

**AN INVESTIGATION INTO THE QUALITY OF  
SERVICE DELIVERY AT THE DURBAN  
UNIVERSITY OF TECHNOLOGY  
PIETERMARITZBURG CAMPUSES**

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# ABSTRACT

This dissertation investigated the quality of service delivery at the Durban University of Technology (DUT) Pietermaritzburg campuses. According to du Toit (2004:182) student satisfaction is important in the Higher Education sector due to its role in effective enrolment management. It is essential for student perceptions of service quality to be evaluated and managed by the university. Iacobucci, *et al* (1995:277) emphasized that service quality and customer satisfaction are important concepts to academic researchers studying consumer evaluations as a means of creating competitive advantages and customer loyalty.

According to the South African Department of Education (2004:3), the creation of a new merged institution must ultimately be accompanied by standardised service levels. Hence this study attempted to investigate the service levels of the merged institution in Pietermaritzburg. The research set out to measure service expectations of higher education as well as measure service perceptions at the DUT. The research also set out to establish the SERVQUAL gap, which causes unsuccessful service delivery (Gap 5) and examine the dimensions which contribute to Gap 5.

A SERVQUAL analysis was undertaken on the two Pietermaritzburg campus, *viz.* Riverside and Indumiso campus. The study found that on average customers had high expectations in tangibles, reliability and assurance dimensions and their highest perceptions were found in the assurance dimension. The study also found that management of DUT need to apply a varying degree of attention to the dimensions between the two campuses. The key recommendation to management of DUT was to introduce a Total Quality Management (TQM) system and a service marketing management plan. In addition to implementing this, management also needs to develop a service-minded workforce.

# DECLARATION

I, Paul Edmund Green hereby declare that this dissertation is my original work, except to the extent indicated in the text, the acknowledgements and the reference material.

This dissertation is being submitted in partial fulfillment of the requirement for a Masters in Business Administration at the University of Kwa-Zulu Natal, Pietermaritzburg. This dissertation has not been submitted in part or full for any degree or examination to any other University.



Paul Edmund Green

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Date

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## **CHAPTER 1: BACKGROUND TO THE STUDY**

### **1.1 INTRODUCTION**

Academic institutions of higher education in South Africa have a number of different stakeholders to serve; however, students are perhaps the key stakeholders. According to Hill (1995:11) and Rowley (1997:9) students are viewed as the primary customers of higher education. Process and outcome affect student judgement of service quality. Process involves how customers are treated during the service interaction and outcome is the actual result as experienced by the customer (Cuthbert, 1996:12). The student perceptions of the higher education experience have become increasingly important as tertiary institutions have attempted to become more student oriented and customer focused (Mahadzirah and Norhayati, 2002:45).

Bisschoff and Bisschoff (2001: 228) of the Potchefstroom University for Christian Higher Education, identified customer service as a strategic thrust to gain and to retain their student numbers due to strong competition in the tertiary education market in South Africa. Although direct relationships between customer satisfaction and profitability have not yet been determined by research, various researchers have shown that a strong positive correlation exists between service quality through customer retention and success of an enterprise (Van den Heever, 1997:47; Blem, 1995:13; Irons, 1997:25; Bisschoff, 2000:35). This correlation is influenced by the level of service quality that customers experience. Woodside, Frey & Daly cited in Van den Heever (1997:45), refer to the relationship between customer service, service quality and intentions to enter into business transactions by means of an expectancy model of behaviour where service performance forms the basis of continued business intentions of customers towards a specific enterprise. In this regard Doyle cited in Wilson & Gilligan (1997:24) states that:

*"Satisfied customers are the source of all profits and shareholders' value. Customers can choose from whom they buy, and unless the firm satisfies them at least as well as competitors, sales and profits will quickly erode. Customer satisfaction should therefore be a prime objective and measure of performance of managers. "*

Scheuing (in Van Breda, 1996:19) reasons that the following relationships exist between profitability and customer service:

- Customer retention leads to loyalty, which in turn leads to profitability. In addition, loyalty is closely related to the positive influences of the so-called word-of-mouth promotions, and
- Loyal students become more active in alumni activities and prove to be a valuable promotional asset in the future.

To remain competitive, as pointed out by (Boyd *et al*, 1996:86), a market pioneer has to perform research on the strategic thrust areas and at DUT, service delivery is a thrust area, hence the importance of the study.

## 1.2 MOTIVATION FOR THE RESEARCH

The Durban University of Technology (2004: 4) indicates that the campuses in the Pietermaritzburg region have seen a progressive increase in student numbers, of both local and international students over the past three years. The challenge for the University is to be able to measure the legitimate needs and expectations of services offered, of the learners. Research generally indicates that "international students suffer more psychological and social distress than local students (Ward, 2001: 39). Culture shock, social isolation, conditions in the home countries, cross-cultural relationships, financial difficulties, immigration laws and accompanying anxiety, stress, and depression, are examples of problems international students have to deal with (Lin & Yi, 1997: 7; Sarkodie-Mensah, 1998: 220). It is therefore imperative that the services offered by tertiary institutions assist students to settle into their new educational environment as smoothly as possible. Although the above research focuses on international students, the researcher will be focusing on local students and their expectations and perceptions of service delivery.

### **1.3 STATEMENT OF THE PROBLEM**

Durban University of Technology (DUT) needs to identify whether the institution is meeting customer expectations in the higher education sector. In order to attract and maintain customers DUT will need to exceed customer expectations and in so doing gain a competitive advantage.

### **1.4 THE GOAL AND RESEARCH OBJECTIVES**

The goal of the study is to investigate the effectiveness of service delivery at the Riverside and Indumiso Campuses.

The objectives of the study are therefore to:

1. Identify expectations for service quality at a university.
2. Identify perceptions of service quality at the DUT.
3. Establish the SERVQUAL gap, which causes unsuccessful service delivery (Gap 5).
4. Make a comparison of Riverside versus Indumiso campuses regarding service quality at DUT.
5. Make a comparison of staff versus students regarding service quality at DUT.

### **1.5 ANTICIPATED CONTRIBUTION**

There are a number of tertiary institutions in South Africa which have merged and not all qualifications are offered on the main sites. Information gathered from this study could be used for all newly merged institutions regarding service delivery at different sites.

Information obtained from this study will also provide senior management of DUT with a succinct view of the service delivery offered at different sites of the institution. The study will provide valuable information for all the service providers on satellite campuses regarding service quality.

## 1.6 CHAPTER PLAN

Chapter Two provides a theoretical discussion of the variables. The chapter concentrates on *inter alia*, the nature and characteristics of services, service mix and service quality. Thereafter, a specific discussion on the SERVQUAL framework, levels of expectations and customer satisfaction at the Riverside and Indumiso Campuses were discussed.

Chapter Three provides the perspectives underlying the reasons for the merger in higher education in South Africa, with specific reference to the merger between the former Technikon Natal and former ML Sultan Technikons, herein after referred to as the Durban University of Technology (DUT). It also provides a discussion on the Pietermaritzburg campuses of the Durban University of Technology (DUT).

Chapter Four describes the research methodology used in this study. A quantitative approach was used.

Chapter Five provides the analyses and interpretation of the data collected. The data was analysed using SPSS and presented in the form of graphs and tables followed by a discussion.

Chapter Six discusses the findings and conclusion.

Chapter Seven provides recommendations to management of DUT regarding the quality of service delivery on the Riverside and Indumiso Campuses.

## **CHAPTER 2: SERVICE MARKETING IN HIGHER EDUCATION**

### **2.1 INTRODUCTION**

Stanton (1981:441) defines services as: *"Those separately identifiable, essentially intangible activities which provide want-satisfaction, and that are not necessarily tied to the sale of a product or another service"*. By suggesting that service organisations are those which do not have as their principal aim the production of tangible products which buyers will possess permanently, this is close to the idea of Gronroos (1984:589) that *"The service is the object of marketing, i.e. the company is selling the service as the core of its market offering"*.

Another similar definition is that of Kotler (2002:624) who says *"A service is any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product."*

What these definitions share is their emphasis, directly or by implication, on the essentially intangible nature of a service. Following is a discussion on the distinctive characteristics of services:

### **2.2 CHARACTERISTICS OF SERVICES**

Zeithaml and Bitner (1996:18) and Kotler (2000:464) states that services have distinctive characteristics which differentiate them from goods and have implications for the manner in which they are marketed. Commonly stated characteristics of services are intangibility, inseparability, heterogeneity, perishability and ownership (Cowell, 1984:23).

#### **2.2.1 Intangibility**

Services are essentially intangible. It is not possible to taste, feel, see, hear or smell services before they are purchased (Kotler, 2000:468). Bateson (1977:80) suggest that intangibility is the critical characteristic distinguishing products from services and that intangibility means both 'palpable' intangibility, i.e. the service cannot be touched by the consumer and 'mental' intangibility, i.e. the service is difficult for the consumer to grasp

mentally. A further difficulty with the intangibility of services outlined by Boyd *et al* (1998:249) is that consumers often do not know what criteria to use in evaluating a service.

Brassington and Pettitt (1997:919) suggest that the service experience can only take place after the purchase decision has been made. The customer's knowledge of what they will be receiving is negligible until after the service has been purchased. Palmer (2001:15) supports this statement by indicating that the intangible process characteristics which define services, such as reliability, personal care, attentiveness of staff, their friendliness, can only be verified once a service has been purchased and consumed. Kotler (2000:469) advocates to reduce uncertainty, buyers will look for evidence of service quality. Buyers will draw inferences about quality from the place, communication, equipment and price which they see.

Palmer (2001:16) outlines that the lack of physical evidence which intangibility implies, increases the level of uncertainty which a consumer faces when choosing between competing services. Hence an important aspect of service marketing should be to add physical evidence and the development of strong brands (Zeithaml and Bitner (1996:115). The purpose therefore would be to reduce customer uncertainty.

### **2.2.2 Inseparability**

Zeithaml and Bitner (2001:19), Kotler (2000:469), Palmer (2001:16) and Cowell (1993:25) indicate that services cannot be separated from the person of the seller. A consequence of this is that creating or performing the service may occur at the same time as full or partial consumption of it (Jobber, 1995:665).

Palmer (2001:17) states that inseparability has important marketing implications for services.

(i) Goods are generally produced first, then offered for sale and finally sold and consumed; inseparability causes this process to be modified for services. Services are generally sold first, then produced and consumed simultaneously.

(ii) Unlike the production of goods, the production processes are critical to the enjoyment of services.

Zeithaml and Bitner (1996:19) suggest that the quality of the service and customer satisfaction depends on what occurs during the transaction. Zeithaml and Bitner (2003:20) further suggest that frequently customers interact with each other during the service production process and thus may affect each other's experiences. Consequently, the enjoyment of the service is dependent not only on the service provider but also on other customers (Jobber, 1995:665).

It is important that service providers identify possible sources of nuisances and make adequate provision to avoid inter-customer conflict (Jobber, 1995:665). Inseparability makes quality control difficult to implement.

### **2.2.3 Variability**

Zeithaml and Bitner (1996:20) says that it is difficult to achieve standardisation of output in services. Each unit of service may differ from other units. It is difficult to ensure the same level of output in terms of quality. From the customers' viewpoint too, it is difficult to judge quality in advance of purchase. According to Boyd *et al* (1998:250) because of the human element, service quality varies depending upon who provides it and when. Palmer (2001:18) states that particular problems can occur where personnel are involved in providing services on a one-to-one basis where no easy method of monitoring and control is possible.

Palmer (2001:18); Gabbott and Hogg (1998:28); Zeithaml and Bitner (1996:20) state that there are two dimensions of variability which are relevant to services:

- The extent to which production standards vary from a norm, both in terms of outcomes and production processes, and
- The extent to which a service can be deliberately varied to meet the specific needs of individual customers.

Variability in production standards is of great concern especially where production methods make it impractical to monitor service production. This statement is supported by Payne (1993:7) who says since services are performances frequently produced by humans; no two services will be precisely alike. Zeithaml and Bitner (2003:21) advocate that the

employees delivering the service frequently are the service in the customer's eyes and people may differ in their performance from day to day or even hour to hour.

Levitt (1989:143) suggests overcoming these problems services are industrialized by:

- Use of hard technologies. This involves substituting machinery and/or tools for people, e.g. vending machines.
- Use of soft technologies. Primarily concerned with the improvement of task performance in a systematic way that is designed to ensure the delivery of a high-quality service under any set of conditions.
- Hybrid technologies. These function by using hard equipment in conjunction with planned industrial systems to obtain greater efficiency.

Levitt (1989:144) suggests that industrialisation should be done by focusing more on the activities that are required in producing the service and how they could be re-engineered than on the performer of those activities. In the case of human-intensive activities, hard, soft and hybrid technologies should be used to systematically industrialise services (Levitt, 1976:84). Hard technology means replacing human activities by technology-based processes (as in the ATM and internet banking services), soft technology refers to rationalising and specialisation of the human activities involved in services, and hybrid is a combination of hard and soft technologies (Levitt, 1976:84).

#### **2.2.4 Perishability**

Zeithaml and Bitner (1996:21) state that perishability refers to the fact that services cannot be saved, stored, resold, or returned. There may be a fluctuating demand which may aggravate the perishability feature (Zeithaml *et al*, 2006:24). Key decisions should be taken on what maximum capacity level should be available to cope with surges in demand before service levels suffer.

Stanton and Futrell (1987:500) state that services are highly perishable and furthermore, the market of services fluctuates considerably by season, by day of the week and by hour of the day. Unoccupied hotel rooms, airline seats, idle telephone capacity, and the unused time of physicians and lawyers cannot be reclaimed. Further, when demand exceeds capacity, customers must be turned away because no backup inventory is available (Zeithaml *et al*, 2006:24). Thus, service organisations must do everything possible to



anticipate peak periods and fit demand to capacity. Boyd *et al* (1998:250) cite two main ways of coping with this problem:

- Manipulating demand. This can be done by including price, advertising, and the sale of other goods or services.
- Manipulating supply. This can be done by training employees to handle multiple tasks, substituting machines for labour, co-operating with other similar service organisations and using part-time professional employees.

Zeithaml and Bitner (1996:21) state that the implications of the perishability of a service are that demand forecasting for capacity utilisation is critical and since a service cannot be returned or resold, it is important to have strong recovery strategies in the event that things do go wrong.

### **2.2.5 Ownership**

Palmer (2001:20) states that the inability to own a service is related to the characteristics of intangibility and perishability. When a service is performed, no ownership is transferred from the seller to the buyer. The buyer is merely buying the right to a service process (Palmer, 2001:20). Lack of ownership is a basic difference between a service industry and a product industry because a customer may only have access to or use of a facility. Payment is for the use of, access to or hire of items. A distinction should be drawn between the inability to own the service act, and the right which a buyer may acquire to have a service carried out at some time in the future. Palmer (2001:21) states that this inability to own a service has implications for the design of distribution channels, so a wholesaler or retailer cannot take title, as is the case with goods.

There are fundamental differences between goods and services as outlined above and because of these differences marketers encounter challenges. Some of these challenges centre on the effective application of the marketing mix.

## **2.3 THE MARKETING MIX FOR SERVICES**

Palmer (2001:10) defines the marketing mix as a set of tools available to an organisation to shape the nature of its offer to customers. Stanton and Futrell (1987:55) describe the

marketing mix as a term that is used to describe the combination of inputs that constitute the core of an organisation's marketing system. Payne (1993:21); Jobber (1995:675); Baker (2003:599) and Zeithaml *et al*, (2006:25) state that the elements of the service marketing mix include the service outcome (the product), the price, promotion, place, people, process and physical evidence and a discussion on these follows.

### **2.3.1 Product**

Palmer (2001:11) describes a product as the means by which organisations seek to satisfy customer needs. A product can be anything which the organisation offers to potential customers, whether it is tangible or intangible. Kurtz and Clow (1998:22) mention that the product component of the marketing mix is the outcome of the service. It consists of two components the technical and the functional. The technical outcome is the end result of the service or the "what" of the service and the functional outcome is the process of receiving the service or "how" the service was provided. The focus of product in the marketing mix is on "what", whereas, compared to process, the focus is on "how". Baker (2003:599) also highlights the point that benefits such as the brand name, reliability, after sales support and credit facilities can also influence customer perception of a service.

Jobber (1995:676) states that there are four characteristics of successful brand names that influence the perception of a service:

1. *Distinctiveness* - Distinctiveness immediately identifies the service provider and differentiates it from the competition.
2. *Relevance* - Relevance communicates the nature of the service and service benefit.
3. *Memorability* - This means that the brand name is easily understood and remembered.
4. *Flexibility* - Flexibility expresses both the organisations current business and it also covers foreseeable new ventures.

The above characteristics indicate the importance of successful brand names and their influence on perception of a service.

### **2.3.2 Price**

Price becomes important to customers as an indication of what to expect because services are intangible and experiential in nature (Kurtz and Clow, 1998:23). When rendering a service it is difficult for a customer to see what they are actually paying for. Hence, price becomes an indication of what to expect. Higher prices tend to convey higher quality and the converse is also true that lower prices tend to convey lower quality but for some services and for some customers, this is acceptable.

Berry and Parasuraman (1991:104) say that setting the right price in services is more than a matter of generating revenue, but is also a matter of sending the right message about the service.

Jobber (1995:678) states that price is the key marketing tool for three reasons:

- Price may act as an indicator of perceived quality since it is difficult to evaluate a service.
- Price is an important tool in controlling demand since matching demand and supply is critical for services, as they cannot be stored.
- Price sensitivity is an important segmentation variable that can be used with services since some customers are willing to pay higher prices than others are.

The above three reasons indicate why price is a key marketing tool.

### **2.3.3 Promotion**

The promotional mix includes various methods of communicating the benefits of a service to potential consumers. Palmer (2001:11) advocates that the mix is broken down into four main elements, *viz.* advertising, sales promotion, public relations and personal selling. Promotion of services requires particular emphasis on increasing the perceptible tangibility of a service. This is so because of the intangible nature of services (Baker, 2003:602). This can be achieved through the development of strong brands, encouragement of word-of-mouth recommendations and the use of credible message sources of communication (Baker, 2003:598 and Jobber, 1995:677).

#### **2.3.4 Place**

Palmer (2001:11) and Baker (2003:602) state that place decisions refer to the ease of access which potential customers have to a service. Place or distribution is a major factor in developing a service marketing strategy because of the inseparability of services from the producer. Rarely are intermediaries involved in the distribution of service. Distribution channels for services are more direct than that for physical goods as a result of the inseparability (services are consumed at the point of production) of services (Jobber, 1995:678). The distribution site and service deliverer are the tangible components of the service (Berkowitz *et al*, 1997:358). It is important to note that as competition grows, the value of convenient distribution is being recognised. This is so because place decisions can involve the choice of intermediaries to use in order to make the service accessible to consumers since the point of place decisions is to get the product to where the customer wants it and how the customer wants it (Baker, 2003:602).

#### **2.3.5 People**

People are an important element of the marketing mix. Palmer (2001:12) advocates that people planning within the marketing mix also involves developing a pattern of interaction between customers themselves. Jobber (1995:679) argues that as a result of production and consumption of services being simultaneous, people (the employees) form a vital element in the marketing mix as they influence customer perceptions of service quality. Zeithaml and Bitner (1996:26) argue that all of the human actors participating in the delivery of a service, provide cues to the customer regarding the nature of the service itself. As well as planning the human input to its own production, marketing management must also develop strategies for producing favourable interaction between its customers and developing a physical environment which affects customers' behaviour.

#### **2.3.6 Physical evidence**

According to Palmer (2001:12) the intangible nature of a service means that potential customers are unable to judge a service before it is consumed, increasing the riskiness inherent in a purchase decision. Marketing planning therefore needs to reduce the level of risk by offering tangible evidence of the nature of the service. Berry and Parasuraman (1991:94) state that the evidence can take on different forms. Brochures, dress code of

staff as well as a clean, bright environment can help reassure potential customers at the point where they make a service purchase decision.

### **2.3.7 Processes**

Palmer (2001:11) suggests that pure services can only be defined using process descriptions rather than tangible descriptions of outcomes; hence quality becomes a key element when defining a product.

Production processes are a measure of how well your organisation meets the demand for programmes and services (Zeithaml and Bitner, 1996:26). The production processes are usually of little concern to consumers of manufactured goods, but are of critical concern to consumers of 'high-contact' services where the consumers can be seen as a co-producer of the service (Palmer, 2001:13).

In view of the fact that all the aspects of the services mix are a part of service encounters, it is important to understand service quality and the determinants of service quality.

## **2.4 SERVICE QUALITY**

### **2.4.1 What Is Service Quality**

Service Quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001:383). There are a number of different definitions as to what is meant by service quality. One that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Lewis and Mitchell, 1990:12; Dotchin and Oakland, 1994: 28; Asubonteng, *et al*, 1996:63; Wisniewski and Donnely, 1996:358). Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman *et al*, 1985:42; Lewis and Mitchell, 1990:12).

Gronroos, (1988:56); Lehtinen and Lehtinen, (1982:134); Parasuraman *et al*, (1985:87); and Sasser *et al*, (1978) all cited in Rowley, 1997:7) support the notion that service quality as perceived by customers, stems from a comparison of what they feel that service organisations should offer (i.e. from their expectations) with their perception of the performance of organisations providing the service.

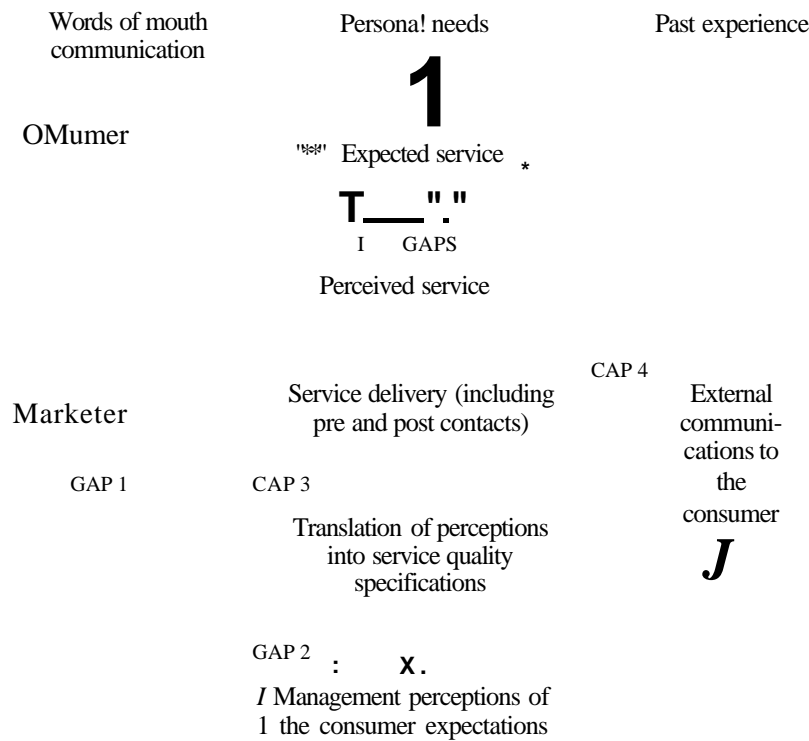
Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman *et al*, 1985:42). This gap between the customers expectation of the quality of the service and the perceived quality of the service received can be explained by the gaps model.

#### **2.4.2 The Gaps Model**

Zeithaml *et al* (2006:33) says that customer expectations are standards or reference points that customers bring into the service experience, whereas customer perceptions are subjective assessments of actual service experiences. Customer expectations often consist of what a customer believes should or will happen. Zeithaml and Bitner (1996:124) explain customer satisfaction as the degree of fit between customers' expectations of service quality and the quality of the service as perceived by the customer. Zeithaml and Bitner (1996:48) also emphasise the importance for organisations to understand the gaps that exist in the delivery of their service in order for them to understand what hinders them from providing a better-quality of service to their customers.

The GAP model identifies five gaps where there may be a shortfall between expectation of service levels and perception of actual service delivery (Palmer 2001:225). Davies *et al* (1999:33) cite that although not prescriptive in nature due to the wide differences in service offerings and the equally broad variation across time and providers, it does offer a useful generic tool for analysis. According to Li *et al*, (2003:417) they argue that the gaps model provides management and employees with a framework to establish the gaps in how a service is designed and operated. The following figure shows the GAPs model of service quality.

**Figure 2.1 GAPS Model of Service Quality**



**Source: Parasuraman *et al* (1985:42)**

**Gap 1: Consumer expectation - Management Perception Gap**

Zeithaml *et al* (2006:35); Gabbott and Hogg (1998:106) and Wahid (2001 paragraph 2) declares that gap 1 is the difference between customer expectations of service and company understanding of those expectations. Zeithamal *et al* (2006:35) cite that a primary cause in many firms for not meeting customers' expectations is that the firm lacks accurate understanding of exactly what those expectations are.

Zeithaml and Bitner (1996:40) explain that in order to close or reduce the size of Gap 1, companies need to establish what is and is not acceptable to the customer in broad terms by conducting sufficient market research. They further state that this research can be done through listening to customer complaints, finding out what customers want in similar industries, researching intermediate customers, conducting key-client studies, and conducting customer expectation and satisfactions surveys.

## **Gap 2: Management Percept - Service Quality Specification Gap**

Gap 2 is the difference between management's perception of consumer expectations and service quality specifications (Zeithaml *et al*, 2006:38; Gabbott and Hogg, 1998:106 and Wahid, 2001 paragraph 10). This is the difference between the organisation's quality specifications and management perceptions of consumer expectations of the service and its quality. Zeithaml and Bitner (1996:41) argue that management may be aware of critical consumer expectations, but a variety of factors such as resource constraints, market conditions, and/or management indifference might prevent them from setting specifications to meet those expectations.

Zeithaml and Bitner (1996:42) state that in order to close Gap 2, management must be committed to service quality. They further mention that this commitment can be shown through "leading by example", by developing quality policies that set the service standards, providing training to improve employee skills that are necessary for enhancing service quality and by standardising tasks so that the outcome of the service is uniform and consistent.

## **Gap 3: Service Quality Specifications - Service Delivery Gap**

Gap 3 - is the difference between the service quality specifications and the delivery of those specifications to the customer (Zeithaml *et al*, 2006:39; Gabbott and Hogg, 1998:106 and Wahid, 2001 paragraph 15). Unforeseen problems or poor management can lead to a service provider failing to meet service quality specifications. This may be due to human error, but also mechanical breakdown. Davies *et al* (1999:35) suggest that manuals and well-communicated standards are not enough to guarantee excellent service.

Zeithaml and Bitner (1996:44) report that the causes of Gap 3 could be employee role ambiguity, role conflict, poor employee-job fit, poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.

Wahid (2001 paragraph 17) states that in order to close the gap, resources in the form of people, systems and appropriate technology also need to be in place and adequately monitored. Contact personnel must be properly trained, motivated, measured and compensated according to service delivery standards.



#### **Gap 4: Service Delivery - External Communication Gap**

Gap 4 - is the difference between service delivery and external communication (Zeithaml *et al*, 2006:40; Gabbott and Hogg, 1998:106; Wahid, 2001 paragraph 20 and Zeithaml and Bitner, 1996:45). Zeithaml and Bitner (1996:45) suggest that the causes of Gap 4 are poor inter-department communication, differences in policies and procedures between branches or departments, and a tendency in marketing people to over-promise. There may be dissatisfaction with service due to the excessively heightened expectations developed through the service provider's communications efforts. Dissatisfaction tends to occur where actual delivery does not meet up to expectations held out in a company's communications. Failure to deliver can result from inaccurate marketing communications, lack of or poor coordination between marketing and delivery personnel and over promising (Zeithaml *et al*, 2006:42).

Wahid (2001 paragraph 23) indicates that the strategies for reducing Gap 4 include increasing horizontal communication by opening the channels of communication between marketing/sales, human resources, and operations so as to enhance understanding between the relevant departments.

Zeithaml and Bitner (1996:46) suggest that in order to avoid over-promising, companies should develop communications that deal with the quality dimensions and features that are most important to customers; accurately reflect what customers actually receive in the service encounter; and assist customers in understanding their roles in performing the service.

#### **Gap 5: Expected Service - Experienced Service**

Zeithaml *et al* (2006:42), Gabbott and Hogg (1998:107), Wahid (2001 paragraph 20), Coupe (2002:paragraph 3) and Zeithaml and Bitner (1996:45) declare that Gap 5 is the most crucial gap as it indicates the difference between expected and perceived service quality. Zeithaml and Bitner (1996:37) explain that customer perceptions are the subjective assessments of the customer's actual service experiences and that customer expectations are the benchmarks against which service experiences are compared.

Wahid (2001 paragraph 33) indicates that by understanding the factors which influence the gaps between expected and perceived service, companies can take action to reduce the difference between perceived and expected quality so that customer satisfaction is enhanced. Following is a discussion on managing customer expectations.

### **2.4.3 Managing Customer Expectations**

Customer expectations are beliefs about service delivery that function as standards or reference points against which performance is judged (Zeithaml and Bitner, 1996:76). Knowledge about customer expectations is critical to service marketers because customers compare their perceptions of performance with these reference points which evaluate service quality. Zeithaml and Bitner (1996:77) advocate that customers hold different types of expectations about services and they usually fall within two levels:

- *Desired Service*

According to Zeithaml and Bitner (1996:77), the desired level of service is the first level of service that the customer expects to receive and is basically the service that the customer hopes to receive.

- *Adequate Service*

Is the second level of service and is the minimum level of service that the customer is willing to accept (Zeithaml and Bitner, 1996:76 and Dion *et al*, 1988:68).

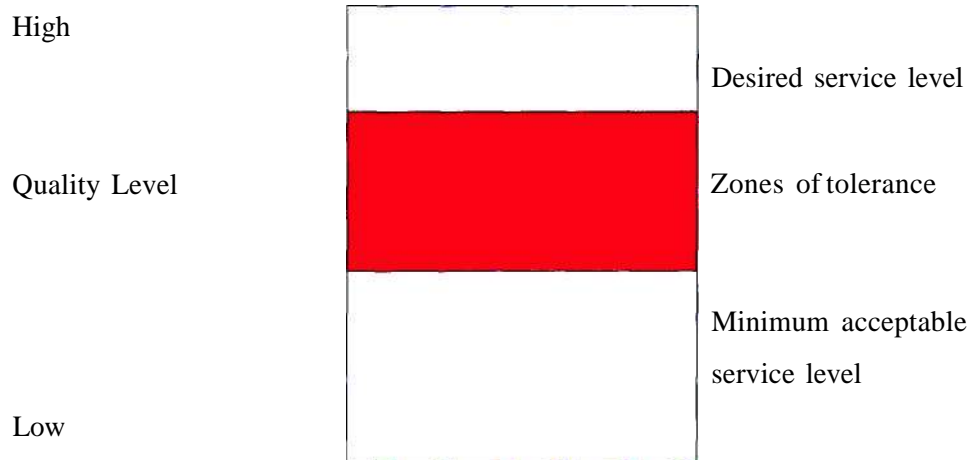
Zeithaml and Bitner (1996:78) declare that customers assess service quality on the basis of what they desire and what they deem acceptable, i.e. customers have dual expectation levels.

Following is a discussion on the zones of customer tolerance.

### **2.4.4 Zones of Customer Tolerance**

Palmer (2001:226) suggests that zones of tolerance may exist in consumers' perception of service quality. If perceptions fall below the desired level of service, this may still be acceptable provided it does not fall below expectations based on the minimum acceptable level of service. The figure below represents the adequate and desired levels of service as well as the zones of tolerance.

**Figure 2.2: Customers zones of tolerance for service quality**



**Source: Palmer (2002:227)**

Zeithaml and Bitner (1996:79) and Walker and Baker (2000:412) state that if service drops below the minimum acceptable level, then the customer's satisfaction with the company will be impaired and if the service performance exceeds the desired service level then the customer will be pleasantly surprised.

Tolerance zones vary between individuals (and companies), service aspects, and with experience and tend to be higher for outcome than for process dimensions of service (Zeithaml and Bitner, 1996:77). In addition, if options are limited or non-existent (e.g. choice of general practitioner services, rail and airplane routes) desires may not decrease, but tolerance zones/levels may be higher (Lewis, 1991:59). Conversely, if many alternatives are available it is easy to switch and tolerance zones are more limited (Palmer, 2001:227). Following is a discussion on measuring service quality.

#### **2.4.5 Measuring Service Quality**

Kang *et al* (2002:279), Robinson (1999:21), Asubonteng *et al* (1996:62) and Kurtz and Clow (1998:101) state that the most popular measure of service quality is SERVQUAL, a model developed by Parasuraman *et al* in 1985. Parasuraman *et al* (1985:46) advocate that the SERVQUAL model which was founded on the GAPS model was designed to measure service quality as perceived by the customer and was developed as a result of insights obtained from interviews with executives and focus groups from selected services.

Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear standards for service delivery (Kurtz and Clow, 1998:105). Edvardsen *et al* (1994:53) states that the starting point in developing quality in services is analysis and measurement. The test instrument is based on the premise that service quality is the difference between customers' expectations and their evaluation of the service they received. The instrument consisted of 22 statements divided along the 10 dimensions listed below, with a seven-point answer scale accompanying each statement to test the strength of relations (Zeithaml *et al*, 1988:45).

The first part of the questionnaire asks customers to indicate the level of service they would expect from a firm in a particular industry. The second part of the questionnaire asks customers to evaluate the service performed by a specific service firm. According to Kurtz and Clow (1998:105) the level of service quality is determined by subtracting the perceived service score from the customer's expectation score for each of the questions. These service quality determinants are discussed in the following table:

**Table 2.1 Determinants of Service Quality**

**RELIABILITY** involves consistency of performance and dependability. It means that the firm performs the service right the first time. It also means that the firm honours its promises. Specifically it involves accuracy in billing, keeping records correctly and performing the service at the designated time.

**RESPONSIVENESS** involves the willingness or readiness of employees to provide service. It involves timeliness of services in mailing a transaction slip immediately, calling the customer back quickly and giving prompt service (e.g. setting up appointments quickly).

**COMPETENCE** means possession of the required skills and knowledge to perform the service. It involves knowledge and skills of the contact personnel, knowledge and skill of operational support personnel and research capabilities of the organisation.

**ACCESS** involves approachability and ease of contact. It means the service is easily accessible by telephones, waiting time to receive service is not extensive, convenient hours of operation and convenient location of service facilities.

**COURTESY** involves politeness, respect, consideration and friendliness of contact

personnel(including receptionists, telephone operators, etc.). It includes consideration for the consumer's property and clean and neat appearance of public contact personnel.

**COMMUNICATION** means keeping customers informed in language they can understand and listening to them. It may mean that the company has to adjust its language for different consumers - increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. It involves explaining the service itself, explaining how much the service will cost, explaining the trade-offs between service and cost and assuring the consumer that a problem will be handled.

**CREDIBILITY** involves trustworthiness, believability, and honesty. It involves having the customer's best interests at heart. Contributing to credibility are things like company name, company reputation and personal characteristics of the contact personnel.

**SECURITY** is the freedom from danger, risk or doubt. It involves physical safety, financial security and confidentiality.

**UNDERSTANDING/KNOWING THE CUSTOMER** involves making the effort to understand the customer's needs. It involves learning the customer's specific requirements, providing individualised attention and recognising the regular customer.

**TANGIBLES** includes the physical evidence of the service:

- Physical facilities.
- Appearance of personnel.
- Tools or equipment used to provide the service.
- Physical representation of the service, plastic credit cards or a bank statement.
- Other customers in the service facility.

**Source: Parasuraman *et al* (1985:47)**

Parasuraman *et al* (1988:14) refined and condensed the initial SERVQUAL instrument through several stages of data collection and analysis.

Kurtz and Clow (1998:102) state that consumers evaluate five dimensions of service quality. These dimensions include tangibles, reliability, responsiveness, assurance, and empathy. Tangibles include the service provider's physical facilities, their equipment, and the appearance of employees (Parasuraman *et al*, 1988:15). Reliability is the ability of the service firm to perform the service promised dependably and accurately (Parasuraman *et al*, 1988:15). Responsiveness is the willingness of the firm's staff to help customers and to provide them with prompt service (Parasuraman *et al*, 1988:15). Assurance refers to the knowledge and courtesy of the company's employees and their ability to inspire trust and confidence in the customer toward the service provider (Parasuraman *et al*, 1988:15). Empathy is the caring, individualized attention the service firm provides each customer (Parasuraman *et al*, 1988:15).

## **2.5 PREVIOUS RESEARCH INVOLVING SERVQUAL**

This study assessed business students' perceptions of services experienced at a New Zealand Tertiary institute. The study was conducted by Sherry *et al* 2004 and utilised the SERVQUAL model to obtain a profile on the customers' expectations and perceptions of service quality. The study found a significant difference between students' expectations of what an Excellent tertiary institution should offer in the way of services and the students perceptions of the services currently experienced.

A questionnaire was distributed in class to 600 New Zealand Diploma in Business (NZDipBus) level 4 and 5 students, and level 5, 6 and 7 Bachelor of Business (BBus) students at UNITEC. The sample in this research represented a mix of both local and international students of both genders. The results of the research were as follows:

### *Expectation Gap*

A paired t-test was used to determine if there was any significant difference between expectations and perceptions. On all five dimensions at the 95% (0.05) confidence level there was a significant difference between what students expect from an excellent tertiary institution and their perceptions of the services offered at UNITEC (Sherry, *et al* No date: 6).

The Assurance dimension had the biggest mean gap of 1.17 followed by the Responsiveness dimension with a gap of 1.12. Comparison of responses of international and local students on the dimensions revealed that the expectation gap is larger for the international students than the local students. The Assurance and Empathy dimensions have the largest gaps indicating that the international students are less happy with these services. A smaller gap on the responsiveness and Reliability dimension of 1.17 for the international students and 1.01 for the local students indicates that this dimension is important to all students (Sherry, *et al* No date: 7).

### *Perception Gap*

Corresponding with the significant difference in the Assurance expectation gap measure (1.18 for local and .87 for internationals), a significant difference was found for all four questions measuring the Assurance dimension, with the international students scoring significantly lower than the local students. The international students also had concerns with lecturers understanding their learning needs and the ability of lecturers to explain objectives and assess fairly (Sherry, *et al* No date: 7).

While Asubonteng *et al* (1996:62), Kang *et al* (2002:279) and Robinson (1991:21) agree that SERVQUAL is the most popular measure of service quality, it is also surrounded by controversy (Gabbott and Hogg, 1998:109; Kilbourne *et al*, 2005:525; Kim *et al*, 2004:290). Kim *et al* (2004:295) summarise some of the criticism of the gap-based SERVQUAL scale as follows:

- There is poor reliability, which attenuates the correlations between constructs.
- There is questionable discriminant validity. This refers to the degree to which measures of theoretically unrelated constructs correlate with each other.
- There is variance restriction, which is generated by always having certain given variables in the gap-based model.
- There is a weak predictive or concurrent validity. This refers to a low correlation among service quality, customer satisfaction and purchase intentions.

Kilbourne *et al*, (2005:525) and Kim *et al*, (2004:290) mention that despite the criticisms of the SERVQUAL model, it is still the most popular service quality measurement among service organisations.

## **2.6 CONCLUSION**

The key to delivering quality service rests in understanding what the customers' service quality expectations are and models such as SERVQUAL and the GAPS model (described in the literature) can assist organisations with this. Organisations also need to create an internal culture that is responsive to customer needs, problems and expectations, as customers do not evaluate service solely on the outcome of the service. Customers evaluate service on almost all activities and indirect support systems as well as consider the process of service delivery. Thus every member of a service organisation becomes vital to the provision of quality service.

It is to be concluded that concepts such as definitions, characteristics of services and the services mix were discussed, followed by discussions on service quality. This chapter concluded with previous research undertaken. The following chapter will discuss service delivery at DUT Pietermaritzburg campuses.



## **CHAPTER 3: SERVICE DELIVERY AT DUT PIETEMARITZBURG CAMPUSES**

### **3.1 INTRODUCTION**

Section 25 of the Higher Education Act of 1997 makes *provision for closure of institutions; the Task Team recommends that there should be no closures. The Task Team recommends reducing the present number of institutions through combining institutions* (Council of Higher Education, 2000a:56). The previous chapter discussed the quality of service while this chapter addresses education as a service, higher education in South Africa and reasons for mergers in higher education in South Africa. The chapter also focuses on the DUT service, the strategy mix and how DUT ensures quality.

### **3.2 EDUCATION AS A SERVICE**

Du Toit (2004:182) says education is a service directly impacted on by the provider, and it is only as effective or inadequate as the quality of both the academic and non-academic services. Higher education institutions are increasingly placing greater emphasis on meeting students' expectations and needs. Hence the purpose for this study.

According to Zmeyov (1998:104) the main goal of education today is to provide individuals with a multifaceted training, and principally with knowledge and skills for creative activities, for adapting to the changes in the natural and social environment and for lifelong learning. Subsequently, the main objective of modern education is to offer individuals a kind of education that will allow them to realise themselves (Faure, 1972:35). This means that education must offer learners every possibility of realising their educational needs.

Education as a service possesses certain features which distinguish it from the education system (Zmeyov, 1998:104). It offers more diversified contents, modes, forms and methods of learning and teaching. According to Boot and Hodgson (1991:5) education provides learners with more facilities for open, free learning, understood as "freedom from constraints in the learning process: administrative (time, space, duration, and costs) and educational (objectives, methods, sequencing, entry qualifications and assessments). Education as a service is

committed to satisfying the educational needs of its clients by creating education services required by learners and not constraining them to accept existing educational facilities. Diversified educational provision does not guarantee a high quality of education, but different educational services are in a constant state of competition (Knowles, 1980:44).

### 3.2.1 Classification of Education Services

Knight (2003:10) says that trade in education is organised into five categories or sub-sectors of service. These categories are based on the United Nations Provisional Central Product Classification and described in table 3.1 below.

**TABLE 3.1 CLASSIFICATION OF EDUCATION SERVICES IN SOUTH AFRICA**

Category of Education Service	Education activities included in each category
Primary Education	-pre-school and other primary education service. -does not cover child-care services
Secondary Education	-general higher secondary -technical and vocational secondary -also covers technical vocational services for the disabled
Higher Education	-post secondary technical and vocation education services -other higher education services leading to university degree or equivalent
Adult Education	-covers education for adults outside the regular education system
Other Education	-covers all other education services not classified elsewhere -excludes education services related to recreation matters

(Knight, 2003:11)

Knight (2003:12) argue that critics of this classification system believe that it does not reflect the reality of today where non-traditional and private providers exist and alternate forms of delivery using new technology are being used. DUT fits into the higher education category that offers a service which leads to diplomas and degrees.

Following is a discussion on higher education in South Africa.

### **3.3 HIGHER EDUCATION IN SOUTH AFRICA**

Since 1994, the South African education sector has been haunted by the spirit of change and transformation from the apartheid-influenced education system to the one that will represent the demographic make-up of the country (Mfusi, 2004:98). The higher education sector has had various policies promulgated, amended and re-amended in order to change the landscape. According to Mfusi (2004:98), the latest landmark has been the "merging" of higher educational institutions and reducing their number from 36 to 21 tertiary institutions. Following is a summary of the scenarios and the rationale that necessitated the mergers in South Africa:

- The fragmented systems inherited from the pre-1994 government(s), which led to a vertically and horizontally fragmented system along provincial level and racial lines (Habib and Parekh 2000); Hay and Fourie (2002) both cited in Wyngaard and Kapp, 2004:187).
- The inequities and disjunctions of the systems (Bitzer (2002) and NCHE (1996) both cited in Wyngaard and Kapp, 2004:187).
- Incoherent and poor articulation between various types of further and higher education institutions (Wyngaard and Kapp, 2004:187).
- Unequal distribution of resources and subsidy amongst further and higher education institutions (Hay and Fourie (2002) and NCHE (1996) both cited in Wyngaard and Kapp, 2004:187).
- The poor throughput rates by institutions (Bunting (1996) cited in Wyngaard and Kapp, 2004:187).

- The declining state subsidy mainly as a result of poor economic growth Hay and (Fourie (2002) cited in Wyngaard and Kapp, 2004:187).
- The impact of legislation (SAQA, NQF, Skills Development Act, Skills Development Levy, Labour Relations Act, Affirmative Action) which changed the profile of institutions and which resulted in the permanent appointment of temporary staff, increased salaries and the expansion of basic fringe benefits to all members of staff (Wyngaard and Kapp, 2004:187).
- Declining enrolment in some institutions, migration of students between institutions and non-participation in further and higher education (Edusource (2002) and Reddy (1998) both cited in Wyngaard and Kapp, 2004:187).
- Regional overlap and duplication of programmes (Wyngaard and Kapp, 2004:187).

It was against this backdrop that something had to be done to reshape the landscape.

In 2001, the South African Ministry of Education released the National Plan for Higher Education (NPHE) (Council on Higher Education, 2000b: 1), which contained the following policy goals, *viz.*

- A framework and mechanisms for restructuring the higher education system;
- indicative targets for the size and shape of the system;
- increasing the participation rates for young people,
- shifting the balance between humanities, business and commerce, and science, engineering and technology;
- the creation of a single dedicated distance education institution through the merger of UNISA, Technikon SA and the Distance Education Campus of Vista University (VUDEC); and
- other specific restructuring measures including the merger between ML Sultan (MLST) and Technikon Natal (TN).

