pattern of student responses. Please remember that we are not asking for your name or student number, so your answers are anonymous. Please check the appropriate boxes.

### **1. Gender**

- Male   
Female

### **2. How long have you been a Cyprus College Student?**

- Less than 1 year   
1 year   
2 years   
3 years   
4 years or more

### **3. You are**

- Full time student   
Part time student

### **4. Please indicate your nationality:**

- Cypriot student   
International student

**Thank you very much for your participation in this survey and for helping the College**

**APPENDIX D:**

**SERVICE QUALITY AND STUDENT SATISFACTION  
SURVEY: PROTOCOL**



**Cyprus College**

Laureate International Universities

**SERVICE QUALITY AND STUDENT  
SATISFACTION SURVEY**

**PROTOCOL  
(UNDEGRADUATE PROGRAMS)**

**SURVEY ADMINISTRATION**

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## **SECTION I :- INTRODUCTION -**

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As part of the College's service quality assurance and development plans, it was decided to administer an annual Student Satisfaction Survey according to a defined protocol.

The key elements of the implementation of the student satisfaction survey are described below.

### **A. POPULATION AND SAMPLING FRAME**

The population will consist of all students enrolled in the approved academic programs offered by the College.

The following student groups are the exceptions and will not complete the survey:

- Students who:
  - Are registered in their first semester of their program or
  - Have been given advanced standing (transfer students) and are in the program for the first time;
  
- Students who:
  - Are registered as part-time and are NOT pursuing a degree.

In order to achieve a more representative sample, will select classes offered throughout the day, morning, afternoon and night, different days of the week and in a variety of course subjects and level (e.g. first year, second year courses, etc.). The questionnaires will be distributed to students during the normal classroom time.

Taking into consideration the nature and selection criteria of the sample, it can be suggested that the sampling strategy, which will be utilized for the purposes of this project, will be a combination of stratified and cluster sampling.

To eliminate the possibility of obtaining duplicate data, detailed instructions will be provided before the distribution of the questionnaire indicating that students should complete only one. The sample size will be selected based on the confidence intervals and statistical errors.

## **B. SURVEY INSTRUMENT**

The objectives of the student satisfaction survey are to identify:

- The proportion of students who are satisfied with the quality of provides services;
- The level of satisfaction of students with the College's resources and support services;
- The areas of strength or concern to assist the management of the College in improving offered services.

Questions will be provided in English and/or Greek, language(s) in which the surveys are to be conducted.

## **C. SURVEY ADMINISTRATION AND DATA COLLECTION**

The Director of Administration is responsible for the overall survey process and for ensuring that the Student Satisfaction Survey is conducted in a controlled, impartial environment. Therefore, this will ensure the integrity, consistency and confidentiality of the data collected.

The Student Satisfaction Survey will take place between 3 and 14 of February each year. Students are to be surveyed in class during the survey period. The results of the survey will be presented in the form of formal report the last day of March.

## **D. SURVEY ANALYSIS AND REPORT**

The SPSS (Statistical Analysis Software) will be used for data processing and analysis. The data analysis methods, which will be employed, include descriptive statistics, and multivariate technique (regression, factor analysis). The results of the survey will be presented in a formal report which will consists of the following parts:

- Administrative Summary
- Research Methodology
- Survey Results/ Analysis of Findings
- Major Findings and Recommendations

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## **SECTION II : - THE PROTOCOL -**

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This protocol provides - Student Satisfaction Survey - administration procedures. Specifically the protocol outlines:

- The preparation of the surveys and the packages by the appointed person;
- The administration of the surveys in class; and
- The return of the completed surveys to the appointed person.

### **A. PREPARATION OF THE SURVEY**

The Director of Administration is responsible to establish internal mechanisms for the effective and efficient distribution and return of survey packages in accordance with the deadlines listed bellow (*In case the dates mentioned bellow are effected by weekends and holidays they will be adjusted accordingly*).

<b>By November 27.</b> <ul style="list-style-type: none"><li>- Review of the questionnaire (Specific questions which will be included at the end of the survey).</li></ul>
<b>By December 2.</b> <ul style="list-style-type: none"><li>- Define the list of university programs, which will be included in the survey (to be included the Instruction Cover Sheet).</li></ul>
<b>By December 16.</b> <ul style="list-style-type: none"><li>- Approval of their survey instruction sheet.</li></ul>
<b>By January 16.</b> <ul style="list-style-type: none"><li>- An electronic list in an ASCII fixed field format of the Packaging File Data (pfd) for each of the courses in which students are to be surveyed.</li></ul>
<b>By January 20.</b> <ul style="list-style-type: none"><li>- Approval of the verification report of the Packaging File Data Elements, including course section, contact name, day of week, date, room number and/or time. In addition, the responsible person needs to identify for those administering the in-class survey, the designated drop off location(s) for completed survey package envelopes. This location will be indicated at the top of the Survey Package Envelopes.</li></ul>
<b>By January 28.</b> <ul style="list-style-type: none"><li>- Notify the faculty about administrative issues related to the survey and how this will affect teaching time.</li></ul>
<b>By February 17.</b> <ul style="list-style-type: none"><li>- The completed survey packages will be collected to begin processing.</li></ul>



## **B. ADMINISTRATION OF THE SURVEY**

### **1. Responsibility**

The **aim** of the protocol is to safeguard the integrity of the survey results by administering the survey in an impartial manner and in a controlled environment.

