

STUDENTS' EXPECTATIONS AND PERCEPTIONS OF THE SPORT OFFERING
AT THE DURBAN UNIVERSITY OF TECHNOLOGY

By

Magalingam A Pillay

(National Diploma: Marketing; B. Tech: Management)

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Marketing, Retail and Public Relations,
Durban University of Technology

Miss D. Veerasamy

Supervisor

Dr J. P. Govender

Co-supervisor

DECLARATION

I, Magalingam Atheesesheyah Pillay, hereby declare that the work in this dissertation represents my own work and findings except where indicated, and that all references, to the best of my knowledge, are accurately reported.

Magalingam A Pillay

Date

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Abstract

The aim of this study was to investigate customer service quality at DUT. The objectives were: to identify students' expectations of service quality in sport at the DUT; to determine students' perceptions of the service quality in sport at DUT; to determine the gap between expectations and perceptions; and to analyse the relationship between selected biographical characteristics and expectations and perceptions of students, using a questionnaire developed from the SERVQUAL instrument. A total of 400 students have completed the survey during the period May 2010 to June 2010.

Data were analysed using descriptive and inferential statistical techniques. Several service quality dimensions were identified and as expected, students' experiences of service delivery fell short of their expectations particularly for the dimension. All the service quality dimensions in the students' surveys of sport at the DUT contain negative mean gap scores. From these findings the Sports department at the DUT can identify more specifically the failures in its service quality and seek to improve upon them. Service quality dimensions that are deemed to be good predictors of service quality for students of the DUT sport offering have been related to factors such as the "Tangibility", "Reliability", "Responsiveness", "Assurance" and "Empathy. It can be observed that all these dimensions have highly negative mean gap scores.

Consequently, the Durban University of Technology will have to address these dimensions more precisely in its attempt to improve its service quality, especially the "Reliability" Dimension, which has emerged as the most important service quality predictor.

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CHAPTER ONE

1.1 INTRODUCTION

The Durban University of Technology (DUT), formed by the merger of Technikon Natal and ML Sultan Technikon, is a vibrant multi-campus tertiary institution (DUT Homepage, 2010). Prior to the merger, Technikon Natal had a proud history of producing top sports men and women. The most notable names that became national competitors in recent times are: Shaun Pollock and Lance Klusener, in cricket, Warren Britz, in rugby, and Sibisiso Hlongwane, in soccer, amongst the many sports achievers.

DUT sport is affiliated to University Sports South Africa (USSA) which is recognised as the official national co-ordinating umbrella sports structure for the regulation and organisation of all university sports activities in South Africa. DUT's operating budget averaged R5m over the last three years. USSA, in association with the Federation of International Student Union (FISU), is also responsible for the preparation and delivery of teams that participate in individual FISU World University Championship events (USSA Homepage, 2008).

DUT is home to approximately 21 000 students studying full-time and part-time in various programmes across six campuses in Kwazulu-Natal. The sports bureau, situated in the Fred Crookes Sports Centre, houses a variety of sport and is widely recognised as having some of the finest sporting facilities and offers eighteen codes of sport (DUT Homepage, 2010).

The sports department provides for all levels of competition, from purely social programmes through to high-performance sport. The DUT provides a range of pathways for people to fulfill their sporting potential, varying from lunchtime social recreation or right to international competition. Each year, teams are selected to participate in national tournaments. Individual costs are partly subsidised by the Sports Bureau (DUT Sports Page, 2008).

Since the merger, the university has generally been a strong competitor in

basketball, hockey, netball, soccer and volleyball. This was evident at club and USSA tournaments (See Table 1.1). DUT's recent achievements include:

Table 1.1 DUT: Club Achievements

Hockey league (Women)	Winners (2008)
Hockey league (Men)	Runners-up (2008)
Volleyball USSA (Women)	Runners-up (2008)
Volleyball USSA (Men)	4 th Place

Source: DUT Conduit, 2008.

As evidenced from Table 1.1, Hockey for both women and men remained strong codes while volleyball had average performances over the years is now a strong competitor at USSA level.

1.2 RESEARCH PROBLEM

University sport has been at the fore-front of university life for many decades. With the advent of competitive student sport at SASSU level, many students have progressed up the development continuum at club and provincial level to become national competitors. Although the DUT remains a strong competitor in major sport codes, there is a general decline in student physical activity, as evidenced by:

- ✚ Low participation rate by students in competitive sport;
- ✚ The number of sport codes reduced from twenty four in 2000 to fourteen in 2008; and
- ✚ Low usage of facilities for recreational purposes.

The DUT had a proud record of achievement both in the KwaZulu-Natal leagues and at national student tournaments. However, by comparison, other leading universities of technologies [UOTs] and the state of the art facilities on offer, the DUT lags behind in student participation levels and lack of facilities improvement or upgrade. The two most traditional sports codes; namely cricket and rugby have now been reduced to social codes. During the researcher's tenure at the sports bureau [1989-2002], the above-mentioned codes, together with basketball, football and hockey, were popular and generated national media exposure and contributed towards the

marketing of Technikon Natal. Athletics, netball and volleyball are the only sport codes that remain competitive at all levels. In addition, the Fred Crookes indoor centre is not used to its optimum i.e. there is a general lack of student participation in “lunch hour” leagues. However, there is a limited understanding of factors influencing student participation.

According to Lagrosen and Lagrosen (2007:41), the sport and fitness industry has received little research attention from a service quality perspective. Knowledge of service quality assessments made by students or members of the sport organisation at the DUT will enable managers to track their members’ perceptions over time and to direct resources in areas which are important to them. If an organisation does not do market research on the topic of market expectations, it may fail in providing customer requirements (Zeithaml, Bitner and Gremler, 2006:141).

The aim of this study is to investigate the students’ expectations and perceptions of sport offering at the Durban University of Technology.

1.3 RESEARCH OBJECTIVES

1.3.1 Main objective

The main objective of the study is to investigate the students’ expectations and perceptions of the sport offering at the Durban University of Technology.

1.3.2 Sub-objectives

The sub-objectives of the study are:

- To identify students’ expectations of service quality in sport at the DUT;
- To determine students’ perceptions of the service quality in sport at DUT;
- To determine the gap between expectations and perceptions; and
- To analyse the relationship between selected biographical characteristics and expectations and perceptions of students.

1.4 RATIONALE FOR THE STUDY

The findings of this study may contribute towards the improvement of the quality of service such as better communication systems, people-centered staff, etc. delivered to DUT students. This study could identify existing problems, ensure sustainability and induce long-term success within DUT sport. Identifying gaps and filling the gaps may enhance the marketing of sport at DUT. The research could increase awareness among managers with regard to the opportunities and advantages of finding the gaps between the actual and perceived services rendered to students. This increase in awareness could improve the image of the DUT.

1.5 SCOPE OF THE STUDY/DELIMITATIONS

Since the researcher is employed at the institution, this study will be limited to the DUT. Therefore, findings cannot be generalised to other institutions.

1.6 RESEARCH METHODOLOGY

This section explains the research methodology, standards and techniques that will be applied to obtain representative data from a sample of the student population within the DUT. It will then discuss the software that will be used to analyse the data and the reliability and validity of the final results.

1.6.1 Research type

The research will be descriptive, quantitative and cross-sectional in nature and aims to provide a holistic perspective to analyse the students' expectations and perceptions of the sport offering at the DUT.

1.6.2 Target population

The sampling population is defined as all students of the DUT. The reason for choosing this sample population is that these individuals are referred to as the primary users of the sport facilities at DUT.

1.6.3 Sampling technique

In this study, non-probability, quota sampling will be used. Questionnaires will be distributed to 400 students because this sample size is believed to be large enough for the study and is justified by Sekaran and Bougie (2010:277). Table 1.2 provides a breakdown of sample size per Faculty.

Table 1.2 Quota Sample

<i>Faculty</i>	<i>Population Size</i>	<i>Sample Size</i>
Accounting & Informatics	5040	96
Applied Science	1426	32
Arts & Design	2609	48
Engineering & Built Environment	4462	84
Health Sciences	1915	36
Management Sciences	5496	104
Total	20948	400

1.6.4 Collection method

Data will be collected through the use of questionnaires. Field workers will be used to administer the questionnaires. They will be trained to conduct the process.

1.6.5 Data analysis

The data will be analysed using the SPSS statistical package (version 14) and the necessary statistical tests will be conducted.

1.6.6 Questionnaire design

1.6.6.1 Validity

According to Welman et al. (2005:9), validity is considered as being more important because the objective of the study must be representative of what the researcher is investigating.

The researcher will take the following actions to address validity:

- The development of the questionnaire will be based on the SERVQUAL measurement instrument which has been extensively used and validated in other studies; and
- The questionnaire will be subjected to a pilot group that has characteristics similar to those of the target group.

1.6.6.2 Reliability

Sekaran and Bougie (2010:161) state that the reliability of a measure indicates the extent to which it is without bias (error-free) and, hence, ensures consistent measurement across time and across the various items in the instruments. Cronbach alpha will be calculated to measure the reliability of the measurement.

1.7 Chapter outline

Chapter One: Introduction

This chapter introduces the study and provides an overview of the research problem, the research objectives, the rationale behind the study and the research methodology.

Chapter Two: Literature Review

Chapter two will survey the literature surrounding the service quality on sport.

Chapter Three: Research Methodology

Chapter three examines the research methods employed to conduct this research study. It discusses the nature of the study, the survey method and the research instrument employed.

Chapter Four: Results and Discussions

Chapter four provides the findings of the study and conducts an analysis based on these findings.

Chapter Five: Conclusions and Recommendations

Chapter five draws conclusions based on the findings and thereafter proposes recommendations.

1.8 Conclusion

This chapter presented a description of the concepts to be used in the study. Firstly, a statement of the problem and sub-problems together with importance and scope of the study was formulated. Secondly, a review of the related literature was presented. Finally, a description of the methodology of the research and the study plan concluded the chapter. In Chapter Two, the theoretical aspects of service quality in sport at DUT will be discussed.

CHAPTER TWO

AN OVERVIEW OF CUSTOMER SERVICE QUALITY

2.1 Introduction

Chapter 1 described the target and scope of this study and identified the problem statement, the objectives and research methodology for the study. In this chapter, different perspectives of expectations, perceptions and service quality are presented. In order to improve the service offering at DUT, a clear understanding of its nature and what it actually means will be required. It is necessary to understand consumer expectations and perceptions of service quality, the external and internal factors of the service delivery system, and the role of effective communication in the service process. This chapter also explains the 'Gaps model', which is the basis of the measurement of service quality as an academic framework, and a precondition for the SERVQUAL model. After discussing service quality, effective communication as a main factor in the service delivery system is discussed.

2.2 A brief history of sport

According to Ryningen (2010:1), humanity's desire to play has been expressed in every society in every age. The history of sport is a fascinating account of the games people play. Games, in all their forms, have been played in virtually every society since the beginning of human kind. Sport might appear more evidently in our lives today, but that is simply because we possess greater leisure time and the technology to allow us greater opportunity to watch or participate in sports and sports events, and might not intrinsically, be more a part of us now than it ever was.

Sport is no longer a male-dominated pastime that is just indulged for pleasure. The participation of females has increased dramatically over the past years (Watt, 2003:14) especially with the arrival of new events such as the Women's Soccer World Cup and the Women's Rugby Union World Cup. In addition, South Africa is no longer dominated by one racial group, as it was during the apartheid era.

Renouprez (2010:5) maintains that the consumer of today is savvy, and living a fast-paced and highly pressured life, and thus demands relevance and convenience from marketers. To gain the marketing edge, in addition to a positive personal experience with the brand on the part of the consumer, constant market presence is essential for a brand to remain top of mind. So in order to influence consumer purchasing decisions or consumer affinity, marketers need to consider the following:

- Contact frequency
- Product relevance
- Customer-centricity
- Speed and effectiveness of response and problem resolution
- Service and communications calibre and consistency

In the United States today, many college sport are extremely popular on both regional and national scales. In many cases, these sports are competing with professional championships for prime broadcast and print coverage. The average university will play at least 20 different sport and offer a wide variety of intramural sport as well. In total, there are approximately 400 000 men and women student-athletes that participate in sanctioned athletics each year (Parkhouse, 2001:240). Therefore, it is no surprise that by winning a football national championship, the Louisiana State University [LSU] has realized a 208% increase in licensing royalties, student enrolment has reached high numbers and its academic reputation ranking in the U.S. has increased (News and World Report, 2009:7). When the University of Florida won the national championships in both football and basketball in 2006, they received 25 400 applications the following year, which was an eight percent increase over the previous year (Grönroos, 2007:41).

Sport in Universities is critical as it plays an integral and important role in student life. It builds team spirit, camaraderie and plays a role in cementing relationships. It also encourages healthy competition, promotes discipline and fosters a gracious attitude to both winning and losing. Lessons learnt through participation in sport are valuable to all areas of life (Sport Union–UKZN).

According to Hollander (2008:13), the University of Johannesburg (UJ) values sport as a critical component in holistic student development. Through sport, the student is exposed to student life in a way that differs from the academic, cultural, religious and social experiences campus life can offer. In order to provide a well organised experience to students, staff and the external community of the UJ, sport has been structured and marketed in such a way that experiences can be provided and managed optimally. The University of Cape Town orients its students towards the same values and similarly provides unique opportunities for them to participate in sport or physical recreation of their choice. The university boasts over 40 sport clubs with a total membership of over 4000 students and staff. The more traditional sport are all well catered for, but students also have the option of more exciting individual pursuits such as archery, hiking and mountaineering, paragliding, skydiving, and water-skiing (Morris, 2008:1).

2.3 The Services marketing mix of higher education institutions

According to Wiese (2008:2), considering all the challenges that higher education institutions (HEI's) face, it is evident that these institutions will have to become more marketing-oriented. One of the key issues to the successful development of a marketing strategy is to determine which factors students consider when they have to make a decision on which institution to attend. The development of a marketing strategy involves the co-ordination and combination of marketing mix elements (Hawkins et al., 2009:6). It is the combination and co-ordination of the elements of the marketing mix that enables organizations to meet customers' needs and provide customer value. A traditional marketing mix consists of the following elements: price, product, promotion and place (distribution). However, due to the intangible, inseparable, heterogeneous and perishable nature of services, the traditional mix was extended to include process, people and physical evidence (Goldsmith, 2003:184).

2.4 Higher education and sport

Guttman (2000:97) maintains that sport has been a part of the higher education experience for students and staff for many years, providing recreational opportunities

for many and competitive opportunities for elite performers. Community programmes are provided by higher education institutions to offer children, young people with disabilities, senior citizens and those recovering from illness opportunities to participate in sport. Widening access to higher education sport can be a powerful incentive to groups under – represented in higher education (Guttman, 2000: 98).

2.5 The academic benefits of sport

A study of teenagers, conducted by Corbett and Perez (2004:90), found that there was a definite correlation between fitness, exercise and improved academic performance. Other positive aspects of sport specialization are the potential for the collegiate athletic scholarship; fulfillment of a desire to achieve excellence; increased recognition and upward mobility; and a means for a marginal player to achieve varsity, elite, or professional status- or a trip to the Olympics. Athletes, who wish to specialise, have seen the increase in the opportunity to do so with the advent of club teams and leagues, which often are well organized and run by coaches affiliated with the local and national bodies. Rosewater (2009:4) agrees that physical activity has positive influences on concentration, memory and classroom behaviour, and a positive relationship with intellectual performance.

2.6 SERVICE QUALITY

Many academic researchers have studied the area of service in the past thirty years, especially in Sweden and the United States. Service, traditionally, is more difficult to define than physical goods, because various inputs and outputs in the service delivery process are intangible (Akbaba, 2006:171)

Grönroos (2007:46-47) states that services are a series of processes that leads to an outcome, which will solve customer problems, during partly simultaneous production and consumption processes. Moreover, the customer often actively participates in the production process.

Zeithaml, Bitner and Gremler (2006:4) define services as all economic activities that take place in an interaction process for creating customer satisfaction, although this interactive consumption does not always lead to material possession.

2.6.1 The basic characteristics of services

In order to define service clearly, many early investigations focus on finding the differences between services and consumer goods. These differences refer to the “characteristics of services”. These characteristics of service also make service different from goods as described below (Woo and Ennew, 2005:1180).

2.6.1.1 Intangibility

Customers can get permanent ownership of physical and tangible objects (Lovelock and Wright, 2002:9). Service is an activity, an experience and not a thing. Services cannot be seen, felt, tasted, or touched as tangible which can be readily displayed and easily transferred to customers (Zeithaml et al., 2006:22). Organisations always try to make their intangible offer as tangible as possible, while many manufacturers try to create an image for their products instead of focusing on the tangible aspects of their products in advertising (Fitzsimons and Fitzsimmons, 2006:24). Services are not a particular kind of product.

2.6.1.2 Inseparability

According to Perez, Abad, Carrillo and Fernandez (2007:136), the service is produced and consumed at the same time in most of the service industries. This kind of personal contact is referred to as “interactive consumption” and “interactive process” in the definition of services. It includes physical environment (e.g. sport), behaviour of personnel, and the customer’s moods and needs. Inseparability of the service itself from the service provider highlights the role of people in the service transaction, and their influence on quality levels. Therefore, it is difficult for the service providers to hide mistakes or quality shortfalls of the service.

2.6.1.3 Perishability

Unlike manufactured goods, services cannot be saved, stored, resold or returned. The degree of perishability in the quality of service is affected by the degree of intangibility (Bruhn and Georgi, 2006:14). This characteristic means that the service

providers have only one way that they should provide the right service the first time, every time, and the full use of service capacity. Also, this provision makes it impossible to have a quality check before the service is sent to the customers. Pricing and promotions are two of the marketing tools commonly adapted to tackle this characteristic.

2.6.1.4 Heterogeneity

The productivity and quality of the produced goods can be controlled under fixed conditions (Lovelock and Wright, 2002:11). However, the customer, as an essential part of this whole service process, actively participates in the process of producing the service. The customer uses objective and subjective criteria to evaluate service quality. The moods and needs of the customer may lead to their different performance in similar situations. This tendency means that standardising services is quite difficult on many occasions. The chance of heterogeneity in the final output of service delivery processes will still be large. Automation can contribute to reduce the impact of people and environment on service quality (Fitzsimmons and Fitzsimmons, 2006:25).

With regard to services provided by the Durban University of Technology, sport is housed in an attractive building called the Fred Crookes Sport Centre. Various indoor sporting codes together with a sport field, netball courts and squash facilities adjoining the centre are offered. Many sports are played at social, league, provincial or national level, with over twenty percent of students taking part. The sport administration provides coaching services to members affiliated to most clubs across the sporting codes with scheduled training programmes and times to enhance performance and satisfaction.