This particular study focuses on the merged institution of MLST and TN currently known as Durban University of Technology. Following is a discussion on mergers.

### 3.4 WHAT ARE MERGERS

There are various definitions of mergers as outlined below and researchers need to take cognizance of the various definitions. The following discusses definitions provided by different literature:

Coyle (2000:2) states that "mergers can be defined in broad as well as narrow terms. In its broadest definition, a merger can refer to any takeover of one company of another, when the businesses of each company are brought together as one. A more narrow definition is the coming together of two companies of roughly equal size, pooling their resources into a single business."

Gitman (1994:764) states that "a merger is a combination of two or more firms, in which the resulting firm maintains the identity of one of the firms, usually the larger one.

Vernimmen (2005:4) states that "a merger consists of combining two or more companies, generally by offering the shareholders of one company securities of the other company in exchange for the surrender of their shares."

Price (1999:38) states that "a merger is an arrangement whereby the assets of two companies become vested in, or under the control of, one company (which may or may not be one of the original two companies) which has as its shareholders all, or substantially all, the shareholders of the two companies."

From the definitions provided it is evident that mergers are seen to be a combination of one company into another, and it must be blended or absorbed into the other company resulting in the merged company taking on the identity of one of the firms.

### **3.4.1 What Type of Mergers Exist in Higher Education**

From an education perspective, Geodegebuure (1992:16) states that "a merger in higher education is the combination of two or more separate institutions into a single new organisational entity, in which control rests with a single governing body and a single chief executive body, and whereby all assets, liabilities and responsibilities of the former institutions are transferred to the single new institution."

Gitman (1999:769) says that the four types of mergers are the (i) horizontal merger, (ii) vertical merger, (iii) congeneric merger, and (iv) conglomerate merger. The configuration of the horizontal merger is the type of merger that best describes the MLST and TN merger. The Gitman (1999:770) defined a horizontal merger as "two firms that operate and compete in the same kind of business activity. Forming a larger firm may have the benefit of economies of scale. Horizontal mergers are regulated by the government for possible negative effects on competition. They decrease the number of firms in an industry, possibly making it easier for the industry members to go into cartels for monopoly profits".

Stacey (1970:33) stated that:

*"Horizontal expansion means purchasing businesses in the same field of endeavour in order to increase market shares, buy up surplus capacity or obtain a more profitable firm for its know-how, patents or processes, other reasons are to encounter competition by greater concentration or just to take advantage of the economies of scale"*

Following is a discussion on the reasons for mergers in higher education in South Africa.

### **3.4.2 Reasons for Mergers in Higher Education in South Africa**

Gitman (1994:766) says organisations merge to fulfill certain objectives. The overriding goal for merging is the maximisation of the owner's wealth as reflected in the acquirer's share price. Trautwein (1990:284) offers several theories of merger motives including efficiency, monopoly, raider valuation, empire-building, process, and disturbance theory. Berkovitch and Narayanan (1993:347) suggest three major motives for takeovers: synergy, agency and hubris.

Other motives include diversification, tax considerations, management incentives, purchase of assets below their replacement costs, and breakup value.

Although the rationale may differ from one merger or acquisition to another, a common measure of success of a merger is the increased value of the combined value (Geodegebuure, 1992:36). Based on this measure, synergy stands out as perhaps the most justifiable motive in mergers and acquisitions. Gitman (1994:766) advocates that the synergy of mergers is the economies of scale resulting from the merged organisations lower overhead. Synergy is said to be present when a whole is greater than the sum of the parts. The economies of scale that generally result from a merger lower the combined overhead, thereby increasing earnings to a level greater than the sum of the earnings of each of the independent organisations. Eccles, Lanes, and Wilson (1999:137) outline the source of synergies as cost savings, revenue enhancements, process involvements, financial engineering and tax benefits. Gitman (1999:767) identifies increased managerial skill or technology as another motive for merging. Occasionally, an organisation will have good potential that it finds itself unable to develop fully because of deficiencies in certain areas of management or an absence of needed products or production technology. If the organisation cannot hire the management or develop the technology it needs, it might combine with a compatible organisation that has the needed managerial personnel or technical expertise.

Harman and Harman (2003:29) say mergers have become an increasingly common phenomenon across many higher education systems. They have been used by national governments to achieve a variety of purposes, but particularly for major restructuring and efforts to address the problem of institutional fragmentation, lack of financial and academic viability, and low efficiency and quality. Mergers also have been used by individual institutions to address financial problems and external threats particularly those relating to falling student demand and competition (Geodegebuure, 1992:42).

Miller (2003:1) said that the merger of University of Natal and University of Durban Westville will inspire the vision of a single university with multiple campuses. The charter group wanted to enhance the ability of the public university sector to respond to social needs, rather than reducing the higher education system. The merger will add value to both the universities as it

will become a single university that will create the development of academic excellence Miller (2003:2). The most obvious reason was that the merger had been forced upon the two universities and there is no real option, but to merge as instructed by Kader Asmal.

The University of Natal and Durban-Westville are in close proximity to one another and consequently the merging of the two institutions is practical and logical. There are numerous other reasons for merging the two institutions, for example, in the hope of creating economies of scale and to provide a better education for all Miller (2003:2).

Following is a discussion on the MLST and TN merger.

### **3.5 MERGER OF MLST AND TN**

The Technikon Natal and ML Sultan Technikon merger was the first higher education merger in South African, (Chalufu (2002) cited in Jansen, 2002:128). In part it was a voluntary merger because talks about the merger had proceeded by some years before the National Plan for Higher Education (2001). At the time of the merger, the two institutions had a similar sized student body of approximately 9 500 students each. MLST had a main campus with one small satellite campus at Brickfield Road in Durban. TN had a main campus in Durban, a branch in each of Durban and Pietermaritzburg and a satellite campus in Richards Bay. In addition, at the beginning of 2001, two Colleges of Education were incorporated into TN, being Indumiso in Pietermaritzburg and Gamalakhe in Port Shepstone (DUT, 2006a:paragraph 3).

Chalufu (2002) cited in Jansen (2002:138) says the merger between MLST and TN was officially inaugurated on 1 April 2002, culminating in the birth of the Durban Institute of Technology (DIT). With a total of 97 proposed names received from public submissions, the merger committee eventually settled for DIT and made its recommendation, which was approved by the Minister of Education.

The DIT Council resolved at its seating on the 12th of December 2005 to change in the institution's name by changing the word 'INSTITUTE' to 'UNIVERSITY' of technology (DUT, 2006a:paragraph 5). This was after an extensive consultation process with all



stakeholders and their constituencies including the student representative council (SRC). The name change has since come into effect (South African Government Gazette, 2002:6).

Chalufu (2002) cited in Jansen (2002:138) says this merger was the first proposed combination of higher education institutions in South Africa. It was a "cross racial merger" in which the historically advantaged institution, the former white TN, was the weaker partner financially compared to the historically disadvantaged institution the former "Indian" MLST, (Chalufu (2002) cited in Jansen, 2002:138).

From a practical perspective, the merger of MLST and TN made sense, as these two institutions were literally separated by a physical fence, although, providing the same services, a few meters apart. Chalufu (2002) cited in Jansen (2002:129) says the two institutions had significant differences in their resources, cultures and racial profiles. The library collections of the two Technikons showed stark inequalities in their resources (Chalufu (2002) cited in Jansen, 2002:128). During the 2000 academic year an audit was undertaken in the library and MLST had 48 000 volumes and 59 510 titles, while TN had 70 578 volumes and 62 217 titles (Chalufu (2002) cited in Jansen, 2002:129). In terms of academic and professional staff, the majority of staff at TN was white (82 %) while at MLST, the staffing at similar levels of appointment were mainly Indian South Africans (68 %) (Chalufu (2002) cited in Jansen, 2002:129). Since the merger there has been a gradual deracialisation in terms of student racial profiles and in the management and leadership of the new institution (Chalufu (2002) cited in Jansen, 2002:129). There has been no research on this merger to-date, hence the importance of this study.

Following is a discussion on the Pietermaritzburg operations of DUT.

### **3.5.1 The Pietermaritzburg Operation of DUT**

According to the (DUT, 2006b:paragraph 2), the Pietermaritzburg operations started in the late 1980's primarily as an extension of the part-time courses available on the Durban Campus. Initially these lectures were conducted out of venues in the Faculty of Arts of the University of Natal. As classes and the number of courses grew, the need to find larger premises that were more freely available resulted in the operation moving to the Music School in Boom Street in 1990. A year later the campus was re-located into the recently vacated Voortrekker Primary School on the corner of Pine Street and Mayors' Walk (DUT, 2006bparagraph 3).

In 1992 the number of full-time enrolments was 31 and part-time 220 (DUT Final Report, 2005:1). The campus continued to grow and by 1995 there were 755 full-time students, 120 bridging programme students and 140 part-time students. Concurrently, the present Gert Maritz Campus became available and the move to the present site took place during 1996 (DUT, 2006bparagraph 4). This campus is currently referred to as Riverside Campus. In 2001, the Indumiso Campus in Edendale was incorporated into Technikon Natal and thus became a site of the DUT operation (DUT, 2006bparagraph 4).

In 2006, there were 70 staff and 1 724 students on the Riverside campus and 37 staff and 930 students on the Indumiso campus equaling a total of 103 staff members and 2 654 students at the DUT, Pietermaritzburg campuses. According to the DUT (2006b:paragraph 4), "the midlands operations at Indumiso and Riverside have shown impressive growth figures." There are currently 11 programmes offered on the Riverside Campus from National Diploma to Bachelor of Technology and Master of Technology qualifications and 2 programmes offered on the Indumiso Campus *viz.* Civil Engineering and Education. The enrolment figures for 2006 on the Riverside campus are 1 693 students and on the Indumiso campus it is 930 according to DUT administration department (DUT, 2006c paragraph 5).

### **3.6 DUT'S MARKETING STRATEGY**

Perreault and McCarthy (2002:63) cite that a "marketing strategy requires decisions about the specific customers the firm will target and the marketing mix the firm will develop to appeal to that target market". DUT (2006d:paragraph 2) states that marketing enables the DUT to achieve competitive advantage in student recruitment, visibility and reputation building, and fundraising. The DUT must know their markets to survive and succeed. Effective marketing therefore depends on thorough advance planning and careful implementation.

According to the DUT (2006d:paragraph 3) higher education today is a mature industry, one dominated by many largely undifferentiated technikons, colleges and universities offering similar programmes. It operates in an environment that is shifting demographically, marked by increasing numbers of under-prepared full- and part-time students and faces challenges in terms of the country's economic and industrial developmental needs.

The marketing objectives of the DUT as outlined by the marketing strategy are as follows (DUT, 2006d:paragraph 4):

- To increase awareness of DUT, its image, reputation and course offering.
- To increase student enquiries.
- To increase conversion of enquiries to registrations.
- To increase student numbers by recruiting students outside of KwaZulu-Natal.
- To attract top-class students.
- To ensure that the markets perceive the functioning of DUT as 'business as usual'. (Especially with the name change to DUT).
- To ensure that communication is accurate, consistent, timeous and professional.

#### **3.6.1 Target Market**

DUT has divided their target market into two, namely internal and external. Zeithaml *et al* (2006:366) says that a combination of strategies for enabling service promises are often referred to as internal marketing. Zeithaml *et al* (2006:356) unless service employees are able and willing to deliver on the promises made, the firm will not be successful.

### **Internal**

- Council
- Staff (Academic and Administrative)
- Unions / SRC
- Central Applications Office
- Existing students

DUT must try and target the above constituencies of the organisation regarding the advertising of the institution.

### **External**

- Prospective Students / Parents
- Guidance counsellors / teachers and principals
- Media
- Alumni
- General Public
- Donors
- Employers
- Suppliers
- Government / Ministry of Education

The above are external to the institution and DUT must target these stakeholders regarding promotion of the institution.

The minimum entrance requirement for admission is a South African senior certificate or a recognised equivalent qualification. International students must have their qualifications evaluated by the South African Qualifications Authority (SAQA) (DUT, 2006c:paragraph 3).

### **3.6.2 Positioning**

The marketing drive over recent years has resulted in DUT being the number 1 choice for tertiary education in KwaZulu-Natal (DUT, 2006d:paragraph 3). The second institutional goal

of the DUT is to ensure that the institution is strategically positioned within a global context (DUT, 2006d:paragraph 4). The challenge for DUT lies in converting the enquiries generated into registrations. The staff of DUT plays a vital role in the marketing of the university and can support the external marketing drive by improving their communication with prospective students who enquire, as well as by becoming involved in various external marketing initiatives.

### **3.6.3 DUT'S Services Mix**

DUT (2006d paragraph 4) suggest that marketing is a strategic function, undertaken to facilitate the implementation of an Institutional Strategic Plan to improve competitiveness and ensure its sustainability in a changing world. Marketing is strategic and successful only if it is an integrated university-wide activity (DUT, 2006d:paragraph 6). The 7 P's which relate to service marketing are applied to this study.

- ***Place***

The DUT is a multi-campus University of Technology, offering students the convenience of attending one of seven campus sites located throughout KwaZulu-Natal (i.e. Steve Biko, ML Sultan, City, Brickfield, Ritson, Riverside and Indumiso) (DUT, 2006d:paragraph 5). Lectures take place on campus and not distance learning. The service provider and the customer must come together.

- ***Product***

DUT is committed to promoting learning through high quality programmes, research and support services that will produce competent graduates (DUT, 2006d:paragraph 5). The DUT offers an exciting range of undergraduate and postgraduate programme from four faculties. DUT also continuously strives to provide improved quality services and infrastructure (DUT, 2006d:paragraph 5).

- ***Process***

The DUT has approximately 560 dedicated academic staff who provide lectures to students both full-time and part-time (DUT, 2006d:paragraph 6).

- ***Price***

DUT's qualifications are competitively priced and customers are rewarded with state-of-the-art facilities and a superb learning environment (DUT, 2006d:paragraph 6).

- ***People***

DUT consists of academic and non-academic staff that provides its customers with a dynamic, multi-cultural learning environment and an innovative institution at the forefront of higher education, technological training and research (DUT, 2006d:paragraph 6).

- ***Physical Evidence***

The physical evidence that most customers are exposed to are the facilities, laboratories, libraries, lecture venues and material associated with the institution, e.g. Brochures, pamphlets, accounts, etc. (DUT, 2006d:paragraph 6).

- ***Promotion***

Opportunities include sponsoring sports teams, high profile departmental events, campus hosting of international and national conferences, sponsorship of appropriate community engagement projects, corporate events such as race days, sports days, family days, etc (DUT, 2006d:paragraph 6).

### **Branding/Advertising Campaign for the Durban University of Technology (DUT)**

The objectives of this branding campaign are (DUT, 2006d:paragraph 7):

- \* To continue to reinforce the positioning of the DUT as 'The Leading University of Technology in Africa that nurtures holistic education and the advancement of knowledge';
- \* To effectively educate the consumer that DUT is the result of the merger between ML Sultan Technikon and Technikon Natal;
- \* To build brand awareness and establish the DUT as the preferred choice for tertiary education.

DUT, (2006d:paragraph 6) mentions that it is important for the DUT to differentiate itself on superior value - the market must believe that they are making an investment in their future that the qualification they will achieve at the end of their studies is worth the price they have to pay.

### **Examples of a unique branding campaign include (DUT, 2006d:paragraph 8):**

- \* The DUT is offering R20m in Bursaries for the DUX of every school in South Africa;

- \* The Deans' Awards;
- \* Spend a Semester at Sea with the DUT;
- \* DUT Power Boating Marathon (Our own corporate event);
- \* DUT to build the largest bead doll for AIDS Awareness (Guinness Book Records type of event).

The DUT marketing strategy is still in draft form and has not been ratified by executive management or council yet. Hence, the importance of the study to highlight the gap between expectations and perceptions and implement remedies to reduce the gap.

### **3.7 JUSTIFICATION FOR THE RESEARCH**

du Toit (2004:187) believes that student satisfaction is important in higher education because of its role in competing for high quality of students and in the retention of students. It is also important to the referral of prospective students and often receives prominence in strategic mission statements and objectives. Following du Toit (2004:187), as universities continue to become more student oriented, student perceptions of higher educational facilities and services are becoming more important. It is absolutely critical therefore that the university develops some form of evaluating, tracking and managing the student perceptions of service. All of the above justifies the reason for this study.

### **3.8 CONCLUSION**

This chapter discussed the background to mergers in both businesses and in higher education. The chapter also addressed education as a service, higher education in South Africa and reasons for mergers in higher education in South Africa. The chapter concluded with the merger of MLST and TN and discussed the marketing mix of the DUT. The subsequent chapter deals with the research methodology undertaken in this study.

## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 INTRODUCTION**

The purpose of this study was to investigate the effectiveness of service delivery on the Riverside and Indumiso campuses of DUT. According to Bisschoff and Bisschoff (2001:229) there is strong competition in the tertiary education market in South Africa which has resulted in universities actively competing for student numbers in order to remain profitable. Hence, it is imperative that the management of DUT is *firstly*, aware of the current delivery of service and *secondly*, steps are taken to ensure that service delivery is satisfying student expectations in order to maintain a competitive advantage.

This chapter presents the objectives of the research, discusses the research design, the research instrument used to collect the data, the data collection method, and the method of data analysis.

### **4.2 RESEARCH OBJECTIVES**

This research study attempts to:

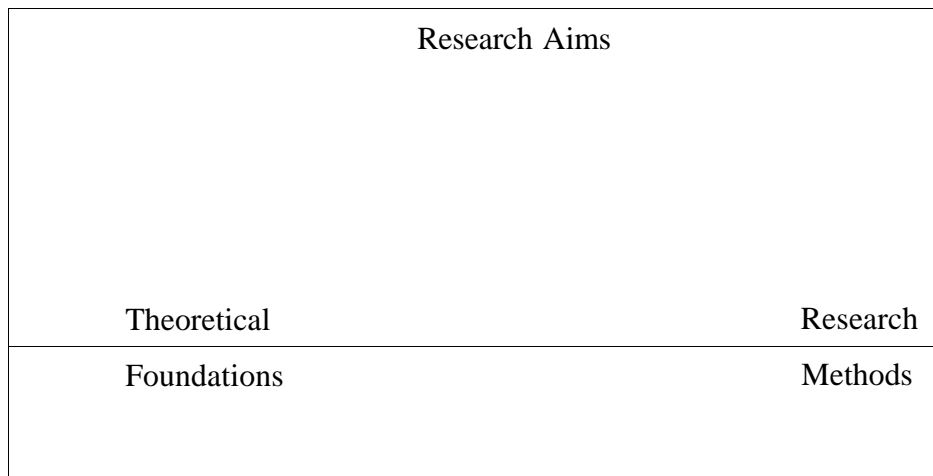
1. Identify expectations for service quality at a university.
2. Identify perceptions of service quality at the DUT.
3. Establish the SERVQUAL gap, which causes unsuccessful service delivery (Gap 5).
4. Make a comparison of Riverside versus Indumiso campuses regarding service quality at DUT.
5. Make a comparison of staff versus students regarding service quality at DUT.



### 4.3 RESEARCH DESIGN

A useful triad for the justification of research includes research aims, theoretical foundations and research methods (Robey, 1996: 402). Research aims determine both the theoretical foundations and research methods, whereas theoretical foundations also determine the research methods (See Figure 4.1 below).

**Figure 4.1: A triad of the Justification of Research**



(adapted from Robey, 1996: 402)

The research aim was to investigate the quality of service. It has been advocated by Jackson (1995: 28), that the theoretical foundation of research is what distinguishes it from the realm of theoretical unfounded management consultancy. The theoretical foundations of this research were formulated on the basis of the literature analysis. Literature analysis of current business theory, the SERVQUAL framework and service delivery at tertiary institutions was undertaken. Sourcing information from journal publications; books; periodicals; newspapers and magazines; the Internet; discussion documents and previous research undertaken allowed for the task of literature analysis and techniques for empirical research to be undertaken.

Welman and Kruger (1999:2) defined the concept of research as a process in which scientific methods are used to expand knowledge in a particular field of study. Hunter *et al* (1983:24),

suggest that any research should be carried out in a systematic and programmatic manner. A quantitative research design was followed. The study utilised descriptive research, which according to Parasuraman (1991:135) "generates data that describes the composition and characteristics of the relevant groups". The type of descriptive research utilised is a cross-sectional study, which is a one time study involving data collection at a single period in time (Zikmund, 1997:205). Primary data was collected via the use of questionnaires administered to both staff and learners in a structured environment. The data was analysed by using a statistical software version 13.0 for Windows *viz.* Statistical Package for the Social Sciences (SPSS).

#### **4.4 RESEARCH INSTRUMENT DESIGN**

In an effort to measure the quality of service, Parasuraman *et al* (1988:30) developed SERVQUAL, an instrument for measuring customer expectations and perceptions of service quality. The SERVQUAL instrument was used as it "is a concise multiple-item scale with good reliability and validity" (Parasuraman *et al*, 1988:30). According to Kilbourne *et al* (2004:525) and Kim *et al* (2004:290), an advantage of this instrument is that it was designed to be applicable across a broad spectrum of services and is the most popular service quality measurement among service organizations.

Parasuraman *et al* (1988:14) developed the service quality model with five factors *viz.*, tangibles; reliability; responsiveness; assurance and empathy by using items related to banking and financial industry, and hence might not be appropriate for higher education. The researcher followed the work of Awang *et al* (No date:2) who modified the model by including items relevant to the higher education industry. Awang *et al* (No date:3) identified service quality factors in higher education from various studies. A primary data collection was conducted via a structured interview with students at UiTM Machang to investigate items and generate service quality attributes in higher education. In total, 37 items were identified and a structured questionnaire was prepared. Awang *et al* (No date:4) declares a study on 300 students at UiTM Machang. This was conducted to obtain the data using the structured questionnaire where the items were arranged in a random order. A Confirmatory Factor

Analysis (CFA) was conducted resulting in only 28 items from the initial 37 items retained. A reliability analysis (Cronbach Alpha) was employed to test the model which showed a satisfactory results (higher than 0.6) for each factor ranging from the lowest of 0.7690 and the highest of 0.9460.

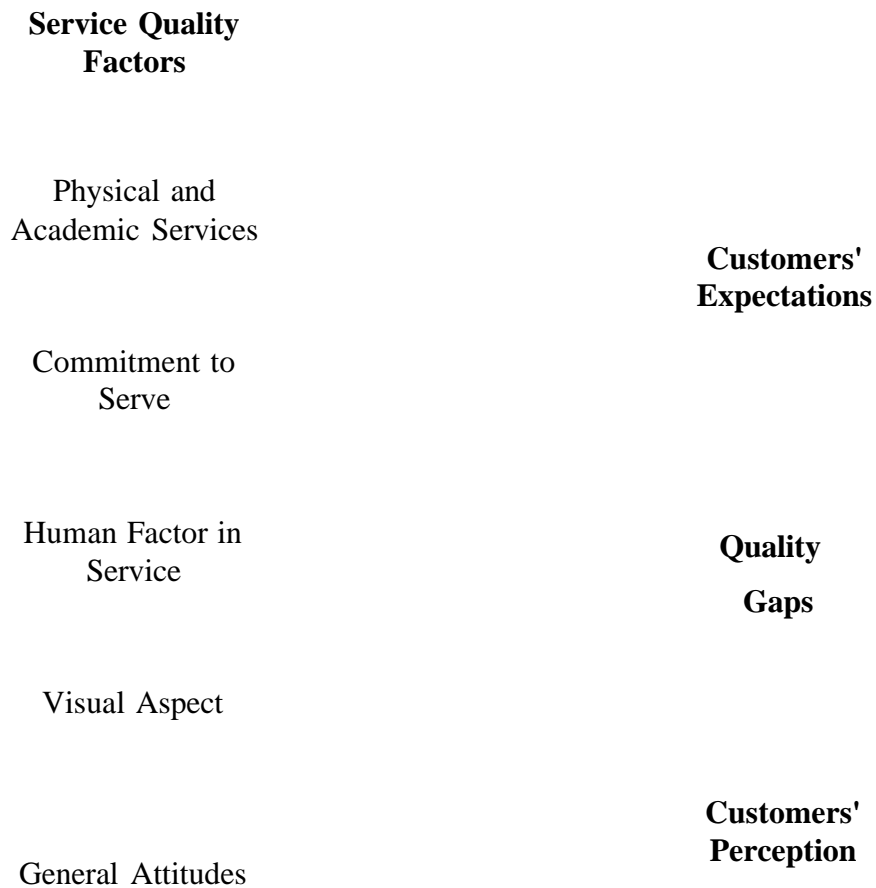
**Table 4.1 Cronbach's Alpha Coefficient of Service Quality Expectations**

	<b>Service Quality Factors</b>	<b>Number of Data</b>	<b>Cronbach's Alpha</b>
<b>1.</b>	Physical and Academic Services	300	0.9640
<b>2.</b>	Commitment to Serve	300	0.9210
<b>3.</b>	Human Factor	300	0.7690
<b>4.</b>	Visual Aspects	300	0.8820
<b>5.</b>	General Attitudes	300	0.7750

(Awang *et al*, no date:5)

Based on the conceptual model in Figure 4.2, this study examined the service quality factors in higher education by generating the importance of services quality attributes which reflect on the customer's expectation and perception.

**Figure 4.2 Service Quality Factors in Higher Education and the Quality Gap Reflecting the Management effectiveness in serving customers.**



(Awang *et al*, No date:4 )

Ethical clearance was obtained from the University of KwaZulu-Natal (Appendix 2). The SERVQUAL questionnaire comprised of two sections i.e. customer service expectations of university services and customer service perceptions of the service received from the DUT (Appendix 1). In the service expectations section respondents were asked to indicate on a seven-point scale the extent to which they believed an ideal university possesses the characteristics described in the statements. The perceptions section required respondents to indicate the extent to which DUT possesses the characteristics described in the statements.

Following the work of Awang *et al* (No date:5) and Parasuraman (2004:46) the questionnaire was divided into five factors:

**Factor 1: Physical and Academic Services** - the physical facilities and the ability to perform the promised service reliably and accurately. These statements (1- 10) encompass attributes of *Tangibles and Reliability* (Parasuraman, 2004:46).

**Factor 2: Commitment to Serve** - the willingness to help the customer and provide prompt service. These statements (1-5) encompass the attributes of *Responsiveness* (Parasuraman, 2004:46).

**Factor 3: Human Factors** - the provision of caring, individual attention to customers. These statements (1 - 4) encompass the attributes of *Empathy* (Parasuraman, 2004:46).

**Factor 4: Visual Aspects** - the appearance of equipment, personnel and communication materials. These statements (1 - 4) encompass the attributes of *Tangibles* (Parasuraman, 2004:46).

**Factor 5: General Attitudes** - the knowledge and courtesy of employees and their ability to convey trust and confidence. These statements (1 - 3) encompass the attributes of *Assurance* (Parasuraman, 2004:46).

The questionnaire has a seven point Likert scale options:

1 = strongly disagree

2 = disagree

3 = mildly disagree

4 = neutral

5 = mildly agree

6 = agree

7 = strongly agree

A third section of demographic data questions was added to the end of the questionnaire, in order to determine the perceptions of service quality across demographic variables and campuses. This section included the type of employees, i.e. Academic or Administration; the campus, i.e. Riverside or Indumiso and year of study, i.e. Second or Third year. The purpose was to identify if there was a difference in perception with regards the above.

#### **4.5 THE SAMPLE**

The population of this study consists of all staff and learners on both the Riverside and Indumiso Campuses. According to (DUT, 2006d:paragraph 2), the registration figures were as follows. There were 70 staff and 1 724 students on the Riverside campus and 37 staff and 930 students on the Indumiso campus equaling a total of 103 staff members and 2 654 students. This represented 47% staff and 9 % students of the Riverside Campus and 54 % staff and 8.5 % students from the Indumiso Campus.

A convenience sampling technique was used to administer questionnaires to students and staff across two campuses. A total of 280 questionnaires was returned with the following breakdown and corresponding response rates:

CAMPUS	TYPE OF EMPLOYEE		TOTAL	REPRESENTATIVE- NESS OF SAMPLE
	ACADEMIC	ADMINISTRATION		
Riverside	19	14	33	47%
Indumiso	10	10	20	54%
Total	29	24	53	50%

## YEAR OF STUDY

CAMPUS	SECOND YEAR	THIRD YEAR	TOTAL	REPRESENTATIVE- NESS OF SAMPLE
Riverside	98	49	147	9%
Indumiso	43	36	79	8.5%
Total	141	85	226	8.5%

The questionnaire was administered only to second and third year students as they have been exposed to the quality of service at DUT.

### 4.6 DATA COLLECTION METHOD

The researcher approached lecturers from the different departments on the Riverside and Indumiso campuses who lecture only second and third year students. Twenty minutes of the lecture time was requested to complete the questionnaire. The researcher issued and explained the questionnaires to the respondents. The completion of the questionnaire took place under a controlled environment. This process took place during the week of the 12th - 15th June 2006 on the Riverside Campus and 19th - 21<sup>st</sup> June 2006 on the Indumiso campus. The times varied according to the student's time-table. However, most of the administration of the questionnaires took place between 09:30 and 14:00 and this was because most respondents were available during these times.

The researcher issued and explained the contents of the questionnaires to staff, i.e. both academic and administration on the 12<sup>th</sup> June 2006 and collected the questionnaires on the 13<sup>th</sup> June 2006. Some of the questionnaires which were not completed by the 13<sup>th</sup> June 2006 were sent back to the researcher via internal mail envelopes by the 15<sup>th</sup> June 2006. The administration of the questionnaire to staff on the Indumiso campus was carried out with the assistance of a volunteer. The volunteer explained the questionnaire to staff and the

questionnaires were collected four days later. This process took place from the 19<sup>th</sup> - 21<sup>st</sup> June 2006.

Students registered for semester courses, *viz.* Civil Engineering and Public Management were excluded from the sample as those students were off campus preparing for semester exams. The demographics of the Riverside and Indumiso campuses also show the highest number of White students is enrolled for the National Diploma: Civil Engineering. Hence, White students registered for the National Diploma: Civil Engineering and students registered for the National Diploma: Public Management were not accurately represented in the sample.

#### **4.7 DATA ANALYSIS**

Flemming and Nellis (1996:10) state that the research process is divided into five steps, *viz.* planning, data collection, editing and coding, analysis and conclusion. Once the planning and data collection stage was completed the researcher proceeded to editing and coding of the data. Data was edited using a number of criteria, *viz.* entirety, comprehensibility, consistency and uniformity.

The following step was to code the data. This is when the data is categorised and identified by assigning a code. The coding of the data involved assigning an alpha-numeric value for each statement in the SERVQUAL SECTION. Each respondent's questionnaire was number from (R1 - R150) and from (I151 - I300). The R and the I were for Riverside and Indumiso campuses respectively. The demographics section of the questionnaire was coded as follows:

- ***Age***

17 - 21 (Code 1); 22 - 26 (Code 2); 27 - 31 (Code 3); 32 - 36 (Code 4) > 37 (Code 5)

- ***Gender***

Male (Code 1) and Female (Code 2)

- ***Race***

White (Code 1); Black (Code 2); Asian (Code 3); Coloured (Code 4)



- *Campus*

Riverside (Code 1) and Indumiso (Code 2)

- *Type of Employee*

Academic (Code 1) and Administration (Code 2)

- *Year of Study*

Second Year (Code 2) and Third Year (Code 3)

The SERVQUAL questionnaire (Appendix 1) was used to measure service quality and the assessment involved computing the difference between the ratings assigned to the expectations and perceptions statements, i.e.  $SQ = P - E$  (Youseff *et al.*, 1995:67). An average score was calculated for each response on the statements in both the expectation and perception section of the SERVQUAL questionnaire based on the seven-point Likert scale. The statistical tests, *viz.* Mann Whitney and paired t-tests were done on SPSS version 13.0 for Windows, as the statistics on SPSS is equipped to handle empirical data. The perceptions and expectations sections of the questionnaire were plotted on comparative bar graphs. Tables comparing means and modes of these sections were also carried out.

#### **4.8 RELIABILITY**

To determine the reliability of the data collected, Cronbach's Alpha was calculated. Simon (2004 paragraph 3) states that Cronbach's Alpha is a measure of how well each individual item in a scale correlates with the sum of the remaining items and measures consistency among individual items in a scale.

Cronbach Alpha ranges between 0 and 1 with 0 indicating a perfectly unreliable measurement and 1 a perfectly reliable measurement.

The Cronbach Alpha was calculated for each subscale or service quality factor in the questionnaire and the results are tabulated below.

**Table 4.2: Cronbach Alpha test for reliability**

	Service Quality Factors	Number of Respondents	Student's Expectation Cronbach's Alpha	Student's Perception Cronbach's Alpha
1	Physical & Academic Services	280	0.844	0.878
2	Commitment to Serve	280	0.787	0.899
3	Human Factor	280	0.832	0.856
4	Visual Aspect	280	0.766	0.790
5	General Attitudes	280	0.757	0.808

All Cronbach's Alpha coefficients are higher than 0.7 indicating a reasonably high level of reliability of the measurement instrument i.e. the questionnaire.

#### **4.9 CONCLUSION**

This chapter discussed the research methodology of this study and elaborated on the research instrument design, the sample, the data collection method and the analysis of the data. The data was analysed using SPSS and the findings are presented in Chapter 5.

## **CHAPTER 5: FINDINGS**

### **5.1 INTRODUCTION**

This chapter presents the data that was collected with the use of the SERVQUAL questionnaire. The objectives of this study were to:

1. Identify expectations for service quality at a university.
2. Identify perceptions of service quality at the DUT.
3. Establish the SERVQUAL gap, which causes unsuccessful service delivery (Gap 5).
4. Make a comparison of Riverside versus Indumiso campuses regarding service quality at DUT.
5. Make a comparison of staff versus students regarding service quality at DUT.

The SERVQUAL questionnaire (Appendix 1) was used to measure service quality and the assessment involves computing the difference between the ratings assigned to the expectations and perceptions statements, i.e.  $SQ = P - E$  (Youseff *et al*, 1995:67). An average score was calculated for each response on the statements in both the expectation and perception section of the SERVQUAL questionnaire based on the seven-point Likert scale.

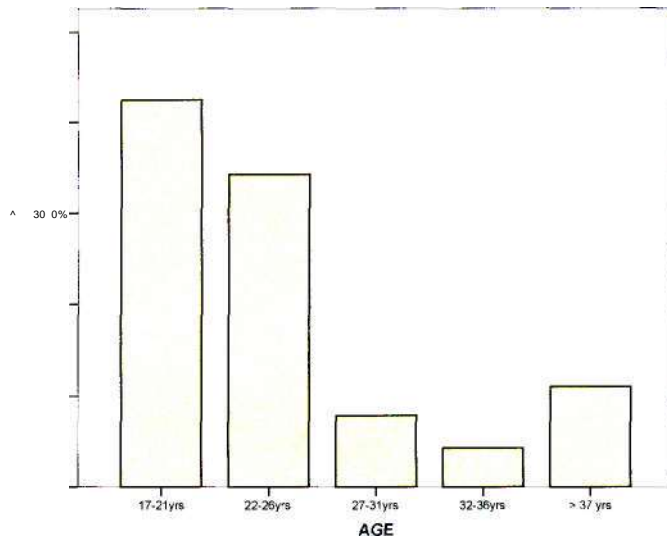
This chapter contains graphical representation of the demographic profile of the sample and tables and graphs that represent the different statements in the expectation and perception sections of the SERVQUAL questionnaire.

### **5.2 SAMPLE PROFILE**

The demographic profile contained statements regarding the type of employee, i.e. Academic and Administration; the year of study and the campus from which the respondents are located. Following is an explanation of the demographic profile of the respondents.

**Figure 5.1 Graph depicting results for Statement 1 of demographics profile**

Age



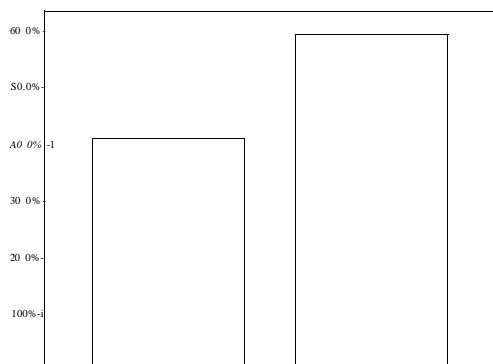
**Table 5.1 Response to Statement 1 of demographics profile**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-21yrs	119	42.5	42.5	42.5
	22-26yrs	96	34.3	34.3	76.8
	27-31 yrs	22	7.9	7.9	84.6
	32-36yrs	12	4.3	4.3	88.9
	> 37 yrs	31	11.1	11.1	100.0
Total		280	100.0	100.0	

The modal responses for this statement were "17 - 21 years" (42.5%) and "22 - 26 years" (34.3%). The modal age group of "17 - 26 years" accounted for 76.8 %.

**Figure 5.2 Graph depicting results for Statement 2 of demographics profile**

Gender



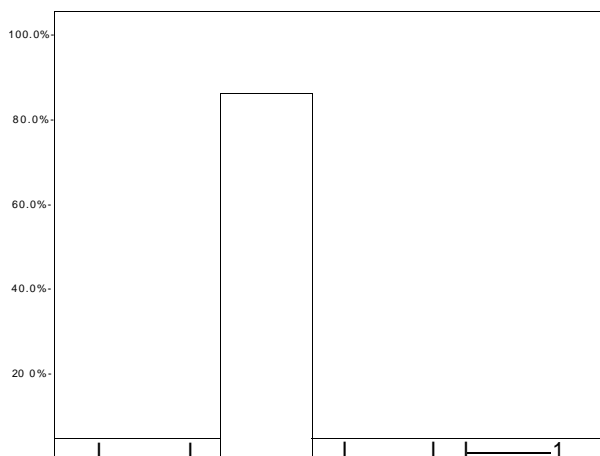
**Table 5.2 Response to Statement 2 of demographics profile**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	114	40.7	40.7	40.7
	female	166	59.3	59.3	100.0
	Total	280	100.0	100.0	

There were more females (59.3%) than males (40.7%) that participated in this survey. Both campuses are dominated by females with respect to staff and students.

**Figure 5.3 Graph depicting results for Statement 3 of demographics profile**

Race

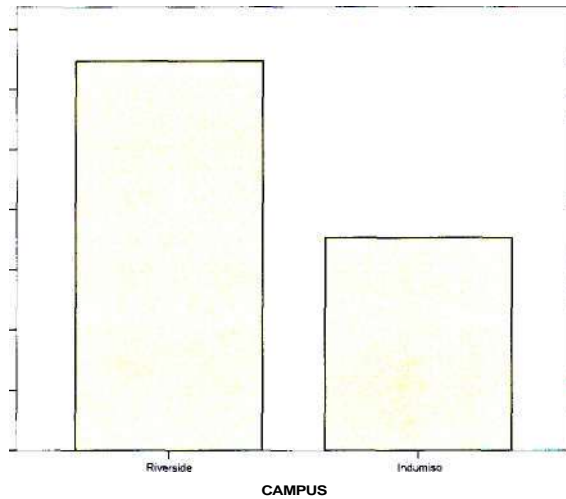


**Table 5.3 Response to Statement 3 of demographics profile**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	14	5.0	5.0	5.0
	Black	241	86.1	86.1	91.1
	Asian	15	5.4	5.4	96.4
	Coloured	10	3.6	3.6	100.0
	Total	280	100.0	100.0	

The modal responses for this statement were 95 % constituted Black, Asian and Coloured respondents and 5 % were White respondents.

**Figure 5.4** Graph depicting results for Statement 4 of demographics profile  
Campus



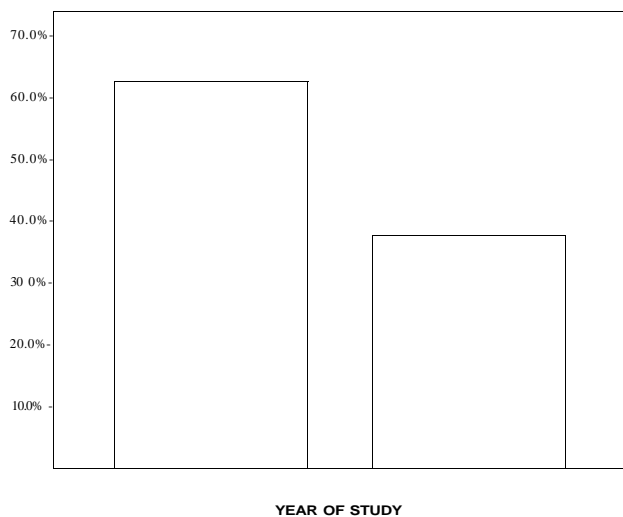
**Table 5.4** Response to Statement 4 of demographics profile

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Riverside	181	64.6	64.6	64.6
	Indumiso	99	35.4	35.4	100.0
	Total	280	100.0	100.0	

Clearly there are more students from the Riverside Campus (64.6%) than from the Indumiso Campus (35.4%). Indumiso also has a smaller number of students on campus compared with the Riverside Campus.

**Figure 5.5** Graph depicting results for Statement 5 of demographics profile

Year of Study



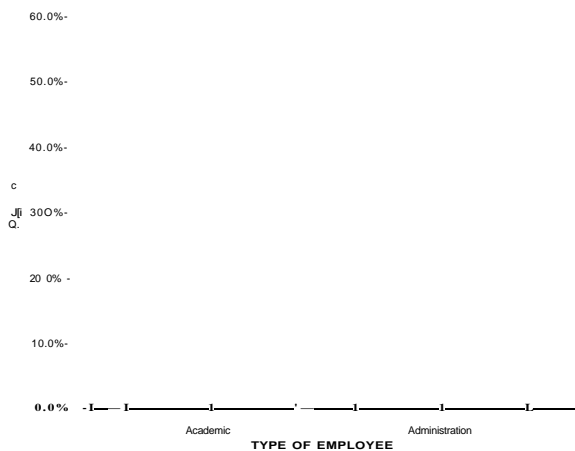
**Table 5.5 Response to Statement 5 of demographics profile**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2nd year	141	50.4	62.4	62.4
	3rd year	85	30.4	37.6	100.0
	Total	226	80.7	100.0	
Missing	System	54	19.3		
Total		280	100.0		

There were more second year than third year students in this survey. 50.4 % of the student respondents represented second year students while 30.4 % were third year students. The remaining 19.3 % constituted the staff compliment.

**Figure 5.6 Graph depicting results for Statement 6 of demographics profile**

Type of employee



**Table 5.6 Response to Statement 6 of demographics profile**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Academic	29	10.4	53.7	53.7
	Administration	25	8.9	46.3	100.0
	Total	54	19.3	100.0	
Missing	System	226	80.7		
Total		280	100.0		

There was an almost even number of Academic and Administration employees.

## **Demographic Conclusion**

Most of the respondents that took part in this survey were in the age group 17-21 and 21-26 years. There were fewer males (40.7%) than females (59.3%). The majority of the students were black students and there were more Riverside Campus students than Indumiso Campus students. The students were more in 2<sup>nd</sup> year (50.4%) than in 3<sup>rd</sup> (30.4%) year. There was an approximately even number of Academic (10.4%) and Administration (8.9%) employees that participated in the survey.

## **5.3 EXPECTATIONS**

Zeithaml and Bitner (1996:76) state that "customer expectations are the beliefs about service delivery that function as standards or reference points against which performance is judged." The findings on expectations for each of the statements are displayed in their relative factors, i.e. Physical and Academic Services; Commitment to Serve; Human Factors; Visual Aspects and General Attitudes using bar graphs and tables.

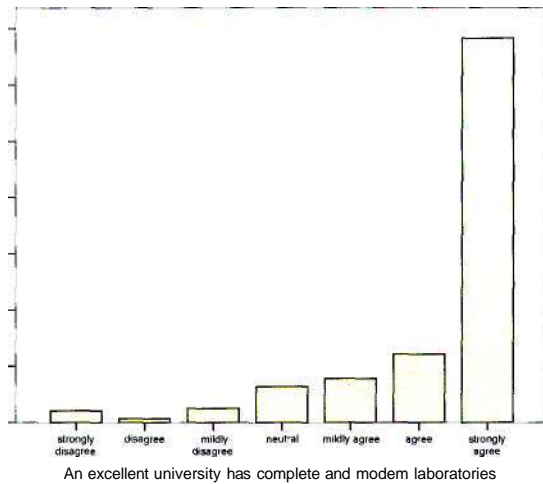
### **5.3.1 Physical and Academic Services**

In terms of service quality, the physical and academic services relates to the appearance of the physical facilities as well as the ability to perform the promised service reliably and accurately. This factor has a combination of tangible and reliable factors. Parasuraman *et al* (1985:47) states that tangibility is defined as the appearance of the physical facilities and reliability is defined as the ability to perform the promised service dependably and accurately. This definition agrees with the factor of physical and academic services.