One group of students that possibly will be affected and may require special survey administration procedures are the students with special needs.

#### ***1.1 Students with Special Needs***

Students with special needs, who require assistance and/or alternative means to complete the survey, are to be accommodated. The college will identify students with special needs and to ensure appropriate accommodations, as required, will arranged prior to the survey weeks to enable students to complete their surveys during the survey weeks.

Students with special needs may have the assistance of an aide or assistant to complete the survey. The college will ensure that any accommodations for the students with special needs have been addressed before completing and forwarding the packaging file data for processing.

#### ***1.2 Advanced Standing (Transferred students)***

Students with advanced standing that have reached the second semester of their program or beyond should participate in the survey.

Students with advanced standing, who are actually attending the program for the first time, should **NOT** be asked to participate in the survey. These students have not had the opportunity to be in the program long enough to effectively evaluate the program, services and learning experiences.

#### ***1.3 Part-time Students***

Part-time students pursuing a degree in an approved program should participate in the survey. The mode or time of the course delivery should not be a factor.

If a part-time student is **NOT** pursuing a degree program, they should **NOT** be asked to participate in the survey.

## **2. Survey Administration Procedures**

Special instructions for survey administrators/faculty will be affixed on the Survey package envelopes, and will include a standard instruction cover sheet for each student being surveyed. This information is to provide important guidelines to survey administrators / faculty and to students.

The survey administrators must be careful in explaining the survey to students, as not to inadvertently bias the survey results by redefining the response scale or encouraging students to select one response over another. Survey administrators should clarify to students that:

- The five-point scale is frequently used in satisfaction surveys;
- All responses on the scale are valid; and
- They should choose a response that best describes how they feel.

Survey administrators/faculty should expect to take approximately 10 minutes to review the instructions with the class before students begin to complete the survey. Completion of the surveys will take approximately 20-30 minutes.

In accordance with the protocol agreements, the administrators of the survey must:

1. Ensure that the survey packages are available for distribution and maintain distribution integrity;
2. Distribute the Survey and Student Instruction Sheet to all students in classes that have been identified, during the "survey week". A student representative from each class may be asked to participate in the administration process.
3. Faculty/survey administrators are encouraged to remain in class during the completion of the survey in case of questions or difficulties arising, but are asked to allow the students to complete the surveys in confidence.
4. Administer the survey during the beginning 20-30 minutes of the class;
5. Introduce the survey process to the class and instruct the students to read the Student Instruction Sheet prior to completing the survey;

6. Determine how many students are in each of the following categories and record the numbers in the appropriate boxes on the survey package envelope:
  - \* The total number of students in the classroom at the time of administering the survey,
  - \* The number of students who are a) in their first semester of their program or b) have been given Advanced Standing resulting in this being their first semester,
  - \* The number of part-time students **NOT** pursuing a degree, and
  - \* Ensure that each student completes the student satisfaction survey only once.
7. Have the students complete the questionnaires in pencil. To ensure survey completion, pencils should be made available to students in the class.
8. Confirm the names of the programs in which students are registered; and instruct the students to fill in the appropriate code for the program that is identified on the back of the instruction sheet.
9. Collect questionnaires upon completion, including any blank surveys;
10. Insert the completed and blank questionnaires into the envelope;
11. Seal the envelope; and
12. Sign the certification section printed on the envelope confirming that the survey process was conducted according to the given instructions.

## **C. DATA COLLECTION AND ANALYSIS OF FINDINGS**

### **1. Responsibility**

The Director of Administration and/or the person appointed by him will be responsible to specify the location(s), for the return of the completed questionnaires contained in sealed envelopes.

## **2. Action Plan**

*(In case the dates mentioned below are effected by weekends and holidays they will be adjusted accordingly).*

<b>By February 5.</b> <ul style="list-style-type: none"><li>- Return the February 3rd and 4th sealed survey packages to the office of Director of Administration</li></ul>
<b>By February 10.</b> <ul style="list-style-type: none"><li>- Return the February 5th to 7th sealed survey packages to the office of Director of Administration.</li></ul>
<b>By February 12.</b> <ul style="list-style-type: none"><li>- Return the February 10th and 11th sealed survey packages to the office of Director of Administration.</li></ul>
<b>By February 14.</b> <ul style="list-style-type: none"><li>- Return the February 12th and 13th sealed completed survey packages to the office of Director of Administration.</li></ul>
<b>By February 17.</b> <ul style="list-style-type: none"><li>- Return ALL the remaining completed survey packages to the office of Director of Administration.</li></ul>

## **3. Data Collection and Processing.**

Upon collection of the completed questionnaires, the following steps will take place:

- Record each package of questionnaires received.
- Organize and check envelopes and surveys;
- Count surveys and record numbers;
- Code and enter data into the computerized data analysis software (SPSS);
- Enter manually any questionnaires not able to be scanned due to survey damage;
- Contact the college contacts to highlight any discrepancies that have been determined after the data has been processed; and
- Produce a survey report.