2.6.2 Quality in services marketing

Quality is the extent to which the service, the service process and the service organisation can satisfy the expectations of the user. All service organisations recognise the importance of service quality because it affects customer loyalty and satisfaction. Service quality also has been suggested as a means of developing a competitive advantage (Landrum, Prybutok and Zhang, 2007:104). Lovelock and Wright (2002:14) define 'quality as the degree to which a service satisfies customers

by meeting their needs, wants and expectations'. This definition means that if a firm does not improve quality service to its customers, it will be able to switch its customers to another supplier who can satisfy them and its competitors will take over the market.

To define service quality, the traditional approach pays more attention on service quality perception which is a comparison of consumer expectations with actual performance (De Moranville and Bienstock, 2003:217). Today, researchers on service quality widely accept and apply two service theories among the various service quality opinions. One is the Grönroos' Technical and Functional Quality framework. The other is the SERVQUAL model by Parasuraman, Zeithaml and Berry in the 1990s (Woo and Ennew, 2005:1179).

In the 1990s, Grönroos used a two – dimension model of service quality (technical quality and functional quality) to describe and measure the service quality (Pérez et al., 2007:137). In this model, technical quality focuses on the outcome of what is the service provided while functional quality takes into account how it is delivered. Subsequently, Grönroos (2001:81) indicated seven specific dimensions on which customers' perception of service quality could be measured (professionalism and skills, reliability and trustworthiness, attitudes and behaviour, accessibility and flexibility, service recovery, serviscape, and reputation and credibility.)

Parasuraman, Zeithaml and Berry proposed a conceptual framework of service quality based on the interpretation of qualitative data from extensive explanatory research performed in four service businesses(Akbaba ,2006 :174). Landrum et al. (2007:105) simplify the definition of service quality as a comparison between consumers' expectations and their perceptions of the service they actually receive.

2.7 CUSTOMER EXPECTATIONS OF SERVICE

Customer expectations serve as a benchmark against which present and future service encounters are compared. It is what customers think they will receive in the service encounter (Cant, Brink and Brijball, 2002:239). This is expanded further by Kotler and Armstrong (2008:5), who believe that, for ultimate customer satisfaction,

today's marketers must be good at creating customer value and managing customer relationships. Marketers must attract targeted customers with strong value propositions, which are critical to the success of every organisation.

In markets where current and prospective students are regarded as the target market and 'final consumer' of the service offering, several important actions can be taken into account by Higher Education Institutions (HEIs) (Melewar & Akel, 2005: 41). Firstly, HEIs have to implement strategies to satisfy customer expectations and enhance their competitiveness. Secondly, effective communication strategies need to be employed to convey the unique selling propositions (USPs) of the institution. Finally, these USPs (which can be created by focusing on choice factors such as quality of teaching, international links or the flexible study mode of the university) must be communicated to all relevant stakeholders.

Zeithaml *et al.* (2006:81) state that expectations are beliefs about service delivery that serve as standards against which performance is judged. Customer expectations are critical to service marketers and will deeply influence customer behaviour. These authors further mention that customer expectations are not stable and are human perceptions based on verbal information, personal needs, experience and commercial information. Coyne (2004:54) states that the concept of expectations plays an important role in most discussions of service quality. The study was applied in a variety of areas such as job satisfaction, satisfaction with leader performance and satisfaction with service performance. The author mentioned that there is still much to learn about exactly what expectations are, what role they play, and how managers can address their influence. An expectation is the subject probability that behaviour will be followed by a certain outcome.

According to Hawkins *et al.* (2009:7), an effective marketing strategy is based on the knowledge of the environment, competitors and customers. The study of customers' needs, perceptions, aspirations, motivations, culture and decision-making processes is called consumer behaviour (Du Plessis and Rosseau 2005:8). Consumer behaviour serves as a basis for marketing strategy formulation. Dobni and Luffman (2000:895) emphasize that marketing strategies are an extension of an organisation's mission, objectives, resources and market orientation. Marketing

orientation refers to the existing culture and influence of the employees. Employees, with a strong market-oriented culture, facilitate value-creation strategies such as market segmentation, the development of new products and services for new markets as well as product and service customisation. Marketing begins with the marketing mix, which consists of the four P's: product, price, place and promotion.

Zeithaml *et al.* (2006:81) state that “customer expectations are beliefs about service delivery that serve as standards or reference points against which performance is judged”. The concept of expectations has been widely used in many studies about consumer behaviour. Customer expectations are critical to service marketers. Expectations will deeply influence customer behaviour. For instance, if a customer's last experience with a company was negative, he/she will again be dissatisfied.

According to Bebeko (2000:12), customer expectations are not stable. Since customers' expectations are one kind of human perceptions based on verbal information, personal needs, experience and commercial information, and customer service expectations are usually dynamic. Sometimes, it is easier to predict expectations with a more aggregate level of groups of consumers.

2.7.1. Levels of service expectations

Customers have different types of expectations about service. In general, researchers focus on two types of customer expectations. According to the levels of the service expectations, the highest one is called desired service. Desired service reflects the hopes and wishes of some consumers. The other level of service expectations is defined as adequate service”. Adequate service represents the “minimum tolerable expectation,” which means the bottom level of performance that customers are willing to accept (Metters *et al.*, 2006:83).

2.7.2 The zone of tolerance

The ranges of the variations between the desired service level and the adequate service level can be the “zone of tolerance” (Ma, Pearson and Tadisina, 2005:169). Based on the specific situation and various needs, the service performance of suppliers provided is very different from the same provider, and even with the same service employee. Desired service is more stable than adequate service.

Fluctuations in the zone of tolerance mostly focus on the adequate service level rather than the desired service (Gilbert and Wong, 2003:522).

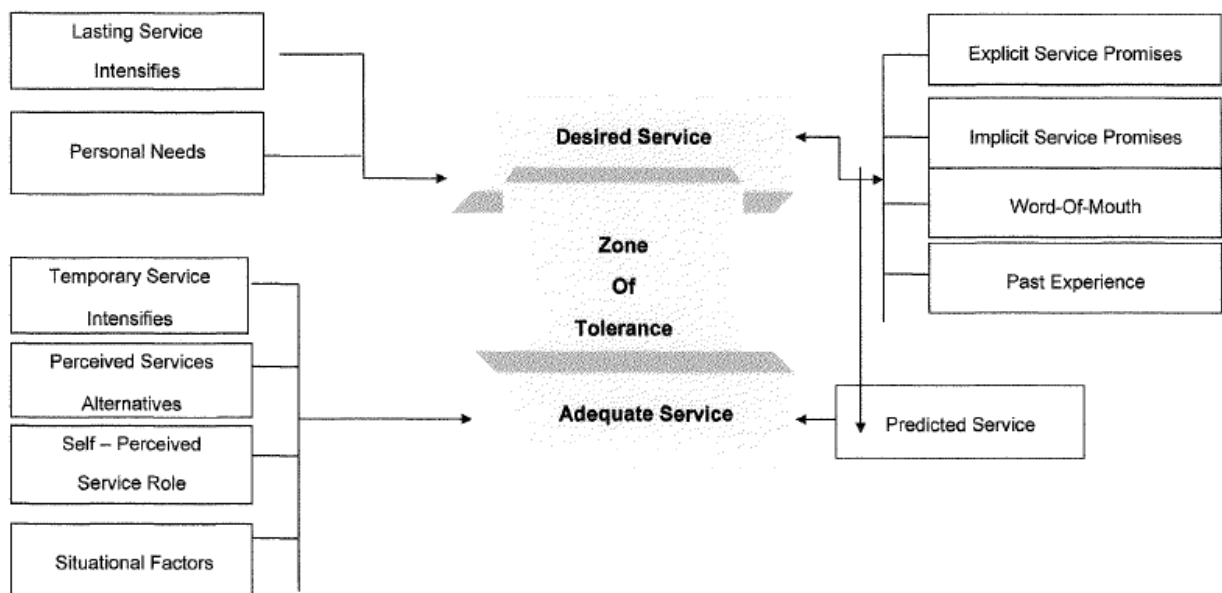
The zone of tolerance not only concerns the perception of the service but also the perception of the service delivery process. An individual customer's zone of tolerance increases or decreases based on a number of factors, including company-controlled factors. The more important the factor, the narrower the zone of tolerance is likely to be (Zeithaml et al., 2006:87).

2.7.3. Factors that influence customers' expectation

Although many of the factors that influence customer expectations are uncontrollable, marketers try to understand them so that they can control those (Robledo, 2001:23). In general, these factors are divided into three parts in terms of levels of the service expectations such as desired service expectations, adequate service expectations, and both desired and predicted service expectations. The detailed factors will be discussed in the following sections.

2.7.3.1. Factors that influence desired service expectations

Figure 2.1 Factors that influence desired and predicted service



Source: Zeithmal et al. (2006: 93)

The desired service expectations are driven by more enduring factors, which tend to be high to demands of primary service and remain high (Caro and Garcia, 2006:63). As Figure 2.1 shows, personal needs and lasting service intensifiers are the two largest factors that influence desired service level and elevate the level of desired service (Zeithaml et al., 2006:88).

Personal needs refer to those states or conditions that are essential to the physical or psychological well-being of the customer. Each customer has different needs for each service. Therefore, this need also influences customers to judge the quality of the service, and whether or not it has satisfied their needs (Hensley and Dobie, 2005:86).

Metters et al. (2006:88) indicate that lasting service intensifiers are individual, stable factors that lead the customer to a heightened sensitivity to service. Desired service expectations and personal service philosophy are two important factors of the lasting service intensifiers. Desired service will occur when customer expectations are driven by another person or group of people. Personal service philosophy means that the customers have their own cultural character when they are making a decision (Gilbert and Wong. 2003:520).

2.7.3.2 Factors that influence adequate service expectation

According to Figure 2.1, there are five important factors influencing adequate service (Zeithaml et al., 2006:90-93):

- Temporary service intensifiers include many short- term and individual factors that make a customer more aware of the need for service. In some situations where temporary service intensifiers are present, the level of adequate service will increase and the zone of tolerance will narrow;
- Perceived service alternatives mean that other competitors, who obtain the same service, can influence customers' choice and decision;
- The customers' self- perceived service role is the third factor affecting the level of adequate service. Since customers' expectations are partly shaped by how well they believe they are performing their own role in service delivery, one role of the customer is to state the level of service expected;

- Situational factors indicated some factors that customers perceived but that are beyond of the control of the service providers; and
- Predicted service is typically an estimate of the service that a customer will receive in an individual transaction with a service provider. Since customers are always likely to predict what will happen in the next service encounter or transaction in terms of their experiences, predicted service is viewed in this model as an influence of adequate service.

In general, these factors are short-term and tend to fluctuate more often than the factors that influence desired service.

2.7.3.3 Factors that influence both desired and predicted service expectations

As Figure 2.1 shows, there are four factors that influence both desired service and predicted service expectations. Explicit service promises, implicit service promises, and word-of-mouth communications are three external influencing factors. Past experience is one of the internal factors (Robledo, 2001:25).

Explicit service promises that the organisation conveys relates to various statements about the service to its customers. In general, there are two channels that deliver the statements. One is personal vehicle where sales people and employees communicate service promises. The other is non-personal. Advertising, brochures and other written publications are main information vehicles. All types of explicit service promises influence the service levels of both desired service and predicted service. Customers also expect the service to be in keeping with the messages (Lovelock and Wright, 2002:192).

Implicit service promises are service-related cues to customers by price and tangibles associated with the service. In general, the higher the price and the more impressive the tangibles, the more a customer will expect from the service (Rosene, 2003:54).

Word-of-mouth communication, as an information source, is a very important service although it belongs to a sort of informal recommendation (Echeverri, 2005:201). Moreover, services are usually difficult to evaluate before purchase. This kind of

communication with drawing an unambiguous conclusion from other experiences is recognised as unbiased. Experts (including consumer reports, friends and family) are also word-of-mouth sources that can affect the levels of desired and predicted service (Caro and Garcia, 2006:64).

Past experiences are the customer's previous experiences to the related service. Past experience is likely to change the customer's expectation (Rosene, 2003:55). It can efficiently and effectively adjust service expectations and decrease dissatisfaction for customers.

2.8 CUSTOMER PERCEPTIONS OF SERVICE

Perceptions are frequently developed over a period of time and reflect the ways that one has been treated and his/her values, priorities, prejudices, and sensitivity to others (Harris, 2006:16). The customer service provider should anticipate customer resistance based on the customers' prior interaction and work at providing the customers with excellent service so that their current perception is a positive one. Customers may not remember every detail of an experience, but, if left with a positive feeling in combination with other experiences, their perception of the company will be retained (Armstrong and Keller, 2006:139).

According to Bodet (2006:153), service consumption in gymnasiums is a process that implies an interaction between the gymnasium and a member. Consequently, the members' perceptions of interaction with employees or managers will affect the members' perception of the gymnasium. The study found that staff appears to be a key element in the service encounter and their capacity to answer or solve problems encountered by the member on the premises. According to Cant *et al.* (2002:99), perception is the process by which people select, organize and interpret stimuli to the five senses of sight, sound, smell, touch and taste; in other words, it is the way that buyers interpret or give meaning to the world surrounding them. Therefore, the understanding of perception is an essential guide to marketing.

Zeithaml, Bitner and Gremler (2006:119) define assurance as employees' knowledge and courtesy and the ability of the organisation and its employees to

inspire trust and confidence. According to Dhurup, Singh and Surujlal (2006:42), assurance represents courtesy, credibility and competence on the part of the staff at sport organisations because sport in universities is critical as it plays an integral and important role in student life. Sport builds team spirit, camaraderie and plays a role in cementing relationships. It also encourages healthy competition, promotes discipline and fosters a gracious attitude to both winning and losing. Lessons learnt through participation in sport are valuable to all areas of life (Sport Union–UKZN 2006).

The customer's perceptions of service quality have attracted quite extensive attention from researchers and practitioners. Zeithaml and Bitner (2000:27) describe customer perceptions as: "the subjective assessments of actual service experiences". This refers to how customers perceive services: how they assess the quality of received service; whether they are satisfied; and whether they have received good value. Therefore, customer expectations of service are also defined as customer perceptions of quality, satisfaction and value. In short, the customers' perceptions are the way that people see something based on their experience. Everyone's perception of a situation will be at least slightly different.

2.8.1 Dimensions of service quality

Silvestro (2005:216) states that the only criteria that count in evaluating service quality are those defined by the customer. According to Nowacki (2005:236), Parasuraman, Zeithaml and Berry established 10 service quality dimensions that customers use to judge the quality of the service offered in 1984.

The ten dimensions are not necessarily independent of each other. There could be some overlap between the categories. As a result of a further study, Parasuraman *et al.* (Grönroos, 2000:74) combined the ten original determinants into five dimensions of quality: tangibles, reliability, responsiveness, assurance (including competence, courtesy, credibility, and security) and empathy (including access, communication and understanding), as indicated by Table 2.1.

Table 2.1 Ten dimensions of service quality

Original Ten Dimensions for Evaluating Service Quality	SERVQUAL Dimensions				
	TANGIBLES	RELIABILITY	RESPONSIVENESS	ASSURANCE	EMPATHY
TANGIBLES					
RELIABILITY					
RESPONSIVENESS					
COMPETENCE					
COURTESY					
CREDIBILITY					
SECURITY					
ACCESS					
COMMUNICATION					
UNDERSTANDING/ KNOWING THE CUSTOMER					

Source: Grönroos (2000: 74)

These five dimensions are found to be relevant for various business services. Customers will use all or some of the dimensions to determine service quality perceptions. Research suggests that cultural differences will also affect the relative importance placed on the five dimensions. Tangible features, such as the personnel’s or exhibition’s appearance, are relatively easy to assess. However, intangible features such as safety and understanding client’s needs, may be very difficult for the professional and the client to evaluate (Zeithaml et al., 2006:117).

2.8.1.1 Reliability

Bebko (2001:11-12) defines reliability as ‘the ability to perform the promised service dependably and accurately’. Reliability is a key dimension that customers can use to evaluate the quality between that received and one which the provider promised during the delivery process (e.g. service provision, problem resolution, and pricing). All firms need to be aware of customer expectations of reliability.

2.8.1.2. Responsiveness

Zeithaml et al. (2006:117) suggest that service providers should be active and volunteer to help their customers and to provide prompt service. This dimension demands that the service provider should be more flexible in solving their customers' problems and requests. Firms should have a capacity to customize services for dealing with their customers' special needs.

2.8.1.3 Assurance

Robledo (2001:25) identifies assurance as "employees' knowledge and courtesy and the ability of the firm and its employees to inspire trust and confidence". This dimension consists of four original determinants: competence, courtesy, credibility and security.

2.8.1.4. Empathy

As Table 2.1 shows, access, communication and understanding/knowing the customer are merged into empathy. The basic target of the dimension is to afford more facilities for current or potential customers and enhance the services capacity, through personalized or customized service. Curry and Sinclair (2002:200) describe empathy as the caring, individualized attention that the firm provides its customers.

2.8.1.5 Tangibles

Tangibles relates to 'the appearance of facilities, equipment, personnel, and communication materials' (Robledo, 2001:26). Since the tangible and visual elements of the site will be critical to efficiency as well as to overall perceptions of the firm and the brand, service companies are likely to use tangibles to enhance their image and convey quality service to customer. Most companies also combine tangibles with another dimension to create a service quality strategy for the firm (Zeithaml et al., 2006:120-122).

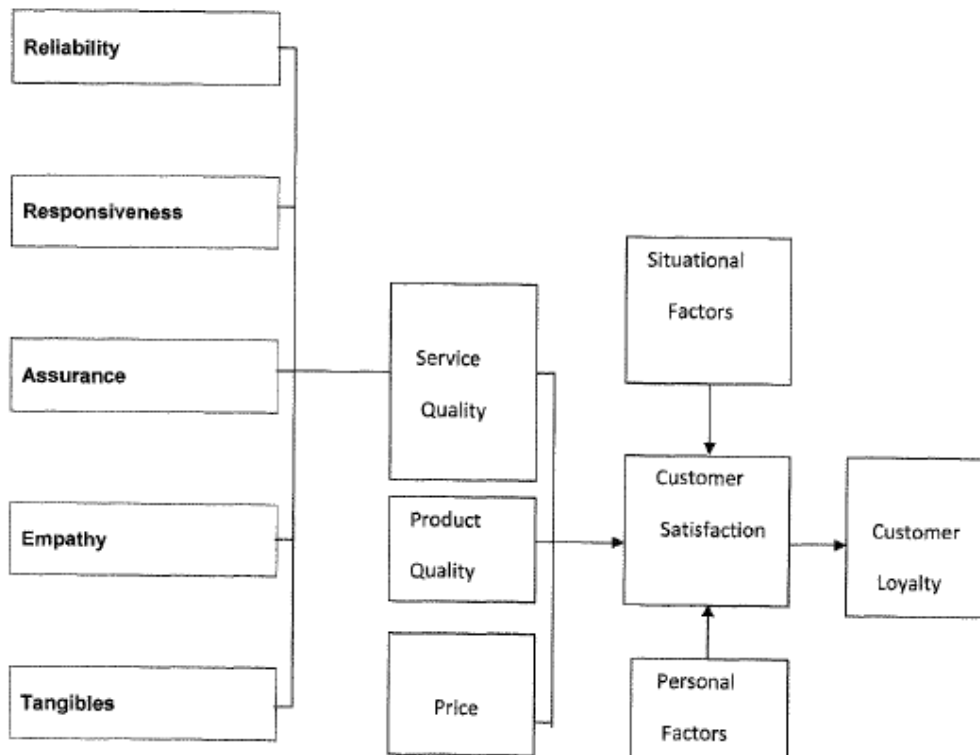
The quality of sport at DUT is enhanced with good infrastructure and skilled personnel. With regards to the above dimensions, the quality of the sport service is a decisive factor for DUT. Therefore, it is essential to continuously assess the dimensions with intentions of improving the efficiency and accuracy of the service.