**Figure 5.7** Graph depicting results for Statement 1 of Factor 1

An excellent university has complete and modern laboratories



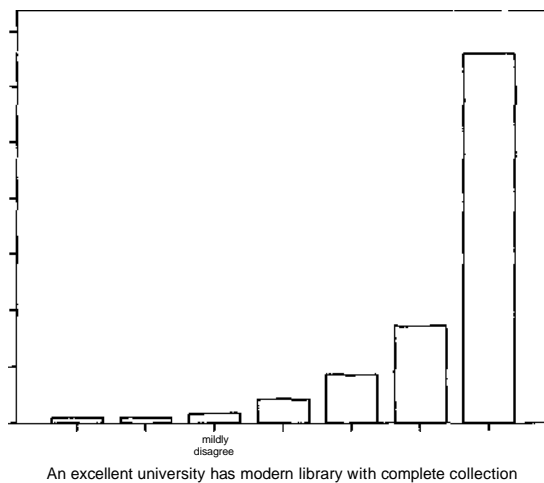
**Table 5.7** Response to Statement 1 of Factor 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	6	2.1	2.1	2.1
	disagree	2	.7	.7	2.9
	mildly disagree	7	2.5	2.5	5.4
	neutral	18	6.4	6.4	11.8
	mildly agree	22	7.9	7.9	19.6
	Agree	34	12.1	12.1	31.8
	strongly agree	191	68.2	68.2	100.0
Total		280	100.0	100.0	

The overall respondents agreed with the statement (88.24%) indicating a high level of expectation regarding a university having complete and modern laboratories. Only 5.36 % disagreed with the statement and 6.4 % remained neutral.

**Figure 5.8** Graph depicting results for Statement 2 of Factor 1

An excellent university has modern library with complete collections



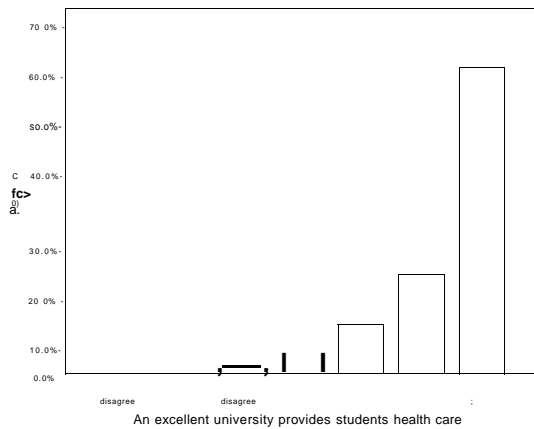
**Table 5.8 Response to Statement 2 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.1	1.1	1.1
	disagree	3	1.1	1.1	2.1
	mildly disagree	5	1.8	1.8	3.9
	Neutral	12	4.3	4.3	8.2
	mildly agree	24	8.6	8.6	16.8
	Agree	48	17.1	17.1	33.9
	strongly agree	185	66.1	66.1	100.0
Total		280	100.0	100.0	

The overall respondents agreed with the statement (91.79%) indicating a high level of expectation regarding a university having modern library with complete collections. Only 3.92 % disagreed with the statement and 4.3 % remained neutral.

**Figure 5.9 Graph depicting results for Statement 3 of Factor 1**

An excellent university provides students with health care.



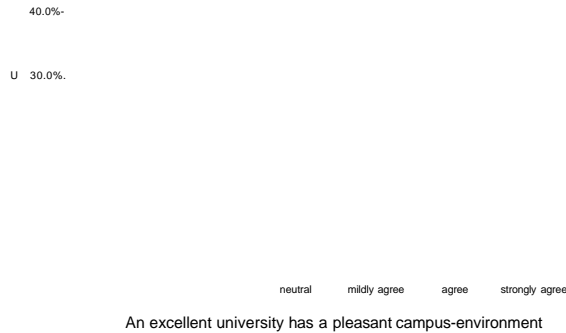
**Table 5.9 Response to Statement 3 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.4	.4	.4
	disagree	1	.4	.4	.7
	mildly disagree	7	2.5	2.5	3.2
	neutral	13	4.6	4.7	7.9
	Mildly agree	28	10.0	10.0	17.9
	agree	56	20.0	20.1	38.0
	strongly agree	173	61.8	62.0	100.0
Total		279	99.6	100.0	
Missing	System	1	.4		
Total		280	100.0		

The overall respondents agreed with the statement (91.78%) indicating a high level of expectation regarding a university providing students with health care. Only 3.21 % disagreed with the statement and 4.7 % remained neutral.

**Figure 5.10** Graph depicting results for Statement 4 of Factor 1

An excellent university has a pleasant campus-environment.



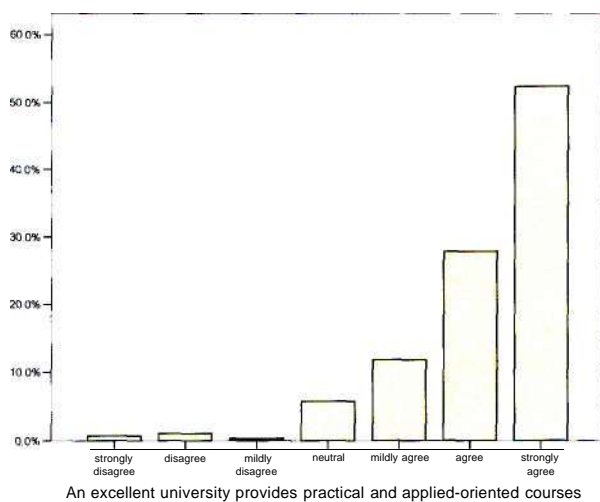
**Table 5.10** Response to Statement 4 of Factor 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.4	1.4	1.4
	mildly disagree	4	1.4	1.4	2.9
	neutral	17	6.1	6.1	8.9
	mildly agree	29	10.4	10.4	19.3
	Agree	71	25.4	25.4	44.6
	strongly agree	155	55.4	55.4	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (91.2%) indicating a high level of expectation regarding an excellent university having a pleasant campus-environment. Only 2.9 % disagreed with the statement and 6.1 % remained neutral.

**Figure 5.11** Graph depicting results for Statement 5 of Factor 1

An excellent university provides practical and applied-orientated courses.



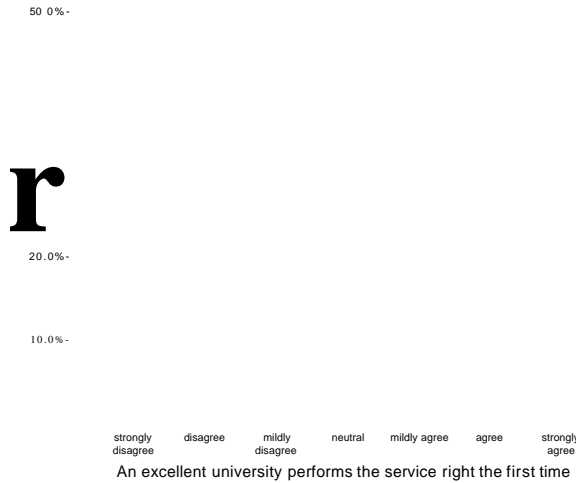
**Table 5.11 Response to Statement 5 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	disagree	3	1.1	1.1	1.8
	mildly disagree	1	.4	.4	2.1
	neutral	16	5.7	5.7	7.9
	mildly agree	33	11.8	11.8	19.6
	Agree	78	27.9	27.9	47.5
	strongly agree	147	52.5	52.5	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (92.2%) indicating a high level of expectation regarding an excellent university providing practical and applied-orientated courses. Only 2.2 % disagreed with the statement and 5.7 % remained neutral.

**Figure 5.12 Graph depicting results for Statement 6 of Factor 1**

An excellent university performs the service right the first time.



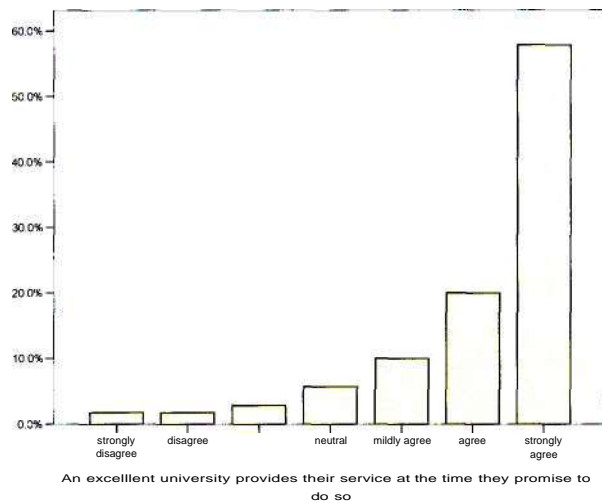
**Table 5.12 Response to Statement 6 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.4	1.4	1.4
	disagree	4	1.4	1.4	2.9
	mildly disagree	6	2.1	2.1	5.0
	neutral	30	10.7	10.7	15.7
	mildly agree	39	13.9	13.9	29.6
	agree	68	24.3	24.3	53.9
	strongly agree	129	46.1	46.1	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (84.3%) indicating a high level of expectation regarding an excellent university performing the service right the first time. Only 4.9 % disagreed with the statement and 10.7 % remained neutral.

**Figure 5.13 Graph depicting results for Statement 7 of Factor 1**

An excellent university provides their service at the time they promise to do so.



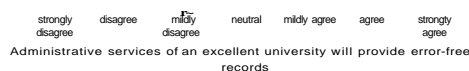
**Table 5.13 Response to Statement 7 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	1.8	1.8	1.8
	disagree	5	1.8	1.8	3.6
	mildly disagree	8	2.9	2.9	6.4
	neutral	16	5.7	5.7	12.1
	mildly agree	28	10.0	10.0	22.1
	Agree	56	20.0	20.0	42.1
	strongly agree	162	57.9	57.9	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (84.3%) indicating a high level of expectation regarding an excellent university performing the service right the first time. Only 4.9 % disagreed with the statement and 10.7 % remained neutral.

**Figure 5.14 Graph depicting results for Statement 8 of Factor 1**

Administrative services of an excellent university will provide error-free records.



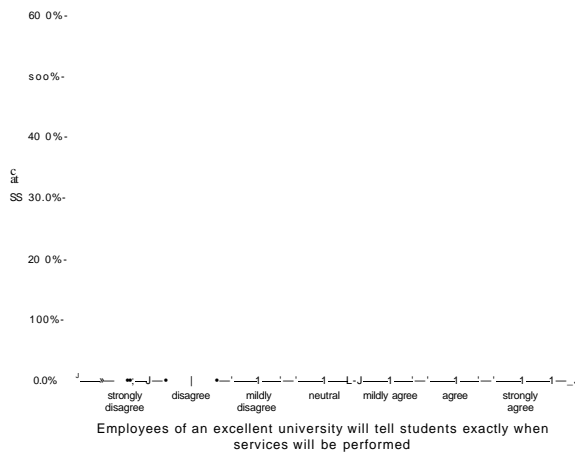
**Table 5.14 Response to Statement 8 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	9	3.2	3.2	3.2
	disagree	4	1.4	1.4	4.6
	mildly disagree	11	3.9	3.9	8.6
	neutral	39	13.9	13.9	22.5
	mildly agree	36	12.9	12.9	35.4
	Agree	77	27.5	27.5	62.9
	strongly agree	104	37.1	37.1	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (77.5%) indicating a high level of expectation regarding administrative services of an excellent university providing error-free records. Only 8.6 % disagreed with the statement and 13.9 % remained neutral.

**Figure 5.15 Graph depicting results for Statement 9 of Factor 1**

Employees of an excellent university will tell students exactly when services will be performed.



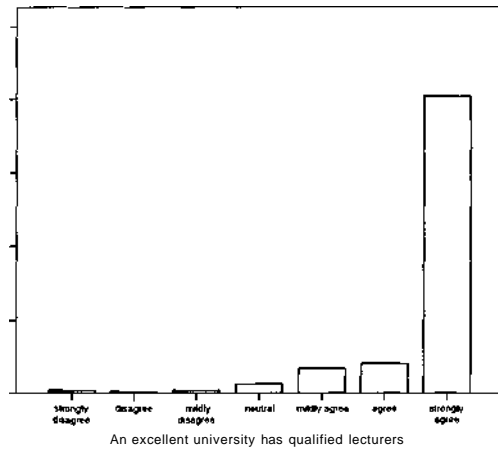
**Table 5.15 Response to Statement 9 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.4	1.4	1.4
	disagree	2	.7	.7	2.1
	mildly disagree	7	2.5	2.5	4.6
	neutral	12	4.3	4.3	8.9
	mildly agree	33	11.8	11.8	20.7
	agree	68	24.3	24.3	45.0
	strongly agree	154	55.0	55.0	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (91.1%) indicating a high level of expectation regarding employees of an excellent university will tell students exactly when services will be performed. Only 4.6 % disagreed with the statement and 4.3 % remained neutral.

**Figure 5.16** Graph depicting results for Statement 10 of Factor 1

An excellent university has qualified lecturers.

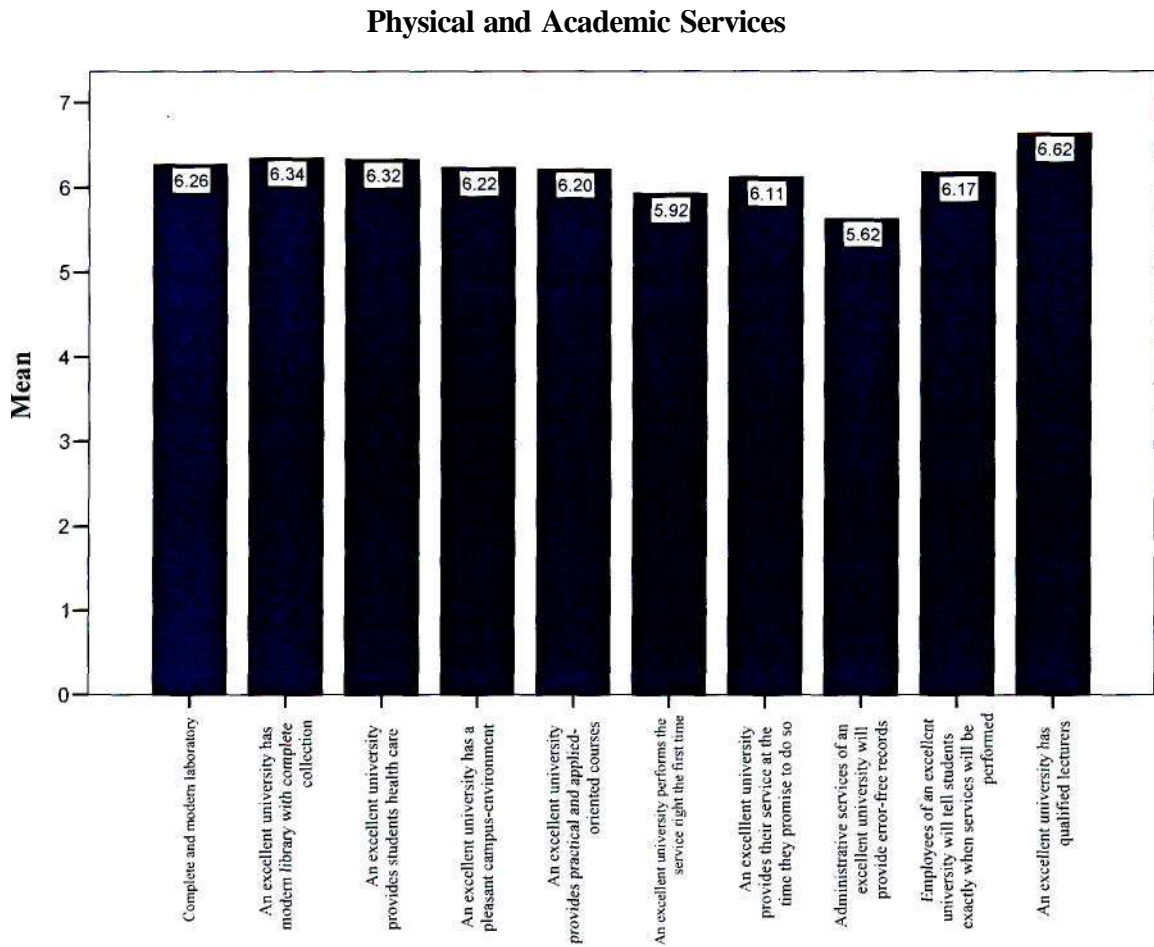


**Table 5.16** Response to Statement 10 of Factor 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	disagree	1	.4	.4	1.1
	mildly disagree	2	.7	.7	1.8
	neutral	7	2.5	2.5	4.3
	mildly agree	19	6.8	6.8	11.1
	agree	23	8.2	8.2	19.3
	strongly agree	226	80.7	80.7	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (91.1%) indicating a high level of expectation regarding an excellent university having qualified lecturers. Only 1.8 % disagreed with the statement and 2.5 % remained neutral.

Figure 5.17 Graph depicting mean scores for Factor 1



The major contributing statement in the above graph was *an excellent university has qualified lecturers* (6.92). This indicates that the respondents had high expectations concerning lecturer's qualifications followed by *an excellent university has modern library with complete collections* (6.34), indicating a high level of importance on the modern provision of library material.

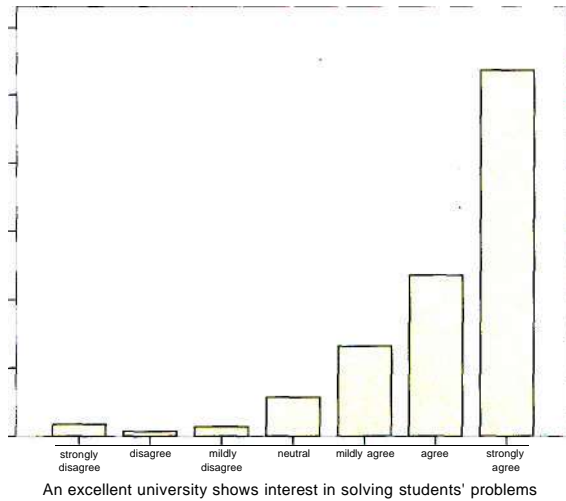
### 5.3.2 Commitment To Serve

Parasuraman *et al* (1988:14) responsiveness is the willingness to help the customer and provide prompt service. This definition agrees with the factor of commitment to serve.



**Figure 5.18** Graph depicting results for Statement 1 of Factor 2

An excellent university shows interest in solving student's problems.



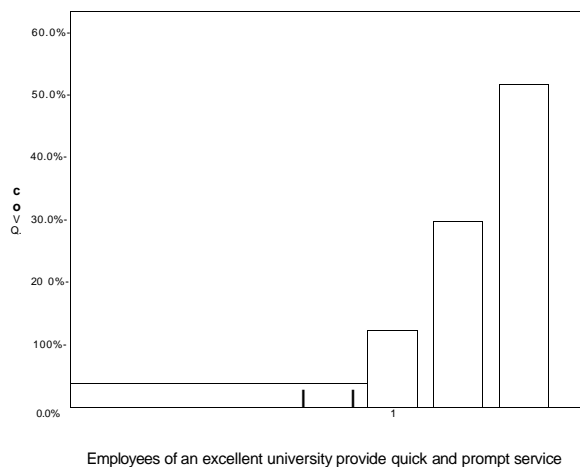
**Table 5.17** Response to Statement 1 of Factor 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	1.8	1.8	1.8
	disagree	2	.7	.7	2.5
	mildly disagree	4	1.4	1.4	3.9
	neutral	16	5.7	5.7	9.6
	mildly agree	37	13.2	13.2	22.9
	agree	66	23.6	23.6	46.4
	strongly agree	150	53.6	53.6	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (90.4%) indicating a high level of expectation regarding an excellent university showing interest in solving student's problems. Only 3.9 % disagreed with the statement and 5.7 % remained neutral.

**Figure 5.19** Graph depicting results for Statement 2 of Factor 2

Employees of an excellent university provide quick and prompt service.



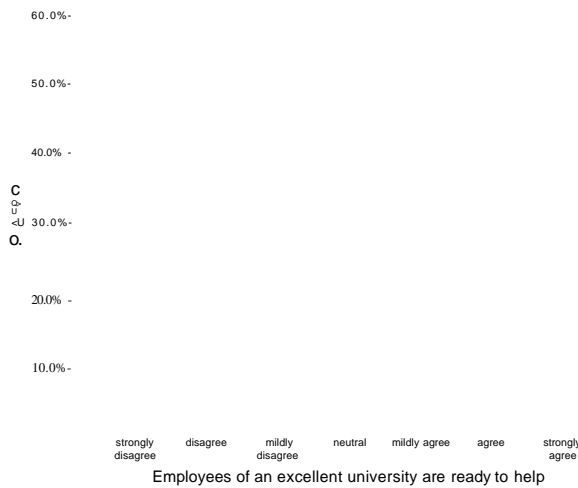
**Table 5.18 Response to Statement 2 of Factor 2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.1	1.1	1.1
	disagree	1	.4	.4	1.4
	mildly disagree	4	1.4	1.4	2.9
	neutral	11	3.9	3.9	6.8
	mildly agree	34	12.1	12.1	18.9
	agree	83	29.6	29.6	48.6
	strongly agree	144	51.4	51.4	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (93.1%) indicating high levels of expectation regarding employees of an excellent university providing quick and prompt service. Only 2.9 % disagreed with the statement and 3.9 % remained neutral.

**Figure 5.20 Graph depicting results for Statement 3 of Factor 2**

Employees of an excellent university are ready to help.



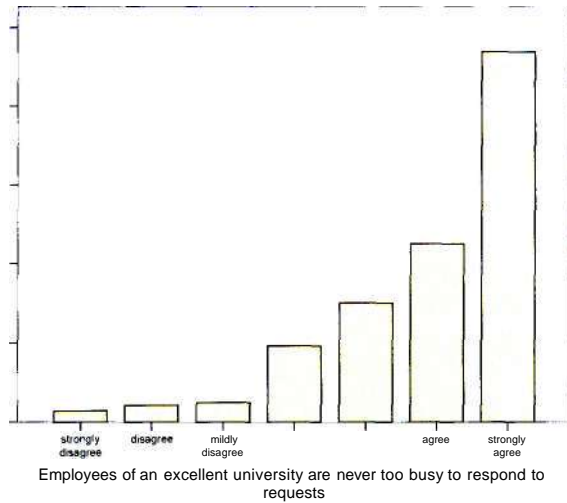
**Table 5.19 Response to Statement 3 of Factor 2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	1.8	1.8	1.8
	disagree	2	.7	.7	2.5
	mildly disagree	4	1.4	1.4	3.9
	neutral	18	6.4	6.4	10.4
	mildly agree	23	8.2	8.2	18.6
	agree	77	27.5	27.5	46.1
	strongly agree	151	53.9	53.9	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (89.6%) indicating high levels of expectation regarding employees of an excellent university that are ready to help. Only 3.9 % disagreed with the statement and 6.4 % remained neutral.

**Figure 5.21** Graph depicting results for Statement 4 of Factor 2

Employees of an excellent university are never too busy to respond to requests.



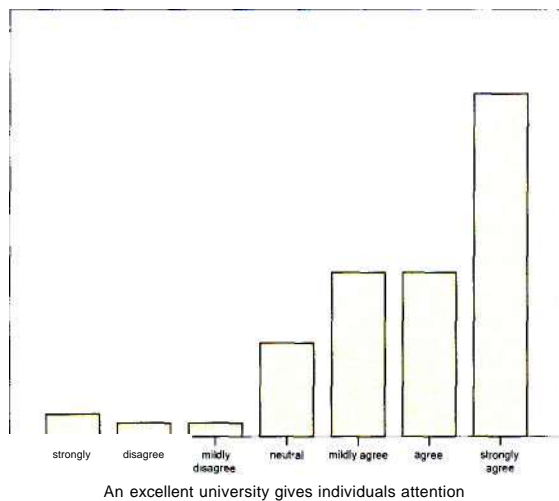
**Table 5.20** Response to Statement 4 of Factor 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.4	1.4	1.4
	disagree	6	2.1	2.1	3.6
	mildly disagree	7	2.5	2.5	6.1
	neutral	27	9.6	9.6	15.7
	mildly agree	42	15.0	15.0	30.7
	agree	63	22.5	22.5	53.2
	strongly agree	131	46.8	46.8	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (84.3%) indicating high levels of expectation regarding employees of an excellent university that are ready to help. Only 6.1 % disagreed with the statement and 9.6 % remained neutral.

**Figure 5.22** Graph depicting results for Statement 5 of Factor 2

An excellent university gives individual attention.

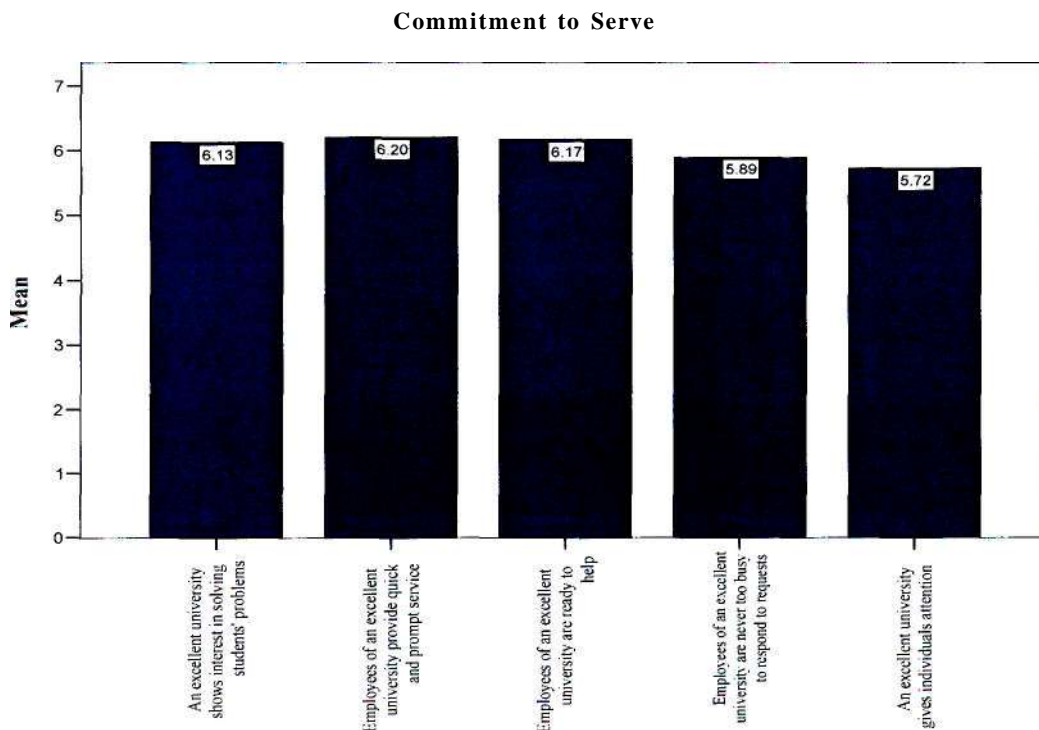


**Table 5.21 Response to Statement 5 of Factor 2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	2.9	2.9	2.9
	disagree	5	1.8	1.8	4.6
	mildly disagree	5	1.8	1.8	6.4
	neutral	32	11.4	11.4	17.9
	mildly agree	56	20.0	20.0	37.9
	agree	56	20.0	20.0	57.9
	strongly agree	118	42.1	42.1	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (82.1%) indicating high levels of expectation regarding employees of an excellent university that are ready to help. Only 6.4 % disagreed with the statement and 11.4 % remained neutral.

**Figure 5.23 Graph depicting mean scores for Factor 2**



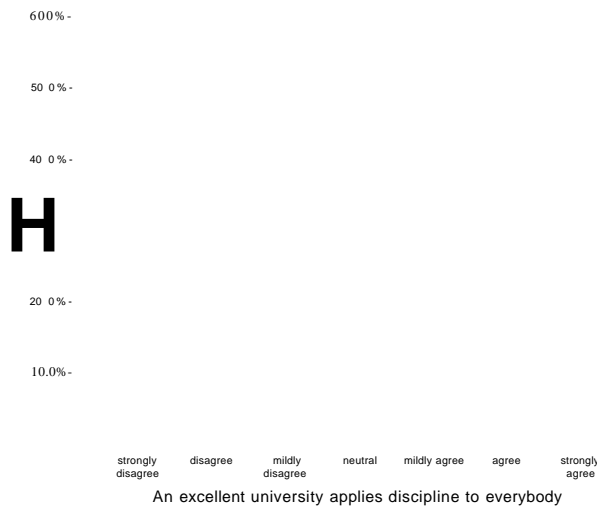
The major contributing statement in the above graph was *employees of an excellent university provide quick and prompt service* (6.20). This indicates that the respondents had high expectations concerning employees of a university providing quick and prompt service. The second major contributor to this factor was *employees of an excellent university are ready to help* (6.17), indicating a high level of importance was placed on employees' commitment to serve.

### 5.3.3 Human Factor

Parasuraman *et al* (1988:14) states that the empathy factor of service quality relates to caring individualized attention that the firm provides to its customers. It involves making the effort to understand the customer's needs, learning the customer's specific requirements, providing individualized attention and recognizing the regular customer (Parasuraman *et al*, 1985:47). This definition agrees with statements found in Human Factors.

**Figure 5.24 Graph depicting results for Statement 1 of Factor 3**

An excellent university applies discipline to everybody.



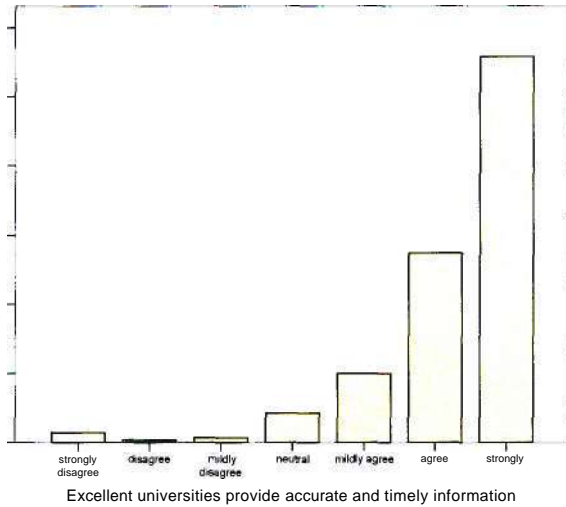
**Table 5.22 Response to Statement 1 of Factor 3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	7	2.5	2.5	2.5
	disagree	1	.4	.4	2.9
	mildly disagree	4	1.4	1.4	4.3
	neutral	21	7.5	7.5	11.8
	mildly agree	35	12.5	12.5	24.3
	agree	64	22.9	22.9	47.1
	strongly agree	148	52.9	52.9	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (88.3%) indicating a high level of expectation regarding an excellent university applies discipline to everybody. Only 4.3 % disagreed with the statement and 7.5 % remained neutral.

**Figure 5.25 Graph depicting results for Statement 2 of Factor 3**

Excellent universities provide accurate and timely information.



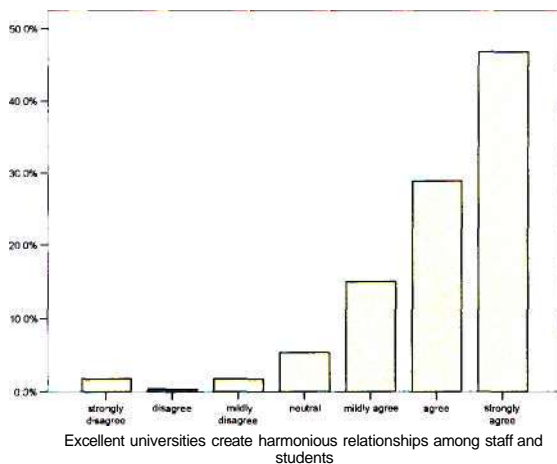
**Table 5.23 Response to Statement 2 of Factor 3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.4	1.4	1.4
	disagree	1	.4	.4	1.8
	mildly disagree	2	.7	.7	2.5
	neutral	12	4.3	4.3	6.8
	mildly agree	28	10.0	10.0	16.8
	agree	77	27.5	27.1	43.9
	strongly agree	156	55.7	55.7	99.6
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (93.2%) indicating a high level of expectation regarding an excellent university provides accurate and timely information. Only 2.5 % disagreed with the statement and a mere 4.3 % remained neutral.

**Figure 5.26 Graph depicting results for Statement 3 of Factor 3**

Excellent universities create harmonious relationships among staff and students.



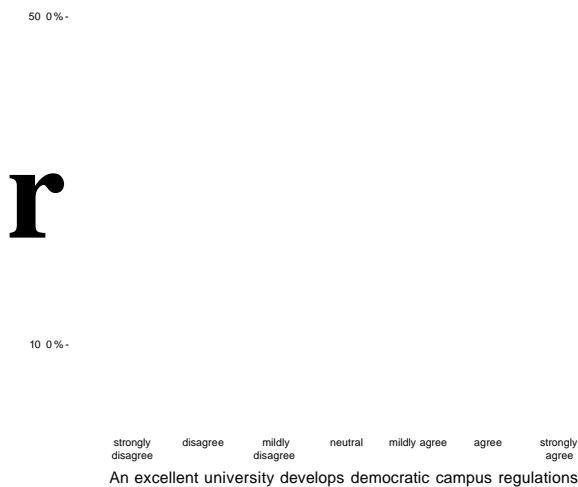
**Table 5.24 Response to Statement 3 of Factor 3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	1.8	1.8	1.8
	disagree	1	.4	.4	2.1
	mildly disagree	5	1.8	1.8	3.9
	neutral	15	5.4	5.4	9.3
	mildly agree	42	15.0	15.0	24.3
	agree	81	28.9	28.9	53.2
	strongly agree	131	46.8	46.8	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (90.7%) indicating a high level of expectation regarding an excellent university provides accurate and timely information. Only 3.9 % disagreed with the statement and 5.4 % remained neutral.

**Figure 5.27 Graph depicting results for Statement 4 of Factor 3**

An excellent university develops democratic regulations.

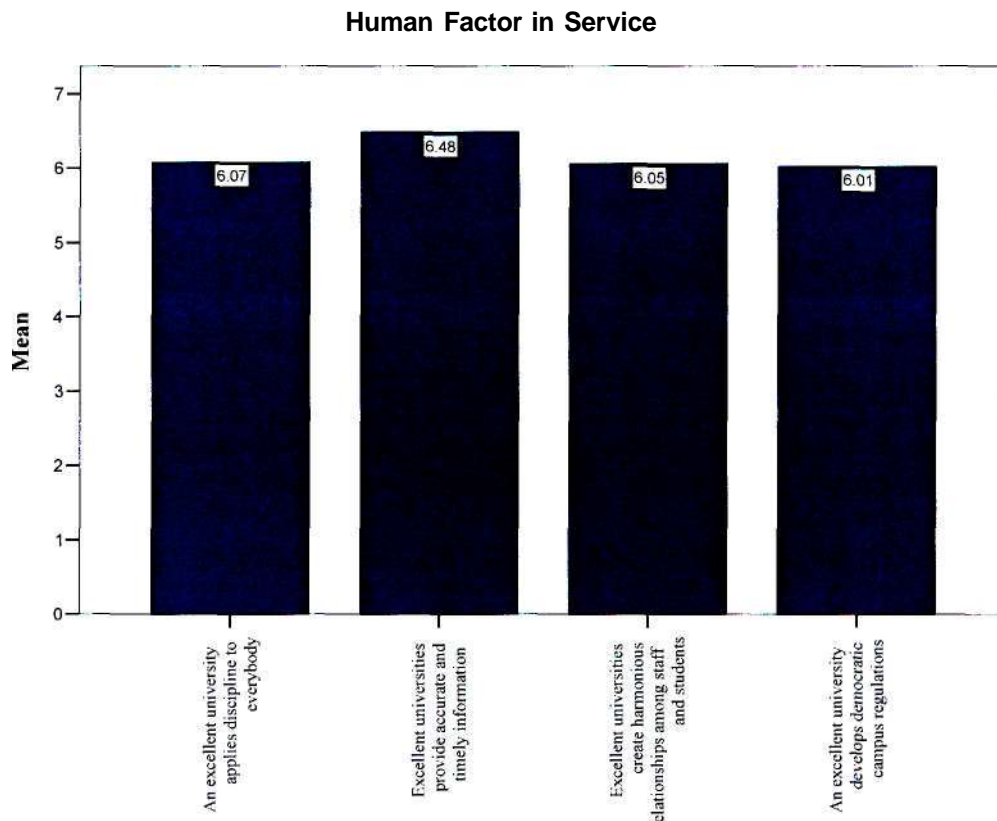


**Table 5.25 Response to Statement 4 of Factor 3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.1	1.1	1.1
	disagree	4	1.4	1.4	2.5
	mildly disagree	2	.7	.7	3.2
	neutral	33	11.8	11.8	15.0
	mildly agree	31	11.1	11.1	26.1
	agree	70	25.0	25.0	51.1
	strongly agree	137	48.9	48.9	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (85%) indicating a high level of expectation regarding an excellent university provides accurate and timely information. Only 3.2 % disagreed with the statement and 11.8% remained neutral.

Figure 5.28 Graph depicting mean scores for Factor 3



All the statements in this factor scored above 6.0. The major contributing statement in the above graph was *excellent universities provide accurate and timely information* (6.48). This indicates that the respondents had high expectations regarding an excellent university providing accurate and timely information. The second major contributor to this factor was *an excellent university applies discipline to everybody* (6.07), indicating a high level of importance was placed on fair discipline.

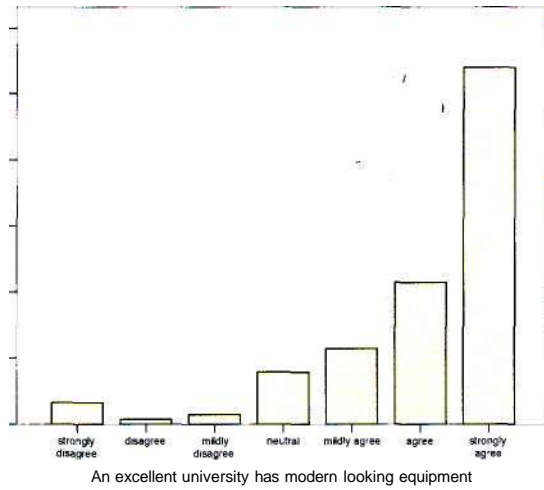
### 5.3.4 Visual Aspects

Parasuraman *et al* (1985:47) states that tangibility is defined as the appearance of the equipment, the personnel as well as the communication materials that organizations utilize in order to project an image. This definition agrees with the factor of Visual Aspects.



**Figure 5.29** Graph depicting results for Statement 1 of Factor 4

An excellent university has modern looking equipment.



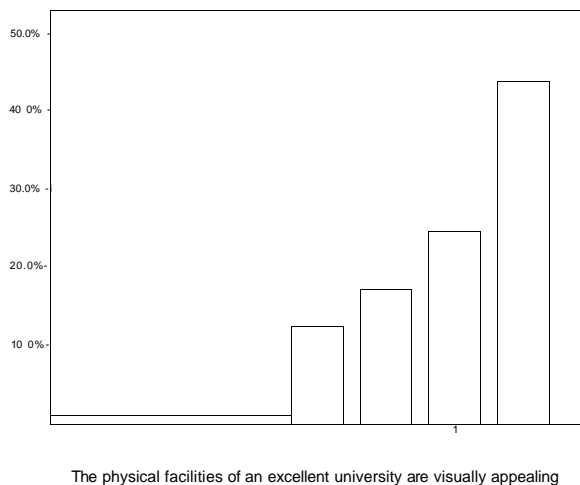
**Table 5.26** Response to Statement 1 of Factor 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	9	3.2	3.2	3.2
	disagree	2	.7	.7	3.9
	mildly disagree	4	1.4	1.4	5.4
	neutral	22	7.9	7.9	13.2
	mildly agree	32	11.4	11.4	24.6
	agree	60	21.4	21.4	46.1
	strongly agree	151	53.9	53.9	100.0
Total		280	100.0	100.0	

The overall respondents agreed with the statement (86.7%) indicating a high level of expectation regarding an excellent university has modern looking equipment. Only 5.4% disagreed with the statement and 7.9% remained neutral.

**Figure 5.30** Graph depicting results for Statement 2 of Factor 4

The physical facilities of an excellent university are visually appealing.



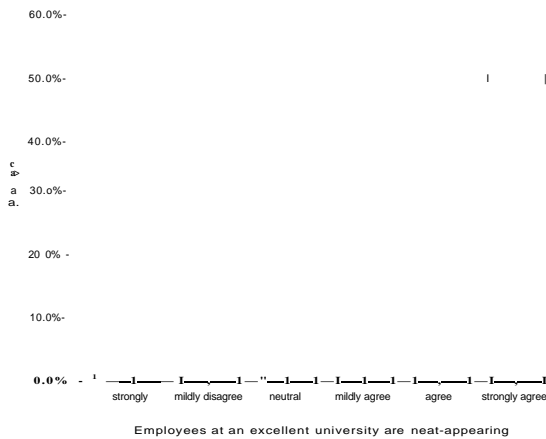
**Table 5.27 Response to Statement 2 of Factor 4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.4	1.4	1.4
	disagree	2	.7	.7	2.1
	mildly disagree	3	1.1	1.1	3.2
	neutral	34	12.1	12.1	15.4
	mildly agree	47	16.8	16.8	32.1
	agree	68	24.3	24.3	56.4
	strongly agree	122	43.6	43.6	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (84.7%) indicating high levels of expectation regarding the physical facilities of an excellent university are visually appealing. Only 3.2% disagreed with the statement and 12.1% remained neutral.

**Figure 5.31 Graph depicting results for Statement 3 of Factor 4**

Employees at an excellent university are neat-appearing.



**Table 5.28 Response to Statement 3 of Factor 4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.4	.4	.4
	mildly disagree	10	3.6	3.6	3.9
	neutral	24	8.6	8.6	12.5
	mildly agree	44	15.7	15.7	28.2
	agree	59	21.1	21.1	49.3
	strongly agree	142	50.7	50.7	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (87.5%) indicating high levels of expectation regarding employees at an excellent university are neat-appearing. Only 3.9% disagreed with the statement and 8.6% remained neutral.

**Figure 5.32 Graph depicting results for Statement 4 of Factor 4**

Material associated with the university (such as pamphlets or statements) of an excellent university will be visually appealing.

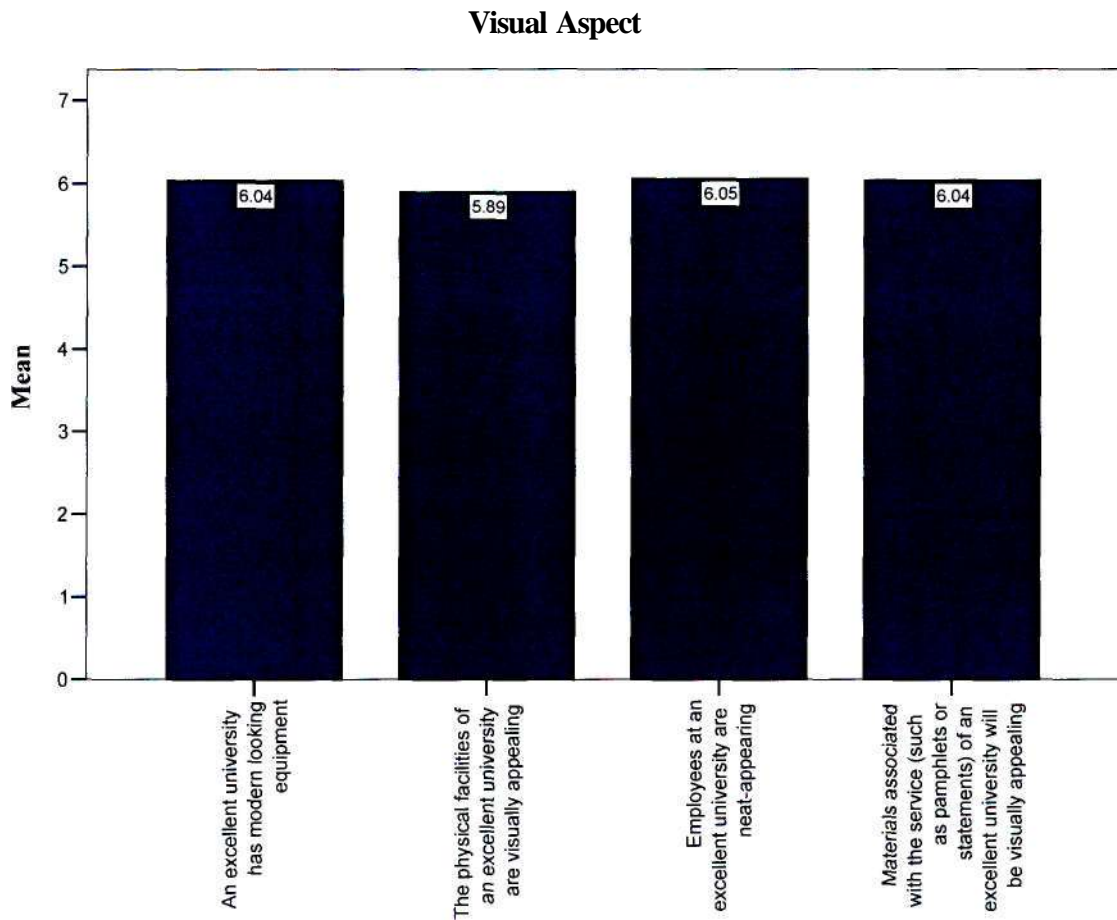
strongly disagree    disagree    mildly disagree    neutral    mildly agree  
 Materials associated with the service (such as pamphlets or statements) of an excellent university will be visually appealing

**Table 5.29 Response to Statement 4 of Factor 4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.1	1.1	1.1
	disagree	3	1.1	1.1	2.1
	mildly disagree	3	1.1	1.1	3.2
	neutral	26	9.3	9.3	12.5
	mildly agree	36	12.9	12.9	25.4
	agree	75	26.8	26.8	52.1
	strongly agree	134	47.9	47.9	100.0
Total		280	100.0	100.0	

The overall respondents agreed with the statement (87.6%) indicating high levels of expectation regarding material associated with the university (such as pamphlets or statements) of an excellent university should be visually appealing. Only 3.2% disagreed with the statement and 9.3% remained neutral.