## **APPENDIX A - INSTRUCTIONS FOR SURVEY ADMINISTRATORS**

**Please administer this survey at the beginning of class and DO NOT hand out surveys until you have completed steps 1 - 4.**

### **STEP 1**

**Confirm that the information on this Survey Package Envelope is correct:**

- (1) Administrator's name      (2) Number of students      (3) Course Name  
(4) Course Code                (5) Course Section Number      (6) Date

### **STEP 2**

**Inform the students about the following about the survey:**

- This survey is an opportunity for students to give meaningful feedback to the college that will make a difference.
- This feedback will help contribute to the development of strategies to improve college services, programs and resources.
- Improve the quality of college life and provide greater assurances that graduates will be "work ready".
- The five-point scale is frequently used in satisfaction surveys; All responses on the scale are valid; and
- They should choose a response that best describes how they feel.

### **STEP 3**

- Students who are a) registered in their first semester of their program or b) have been given advanced standing and are in the program for the first time.
- Number of students registered as part-time and are **NOT** pursuing a degree.

### **STEP 4**

- Instruct the students to use a pencil to make a solid, thick stroke through the selection boxes. Other marks on the survey are not permitted. An erasure can be made but it must be done completely.
- Instruct the students in completing Section A of the survey by instructing the students to fill in the appropriate code for their program of study.
- Instruct the students to read the Student Instruction Sheet prior to completing the survey. If students are having problems with program names and/or codes, please encourage them to ask the survey administrator for assistance.

- ❑ Hand out the instruction sheets and the survey to eligible students. **DO NOT** hand out survey to students who are ineligible.
- ❑ Faculty/learning facilitators/survey administrators are encouraged to stay in case of questions or difficulties arising during the completion of the survey, but are asked to allow the students to complete the surveys in confidence.

**STEP 5**

- ❑ Hand out the instruction sheets and the survey to eligible students. **DO NOT** hand out survey to students who are ineligible.
- ❑ Faculty/learning facilitators/survey administrators are encouraged to stay in case of questions or difficulties arising during the completion of the survey, but are asked to allow the students to complete the surveys in confidence.

**STEP 6**

- ❑ Collect the completed surveys and place the completed surveys and any blank questionnaires in the original envelope.

**STEP 7**

- ❑ Seal the envelope (the envelope lip has a glue that will seal upon contact with the envelope). Sign the Certification Section on the envelope confirming that the process outlined in these instructions has been followed.

<b><u>CERTIFICATION SECTION</u></b>	
<p>Please ensure you have:</p> <p>(1) filled in the numbers - STEP 3,</p> <p>(2) sealed the envelope, and</p> <p>(3) printed and signed your name in this box indicating that the survey has been conducted according to the protocol.</p>	<p>Print Name Here: _____</p> <p>Signature: _____</p>
<p><b>The survey administrators must complete this Certification Section to verify that the survey was conducted according to the instructions.</b></p>	

**STEP 8**

- ❑ Deliver the envelope of completed surveys to the designated drop off location(s) as indicated at the top of this Survey Package Envelope.

## **APPENDIX B - INSTRUCTIONS FOR STUDENTS**

**Thank you for your assistance in completing the Student Satisfaction**

### **Survey IMPORTANT INFORMATION:**

This is a great opportunity for you to give meaningful feedback to the University that will make a difference. This feedback will help contribute to the development of strategies to improve college services, programs and resources, improve the quality of University life.

#### **INSTRUCTIONS:**

- 1. All responses on the five-point scale are valid.**
- 2. Choose a response that best describes how you feel.**
- 3. Check marks the selected boxes.**
- 4. If you erase, please erase completely.**
- 5. Please do not make any other marks on this form.**

**Please DO NOT complete the survey, (simply return the blank survey to the survey administrator) if:**

- 1. You are (a) registered in the first semester of your program, or (b) have been given advanced standing and are in the program for the first time.**
- 2. You are registered as a part-time student and are NOT pursuing a degree.**

#### **Purpose of the Survey:**

The University believes it has the responsibility to provide you with high quality services and support that meet your learning needs. This survey measures how satisfied you are with the quality of your learning experience, support services and educational resources and will provide an indication of how well these needs are being met. The results of the survey will also provide information about areas of strength or concern so that institutions can develop strategies for improvement.

**Confidentiality:** The information gathered from this survey is confidential.

- Student names are not on the survey and are not recorded anywhere;
- Surveys are not numbered; and
- Faculty/learning or service facilitators are not identified on the survey.

#### **Length of Survey:**

It should take 20 - 30 minutes to complete the survey. Please take time, read the instructions, and survey questions carefully.

## APPENDIX C- SURVEY QUESTIONNAIRE

**Dear Student,**

The College is inviting you to participate in a survey, which aims to assess student's satisfaction with the college services.