2.8.2 Relationship between service quality and customer satisfaction

Lovelock and Wright (2002:87) define customer satisfaction as a sort of emotional reaction that arose from an actual experience. Metters et al. (2006: 110) also indicate that satisfaction is the consumer's fulfillment response. Satisfaction is the customer's evaluation of a product or service in terms of whether that product or service has met the customer's needs and expectations (Bruhn and Georgi. 2006: 443). According to Truong and Foster (2006:843), customer satisfaction takes place in two situations. One is the result of a product or actual service meeting the customer's expectations. The other is the result that exceeds the expectations. Dissatisfaction will occur when the actual service is below the expected level. So, satisfaction and dissatisfaction are the outcome of a subjective evaluation process. The relationship between service quality and customer satisfaction is still a mystery whether customer satisfaction is an antecedent of service quality or vice versa. Several researchers suggest that customer satisfaction leads to service quality (Lee, Lee and Yoo, 2000:219).

However, an approach most frequently applied in the commercial sector suggests that customer satisfaction with a service is related to the perceived discrepancy between actual and ideal levels of service delivery. If experience of the service greatly exceeds the expectations that clients had of the service, then satisfaction will be high and vice versa (Mori, 2002:6). This should not, of course be taken by service providers as license to drive down expectations to achieve surprised and concomitant customer satisfaction with moderate service quality: service quality is seen as an antecedent of customer satisfaction (Brady, Cronin and Brand, 2002:18). Figure 2.2 shows the relationships between the two concepts.

Figure 2.2 Customer perceptions of quality and customer satisfaction



Source: Zeithaml et al. (2006: 107)

In fact, customer satisfaction and service quality are conceptually distinct from one another, but closely related. Service quality is a cognitive, evaluative and objective concept while satisfaction is a combination of an affective and subjective component (Lovelock and Wright, 2002:265). Extensive literature has been developed on studies of the measurement and understanding of customer satisfaction with service provision (Mori, 2002:25). Many previous studies have incorporated a wide range of methodologies to meet the challenge of developing a performance measurement sensitive to both customer and provider issues.

Customer satisfaction stems from the fact that service providers provide service that meets or exceeds customers' expectations. Customer expectation is an important element that might play a decisive role in the literature on quality and satisfaction. Another area that has been proposed that needs concern is customer expectation. Many researchers that believe in the disconfirmation paradigm are concerned about

this area, since customers evaluate service quality by comparing their perception of the service with their expectation (Robledo, 2001:23).

To measure customer satisfaction and examine the differences between the desired level of a service and customer service actually received, the related factors should take into account their relative importance to customers and reveal where improvements in the service mix are required. Customer satisfaction is influenced by specific product or service features, perceptions of product and service quality, and price. In addition, personal factors such as the customer's mood or emotional state and situational factors such as family member opinions will also influence satisfaction (Zeithaml et al., 2006:110).

2.8.3 Evidence of service

Due to services being intangible, customers often search for evidence of service in every interaction they have with an organisation. In many academic studies, different researchers propose various evidence which makes the offering tangible in the service process. Lovelock and Wright (2002:13) indicate "8Ps" of service organisation, namely product elements, place and time, promotion and education, price and other user outlays, process, productivity and quality, people, and physical evidence. Zeithaml et al. (2006:132) further simplify them to the three major categories: people, process, and physical evidence.

2.9 SERVQUAL MEASUREMENT THEORY

Over the past two decades, numerous researchers attempted to create a model for measuring service quality for survival and success of service companies. One of the most influential models is the SERVQUAL (SERVices QUALity) measure, which was originally developed in 1985 by Parasuraman et al. and refined in 1988, 1991 and 1994 (De Moranville and Bienstock, 2003:220).

SERVQUAL is based on the "GAPS model" of service quality (Landrum et al., 2007: 105), which facilitates quantification of the gaps between customers' expectations of a service and their perceptions of the actual service delivered. The detailed

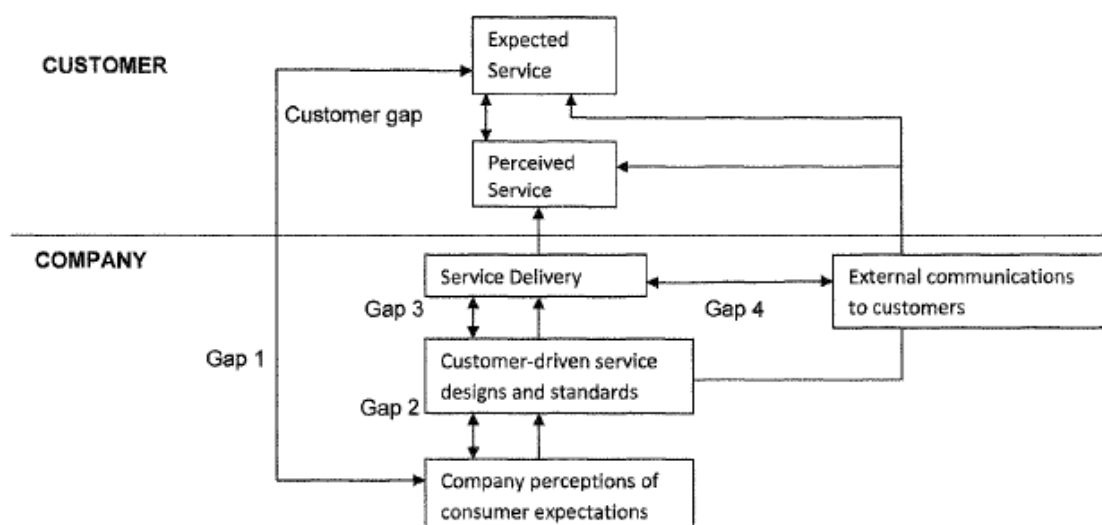
introduction of the GAPS model of service quality and the SERVQUAL theory will be shown in the following sections.

2.9.1 The GAPS model of service quality

In 1985, Parasuraman, Zeithaml and Berry (Rosene, 2003:52), first submitted the GAPS model of service quality, which defines the difference between customers' expectations of a service and their perception of the actual service delivered. This model is illustrated in Figure 2.3. The model shows the relationship between the external gaps 5 (the customer gaps) and the internal gaps 1-4 (Grönroos, 2001: 101).

As Figure 2.3 shows, the customer gaps are the difference between the expected service and the perceived service (Robledo, 2001:22). Many studies indicate that the expected service and the perceived service are simultaneously influenced by the market communication activities of the service provider. The gaps model of service quality includes five gaps. One is called the external gaps of service quality because this gap does not mean that customers must make contact with service providers. The other four so-called internal gaps, which reflect those service interface problems, are proposed as the provider gaps (Rosene, 2003:52)

Figure 2.3 Gaps Model of Service Quality



Source: Zeithaml et al. (2006: 46)

The customer gaps (gaps 5) depends on the size and direction of the four internal gaps associated with the delivery of service quality on the marketer's side. Zeithaml *et al.* (2006:35) indentify four main factors for the four provider gaps, namely, management do not understand customer expectations, the service specification of management is not right, the right specification is not delivered to customer, and finally, the external communication is not fit to the service demand. These internal gaps are discussed in the following sections.

2.9.1.1 The management perception process

Provider gaps 1 means that managers do not fully perceive or understand how customers formulate their expectations that arise from past experience with the firm and its competitors, personal needs, and even word-of-mouth (Zeithaml *et al.*, 2006: 35). It is also called the management perception gaps (Grönroos, 2001:102). In short, the service firms can wrongly or dissatisfactorily provide service to their customers (Rosene, 2003:52).

Four main factors can cause this management perception gaps (Provider gaps 1). First, the service providers are short of the accurate and seasonal marketing research. Today, customer expectations are changing rapidly. It is absolutely necessary to conduct sound marketing research regularly if service providers want to understand customers' needs (De Moranville and Bienstock, 2003:220). Secondly, there are too many layers of management that interfere with the flow of objective information. Most top managers never communicate with their frontline employees and customers. They may just acquire insufficient and fuzzy information about their customers' actual requirements. The third factor related to provider gaps 1 is a lack of relationship marketing. The inaccurate and unilateral market orientation causes management and empowered employees to ignore and lose their potential customers. Lastly, lack of service recovery leads to an increase in the degree of customers' dissatisfaction. Observably, the more inaccurate the information about customers' expectations management, the larger is the provider gaps 1 (Hensley and Dobie, 2005:89).

2.9.1.2 The quality specification gaps

Provider Gaps 2 means that the service quality specification cannot display and meet customer expectations which the service provider has understood (Gilbert and Wong, 2003:521). Grönroos (2001:102) refers to this gap as the quality specification gaps.

There are various factors that influence this gap. Metters *et al.* (2006:187) summarise three factors which make a service more tangible and intelligible. First, the service provider is short of a formal quality programme to define the quality of services. Second, management may focus more on cost reduction and short-term profits than on customer requirements. Third, physical evidence and the servicescape, which are critical factors, affect customers' perceptions of service quality, cannot meet customer and employee needs. Grönroos (2001:103) also indicates that the promise of service providers may fill up a part of the quality specification gaps.

2.9.1.3 The service delivery gaps

According to Bruhn and Georgi (2006:226), service delivery refers to the process of transferring available service products for consumption or use. The service delivery gaps will occur when employees cannot correctly translate service standards into actions (Rosene, 2003:52). Silvestro (2005:218) indicates that the provider gaps 3 is the difference between actual service quality and service standards by service providers.

Human resources are one of the critical factors that support the appropriate service standards. For example, lack of teamwork, poor employee job fit, poor supervisory systems, role ambiguity and role conflict are all negative factors. The customer is the second vital factor influencing this gaps. Customers not only play an important role, but impact each other in the whole service delivery process. Intermediaries are the third factor in delivering service process. Intermediaries find it difficult to offer the same quality, even if they have the same service standards. The fourth possible factor is that service firms cannot present enough resources and capacity when service firms face situations of over-demand and under-demand (Metters *et al.*,

2006: 187). Furthermore, Gronroos (2001:103) indicates that the adequacy of tools or technology will widen the gaps.

2.9.1.4 The market communication gaps

Grönroos (2001:105) indicates that the market communication gaps will occur when the service provider's external communications do not match the actual service delivery. In Figure 2.3, the provider gaps 4 refers to the discrepancy between actual and promised service. In other words, the external marketing communication can influence the perceived service as well as the expected service.

Four main reasons are proposed by Zeithaml *et al.* (2006:43): first, the internal and external communications are not effectively integrated in the service delivery by the service provider. Second, the customers' expectations are not effectively employed and managed by management. Third, the service providers often deliver over promise for keeping competitive advantage during the company's external communication process. Fourth, horizontal communication between those responsible for the company's external communications and the front office employees is ineffective.

2.9.1.5 The role of internal gaps

As Figure 2.3 shows, the customer gap between customer's perceptions and expectations is an external gap. To be able to deliver excellent customer service and close the customer gaps, it is necessary to close four internal gaps which are between service providers and their customers (Sivestro, 2005:217-218). If gaps 1-4 are reduced, service quality can be improved.

Figure 2.3 also shows that both gaps 3 and gaps 4 have a direct impact on the customer's quality perception. Today, more service organisations and researchers mainly focus on the service delivery gaps and the market communication gaps than the other two gaps (Zeithaml *et al.*, 2006:43). This tendency implies that managers of the higher education sport in South Africa should also concentrate on how to effectively improve their service delivery process and external communication.

2.9.2 The SERVQUAL instrument

The SERVQUAL model consists of a standardised questionnaire which includes two statements for each of the 22 items that represent the five dimensions described above. An expectations' section containing 22 statements is used to ascertain the general expectations of customers concerning a service. A perceptions' section containing a matching set of 22 statements is used to measure customers' assessments of a specific firm within the service category (Perez *et al.*, 2007: 140-141). Five of the 22 statements are used to measure reliability, four to measure responsiveness, four to measure assurance, five to measure empathy, and four to measure tangibles (see Table 2.2). Statements in both sections might use a five-point Likert scale ranging from "Strongly Agree" (5) to "Strongly Disagree" (1) (Curry and Sinclair, 2002:200).

The survey sometimes ask customers to provide two different ratings on each attribute - one reflecting the level of service they would expect from excellent companies in a sector and the other reflecting their perception of the service delivered by a specific company within that sector. The gaps or difference results in the customers' expectations and perceptions about the provided service, results in the customers' perceptions of service quality as well as constitutes a quantified measure of service quality (Landrum *et al.*, 2007:105).

By comparing each value difference between all 22 expectations and perceptions, the level of quality can be concluded (Lai, 2006: 928). For example, if the perception value is higher than the expectation value, it can be concluded that the service is satisfactory or ideal. However, if the expectation value is lower than the perception value, the service quality level can be regarded as unsatisfactory or even unacceptable. Balancing customers' expectations and perceptions and closing the gaps between them, are essential if a company is to provide high-quality services.

After the exploratory study, this comprised a series of in-depth interviews and focus groups in four selected service categories, Parasuraman et al (2003:56) found that reliability was most important and tangibles were the least important in all five SERVQUAL dimensions (Silvestro, 2005:220-221).

Zeithaml et al. (2006:153) present several purposes for measuring quality with SERVQUAL:

- For the assessment of quality performance on each SERVQUAL dimension;
- For the assessment of service performance contrast to direct competitors;
- For the categorisation of different customer segments; and
- For the records of changes in service quality perception among customers over a specific time period.

Currently, this model, across a broad range of service categories, has been widely used in multiple contexts, cultures, and countries for measuring service quality by scholars and practitioners (Metters et al., 2006:73). For example, an adapted version of SERVQUAL was used in a health care setting (Silvestro, 2005), hotel setting (Akbaba, 2006), and museum setting (Nowacki, 2005) to measure consumers' expectations concerning service quality. The variables, as indicated in Table 2.2, reveals that SERVQUAL has a variety of applications. It can help a wide range of commercial and public-sector organisations in assessing consumer expectations about and perceptions of service quality.

Table 2.2 The original SERVQUAL item battery

<p>Reliability</p> <ol style="list-style-type: none"> 1. Providing services as promised. 2. Dependability in handling customers' service problems. 3. Performing services right the first time. 4. Providing services at the promised time. 5. Maintaining error-free records.
<p>Responsiveness</p> <ol style="list-style-type: none"> 1. Keeping customers informed about when services will be performed. 2. Prompt services to customers. 3. Willingness to help customers. 4. Readiness to respond to customers' request.
<p>Assurance</p> <ol style="list-style-type: none"> 1. Employees who instill confidence in customers. 2. Making customers feel safe in their transactions. 3. Employees who are consistently courteous. 4. Employees who have the knowledge to answer customer questions.
<p>Empathy</p> <ol style="list-style-type: none"> 1. Giving customers individual attention. 2. Employees who deal with customers in a caring fashion. 3. Having the customers' best interests at heart. 4. Convenient business hours. 5. Employees who understand the needs of their customers
<p>Tangibles</p> <ol style="list-style-type: none"> 1. Modern equipment. 2. Visually appealing facilities. 3. Employees who have a neat, professional appearance. 4. Visually appealing materials associated with the service.

Source: Bruhn and Georgi (2006: 55)

2.10 SERVICE DELIVERY SYSTEM

It is known that service quality is an important indicator about a service operator. Service delivery, as a key gap of the whole service system, is of concern to numerous researchers and practitioners. The customer's preference for some elements within the service delivery system can influence their decisions to service providers. According to Zeithaml et al. (2006:348), there are three main categories (people, physical evidence and the servicescape) that may influence that quality of a service in the service delivery process. These are discussed in the following sections.

2.10.1 People

According to Metter et al. (2006:128), many researchers place more focus on the role of service employees and customers in the service delivery process in terms of the essential role of people in the current service marketing theory. Also, marketers and organisational behaviorists pay more attention to the relationship between people and quality in the course of service delivery.

2.10.1.1 The role of service employees in service delivery

The role of service employees is quite important to service operations in many service delivery processes, because service employees can directly influence all of the following five dimensions of service quality (Lovelock and Wright, 2002:324):

- The appearance and dress of employees display the tangible dimension of service quality;
- Service employees can totally control the reliability dimensions of service quality since they present and deliver the corresponding service item of service promise;
- Frontline employees directly show the reliability dimension of service quality by offering the personal willingness to help customers;
- The assurance dimension of service quality is due to the behaviours of employees in communicating their creditability and instills trust in the customers; and

- Empathy implies that employees will provide individualised attention to help customers.

Today, a number of researchers emphasize the importance of service employees in the service delivery. Zeithaml et al. (2006:355) indicate that service employees, as a part of the service delivery system, will influence the image of the whole service organisation. Firstly, service employees can directly influence customer satisfaction when they frequently deliver or perform the service to their clients. Frontline service employees play a linking role between the external customer and environment and the internal operations of the organisation. They interpret information and standards of the organisation for its external customers. Customers also expect front - line staff to know about their company's products and services and give customers professional help. These contact employees may still personify the firm in the customer's eyes (Silvestro, 2005:220).

Secondly, front line employees see more than customers see and they see the service delivery system from a different angle. Employees' research helps reveal why service problems occur, and what companies might do to solve these problems. Since internal service quality affects external service quality, measuring internal service quality is essential. Lai (2006:927) also indicates that the front line service employees, as internal customers of a service operator, are the only people who can assess internal service quality.

Thirdly, the knowledge and skills of key employees is crucially important for a service firm in a highly competitive market. Since sophisticated employees have more experience in terms of the service delivery system, they often predict the failure before it takes place. If the best service employees leave the firm, it can be very detrimental to customer satisfaction, employee morale, and overall service quality (Metter et al., 2006:129).

Therefore, service organisations should focus their attention on the vital role of service employees and develop strategies to solve human resources issues to ensure effective customer-oriented service that closes the service delivery gaps (Liden, 2003:339). Zeithaml *et al.* (2006: 366) suggest four strategies, namely, hiring

and recruiting the right people, training and developing people to deliver service quality, providing the needed support system, and retaining the best people, respectively.