Figure 5.33 Graph depicting mean scores for Factor 4



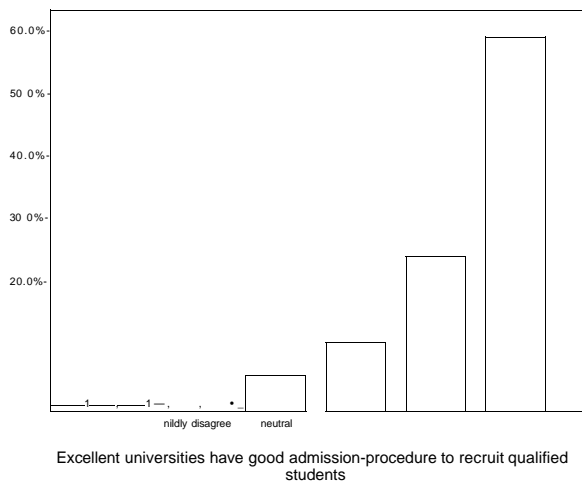
The major contributing statement in the above graph was *employees at an excellent university are neat-appearing* (6.48). This indicates that the respondents had high expectations regarding the excellent dress code of the employees. The second major contributor to this factor was *materials associated with the service (such as pamphlets or statements) of an excellent university will be visually appealing* (6.07), indicating a high level of importance was placed on visual aspects of materials.

### 5.3.5 General Attitudes

According to Parasuraman *et al* (1988:14) assurance relates to knowledge and courtesy of employees and their ability to inspire trust and confidence. It relates to staff possessing the required skills and knowledge to perform the service. This definition agrees with the factor of General Attitudes.

**Figure 5.34** Graph depicting results for Statement 1 of Factor 5

Excellent universities have good admission-procedures to recruit qualified students.



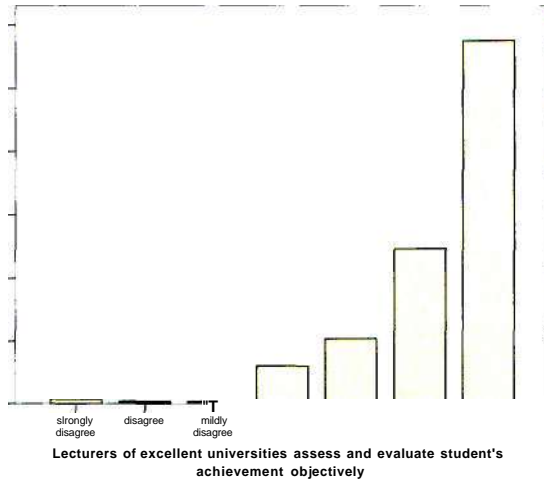
**Table 5.30** Response to Statement 1 of Factor 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.1	1.1	1.1
	mildly disagree	2	.7	.7	1.8
	neutral	14	5.0	5.0	6.8
	mildly agree	29	10.4	10.4	17.1
	agree	67	23.9	23.9	41.1
	strongly agree	165	58.9	58.9	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (82.8%) indicating high levels of expectation regarding excellent universities should have good admission-procedures to recruit qualified students. Only 1.8% disagreed with the statement and 5.0% remained neutral.

**Figure 5.35 Graph depicting results for Statement 2 of Factor 5**

Lecturers of excellent universities assess and evaluate student's achievement objectively.



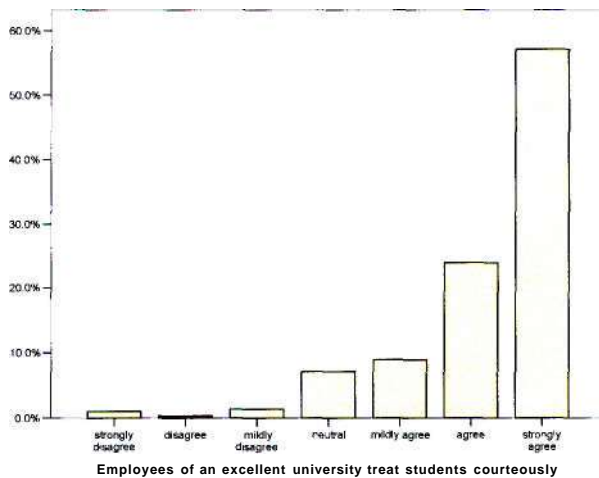
**Table 5.31 Response to Statement 2 of Factor 5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	disagree	1	.4	.4	1.1
	mildly disagree	1	.4	.4	1.4
	neutral	17	6.1	6.1	7.5
	mildly agree	29	10.4	10.4	17.9
	agree	69	24.6	24.6	42.5
	strongly agree	161	57.5	57.5	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (82.1%) indicating high levels of expectation regarding excellent universities should have good admission-procedures to recruit qualified students. Only 1.4% disagreed with the statement and 6.1% remained neutral.

**Figure 5.36 Graph depicting results for Statement 3 of Factor 5**

Employees of an excellent university treat students courteously.

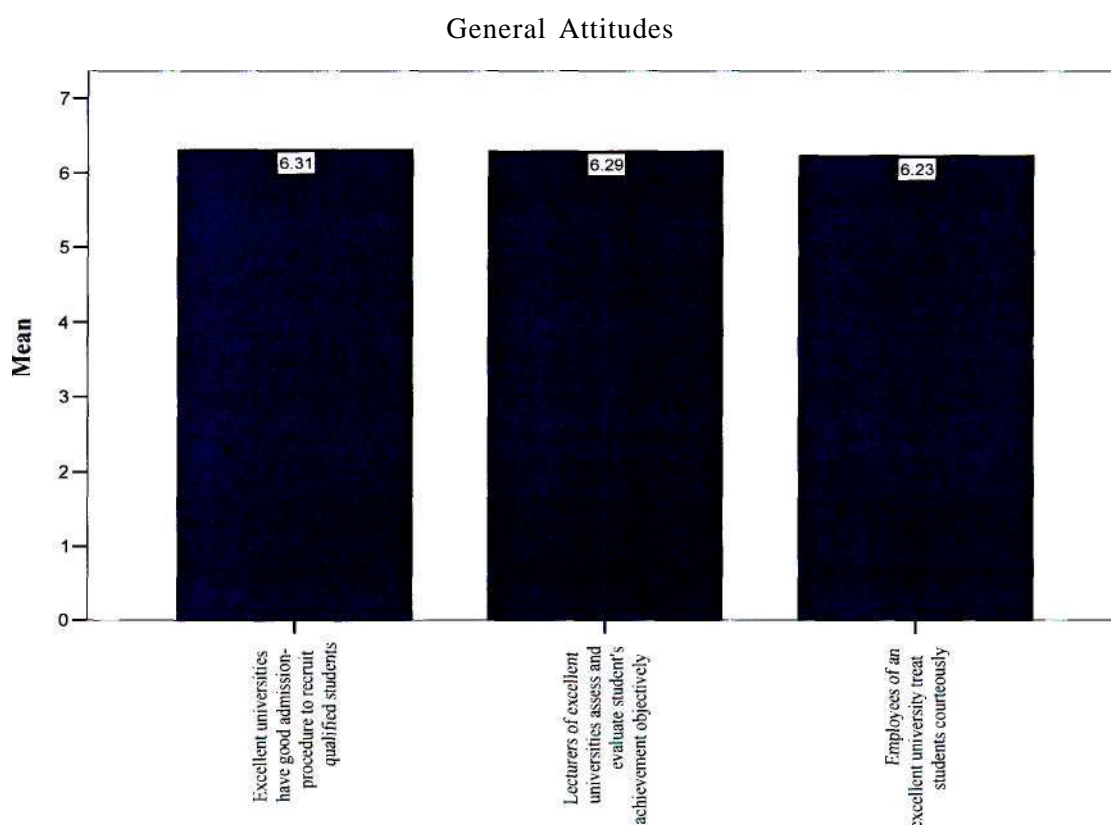


**Table 5.32 Response to Statement 3 of Factor 5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.1	1.1	1.1
	disagree	1	.4	.4	1.4
	mildly disagree	4	1.4	1.4	2.9
	neutral	20	7.1	7.1	10.0
	mildly agree	25	8.9	8.9	18.9
	agree	67	23.9	23.9	42.9
	strongly agree	160	57.1	57.1	100.0
	Total	280	100.0	100.0	

The overall respondents agreed with the statement (89.9%) indicating high levels of expectation regarding excellent universities should have good admission-procedures to recruit qualified students. Only 2.9% disagreed with the statement and 7.1% remained neutral.

**Figure 5.37 Graph depicting mean scores for Factor 5**



All the statements in this factor scored above 6.0. The major contributing statement in this factor was *excellent universities have good admission procedure to recruit qualified students* (6.31). This indicates that the respondents had high expectations regarding the admission procedures. The second major contributor to this factor was *lecturers of excellent universities*

*assess and evaluate students' achievements objectively* (6.29), indicating a high level of importance was placed on fair and accurate evaluation of students achievements.

## **Conclusion**

All of the statements have modal responses of "strongly agree" and "agree" meaning that the expectations of the respondents as far as Physical and Academic Service, Commitment to serve, Human Factor, Visual Aspect and General Attitudes were concerned, required excellence in service output.



## 5.4 PERCEPTIONS

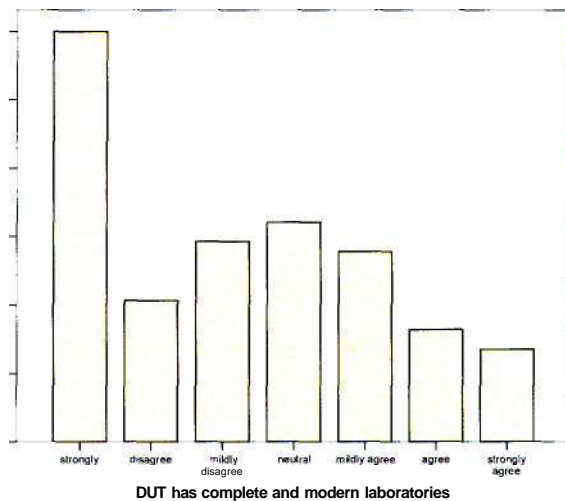
Perreault and McCarthy (1996: 218) define perception as the process of becoming aware of something through the senses and achieving understanding of it; the process of interpretation based on sensation.

The findings on respondent's perceptions for each of the statements are displayed in their relative factors, i.e. Physical and Academic Services, Commitment to Serve, Human Factors, Visual Aspects and General Attitudes.

### 5.4.1 Physical and Academic Services

**Figure 5.38** Graph depicting results for Statement 1 of Factor 1

DUT has complete and modern laboratories



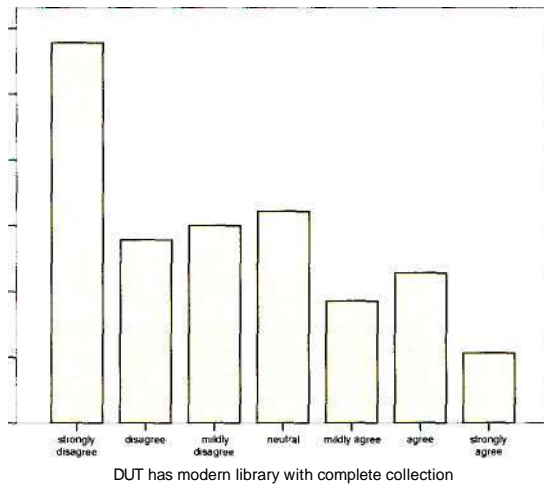
**Table 5.33** Response to Statement 1 of Factor 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	84	30.0	30.0	30.0
	disagree	29	10.4	10.4	40.4
	mildly disagree	41	14.6	14.6	55.0
	neutral	45	16.1	16.1	71.1
	mildly agree	39	13.9	13.9	85.0
	agree	23	8.2	8.2	93.2
	strongly agree	19	6.8	6.8	100.0
	Total	280	100.0	100.0	

It can be seen from Table 5.33 above that overall respondents disagreed in varying degrees with the statement (55%) indicating low levels of perception regarding DUT having complete and modern laboratories. 28.9 % agreed with the statement and 16.1% remained neutral.

**Figure 5.39 Graph depicting results for Statement 2 of Factor 1**

DUT has modern library with complete collections



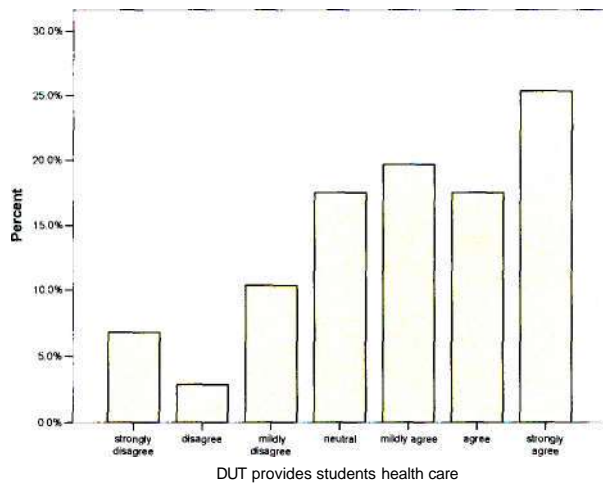
**Table 5.34 Response to Statement 2 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	81	28.9	28.9	28.9
	disagree	39	13.9	13.9	42.9
	mildly disagree	42	15.0	15.0	57.9
	neutral	45	16.1	16.1	73.9
	mildly agree	26	9.3	9.3	83.2
	agree	32	11.4	11.4	94.6
	strongly agree	15	5.4	5.4	100.0
Total		280	100.0	100.0	

From the Table 5.34 the overall respondents disagreed in varying degrees with the statement (57.9%) indicating low levels of perception regarding DUT having modern library with complete collections. 26.1% agreed with the statement and 16.1% remained neutral.

**Figure 5.40 Graph depicting results for Statement 3 of Factor 1**

DUT provides students with health care.



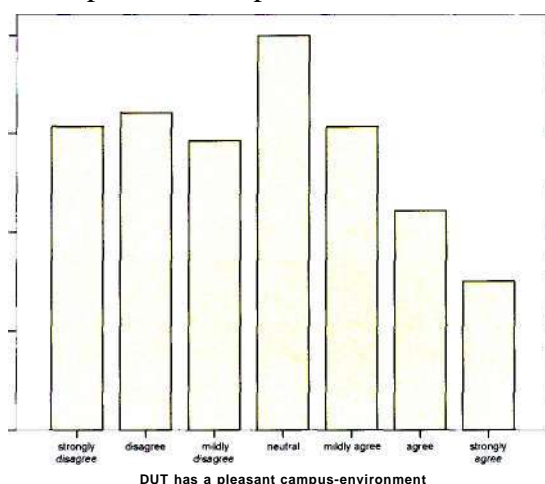
**Table 5.35 Response to Statement 3 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	19	6.8	6.8	6.8
	disagree	8	2.9	2.9	9.6
	mildly disagree	29	10.4	10.4	20.0
	neutral	49	17.5	17.5	37.5
	mildly agree	55	19.6	19.6	57.1
	agree	49	17.5	17.5	74.6
	strongly agree	71	25.4	25.4	100.0
	Total	280	100.0	100.0	

From the above Table 5.35 the overall respondents agreed in varying degrees with the statement (62.5%) indicating a favourable level of perception regarding DUT providing students with health care. 20.0 % disagreed with the statement and 17.5% remained neutral.

**Figure 5.41 Graph depicting results for Statement 4 of Factor 1**

DUT has a pleasant campus-environment.

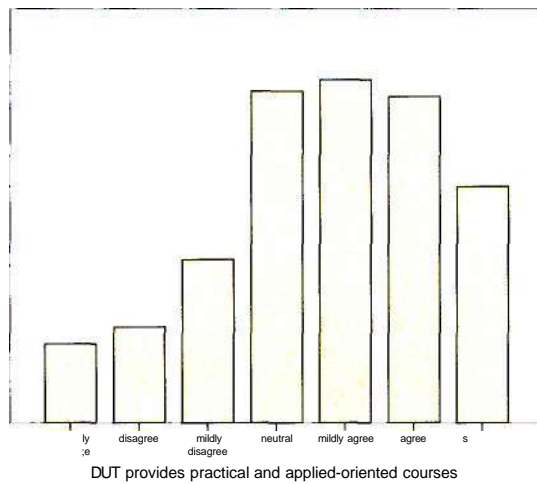


**Table 5.36 Response to Statement 4 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	43	15.4	15.4	15.4
	disagree	45	16.1	16.1	31.4
	mildly disagree	41	14.6	14.6	46.1
	neutral	56	20.0	20.0	66.1
	mildly agree	43	15.4	15.4	81.4
	agree	31	11.1	11.1	92.5
	strongly agree	21	7.5	7.5	100.0
Total		280	100.0	100.0	

From the above Table 5.36 the overall respondents disagreed in varying degrees with the statement (46.1%) indicating low levels of perception regarding DUT having a pleasant campus-environment. 34% agreed with the statement and 16.1% remained neutral.

**Figure 5.42** Graph depicting results for Statement 5 of Factor 1  
DUT provides practical and applied-orientated courses.

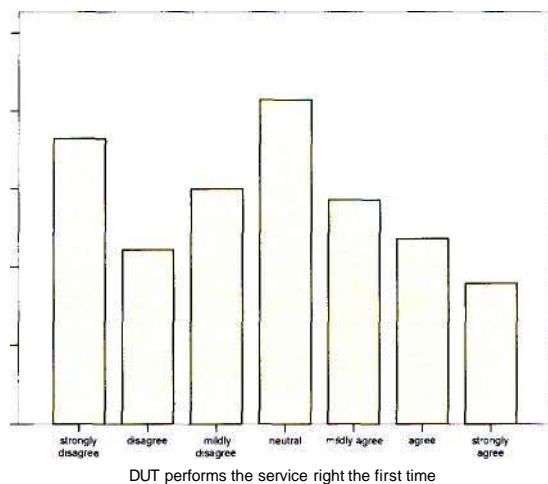


**Table 5.37** Response to Statement 5 of Factor 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	14	5.0	5.0	5.0
	disagree	17	6.1	6.1	11.1
	mildly disagree	29	10.4	10.4	21.4
	neutral	59	21.1	21.1	42.5
	mildly agree	61	21.8	21.8	64.3
	agree	58	20.7	20.7	85.0
	strongly agree	42	15.0	15.0	100.0
	Total	280	100.0	100.0	

From the above Table 5.37 the overall respondents agreed in varying degrees with the statement (57.5%) indicating a level of perception regarding DUT providing practical and applied-orientated courses. 21.4% disagreed with the statement and 21.1% remained neutral.

**Figure 5.43** Graph depicting results for Statement 6 of Factor 1  
DUT performs the service right the first time.

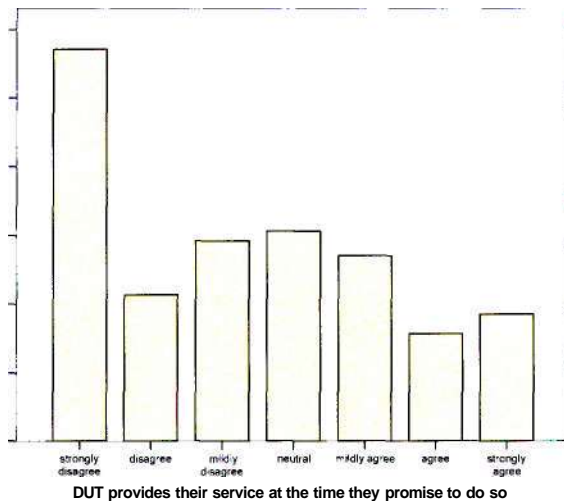


**Table 5.38 Response to Statement 6 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	51	18.2	18.2	18.2
	disagree	31	11.1	11.1	29.3
	mildly disagree	42	15.0	15.0	44.3
	neutral	58	20.7	20.7	65.0
	mildly agree	40	14.3	14.3	79.3
	agree	33	11.8	11.8	91.1
	strongly agree	25	8.9	8.9	100.0
	Total	280	100.0	100.0	

20 % of the respondents chose to remain neutral for this statement. However, 44.3 % > disagreed with this statement indicating a relatively high level of the respondents disagreed with the statement of DUT performing the service right the first time.

**Figure 5.44 Graph depicting results for Statement 7 of Factor 1**  
DUT provides their service at the time they promise to do so.

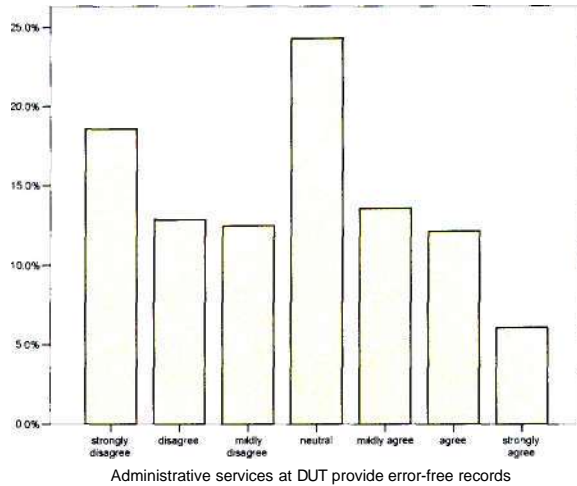


**Table 5.39 Response to Statement 7 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	80	28.6	28.6	28.6
	disagree	30	10.7	10.7	39.3
	mildly disagree	41	14.6	14.6	53.9
	neutral	43	15.4	15.4	69.3
	mildly agree	38	13.6	13.6	82.9
	agree	22	7.9	7.9	90.7
	strongly agree	26	9.3	9.3	100.0
	Total	280	100.0	100.0	

From the above Table 5.39 the overall respondents disagreed in varying degrees with the statement (53.9%) indicating low levels of perception regarding DUT providing their service at the time they promised to do so. 30.8%) agreed with the statement and 15.4% remained neutral.

**Figure 5.45** Graph depicting results for Statement 8 of Factor 1  
Administrative services at DUT provide error-free records.

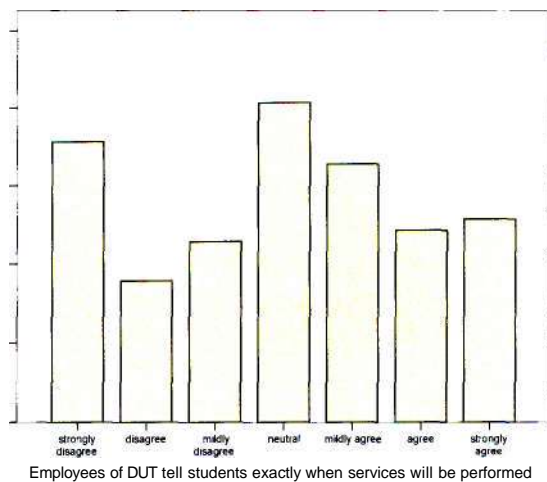


**Table 5.40** Response to Statement 8 of Factor 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	52	18.6	18.6	18.6
	disagree	36	12.9	12.9	31.4
	mildly disagree	35	12.5	12.5	43.9
	neutral	68	24.3	24.3	68.2
	mildly agree	38	13.6	13.6	81.8
	agree	34	12.1	12.1	93.9
	strongly agree	17	6.1	6.1	100.0
	Total	280	100.0	100.0	

From the above Table 5.40 the overall respondents disagreed in varying degrees with the statement (43.9%) indicating low levels of perception regarding administrative services at DUT provide error-free records. 31.8% agreed with the statement and 24.8% remained neutral.

**Figure 5.46** Graph depicting results for Statement 9 of Factor 1  
Employees of DUT tell students exactly when services will be performed.

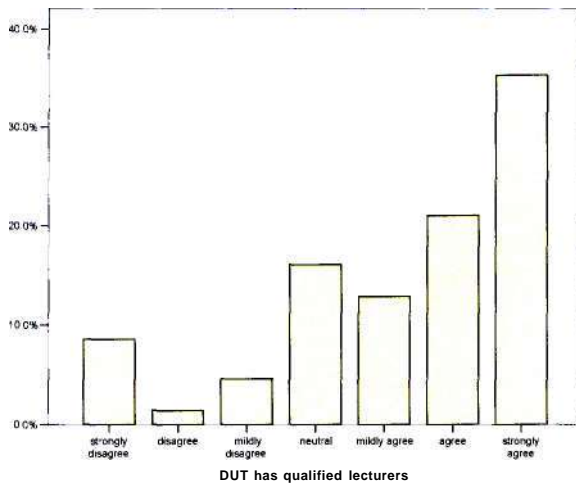


**Table 5.41 Response to Statement 9 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	50	17.9	17.9	17.9
	disagree	25	8.9	8.9	26.8
	mildly disagree	32	11.4	11.4	38.2
	neutral	57	20.4	20.4	58.6
	mildly agree	46	16.4	16.4	75.0
	agree	34	12.1	12.1	87.1
	strongly agree	36	12.9	12.9	100.0
	Total	280	100.0	100.0	

From the above Table 5.41 the overall respondents agreed in varying degrees with the statement (41.4%). 20.4% of the respondents chose to remain neutral while 38.2% disagree with the statement employees of DUT tell students exactly when services will be performed.

**Figure 5.47 Graph depicting results for Statement 10 of Factor 1**  
DUT has qualified lecturers.

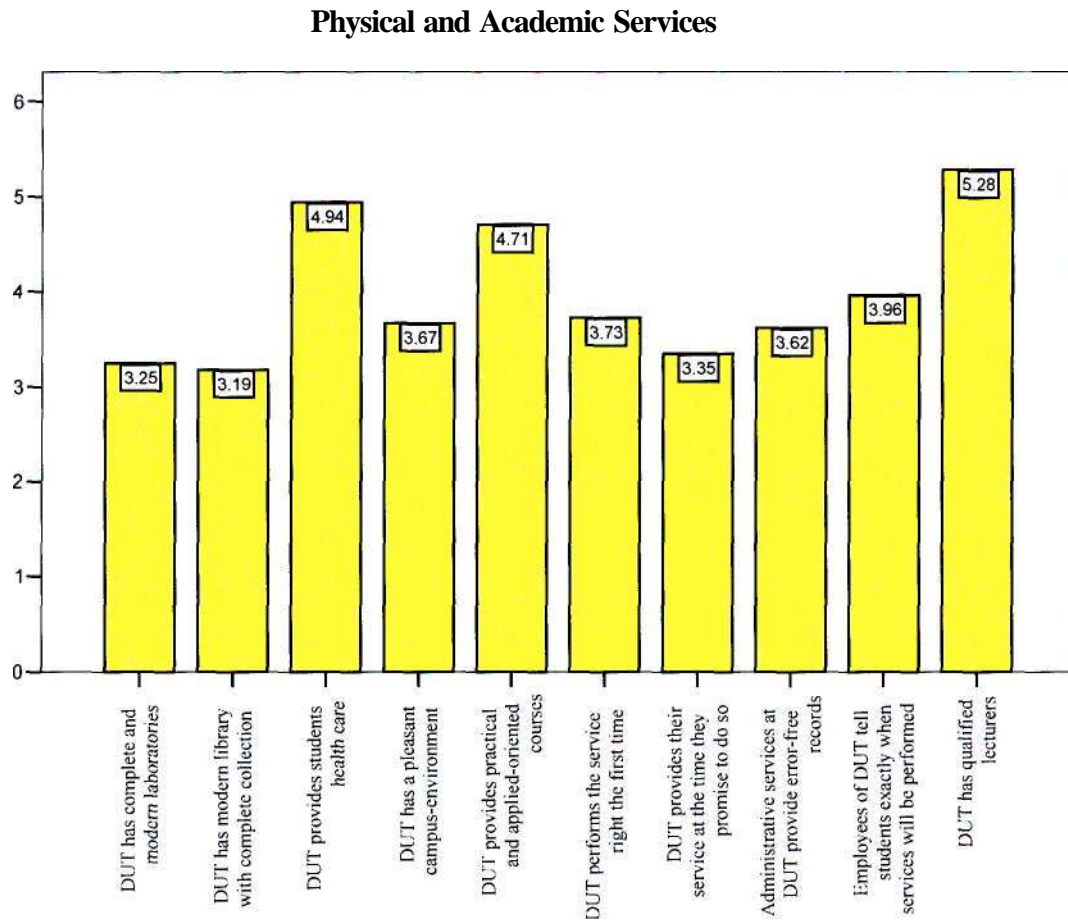


**Table 5.42 Response to Statement 10 of Factor 1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	24	8.6	8.6	8.6
	disagree	4	1.4	1.4	10.0
	mildly disagree	13	4.6	4.6	14.6
	neutral	45	16.1	16.1	30.7
	mildly agree	36	12.9	12.9	43.6
	agree	59	21.1	21.1	64.6
	strongly agree	99	35.4	35.4	100.0
	Total	280	100.0	100.0	

From the above Table 5.42 the overall respondents agreed in varying degrees with the statement (69.4%) indicating a high level of perception regarding DUT having qualified lecturers. 14.6% disagreed with the statement and 16.1% remained neutral.

Figure 5.48 Graph depicting mean scores for factor 1 - Perceptions



The three major contributors to this factor were, viz.

***DUT has qualified lecturers (5.28);***

***DUT provides students health care (4.94);***

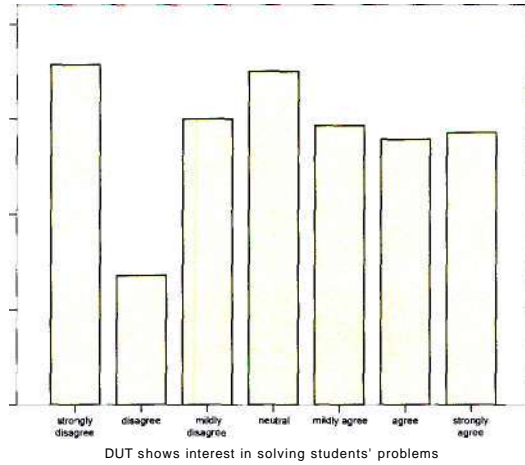
***DUT provides practical and applied-oriented courses (4.71).***

This indicates that the respondents have a relatively high perception of the above statements at DUT.



### 5.4.2 Commitment To Serve

**Figure 5.49** Graph depicting results for Statement 1 of Factor 2  
DUT shows interest in solving student's problems



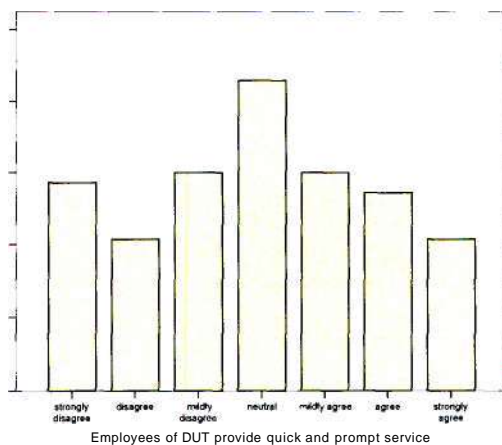
**Table 5.43** Response to Statement 1 of Factor 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	50	17.9	17.9	17.9
	disagree	19	6.8	6.8	24.6
	mildly disagree	42	15.0	15.0	39.6
	neutral	49	17.5	17.5	57.1
	mildly agree	41	14.6	14.6	71.8
	agree	39	13.9	13.9	85.7
	strongly agree	40	14.3	14.3	100.0
	Total	280	100.0	100.0	

From the above Table 5.43 the overall respondents agreed in varying degrees with the statement (42.8%) indicating moderate levels of perception regarding DUT showing interest in solving student's problems. 39.6% disagreed with the statement and 17.5%) remained neutral.

**Figure 5.50** Graph depicting results for Statement 2 of Factor 2

Employees of DUT provide quick and prompt service.

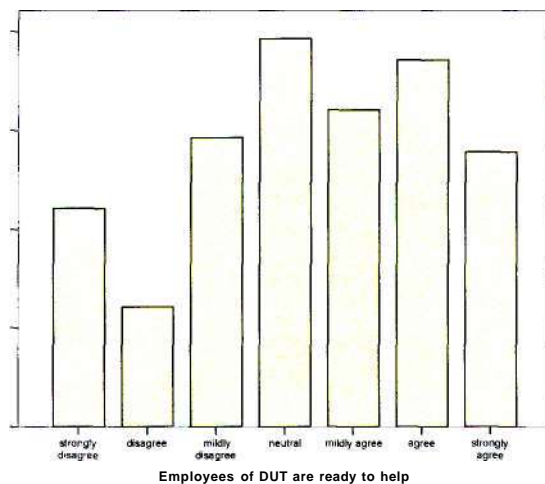


**Table 5.44 Response to Statement 2 of Factor 2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	40	14.3	14.3	14.3
	disagree	29	10.4	10.4	24.6
	mildly disagree	42	15.0	15.0	39.6
	neutral	60	21.4	21.4	61.1
	mildly agree	42	15.0	15.0	76.1
	agree	38	13.6	13.6	89.6
	strongly agree	29	10.4	10.4	100.0
Total		280	100.0	100.0	

From the above Table 5.44, 21.4 % of the respondents chose to remain neutral for this statement. However, 39.6 % disagreed while 39% agrees with this statement indicating moderate a level of the respondents disagreeing with the statement employees of DUT provide quick and prompt service.

**Figure 5.51 Graph depicting results for Statement 3 of Factor 2**  
Employees of DUT are ready to help.

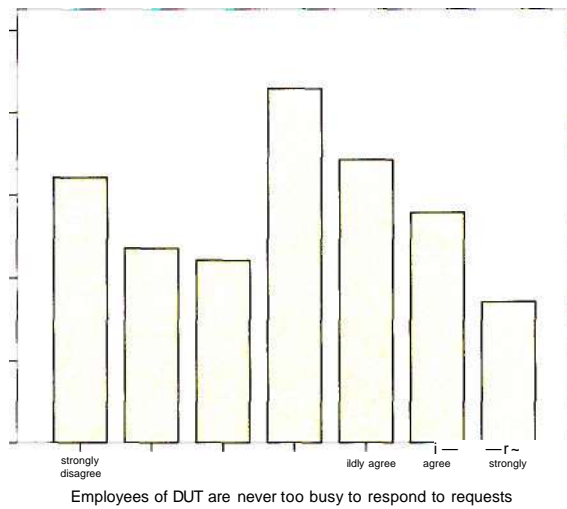


**Table 5.45 Response to Statement 3 of Factor 2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	31	11.1	11.1	11.1
	disagree	17	6.1	6.1	17.1
	mildly disagree	41	14.6	14.6	31.8
	neutral	55	19.6	19.6	51.4
	mildly agree	45	16.1	16.1	67.5
	agree	52	18.6	18.6	86.1
	strongly agree	39	13.9	13.9	100.0
Total		280	100.0	100.0	

31.8 % of the respondents disagree with the statement employees of DUT are ready to help. 19.6 % remained neutral and 48.6% agree.

**Figure 5.52** Graph depicting results for Statement 4 of Factor 2  
Employees of DUT are never too busy to respond to requests.

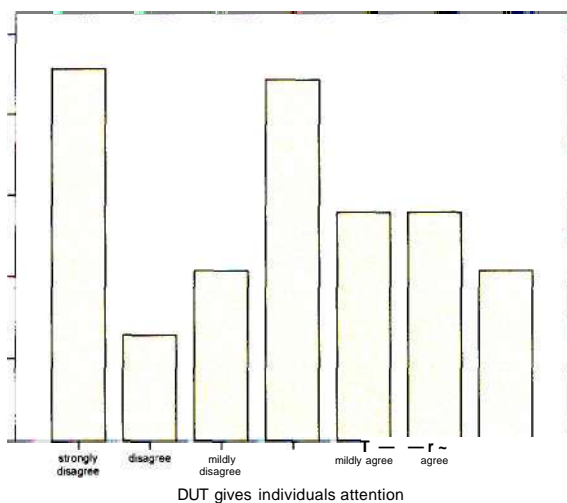


**Table 5.46** Response to Statement 4 of Factor 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	45	16.1	16.1	16.1
	disagree	33	11.8	11.8	27.9
	mildly disagree	31	11.1	11.1	38.9
	neutral	60	21.4	21.4	60.4
	mildly agree	48	17.1	17.1	77.5
	agree	39	13.9	13.9	91.4
	strongly agree	24	8.6	8.6	100.0
	Total	280	100.0	100.0	

38.9 % disagreed with the statement employees of DUT are never too busy to respond to requests while 39.6 agreed with the statement.

**Figure 5.53** Graph depicting results for Statement 5 of Factor 2  
DUT gives individual attention.

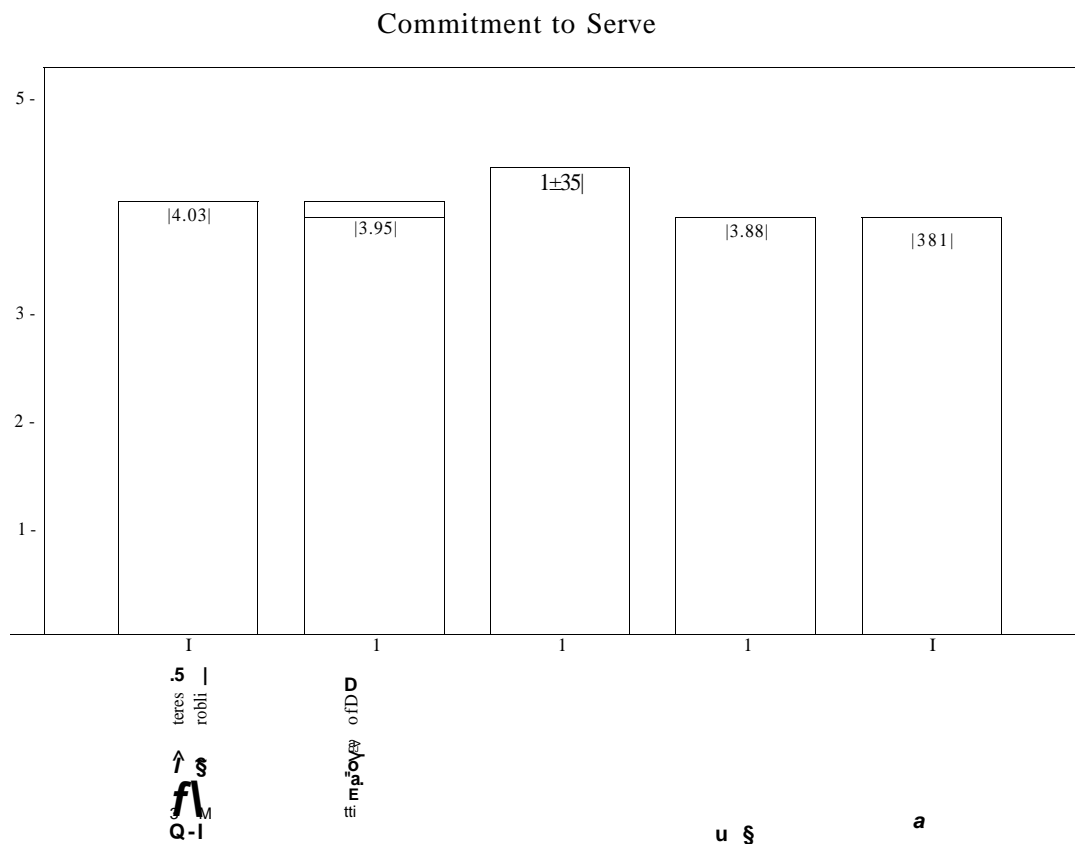


**Table 5.47 Response to Statement 5 of Factor 2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	64	22.9	22.9	22.9
	disagree	18	6.4	6.4	29.3
	mildly disagree	29	10.4	10.4	39.6
	neutral	62	22.1	22.1	61.8
	Mildly agree	39	13.9	13.9	75.7
	agree	39	13.9	13.9	89.6
	strongly agree	29	10.4	10.4	100.0
Total		280	100.0	100.0	

39.6% disagreed in varying degrees with the statement, DUT gives individual attention. 38.2% agreed while 22.1 % remained neutral.

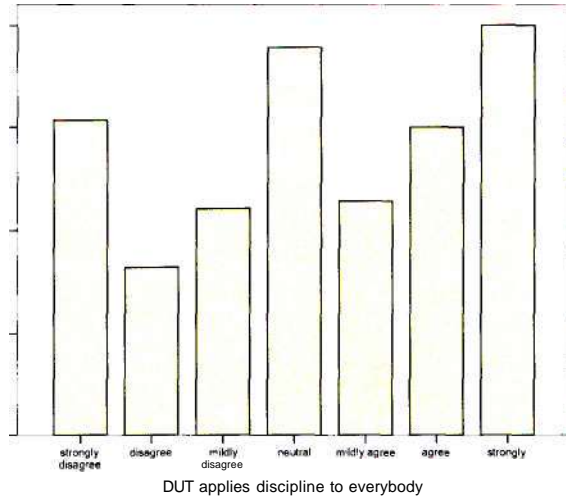
**Figure 5.54 Graph depicting mean scores for Factor 2 - Perceptions**



The major contributor to this factor was *employees of DUT are ready to help* (4.35). The lowest contributor this factor was *DUT gives individual attention* (3.81). This indicates that the respondents have a very weak perception of employees of DUT rendering individual attention.

### 5.4.3 Human Factor

**Figure 5.55** Graph depicting results for Statement 1 of Factor 3  
DUT applies discipline to everybody

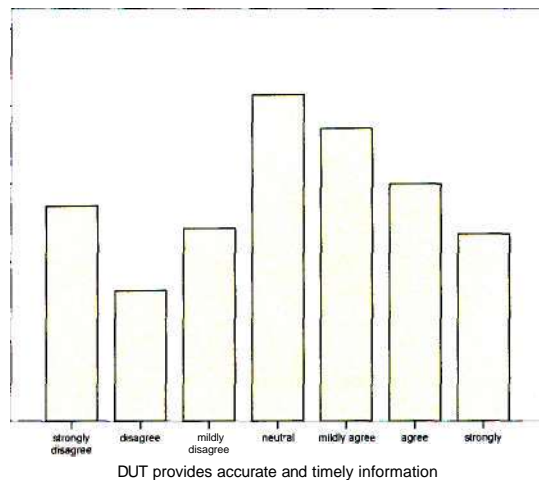


**Table 5.48** Response to Statement 1 of Factor 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	43	15.4	15.4	15.4
	Disagree	23	8.2	8.2	23.6
	mildly disagree	31	11.1	11.1	34.6
	Neutral	53	18.9	18.9	53.6
	mildly agree	32	11.4	11.4	65.0
	Agree	42	15.0	15.0	80.0
	strongly agree	56	20.0	20.0	100.0
	Total	280	100.0	100.0	

34.6% disagreed in varying degrees with the statement, DUT applies discipline to everybody, while 46.4% agreed and 18.9% remained neutral.

**Figure 5.56** Graph depicting results for Statement 2 of Factor 3  
DUT provides accurate and timely information.

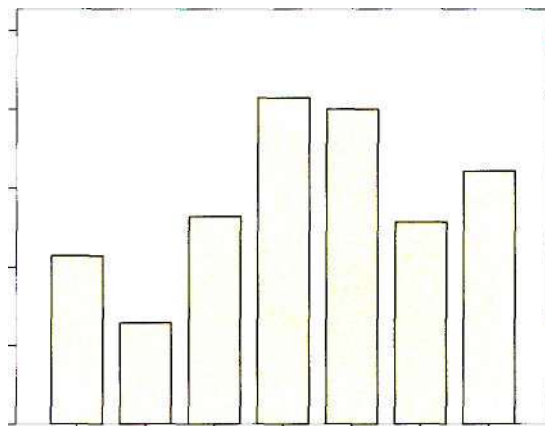


**Table 5.49 Response to Statement 2 of Factor 3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	38	13.6	13.6	13.6
	disagree	23	8.2	8.2	21.8
	mildly disagree	34	12.1	12.1	33.9
	neutral	58	20.7	20.7	54.6
	Mildly agree	52	18.6	18.6	73.2
	agree	42	15.0	15.0	88.2
	strongly agree	33	11.8	11.8	100.0
	Total	280	100.0	100.0	

From the above Table 5.49, 20.7 % of the respondents chose to remain neutral for this statement. However, 33.9 % disagreed while 45.4% agrees with this statement.