The purpose of this study is twofold:

1. To determine your expectation of the quality of service a typical college should offer,  
and
2. To determine your perception of whether this quality of service exists at Cyprus College.

It will take you approximately 20 minutes to complete this survey. Your cooperation is greatly appreciated, and you can be assured that the collected information will be treated with the utmost confidentiality and seriousness.

Please also note that neither your name nor student number is required and your responses will be used anonymously.

Thank you for taking the time to complete this survey.



**PART ONE:**

**How important are the following characteristics in determining Quality of Service at a typical college?**

In this section you are asked to rate how important you believe the following characteristics are when it comes to the selected college services.

**Do not think about Cyprus College. Instead, think about what you would expect of the quality of services at a typical college/university.**

**SERVICE CHARACTERISTIC**

**RATING**

(Circle the number which best represents your answer)

	Very Unimportant	Unimportant	Neither Unimportant nor	Important	Very Important	DK/NA
1. Providing prompt service to students.	1	2	3	4	5	6
2. Employees who are consistently courteous (polite) with students.	1	2	3	4	5	6
3. Employees who deal with students in a caring fashion.	1	2	3	4	5	6
4. Providing services at the promised time.	1	2	3	4	5	6
5. Policies, which demonstrate an understanding of the specific needs of college students.	1	2	3	4	5	6
6. Visually appealing materials associated with the service (e.g. clear and concise forms, informative material, signs, mailing)	1	2	3	4	5	6
7. Policies that have the students' best interests at heart	1	2	3	4	5	6
8. Always expressing willingness to help students.	1	2	3	4	5	6
9. Keeping/Having accurate records.	1	2	3	4	5	6
10. Keeping students informed when they can expect services to be performed.	1	2	3	4	5	6
11. Providing services as promised.	1	2	3	4	5	6
12. Employees who instill confidence in students that the service will be provided correctly	1	2	3	4	5	6
13. Employees who have the knowledge to answer students' questions.	1	2	3	4	5	6
14. Dependability in handling student's service problems when they occur (take place).	1	2	3	4	5	6
15. Never acting too busy to respond to student's requests.	1	2	3	4	5	6
16. Performs services correctly/right at the first time.	1	2	3	4	5	6
17. Visually appealing physical facilities.	1	2	3	4	5	6
18. Providing individual attention to student needs.	1	2	3	4	5	6
19. Employees who have neat, professional appearance.	1	2	3	4	5	6
20. Operating hours that are convenient to students.	1	2	3	4	5	6
21. Modern-looking equipment.	1	2	3	4	5	6
22. Services provided in an atmosphere, which secures accuracy and confidentiality.	1	2	3	4	5	6

**PART TWO:**

When answering the following items, think about Cyprus College only. Please indicate how accurately you believe the characteristics in the left hand column describe your experience of the quality of the selected services.

Think only about Cyprus College when answering the questions, which follow.

SERVICE CHARACTERISTIC	RATING					
(Circle the number which best represents your answer)	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	DK/NA
1. Service is prompt.	1	2	3	4	5	6
2. Employees are consistently courteous (polite) with students.	1	2	3	4	5	6
3. Employees deal with students in a caring fashion.	1	2	3	4	5	6
4. Services are provided at the promised time.	1	2	3	4	5	6
5. Policies demonstrate an understanding of the specific needs of the students.	1	2	3	4	5	6
6. The materials that are associated with the service are visually appealing (e.g. clear and concise forms, informative material, signs, mailing)	1	2	3	4	5	6
7. Policies have the students' best interests at heart	1	2	3	4	5	6
8. Employees are expressing willingness to help students.	1	2	3	4	5	6
9. Records are kept accurately.	1	2	3	4	5	6
10. Students are informed when they can expect services to be performed.	1	2	3	4	5	6
11. Services are provided as promised.	1	2	3	4	5	6
12. Employees instill confidence in students that the service will be provided correctly	1	2	3	4	5	6
13. Employees have the knowledge to answer students' questions.	1	2	3	4	5	6
14. Employees show a sincere interest in handling student's service problems if they occur (take place).	1	2	3	4	5	6
15. Employees never acting too busy to respond to student's requests.	1	2	3	4	5	6
16. Employees perform services correctly/right the first time.	1	2	3	4	5	6
17. Physical facilities are visually appealing.	1	2	3	4	5	6
18. Employees provide individual attention to student needs.	1	2	3	4	5	6
19. Employees have neat, professional appearance.	1	2	3	4	5	6
20. Operating hours are convenient for the students.	1	2	3	4	5	6
21. Equipments are modern looking.	1	2	3	4	5	6
22. Services are provided in an atmosphere, which secures accuracy and confidentiality.	1	2	3	4	5	6

**PART THREE**

**Overall rating of the service quality and satisfaction provided by Cyprus College.**

Answer the following questions (Circle the number which represents your answer)