2.10.1.2 The role of customers in the service delivery

Customers, as the essential part of the marketing discipline, still play a crucial role for the survival of all operators. Since customers have and play more complicated roles in the domain of services than other industries, many researchers and academics have to constantly identify these services. One of the most significant changes of the customers' role is from an external acceptor to an appropriate participator in the service creation and delivery process. According to Perez *et al.* (2007:135), customers cannot only impact on the organisation's productive capacity and both quality and quantity of service, but also control and contribute these outcomes to their own satisfaction.

As a result of customers' participation in service delivery and production, gaps 3 within the GAPS model of service quality are also influenced. Zeithaml *et al.* (2006: 396) identify the following three main roles of the customer in the current service delivery system.

Firstly, customers are considered as a kind of productive resource and can bring some obvious productivity benefits for service operations. Since more and more advanced technologies and devices are applied in the service market, the interaction of customers and self-service automations are increasingly replacing roles that low-technology and front-line service employees played before by enhancing the service capacity of service operations. Some management experts have even called the self-service customers as "partial employees" of the service organisation, although the controllability and uncertainty of customers' attitudes and action still puzzle all service academicians and researchers (Grönroos, 2004:106).

Secondly, the role of customers in service delivery is a contributor to their own satisfaction in terms of the service and the ultimate quality of services they received. Many researchers have shown that customer participation to the service delivery

process and interaction with the service providers are based on their own needs (Perez *et al.*, 2007:135).

Lastly, the role of customers is also viewed as a potential competitor because some self-service customers could perform the entire or part-service by themselves and not depend on the service operations at all (Zeithaml *et al.*, 2006:399).

Therefore, customer participation in the service process can impact on an organisation's productivity, its service quality, and its customers' satisfaction. When customers fail to perform their role effectively, they can widen the service delivery gaps. For example, customers lack of understanding of their roles; customers are unwilling or unable to perform their role; customers are not rewarded for good performance; other customers interfere; or markets are incompatible (Fitzsimmons and Fitzsimmons, 2006:150).

2.10.2 Physical evidence and the servicescape

Service is more attracted by price reductions, greater convenience services, or some other tangible benefit. Before the actual interaction takes place, a customer finds it difficult to obtain a clear understanding of what he or she will receive. The service interaction is surrounded by physical communication elements that provide information on the nature of the services and clues to its quality (Echeverri, 2005: 200). The tangible cue of the service, namely, physical evidence, relates to all aspects of a service and influence the customers' perceptions and decisions in the different service contexts (Bruhn and Georgi, 2006:319).

Customers expect physical evidence to be found easily and used simply when they visit a service facility. At the same time, service operators strive to provide safe and efficient delivery of services. However, the actual physical evidence that the service operators offer is not always in accordance with customer thinking and physical movements in the service delivery process. Such shortcomings have an effect on customers' perceptions of service quality (Akbaba, 2006:172).

Zeithaml *et al.*, (2006:317) define physical evidence as "the environment in which the service is delivered and in which the firm and the customer interact, and any tangible

commodities that facilitate performance or communication of the service”. Bruhn and Georgi (2006:320) indicate that service physical evidence has the following three general types: servicescape, service environment and service materials:

1. The servicescape is the physical location where the service is delivered;
2. The service environment refers to the overall surroundings of a service location; and
3. Service materials refer to the physical cues with a supportive function in the encounter for the employee or the customer.

In the American literature on service management, however, the “service environment” has been referred to as the “servicescape” (Echeverri, 2005:201). Lovelock and Wright (2002:249) describe servicescape as “the style and appearance of the physical surroundings where customers and service providers interact”. This servicescape affects customers by altering behaviour at the customer level (Grönroos, 2001:201). Situational factors have an effect on customers’ perceptions, and, hence, on their behaviour.

2.10.3 Other factors in the service delivery process

When service providers make strategies and decisions for delivering and distributing quality service, they often pay attention to three important factors in the service delivery process: location, time and channel (Lovelock and Wright, 2006:251).

2.10.3.1 Service location

Simply, service location is a place, in which the service is produced, delivered and consumed. The primary principle of determining an appropriate service location is to make it more convenient for customers. Based on the same characteristics of service types and the needs of customers, service operations usually have three options for the service location: at the provider’s location, at the customer’s location and at a third party’s location (Lee *et al.*, 2000:219).

Moreover, the development of new technologies brings in the service place splitting in the service delivery process. The service place splitting means that the same service is delivered at a different place (Metters *et al.*, 2006:97). The service place

splitting lets the customer decide regarding the place of service delivery and offers more convenient and attractive service.

The service delivery location, as a type of physical evidence, can have an important impact on the customer's behaviour (Zeithaml *et al.*, 2006:327). Bruhn and Georgi (2006:235) indicate the following three aspects: the relevance of quality characteristics in the customers' perception, the customers' integration into the service process, as well as customers' purchasing decisions.

Although customer convenience is important, service operators have to take into account other constraints when they decide on the location of their service delivery. In particular, the profitability-oriented effects are of concern to all service providers (Nowacki, 2005:236). For example, the costs and capacity of service location are restricted by the economies of scale of the service provider.

2.10.3.2 Service timing

Timing aspects of service delivery often limit service availability and cause a lot of inconvenience for customers. At the same time, service resources, capacity and other external factors also restrict the time flexibility and operating time of service providers (Lovelock and Wright, 2002:254). Bruhn and Georgi (2006:241) summarised the following four dimensions of service timing:

First, the length of service delivery, as a crucial standard of service delivery, is of concern to both customers and service providers. Some customers' needs focus on service length. They select the different service providers by the different length of service delivery. To gain more profits and get a particular segment of the service market, the length of service delivery must be within their capacity (Ma *et al.*, 2005: 1071).

Second, the time flexibility of service delivery means that the service timing of service providers can meet the requirements of some customers at a certain time. There are three levels of customer's flexibility in the service market. First of all, times of service delivery are predetermined by service providers. This is a fixed time which customers cannot choose. Then, all the times of service delivery are listed in

advance by service providers. Customers can choose a certain time from the timetable. Finally, delivery times of service are not fixed. However, service resources and capacity often limit the time flexibility of service delivery (Lee *et al.*, 2000:219).

Third, the permanence of service availability means the actual operating time of service providers (Bruhn and Georgi, 2006:243). Since different industries have different availability hours, customers often experience a great deal of inconvenience. Therefore, the current trend of service availability is “24 hours a day, 7days a week” (Lovelock and Wright, 2002:255).

Lastly, there is a time interval, namely, time-tag, between the customers' order of a service and the actual delivery of the service. In the service delivery process, both customers and service providers expect to reduce the time-tag between order and delivery because customers' needs can be met in a timely way and service providers can gain more profits through serving more customers (Liden, 2003:339).

2.10.3.3 Channel role of service delivery

According to Metters *et al.* (2006:156), the channel of service delivery is regarded as an intermediary of distributing and delivering service from service provider to customer. There are various types of service delivery channels in today's service industries. In general, two types of service channels are widely accepted by many researchers in terms of the different service carriers, namely, personal channels and electronic channels.

The classic delivery channel for a service is the personal service delivery. According to the inseparability of production and consumption in service, the direct contact between the service producer and the consumer is necessary. The two types of personal channels used in service delivery are company-owned channels and the third-party channels (Zeithaml *et al.*, 2006:422).

For most services, service organisations have a company-owned channel. The advantage of company-owned channels is that the owner can maintain consistency in the service delivery process. Since all departments in the whole service comply

with a common standard, the service organization has complete control over the quality of service. At the same time, company-owned channels have two obvious disadvantages. One is that increasing service chains result in a potential financial risk. The other is that service organisations, with company-owned channels, lack experts in local markets (Zeithaml *et al.*, 2006:424-426).

On the contrary, the third party channels can reduce the financial risk and make services locally available. Furthermore, many legal, cultural and language barriers of personal interaction facilitate service organisations to pay more attention to the cost-effective channels (Lovelock and Wright, 2002:258-259). The third party channels of service delivery include franchisees, agents and brokers (Metters *et al.*, 2006:157).

However, the third party channels are not without its disadvantages. For example, the original service providers find it difficult to maintain the consistency of service quality. The most evident reason is due to customer relationships that are controlled by the third-party service firms (Nowacki, 2005:240).

With the rapid development of telecommunications and computer technology during the last two decades, electronic channels, as another type of service channel, have been realised and applied by more and more service providers and customers (Bovee, Thill and Schatzman, 2004:3). Bruhn and Wright, (2006:251) summarise four main types of electronic delivery channels: service machines, telephones, internet and mobile channel.

Since electronic channels only depend on technology and/or equipment for service production, service providers utilise them to interact with their customers and to overcome some of the problems associated with service inseparability and non-standardisation in the personal service delivery process and provide more facilities for customers (Zeithaml *et al.*, 2006:433).

For example, booking system, as a service produced entirely by the customer through service machines, not only entirely integrate customers into the service delivery process to save the potential employees' cost, but also provide facilities to customers and increase customer satisfaction. However, service providers also face

some new challenges when they deliver services via electronic channels. The benefits and challenges in using electronic channels are summarised in Table 2.3:

Table 2.3 Benefits and challenges of Electronic Distribution of Services

Benefits	Challenges
<ul style="list-style-type: none"> • Consistent delivery for standardised services 	<ul style="list-style-type: none"> • Price competition
<ul style="list-style-type: none"> • Low cost 	<ul style="list-style-type: none"> • Inability to customise with highly standardised services
<ul style="list-style-type: none"> • Wide distribution 	<ul style="list-style-type: none"> • Changes in consumer behaviour
<ul style="list-style-type: none"> • Customer choice and ability to customise 	<ul style="list-style-type: none"> • Security concerns
<ul style="list-style-type: none"> • Quick customer feedback 	<ul style="list-style-type: none"> • Competition from widening geographies
<ul style="list-style-type: none"> • Customer convenience 	<ul style="list-style-type: none"> • Lack of consistency due to customer involvement

Zeithaml et al. (2006: 434)

As listed in Table 2.3, benefits in electronic distribution of services are opposite to those challenges based on the characteristics of electronic delivery system. Since customers do not directly contact people in the electronic delivery system, prices of services are difficult to compare with each other while standardised service can be executed consistently. Also, customers have the tendency to inconveniently customise highly standardised services while service companies reduce the cost of operation. Another challenge is that customers have to be familiar with the services interface before they can easily access and use a firm's service when and where they want. Therefore, customers would enjoy the service in a wider area if consumer behaviour can be changed. Customers can choose and customise the different service processes. However, the security of personal information is a noticeable issue, particularly health and financial information. Service companies can find out immediately what customers think of services. At the same time, they may face more competitors far from the local area.

Bruhn and Georgi (2006:256) indicate that many service firms have to offer various service channels simultaneously since every channel has different profits to service providers and their customers. In general, the choice of service channels can influence service performance in the process of service delivery.

2.11 CONCLUSION

This chapter identified various issues relating to service quality. The importance of customer expectations, perceptions and satisfaction has been discussed in terms of evaluating service quality. The potential causes of service quality gaps have also been addressed. These gaps are important in assessing the customers' overall perception of what is expected against what is received. The SERVQUAL model based on the gaps models has been explained. In chapter 3, the research methodology will be discussed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In chapter 2, an overview of the student perceptions and expectations of the sports offering at the DUT and SERVQUAL measurement theory, was described and examined. The information gained in the literature study was used to answer the research questions namely: to identify students' expectations of service quality in sport at the DUT; to determine students' perceptions of the service quality in sport at the DUT; to determine the gaps between expectations and perceptions; and to analyse the relationship between selected biographical characteristics and expectations and perceptions of students.

To put the empirical findings into perspective, it is important to understand the research methodology followed. This chapter, therefore, provides the rationale for the research design, data collection, sampling method, questionnaire, and data analysis.

3.2 RESEARCH DESIGN

Collis and Hussey (2003:113) define research design as “the science (and art) of planning procedures for conducting studies so as to get the most valid findings” since the choice of a right research design is a key step of the empirical study and the total success of the study. Jankowicz (2005:196) describes research design as “the deliberately planned arrangement of conditions for analysis and collection of data in a manner that aims to combine relevance to the research purpose with economy of procedure”.

The purpose of the study was to examine the different dimensions of service quality and then identify the critical elements of service quality in the current service offering at the DUT. The research, therefore, employed a descriptive study to investigate what factors influenced the service quality in the DUT. Cooper and Schindler (2003: 149) state that descriptive research is a type of study which tries to find out who,

what, when, where, or how much.

As a positivistic research, the study also utilised a cross-sectional study to obtain information under field conditions. Cross-sectional studies are inexpensive and the most frequently used descriptive design in marketing research. Collis and Hussey (2003:61) state that cross-sectional studies are often used to investigate economic characteristics of large number of people or organisations when there are constraints of time or resources. The research collected data from six campuses across DUT.

The SERVQUAL instrument was used as the primary instrument for measuring service quality. A questionnaire with 44 questions was the primary data collection method used to explore the expectations and perceptions of quality service provided. From the measurement, service quality levels in the current service offering in the DUT were determined. This kind of information has practical implications for the DUT as they can direct their resources to improving weak service dimensions and to refining their marketing efforts so that customer expectations are met by the services delivered.

3.3 POPULATION AND SAMPLING

Jankowicz (2005:202) states that a good sample design not only helps identify the kind of data, but also leads to efficient and accurate data collection. Planning sample design, as a crucial step of the primary data collection in a positivistic research process, involves three dimensions: the target population, sampling methods and sampling size (Churchill and Lacobucci, 2005:41).

3.3.1 Target population

The target population refers to the total that is made up from units falling into various subgroups in which the researcher might be interested. The selected sample, as a subset of the target population, provided data from which one can draw and make decisions about the larger group and fully reflect the population (Wegner, 2001:169). Fridah (2000) also describes sampling as “the act, process or technique of selecting a suitable sample or representative part of the population for the purpose of parameters or characteristics of the whole population”. The target population for this

research was 21000 students who are registered at the DUT.

3.3.2 Sample size

In general, the larger the sample is, the better the result is for research purposes. However, this generalization does not fit all situations. To some extent, the size of an adequate sample depends on how homogeneous or heterogeneous the population is, in other words, how alike or different its members are. A heterogeneous population requires larger samples, whereas smaller samples are adequate for a homogeneous population (Leedy and Ormrod, 2005:207-208).

According to Sekaran and Bougie (2010:294-295), sample sizes larger than 30 and less than 500 are appropriate for most research. Leedy and Ormrod (2005:207) also believe that a sample size 400 will be adequate if the target population size is beyond 5000. This research selected 400 students as respondents at the DUT.

3.3.3 Sampling method

There are various sampling methods which can be used to select a sample. Jankowicz (2005:202-203) refers to two major categories of sampling, namely probability and non-probability sampling. Probability sampling is the most common technique when a survey needs to make inferences from the population. Non-probability sampling is impossible to reflect on the total population in terms of the researchers' subjective judgment. Leedy and Ormrod (2005:206) also indicate that non-probability is quite subjective and the surveys can produce acceptable results more quickly and at a low cost than a probability sampling.

This study employed a non-probability sampling method, since the researcher had no way of forecasting or guaranteeing that each element of the population could be identified in the sample. This preference also means choosing a sample in such a way that some members of the population have little or no chance of being selected.

In this research, another three types of non-probability sampling were employed. First, judgmental sampling was used to choose the place where the questionnaires were administered. In this case the DUT was selected as the sampling location. Secondly, convenience sampling, as the cheapest and easiest to conduct for the

sample, was used to select respondents. Cooper and Schindler (2008:201) suggest that this method is often used to test ideas or even to gain knowledge of situations or subjects of interest, hence, the choice of convenience sampling by the researcher. During the data collection period, a total of 400 students at the Durban University of Technology were selected through the method of convenience sampling explained above.

Finally, quota sampling was used to seek respondents in the same proportions. This method is regarded as the most useful form of non-random sampling and does offer a cost and time-effective solution for questionnaire-based research by the market research industry (Curwin and Slater, 2002:50-51). Leedy and Ormrod (2005:206) further indicate that it is a variation of convenience sampling. The sample included 400 students in terms of the predicted proportion of 21000 students studying at DUT (see Table 1.1). The breakdown of the quota was calculated using the mean proportion percentage across the faculties of the DUT.

3.4 DATA COLLECTION

Churchill and Lacobucci (2005:167) state that data collection is an important part of a problem solving process to clarify the purpose of any research. Various data collection techniques exist. Ferreira (2005:366) states that primary data collection methods can be classified in three ways: surveys, observations and experiments. Surveys, where respondents are asked for their answers, are the method of choice in descriptive research studies. Descriptive studies concentrate on the population from which the sample has been drawn. As this is a quantitative study, the survey method has been used to gather primary data.

Hair, Bush and Ortinau (2000:256) distinguish among four types of survey methods, namely: person-administered, telephone-administered, self-administered and computer-assisted surveys. This study employed a person-administered survey which is regarded as the most appropriate data collection technique based on three advantages: more friendly contact, more orderly and 100% response rate. To collect responses at the Durban University of Technology, the researcher employed 10 students from DUT. The face-to-face questionnaire was administered by these

trained fieldworkers during the selected periods between 16 May and 05 June 2010.

3.5 QUESTIONNAIRE DESIGN

Collis and Hussey (2003:173) state that a questionnaire is “a list of carefully structured questions, chosen after considerable testing, with a view to eliciting reliable responses from a chosen sample”. Wegner (2001:17) also believes that a questionnaire, as one of the most widely used survey data collection techniques, can be used to collect data in all interview situations. Questionnaires have several advantages:

- Each respondent is asked the same question;
- They can be administered at minimum cost;
- They provide an efficient way of collecting responses from a large sample prior to the quantitative analysis; and
- The respondents remain anonymous and can provide a truthful answer without fear of victimisation, and allow contact with inaccessible respondents such as CEO's.

Consequently, this research involved the use of structured questionnaires as a means of gathering information. Sekaran (2010:188) states that structured questionnaires are conducted when the information required is known in advance.

3.5.1 Questionnaire content

The relevant literature and survey instruments developed by past studies provided the basis for developing the questionnaire for this study. The instrumentation employed for this research was modeled after the SERVQUAL scale developed by Parasuraman *et al.* in 1994 since it has been supported with sufficient empirical research (Brady *et al.*, 2002:26). In most cases, SERVQUAL has been found to be a relatively simple and inexpensive instrument that provides valuable information on an organisation's service quality. A number of researchers have applied the SERVQUAL model to measure service quality in the sport industry (Bebko, 2000: 13). Similarly, the present study utilised a modified version of the SERVQUAL instrument (see Appendix B).

3.5.2 Question format and type

The data obtained by means of the expectations and perceptions questionnaires were gathered by requesting respondents to express their levels of expectation and agreement with the statements. To accomplish this request, a five-point Likert scale was used to score the questions. Scoring for the scale was as follows: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. The Likert scale is the most widely used form of scaled items where the respondent chooses a point on the scale that best represents his/her view (Leedy and Ormrod, 2005:185). All the questionnaires were written in English, since the international language is suitable for the target population. The respondents remained anonymous throughout the self-administered questionnaire method.