**Figure 5.57 Graph depicting results for Statement 3 of Factor 3**  
DUT creates harmonious relationships among staff and students.



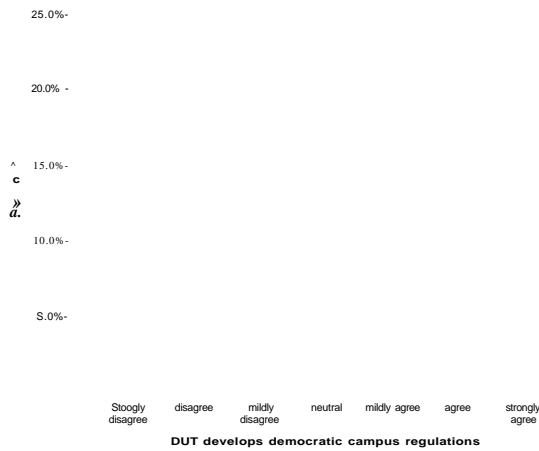
DUT creates harmonious relationships among staff and students

**Table 5.50 Response to Statement 3 of Factor 3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	30	10.7	10.7	10.7
	disagree	18	6.4	6.4	17.1
	mildly disagree	37	13.2	13.2	30.4
	neutral	58	20.7	20.7	51.1
	Mildly agree	56	20.0	20.0	71.1
	agree	36	12.9	12.9	83.9
	strongly agree	45	16.1	16.1	100.0
	Total	280	100.0	100.0	

30.4% disagreed in varying degrees with the statement, DUT creates harmonious relationships among staff and students, while 49% agree and 20.7% remained neutral.

**Figure 5.58** Graph depicting results for Statement 4 of Factor 3  
DUT develops democratic regulations.

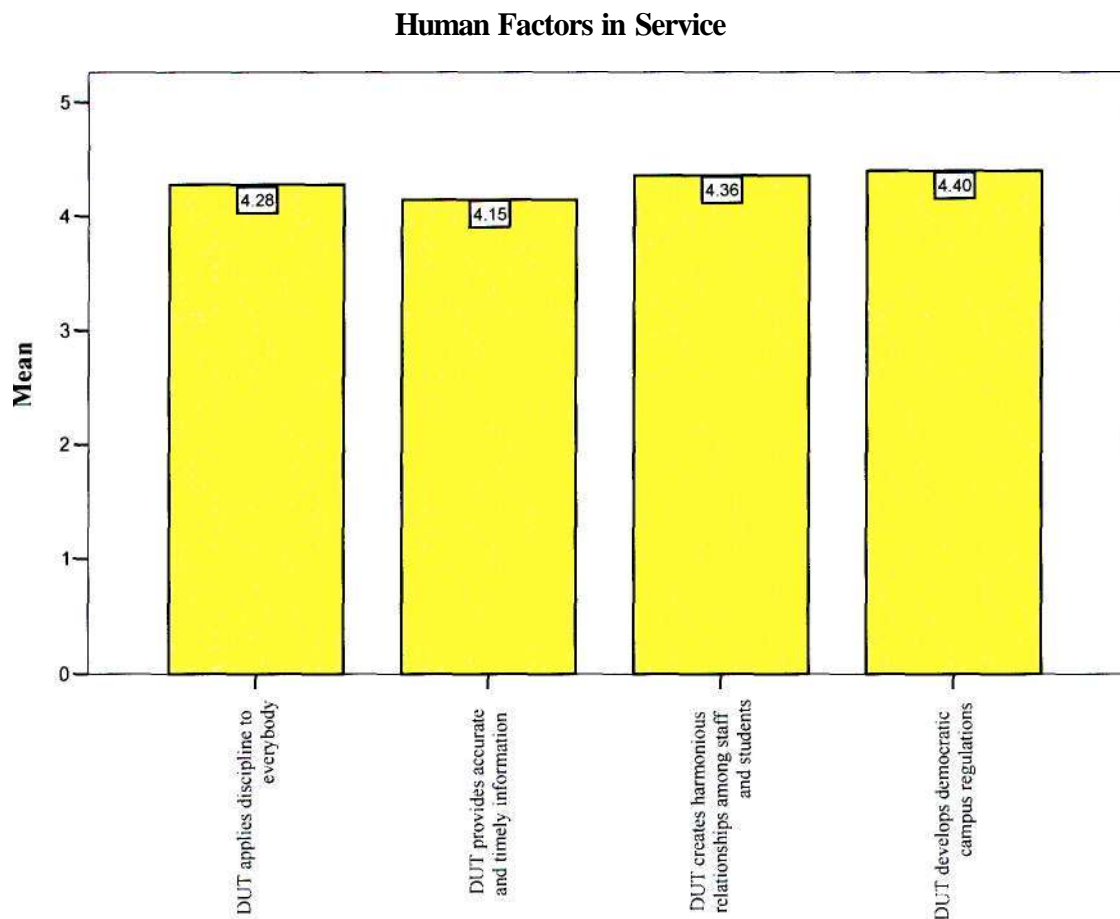


**Table 5.51** Response to Statement 4 of Factor 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	32	11.4	11.4	11.4
	disagree	22	7.9	7.9	19.3
	mildly disagree	21	7.5	7.5	26.8
	neutral	64	22.9	22.9	49.6
	mildly agree	54	19.3	19.3	68.9
	agree	43	15.4	15.4	84.3
	strongly agree	44	15.7	15.7	100.0
Total		280	100.0	100.0	

From the above Table 5.51 the overall respondents agreed in varying degrees with the statement (50.4%) indicating moderate levels of perception regarding DUT developing democratic regulations. 26.8% disagreed with the statement and 22.9% remained neutral.

Figure 5.59 Graph depicting means scores of Factor 3 - Perceptions

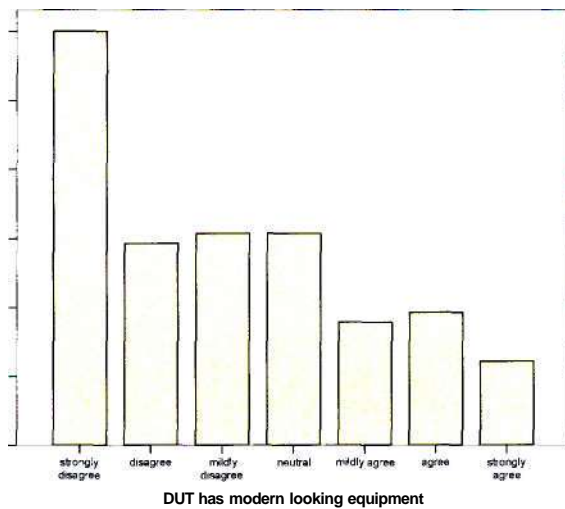


The statement with the lowest perception score was *DUT provides accurate and timely information* (4.15) followed by *DUT applies discipline to everybody* (4.28). This indicates that the respondents have a weak perception of DUT having the ability to disseminate accurate information timeously. Furthermore, the respondent perceived DUT to have an unfavourable discipline policy applicable to everybody.



#### 5.4.4 Visual Aspects

**Figure 5.60** Graph depicting results for Statement 1 of Factor 4  
DUT has modern looking equipment

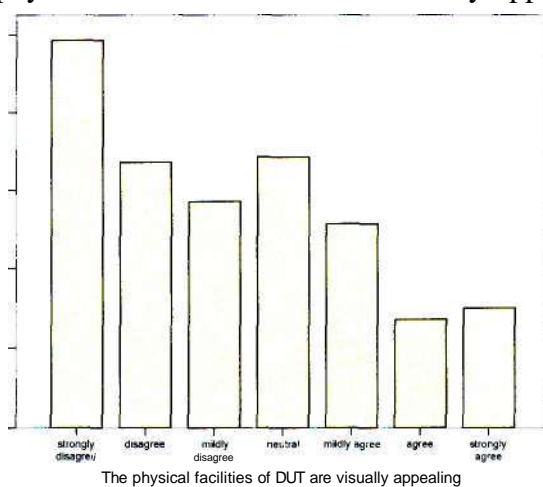


**Table 5.52** Response to Statement 1 of Factor 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	84	30.0	30.0	30.0
	Disagree	41	14.6	14.6	44.6
	mildly disagree	43	15.4	15.4	60.0
	Neutral	43	15.4	15.4	75.4
	mildly agree	25	8.9	8.9	84.3
	Agree	27	9.6	9.6	93.9
	strongly agree	17	6.1	6.1	100.0
Total		280	100.0	100.0	

From the above Table 5.52 the overall respondents disagreed in varying degrees with the statement (60%) indicating a low perception regarding DUT having modern looking equipment. 24.6% agreed with the statement and 15.4 % remained neutral.

**Figure 5.61** Graph depicting results for Statement 2 of Factor 4  
The physical facilities of DUT are visually appealing.



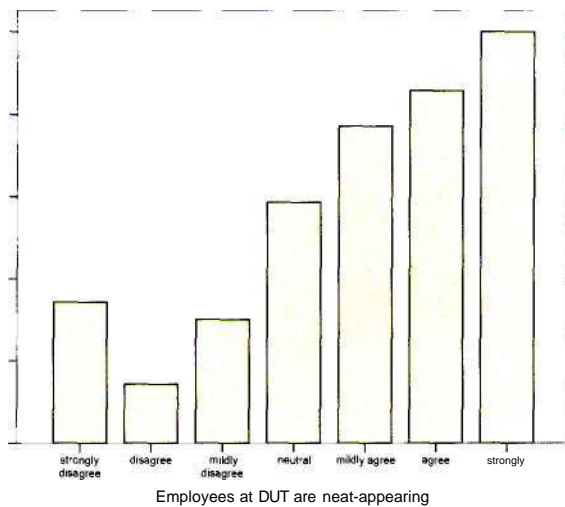
**Table 5.53 Response to Statement 2 of Factor 4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	69	24.6	24.6	24.6
	Disagree	47	16.8	16.8	41.4
	mildly disagree	40	14.3	14.3	55.7
	Neutral	48	17.1	17.1	72.9
	mildly agree	36	12.9	12.9	85.7
	Agree	19	6.8	6.8	92.5
	strongly agree	21	7.5	7.5	100.0
	Total	280	100.0	100.0	

From the above Table 5.53 the overall respondents disagreed in varying degrees with the statement (55.7%) indicating a negative perception regarding the physical facilities of DUT are visually appealing. 27.2% agreed with the statement and 17.1 % remained neutral.

**Figure 5.62 Graph depicting results for Statement 3 of Factor 4**

Employees at DUT are neat-appearing.



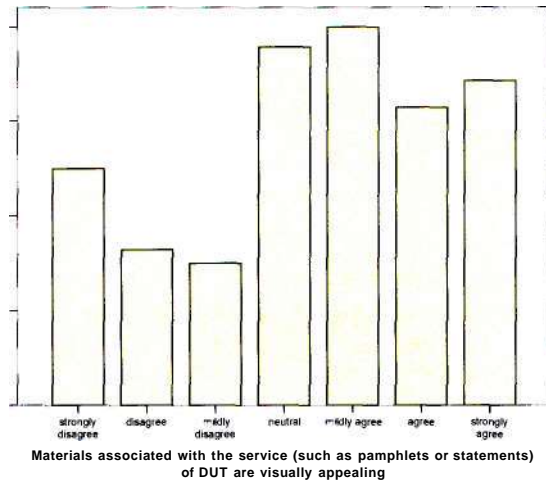
**Table 5.54 Response to Statement 3 of Factor 4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	24	8.6	8.6	8.6
	Disagree	10	3.6	3.6	12.1
	mildly disagree	21	7.5	7.5	19.6
	Neutral	41	14.6	14.6	34.3
	mildly agree	54	19.3	19.3	53.6
	Agree	60	21.4	21.4	75.0
	strongly agree	70	25.0	25.0	100.0
	Total	280	100.0	100.0	

From the above Table 5.54 the overall respondents agreed in varying degrees with the statement (65.7%) indicating a positive perception regarding employees at DUT are neat-appearing.. 19.6 % disagreed with the statement and 14.6% remained neutral.

**Figure 5.63 Graph depicting results for Statement 4 of Factor 4**

Material associated with the university (such as pamphlets or statements) of DUT is visually appealing.

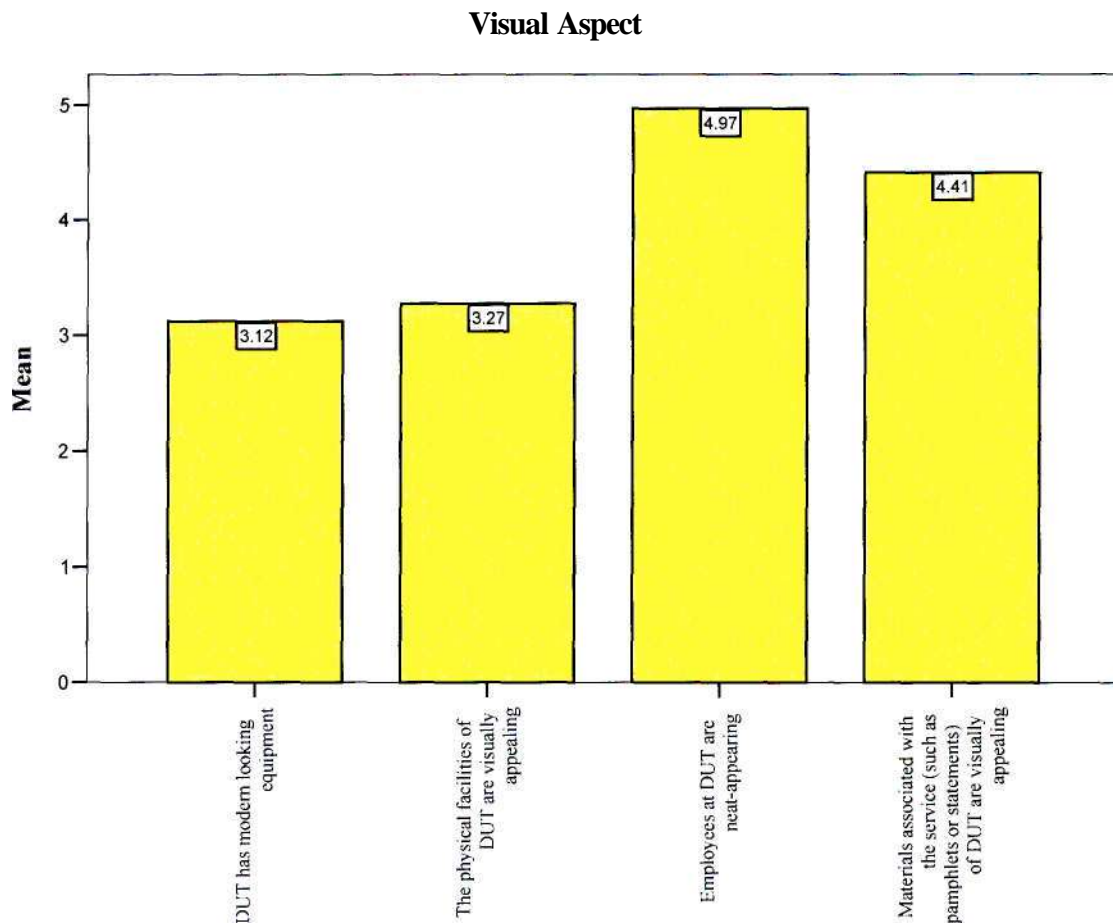


**Table 5.55 Response to Statement 4 of Factor 4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	35	12.5	12.5	12.5
	Disagree	23	8.2	8.2	20.7
	mildly disagree	21	7.5	7.5	28.2
	Neutral	53	18.9	18.9	47.1
	mildly agree	56	20.0	20.0	67.1
	Agree	44	15.7	15.7	82.9
	strongly agree	48	17.1	17.1	100.0
	Total	280	100.0	100.0	

From the above Table 5.55 the overall respondents agreed in varying degrees with the statement (52.8%) indicating a positive perception regarding material associated with the university (such as pamphlets or statements) of DUT is visually appealing. However, 28.2% disagreed with the statement and 18.9% remained neutral.

Figure 5.64 Graph depicting mean scores for Factor 4 - Perceptions

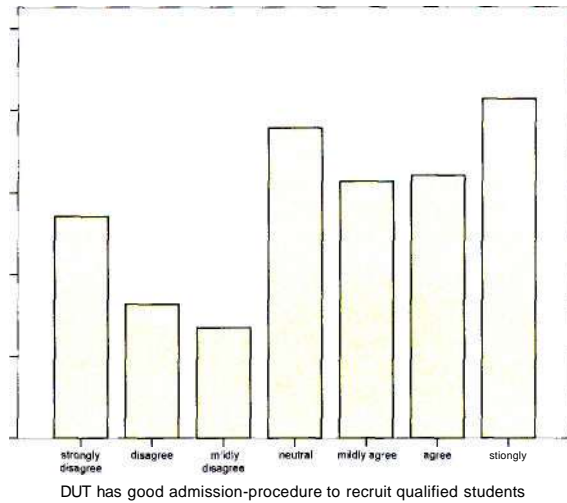


The statement with the lowest perception score was *DUT has modern looking equipment* (3.12) followed by *the physical facilities of DUT are visually appealing* (3.27). This indicates that the respondents do not think that DUT had modern looking equipment as well as the physical facilities of the DUT were not visually appealing. The statement *employees at DUT are neat-appearing* had a favourable perception score of 4.97. This indicates that the respondents of DUT rate the appearance of the employees as very professional and appropriate.

The statement *materials associated with the service (such as pamphlets or statements) of DUT are visually appealing* also had a favourable perception score of 4.41. This indicates that the respondents were encouraged by the visually appealing material of the DUT.

### 5.4.5 General Attitudes

**Figure 5.65** Graph depicting results for Statement 1 of Factor 5  
DUT has good admission-procedures to recruit qualified students.

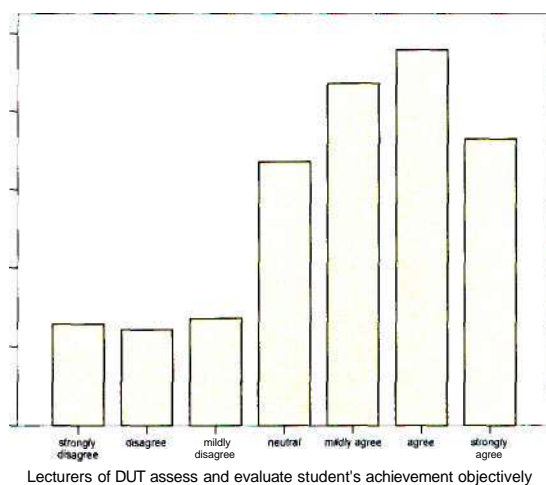


**Table 5.56** Response to Statement 1 of Factor 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	38	13.6	13.6	13.6
	Disagree	23	8.2	8.2	21.8
	mildly disagree	19	6.8	6.8	28.6
	Neutral	53	18.9	18.9	47.5
	mildly agree	44	15.7	15.7	63.2
	Agree	45	16.1	16.1	79.3
	strongly agree	58	20.7	20.7	100.0
	Total	280	100.0	100.0	

52.5% of the respondents agreed in varying degrees with the statement that DUT has good admission-procedures to recruit qualified students. 28.6% disagreed with the statement and 18.9% remained neutral, indicating a majority in support of DUT's admission procedures.

**Figure 5.66** Graph depicting results for Statement 2 of Factor 5  
Lecturers of DUT assess and evaluate student's achievement objectively.

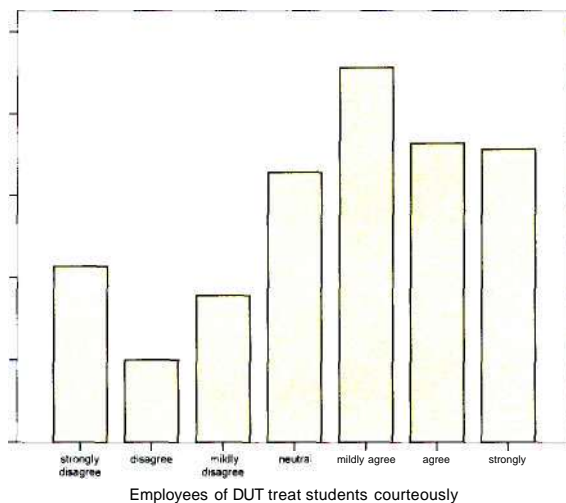


**Table 5.57 Response to Statement 2 of Factor 5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	18	6.4	6.4	6.4
	Disagree	17	6.1	6.1	12.5
	mildly disagree	19	6.8	6.8	19.3
	Neutral	47	16.8	16.8	36.1
	mildly agree	61	21.8	21.8	57.9
	Agree	67	23.9	23.9	81.8
	strongly agree	51	18.2	18.2	100.0
	Total	280	100.0	100.0	

From the above Table 5.57 the overall respondents agreed in varying degrees with the statement (63.9%) indicating a positive perception regarding lecturers of DUT assessing and evaluating student's achievement objectively. However, 19.3% disagreed with the statement and 16.8% remained neutral.

**Figure 5.67 Graph depicting results for Statement 3 of Factor 5**  
Employees of DUT treat students courteously.

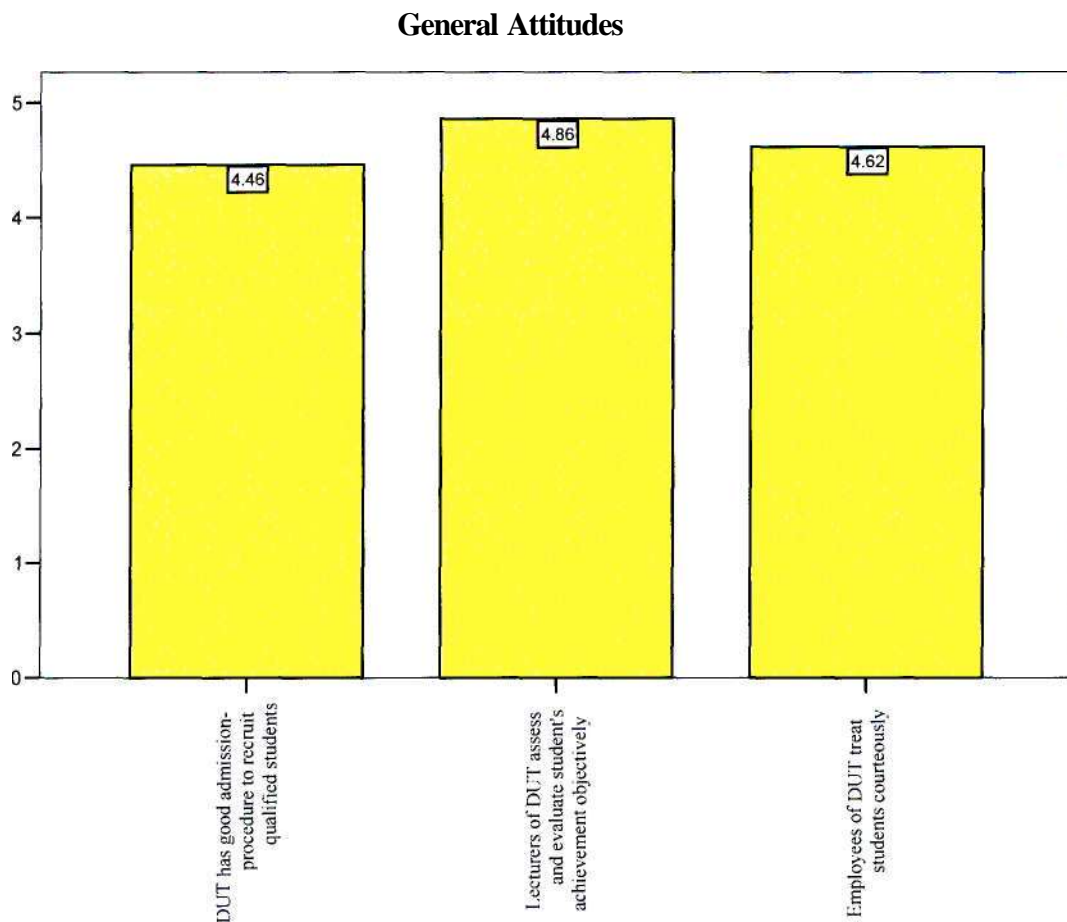


**Table 5.58 Response to Statement 3 of Factor 5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	30	10.7	10.7	10.7
	disagree	14	5.0	5.0	15.7
	mildly disagree	25	8.9	8.9	24.6
	neutral	46	16.4	16.4	41.1
	mildly agree	64	22.9	22.9	63.9
	agree	51	18.2	18.2	82.1
	strongly agree	50	17.9	17.9	100.0
	Total	280	100.0	100.0	

From the above Table 5.58 the overall respondents agreed in varying degrees with the statement (59%) indicating a positive perception regarding employees of DUT treating students courteously. However, 24.6% disagreed with the statement and 16.4% remained neutral.

Figure 5.68 Graph depicting mean scores for Factor 5 - Perceptions



The three statements found in this factor scored very similar scores. The statement with the highest perception score *lecturers of DUT assess and evaluate student's achievement objectively* (4.86). This indicates that the respondents of DUT rate the assessment and evaluation of students' achievement process favourably. However, the statement with the lowest perception score *DUT has good admission-procedures to recruit qualified students* (4.46) required management to improve on this perception.

## 5.5 COMPARISON OF STAFF VERSUS STAFF ON EACH CAMPUS

### **Mann Whitney Test:**

*H<sub>0</sub>* There are no differences between the Indumiso staff and Riverside staff with respect to their perceptions.

*H<sub>f</sub>* There are differences between the Indumiso staff and Riverside staff with respect to their perceptions.



Table 5.59 Significance of Indumiso staff versus Riverside staff regarding perception scores

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
DUT has complete and modern laboratories	282.000	877.000	-1.067	.286
DUT has modern library with complete collection	253.500	848.500	-1.586	.113
DUT provides students health care	257.500	467.500	-1.527	.127
DUT has a pleasant campus-environment	245.500	840.500	-1.726	.084
DUT provides practical and applied-oriented courses	305.000	900.000	-.651	.515
DUT performs the service right the first time	180.500	775.500	-2.932	.003
DUT provides their service at the time they promise to do so	255.000	850.000	-1.552	.121
Administrative services at DUT provide error-free records	289.000	884.000	-.931	.352
Employees of DUT tell students exactly when services will be performed	306.500	901.500	-.614	.540
DUT has qualified lecturers	274.000	484.000	-1.232	.218
DUT shows interest in solving students' problems	224.500	819.500	-2.109	.035
Employees of DUT provide quick and prompt service	276.000	871.000	-1.170	.242
Employees of DUT are ready to help	292.000	887.000	-.877	.381
Employees of DUT are never too busy to respond to requests	274.500	869.500	-1.201	.230
DUT gives individuals attention	275.500	870.500	-1.184	.236
DUT applies discipline to everybody	216.000	811.000	-2.257	.024
DUT provides accurate and timely information	259.500	854.500	-1.462	.144
DUT creates harmonious relationships among staff and students	241.500	836.500	-1.795	.073
DUT develops democratic campus regulations	283.500	878.500	-1.032	.302
DUT has modern looking equipment	215.000	810.000	-2.290	.022
The physical facilities of DUT are visually appealing	181.500	776.500	-2.892	.004
Employees at DUT are neat-appearing	322.000	917.000	-.330	.741
Materials associated with the service (such as pamphlets or statements) of DUT are visually appealing	319.500	914.500	-.379	.705
DUT has good admission-procedure to recruit qualified students	240.000	835.000	-1.825	.068
Lecturers of DUT assess and evaluate student's achievement objectively	261.000	856.000	-1.467	.142
Employees of DUT treat students courteously	272.000	867.000	-1.245	.213

At the 5 % significance level, we will reject  $H_0$ , for all the p-values less than 0.05 (the shaded ones) and we will conclude that there are differences between the Indumiso staff and Riverside staff with respect to their perceptions otherwise for the (unshaded questions) we will accept  $H_0$ .

## **5.6 COMPARISON OF STAFF VERSUS STUDENTS ON EACH CAMPUS**

### **Mann Whitney Test:**

$H_0$  There are no differences between the Indumiso students and Riverside staff with respect to their perceptions.

$H_f$ . There are differences between the Indumiso students and Riverside staff with respect to their perceptions.

Table 5.60 Significance of Indumiso students versus Riverside staff regarding perception scores

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
An excellent university has complete and modern laboratories	3443.500	6603.500	-5.185	.000
An excellent university has modern library with complete collection	4160.500	7320.500	-3.600	.000
An excellent university provides students health care	3683.500	6843.500	-4.614	.000
An excellent university has a pleasant campus-environment	3617.500	6777.500	-4.731	.000
An excellent university provides practical and applied-oriented courses	4592.000	7752.000	-2.631	.009
An excellent university performs the service right the first time	3979.500	7139.500	-3.948	.000
An excellent university provides their service at the time they promise to do so	4027.000	7187.000	-3.884	.000
Administrative services of an excellent university will provide error-free records	3907.000	7067.000	-4.118	.000
Employees of an excellent university will tell students exactly when services will be performed	3374.000	6534.000	-5.257	.000
An excellent university has qualified lecturers	2753.500	5913.500	-6.734	.000
An excellent university shows interest in solving students' problems	3391.000	6551.000	-5.220	.000
Employees of an excellent university provide quick and prompt service	3588.500	6748.500	-4.788	.000
Employees of an excellent university are ready to help	3246.000	6406.000	-5.530	.000
Employees of an excellent university are never too busy to respond to requests	3772.000	6932.000	-4.394	.000
An excellent university gives individuals attention	3526.500	6686.500	-4.944	.000
An excellent university applies discipline to everybody	3944.500	7104.500	-4.025	.000
Excellent universities provide accurate and timely information	3712.500	6872.500	-4.527	.000
Excellent universities create harmonious relationships among staff and students	4151.500	7311.500	-3.578	.000
An excellent university develops democratic campus regulations	4358.000	7518.000	-3.138	.002
An excellent university has modern looking equipment	3964.500	7124.500	-4.033	.000
The physical facilities of an excellent university are visually appealing	3857.000	7017.000	-4.231	.000
Employees at an excellent university are neat-appearing	4614.000	7774.000	-2.594	.009
Materials associated with the service (such as pamphlets or statements) of an excellent university will be visually appealing	4083.000	7243.000	-3.724	.000
Excellent universities have good admission-procedure to recruit qualified students	4344.500	7504.500	-3.168	.002
Lecturers of excellent universities assess and evaluate student's achievement objectively	3976.000	7136.000	-3.970	.000
Employees of an excellent university treat students courteously	3507.000	6667.000	-4.981	.000

At the 5 % significance level, we will reject  $H_0$ , for all the p-values less than 0.05 (the shaded ones) and we will conclude that there are differences between the Indumiso staff and Riverside students with respect to their perceptions.

*H<sub>0</sub>*: There are no differences between the Indumiso staff and Riverside students with respect to their expectations.

*H<sub>f</sub>*: There are differences between the Indumiso staff and Riverside students with respect to their expectations.

Table 5.61 Significance of Indumiso staff versus Riverside students regarding expectation scores

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
An excellent university has complete and modern laboratories	4533.000	15411.000	-3.277	.001
An excellent university has modern library with complete collection	4125.000	15003.000	-4.213	.000
An excellent university provides students health care	4521.000	15252.000	-3.153	.002
An excellent university has a pleasant campus-environment	4660.000	15538.000	-2.722	.006
An excellent university provides practical and applied-oriented courses	4312.000	15190.000	-3.477	.001
An excellent university performs the service right the first time	4308.500	15186.500	-3.408	.001
An excellent university provides their service at the time they promise to do so	4557.000	15435.000	-2.950	.003
Administrative services of an excellent university will provide error-free records	4991.000	15869.000	-1.808	.071
Employees of an excellent university will tell students exactly when services will be performed	5394.500	16272.500	-.979	.328
An excellent university has qualified lecturers	5653.000	16531.000	-.470	.638
An excellent university shows interest in solving students' problems	4550.000	15428.000	-2.955	.003
Employees of an excellent university provide quick and prompt service	4465.500	15343.500	-3.120	.002
Employees of an excellent university are ready to help	5660.000	16538.000	-.344	.731
Employees of an excellent university are never too busy to respond to requests	5736.000	16614.000	-.161	.872
An excellent university gives individuals attention	5624.000	16502.000	-.412	.681
An excellent university applies discipline to everybody	5508.500	16386.500	-.694	.488
Excellent universities provide accurate and timely information	5074.500	15952.500	-1.751	.080
Excellent universities create harmonious relationships among staff and students	5441.000	16319.000	-.835	.404
An excellent university develops democratic campus regulations	5510.000	16388.000	-.683	.495
An excellent university has modern looking equipment	4892.000	15770.000	-2.169	.030
The physical facilities of an excellent university are visually appealing	4698.000	15576.000	-2.501	.012
Employees at an excellent university are neat-appearing	5122.000	16000.000	-1.591	.112
Materials associated with the service (such as pamphlets or statements) of an excellent university will be visually appealing	5732.500	16610.500	-.170	.865
Excellent universities have good admission-procedure to recruit qualified students	5440.000	16318.000	-.882	.378
Lecturers of excellent universities assess and evaluate student's achievement objectively	4572.000	15450.000	-2.946	.003
Employees of an excellent university treat students courteously	5283.000	16161.000	-1.240	.215

At the 5% significance level, we will reject  $H_0$ , for all the p-values less than 0.05 (the shaded ones) and we will conclude that there are differences between the Indumiso staff and Riverside students with respect to their expectations, otherwise for the (unshaded questions) we will accept  $H_0$ .

## 5.7 GAP ANALYSIS

Gap 5 is the difference between perceived service and expected service. The way in which customers perceive actual service delivery does not match up with their initial expectations (Zeithaml and Bitner, 1996:45; Wahid, 2001: paragraph 20; Coupe, 2002: paragraph 3; Gabbott and Hogg, 1998:106).

Gabbott and Hogg (1998:105) state that the Gap is calculated as the difference between the mean scores of the perception statements and the expectation statements. The gap scores are then averaged as follows:

Factor 1	Gap Physical and Academic Service	Mean difference statements 1-10
Factor 2	Gap Commitment to serve	Mean difference statements 1-5
Factor 3	Gap Human Factors	Mean difference statements 1-4
Factor 4	Gap Visual Aspects	Mean difference statements 1-4
Factor 5	Gap General Attitudes	Mean difference statements 1-3

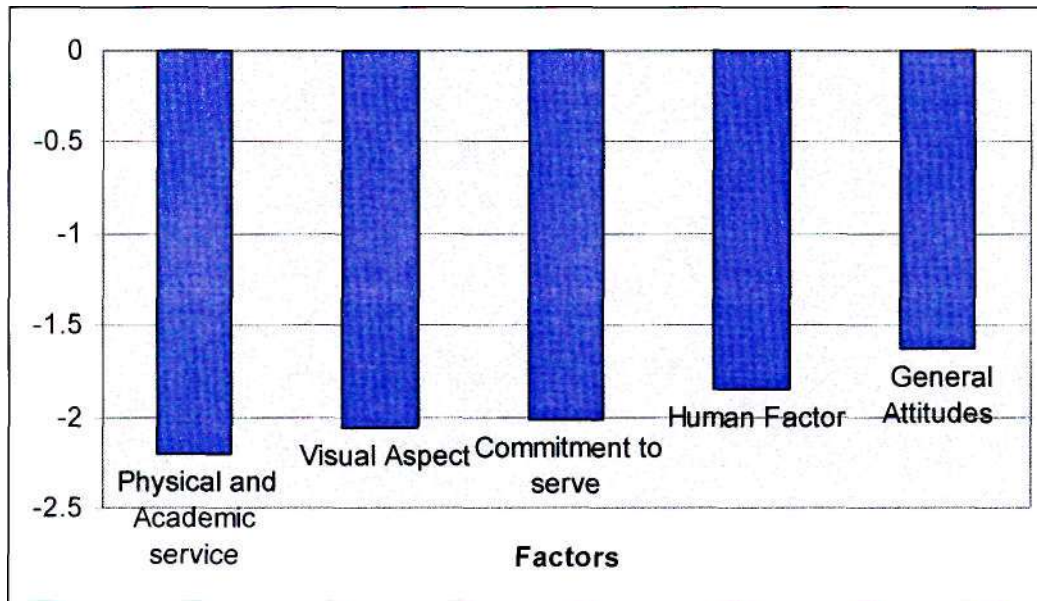
Table 5.62 Overall Factor Scores

		Perceptions	Expectations	Difference/Factor Score	Factor Score
	Statement	Mean	Mean		
Factor 1	1	3.25	6.26	-3.01	
	2	3.19	6.34	-3.15	
	3	4.94	6.32	-1.38	
	4	3.67	6.21	-2.54	
	5	4.71	6.2	-1.49	
	6	3.73	5.91	-2.18	
	7	3.35	6.12	-2.77	
	8	3.62	5.63	-2.01	
	9	3.96	6.17	-2.21	
	10	5.28	6.62	-1.34	-2.208
Factor 2	1	4.03	6.13	-2.1	
	2	3.95	6.2	-2.25	
	3	4.35	6.17	-1.82	
	4	3.88	5.89	-2.01	
	5	3.81	5.73	-1.92	-2.02
Factor 3	1	4.28	6.07	-1.79	
	2	4.15	6.48	-2.33	
	3	4.36	6.05	-1.69	
	4	4.4	6.01	-1.61	-1.855
Factor 4	1	3.12	6.04	-2.92	
	2	3.27	5.89	-2.62	
	3	4.97	6.05	-1.08	
	4	4.41	6.04	-1.63	-2.0625
Factor 5	1	4.46	6.31	-1.85	
	2	4.86	6.29	-1.43	
	3	4.62	6.23	-1.61	-1.63

The SERVQUAL index is therefore:

Factor	Score
Physical and Academic Services	-2.208
Commitment to Serve	-2.020
Human Factors	-1.855
Visual Aspects	-2.063
General Attitudes	-1.630
Overall SERVQUAL	-1.955

**Figure 5.69 Overall SERVQUAL index**



The score indicates that the expectations have all exceeded the perceptions by about roughly 1 or 2 units. The biggest differences are with regards to:

Physical and Academic service

Commitment to serve

Visual Aspect

Overall these are areas that need attention.

**A TEST FOR THE DIFFERENCES IN MEAN SCORES BETWEEN RIVERSIDE CAMPUS AND INDUMISO CAMPUS**

*Ho'*: There are no differences in the mean scores between the expectation and the perceptions of the services provided between the Riverside Campus and the Indumiso Campus

*Hi*: There are differences in the mean scores between the expectation and the perceptions of the services provided between the Riverside Campus and the Indumiso Campus.

A paired t-test was carried out to evaluate this hypothesis in SPSS and the results were as follows:



### Paired Samples Test

PAIR	Riverside-Indumiso	t-statistic	df	Significance level
		2.341	25	0.028

At the significance level of 0.05 i.e.  $\alpha = 0.05$ , we reject the above null hypothesis concluding that there are differences in the gap scores between the Riverside Campus and the Indumiso Campus.

### **A TEST FOR THE DIFFERENCES IN MEAN SCORES BETWEEN THE PERCEPTIONS AND EXPECTATIONS FOR THE RIVERSIDE CAMPUS**

$H_0$ : There are no differences in the mean scores between the expectation and the perceptions of the services provided by the Riverside Campus.

$H_f$ : There are differences in the mean scores between the expectation and the perceptions of the services provided by the Riverside Campus.

A paired t-test was carried out to evaluate this hypothesis in SPSS and the results were as follows:

### Paired Samples Test

PAIR	Riverside	t-statistic	df	Significance level
		-15.924	25	0.000

At the significance level of 0.05 i.e.  $\alpha = 0.05$ , we reject the above null hypothesis concluding that there are differences in the mean scores between the expectation and the perceptions of the services provided by the Riverside Campus.

**A TEST FOR THE DIFFERENCES IN MEAN SCORES BETWEEN THE PERCEPTIONS AND EXPECTATIONS FOR THE INDUMISO CAMPUS**

*Ho:* There are no differences in the mean scores between the expectation and the perceptions of the services provided by the Indumiso Campus.

*Hi:* There are differences in the mean scores between the expectation and the perceptions of the services provided by the Indumiso Campus.

A paired t-test was carried out to evaluate this hypothesis in SPSS and the results were as follows:

**Paired Samples Test**

PAIR	Indumiso	t-statistic	df	Significance level
		-12.328	25	0.000

At the significance level of 0.05 i.e.  $\alpha = 0.05$ , we reject the above null hypothesis concluding that there are differences in the mean scores between the expectation and the perceptions of the services provided by the Indumiso Campus.

**5.7.1 Gap Analysis Conducted on Riverside Campus**

The Gap is calculated as the difference between the mean scores of the perception statements and the expectation statements for the Riverside Campus. The gap scores are then averaged as follows:

Factor 1	Gap Physical and Academic service	Mean difference statements 1-10
Factor 2	Gap Commitment to serve	Mean difference statements 1-5
Factor 3	Gap Human Factor	Mean difference statements 1-4
Factor 4	Gap Visual Aspect	Mean difference statements 1-4
Factor 5	Gap General Attitudes	Mean difference statements 1-3

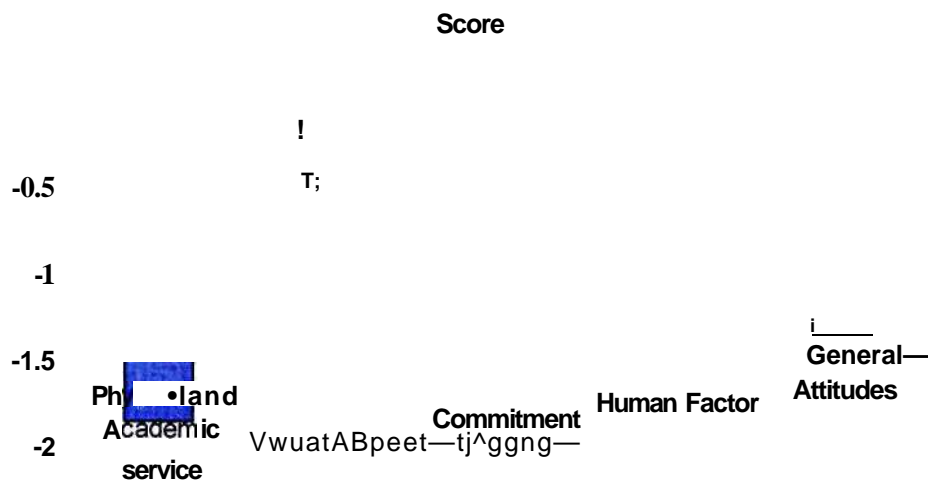
Table 5.63 Factor Scores for Riverside Campus

		Perceptions	Expectations	Difference/Factor Score	Factor Score
	Statement	Mean	Mean		
Factor 1	1	3.6	6.22	-2.62	
	2	3.39	6.22	-2.83	
	3	5.34	6.24	-0.9	
	4	3.94	6.15	-2.21	
	5	4.88	6.13	-1.25	
	6	3.96	5.82	-1.86	
	7	3.59	6.09	-2.5	
	8	3.89	5.62	-1.73	
	9	4.37	6.23	-1.86	
	10	5.85	6.68	-0.83	-1.859
Factor 2	1	4.39	6.07	-1.68	
	2	4.27	6.17	-1.9	
	3	4.73	6.24	-1.51	
	4	4.15	5.96	-1.81	
	5	4.16	5.76	-1.6	-1.7
Factor 3	1	4.54	6.17	-1.63	
	2	4.45	6.29	-1.84	
	3	4.57	6.1	-1.53	
	4	4.62	6.06	-1.44	-1.61
Factor 4	1	3.33	6.01	-2.68	
	2	3.49	5.86	-2.37	
	3	5.18	6.06	-0.88	
	4	4.7	6.11	-1.41	-1.835
Factor 5	1	4.68	6.33	-1.65	
	2	5.13	6.23	-1.1	
	3	4.99	6.22	-1.23	-1.33

The SERVQUAL index is therefore:

<b>Factor</b>	<b>Score</b>
Physical and Academic Services	-1.859
Commitment to Serve	-1.700
Human Factors	-1.610
Visual Aspects	-1.835
General Attitudes	-1.330
Overall SERVQUAL	-1.668

**Figure 5.70 SERVQUAL index for Riverside Campus**



The score indicate that the expectations have all exceeded the perceptions but not by much as the difference is about 1. The biggest differences are with regards to:

Physical and Academic service

Commitment to serve

Visual Aspect

Overall these are areas that need attention.