1. How would you rate the overall quality of service provided by Cyprus College?

Very Poor	Poor	Neither Poor	Good	Very Good	DK/NA
1	2	3	4	5	6

2. Overall, how satisfied are you with Cyprus College?

Very Dissatisfied	Dissatisfied	Neither Dissatisfied	Satisfied	Very Satisfied	DK/NA
1	2	3	4	5	6

**PART FOUR: Evaluation of specific student services and other elements**

(Circle the number which best represents your answer)

	Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree	DK/NA
<b>Getting started at C.C.</b>						
1. The process for getting started at Cyprus College is well organized.	1	2	3	4	5	6
2. The orientation experience is useful and important.	1	2	3	4	5	6
<b>Advising</b>						
3. Program advisors are knowledgeable.	1	2	3	4	5	6
4. It is easy to make an appointment with a program advisor.	1	2	3	4	5	6
<b>Registration</b>						
5. The length of time it takes to register is reasonable.	1	2	3	4	5	6
6. The registration staff are helpful.	1	2	3	4	5	6
<b>Business Office</b>						
7. My statement of account is easy to read.	1	2	3	4	5	6
8. There are sufficient hours/access to the business office.	1	2	3	4	5	6
<b>Classes/schedule</b>						
9. There is a sufficient variety of class offerings for my needs.	1	2	3	4	5	6
<b>Faculty/curriculum</b>						
10. I am satisfied with the availability of the faculty.	1	2	3	4	5	6
11. I am satisfied with the quality of the curriculum and programs.	1	2	3	4	5	6

	Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree	DK/NA
<b>(Circle the number which best represents your answer)</b>						
<b><u>Student life services</u></b>						
12. There are sufficient student activities at the college to support my interests and keep me involved.	1	2	3	4	5	6
<b><u>Student employment</u></b>						
13. Cyprus College offers good job placement assistance.	1	2	3	4	5	6
<b><u>Food service/cafeteria</u></b>						
14. Food and beverage pricing is adequate for student needs.	1	2	3	4	5	6
15. The cafeteria student lounge is adequate for student needs.	1	2	3	4	5	6
<b><u>Labs/classrooms/facility</u></b>						
16. The computer labs are sufficiently equipped for my needs.	1	2	3	4	5	6
17. There is enough open computer lab time available.	1	2	3	4	5	6
18. Classrooms are well equipped and well maintained.	1	2	3	4	5	6
19. Overall I am satisfied with the campus facilities (including restrooms, telephones, ATMs, etc.).	1	2	3	4	5	6
<b><u>Library</u></b>						
20. The library holding's (e.g. books, journals) are sufficient enough for my needs.	1	2	3	4	5	6
21. There is enough open library time available.	1	2	3	4	5	6
<b><u>Parking</u></b>						
22. There is adequate parking for students.	1	2	3	4	5	6
23. The parking lots are safe.	1	2	3	4	5	6
<b><u>Other Issues</u></b>						
24. I believe students of all cultures get along well together at the college.	1	2	3	4	5	6
25. I enjoy the campus atmosphere at Cyprus College	1	2	3	4	5	6
26. Cyprus College is helping me meet my goals.	1	2	3	4	5	6

## **PART FIVE:**

The following demographic information is important in helping us understand the pattern of student responses. Please remember that we are not asking for your name or student number, so your answers are anonymous. Please check the appropriate boxes:

### **1. Gender**

- Male   
Female

### **2. How long have you been a Cyprus College Student?**

- Less than 1 year   
1 to less than 2 years   
2 to less than 5 years   
5- years or more

### **3. You are**

- Full time student   
Part time student

### **4. Please indicate your nationality:**

- Cypriot student   
International student

**Thank you very much for your participation in this survey and for helping the College**

**APPENDIX E:**

**EMPLOYEE OPINION SURVEY**

# Deloitte.



**Cyprus College**

Laureate International Universities



INVESTOR IN PEOPLE

## EMPLOYEE OPINION SURVEY

May 2007

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In the context of the implementation of the Investors in People Standard, all employees of Cyprus College are being asked to participate in an Employee Opinion Survey. The survey consists of 28 Questions, 25 close ended questions (Part B) and 3 open ended questions (Part C) and it will take you approximately 30 minutes to complete it.

Your participation in this survey will provide us with valuable feedback that will positively contribute towards the implementation of best practices in the area of human resource management and development

## **PART A: DEMOGRAPHICS**

### **A. Position**

- 1) Management Team / Directors
- 2) Supervisors
- 3) Departmental Staff

### **B. Gender (optional)**

- Female       Male

### **C. Years of employment in Cyprus College (optional)**

- 0-4       5-9       10-14       15 and over

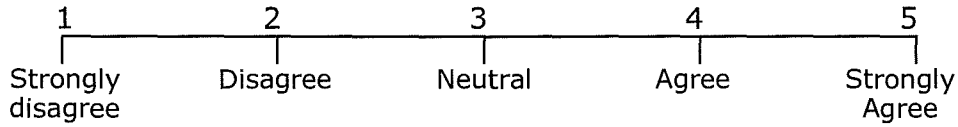
### **D. Department**

- 1) Planning and Development
- 2) MIS
- 3) Human Resources
- 4) Finance
- 5) Professional Studies
- 6) Research Centre
- 7) Admissions and College Relations
- 8) President's Office and Administration
- 9) Rector's Office