3.5.3 Pre-testing

Pre-testing of the questionnaire is an important step in the entire research process. Churchill and Iacobucci (2005:254) state that the real test of a questionnaire is how it performs under actual conditions of the data collection. Pre-testing ensures that the questionnaire has been designed to perform the function it was intended for and that the data collected is relevant and accurate.

The process of the pre-test may be necessary to make amendments to the questionnaire and to test the face validity of the survey instrument. Firstly, the questionnaire was checked and evaluated by the supervisor. Then an appropriate pre-testing study was conducted amongst ten post graduate students of the Durban University of Technology. The results of pre-testing provided valuable information for avoiding ambiguous questions and the instrument was refined accordingly for the final stage in questionnaire construction.

3.6 DATA ANALYSIS

After the data has been collected, the next step in the research process is the data analysis. The purpose of the analysis is to interpret and draw conclusions from the mass of collected data. The marketing researcher may apply a variety of techniques, beginning with simple frequency analysis (percentages) to sample statistics measures (mode, median, mean, range, standard deviation) to culminating

into complex multivariate techniques (Hair *et al.*, 2000:42).

In this study, the collected data was analysed using a computerized statistical analysis (i.e. SPSS program version 14) and some appropriate descriptive and inferential analysis techniques in order to determine the factors that influence the service quality of the current sport offering in the DUT. The whole data analysis process included data preparation and various tests about the importance of different dimensions in service quality.

3.6.1 Data preparation

Data preparation includes editing, coding and data entry. To assure gathered data is accurate and complete, editing, as the first step in any analysis process, includes checking for interviewers and respondents mistakes and correcting the errors. Coding refers to the process of classifying raw data gathered and converting data to numerical code for helping the researcher to make analysis more efficient. Data entry is an important step to analysis of the responses from a large questionnaire survey using a computer statistics package (Cooper and Schindler, 2003:454-472).

In the process of editing, all questionnaires complied with the requirements. As discussed previously, all codes were established early in the research process since the questionnaire applied a closed question format. The pre-coding made the coding and data entry clearer and smoother.

3.6.2 Data analysis and interpretation of the results

After the data collected was inputted and stored, they were carefully summarized and analysed by the use of statistical techniques. Since the purpose of statistics is different, statistical procedures have two major categories, namely, descriptive statistics and inferential statistics, respectively (Collis and Hussey, 2003:196). The related statistical analysis process in the study was covered under the following headings:

3.6.2.1 Descriptive statistics

Descriptive statistics is used to identify or summarise the general nature of all the response obtained. Descriptive statistics is the most useful technique to present and

summarise the data in table, charts, graphs and other diagrammatic forms. In this study, three main groups of descriptive statistics techniques (namely frequency, measures of location or central tendency, measures of dispersion) were used (Sekaran, 2010:313).

A frequency is a numerical value which represents the total number of observations for a variable under study. A frequency distribution either gives a clearer impression of the characteristics of each set of scores or indicates the relationship between the two sets (Saunders *et al.*, 2003:130). In this research, frequency distribution, as an economical way of organising the data, was used to obtain a profile of the sample.

However, for the purposes of describing the results and drawing inferences from the data, central tendency and dispersion are the most important descriptive parameters. A measure of central tendency is a convenient way of describing a large frequency distribution by means of a single value. The main measures of central tendency includes: the mean, the median, and the mode. The other is measure of dispersion which is a way of describing the spread of values in a data distribution. The measure of location and dispersion are often used together for obtaining a concise and useful description of the distribution of the data. The standard deviation is the most important measure of spread because it uses every value and is expressed in the same units as the original data (Cooper and Schindler, 2003:474-475).

3.6.2.2 Inferential statistics

According to Leedy and Ormrod (2005:30), inferential statistics draw conclusions about a complete population by quantitative data collected from a sample. Inferential statistical is used when ideas, hypotheses or predictions need to be tested. All measures of inferential statistics are divided into four groups in terms of estimating from samples, measuring association, measuring difference, and forecasting (Collis and Hussey, 2003:197). In this research, some measures of the first three groups were used as follows:

- **The t- test**

The test is used to see if there are any significant differences in the means for two groups in the variable of interest (Sekaran, 2003:376). In this study, the paired t-test

was carried out to test the significant difference between the two means of expectations and perceptions.

- **Analysis of Variance (ANOVA)**

McDaniel and Gates (2005:315) indicate that ANOVA is a statistical procedure in order to look for differences among three or more means by comparing the variances both within and across groups. In this study, ANOVA was used to determine whether expectations and perceptions of service quality are influenced within the different age groups.

3.7 VALIDITY AND RELIABILITY

As with computer applications, the spreadsheets allow the researcher to save, store and easily update information as needed, as well as print information when required. Reducing the possibility of getting the wrong answers means that the researcher must pay attention to two particular criteria of research design: reliability and validity, hence the discussion as follows.

3.7.1. Validity

Validity and reliability are terms one encounters throughout the research process and are used primarily in connection with the measuring instruments. The validity of a measurement is the extent to which the instrument measures what it is actually intended to measure (Leedy and Ormrod, 2005:28). According to De Vos (2002: 167), there are four types of validity. These are:

- Face validity – it refers to whether the statements are appropriate; it relies on the subjective judgment of the researcher;
- Content validity – it is the accuracy with which an instrument measures the contents being studied;
- Criterion validity – it is determined by relating the performance of one measure against another with the second measure checking the accuracy of the first measure; and
- Construct validity – it is the degree to which the content of the study is actually measured by the questionnaire.

In this study, the above-mentioned validation methods were utilized. The researcher took the following actions to ensure validity:

- The development of the questionnaire was based on the SERVQUAL measurement theory, which was presented in chapter two;
- The questionnaire was subjected to academics and professionals in the field of Marketing, and the opinion of erudite individuals was taken into account in the form of a pilot study; and
- The questionnaire was subjected to a pilot group who had characteristics similar to those of the target group.

3.7.2 Reliability

According to Leedy and Ormrod, (2005:29), reliability can be seen as the consistency of performance of the measuring instrument. This means that, apart from delivering accurate results, the measuring instrument must deliver similar results consistently. Saunders et al (2003:106) assert that there are four threats to reliability, namely:

- Subject error – choose a neutral time for respondents to complete the questionnaire;
- Subject bias –respondents may be answering what thought the interviewer wanted to hear ;
- Observer error- the different approaches to eliciting answers; and
- Observer bias- as with observer error, with different people interpreting the same research, there may be different approaches to interpreting the replies.

Therefore, the researcher employed the following measures to ensure the reliability of the study under investigation

- A pre-test study of the questionnaire was to make certain that all questions and statements were both relevant and easily understood;
- The questionnaires of the study ensure the anonymity of the respondents;
- The researcher had trained all field workers so that they could conduct the interviews with the same approach;
- The questionnaires used a closed question format; and

- Cronbach alpha was calculated to measure the reliability of the measurement,

3.8 CONCLUSION

This chapter discussed research design, research method, sampling design, questionnaire design, reliability and validity, and data analysis. The research was a descriptive research, utilizing the amended SERVQUAL instrument to assess the current expectations and perceptions held by students with respect to the quality of services. The aim was to analyse the empirically gathered data and identify any gaps between the expectations and perceptions of the respondents. The findings from the empirical study will be discussed in Chapter 4.

CHAPTER FOUR

FINDINGS OF THE EMPIRICAL RESEARCH

4.1 INTRODUCTION

In Chapter three, the research design, data collection methods, and questionnaire design were discussed. The purpose of this chapter is to present and interpret the findings of the empirical study. Descriptive statistics and inferential statistics are used to explore the relationship between these factors and student expectations and perceptions of the service offerings at the Durban University of Technology. All statistical results of the study are from the statistical computer programme SPSS version 15.

First of all, this chapter analyses all demographic information (see Section C of the questionnaire) obtained from 400 respondents who chose the expectations and perceptions in the service offerings in the DUT. Secondly, a detailed analysis of the findings relating to Section A and Section B of the questionnaire is explained. Thereafter, the chapter focuses on analyzing the means gaps in terms of the different factors. Eventually, correlation analysis, T-test and the ANOVA test are used to determine relationships or differences of the factors influencing the student expectations and perceptions of the service offerings at the DUT.

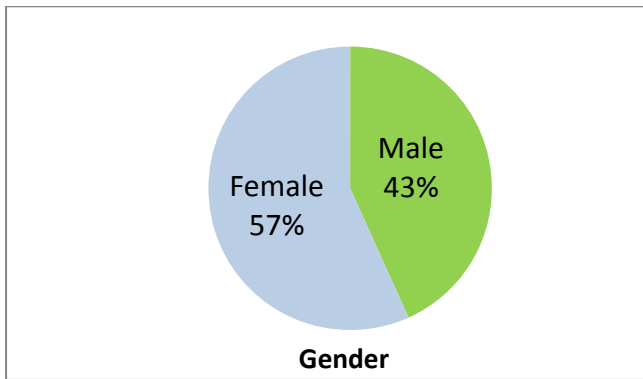
4.2 DEMOGRAPHIC DETAILS OF RESPONDENTS

This section describes the demographic profile of the respondents, including gender, age, and regional distribution of the 400 respondents. The detailed information is explained as follows:

4.2.1 Gender

As shown in Figure 4.1, the percentage of male respondents was 43.3%, while the percentage of female respondents was 56.7%. The sample of students comprised more females (227) than males (173).

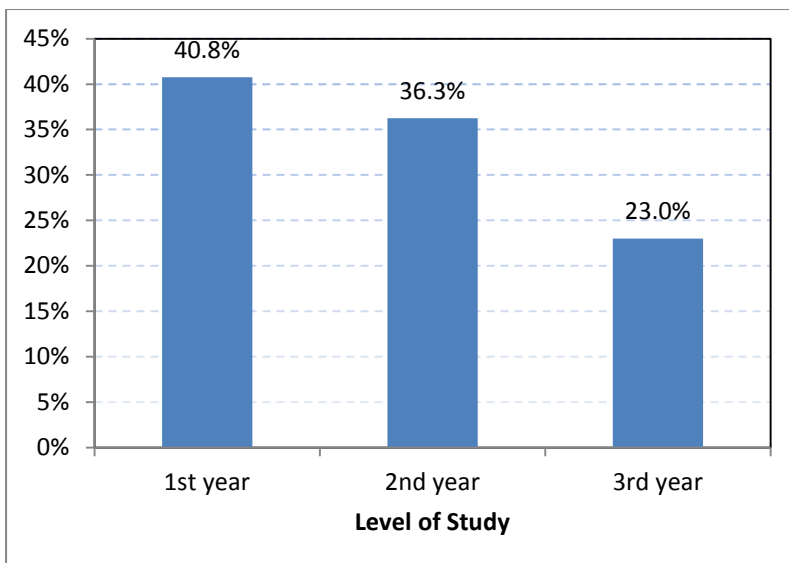
Figure 4.1 Gender of respondents



4.2.2 Level of study

Figure 4.2 indicates that 40.8% (163) of the respondents were in their first year of study, followed by 36.3% (145) in their second year, 23% (92) consists of third years. The demographic level of study profile demonstrated that the first year level of study was the dominant group

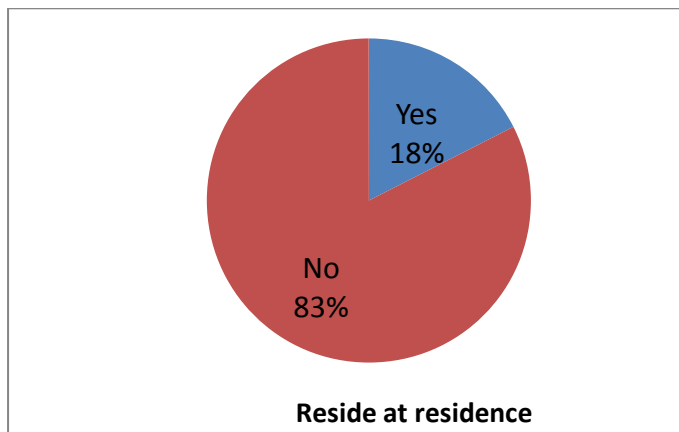
Figure 4.2 Level of study of respondents



4.2.3 Residence students

As shown in figure 4.3, the percentage of respondents residing in residence was 17% (70), while 83% (330) were non-resident respondents.

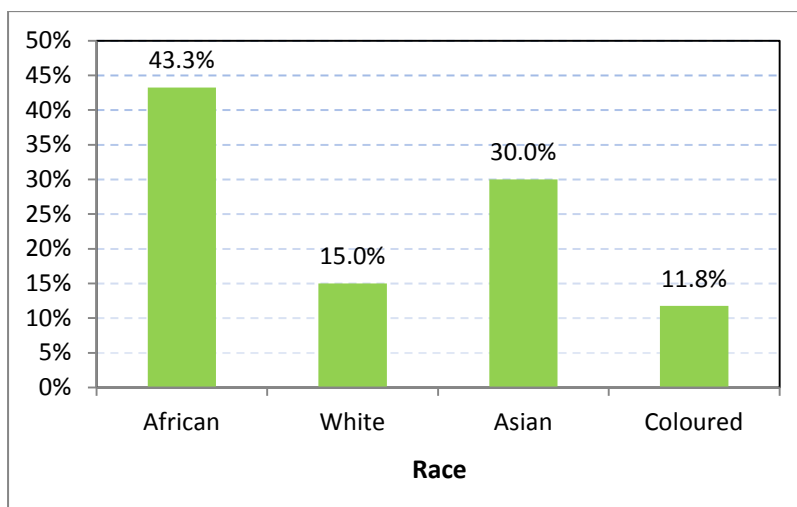
Figure 4.3 Residence and Non-residence respondents



4.2.4 Race

As reflected in Figure 4.4, 43.3% (173) of the respondents were African, followed by 30% (120) Asian, 15% (60) White and 11.8% (47) Coloured.

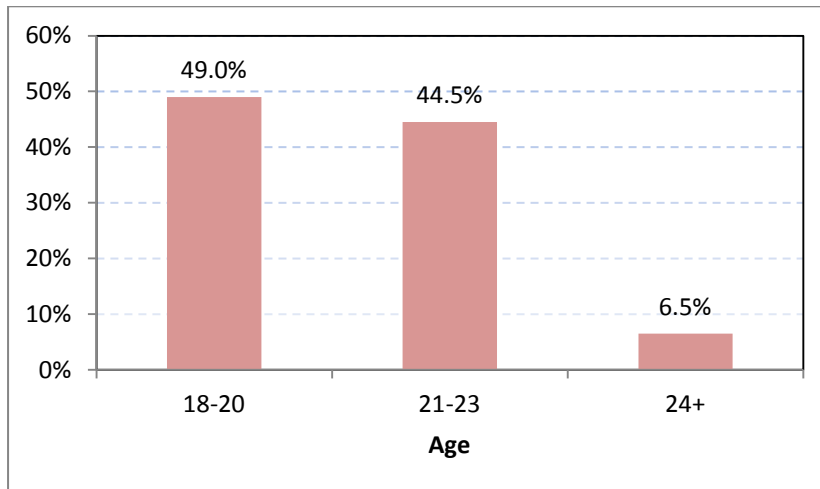
Figure 4.4 Race of respondents



4.2.5 Age

49% (196) of the respondents were in the 18-20 age group, followed by 44.5% (178) in the 21-23 age group and 6.5% (26) of the respondents were 24 years and above as indicated in Figure 4.5. The demographic age profile of this study indicates that the 18 to 20 age group was the dominant group.

Figure 4.5 Age of respondents



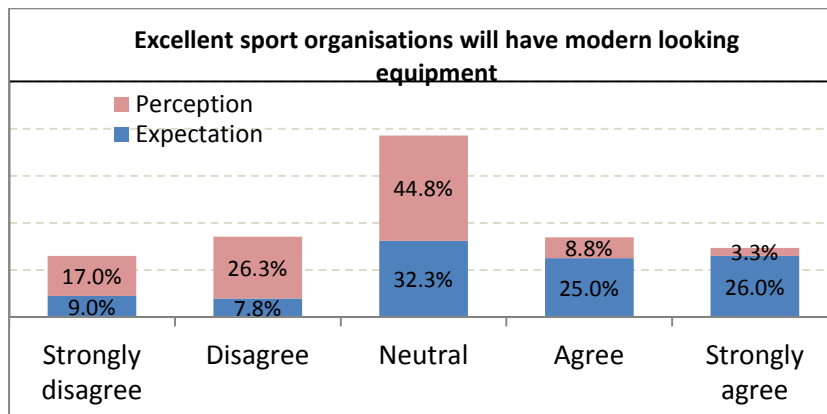
4.3 DESCRIPTIVE STATISTICS ON THE DIMENSIONS

The research on measuring service quality has focused primarily on meeting or exceeding customers' expectations. The following sections are comprehensive statistics of the original 22 statements with reference to customer service. All statements are measured on five-point scales ranging from "1=strongly disagree" to "strongly agree".

4.3.1 Statement 1: Equipment is modern looking

The data reflected in Figure 4.6 revealed that the expectations and perceptions of respondents in this study in terms of the modern looking equipment in excellent sport organizations: 9% (strongly disagree), 7.8% (disagree), 32.3% (neutral), 25% (agree) and 26% (strongly agree). The relevant perceptions were as follows: 17% (strongly disagree), 26.3% (disagree), 44.8% (neutral), 8.8% (agree) and 3.3% (strongly agree). Over half of the respondents (51%) expect that sport organisations should have modern looking equipment. However, the perception indicates that 44.8% were neutral.

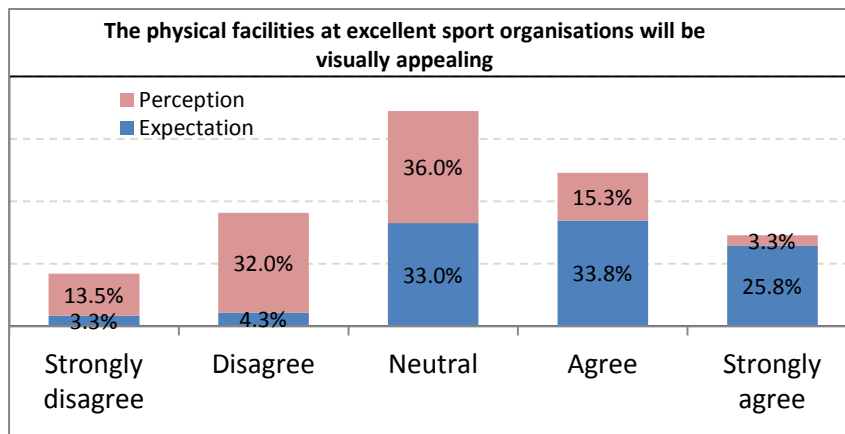
Figure 4.6 Equipment is modern looking



4.3.2 Statement 2: Physical facilities is visually appealing

The aim of statement 2 was to gain the customers' perceptions of the modernity of those sport organisations equipment. As shown in Figure 4.7, the perceptions of respondents were as follows: 13.5% (strongly disagree), 32% (disagree), 36% (neutral), 15.3% (agree) and 3.3% (strongly agree). More than half of the respondents (59.6%) expected that the DUT sport should provide more advanced facilities, While 36% of respondents' perceptions were neutral.