## 5.7.2 Gap Analysis Conducted on Indumiso Campus

The Gap is calculated as the difference between the mean scores of the perception statements and the expectation statements for the Indumiso campus. The gap scores are then averaged as follows:

Factor 1	Gap Physical and Academic Services	Mean difference statements 1-10
Factor 2	Gap Commitment to Serve	Mean difference statements 1-5
Factor 3	Gap Human Factors	Mean difference statements 1-4
Factor 4	Gap Visual Aspects	Mean difference statements 1-4
Factor 5	Gap General Attitudes	Mean difference statements 1-3

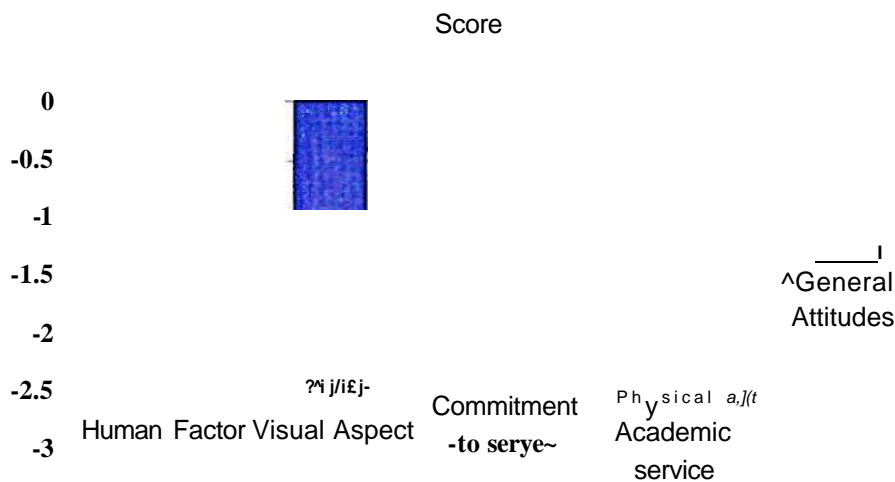
**Table 5.64 Factor Scores for Indumiso Campus**

	Statement	Perceptions Mean	Expectations Mean	Difference/Factor Score	Factor Score
Factor 1	1	6.39	6.34	0.05	
	2	6.25	6.57	-0.32	
	3	2.62	6.45	-3.83	
	4	2.81	6.33	-3.52	
	5	4.22	6.33	-2.11	
	6	3.18	6.08	-2.9	
	7	4.38	6.16	-1.78	
	8	3.31	5.64	-2.33	
	9	2.92	6.07	-3.15	
	10	3.13	6.51	-3.38	-2.327
Factor 2	1	3.22	6.23	-3.01	
	2	4.23	6.26	-2.03	
	3	3.38	6.04	-2.66	
	4	3.36	5.77	-2.41	
	5	3.65	5.66	-2.01	-2.424
Factor 3	1	3.37	5.9	-2.53	
	2	3.17	6.83	-3.66	
	3	3.81	5.97	-2.16	
	4	3.59	5.93	-2.34	-2.6725
Factor 4	1	3.96	6.08	-2.12	
	2	3.98	5.95	-1.97	
	3	2.74	6.05	-3.31	
	4	2.88	5.9	-3.02	-2.605
Factor 5	1	4.58	6.27	-1.69	
	2	5.13	6.23	-1.1	
	3	4.99	6.22	-1.23	-1.34

The SERVQUAL index is therefore:

Factor	Score
Physical and Academic Services	-2.327
Commitment to Serve	-2.424
Human Factors	-2.673
Visual Aspects	-2.605
General Attitudes	-1.340
Overall SERVQUAL	-2.273

Figure 5.71 SERVQUAL index for Indumiso Campus



The score indicates that the expectations have all exceeded the perceptions by as much as 2 units. The biggest differences are with regards to:

Human Factor

Visual Aspects

Commitment to serve

Overall these are areas that need attention.

### 5.7.3 Combined Gap Analysis Report

The SERVQUAL index is therefore:

<b>Campus</b>	<b>Overall</b>	<b>Riverside</b>	<b>Indumiso</b>
<b>Factor</b>	<b>Score</b>	<b>Score</b>	<b>Score</b>
Physical and Academic Services	-2.208	-1.859	-2.327
Commitment to Serve	-2.020	-1.700	-2.424
Human Factors	-1.855	-1.610	-2.673
Visual Aspects	-2.063	-1.835	-2.605
General Attitudes	-1.630	-1.330	-1.340
Overall SERVQUAL	-1.9551	-1.6668	-2.274

The Gap analysis clearly indicates that there is significant difference between expectations and perceptions of the respondents. The substantially large number of Gaps which runs across all factors is indicative of a considerable discrepancy between expectations and perceptions of the respondents. The extent of the difference is further reinforced by significantly large values of T-statistic.

### 5.8 CONCLUSION

This chapter presented the data that was collected with the use of the SERVQUAL questionnaire. The following chapter will elaborate on the findings and draw conclusions thereon.

## **CHAPTER 6: DISCUSSION AND CONCLUSIONS**

### **6.1 INTRODUCTION**

This chapter elaborates on the data which was presented in Chapter 5 and attempts to draw conclusions from the data. The research expounded in this document identified customers (students and staff) expectations of service quality in the tertiary education sector. The research further attempted to identify customer perceptions of service quality at the DUT and examined the difference between the expectations and perceptions. A score was calculated for each of the five factors, *viz.* Physical and Academic Services, Commitment to Serve, Human Factors, Visual Aspects and General Attitudes. The score helped identify the factor that contributed to poor service delivery.

The discussion in this chapter will follow the format of the research objectives and will relate to the relevant literature. The objectives are to:

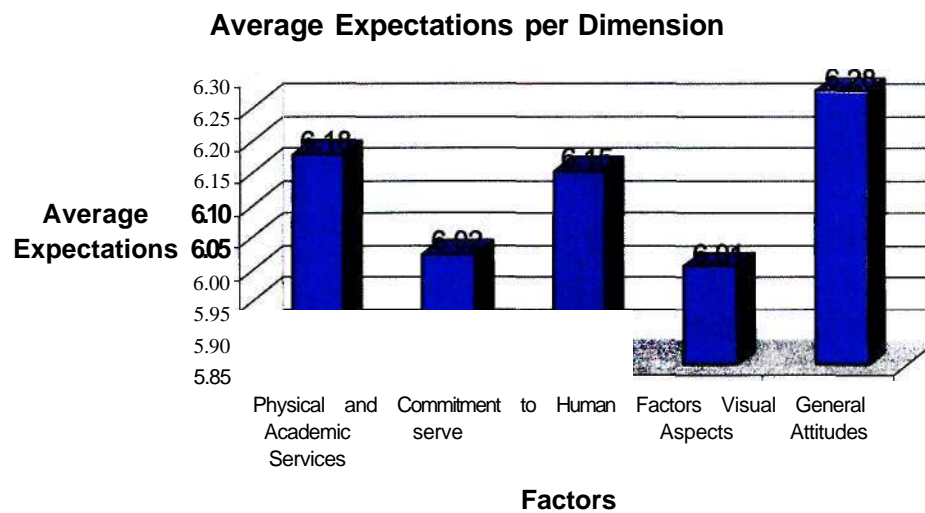
1. Identify expectations for service quality at a university.
2. Identify perceptions of service quality at the DUT.
3. Establish the SERVQUAL gap, which causes unsuccessful service delivery (Gap 5).
4. Make a comparison of Riverside versus Indumiso campuses regarding service quality at DUT.
5. Make a comparison of staff versus students regarding service quality at DUT.

### **6.2 CUSTOMER EXPECTATIONS OF SERVICE DELIVERY AT A UNIVERSITY**

Zeithaml and Bitner (1996:76) state that "customer expectations are the beliefs about service delivery that function as standards or reference points against which performance is judged." Zeithaml and Bitner (1996: 76) also suggest that since customers compare their perceptions of performance with their expectations of that performance when evaluating a service, then it is vital for any organisation to have a considerable amount of knowledge of what these expectations are and the factors that influence the formation of these expectations.



**Figure 6.1: Service Quality Expectations at a University**



The factor with the highest mean score was General Attitudes (6.28) followed by Physical and Academic Services (6.18). This indicates that the respondents have high expectations regarding:

1. Universities admission procedures to recruit qualified students.
2. Lecturers assessing and evaluating students achievement objectively.
3. Employees of a university treating students courteously.
4. Appearance of the physical facilities of a university, and
5. Academic services rendered to both staff and students.

Following is a discussion on the expectation factors.

### 6.2.1 Expectations of Physical and Academic Services

This factor had a combination of tangible and reliable factors. Parasuraman *et al* (1985:47) defined tangibility as the appearance of the physical facilities and defined reliability as the ability to perform the promised service dependably and accurately.

The overall score for physical and academic services was 6.178. This was the second highest value suggesting that staff and students have high expectations with regards to physical and academic services at the Institution. Cottle (1992 paragraph 20) advocate that in managing tangibles, organisations attempt to influence the client's opinions through the tangible representative of their service.

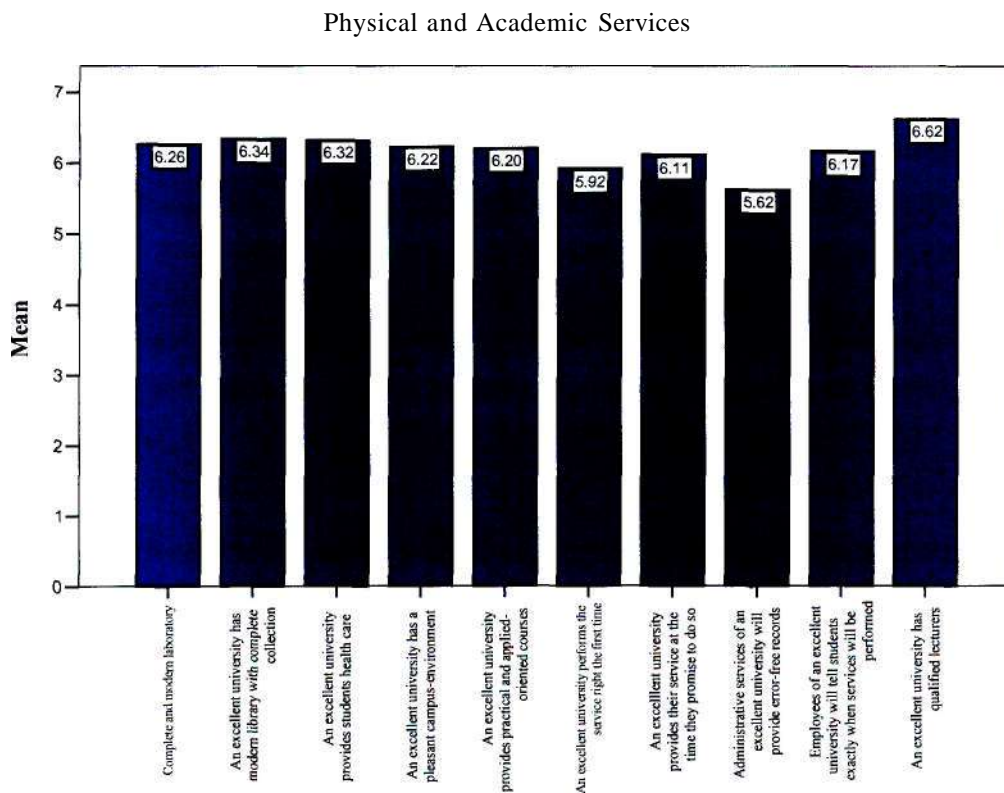
Physical evidence in its many forms can assist the potential customer to evaluate the DUT service offering. Examples of the physical evidence of the DUT would include signage such as road signs indicating the location of DUT campuses in Pietermartizburg, notice boards, glossy brochures, Riverside and Indumiso reception areas to be aesthetically appealing and the buildings and grounds to look attractive.

Kurtz and Clow (1998:35) mention that tangibles are defined as the appearance of physical facilities, equipment, personnel and communication materials. All these are used in varying degree to project an image that will find favour with customers, particularly new ones (Kurtz and Clow, 1998:35). DUT campuses can be distinguished by the appearance of the front-line personnel, the website of the institution and the prospectus' and pamphlets made available to the students.

Zeithaml and Bitner (1996:122) suggest that companies must use the tangible elements in their business in order to enhance their image, provide continuity and signal quality to their customers. The major contributing items in this factor as shown in Figure 6.2 below were *excellent universities have qualified lecturers* with a mean score of 6.62, followed by *excellent universities have modern libraries and complete collections* with a mean score of 6.34. The statement with the lowest mean score of 5.91 in this factor was *performs the service right the first time*. This result is consistent with the work by Hill (1995) and Awang

*et al* (no date:9) which found the major contributing statements in this factor were *excellent universities have qualified lecturers* and *excellent universities have modern libraries and complete collections*. Saunders (2005:149) indicates that quality of lecturers influence service quality in higher education. DUT can also gain a competitive advantage by upgrading the resources at the Riverside and Indumiso libraries in order to meet the high expectations of the respondents.

**Figure 6.2** Graph depicting mean scores for expectations of Factor 1 - Physical and Academic Services



### 6.2.2 Expectations of Commitment To Serve

According to Parasuraman *et al* (1988:14) responsiveness is the willingness to help the customer and provide prompt service.

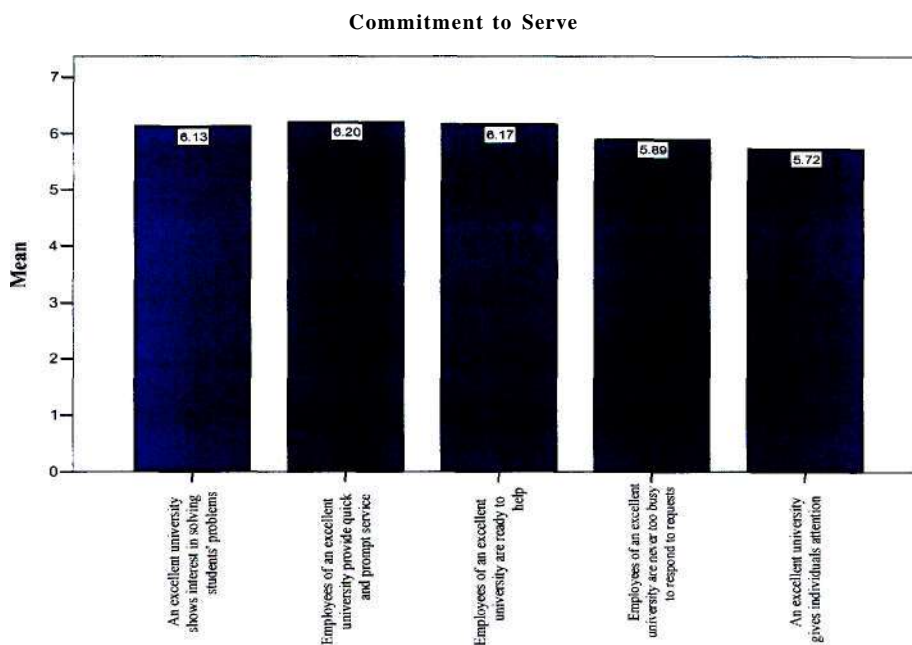
In the commitment to serve factor, students and staff did not consider it to be important with an overall means score of (6.024) compared to the other factors. The statement which scored the highest mean value (6.20) in this factor as shown in Figure 6.3 was *excellent universities provide quick and prompt service*. This means that both staff and students at universities have very high expectations regarding universities providing quick and prompt service. The statement which had the lowest mean score (5.73) was *excellent universities gives individual attention*. The reason for this score could be that staff and students realise that DUT is a big institution and to receive individual attention is unfamiliar.

Zeithaml and Bitner (1996:121) says prompt service is vital, as time is money and responsiveness is communicated to customers by the length of time that they have to wait for assistance. Universities must ensure that customers never have to wait for long periods of time unattended. This philosophy must be implemented by academic and administration staff alike. Cottle (1992:paragraph 27) says companies should train and motivate staff to go the extra mile as they are the people that customers interact with.

Jobber (1995:665) advocates that training, motivation and rewarding of staff can make service interactions a success and are important marketing mix decisions that universities should certainly consider. Staff training in all departments of the institution whereby service quality is a necessity should be implemented by senior management. Senior management of universities can reward individual staff for receiving outstanding rating from the customers.

According to Zeithaml and Bitner, (2003:97) to excel on the factor of responsiveness an organisation must be certain to view the process of service delivery and the handling of requests from the customers perspective rather than from the companies perspective. DUT should provide prompt and efficient systems for registrations, formative and summative results, health care, student counselling, financial and administration. In order to distinguish themselves the university would require well staffed customer service departments as well as responsive front line people on all contact positions (Zeithaml and Bitner, 2003:97).

**Figure 6.3** Graph depicting mean scores for expectations of Factor 2 - Commitment to Serve



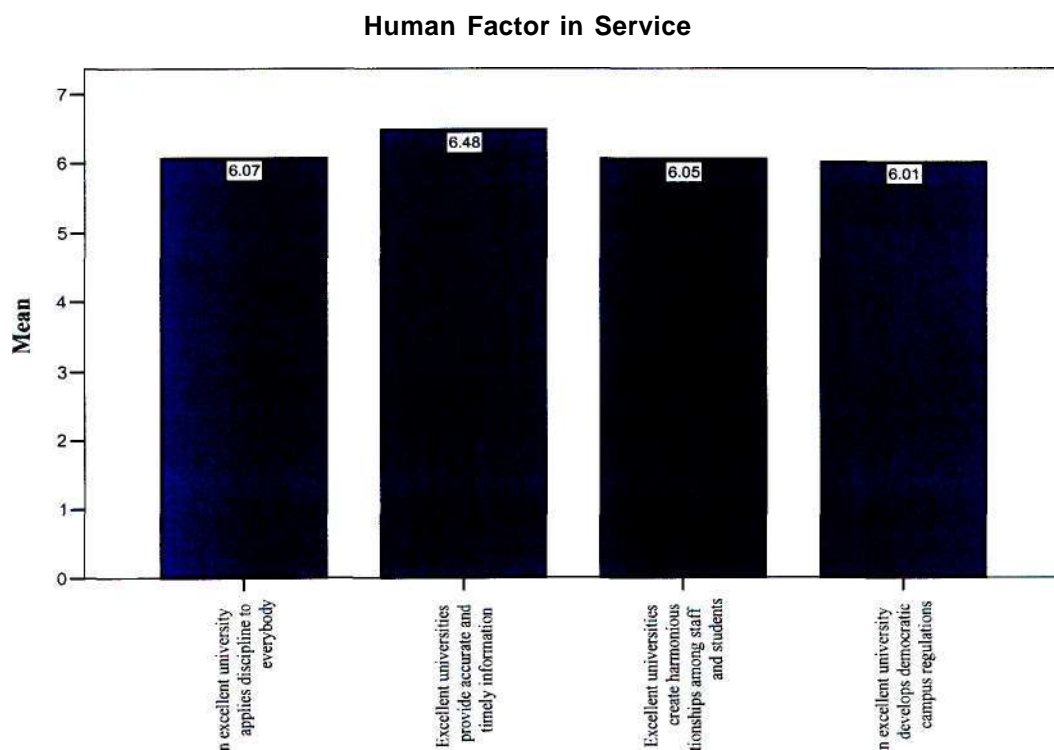
### 6.2.3 Expectations of Human Factors

According to Parasuraman (2004:46) empathy involves the provision of caring, and giving individual attention to customers. The essence of empathy is conveyed through personalized or customized service.

From the Figure 6.1 above this factor had a mean score of 6.15. Overall this is a high score indicating that university customers, i.e. staff and students have high expectations concerning human factors. The statement with the highest mean score (6.48) in this factor as shown in Figure 6.4 was *excellent universities provide accurate and timely information*. Customers of universities have high expectations for accurate and timely information. For example student want to receive their examination time-table timeously and the time-table must also be accurate. The statement with the lowest mean score (6.01) in this factor was *excellent universities develop democratic campus regulations*.

Kurtz and Clow (1998:34) suggest that employees need to give individual attention to customers and understand their needs. The customer of a university must be made to feel special and an excellent university needs to anticipate the customer's needs. Zeithaml and Bitner (1996:104) say customers want companies to understand their needs, and desire full attention when communicating with the employees of these companies. Senior management of universities must be aware of this and ensure that front-line staff satisfying this requirement.

**Figure 6.4** Graph depicting mean scores for expectations of Factor 3 - Human Factors



#### 6.2.4 Expectations of Visual Aspects

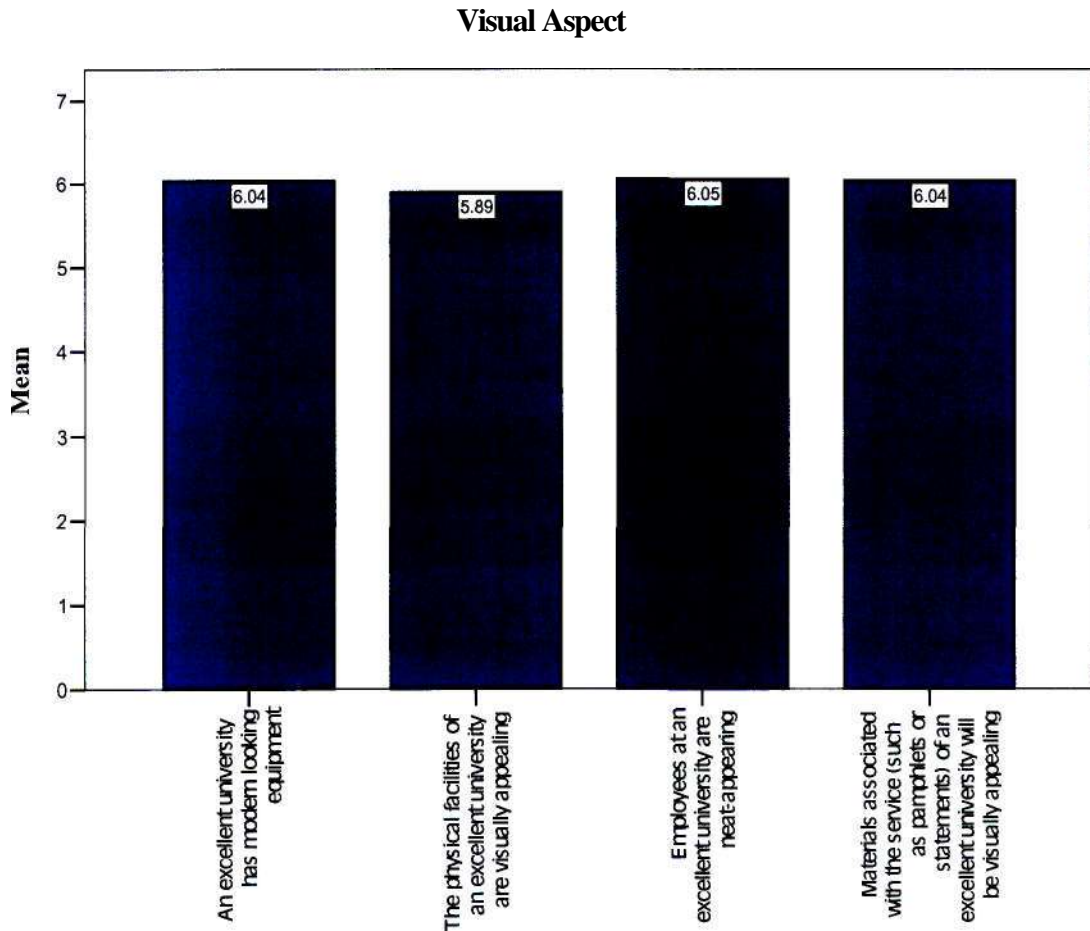
Parasuraman *et al* (1985:47) says tangibility is defined as the appearance of equipment, personnel and communication materials. Cottle (1992paragraph 20) states that in managing tangibles, organisations attempt to influence the customer's opinions through the tangible representative of the service.

This factor had the lowest mean score (6.005) among the five factors indicating that university customers rated Visual Aspects as the lowest priority regarding service quality in universities. However, it is also important to note that 6.005 is a relatively high score. The statement with the highest mean score (6.05) as shown in Figure 6.45 was *employees of an excellent university are neat in appearance*. The two statements *modern looking equipment* and *materials associated with the service of an excellent university will be visually appealing* had the same mean score of (6.04).

Cottle (1992paragraph 23) articulates that customers ask themselves whether organisations look like quality, do they have quality offices, do they use the latest technology, and do they produce a product with a high-quality look? Cottle (1992paragraph 20) believes that clients do this because it serves as a replacement for evaluating the technical performance of a service. In this factor, respondents placed considerable emphasis on modern looking equipment and neatness in appearance. Universities must consider implementing uniforms and setting dress codes for employees to ensure uniformity as an employees' language skills and dress are part of the client's impression of the quality of the firm (Cottle, 1992paragraph 30).

Kotler (2000:469) says in terms of the characteristics of services, to reduce uncertainty buyers will look for signs of evidence of service quality. Palmer (2001:16) advocates that consumer uncertainty can be reduced by means such as adding strong brands to abstract offers. The characteristic of the marketing mix must indicate that the physical setting implies efficient service. For example, customers should not wait longer than 3 minutes in a queue to pay for their tuition fees at universities.

**Figure 6.5** Graph depicting mean scores for expectations of Factor 4 - Visual Aspects



### 6.2.5 Expectations of General Attitudes

Parasuraman *et al* (1988:14) says assurance relates to the knowledge and courtesy of employees and their ability to convey trust and confidence. This factor relates to staff possessing required skills and knowledge to perform the service.

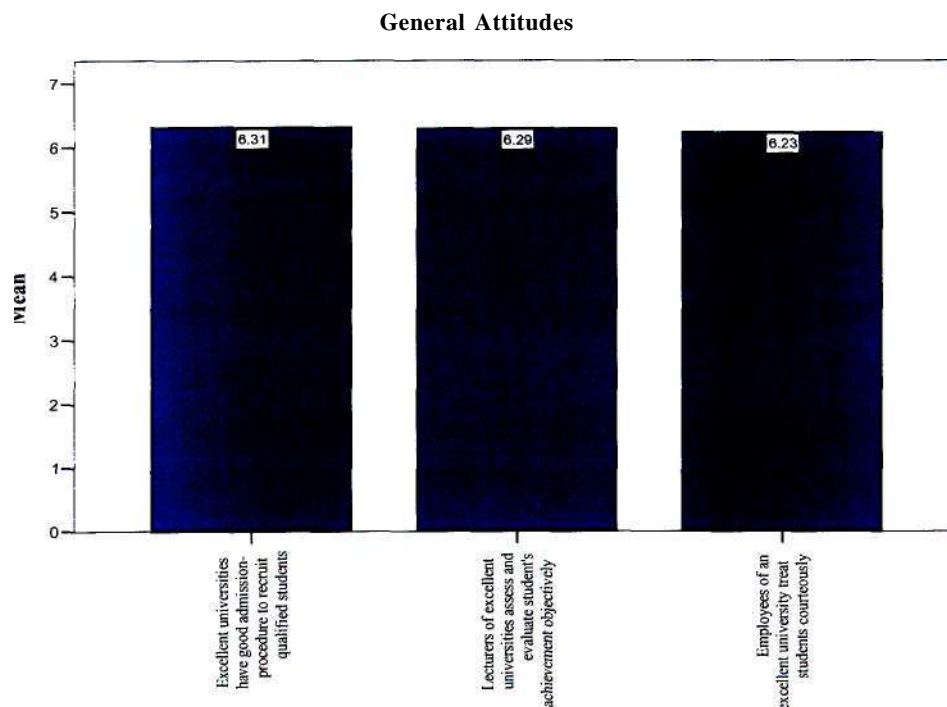
According to Figure 6.1 above, this factor had the highest mean score of (6.28). This indicates that university customers have high expectations for general attitudes. The statement with the overall highest mean score (6.31) as shown in Figure 6.6 was *excellent universities have good admission-procedures to recruit qualified students*. The second major contributor to this



factor was *lecturers of excellent universities assess and evaluate student's achievement objectively*.

Cottle (1992 paragraph 30) says employees need to be qualified in their respective positions, so that they are able to satisfactorily respond to customer queries. This implies that university staff must be qualified in their ability to objectively assess and evaluate students' achievements.

**Figure 6.6** Graph depicting mean scores for expectations of Factor 5 - General Attitudes



### 6.2.6 Deductions on Expectations at DUT

Customers have high expectations of service quality in higher education as the average expectations scores for all the SERVQUAL factors are above 6.0. The general attitudes which is dominated by assurance factors achieved the highest average score (6.28) in the expectations section. This indicates that the respondents feel that knowledge and courtesy of

employees and their ability to convey trust and confidence is vital to excellent service quality in higher education.

Zeithaml and Bitner (2003:60) say customer expectations are beliefs about service delivery that serve standards or reference points against which performance is judged. The first and possibly the most critical step in delivering quality service is identifying what the customer expects (Zeithaml and Bitner, 2003:60). "Being wrong about what customers want can mean losing a customer's business when another company hits the target exactly.

The research undertaken by Awang (no date:6) showed the following regarding expectation. The first service quality factor, **Physical and Academic Services**, the highest expectation score was on the item *excellent universities have qualified lecturers'*, but the lowest expectation scores was on the item of *excellent universities performs the service right the first time* (Awang, no date: 6)

The second factor, **Commitment to Serve**, the highest expectation score was on the item *employees of excellent universities are ready to help students* and the lowest scores was *on give individual attention* (Awang, no date:6).

The third factor, **Human factor**, the highest score for expectations was *excellent universities create harmonious relationships among staff and students*. The lowest expectation score was for *applies discipline to everybody* (Awang, no date:6).

The fourth factor, **Visual Aspect**, the highest expectation score was for *modern looking equipment* and the lowest expectation score was for *materials associated with the services* (Awang, no date: 6).

The fifth factor, **General Attitudes**, the highest expectation score was for *assess and evaluate student's achievement objectively* and the lowest expectation score was for *excellent universities treat students courteously* (Awang, no date:7).

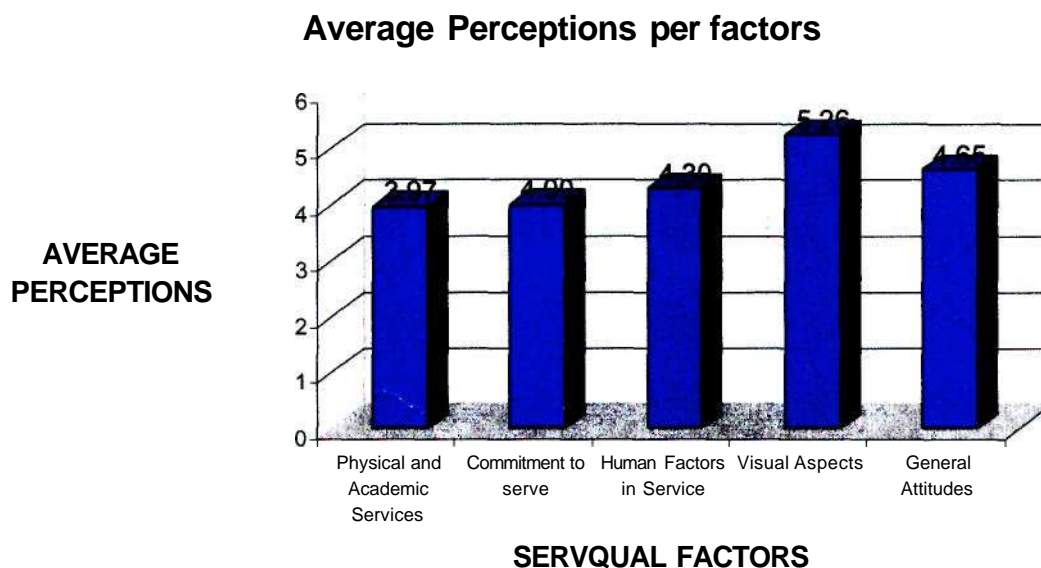
The results of this research was consistent with the findings of the research undertaken by Awang (no date:7).

### 6.3 PERCEPTIONS CONCERNING SERVICE QUALITY AT DUT

Perreault and McCarthy (1996: 218) define perception as the process of becoming aware of something through the senses and achieving understanding of it; the process of interpretation based on sensation. Zeithaml and Bitner (1996:117) state that customers perceive services in terms of their satisfaction with the service and its overall value and that companies are recognising that they need to distinguish themselves with respect to service quality.

Following is a discussion on the findings on respondent's perceptions for each of the statements displayed in their relative factors, i.e. Physical and Academic Services, Commitment to Serve, Human Factors, Visual Aspects and General Attitudes.

**Figure 6.7: Average Perceptions Per SERVQUAL Factor**



The factor with the highest perception means score was Visual Aspects (5.26). The average perception score for all factors was 4.43. The factor with the lowest perception score was Physical and Academic Services (3.97). This indicates that the respondents of DUT have a low perception of the items found in this factor. Following is a discussion on the perceptions of DUT respondents.

### **6.3.1 Perceptions of Physical and Academic Services**

The highest perception score was for the statement *DUT has qualified lecturers* (5.28). Saunders (2005:149) states that service quality in higher education is influenced by the quality of lecturers. This implies that management of DUT is in a favourable position regarding the perception of the quality of lecturers and must therefore capitalise on this factor to gain a competitive advantage.

The second major contributor to this factor was *DUT provides students health care* (4.94). DUT has a full-time sister on campus with a medical doctor attending to patients on morning per week. This is seen favourable by the respondents of DUT and management must seek ways to maintain and enhance this service.

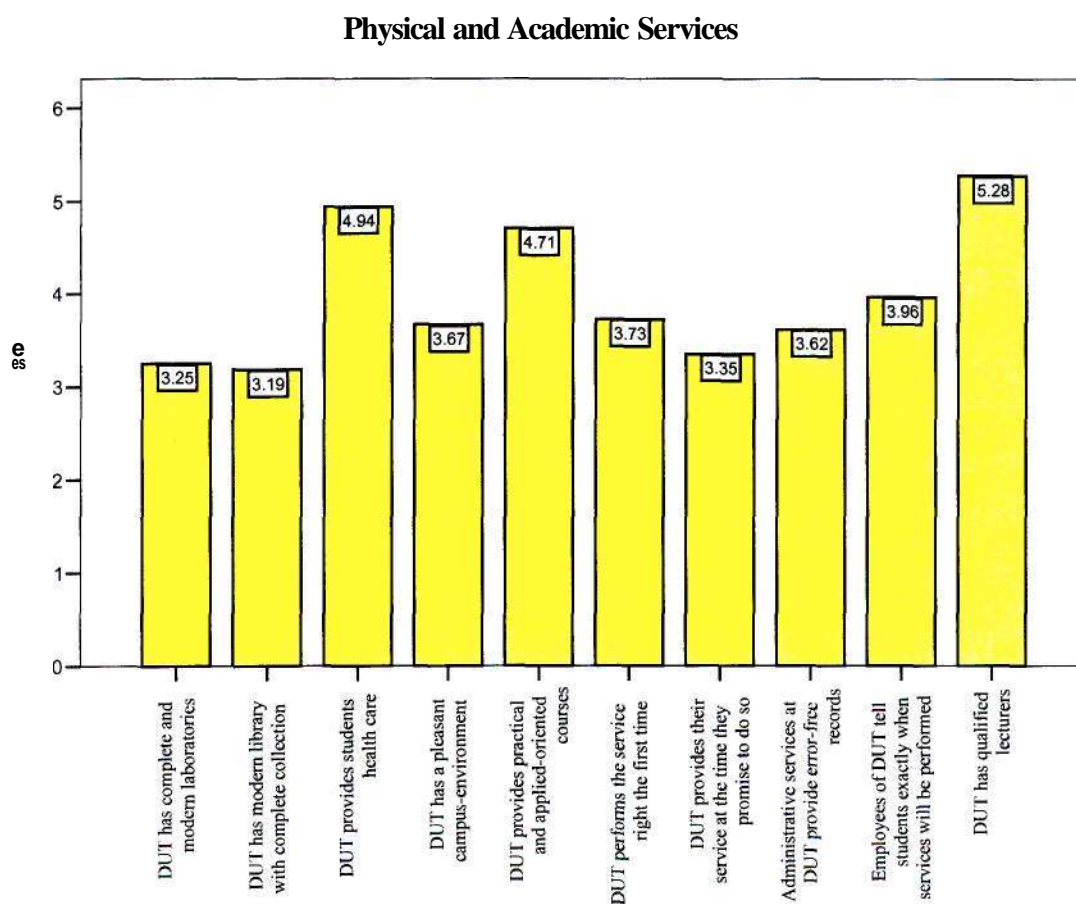
The lowest contributor to this factor was *DUT has modern library with complete collections* (3.19). Management of DUT must urgently address the negative perception of the library that does not have modern and complete collections.

Zeithaml and Bitner (1996:119) suggest that customers want to do business with companies that keep their promises. The statement *DUT provides their service at the time they promise to do so* received a low perception score of 3.35. This indicates that DUT customers feel that the organisation does not deliver on what they promise.

The results also show that *DUT needs to provide complete and modern laboratories* (3.25). In order for DUT to be competitive in higher education, the organisation must provide modern and complete laboratories.

Sanders (2005:149) advocate that one of the factors that influence service quality in higher education is support systems. The library at DUT is seen as a support system, however, the statement *DUT has modern library with complete collections* received a low perception score of 3.19.

**Figure 6.8** Graph depicting mean scores for perceptions of Factor 1 - Physical and Academic Services.



### 6.3.2 Perceptions of Commitment To Serve

The statement with the lowest perception score of 3.81 was *DUT gives individual attention*. Management of DUT need to address this issue by increasing the number of personnel required to deal with individual queries. Kurtz and Clow (1998:214) suggest that each customer should be treated uniquely, given personalized and customized service according to customer's perceptions of what personalised and customised service really is.

Kurtz and Clow (1998:79) declare that customers always want to know when a service will be delivered. Service standards are a good way to formally communicate this information (Kurtz and Clow, 1998:79). Therefore, it is recommended that management of DUT formulate service standards, which specify exactly how the customer contact employees should go about ensuring the customers received individual attention.

The major contributor to this factor was the statement *employees of DUT are ready to help* with a score of 4.35. According to Zeithmal and Bitner, (1996:121) responsiveness perceptions diminish when customers have to wait to be helped.

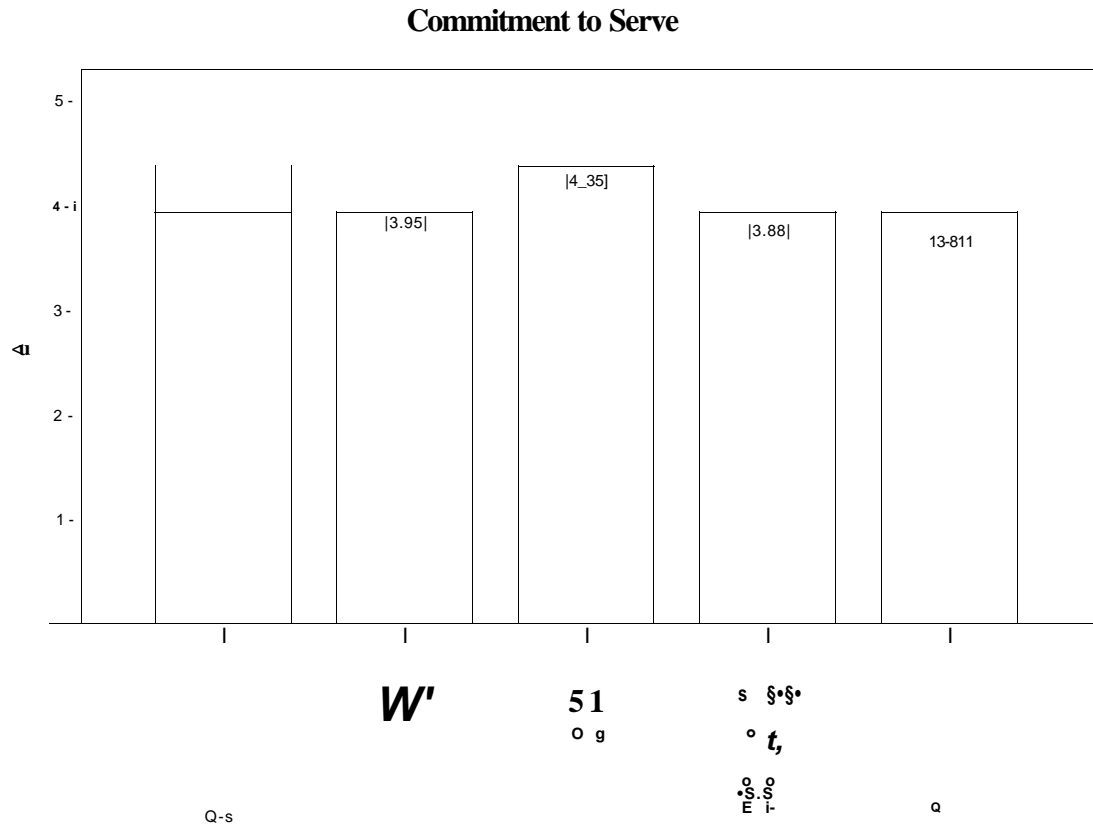
The second major contributor to this factor was *DUT shows interest in solving students' problems* with a score of 4.03. This indicates that DUT employees have been showing some type of interest in solving students' problems. However, the score is not an ideal score.

*Employees of DUT provide quick and prompt service* received a score of 3.95. These findings suggest that the sample was dissatisfied with the efficiency of service(s) that they received from the DUT and as such feel that the DUT is currently **not** always providing prompt service to customers.

It is recommended that employees under the services mix be addressed. Customers expect prompt service from employees. Technical quality involves *what* the service employee provides during the service provision process. For example, if a student made a financial enquiry to the front-line staff of the DUT regarding an account, the customer would "judge the

quality of the technical outcome on how the enquiry was resolved as well as the quality of the interaction" (Brenan, 2000:Paragraph 8).

**Figure 6.9** Graph depicting mean scores for perceptions of Factor 2 - Commitment to Serve

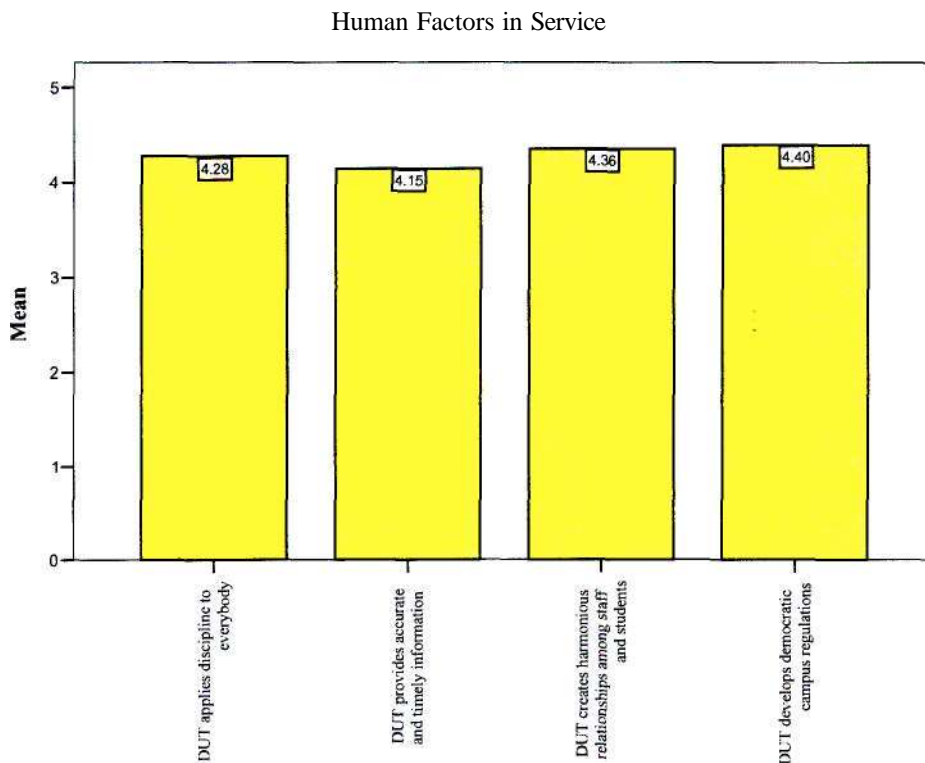


### 6.3.3 Perceptions of Human Factors

Kurtz and Clow (1998:214) suggest that employees who connect with their customer's lives, inviting and sharing personal exchanges and being genuine. Contribute to the customer's perceptions of the service provider's empathy and mutual understanding.

The average perception score for this factor was 4.30. The major contributor to this factor was *DUT develops democratic campus regulations* with a score of 4.40. This is seen as a positive for DUT and management must capitalise on this. Zeithaml and Bitner (2003:104) say customers want to feel understood by and important to firms that provide service to them. It is recommended that DUT ensures that staff and students engage in democratic campus regulations.