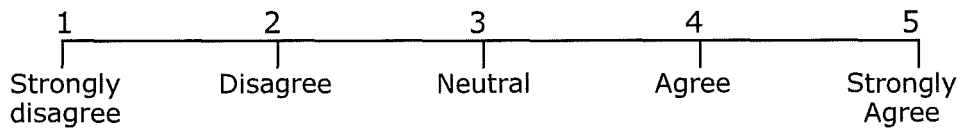


**PART B: CLOSE ENDED QUESTIONS**

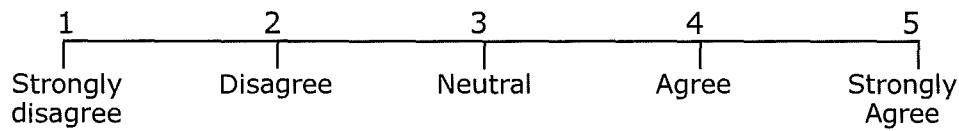
Please determine the degree to which the questions below better reflect your opinion, based on the opinion scale below, by ticking the appropriate box. **1** represents **strongly disagree** and **5** represents **strongly agree**. In case you are not in a position to indicate your opinion in any of the points below, please leave the box empty.



	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. I am aware of the strategy and primary objectives of Cyprus College	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I am aware of the business plan of my department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I can explain the objectives of my department and can describe how I am expected to contribute to developing and achieving them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I can adequately describe the role and responsibilities of different departments within Cyprus College	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I have a clear understanding of what it is expected of me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. My role and responsibilities are clear to:					
a) my self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) my supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) my colleagues, within my department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) my colleagues in other departments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I am involved in identifying my learning and development needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. In Cyprus College I have the opportunities to meet my training needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The existing learning and development practices have improved the performance of:					
a) myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) the team I work for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) my organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	1	2	3	4	5
10. I believe there is equality of opportunity for people to learn and develop which they will improve their performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The most appropriate and effective method to meet my training needs is:					
a) coaching, on-the job training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) in-house seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) open seminars / conferences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) brainstorming session	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) training programs on the web (e-learning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I believe that Cyprus College culture accepts the different needs that people have and make sure that everyone has appropriate and fair access to the support they need	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I have been encouraged to contribute ideas to improve my own performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. My manager is effective in leading, managing and developing me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The working relationship with my supervisor/s is satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I receive constructive feedback on my performance regularly and when appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Cyprus College appreciates and values its people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. My contribution to the organisation is recognised and valued	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. The existing performance evaluation and recognition practices cover my expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. There is an effective performance evaluation process, in a way that help me to improve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**1    2    3    4    5**

21. In Cyprus College rewards are given fairly in relation to:
- a) efforts and performance
  - b) potential
  - c) respective salary levels and incentives in the Cyprus market
22. There is adequate communication:
- a) within my team
  - b) amongst departments/divisions
  - c) between supervisors and subordinates
23. I am adequately informed about:
- a) organisational developments and/or changes
  - b) issues related to my job and my department
  - c) staff issues
  - d) issues related to my performance
24. I am involved in decisions of my organisation that affect my job and my team's responsibilities
25. My manager promotes ownership and responsibility to me by encouraging me to be involved in decision making that affects my performance

**PART C: OPEN ENDED QUESTIONS**

1. Please indicate the three most important factors which, in your opinion, limit the effectiveness of the organisation and your department and suggest ways to solve these factors.

<b>Factors that affect the <u>organisational</u> effectiveness</b>	<b>Possible practical solutions</b>
1. _____ 2. _____ 3. _____	1. _____ 2. _____ 3. _____
<b>Factors that affect the <u>department's</u> effectiveness</b>	<b>Possible practical solutions</b>
1. _____ 2. _____ 3. _____	1. _____ 2. _____ 3. _____

2. Outline the three most positive factors from your employment in Cyprus College.

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

3. Please indicate any other comments and/or suggestions that will help Cyprus College to implement HR best practices:

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**Thank you**  
**HR Team**  
**Human Capital Services**



# Deloitte.



**Cyprus College**

Laureate International Universities



INVESTOR IN PEOPLE

## ΕΡΕΥΝΑ ΑΠΟΨΕΩΝ ΚΑΙ ΑΝΤΙΛΗΨΕΩΝ ΠΡΟΣΩΠΙΚΟΥ

**Μάιος 2007**

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Μεσα στα πλαίσια εφαρμογής του Μοντέλου Investors In People στον οργανισμό μας, διεξάγεται έρευνα απόψεων και αντιλήψεων προσωπικού. Για το σκοπό αυτό, έχει σχεδιαστεί ειδικό ερωτηματολόγιο, το οποίο καλούνται να συμπληρώσουν όλοι οι υπάλληλοι του Cyprus College. Η έρευνα αποτελείται από 28 ερωτήσεις, 25 ερωτήσεις κλειστού τύπου (Μέρος Β) και 3 ερωτήσεις ανοικτού τύπου (Μέρος Γ). Για τη συμπλήρωσή του θα χρειαστείτε περίπου 30 λεπτά.