Figure 4.7 Physical facilities is visually appealing

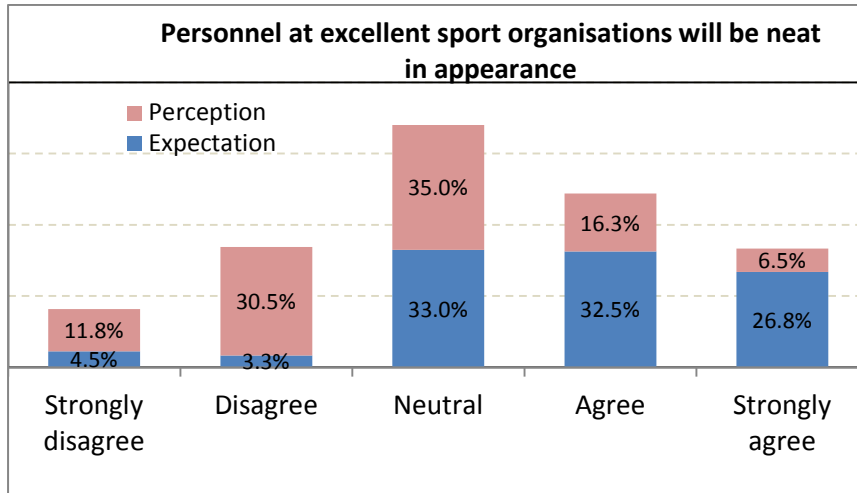


4.3.3 Statement 3: The dress of staff is neat and smart

The aim of statement 3 was to gain the customers' perceptions of the personnel. As shown in Figure 4.8, the perceptions of respondents were as follows: 11.8% (strongly disagree), 30.5% (disagree), 35% (neutral), 16.3% (agree) and 6.5% (strongly agree). Although more than half of the respondents (59.3%) expected that

the DUT sport personnel should be neat in appearance, 33% were neutral and 7.8% disagreed.

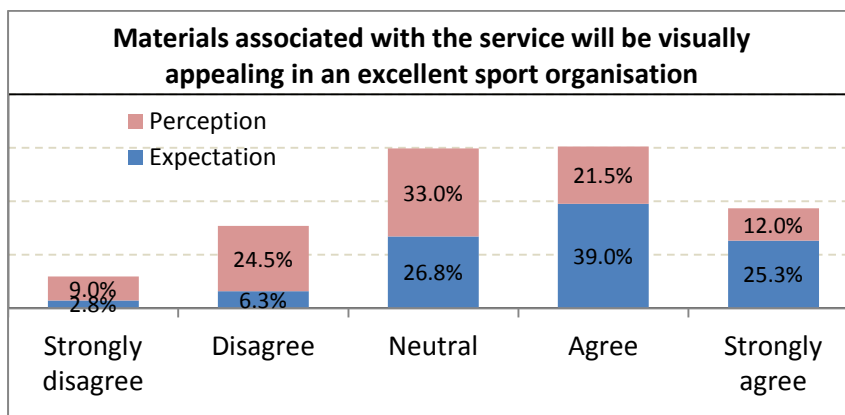
Figure 4.8 The dress of staff is neat and smart



4.3.4 Statement 4: Materials are visually appealing

The aim of statement 4 was to gain the customers’ perceptions of the modernity of the sport equipment. 9% (strongly) disagree), 24.5% (disagree), 33% (neutral), 21.5% (agree) and 12% (strongly agree as shown in Figure 4.9. Although more than half of the respondents (64.3%) expected that materials should be visually appealing, the perceptions indicated that 33.5% of the respondents were dissatisfied while 33% of them were uncertain.

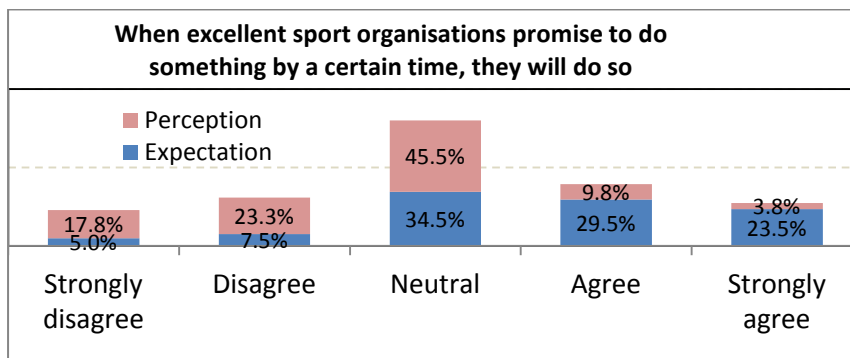
Figure 4.9 Materials are visually appealing



4.3.5 Statement 5: Promise to do something on time

The response to statement 5 indicated that DUT sport lags in terms of the fulfillment of promises. The expectations to the statement in figure 4.10 were as follows: 5% (strongly disagree), 7.5% (disagree), 34.5% (neutral), 29.5% (agree) and 23.5% (strongly agree). The relevant perceptions were as follows: 17.8% (strongly disagree), 23.3% (disagree), 45.5% (neutral), 9.8% (agree) and 3.8% (strongly agree). Less than half of the respondents (41.1%) disagreed with this statement. At the same time, it is interesting to note that the expectations of students showed that 34.5% were neutral.

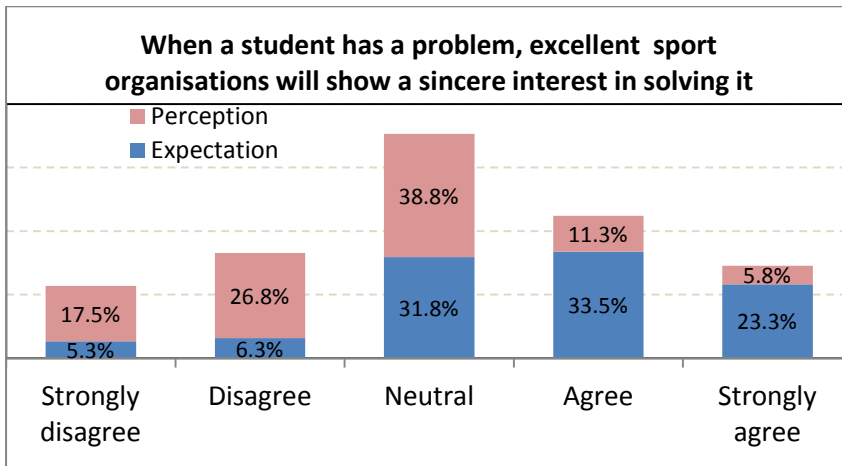
Figure 4.10 Promise to do something on time



4.3.6 Statement 6: Staff willing to solve problems

Statement 6 aimed to assess whether the sport department at the DUT showed a sincere interest in problem-solving. As shown in Figure 4.11, the responses were highly negative. Nearly half of the respondents were disappointed. Only 17.1% of the respondents agreed with the statement. Moreover, the expectations indicated that 38.1% of respondents were not convinced.

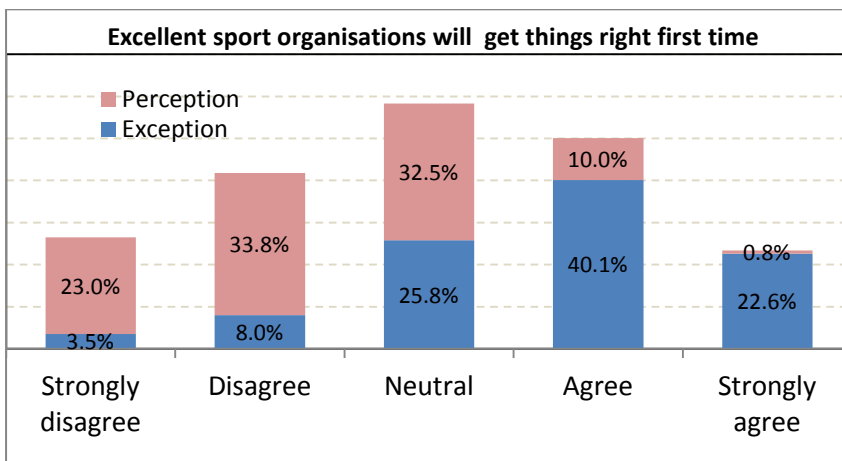
Figure 4.11 Staff willing to solve problems



4.3.7 Statement 7: Get things right the first time

The aim of statement 7 was to gain the students' perceptions of the personnel. As shown in Figure 4.12, the perceptions of respondents were as follows: 23% (strongly disagree), 33.8% (disagree), 32.5% (neutral), 10% (agree) and 0.8% (strongly agree). Although more than half of the respondents (62.7%) expected that the DUT sport personnel should get things right the first time, the perceptions indicated that 55.8% of the respondents disagreed while 32.5% were neutral.

Figure 4.12 Get things right the first time

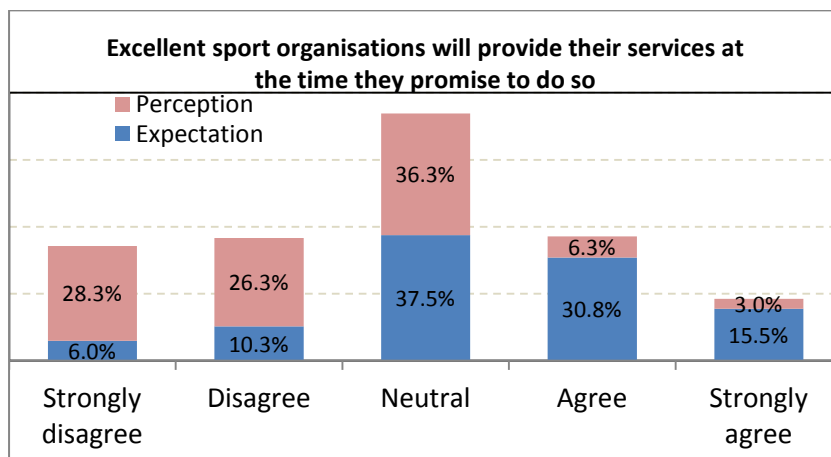


4.3.8 Statement 8: Services are rendered at promised times

The aim of statement 8 was to gain the customers' perceptions as to whether services are rendered on time. As shown in Figure 4.13, the perceptions of respondents were as follows: 28.3% (strongly disagree), 26.3% (disagree), 36.3%

(neutral), 6.3% (agree) and 3% (strongly agree). Although more than half of the respondents (56.8%) expected that the DUT sport should render services at promised times, the perceptions indicated that 54.6% of the respondents were dissatisfied while 36.3% of them were neutral.

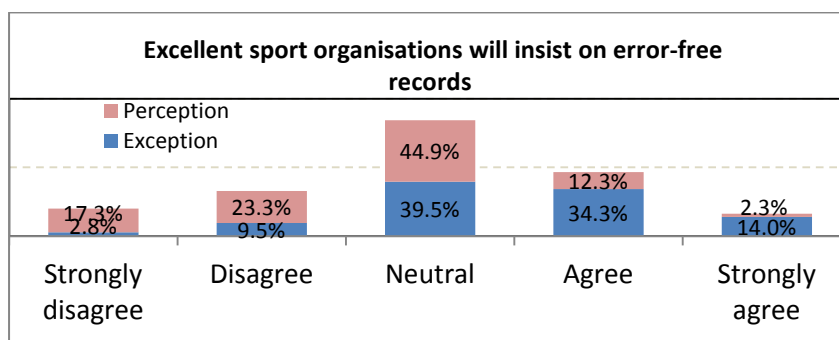
Figure 4.13 Services are rendered at promised times



4.3.9 Statement 9: Staff at DUT insist on error-free records

As evidenced from figure 4.14, the percentage of “Neutral” responses for the expectations and perceptions were 39.5% and 44.9% respectively. While 48.3% of the respondents agreed or expected recording systems to be error-free, 14.6% perceived it to be error-free.

Figure 4.14 Staff at DUT insist on error-free records

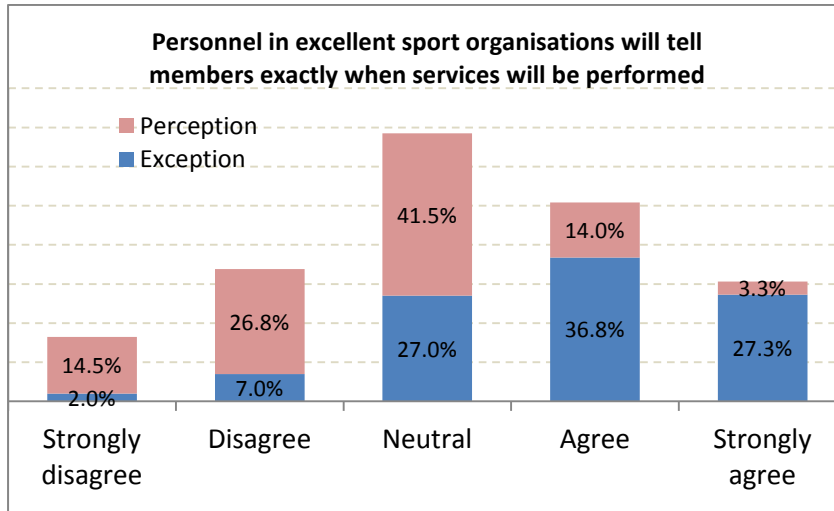


4.3.10 Statement 10: Getting information about facilities and sports offerings

The purpose of statement 10 was to assess whether students can easily gain information. Almost half of the respondents (41.3%) expressed difficulty in finding available information about the services offered by the sports department. As shown

in Figure 4.15, the perceptions to the statement were as follows: “Neutral” (41.5%), “Agree” (14.0%) and “Strongly agree” (3.3%).

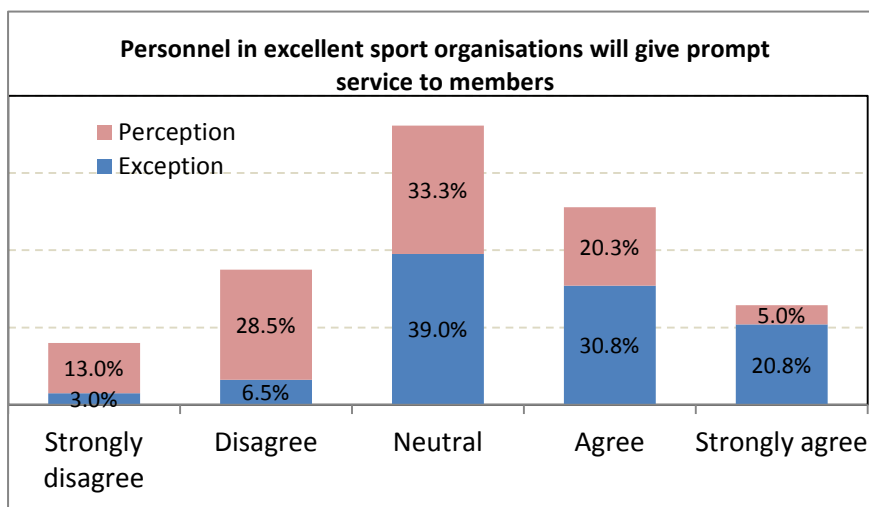
Figure 4.15 Getting information about facilities and sports offerings



4.3.11 Statement 11: Staff will give prompt attention to students

Figure 4.16 revealed the expectations and perceptions of the respondents in this project in terms of responsiveness of staff. As shown in figure 4.16 below, the “Neutral” scales of expectations and perceptions of the respondents were dominant, 39% and 33.3% respectively. Just over half (51.6%) of the respondents expected that staff will give prompt attention to students, while 41.5% disagreed with this statement.

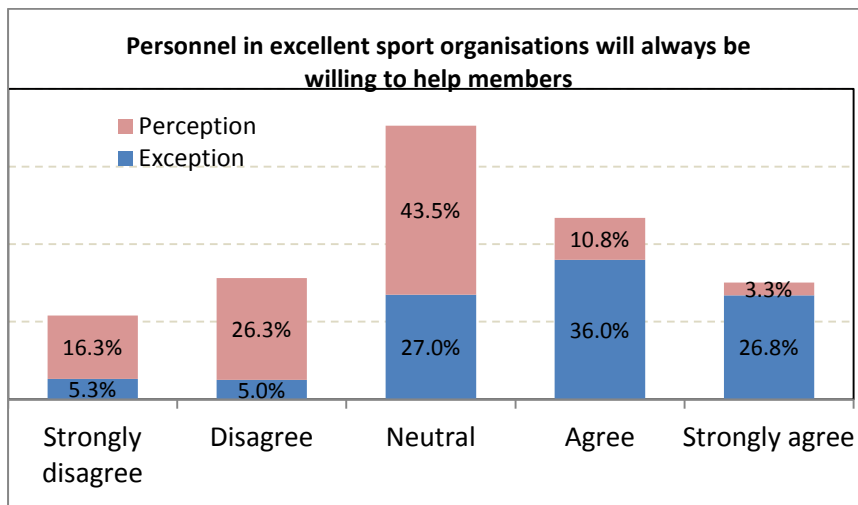
Figure 4.16 Staff will give prompt attention to students



4.3.12 Statement 12: Staff are always willing to help students

Figure 4.17 revealed the expectations and perceptions of respondents in this project in terms of responsiveness of staff. As shown from the Figure below, the “Neutral” scale of perceptions of the respondents is dominant (43.5%). It is noted that while 62.8% of the respondents expect staff would be willing to help students, only 14.1% of them actually agreed with this statement.

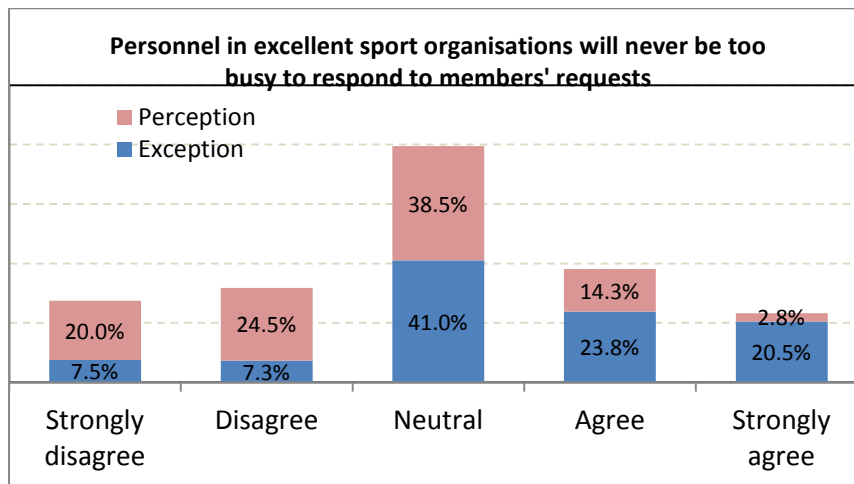
Figure 4.17 Staff are always willing to help students



4.3.13 Statement 13: Staff response to students' request

Figure 4.18 revealed the expectations and perceptions of the respondents in this project in terms of courtesy of staff in the sports department of DUT. 44.3% of the respondents expected staff to be polite while 44.5% of the respondents disagreed with the statement. The “Neutral” responses attributed to expectations and perceptions were 41% and 38.5% respectively.