**Figure 6.10** Graph depicting mean scores for perceptions of Factor 3 - Human Factors in Service





#### 6.3.4 Perceptions of Visual Aspects

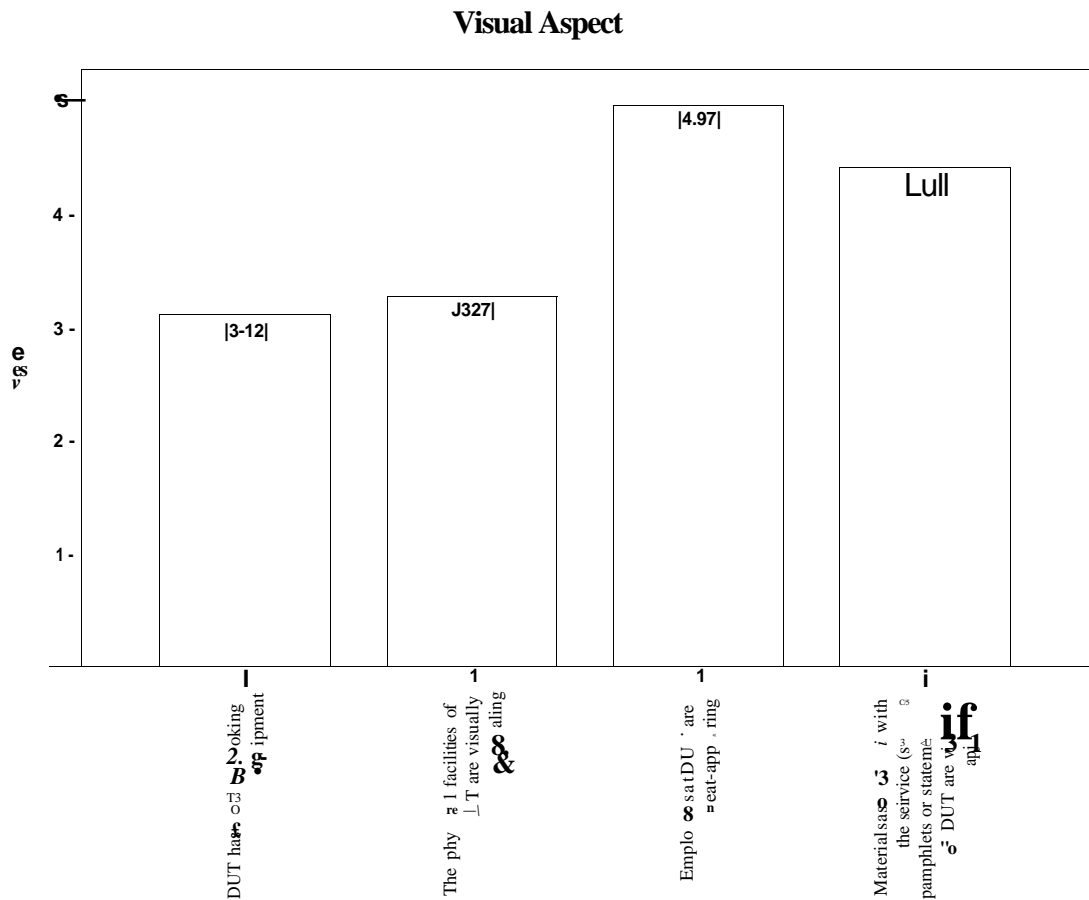
The average score for visual aspects factor was 3.94, with the major contributing statements being *employees of DUT are neat appearing* (4.97) and *materials associated with the service of DUT are visually appealing* (4.41). Cottle (1992:paragraph 23) suggests that the people in a firm, the client newsletter, brochures, announcements, business cards, etc act as ambassadors for the organisation thus personal presentation and service materials should be neat and impressive.

Payne (1993:22) suggests that service delivery people become an important element of the promotions mix. In effect they are walking billboards for the service, and as such they should constantly be of neat appearance.

The two remaining statements received from low perception scores of 3.27 for *the physical facilities of DUT are visually appealing* and 3.12 for *DUT have modern looking equipment* Zeithaml and Bitner (1996:122) indicate that the tangibles provide the physical representation of the service which customers will use to evaluate the service. This is an urgent area of improvement for DUT.

Suggestions such as redecorating all reception areas and consultation offices, improving the state of the gardens and grounds and painting all external walls should be considered by senior management.

**Figure 6.11** Graph depicting mean scores for perceptions of Factor 4  
Visual Aspect



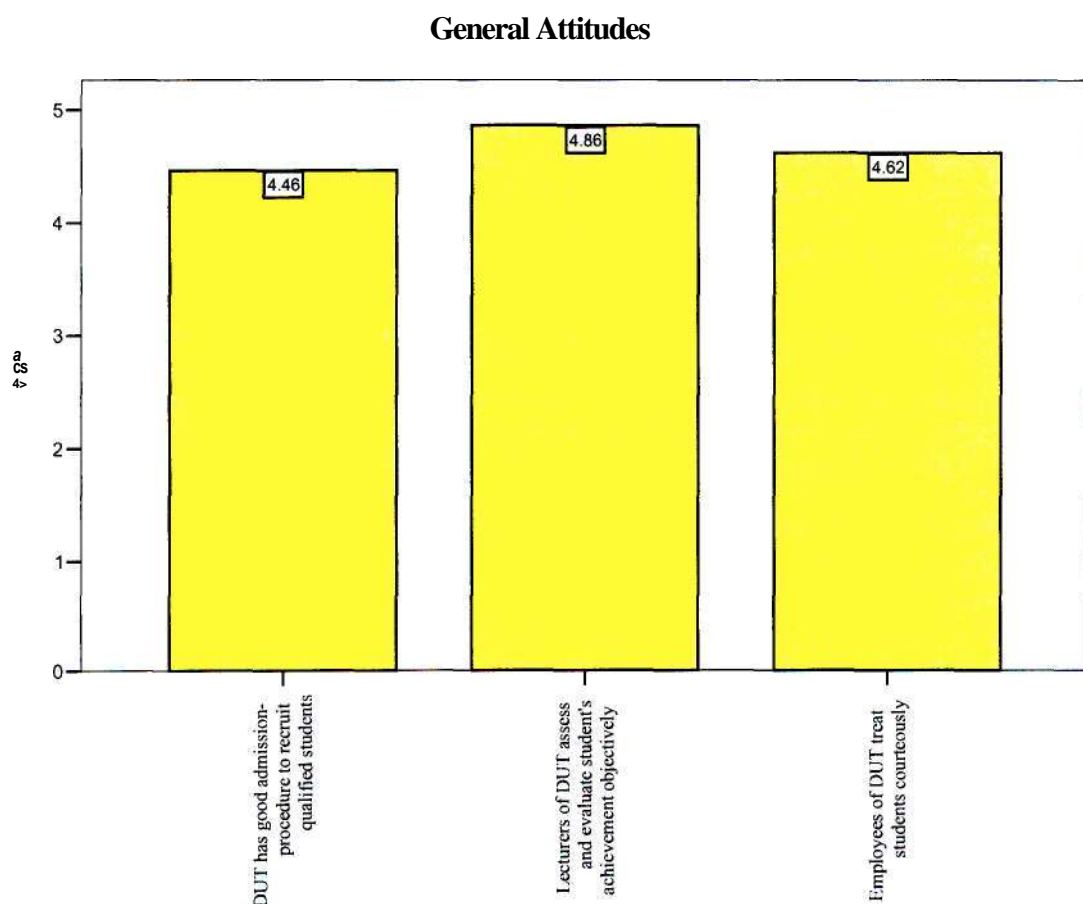
### 6.3.5 Perceptions of General Attitudes

The average score for general attitudes factor was 4.65, with the major contributing statement being *lecturers of DUT assess and evaluate student's achievements objectively* (4.86). Since customers judge a company by its employees, it is vital for the employees to be equipped with the knowledge and necessary skills to be able to answer customer questions (Blem, 1996:33).

The second major contributing statement was *employees of DUT treat students courteously* with a score of 4.62. Solomon and Stuart (1997:375) say that since employees often have the biggest impact on service perceptions, it is important that they are consistently courteous with customers so as to enhance the service experience.

The statement with the lowest perception score in this factor was *DUT has good admission procedures to recruit qualified students* with a score of 4.46. This implies that management of DUT needs to address this negative perception regarding admission procedures at the institution.

**Figure 6.12** Graph depicting mean scores for perceptions of Factor 5 - General Attitudes



#### 6.4 DEDUCTIONS ON PERCEPTIONS AT DUT

Customers have a relatively low perception of DUT service quality as the average perception score was 4.4 for all the SERVQUAL factors. The Visual Aspects factor received the highest average score (5.26) in the perceptions section. The Physical and Academic Services received the lowest average score (3.97) and suggests that the respondents have a low perception of the factors that contribute to DUT's physical attributes.

Du Plessis *et al* (1990:99) say perception is the process by which people select, organise and interpret stimuli to the five senses of sight, sound, smell, touch and taste i.e. it is the way that buyers interpret or give meaning to the world surrounding them. The process of perception involves exposure to stimulus, paying attention to it, and then interpreting the meaning in order to respond appropriately (Du Plessis *et al*, 1990:99). However, people do not respond to all information passed before them.

The research undertaken by Awang (no date: 6) showed the following results regarding perceptions. The first service quality factor, **Physical and Academic Services**, the highest mean score for customers' perception was the *university has qualified lecturers* and the lowest perception score was on *the administration services provide error free records* (Awang, no date:6).

The second factor, **Commitment to Serve**, showed the highest perception score on the item *shows interest in solving students' problems*. Meanwhile, the lowest perception score was on the item *the university gives individual attention* (Awang, no date:6).

The third factor, **Human factor**, the highest perception score was on the item *democratic campus regulations* while the lowest score was on the item *the university provides accurate and timely information* (Awang, no date:6).

The fourth factor, **Visual Aspects**, the highest perception score was for *neat appearance of employees* and the lowest perception score was for *visually appealing physical facilities* (Awang, no date:6).

The fifth factor, **General Attitudes**, the highest perception score was for *assess and evaluate student's achievement objectively* and the lowest perception score was for *excellent universities treat students courteously* (Awang, no date:7).

The results of the research undertaken by Awang (no date) was consistent with the findings of this research.

The next section compares the difference between the customer expectations of service quality in a tertiary institution and customer perceptions with regard to DUT service quality.

## 6.5 GAP ANALYSIS

When comparing customers' expectations of service quality to customer perceptions of DUT's service quality, it is evident that gaps occur in all 5 of the service quality factors. It is these gaps that impede the delivery of a quality service. The table below highlights the average gap scores per factor and the gaps are discussed in their relative factors. The SERVQUAL output indicates that there are definite areas of attention for DUT. These common areas from the analysis across the two Pietermaritzburg campuses are:

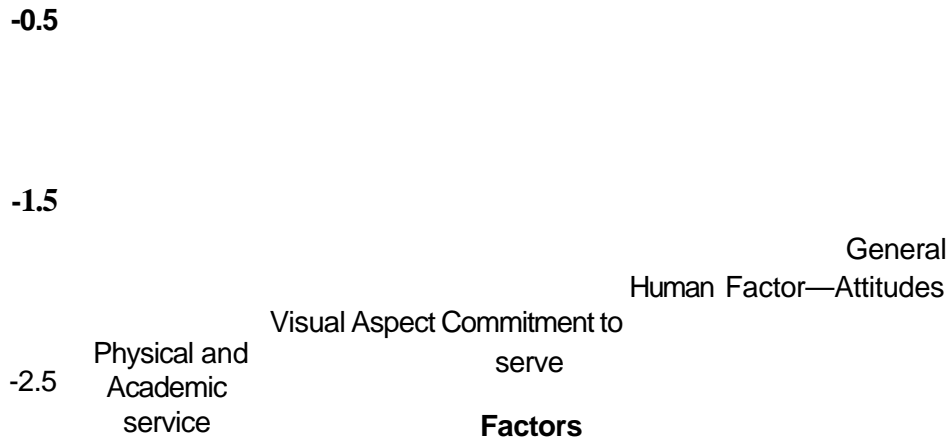
**Table 6.1 Areas requiring DUT's attention**

Physical and Academic Services
Commitment to Serve
Visual Aspects, (Human Factors)

**Table 6.2 OVERALL SERVQUAL INDEX**

Campus Factor	Overall Score
Physical and Academic Services	-2.21
Commitment to Serve	-2.02
Human Factors	-1.86
Visual Aspects	-2.06
General Attitudes	-1.63
<b>Overall SERVQUAL</b>	<b>-1.96</b>

**Figure 6.13 Overall SERVQUAL index**



### **6.5.1 Analysis of the Overall Physical and Academic Services Gap**

This was the highest recorded gap of the five factors. The overall average gap score for the factor Physical and Academic Services was -2.208. The biggest contributor (-3.15) to this difference between expectations and perceptions in this factor was the statement that *excellent universities need to have modern libraries with complete collections*. Another key contributor to this gap was the statement that *excellent universities have complete and modern laboratories* (-3.01). This indicates that DUT needs to provide complete and modern laboratories if the institution wants to gain a competitive advantage.

### **6.5.2 Analysis of the Overall Commitment To Serve Gap**

This factor was the third highest recorded gap. The overall average gap score for commitment to serve was found to be (-2.02). This implies that customers of DUT are not completely satisfied with the commitment to serve aspect of service quality.

The biggest contributor (-2.25) to this difference between expectations and perceptions in this factor was the statement that *excellent universities provide quick and prompt service*. This

indicates that the customers of DUT are not happy with this quality of service and DUT must put in place measures to counteract this problem.

The second biggest contributor (-2.10) to this difference in this factor was the statement that *excellent universities show interest in solving students' problems*. The students have indicated that they are not satisfied with the type of service they are receiving concerning staff showing interest in solving student queries. It is important for management of DUT to address this issue as students are one of the most important stakeholders to the institution.

### **6.5.3 Analysis of the Overall Human Factor Gap**

The overall gap score for the Human Factor was found to be (-1.85). This was the second lowest recorded gap score of the five factors. The highest statement gap score for this factor of service quality was (-2.33) and this was for the statement that *excellent universities provide accurate and timely information*.

The second biggest contributor (-1.79) to this difference between expectations and perceptions in this factor was the statement that *excellent universities apply discipline to everybody*. This would indicate that the customers of DUT do not feel that the discipline instituted by DUT is executed fairly.

### **6.5.4 Analysis of the Overall Visual Aspect Gap**

The overall gap score for Visual Aspects was found to be (2.0625). This was the second highest recorded gap score of the five factors. The biggest contributor (-2.92) to this gap was the statement of *excellent universities have modern looking equipment*. This implies that management of DUT needs to address the issue of having modern looking equipment.

The second biggest overall contributor (-2.62) in this factor was the *statement physical facilities of an excellent university are visually appealing*. Indicating that the customers of DUT do not find the physical facilities of the institution visually appealing. Management can

rectify this by ensuring that changes are made to ensure that the physical facilities are made visually appealing.

### 6.5.5 Analysis of the Overall General Attitudes Gap

The overall average gap score for general attitudes was found to be (-1.63). This was the lowest recorded gap score of the five factors. The highest statement gap score for this factor was (-1.85) for the statement *excellent universities have good admission-procedures to recruit qualified students*. This implies that DUT does not have good admission procedures to recruit qualified students. Management can ensure that policies and procedures are designed and implemented in order to rectify this issue of service quality.

The research undertaken by Awang (no date: 6) showed the following results regarding the gap scores. The first service quality factor, **Physical and Academic Services**, the gap analysis showed the largest gap was on the item *provide service at the promise time* and the smallest gap was on the item *the university has qualified lecturers* (Awang, no date:6).

The second factor, **Commitment to Serve**, the gap analysis showed the largest gap was on item *ready to help students* and the smallest gap was on the item *gives individual attention* (Awang, no date:6).

The third factor, **Human Factor**, the gap analysis showed the largest gap was on *harmonious relationship among staff and student* and the smallest disconfirmation gap was on the item *applies discipline to everybody* (Awang, no date:6).

The fourth factor, **Visual Aspect**, the gap analysis showed the largest gap was on *modern looking equipment* and the smallest gap was on *material associated with service* (Awang, no date:6).

The fifth factor, **General Attitudes**, the largest gap was on *good admission procedures* and the smallest gap was on *assess and evaluate students achievement* (Awang, no date:7).



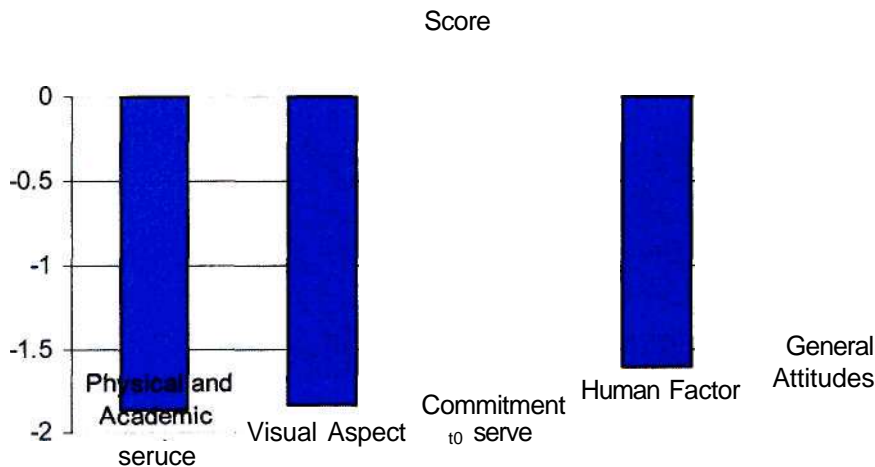
## 6.6 DISCUSSION ON THE GAP ANALYSIS CONDUCTED ON THE RIVERSIDE CAMPUS

When comparing customers' expectations of service quality in higher education to customer perceptions of DUT, Riverside Campus service quality, it is evident that gaps occur in all 5 of the service quality factors. It is these gaps that hamper the delivery of a quality service.

**Table 6.3 RIVERSIDE CAMPUS SERVQUAL INDEX**

Campus	Riverside
Factor	Score
Physical and Academic Services	-1.87
Commitment to Serve	-1.70
Human Factors	<b>-1.61</b>
Visual Aspects	-1.84
General Attitudes	-1.33
<b>Overall SERVQUAL</b>	<b>-1.67</b>

**Figure 6.14 RIVERSIDE CAMPUS SERVQUAL**



### 6.6.1 Physical and Academic Service on Riverside Campus

The average gap score for the physical and academic service factor on the Riverside Campus was -1.87. The major contributor for this factor was the statement *modern library with*

*complete collections* with a score of -2.83. This implies that staff and students are dissatisfied with the library resources found on the Riverside Campus.

The second major contributor to this factor was *complete and modern laboratories* with a score of -2.62. Management of DUT must address the inadequacies of complete and modern laboratories on Riverside Campus in order to satisfy customer expectations.

The lowest contributor to this factor was *qualified lecturers* with a score of -0.83. This is a positive sign for the lecturers on the Riverside Campus but management must continue to enforce specific academic requirements for lecturers in order to maintain service quality.

### **6.6.2 Commitment To Serve on Riverside Campus**

The overall average for this factor was -1.7, with the major contributing statement for *provide quick and prompt service* (-1.9). Management must train and motivate staff on the Riverside Campus to address queries promptly.

The second major contributing statement in this factor was *employees are never too busy to respond to requests* with a score of -1.81. This indicates that customers on the Riverside Campus are dissatisfied with employees not giving them immediate attention to queries.

The lowest contributor to this factor on the Riverside Campus was *gives individual attention* with a score of -1.6. Customers on the Riverside Campus want to receive individual attention from the employees of DUT.

### **6.6.3 Human Factors on Riverside Campus**

The overall average for this factor was -1.61. This factor had the second lowest gap score of all 5 factors on the Riverside Campus. The major contributing factor was the statement *provides accurate and timely information* with a score of -1.84. DUT need to implement a communication system that satisfies this requirement of not providing information accurately and timely to the customers.

The second major contributor to this factor was *applies discipline to everybody* with a score of -1.63. Customers of DUT are requiring a more impartial policy of discipline which is applicable to all.

The lowest contributor was *gives individual attention* with a score of -1.44. Although a gap does exist it is the more favourable statement in this factor for Riverside Campus.

#### **6.6.4 Visual Aspects on Riverside Campus**

This factor had the second highest gap score of -1.84. The major contributing statement was *DUT has modern looking equipment* with a gap score of -2.68. Management need to urgently address the appearance of all equipment on the Riverside Campus.

The second major contributor was *the physical facilities of DUT are visually appealing* with a score of -2.37. This indicates that the customers are dissatisfied with the appearance of all physical facilities on the Riverside Campus.

The lowest contributor was *employees are neat-appearing* with a score of -0.88. This is a positive result for the staff on the Riverside Campus and must continue to maintain a good dress code.

#### **6.6.5 General Attitudes on Riverside Campus**

This statement received the lowest gap score of -1.33. The major contributor to this statement was *DUT has good admission-procedures to recruit qualified students* with a score of -1.65.

*Employees of DUT treat students courteously* was the second major contributor with a gap score of -1.23. Management of DUT must stress to employees that students must always be treated courteously.

The lowest contributor to this factor was *lecturers of DUT assess and evaluate student's achievement objectively* with a score of -1.1. Lecturers must continue to maintain a positive perception regarding assessment and evaluation of student achievement.

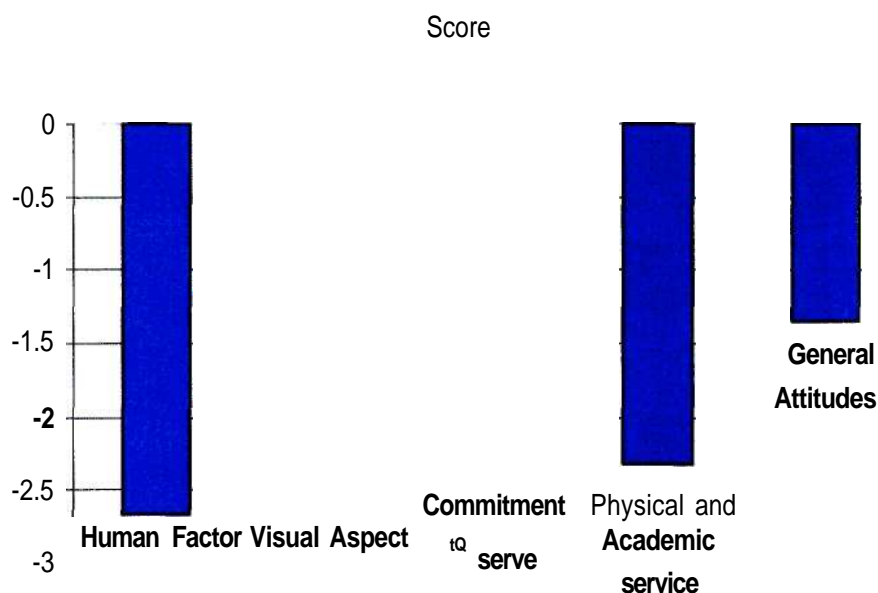
## 6.7 DISCUSSION ON THE GAP ANALYSIS CONDUCTED ON THE INDUMISO CAMPUS

The Riverside campus had the lower SERVQUAL indices than the Indumiso campus. The factors that needed attention are highlighted in the table below, except that in the case of Indumiso, the Human factor replaces the Physical and Academic Service factors. There are definite differences between the SERVQUAL indices across the Riverside and Indumiso campuses.

**Table 6.4 INDUMISO CAMPUS SERVQUAL INDEX**

<b>Campus</b>	<b>Indumiso</b>
<b>Factor</b>	<b>Score</b>
Physical and Academic Services	-2.38
Commitment to Serve	-2.42
Human Factors	-2.67
Visual Aspects	-2.61
General Attitudes	-1.34
Overall SERVQUAL	-2.27

**Figure 6.15 INDUMISO CAMPUS SERVQUAL**



### 6.7.1 Physical and Academic Service on Indumiso Campus

The Indumiso gap score (-2.327) was higher than the Riverside gap score of (-1.859) indicating that there is difference in the delivery of service quality concerning Physical and Academic services between the campuses. It is important for the management of DUT to address the problem of a huge disparity in the gap score of Physical and Academic Services.

The major contributor in this factor was *DUT provides students health care* with a score of -3.83. This score is attributed to the factor that there is no full-time sister on campus at Indumiso whereas there is a full-time sister of Riverside Campus.

The second major contributor to this factor was *DUT has a pleasant campus environment* with a score of -3.52. Management needs to create an atmosphere of a pleasant environment on the Indumiso Campus.

The lowest contributor to this factor was *DUT has complete and modern laboratories* with a score of 0.05. This is probably because new computers have been purchased for the computer laboratories on the Indumiso Campus.

### **6.7.2 Commitment To Serve on Indumiso Campus**

The overall average score for this factor was -2.42. The major contributor to this factor was *DUT shows interest in solving students' problems* with a score of -3.01. Management need to address employees on the Indumiso Campus regarding the improving of showing interest to all student problems.

The second major contributor was *employees of DUT are ready to help* with a score of -2.66. This indicates that customers of DUT on the Indumiso Campus do not feel that employees of DUT are ready to help.

The lowest contributor to this factor was *DUT gives individual attention* with a score of -2.01.

### **6.7.3 Human Factors on Indumiso Campus**

This factor was the highest gap score on the Indumiso campus (-2.67). The major contributor to this gap was *DUT provides accurate and timely information* with a score of -3.66. It is interesting to note that this difference was found to be as consistent on both the Riverside campus and Indumiso campus with scores of (-1.84) and (-3.66) respectively. This would indicate that management needs to address the problem of providing accurate and timely information to both Riverside and Indumiso campuses.

The second major contributor was *DUT applies discipline to everybody* with a gap score of -2.53. Customers on the Indumiso Campus are dissatisfied with DUT's effort in applying discipline to everybody impartially.

The lowest contributor was *DUT creates harmonious relationships among staff and students* with a score of -2.16.

#### **6.7.4 Visual Aspects on Indumiso Campus**

This factor received the second highest gap score of -2.60, indicating that the respondents are dissatisfied with the visual aspects of Indumiso Campus. The major contributor to this factor was *employees of DUT are neat-appearing* with a score of -3.31. This would mean that management would need to urgently address employees on the Indumiso campus regarding their dress code.

The second major contributor to this factor was *materials associated with the service of DUT are visually appealing* with a score of -3.02. Management of DUT need to ensure that all materials associated with service are visually appealing to customers.

The lowest contributor was *physical facilities of DUT are visually appealing* with a score of -1.97.

#### **6.7.5 General Attitudes on Indumiso Campus**

This factor received the lowest gap score of -1.34. The major contributor to this statement was *DUT has good admission procedures to recruit qualified students* with a score of -1.69.

The second major contributor was *employees of DUT treat students courteously* with a score of -1.23. Management cannot allow employees to treat students discourteously and must address this issue urgently.

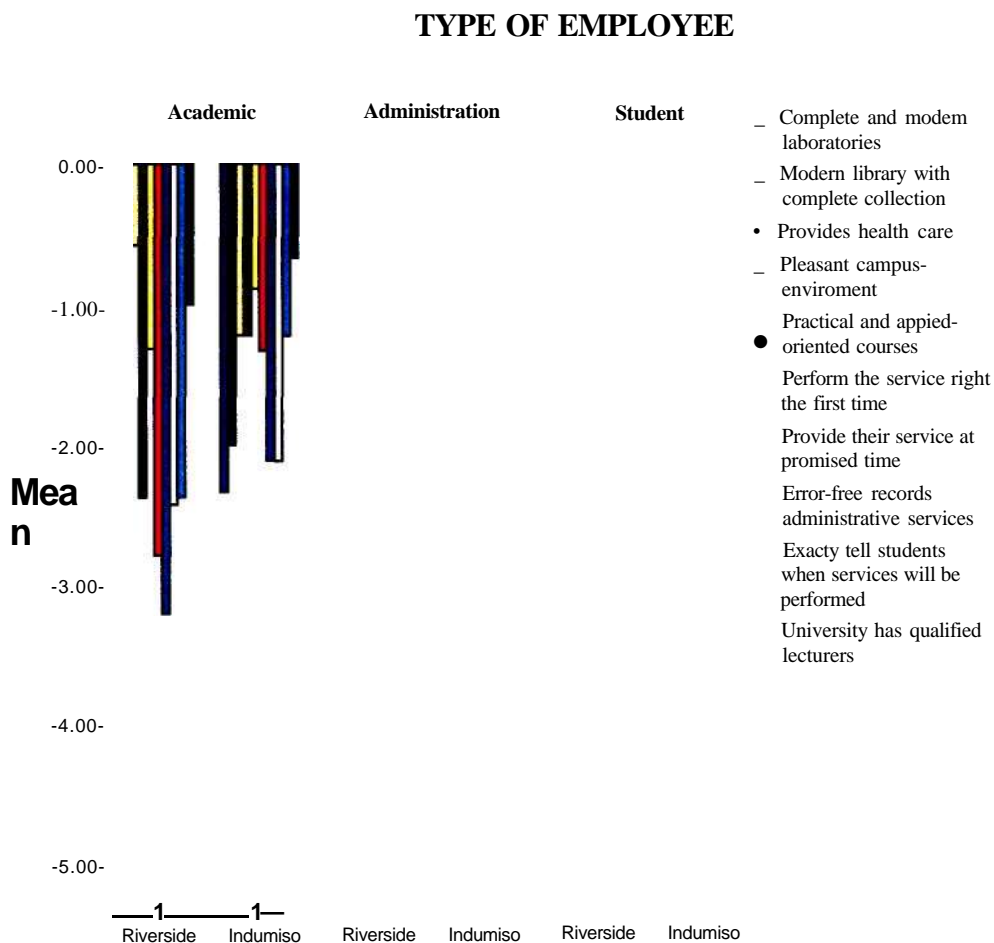
The lowest contributor was *lecturers of DUT assess and evaluate student's achievement objectively* with a score of -1.1. Lecturers on the Indumiso Campus must continue to maintain a good perception regarding objective assessment and evaluation.

## 6.8 DISCUSSION ON STAFF VERSUS STUDENTS REGARDING SERVICE QUALITY AT DUT

Results from the Mann-Whitney U test (Figure 5.60) clearly indicate that there is a significant difference between staff and students regarding service quality. The substantially large number of gaps which run across all factors are indicative of a considerable discrepancy between expectations and perceptions of the respondents.

### 6.8.1 Physical and Academic Services

**Figure 6.16: COMPARISON BETWEEN STAFF AND STUDENTS REGARDING PHYSICAL AND ACADEMIC SERVICES**

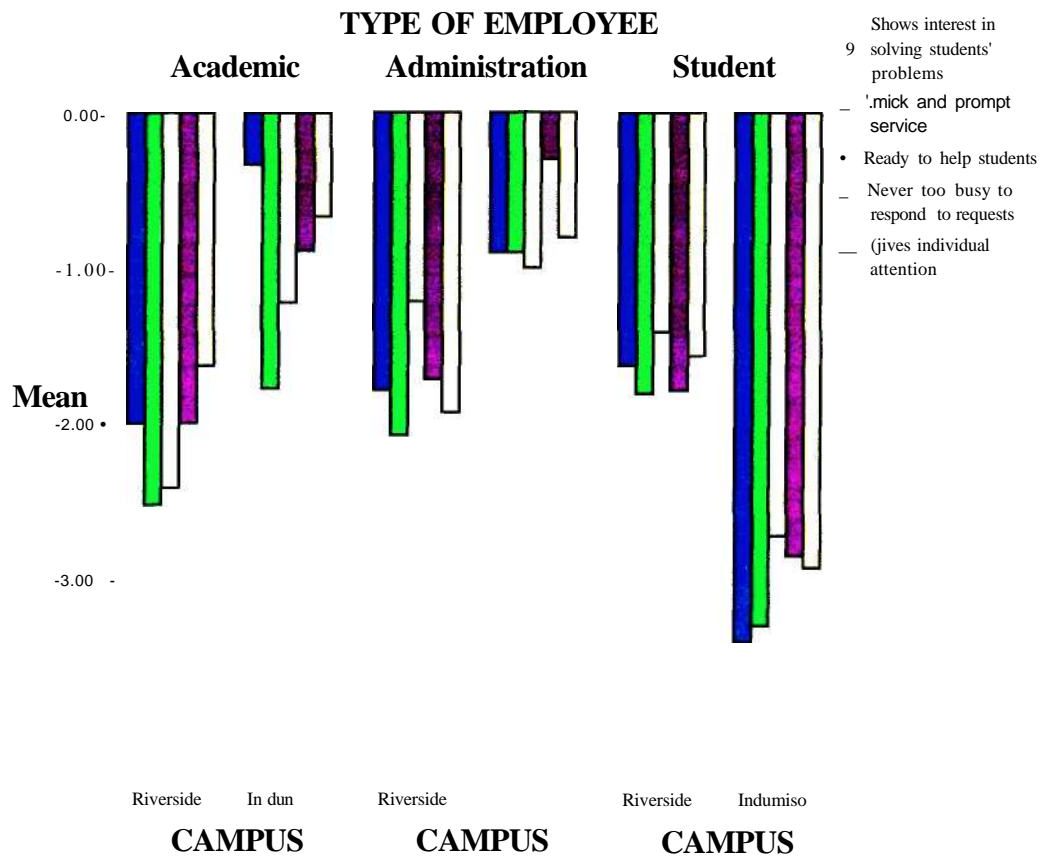




The Indumiso Campus gaps are greater amongst students, the opposite obtains within academic and administration staff i.e. the gaps for academic and administration staffs of Riverside campus are larger than those of their counterparts at Indumiso.

### 6.8.2 Commitment To Serve

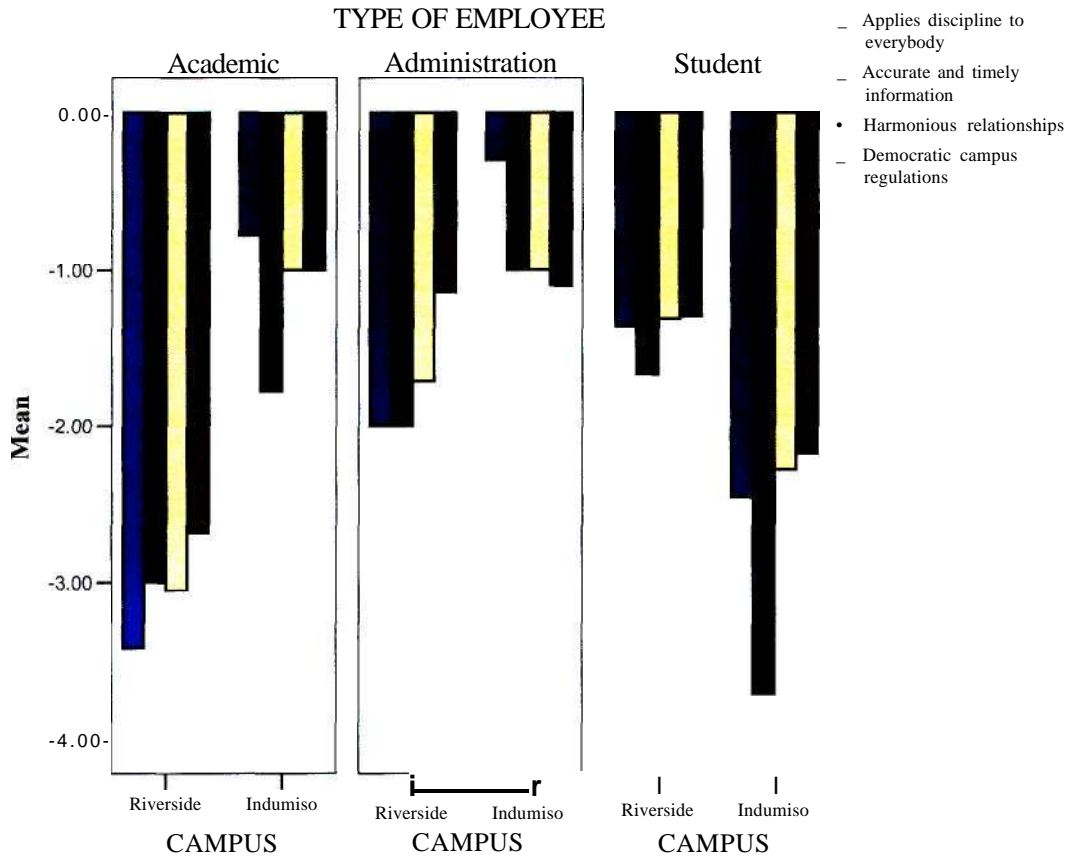
**Figure 6.17: COMPARISON BETWEEN STAFF AND STUDENTS REGARDING COMMITMENT TO SERVE**



The Gaps are wider for students at Indumiso campus than for students at Riverside campus but the Gaps are wider for academic and administration for Riverside campus than Indumiso campus.

### 6.8.3 Human Factors

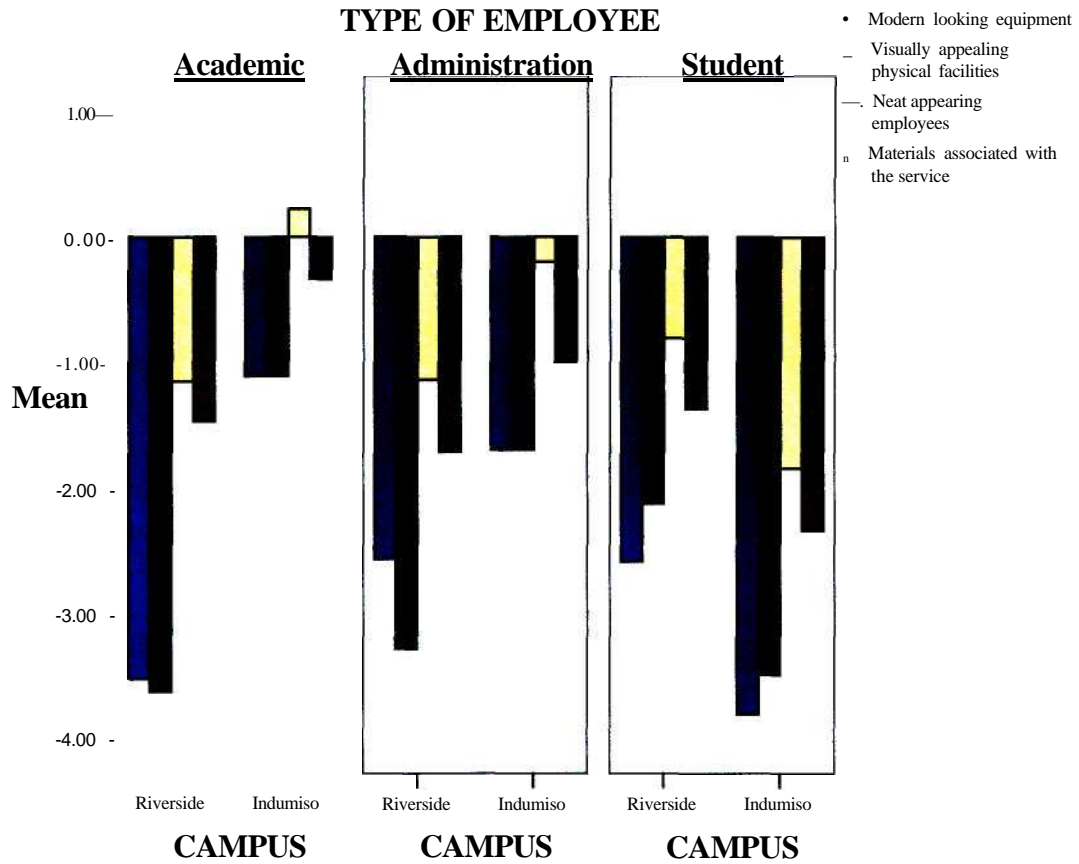
**Figure 6.18: COMPARISON BETWEEN STAFF AND STUDENTS REGARDING HUMAN FACTORS**



The Gaps of Indumiso students are wider than Riverside students whereas the Gaps of Riverside academic and administration staff are wider than the Indumiso Gaps.

### 6.8.4 Visual Aspects

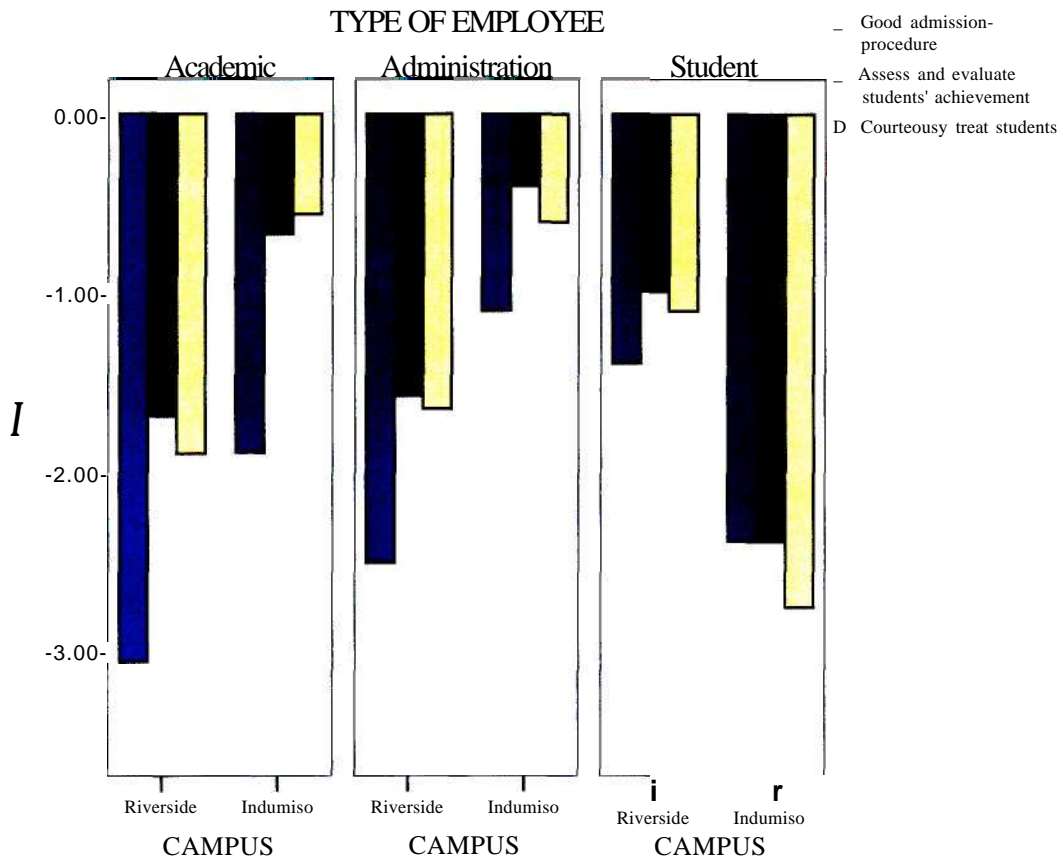
**Figure 6.19: COMPARISON BETWEEN STAFF AND STUDENTS REGARDING VISUAL ASPECTS**



Indumiso Gaps for students are wider than Riverside Gaps and Riverside Gaps for academic and administration are wider than Indumiso Gaps.

### 6.8.5 General Attitudes

**Figure 6.20: COMPARISON BETWEEN STAFF AND STUDENTS REGARDING GENERAL ATTITUDES**



Riverside Gaps for academic and administration are wider than Indumiso Gaps and Riverside student Gaps are wider than Indumiso Gaps.

### 6.9 CONCLUSION

This chapter elaborated on the data which was presented in Chapter 5, the following chapter will discuss recommendations that DUT can consider in order to reduce the service quality gap-

## **CHAPTER 7: RECOMMENDATIONS**

### **7.1 INTRODUCTION**

Timm (1990:19) states that an average company loses 20 % of its customers annually due to dissatisfaction. However, if the company is able to minimise the number of dissatisfied customers, it can increase its earnings considerably. The same applies to higher education. It is essential for student perceptions of service quality to be evaluated and managed by the university (du Toit, 2004:182).

According to Zeithaml and Bitner (2003:23), "The gaps model positions the key concepts, strategies and decisions in services marketing in a manner that begins with the customer and builds the organisation's tasks around what is needed to close the gap between customer expectations and perceptions."

The difference between the customer's expectations of the service and the service that they actually receive can either be negative or positive. Zeithaml and Bitner (2003:41) say that when the outcome of the service is negative, then the customer is said to feel dissatisfied with the service. However, when the outcome of the service is positive, the customer is said to feel satisfied. It is important that management of DUT pay special attention to those aspects of their service delivery that are contributing mostly to this gap.

This chapter addresses ways in which DUT can improve the delivery of service quality on the Pietermaritzburg campuses.

### **7.2 RECOMMENDATIONS FOR IMPROVING SERVICE DELIVERY**

It is vital that the management of DUT addresses all five of the service quality factors as they all were found to hinder the delivery of a quality service. All factors obtained negative scores between perceptions and expectations and the overall average of the gap score was found to be

-1.9551. Immediate attention must be given to Physical and Academic Services as this dimension was the major contributor of poor service quality with a gap score of -2.208.

Following is a discussion on recommendations.

### **7.2.1 Physical and Academic Services**

This factor was rated the worst in terms of the gap analysis with a score of (-2.208). It is important for DUT to apply their resources on reducing and ultimately closing this gap that impacts negatively on their service.

Zeithaml and Bitner (1996:115) argue that since customer satisfaction can be influenced by the image or reputation of an organization, it is important for the company to have visually appealing service materials and for the company to have appealing physical facilities. Management of DUT can address this by ensuring that the libraries are sufficiently stocked with the latest material and complete collections. Management must urgently address the perception of a lack of health care presence on the Indumiso campus.

Bebko (2000:17) say service providers need to manage customers' service quality expectations and they need to understand that tangibility levels include both service outcome and process. Considering that DUT customers are continuously visiting the place of service delivery, management must begin to invest substantially in revamping the physical facilities of the institution.