Θεωρούμε τη συμμετοχή σας καθοριστική για τη δημιουργία αποτελεσματικών διαδικασιών που θα συμβάλουν τόσο στην προσωπική σας ανάπτυξη όσο και στη βελτίωση της αποτελεσματικότητάς του οργανισμού.

**ΜΕΡΟΣ Α: ΔΗΜΟΓΡΑΦΙΚΑ ΣΤΟΙΧΕΙΑ**

**Α. Θέση Εργασίας:**

- 1) Διευθυντική Ομάδα
- 2) Εποπτικό προσωπικό
- 3) Προσωπικό Τμημάτων

**Β. Φύλο (προαιρετικό):**

- Άντρας
- Γυναίκα

**Γ. Χρόνια εμπόδισής στο Cyprus College (προαιρετικό):**

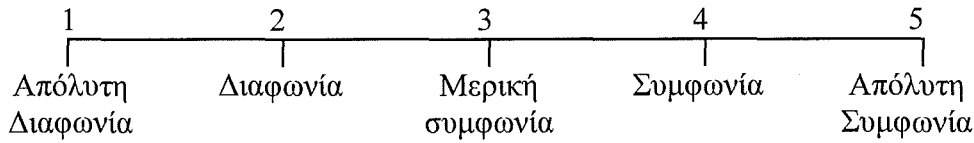
- 0-4
- 5-9
- 10-14
- 15 και άνω

**Δ. Τμήματα:**

- 1) Τμήμα Προγραμματισμού και Ανάπτυξης
- 2) Τμήμα Διεθνούς Συστημάτων Πληροφορικής (MIS)
- 3) Τμήμα Ανθρώπινου Δυναμικού
- 4) Λογιστήριο
- 5) Τμήμα Επαγγελματικών Σπουδών
- 6) Κέντρο Έρευνών
- 7) Τμήμα Εισοδήγης και Κοινωνικών Σχέσεων
- 8) Γραφείο Προέδρου και Διοίκησης
- 9) Γραφείο Πρυτανείας

## ΜΕΡΟΣ Β: ΕΡΩΤΗΣΕΙΣ ΚΛΕΙΣΤΟΥ ΤΥΠΟΥ

Παρακαλώ καθορίστε το βαθμό στον οποίο τα πιο κάτω σημεία αντικατοπτρίζουν καλύτερα την άποψή σας με βάση την κλίμακα 1 μέχρι 5, όπου το 1 εκφράζει **απόλυτη διαφωνία** και το 5 **απόλυτη συμφωνία** βάζοντας √ στο αντίστοιχο τετράγωνο. **Στα σημεία όπου δεν είσαστε σε θέση να εκφέρετε οποιαδήποτε άποψη, παρακαλώ όπως τα αφήσετε κενά.**



	1	2	3	4	5
1. Η στρατηγική και οι στόχοι του Cyprus College, μου έχουν κοινοποιηθεί και είναι ξεκάθαροι	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Το πλάνο δράσης του τμήματός μου, μου έχει κοινοποιηθεί και είναι ξεκάθαρο	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Οι επιχειρησιακοί στόχοι του τμήματός μου και ο τρόπος με τον οποίο αναμένεται να συμβάλω στην επίτευξή τους, μου έχουν κοινοποιηθεί και είναι ξεκάθαρα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Ο ρόλος και τα καθήκοντα των διαφόρων τμημάτων του Cyprus College μου έχουν κοινοποιηθεί και είναι ξεκάθαρα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Έχει επεξηγηθεί και διασαφηνιστεί πλήρως τι αναμένει ο οργανισμός από εμένα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Ο ρόλος και τα καθήκοντά μου είναι ξεκάθαρα:					
Α) σε εμένα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Β) στον προϊστάμενό μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Γ) στο υπόλοιπο προσωπικό του τμήματός μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Δ) στο προσωπικό σε άλλα τμήματα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Υπάρχει ικανοποιητικός βαθμός εμπλοκής μου στη διαδικασία εντοπισμού των αναγκών κατάρτισης και ανάπτυξής μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Στο Cyprus College παρέχονται ικανοποιητικές ευκαιρίες για κατάρτιση με στόχο την κάλυψη των εκπαιδευτικών μου αναγκών	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	1	2	3	4	5
9. Οι υφιστάμενες πρακτικές και μέθοδοι κατάρτισης έχουν συμβάλει στη βελτίωση:					
Α) της προσωπικής μου απόδοσης	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Β) της απόδοσης του τμήματός μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Γ) της απόδοσης του Cyprus College	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Θεωρώ ότι το Cyprus College παρέχει ίσες ευκαιρίες εκπαίδευσης και ανάπτυξης στο προσωπικό του	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Θεωρώ την πιο κάτω μέθοδο κατάρτισης ως αποτελεσματική:					
Α) καθοδήγηση στο χώρο εργασίας (coaching, on-the job training)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Β) συμμετοχή σε ενδοεπιχειρησιακά σεμινάρια	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Γ) συμμετοχή σε ανοικτού τύπου σεμινάρια ή / και συνέδρια	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Δ) διεξαγωγή εργαστηρίων προβληματισμού	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ε) κατάρτιση μέσω διαδικτύου (e-learning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Η κουλτούρα και το εργασιακό περιβάλλον στο Cyprus College αναγνωρίζει τις διαφορετικές ανάγκες του προσωπικού σε θέματα κατάρτισης	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Ενθαρρύνομαι σε ικανοποιητικό βαθμό να παραθέτω τις εισηγήσεις μου για βελτίωση της απόδοσής μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Είμαι ικανοποιημένος/η με το επίπεδο υποστήριξης και καθοδήγησης από τον προϊστάμενό/η μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Υπάρχουν ικανοποιητικές εργασιακές σχέσεις με τον προϊστάμενο/η μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Λαμβάνω ανά τακτά χρονικά διαστήματα εποικοδομητική επανατροφοδότηση (feedback) από τον προϊστάμενό/η μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Στο Cyprus College η απόδοση του προσωπικού αναγνωρίζεται και επιβραβεύεται σε ικανοποιητικό βαθμό	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Η προσωπική μου συνεισφορά στον Οργανισμό αναγνωρίζεται και επιβραβεύεται σε ικανοποιητικό βαθμό	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Το υφιστάμενο σύστημα αξιολόγησης απόδοσης προσωπικού και το σύστημα κινήτρων ικανοποιεί τις προσδοκίες μου	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