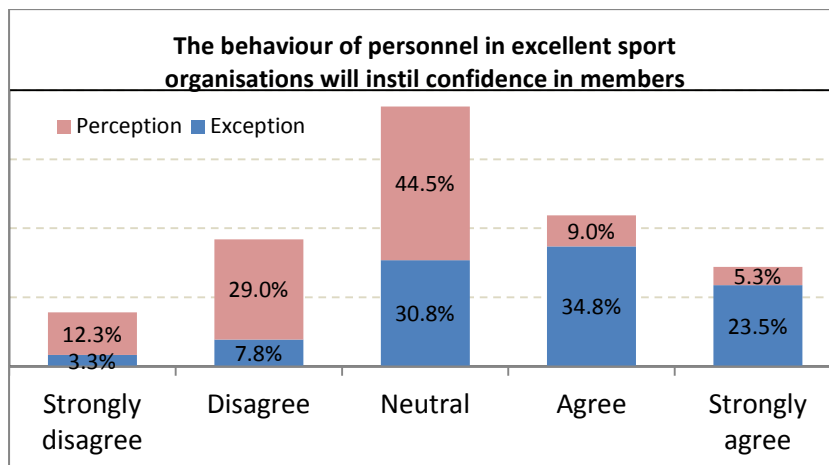
Figure 4.18 Staff response to students' request



4.3.14 Statement 14: Staff instills confidence in students

As shown in Figure 4.19, 6% of respondents strongly disagreed with the statement, 18% disagreed, 34.3% being neutral, 32.7% agreed, and 9% strongly agreed. The percentage of the relevant expectation was far more than half (61.2%).

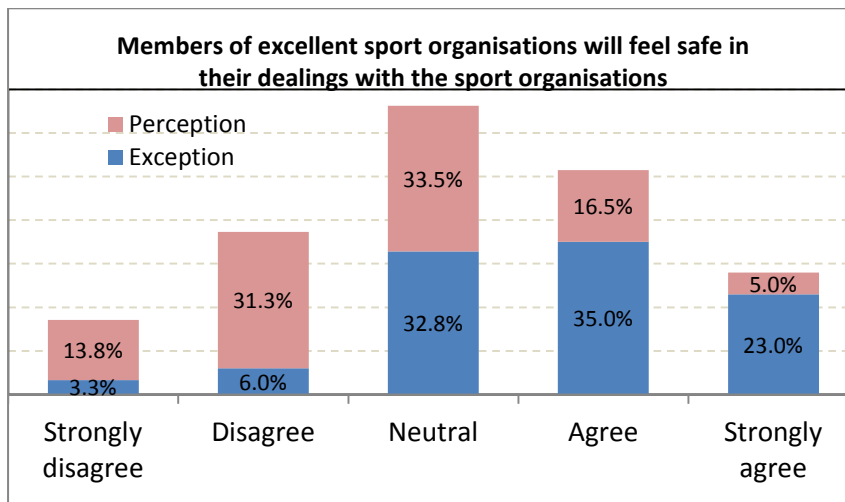
Figure 4.19 Staff instills confidence in students



4.3.15 Statement 15: Students feel safe in their dealings with staff at the sports office

As shown in Figure 4.20, although 33.5% of the respondents were neutral as indicated by the “neutral” responses, only 21.5% of the respondents agreed that they feel safe in their dealings with staff in the sports office.

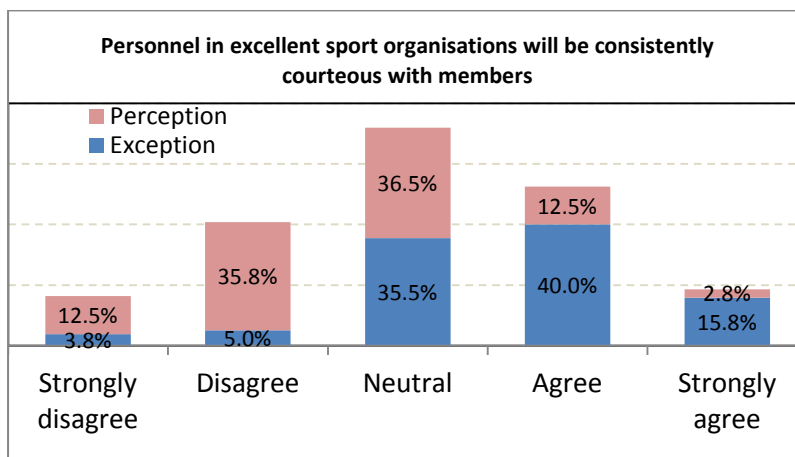
Figure 4.20 Students feel safe in their dealings with staff at the sports office



4.3.16 Statement 16: Staff are always polite

Figure 4.21 revealed the expectations and perceptions of respondents in this project in terms of courtesy of staff in the DUT sports department. More than half of the respondents (55.8%) agreed with the statement.

Figure 4.21 Staff are always polite

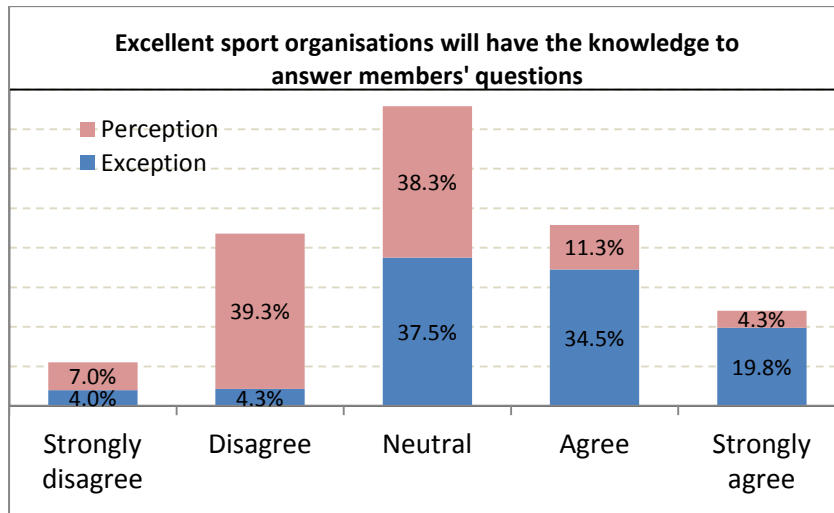


4.3.17 Statement 17: Staff can provide complete answers when they attend to students' request

The aim of statement 17 was to further estimate the influence of the knowledge and enthusiasm of staff. The expectations to the statement in Table 4.15 were as follows: 4 % (strongly disagree), 4% (disagree), 37.5% (neutral), 34.5% (agree), and 19.8% (strongly agree). The relevant perceptions were as follows: 7% (strongly

disagree), 39.3% (disagree), 38.3% (neutral), 11.3% (agree), and 4.3% (strongly agree). As with attribute 15, the neutral point of the scale is high.

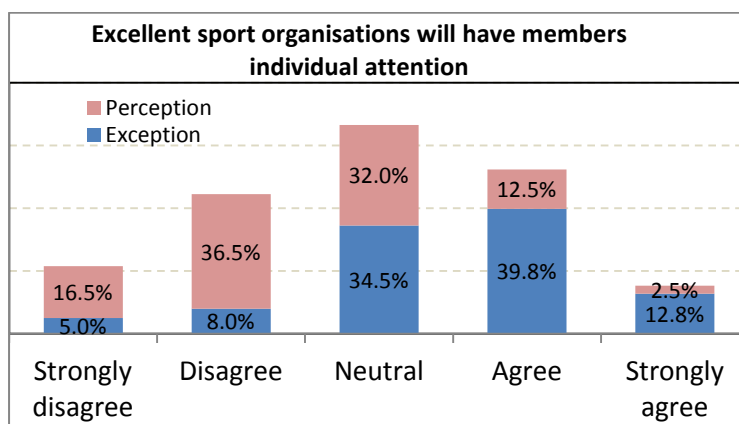
Figure 4.22 Staff can provide complete answers when they attend to students' request



4.3.18 Statement 18: Staff can provide individualised attention to help students

Statement 18 revealed the expectations and perceptions of respondents in terms of individualised attention of staff. As shown in Figure 4.22, the expectations to the statement were as follows: 5% (strongly disagree), 8% (disagree), 34.5% (neutral), 39.8% (agree) and 12.8% (strongly agree). However, 32% of the customers surveyed seem undecided, as shown by the “Neutral” responses.

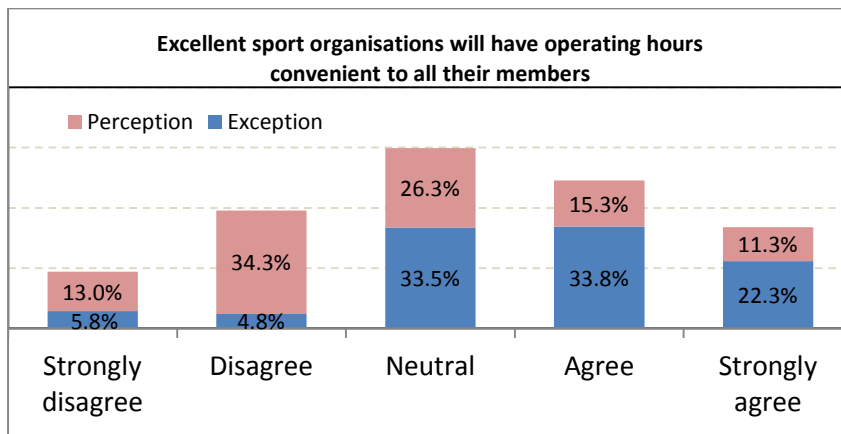
Figure 4.23 Staff provides individualised attention to help students



4.3.19 Statement 19: DUT Sports department have operating hours convenient to all students

In Figure 4.24, the data revealed the expectations and perceptions of respondents in this project in terms of convenience of operation hours. The expectations to statement were as follows: 5.8% (strongly disagree), 4.8% (disagree), 33.5% (neutral), 33.8% (agree), and 22.3% (strongly agree). A total of 2 out of 5 respondents were uncertain that the DUT Sports department can provide reasonable and convenient operation hours for playing of sport. In fact, the customers' perceptions also indicated that 47.3% of the respondents disagreed that operating hours are convenient. 16.3% of the respondents were completely disappointed. The percentage that "disagreed" was even more than the percentage that "Agreed" (15.3%).

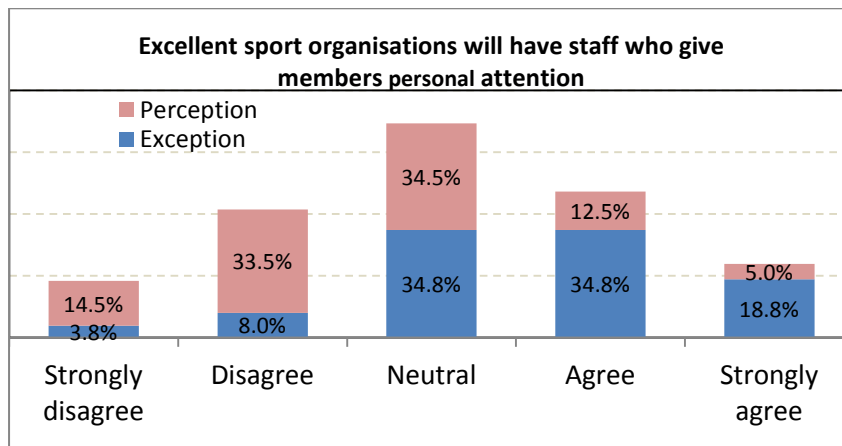
Figure 4.24 DUT Sports department have operating hours convenient to all students



4.3.20 Statement 20: Have staff that provides personal attention to help customers

Statement 20 revealed the expectations and perceptions of respondents in this project in terms of individualised attention of staff. As indicated in Figure 4.25, the expectations to the statement were as follows: 3.8% (strongly disagree), 8% (disagree), 34.8% (neutral), 34.8% (agree), and 18.8% (strongly agree). However, 34.5% of the respondents surveyed seem undecided, as shown by the "Neutral" responses.

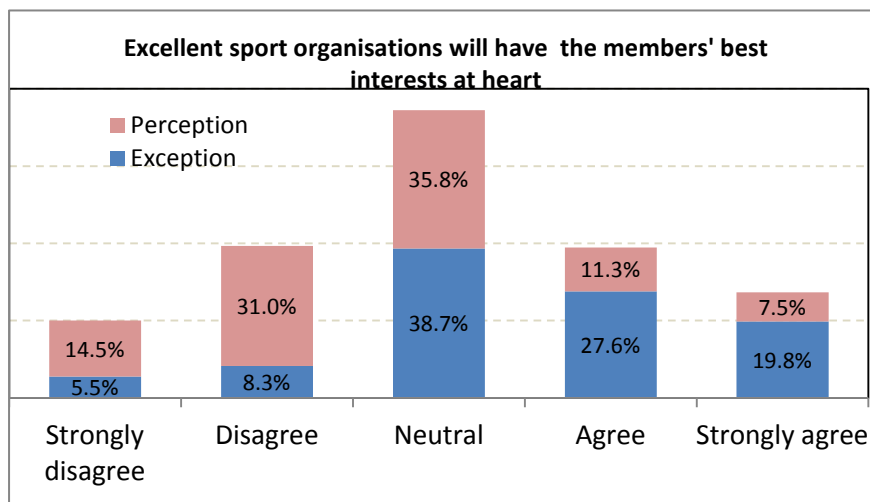
Figure 4.25 Have staff that provides personal attention to help customers



4.3.21 Statement 21: Staff will always look after the best interest of their customers

Statement 21 aimed to determine whether the sports department at DUT paid more attention to their customers. As shown in Figure 4.26, almost half of the respondents (35.8%) were uncertain. Also, the “Neutral” responses for expectations indicated that 38.7% of respondents did not have a high expectation on the statement.

Figure 4.26 Staff will always look after the best interest of their customers

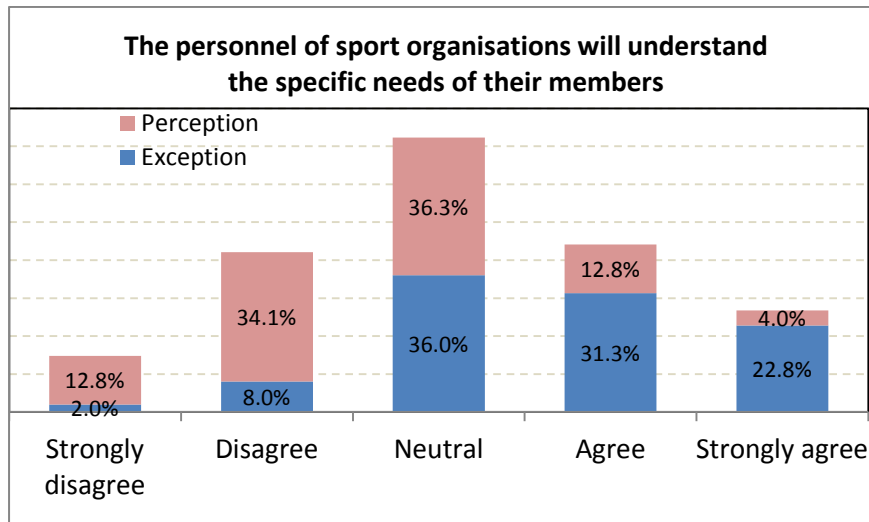


4.3.22 Statement 22: Staff understands the specific needs of their members

The aim of statement 22 was to estimate whether the DUT sports department understood the specific needs of their members. As shown in Figure 4.27, the expectations of the statement were high (54.1%). However, as in the case of the

perceptions among the respondents, 46.9% disagreed with the statement. The results suggested that further investigation would be of value.

Figure 4.27 Staff understands the specific needs of their members



4.4 GAPS ANALYSIS

As stated in the literature review, there are five dimensions in evaluating overall service quality. In this section of the chapter, the data analyses focus on the mean gaps scores on the expectations and perceptions scales for each of the modified 25 service quality attributes and the five related factors.

4.4.1 Factor-1 Tangibles

This quality dimension is related to physical facilities, equipment, materials, and appearance of the service delivery. As presented in Table 4.1, the expectation mean score of (3.78) is attributed to “materials are visually appealing”, while “physical facilities is visually appealing” and “personnel are neat in appearance” for expectation achieved similar mean scores of (3.75) and (3.74) respectively. The lowest mean score (3.51) was for “modern looking equipment”. It is evident that the mean score (2.55) relating to perception for “modern looking equipment” is the lowest. The largest mean score (3.03) was for “materials are visually appealing”.

A comparison of the mean expectation and perception indicated a large difference between the dimensions. The largest gap ($G=-1.12$) was found in service quality

statement “physical facilities is visually appealing”. The smallest gap (-0.75) was for “materials are visually appealing”. The latter was indicative of the importance of information that is presented in an attractive manner. With the exception of question 4 relating to “materials are visually appealing”, the other questions showed a large gap.

Table 4.1 Factor-1 Tangibles

Statements	Expectations Means (SD)	Perceptions Means (SD)	Gap (PM-EM)
Modern looking equipment	3.51(1.212)	2.55(.980)	-0.96
physical facilities is visually appealing	3.75(.994)	2.63(1.003)	-1.12
Personnel are neat in appearance	3.74(1.033)	2.75(1.067)	-0.99
Materials are visually appealing	3.78(.985)	3.03(1.141)	-0.75

4.4.2 Factor-2 Reliability

These statements were to assess the reliability of service quality regarding the sports offering at the DUT. As indicated in Table 4.2, the two statements had relatively the same expectation mean score of (3.40) for “staff get things right the first time”, while “staff will insist on error-free records” had a mean score of (3.47). The statements which had the high expectation mean scores (3.80) are “staff will tell members exactly when services will be performed” and “staff provides their services at the time they promise to do so” (3.70).