### **7.2.2 Commitment To Serve**

This factor received an overall gap score of (-2.020). Gronroos (1990:65) suggests that attitudes, behaviour, and skills of employees are factored into service quality assessments. According to Zeithaml *et al* (2006:366) to build a customer-oriented, service-minded workforce, an organization must (1) hire the right people, (2) develop people to deliver service quality, (3) provide the needed support system, and (4) retain the best people. In order for

DUT to be competitive in higher education, management needs to ensure they have the right people in the key positions.

Ivy (2001:198) suggests the use of quality circles in building quality into academia. Management of DUT could introduce quality circles as a tool to address the dimension on commitment to serve. Quality circles are, however, not an end in themselves but a means to achieving a greater end.

Quality circles, as defined by Hutchins (1985:5), is a small group of between three and twelve people who do the same or similar work voluntarily meeting together for about 1 hour per week in paid time, usually under the leadership or their own supervisor, and trained to identify, analyse and solve the problems in their work, presenting solutions to management and, where possible, implementing solutions themselves.

Quality circles offer important benefits to the institution (Hutchins, 1985:10), through:

- Improvement of staff morale and attitudes.

- Increased opportunity for member's growth and development.

- Staff sense some ownership and control of their work environment.

- Development of managerial ability of team members and leaders.

- Improved communication both horizontally and vertically within the institution.

- Increased interest in the job and job commitment.

- Greater understanding and respect between the senior management team and the staff.

- Increased job satisfaction.

It is important for management of DUT to consider the introduction of quality circles as it would assist in many areas of service delivery.

### 7.2.3 Human Factor

This factor received a gap score of (-1.855). DUT management can create harmonious relationships among staff and students campus by introducing open door meetings. Carrell *et al.*, (1997:18), suggest that a popular management practise and an excellent communication technique is the open-door policy. Usually at a specified time each week or month, a lecturer or administrator's door is open to any student who has a suggestion, question or complaint. If over time the lecturer or administrator makes students feel comfortable using this process and each action receives a follow- up investigation (often by the HR office), this technique can effectively open lines of communication between staff and students.

Management also needs to address the problem of providing accurate and timely information to all on campus. Although the most popular communication channel has been electronic mail this however does not seem to be the most effective.

Smit and Cronje (2000:77) state that at all organisational levels, at least 75 % of each workday consists of communication in some form. Communication is the life-blood that binds various elements and activities within the organisation and allows people to work together and produce effective results. Jones (1998:472) says to be effective communicators, managers and other members of an organisation need to select an appropriate communication technique for each message they send. There is no one best communication technique for managers to rely on. In choosing a communication technique for any message, managers need to consider three factors:

1. The most important is the level of information richness that is needed.
2. The time needed for communication, time is important to every member of the organization.
3. The need for a paper/ electronic trail or some kind of written documentation that a message was sent and received.



Management of DUT needs to take into account the above when choosing a communication technique.

#### **7.2.4 Visual Aspect**

This dimension had a negative score of (-2.063). According to Zeithaml and Bitner (1996:115) since customer satisfaction can be influenced by the image and reputation of an organization, it is important for the contact staff to be neat in appearance, the company to have visually appealing service materials and for the company to have appealing physical facilities.

Management needs to address the problem of equipment looking old and obsolete. This can be achieved by the relevant managers budgeting for the purchase of new and modern looking equipment in their respective officers.

There should also be a business dress-code or alternatively professional uniforms introduced for all employees of DUT who come in contact with the customers of DUT. All service materials such as pamphlets, brochures and statements should be outsourced to an independent desktop publisher to ensure that all service materials are visually appealing. Thompson and Strickland (2001:184) suggest an advantage of outsourcing is obtaining higher quality and/or cheaper components or services than internal sources can provide.

DUT should make all their service materials (pamphlets, brochures, business cards, etc.) more visually appealing. This can be done by the introduction of glossy paper, brighter colours and more visual imagery.

Middelton (1998:58) suggest that brand names reflect on the customer and give clues as to the quality of the product or service offering. DUT must consider the purchase of modern looking equipment for all areas delivering a service. An example would be to purchase flat screen computer monitors for all registration officers and reception areas. The installation of access control systems with the use of student cards would greatly enhance the image of modern looking equipment.

### 7.2.5 General Attitudes

This statement received the most favourable score of the five factors of -1.63. Gronroos (1990:65) suggests that the attitudes, behaviour, and skills of employees are factored into service quality assessments. Bitner *et al* (1990:80) also propose that the attitudes and behaviour of service personnel largely influence consumer perceptions of functional quality and that these perceptions are subsequently combined with customer evaluation of technical quality and the service environment to define service quality.

It is important that DUT motivate their staff and have training programmes that teach and enhance appropriate behaviour patterns as Bitner *et al* (1990:71) indicate that effective management of the service encounter involves understanding the complex behaviour of employees and can distinguish a highly satisfactory service encounter from a dissatisfactory encounter, and then training and motivating staff to follow these behaviour patterns.

Zeithaml and Bitner (1996:78) say that acknowledgement of and accommodating the needs of customers will be remembered as satisfying, from the customers' perspective. Employees of DUT must continuously treat students courteously.

### 7.3 ELEMENT OF DUT'S MARKETING STRATEGY

According to Zeithaml and Bitner (2003:23), one of the most basic concepts in marketing is the marketing mix, defined as the elements an organization controls that can be used to satisfy or communication with customers. The traditional marketing mix, as stated by Zeithaml and Bitner (2003:23), is composed of the four P's: product, price, place (distribution), and promotion. Zeithaml and Bitner (2003:24) in addition to the traditional four P's, the services marketing mix include *people*, *physical evidence*, and *process*. Management of these elements is essential to the successful marketing of services.

Recommendations in terms of the marketing mix:

### **7.3.1 Product**

The product offering can be modified in order to offer customers greater options of qualification to study at DUT, Pietermaritzburg Campus. Currently, the campus in Pietermaritzburg offers qualifications mainly within the Commerce faculty, and Education belonging to the Arts faculty and Civil Engineering belonging to the Engineering Science and Built Environment Faculty.

Currently there are potential students who have to go to Durban to study as not all the courses are offered on the Pietermaritzburg site.

### **7.3.2 People**

The DUT's people are its students and staff. The services offered by the DUT can best be described as high contact, people-based, professional services. Beuster (2000:99) say that the services rendered by the DUT are highly intangible and as a result students' perceptions of quality are frequently influenced by the actions of employees. Levels of customer satisfaction or dissatisfaction can be governed by the way in which employees deal with the specific needs and requests of customers.

It is also recommended that the DUT promotes internal marketing activities, through training programmes, especially for customer contact employees, "as the customers' evaluation on service quality will depend on the interaction taking place between customers and customer contact employees" (Kurtz and Clow, 1998:121).

Desimone *et al* (2002:195) says that the successful implementation of a suitable training program is crucial for the success of both the organization and its employees. DUT should and motivate the staff in the service contact areas to improve the levels of service being administered to their customers.

### **7.3.3 Processes**

DUT provides a service, which is performed rather than a product that is handed over. Services such as education, do not possess actual goods or products about which the consumer can make judgements relating to quality and value. Therefore, the customers perceptions play an integral part in their overall evaluation of the quality of service offered by DUT, as well as to their level of satisfaction or dissatisfaction with the services they received.

Porter and Millar (no date:paragraph 6) state that a company must use technology in order to try to perform their activities accurately and timeously and in a manner that allows them to gain a competitive advantage over their rivals. DUT needs to address the area of providing the examination results for all students timeously and accurately using the latest technology.

### **7.3.4 Promotion**

Perrault and McCarthy (2002:392) state that promotion is the communication of information between the seller and the potential buyer that helps influence attitudes and behaviour. Thus it is imperative that DUT review their promotional plans.

DUT urgently needs to attract learners to the Pietermaritzburg campuses. Students must choose the Pietermaritzburg campuses as first choice and not because they have been denied access at other tertiary institutions. DUT needs to promote and market themselves aggressively in order to gain a percentage of market share.

## **7.4 CONCLUSION**

Finally the researcher suggests that the management of DUT implement a Total Quality Management (TQM) system. TQM is a relatively new approach to quality improvement in South African higher education. While some suggest total quality management is a fad, (Lawler and Mohrman 1985:66), there are others who do not believe that "the novelty will wear off with the emergence of the next new management philosophy" (Arcaro 1995:75).

Some authors have indicated that higher education is not ready to implement a total quality management system (Chaston 1994:119). However, by doing nothing, the institution is likely to gain only limited success in improving the quality of the services it provides to higher educational institutions' customers.

Our customers, the students, the government, and the employers will have the final say. If students and staff expectations cannot be met by the institution, they may well choose to go elsewhere to be educated or to recruit new staff. The ramifications of declining enrolments and graduates in higher education institutions are considerable. The government as the major funder of higher education, is likely to demand greater accountability.

Management needs to have buy-in into the ideas and most importantly management of DUT need to support TQM and the other ideas. TQM needs to be filtered from the top-down.

In conclusion management of DUT must consider service quality management and services mix as there is plenty room for improvement. Due to the inseparable nature of the services offered by the DUT, it is of importance that all problems are rectified.

## **CHAPTER 8: LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH**

### **8.1 LIMITATIONS OF THE STUDY**

The limitations of this study are:

1. This study was restricted to the Pietermaritzburg campuses of DUT due to time constraints.
2. The researcher who is an employee of DUT was personally involved in data collection and this may have made the respondents feel uncomfortable to give an honest perspective about the service quality of the institution.
3. The study did not involve first year students and BTech students on the Pietermaritzburg campuses, as the first year students did not experience sufficient service delivery from the institution and BTech students are also students who have completed their National Diploma at other tertiary institutions.
4. The SERVQUAL questionnaire was prepared in English only and most of the students were English Second Language speakers, and this could have affected the interpretation of the questions.

## 8.2 RECOMMENDATIONS FOR FUTURE RESEARCH

Since the study was restricted to the Pietermaritzburg campuses future research should incorporate all campuses of the DUT.

The use of the term 'customer' is very sensitive since the industry of higher education in general has a number of stakeholders all of whom have different experience of the higher education institution. The stakeholders include: students, their parents and family, the local community, society, the government, council, staff, local authorities, suppliers, and, current and potential employers. In measuring service quality, the researcher focused on staff and students who are intimately involved in the service experience. However, such measurement should be taken in the wider context of quality perspectives of all other stakeholders.

Another suggestion is that future research should consider utilising the European Model developed by Gronroos (1982) as an alternative to SERVQUAL model developed by Parasuraman *et al* (1985, 1988). The Gronroos method might be appropriate in higher education industries since it incorporates the image of a service provider as well as functional quality and technical quality into the model.

Future research could also involve a comparison of the questionnaires designed by Awang and Parasuraman in terms of reliability and validity.

Further research undertaken at DUT could investigate the service delivery at residences at Indumiso campus compared with the service delivery at Durban campuses of DUT.

Finally future research could involve a longitudinal study of the delivery of quality service in higher education in Kwa-Zulu Natal and undertake a comparative analysis.

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# APPENDIX 1: SERVQUAL QUESTIONNAIRE

## QUESTIONNAIRE: SERVICE QUALITY

I am currently investigating the quality of service delivery at the Durban University of Technology, Pietermaritzburg campuses. Please can you take 15 minutes to complete the following questionnaire as best you can. All information will be treated with strict confidentiality. Your co-operation in this regard will be greatly appreciated.

### CONSENT FORM

I.....(full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE

Name of Researcher: Paul Green, MTech: Commercial Admin, PGDip: Mgt, HDE.

Institution: Durban University of Technology

Riverside Campus

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Name of Supervisor: Prof D Vigar-Ellis

Institution: University of KwaZulu-Natal

Pietermaritzburg Campus

Centre for Postgraduate Studies

Telephone: (033) 260 5899

E-mail: [vigard@ukzn.ac.za](mailto:vigard@ukzn.ac.za)

## EXPECTATIONS

This survey deals with staff and students opinions towards universities. Please show the extent to which you think universities should possess the following features. I am interested in the number that best shows your expectations about university services. Circle the appropriate number.

<b>Factor 1: Physical and Academic Service</b>													
1	An excellent university has complete and modern laboratories.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
2	An excellent university has modern library with complete collections.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
3	An excellent university provides students health care.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
4	An excellent university has a pleasant campus-environment.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
5	An excellent university provides practical and applied-oriented courses.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
6	An excellent university performs the service right the first time.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
7	An excellent university provides their service at the time they promise to do so.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
8	Administrative services of an excellent university will provide error-free records.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
9	Employees of an excellent university will tell students exactly when services will be performed.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
10	An excellent university has qualified lecturers.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
<b>Factor 2: Commitment to Serve</b>													
1	An excellent university shows interest in solving students' problems.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
2	Employees of an excellent university provide quick and prompt service.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
3	Employees of an excellent university are ready to help.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
4	Employees of an excellent university are never too busy to respond to requests.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
5	An excellent university gives individual attention.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
<b>Factor 3: Human Factor</b>													
1	An excellent university applies discipline to everybody.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
2	Excellent universities provide accurate and timely information.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
3	Excellent universities create harmonious relationships among staff and students.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
4	An excellent university develops democratic campus regulations.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
<b>Factor 4: Visual Aspect</b>													
1	An excellent university has modern looking equipment.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
2	The physical facilities of an excellent university are visually appealing.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
3	Employees at an excellent university are neat-appearing.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
4	Materials associated with the service (such as pamphlets or statements) of an excellent university will be visually appealing.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
<b>Factor 5: General Attitudes</b>													
1	Excellent universities have good admission-procedures to recruit qualified students.	Strongly disagree		2	3	4	5	6	7	Strongly agree			
2	Lecturers of excellent universities assess and evaluate student's achievement objectively	Strongly disagree		2	3	4	5	6	7	Strongly agree			
3	Employees of an excellent university treat students courteously.	Strongly disagree		2	3	4	5	6	7	Strongly agree			



## PERCEPTIONS

The following statements relate to your feelings about Durban University of Technology (DUT), Riverside or Indumiso campuses. Please show the extent to which you think DUT possess the following features. I am interested in the number that best shows your perceptions about DUT's services. Please circle the appropriate number.

Factor 1: Physical and Academic Service										
1	DUT has complete and modern laboratories.	Strongly disagree		2		4	5	6	7	Strongly agree
2	DUT has modern library with complete collections.	Strongly disagree		2		4	5	6	7	Strongly agree
3	DUT provides students health care.	Strongly disagree		2		4	5	6	7	Strongly agree
4	DUT has a pleasant campus-environment.	Strongly disagree		2		4	5	6	7	Strongly agree
5	DUT provides practical and applied-oriented courses.	Strongly disagree		2		4	5	6	7	Strongly agree
6	DUT performs the service right the first time.	Strongly disagree		2		4	5	6	7	Strongly agree
7	DUT provides their service at the time they promise to do so.	Strongly disagree		2		4	5	6	7	Strongly agree
8	Administrative services at DUT provide error-free records.	Strongly disagree		2	3	4	5	6	7	Strongly agree
9	Employees of DUT tell students exactly when services will be performed.	Strongly disagree		2	3	4	5	6	7	Strongly agree
10	DUT has qualified lecturers.	Strongly disagree		2		4	5	6	7	Strongly agree
Factor 2: Commitment to Serve										
1	DUT shows interest in solving students' problems.	Strongly disagree		2	3	4		6	7	Strongly agree
2	Employees of DUT provide quick and prompt service.	Strongly disagree		2	3	4	5	6	7	Strongly agree
3	Employees of DUT are ready to help.	Strongly disagree		2	3	4		6	7	Strongly agree
4	Employees of DUT are never too busy to respond to requests.	Strongly disagree		2	3	4		6	7	Strongly agree
5	DUT gives individual attention.	Strongly disagree		2	3	4	5	6	7	Strongly agree
Factor 3: Human Factor										
1	DUT applies discipline to everybody.	Strongly disagree		2	3	4	5	6	7	Strongly agree
2	DUT provides accurate and timely information.	Strongly disagree		2	3	4	5	6	7	Strongly agree
3	DUT creates harmonious relationships among staff and students.	Strongly disagree		2	3	4	5	6	7	Strongly agree
4	DUT develops democratic campus regulations.	Strongly disagree		2	3	4	5	6	7	Strongly agree
Factor 4: Visual Aspect										
1	DUT has modern looking equipment.	Strongly disagree		2	3	4	5	6	7	Strongly agree
2	The physical facilities of DUT are visually appealing.	Strongly disagree		2	3	4	5	6	7	Strongly agree
3	Employees at DUT are neat-appearing.	Strongly disagree		2	3	4	5	6	7	Strongly agree
4	Materials associated with the service (such as pamphlets or statements) of DUT are visually appealing.	Strongly disagree		2	3	4	5	6	7	Strongly agree
Factor 5: General Attitudes										
1	DUT has good admission-procedures to recruit qualified students.	Strongly disagree		2	3	4	5	6	7	Strongly agree
2	Lecturers of DUT assess and evaluate student's achievement objectively	Strongly disagree		2	3	4	5	6	7	Strongly agree
3	Employees of DUT treat students courteously.	Strongly disagree		2	3	4	5	6	7	Strongly agree

Demographics: Tick the appropriate box

1. Age

17-21	22-26	27-31	32-36	> 37
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2. Gender

Male	Female
------	--------

3. Race

White	Black	Asian	Coloured
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4. Campus

Riverside	Indumiso
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5. Year of Study

Second Year	Third Year
-------------	------------

6. Type of employee

Academic	Administration
----------	----------------

## APPENDIX 2: ETHICAL CLEARANCE



RESEARCH OFFICE (GOVAN MBEKI CENTRE)  
WESTVILLE CAMPUS  
TELEPHONE NO.: 031 - 2603587  
EMAIL : [ximbap@ukzn.acia](mailto:ximbap@ukzn.acia)

8 AUGUST 2006

**MR. PE GREEN (895146439)**  
**MANAGEMENT STUDIES**

Dear Mr. Green

**ETHICAL CLEARANCE APPROVAL NUMBER: HSS/06315A**

I wish to confirm that ethical clearance has been granted for the following project:

**"An investigation into the quality of service delivery at the Durban University of  
Technology Pietermaritzburg Campuses"**

Yours faithfully

**MS. PHUMELELE XIMBA**  
**RESEARCH OFFICE**

PS: The following general condition is applicable to all projects that have been granted ethical clearance:

THE RELEVANT AUTHORITIES SHOULD BE CONTACTED IN ORDER TO OBTAIN THE NECESSARY APPROVAL SHOULD THE RESEARCH INVOLVE UTILIZATION OF SPACE AND/OR FACILITIES AT OTHER INSTITUTIONS/ORGANISATIONS. WHERE QUESTIONNAIRES ARE USED IN THE PROJECT, THE RESEARCHER SHOULD ENSURE THAT THE QUESTIONNAIRE INCLUDES A SECTION AT THE END WHICH SHOULD BE COMPLETED BY THE PARTICIPANT (PRIOR TO THE COMPLETION OF THE QUESTIONNAIRE) INDICATING THAT HE/SHE WAS INFORMED OF THE NATURE AND PURPOSE OF THE PROJECT AND THAT THE INFORMATION GIVEN WILL BE KEPT CONFIDENTIAL.

cc. Faculty Office (Post-Graduate Studies)  
cc. Supervisor (Prof. D Vigar-Ellis)

### APPENDIX 3: COMBINED GAP ANALYSIS REPORT

	Overall			Riverside			Indumiso			
	Statement	Perceptions Mean	Expectations Mean	Difference/ Factor Score	Perceptions Mean	Expectations Mean	Difference/ Factor Score	Perceptions Mean	Expectations Mean	Difference/ Factor Score
ictor 1	1	3.25	6.26	-3.01	3.6	6.22	-2.62	6.39	6.34	0.05
	2	3.19	6.34	-3.15	3.39	6.22	-2.83	6.25	6.57	-0.32
	3	4.94	6.32	-1.38	5.34	6.24	-0.9	2.62	6.45	-3.83
	4	3.67	6.21	-2.54	3.94	6.15	-2.21	2.81	6.33	-3.52
	5	4.71	6.2	-1.49	4.88	6.13	-1.25	4.22	6.33	-2.11
	6	3.73	5.91	-2.18	3.96	5.82	-1.86	3.18	6.08	-2.9
	7	3.35	6.12	-2.77	3.59	6.09	-2.5	4.38	6.16	-1.78
	8	3.62	5.63	-2.01	3.89	5.62	-1.73	3.31	5.64	-2.33
	9	3.96	6.17	-2.21	4.37	6.23	-1.86	2.92	6.07	-3.15
	10	5.28	6.62	-1.34	5.85	6.68	-0.83	3.13	6.51	-3.38
ictor 2	1	4.03	6.13	-2.1	4.39	6.07	-1.68	3.22	6.23	-3.01
	2	3.95	6.2	-2.25	4.27	6.17	-1.9	4.23	6.26	-2.03
	3	4.35	6.17	-1.82	4.73	6.24	-1.51	3.38	6.04	-2.66
	4	3.88	5.89	-2.01	4.15	5.96	-1.81	3.36	5.77	-2.41
	5	3.81	5.73	-1.92	4.16	5.76	-1.6	3.65	5.66	-2.01
ictor 3	1	4.28	6.07	-1.79	4.54	6.17	-1.63	3.37	5.9	-2.53
	2	4.15	6.48	-2.33	4.45	6.29	-1.84	3.17	6.83	-3.66
	3	4.36	6.05	-1.69	4.57	6.1	-1.53	3.81	5.97	-2.16
	4	4.4	6.01	-1.61	4.62	6.06	-1.44	3.59	5.93	-2.34
ictor 4	1	3.12	6.04	-2.92	3.33	6.01	-2.68	3.96	6.08	-2.12
	2	3.27	5.89	-2.62	3.49	5.86	-2.37	3.98	5.95	-1.97
	3	4.97	6.05	-1.08	5.18	6.06	-0.88	2.74	6.05	-3.31
	4	4.41	6.04	-1.63	4.7	6.11	-1.41	2.88	5.9	-3.02
ictor 5	1	4.46	6.31	-1.85	4.68	6.33	-1.65	4.58	6.27	-1.69
	2	4.86	6.29	-1.43	5.13	6.23	-1.1	5.13	6.23	-1.1
	3	4.62	6.23	-1.61	4.99	6.22	-1.23	4.99	6.22	-1.23

APPENDIX 4: DESCRIPTIVE STATISTICS - INDUMISO CAMPUS

			N		Mean	Median	Mode	Std. Deviation	Variance	Range		
			Valid	Missing								
<b>Expectations</b>	Factor 1	1										
		2	Valid	Missing								
			3	99	0	6.34	7.00	7	1.506	2.269	6	
			4	99	0	6.57	7.00	7	1.061	1.126	6	
			5	99	0	6.45	7.00	7	1.136	1.291	6	
			6	99	0	6.33	7.00	7	1.221	1.490	6	
			7	99	0	6.33	7.00	7	1.169	1.367	6	
			8	99	0	6.08	7.00	7	1.455	2.116	6	
			9	99	0	6.16	7.00	7	1.510	2.280	6	
			10	99	0	5.64	6.00	7	1.723	2.968	6	
	Factor 2	1	99	0	6.07	7.00	7	1.409	1.985	6		
			2	99	0	6.51	7.00	7	1.248	1.559	6	
			3	99	0	6.23	7.00	7	1.384	1.915	6	
			4	99	0	6.26	7.00	7	1.314	1.726	6	
			5	99	0	6.04	7.00	7	1.545	2.386	6	
	Factor 3	1	99	0	5.77	6.00	7	1.531	2.343	6		
			2	99	0	5.66	6.00	7	1.630	2.656	6	
			3	99	0	5.90	7.00	7	1.607	2.582	6	
			4	99	0	6.83	7.00	7	6.160	37.940	65	
	Factor 4	1	99	0	5.97	6.00	7	1.432	2.050	6		
			2	99	0	5.93	6.00	7	1.430	2.046	6	
			3	99	0	6.08	7.00	7	1.510	2.279	6	
			4	99	0	5.95	7.00	7	1.402	1.967	6	
	Factor 5	1	99	0	6.05	7.00	7	1.240	1.538	6		
			2	99	0	5.90	6.00	7	1.403	1.969	6	
			3	99	0	6.27	7.00	7	1.211	1.466	6	
<b>Perceptions</b>	Factor 1	1	99	0	6.39	7.00	7	1.114	1.241	6		
				2	99	0	6.25	7.00	7	1.172	1.374	6
				3	99	0	2.62	1.00		1.978	3.912	6
				4	99	0	2.81	2.00		1.910	3.646	6
				5	99	0	4.22	4.00	4	1.866	3.481	6
				6	99	0	3.18	3.00		1.934	3.742	6
				7	99	0	4.38	5.00	5	1.783	3.178	6
				8	99	0	3.31	3.00		1.909	3.646	6
				9	99	0	2.92	3.00		2.044	4.177	6
				10	99	0	3.13	3.00		1.872	3.503	6
		Factor 2	1	99	0	3.22	3.00		1.914	3.664	6	
				2	99	0	4.23	4.00	4	2.059	4.241	6
				3	99	0	3.38	3.00		2.113	4.463	6
				4	99	0	3.36	3.00	1(a)	1.887	3.560	6
				5	99	0	3.65	4.00	4	1.897	3.598	6
		Factor 3	1	99	0	3.37	4.00		1.909	3.645	6	
				2	99	0	3.17	3.00		1.969	3.878	6
				3	99	0	3.81	4.00		2.093	4.381	6
				4	99	0	3.59	4.00		1.964	3.857	6
		Factor 4	1	99	0	3.96	4.00	5	1.932	3.733	6	
			2	99	0	3.98	4.00		2.065	4.265	6	
			3	99	0	2.74	2.00		1.993	3.971	6	
			4	99	0	2.88	3.00		1.875	3.516	6	
	Factor 5	1	99	0	4.58	5.00	7	2.011	4.043	6		
			2	99	0	3.89	4.00	5	1.994	3.977	6	

		3	99	0	4.06	4.00	1	2.123	4.506	6
	Age		99	0	4.37	5.00	5	1.925	3.706	6
	Gender		99	0	3.94	4.00	<b>Ka)</b>	2.094	4.384	6
	Race		99	0	2.35	2.00	2	1.343	1.802	4
	Campus		99	0	1.61	2.00	2	.491	.241	1
	Year of study		99	0	2.05	2.00	2	.437	.191	3
	Employment		99	0	2.00	2.00	2	.000	.000	0

**APPENDIX 5: RIVERSIDE CAMPUS: SERVQUAL**

The responses given by the respondents are as follows:

**Expectations**

FACTOR	QUESTION	Response
1	1	strongly disagree disagree mildly disagree neutral mildly agree agree strongly agree strongly disagree disagree mildly disagree neutral mildly agree agree strongly agree mildly disagree neutral mildly agree agree strongly agree strongly disagree mildly disagree neutral mildly agree agree strongly agree disagree mildly disagree neutral mildly agree agree strongly agree disagree mildly disagree neutral mildly agree agree strongly agree strongly disagree disagree

		mildly disagree	5
		neutral	12
		mildly agree	18
		agree	45
		strongly agree	96
	8	strongly disagree	3
		disagree	3
		mildly disagree	6
		neutral	30
		mildly agree	23
		agree	56
		strongly agree	60
	9	strongly disagree	1
		disagree	1
		mildly disagree	4
		neutral	10
		mildly agree	18
		agree	47
		strongly agree	100
	10	neutral	4
		mildly agree	16
		agree	14
		strongly agree	147
Factor 2	1	strongly disagree	2
		disagree	1
		mildly disagree	2
		neutral	12
		mildly agree	31
		agree	45
		strongly agree	88
	2	mildly disagree	3
		neutral	9
		mildly agree	26
		agree	59
		strongly agree	84
	3	disagree	1
		mildly disagree	2
		neutral	14
		mildly agree	17
		agree	49



		strongly agree	98
	4	strongly disagree	1
		disagree	5
		mildly disagree	1
		neutral	21
		mildly agree	22
		agree	46
		strongly agree	85
	5	strongly disagree	3
		disagree	3
		mildly disagree	3
		neutral	23
		mildly agree	37
		agree	36
		strongly agree	76
Factor 3	1	strongly disagree	2
		disagree	1
		mildly disagree	1
		neutral	13
		mildly agree	20
		agree	51
		strongly agree	93
	2	disagree	1
		mildly disagree	1
		neutral	9
		mildly agree	21
		agree	51
		strongly agree	98
	3	strongly disagree	1
		mildly disagree	3
		neutral	13
		mildly agree	28
		agree	50
		strongly agree	86
	4	strongly disagree	1
disagree		2	
neutral		23	
mildly agree		19	
agree		48	
strongly agree		88	
Factor 4	1	strongly disagree	5
		disagree	1
		mildly disagree	1
		neutral	18

		mildly agree	24
		agree	38
		strongly agree	94
	2	strongly disagree	2
		disagree	1
		mildly disagree	1
		neutral	23
		mildly agree	33
		agree	50
		strongly agree	71
	3	mildly disagree	7
		neutral	16
		mildly agree	28
		agree	39
		strongly agree	91
	4	strongly disagree	1
		mildly disagree	1
		neutral	17
		mildly agree	23
		agree	49
		strongly agree	89
Factor 5	1	mildly disagree	2
		neutral	12
		mildly agree	18
		agree	41
		strongly agree	108
	2	disagree	1
		mildly disagree	1
		neutral	14
		mildly agree	19
		agree	50
		strongly agree	96
	3	strongly disagree	1
		disagree	1
		mildly disagree	4
		neutral	13
		mildly agree	18
		agree	40
		strongly agree	104

The respondents have indicated high levels of service

## Perceptions

Factor	Question no.	Response	Frequency		
Factor 1	1 Needs attention	strongly disagree	34		
		disagree	22		
		mildly disagree	31		
		neutral	32		
		mildly agree	32		
		agree	17		
		strongly agree	13		
		2 Needs attention	2 Needs attention	strongly disagree	40
				disagree	29
mildly disagree	31				
neutral	28				
mildly agree	17				
agree	26				
strongly agree	10				
3 strength	3 strength			strongly disagree	6
				disagree	4
		mildly disagree	13		
		neutral	27		
		mildly agree	37		
		agree	38		
		strongly agree	56		
		4 Strength	4 Strength	strongly disagree	16
				disagree	27
mildly disagree	31				
neutral	35				
mildly agree	35				
agree	24				
strongly agree	13				
5 Strength	5 Strength			strongly disagree	4
				disagree	11
		mildly disagree	17		
		neutral	40		
		mildly agree	35		
		agree	46		
		strongly agree	28		
		6 Strength	6 Strength	strongly disagree	25
				disagree	18
mildly disagree	30				
neutral	37				
mildly agree	26				
agree	28				
strongly agree	17				
7 Needs attention	7 Needs attention			strongly disagree	38
				disagree	23
		mildly disagree	29		
		neutral	28		
		mildly agree	28		
		agree	18		
		strongly agree	17		
		8 Neutral	8 Neutral	strongly disagree	25
				disagree	19
mildly disagree	22				
neutral	49				
mildly agree	27				
agree	29				
strongly agree	10				
9	9			strongly disagree	23

		disagree	11
	Strength	mildly disagree	17
		neutral	41
		mildly agree	30
		agree	32
		strongly agree	27
	10	strongly disagree	4
	Strength	disagree	2
		mildly disagree	6
		neutral	20
		mildly agree	23
		agree	44
		strongly agree	82
Factor 2	1	strongly disagree	21
	Strength	disagree	7
		mildly disagree	29
		neutral	35
		mildly agree	29
		agree	33
		strongly agree	27
	2	strongly disagree	17
	Strength	disagree	15
		mildly disagree	28
		neutral	37
		mildly agree	31
		agree	33
		strongly agree	20
	3	strongly disagree	10
	Strength	disagree	11
		mildly disagree	22
		neutral	33
		mildly agree	33
		agree	42
		strongly agree	30
	4	strongly disagree	19
	Strength	disagree	21
		mildly disagree	22
		neutral	37
		mildly agree	31
		agree	35
		strongly agree	16
	5	strongly disagree	31
	Strength	disagree	9
		mildly disagree	20
		neutral	36
		mildly agree	30
		agree	35
		strongly agree	20
Factor 3	1	strongly disagree	22
	Strength	disagree	12
		mildly disagree	20
		neutral	33
		mildly agree	22
		agree	31
		strongly agree	41
	2	strongly disagree	13
	Strength	disagree	15
		mildly disagree	24
		neutral	37

		mildly agree	33
		agree	35
		strongly agree	24
	3	strongly disagree	14
	Strength	disagree	9
		mildly disagree	22
		neutral	41
		mildly agree	37
		agree	25
		strongly agree	33
	4	strongly disagree	11
	Strength	disagree	15
		mildly disagree	12
		neutral	45
		mildly agree	39
		agree	28
		strongly agree	31
Factor 4	1	strongly disagree	41
	Needs attention	disagree	29
		mildly disagree	29
		neutral	34
		mildly agree	18
		agree	20
		strongly agree	10
	2	strongly disagree	35
	Needs attention	disagree	32
		mildly disagree	22
		neutral	38
		mildly agree	25
		agree	14
		strongly agree	15
	3	strongly disagree	11
	Strength	disagree	2
		mildly disagree	17
		neutral	24
		mildly agree	35
		agree	43
		strongly agree	49
	4	strongly disagree	17
	Strength	disagree	11
		mildly disagree	11
		neutral	37
		mildly agree	34
		agree	36
		strongly agree	35
Factor 5	1	strongly disagree	17
	Strength	disagree	15
		mildly disagree	12
		neutral	35
		mildly agree	32
		agree	26
		strongly agree	44
	2	strongly disagree	6
	Strength	disagree	9
		mildly disagree	8
		neutral	31
		mildly agree	42
		agree	49
		strongly agree	36

	3	strongly disagree	7
	Strength	disagree	8
		mildly disagree	14
		neutral	35
		mildly agree	41
		agree	39
		strongly agree	37

APPENDIX 6: DESCRIPTIVE STATISTICS - RIVERSIDE CAMPUS

			N		Mean	Median	Mode	Std. Deviation	Variance	Range	
			Valid	Missing							
Expectations	Factor 1	1	181	0	6.22	7.00	7	1.263	1.595	6	
		2	181	0	6.22	7.00	7	1.235	1.526	6	
		3	180	1	6.24	7.00	7	1.055	1.113	4	
		4	181	0	6.15	7.00	7	1.123	1.261	6	
		5	181	0	6.13	6.00	7	1.061	1.127	5	
		6	181	0	5.82	6.00	7	1.274	1.624	5	
		7	181	0	6.09	7.00	7	1.298	1.686	6	
		8	181	0	5.62	6.00	7	1.403	1.969	6	
		9	181	0	6.23	7.00	7	1.120	1.254	6	
		10	181	0	6.68	7.00	7	.728	.530	3	
	Factor 2	1	181	0	6.07	6.00	7	1.179	1.389	6	
		2	181	0	6.17	6.00	7	.965	.932	4	
		3	181	0	6.24	7.00	7	1.040	1.082	5	
		4	181	0	5.96	6.00	7	1.301	1.693	6	
		5	181	0	5.76	6.00	7	1.384	1.915	6	
	Factor 3	1	181	0	6.17	7.00	7	1.143	1.306	6	
		2	181	0	6.29	7.00	7	.958	.917	5	
		3	181	0	6.10	6.00	7	1.096	1.201	6	
	Factor 4	4	181	0	6.06	6.00	7	1.191	1.419	6	
		1	181	0	6.01	7.00	7	1.374	1.889	6	
		2	181	0	5.86	6.00	7	1.219	1.486	6	
		3	181	0	6.06	7.00	7	1.168	1.364	4	
	Factor 5	4	181	0	6.11	6.00	7	1.125	1.266	6	
		1	181	0	6.33	7.00	7	.978	.956	4	
		2	181	0	6.23	7.00	7	1.017	1.035	5	
		3	181	0	6.22	7.00	7	1.161	1.348	6	
Perceptions	Factor 1	1	181	0	3.60	4.00	1	1.846	3.408	6	
		2	181	0	3.39	3.00	1	1.902	3.617	6	
		3	181	0	5.34	6.00	7	1.585	2.514	6	
		4	181	0	3.94	4.00	4(a)	1.716	2.946	6	
		5	181	0	4.88	5.00	6	1.539	2.370	6	
		6	181	0	3.96	4.00	4	1.852	3.431	6	
		7	181	0	3.59	4.00	1	1.952	3.810	6	
		8	181	0	3.89	4.00	4	1.754	3.077	6	
		9	181	0	4.37	4.00	4	1.892	3.579	6	
		10	181	0	5.85	6.00	7	1.428	2.039	6	
		Factor 2	1	181	0	4.39	4.00	4	1.860	3.461	6
			2	181	0	4.27	4.00	4	1.781	3.174	6
			3	181	0	4.73	5.00	6	1.715	2.940	6
			4	181	0	4.15	4.00	4	1.807	3.265	6
			5	181	0	4.16	4.00	4	1.944	3.780	6
		Factor 3	1	181	0	4.54	5.00	7	2.012	4.050	6
			2	181	0	4.45	5.00	4	1.753	3.071	6
			3	181	0	4.57	5.00	4	1.761	3.101	6
			4	181	0	4.62	5.00	4	1.717	2.947	6
			1	181	0	3.33	3.00	1	1.856	3.443	6
	Factor 4	2	181	0	3.49	4.00	4	1.876	3.518	6	
		3	181	0	5.18	6.00	7	1.698	2.883	6	
		4	181	0	4.70	5.00	4	1.844	3.399	6	
	Factor 5	1	181	0	4.68	5.00	7	1.934	3.741	6	
		2	181	0	5.13	5.00	6	1.546	2.389	6	
		3	181	0	4.99	5.00	5	1.602	2.567	6	

	Age	181	0	1.92	1.00	1	1.242	1.543	4
	Gender	181	0	1.59	2.00	2	.494	.244	1
	Race	181	0	2.09	2.00	2	.520	.270	3
	Campus	181	0	1.00	1.00	1	.000	.000	0
	Year of study	147	34	2.33	2.00	2	.473	.224	1
	Employment	34	147	1.44	1.00	1	.504	.254	1



APPENDIX 7: INDUMISO CAMPUS: SERVQUAL

Expectations

Factor	Question no.	Response	Frequency
Factor 1	1	strongly disagree	5
		mildly disagree	1
		neutral	5
		mildly agree	4
		agree	8
	2	strongly agree	76
		strongly disagree	2
		mildly disagree	1
		mildly agree	7
		agree	13
	3	strongly agree	76
		strongly disagree	1
		disagree	1
		mildly disagree	1
		neutral	4
	4	mildly agree	8
		agree	11
		strongly agree	73
		strongly disagree	3
		neutral	3
5	mildly agree	8	
	agree	23	
	strongly agree	62	
	strongly disagree	2	
	disagree	1	
6	neutral	3	
	mildly agree	7	
	agree	26	
	strongly agree	60	
	strongly disagree	4	
7	mildly disagree	2	
	neutral	5	
	mildly agree	13	
	agree	18	
	strongly agree	57	
8	strongly disagree	3	
	disagree	2	
	mildly disagree	3	
	neutral	4	
	mildly agree	10	
	agree	11	
	strongly agree	66	
	strongly disagree	6	
	disagree	1	
	mildly disagree	5	
	neutral	9	
	mildly agree	13	
	agree	21	
		strongly agree	44

	9	strongly disagree	3
		disagree	1
		mildly disagree	3
		neutral	2
		mildly agree	15
		agree	21
		strongly agree	54
	10	strongly disagree	2
		disagree	1
		mildly disagree	2
		neutral	3
		mildly agree	3
		agree	9
		strongly agree	79
Factor 2	1	strongly disagree	3
		disagree	1
		mildly disagree	2
		neutral	4
		mildly agree	6
		agree	21
		strongly agree	62
	2	strongly disagree	3
		disagree	1
		mildly disagree	1
		neutral	2
		mildly agree	8
		agree	24
		strongly agree	60
	3	strongly disagree	5
		disagree	1
		mildly disagree	2
		neutral	4
		mildly agree	6
		agree	28
		strongly agree	53
	4	strongly disagree	3
		disagree	1
		mildly disagree	6
		neutral	6
		mildly agree	20
		agree	17
		strongly agree	46
	5	strongly disagree	5
		disagree	2
		mildly disagree	2
		neutral	9
		mildly agree	19
		agree	20
		strongly agree	42
Factor 3	1	strongly disagree	5
		mildly disagree	3
		neutral	8
		mildly agree	15
		agree	13

		strongly agree	55
	2	strongly disagree	4
		mildly disagree	1
		neutral	3
		mildly agree	7
		agree	25
		strongly agree	58
		66	1
	3	strongly disagree	4
		disagree	1
		mildly disagree	2
		neutral	2
		mildly agree	14
		agree	31
		strongly agree	45
	4	strongly disagree	2
		disagree	2
		mildly disagree	2
		neutral	10
		mildly agree	12
		agree	22
		strongly agree	49
Factor 4	1	strongly disagree	4
		disagree	1
		mildly disagree	3
		neutral	4
		mildly agree	8
		agree	22
		strongly agree	57
	2	strongly disagree	2
		disagree	1
		mildly disagree	2
		neutral	11
		mildly agree	14
		agree	18
		strongly agree	51
	3	strongly disagree	1
		mildly disagree	3
		neutral	8
		mildly agree	16
		agree	20
		strongly agree	51
	4	strongly disagree	2
		disagree	2
		mildly disagree	2
		neutral	9
		mildly agree	13
		agree	26
		strongly agree	45
Factor 5	1	strongly disagree	3
		neutral	2
		mildly agree	11
		agree	26
		strongly agree	57

	2	strongly disagree	2
		neutral	3
		mildly agree	10
		agree	19
		strongly agree	65
	3	strongly disagree	2
		neutral	7
		mildly agree	7
		agree	27
		strongly agree	56

## Perceptions

Factor	Question no.	Response	Frequency
Factor 1	1 Need attention	strongly disagree	50
		disagree	7
		mildly disagree	10
		neutral	13
		mildly agree	7
		agree	6
		strongly agree	6
	2 Need attention	strongly disagree	41
		disagree	10
		mildly disagree	11
		neutral	17
		mildly agree	9
		agree	6
		strongly agree	5
	3 Strength	strongly disagree	13
		disagree	4
		mildly disagree	16
		neutral	22
		mildly agree	18
		agree	11
		strongly agree	15
4 Need attention	strongly disagree	<b>11</b>	
	disagree	18	
	mildly disagree	10	
	neutral	21	
	mildly agree	8	
	agree	7	
	strongly agree	8	
5 Strength	strongly disagree	10	
	disagree	6	
	mildly disagree	12	
	neutral	19	
	mildly agree	26	
	agree	12	
	strongly agree	14	
6 Need attention	strongly disagree	26	
	disagree	13	
	mildly disagree	12	
		neutral	21

		mildly agree	14
		agree	5
		strongly agree	8
	7	strongly disagree	42
	Need attention	disagree	7
		mildly disagree	12
		neutral	15
		mildly agree	10
		agree	4
		strongly agree	9
	8	strongly disagree	27
		disagree	17
	Need attention	mildly disagree	13
		neutral	19
		mildly agree	11
		agree	5
		strongly agree	7
	9	strongly disagree	27
	Need attention	disagree	14
		mildly disagree	15
		neutral	16
		mildly agree	16
		agree	2
		strongly agree	9
	10	strongly disagree	20
	Strength	disagree	2
		mildly disagree	7
		neutral	25
		mildly agree	13
		agree	15
		strongly agree	17
Factor 2	1	strongly disagree	29
	Need attention	disagree	12
		mildly disagree	13
		neutral	14
		mildly agree	12
		agree	6
		strongly agree	13
	2	strongly disagree	23
	Need attention	disagree	14
		mildly disagree	14
		neutral	23
		mildly agree	11
		agree	5
		strongly agree	9
	3	strongly disagree	21
	Need attention	disagree	6
		mildly disagree	19
		neutral	22
		mildly agree	12
		agree	10
		strongly agree	9
	4	strongly disagree	26
	Need attention	disagree	12

		mildly disagree	9
		neutral	23
		mildly agree	17
		agree	4
		strongly agree	8
	5	strongly disagree	33
	Need attention	disagree	9
		mildly disagree	9
		neutral	26
		mildly agree	9
		agree	4
		strongly agree	9
Factor 3	1	strongly disagree	21
	Need attention	disagree	11
		mildly disagree	11
		neutral	20
		mildly agree	10
		agree	11
		strongly agree	15
	2	strongly disagree	25
	Need attention	disagree	8
		mildly disagree	TO
		neutral	21
		mildly agree	19
		agree	7
		strongly agree	9
	3	strongly disagree	16
	Strength	disagree	9
		mildly disagree	15
		neutral	17
		mildly agree	19
		agree	11
		strongly agree	12
	4	strongly disagree	21
	Strength	disagree	7
		mildly disagree	9
		neutral	19
		mildly agree	15
		agree	15
		strongly agree	13
Factor 4	1	strongly disagree	43
	Need attention	disagree	12
		mildly disagree	14
		neutral	9
		mildly agree	7
		agree	7
		strongly agree	7
	2	strongly disagree	34
	Need attention	disagree	15
		mildly disagree	18
		neutral	10
		mildly agree	11
		agree	5
		strongly agree	6

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