- |   | 1                        | 2                        | 3                        | 4                        | 5                        |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 20. Το υφιστάμενο σύστημα αξιολόγησης απόδοσης προσωπικού είναι ικανοποιητικό και συμβάλει σημαντικά στην προσωπική μου ανάπτυξη  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. Το σύστημα αμοιβών και κινήτρων που προσφέρει το Cyprus College στο προσωπικό είναι δίκαιο:   |                          |                          |                          |                          |                          |
| Α) μεταξύ του προσωπικού σε σχέση με τη συνεισφορά / απόδοση του καθενός  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Β) σε σχέση με τα καθήκοντα, τις ευθύνες και την προοπτική ανέλιξης στον Οργανισμό  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Γ) σε σχέση με αντίστοιχα πακέτα αποδοχών που προσφέρονται σε παρόμοιες θέσεις στην ευρύτερη αγορά εργασίας του τομέα   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. Είμαι ικανοποιημένος/η με το επίπεδο επικοινωνίας για σκοπούς συντονισμού και ενημέρωσης που επικρατεί:   |                          |                          |                          |                          |                          |
| Α) στην ομάδα μου   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Β) μεταξύ των τμημάτων  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Γ) μεταξύ υπευθύνων τμημάτων και υφισταμένων  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Ενημερώνομαι ικανοποιητικά για:   |                          |                          |                          |                          |                          |
| Α) θέματα που σχετίζονται με την επίτευξη των στόχων του Cyprus College ή / και άλλες εξελίξεις   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Β) θέματα που σχετίζονται με την εργασία και το τμήμα μου   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Γ) εξελίξεις που αφορούν το προσωπικό   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Δ) την προσωπική μου απόδοση  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. Υπάρχει ικανοποιητικός βαθμός εμπλοκής μου στη διαδικασία λήψεως αποφάσεων για θέματα τα οποία επηρεάζουν την εργασία μου ή/και τις δραστηριότητες του τμήματός μου | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. Ο/η προϊστάμενός/η μου ενθαρρύνει τη συμμετοχή μου στις διαδικασίες λήψεως αποφάσεων οι οποίες επηρεάζουν την εργασία και την απόδοσή μου                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## ΜΕΡΟΣ Γ: ΕΡΩΤΗΣΕΙΣ ΑΝΟΙΚΤΟΥ ΤΥΠΟΥ

1. Παραθέστε ποιοι κατά την άποψη σας είναι οι **τρεις** πιο σημαντικοί παράγοντες που περιορίζουν την αποτελεσματικότητα του **οργανισμού** και του **τμήματός** σας και εισηγήσεις αντιμετώπισής τους.

Παράγοντες που περιορίζουν το Cyprus College	Εισηγήσεις
1. _____ 2. _____ 3. _____	1. _____ 2. _____ 3. _____
Παράγοντες που περιορίζουν το <b>τμήμα</b> σας	Εισηγήσεις
1. _____ 2. _____ 3. _____	1. _____ 2. _____ 3. _____

2. Παραθέστε τα **τρία** πιο θετικά στοιχεία της εργοδότησής σας στο Cyprus College.

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

3. Παραθέστε οποιεσδήποτε επιπρόσθετες εισηγήσεις ή/και σχόλια σας:

\_\_\_\_\_  
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**Σας ευχαριστούμε για τη συνεργασία**

**HUMAN CAPITAL SERVICES**

**Deloitte.**