The perception statements “staff promises to do something by a certain time” and “staff will insist on error-free records” had the same mean score of (2.59) in this group. The largest mean score of (2.65) was attributed to “staff will tell members exactly when services will be performed”. It is evident in this group that the gaps scores were high by comparison to the other groups. The highest gap score of (G=1.38) is attributed to “staff provides their services at the time they promise to do so” and the lowest gap score of (G=-0.88) is for “staff will insist on error-free records”

Table 4.2 Factor-2 Reliability

Statements	Expectations Means (SD)	Perceptions Means (SD)	Gap (PM-EM)
Staff promises to do something by a certain time.	3.59(1.079)	2.59(1.010)	-1.00
Staff shows a sincere interest in solving members' problems.	3.63(1.068)	2.61(1.077)	-1.02
Staff get things right the first time.	3.40(1.057)	2.30(1.040)	-1.10
Staff provides their services at the time they promise to do so.	3.70(1.017)	2.32(.961)	-1.38
Staff will insist on error-free records.	3.47(.942)	2.59(.986)	-0.88
Staff will tell members exactly when services will be performed.	3.80(.983)	2.65(.998)	-1.15

4.4.3 Factor-3 Responsiveness

Statements in this factor primarily described the willingness of the sports department to help members and provide prompt service, as well as the employees' skills and abilities to interact with people. As evidenced in Table 4.3, the expectation scores ranged between (3.43) and (3.74), while the perception scores ranged between (2.55) and (2.76). The largest gap was (G=-1.15) and the lowest gap was (G=-0.84). The average gap score was 0.95. It was noted that "staff always willing to help members" had the biggest gap amongst all attributes and need to be investigated for further improvements.

Table 4.3 Factor-3 Responsiveness

Statements	Expectations Means (SD)	Perceptions Means (SD)	Gap (PM-EM)
Staff gives prompt service to members.	3.60(.984)	2.76(1.073)	-0.84
Staff always willing to help members.	3.74(1.070)	2.59(.990)	-1.15
Staff are never be too busy to respond to members' requests	3.43(1.119)	2.55(1.049)	-0.88

4.4.4 Factor-4 Assurance

As shown in Table 4.4 the expectations means reflected the highest score (3.69) for “members feel safe in their dealings with the staff” and closely followed by a mean score of (3.68) for “behaviour of personnel instills confidence in members”. The lowest mean score (3.59) is attributed to “staff is consistently courteous with members”.

The perceptions means statements indicated that three statements have similar means scores namely: “members feel safe in their dealings with the staff” (2.68), “staff has the knowledge to answer members' questions” (2.67), and “behaviour of personnel instills confidence in members” (2.66). The lowest mean score (2.57) is attributed to “staff is consistently courteous with members”.

A comparison of the mean expectation and perception indicated a large difference between the dimensions. The largest gaps ($G=-1.02$) were found in service quality statement “behaviour of personnel instills confidence in members” and “staff is consistently courteous with members”. The smallest gap (-0.95) was for “staff has the knowledge to answer members' questions”.

Table 4.4 Factor-4 Assurance

Statements	Expectations Means (SD)	Perceptions Means (SD)	Gap (PM-EM)
Behaviour of personnel instils confidence in members.	3.68(1.021)	2.66(.983)	-1.02
Members feel safe in their dealings with the staff.	3.69(.997)	2.68(1.061)	-1.01
Staff is consistently courteous with members.	3.59(.940)	2.57(.955)	-1.02
Staff has the knowledge to answer members' questions.	3.62(.979)	2.67(.919)	-0.95

4.4.5 Factor-5 Empathy

The attributes in Table 4.5 were to evaluate the empathy dimension of service quality of the sports department at DUT. Two statements in this factor, namely: “operating hours are convenient to all members” and “staff understands the specific needs of their members” had similar expectation scores of (3.65) and (3.62) respectively. The expectation score for “staff has the members' best interests at heart” was the lowest (3.48) in this dimension of service quality.

The highest perception score (2.78) is for the statement “operating hours are convenient to all members”, while the lowest score (2.48) is for the statement “staff gives members individual attention”.

When comparing the attributes gap scores, it is evident that the biggest gap score (G=-1.04) is for “staff understands the specific needs of their members” and the

lowest gap score of (G=-0.82) is attributed to “staff has the members' best interests at heart”.

Table 4.5 Factor-5 Empathy

Statements	Expectations Means (SD)	Perceptions Means (SD)	Gap (PM-EM)
Staff gives members individual attention.	3.47(.983)	2.48(.991)	-0.99
Operating hours are convenient to all members.	3.62(1.060)	2.78(1.191)	-0.84
Staff gives members personal attention.	3.57(1.004)	2.60(1.041)	-0.97
Staff have the members' best interests at heart	3.48(1.071)	2.66(1.092)	-0.82
Staff understands the specific needs of their members.	3.65(.983)	2.61(.996)	-1.04

4.4.6 Comparison of quality dimensions

As evidenced in Table 4.6, it is seen that all the dimensions exhibit negative Mean Gap scores ranging from -0.75 to -1.38. The general Mean Gap figure for all the 22 attributes is – 0.99. “Materials are visually appealing” attribute has the smallest negative mean gap score of – 0.75, while “Staff provides their services at the time they promise to do so” has the largest negative mean gap scores of – 1.38.

Generally, the findings implied that comparatively speaking, students experienced less discrepancy between their expectations and perceptions towards “Materials are visually appealing” than towards “Staff provides their services at the time they promise to do so” provided by the sports department at the DUT.

Table 4.6 reflected that the scores for expectation were significantly higher than those for perception at the 95% level for each of dimension. In the mean gap scores analysis of service expectations and perceptions, it can be observed that the “assurance” is lowest ($G=-0.76$) between the expectation and perception of service quality. However, this finding does not mean that “assurance” is not important. This finding simply means that “assurance” is relatively less important in comparison with the other factors, as respondents reflected in the survey.

As can be seen from the five dimensions, expectations for the sport offering at the DUT, “tangibles” rates the highest (3.69) and empathy rates the lowest (3.56). While assurance (3.64) is relative high for expectation, it is the highest for perception (2.88). By comparison to the other dimensions relating to perception that are mentioned in Table 4.6, “reliability” (2.50) is rated very low.

The highest gap score ($G=-1.10$) was attributed to the “reliability” dimension. As stated in the literature (see Table 2.1), “reliability” was seen to be the most critical factor affecting sports at DUT. The gap was significantly higher by comparison to the other quality dimensions. The low “reliability” may not be due to lack of staff competence but inconsistency between what is externally communicated (promised) and what the service delivery system is actually able to provide the customers with. However, the gap scores for the three other dimensions namely: “tangibles” ($G=-0.95$), “responsiveness” ($G=-0.96$) and, “empathy” ($G=-0.94$) was also seen to be high.

Table 4.6 Comparison of quality dimensions

Dimension	Expectation Mean (SD)	Perception Mean (SD)	Gap PM-EM
Tangibles	3.69 (0.83)	2.74 (0.79)	-0.95
Reliability	3.60(0.77)	2.50 (0.73)	-1.10
Responsiveness	3.59 (0.90)	2.63 (0.89)	-0.96
Assurance	3.64(0.81)	2.88 (0.66)	-0.76
Empathy	3.56 (0.80)	2.63 (0.80)	-0.94

4.5 T TEST

4.5.1: Comparison of overall scores between residence & non-residence students using the Mann-Whitney Test

Table 4.7 showed a significant difference in the mean level of perception between residence (M=2.80) & non-residence (M=2.58) students at the 95% level ($p < 0.05$). Those in residence had a higher score for perception. There was no significant difference in the level of expectation at the 95% level

Table 4.7: Comparison of overall scores between residence & non-residence students using the Mann-Whitney Test

Reside at residence		N	Mean	Std. Deviation	Z	p
Expectation	Yes	70	3.479	.7936	-1.546	0.122
	No	330	3.642	.6605		
Perception	Yes	70	2.803	.6882	-2.251	0.024*
	No	330	2.577	.6409		

4.5.2: Comparison of overall scores between male and female students using the Mann-Whitney Test

The results as indicated in Table 4.8 reflected no significant difference in the level of perception or expectation at the 95% level between male and female students.

Table 4.8: Comparison of overall scores between male and female students using the Mann-Whitney Test

Gender		N	Mean	Std. Deviation	Z	P
Expectation	Male	173	3.590	.7118	-.769	0.442
	Female	227	3.631	.6693		
Perception	Male	173	2.561	.6278	-1.230	0.219
	Female	227	2.659	.6718		

4.5.3: Comparison of overall scores between levels of study using the Kruskal-Wallis anova

The results as indicated in Table 4.9 reflected no significant difference in the level of perception or expectation at the 95% level between levels of study

Table 4.9: Comparison of overall scores between levels of study using the Kruskal-Wallis anova

		N	Mean	Std. Deviation	Chi-Square	df	p
Expectation	1st year	163	3.628	.6654	4.210	2	0.122
	2nd year	145	3.533	.7032			
	3rd year	92	3.715	.6930			
	Total	400	3.613	.6874			
Perception	1st year	163	2.655	.6876	1.091	2	0.580
	2nd year	145	2.598	.6556			
	3rd year	92	2.577	.5913			
	Total	400	2.617	.6542			

4.5.4: Comparison of overall scores between race groups using the Kruskal-Wallis anova

The results as indicated in Table 4.10 reflects no difference in the level of perception or expectation at the 95% level between race groups ($p>0.05$)

Table 4.10: Comparison of overall scores between race groups using the Kruskal-Wallis anova

		N	Mean	Std. Deviation	Chi-Square	Df	P
Expectation	African	173	3.653	.7157	7.038	3	0.071
	White	60	3.605	.6624			
	Asian	120	3.657	.6406			
	Coloured	47	3.370	.6987			
	Total	400	3.614	.6874			
Perception	African	173	2.617	.7165	1.023	3	0.796
	White	60	2.572	.6444			
	Asian	120	2.637	.5924			
	Coloured	47	2.617	.5899			
	Total	400	2.617	.6542			

4.5.5: Comparison of overall scores between age groups using the Kruskal-Wallis anova

The comparisons between age groups were conducted using the Kruskal-Wallis anova test. The results indicated a significant difference among the age groups at the 95% level for Assurance-Perception and Empathy-Perception ($p<0.05$). Those in the 21-23 age group had the lowest scores.

Table 4.11: Comparison of overall scores between age groups using the Kruskal-Wallis anova

		N	Mean	Std. Deviation	Chi-Square	df	p
Expectation	18-20	196	3.586	.7266	.516	2	0.772
	21-23	178	3.639	.6179			
	24+	26	3.646	.8420			
	Total	400	3.613	.6874			
Perception	18-20	196	2.667	.6476	4.580	2	0.101
	21-23	178	2.538	.6728			
	24+	26	2.777	.5133			
	Total	400	2.617	.6542			

4.6 CRONBACH ALPHA TEST RELIABILITY ANALYSIS

Cronbach's alpha is a test of internal consistency. In general, Cronbach alpha values that are less than 0.60 are considered to be poor, those in the 0.70 range, acceptable, and those over 0.80, good. The closer the Cronbach's alpha is to 1, the higher the internal consistency reliability (Sekaran, 2010: 307-308).

As indicated in Table 4.12, the Cronbach's alpha coefficients for expectation and perception were 0.942 and 0.930, respectively. These coefficients exceeded the recommended significance level of 0.80. Therefore, the results indicate that the research instrument's (Questionnaire) continuous study variables have high internal consistency and reliability.

Table 4.12: Cronbach alpha test

N=400	Cronbach's Alpha	N of items
Expectation	0.942	22
Perception	0.930	22

4.7 CONCLUSION

The results of the empirical study were presented and analysed in this chapter. Firstly, the explanation of the results started with the discussion of the demographic information and percentages. These findings indicated that most of the respondents (49%) were between the ages 18-20 and 57% of the total respondents were female. Secondly, a comparison of the service quality expectations and perceptions of the sports offering by the sports department of the Durban University of Technology were determined by computer numeric tables. The results of all statements indicated that the actual service quality in this type of environment were able to meet the students' expectations. According to the GAP analysis of service dimensions, the gap between expectations and perceptions of sports department in the Durban University of Technology is the largest for "reliability" and the lowest for "assurance" (see Table 4.28).

In general, all dimensions of service quality have proved to be significant. According to the above data analysis, the external communication gap is the potential disadvantage within the sports environment. The following chapter consists of the conclusions and recommendations pertaining to the findings.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The previous chapter analysed the data from the 400 questionnaires with the aid of descriptive and inferential statistics. As a summary of the research, this chapter firstly discusses the findings of the literature and the empirical study. Then, limitations of this research and key recommendation for improving service quality in the sports offering at the Durban University of Technology are presented. Finally, the conclusion to the study is presented.

5.2 SUMMARY OF THE STUDY

As discussed in chapter 2, the gap analysis is critical for management at the sports department of the Durban University of Technology to identify the service problems or service failure points. Many research studies on service quality focus on how to reduce Gap 5 between consumer's expectations and their perceptions. This study may provide management with important insights about how well the external communication can influence the expectations and perceptions of the consumers in terms of the context of the sports offering at the DUT. In other words, managers, in the sports department of the DUT, should carry out this type of analysis regularly so that they can evaluate consumers' needs more clearly and indentify some areas of weakness.

As shown in section 4.4, the result of the Gap analysis revealed that consumers' perceptions were consistently lower than their expectations. These negative gaps indicate that the delivered service level was falling below consumers' expectations of service quality in the sports offering at DUT. Customers' evaluations of the five dimensions of service performance as reflected in Table 4.23 shows that with the exception of assurance, the other dimensions reflect a relatively huge gap. Amongst them, reliability is the major factor impacting on consumers' satisfaction within the sports offering at DUT. As indicated in the literature review, the process of service delivery is influenced by the communication element. The results of this study also

proved that external communication is poor in the sports department of the Durban University of Technology, particularly the one-way communication. Clearly, the findings have major implications for the management of the sports department at the Durban University of Technology, and, perhaps, also for other types of service organisations in South Africa.

5.2.1 Tangibility

The tangibility dimension is related to the tangibles dimension of the five dimensions of SERVQUAL. As explained in Chapter 2, tangibles are used by customers to evaluate the quality of services. Tangibles include a wide variety of objects such as carpeting, desks, lighting, wall colours, brochures, daily correspondence and the appearance of the personnel.

The empirical study showed that the largest gap in this factor was related to the failure of the physical facilities. This implies that the physical facilities were not appealing and failed to attract students. This might be due to unprofessional management of tangibility aspects in the sports centre.

5.2.2 Reliability

The reliability dimension is a combination of the original reliability and credibility dimensions of the SERVQUAL model. The theoretical study indicated that reliability refers to the ability of a service organisation to deliver on its promise and to resolve service problems experienced by customers. Reliable managers are able to perform the promised service dependably and accurately.

The empirical study revealed that the largest gap in this dimension was that students did not receive promised service for their paid membership. This implies that managers failed to perform the promised service dependably and accurately. This could be due to overpromising by sports managers in advertisements, either deliberately or unintentionally.

5.2.3 Responsiveness

The responsiveness dimension is related to the responsiveness dimension of the five dimensions in the SERVQUAL model. Responsiveness refers to the willingness and

readiness of employees to deal with customer requests, questions, complaints and problems. Responsive managers are those who make an effort to help guests and provide a prompt response.

The empirical study revealed that the largest gap in this dimension related to the failure of staff to help students' with their requests for bookings of the sports facilities. This implies that employees were viewed as ineffective service providers and generally failed to respond promptly. This might be due to poor working procedures and/or insufficient supervision by managers.

5.2.4 Assurance

The assurance dimension is a combination of the competence, courtesy, security and access dimensions of the SERVQUAL model. The theoretical study indicated that employees' knowledge and courtesy and their ability to inspire trust and confidence are vital. Trust and confidence can also be instilled into students when the facilities are conveniently located. Confident managers are those who are knowledgeable and courteous and able to inspire students' trust and confidence.

The empirical study showed that the largest gap in this dimension was related to the unwillingness of staff to assist students to locate facilities. This implies that managers lacked confidence and as a result failed to build an approachability and ease of contact. This could be attributed to ignoring the care and needs of students who are not familiar with the surroundings.

5.2.5 Empathy

The empathy dimension is a combination of the original communication and understanding dimensions of the SERVQUAL model. The theoretical study showed that communication refers to caring, individualised attention provided to customers. The essence of communication is that customers feel special and unique through personalised or customised service as well as trained employees building positive communication relationships with them. To apply this factor, staff should make every effort to understand students' needs, and employees should use simple language when communicating with them.

The empirical study revealed that the largest gap was associated with failure to understand the specific needs of students. This implies that managers failed to communicate with students about what they expected to know about their sports offerings. This is due to a lack in communicating with students and poor understanding of their needs.

5.3 DEMOGRAPHIC FACTORS AND SERVICE QUALITY

5.3.1. Gender

The empirical study showed that male students rated the perception of sports services lower than females did, but also had lower expectation levels. On average, males had a larger gap score than females. This could imply that males had deeper insights into sports services than females did.

5.3.2 Age

The empirical findings revealed that students between the ages 21-23 had the lowest perception and the second largest expectation level as well as the largest gap score. This could be due to senior students having more social experiences pertaining to sport. Therefore, they might use different levels of assessment criteria when evaluating the sports service at the DUT.

5.3.3 Race Groups

The empirical study showed that African students rated the perception and expectation levels high. On average, African students had a larger gap score than the other race groups. This could be attributed to their greater participation levels and involvement in sport at the DUT.

5.3.4 Levels of study

The empirical findings revealed that third year students had the lowest perception and the highest expectation level as well as the largest gap score. This could be attributed to senior students who have spent a longer time at university hence having deeper insights in the sports service offered by the DUT.

5.3.4 Residence and Non-residence

The empirical findings revealed that non-resident students had a lower perception and a higher expectation level. Therefore, the larger gap score could be attributed to the lack of communication and individual attention to this group of students.

5.4 KEY RECOMMENDATIONS TO IMPROVE SERVICE QUALITY

Based on the research findings, the results imply that there is room for improvement in all five dimensions. The largest quality gap was in the reliability dimension. Hence, the following recommendations are made:

5.4.1 Tangibility

To close all the 'tangibility' gaps, especially the largest gap identified in 5.2.1, the following recommendations are made:

- The facilities should be kept neat with attractive and/or updated equipment.
- Employees should have uniforms because the image of the sports facilities is also reflected by the appearance of their employees.
- Staff should be aware of the importance of maintaining the tangible elements such as a quality environment to ensure that students are always attracted to its visual appeal and an enhanced top-of-mind awareness of the DUT sport. Urgent attention should be given to the aesthetics of directional and building signage, information and general cleanliness of the facilities.

5.4.2 Reliability

To close all the 'reliability' gaps, particularly the largest gap identified in 5.2.2, the following recommendations are made:

- Staff should understand the importance of keeping promises as well as the danger of overpromising.

- Staff should use different methods to ascertain what students want and then provide it in a way that is consistent with the student's expectations of value and quality.
- Staff should ensure that all the facilities such as lighting, equipment and playing surfaces are checked regularly.

5.4.3 Responsiveness

To close all the 'responsiveness' gaps, especially the largest gap identified in 5.2.3, The following recommendations are made:

- The DUT sport department should establish specific working procedures to help employees understand their job responsibilities and managers' expectations such as giving prompt attention to students by being available and accessible at all times.
- Staff should forge closer internal working relationships by having regular meetings (monthly or weekly) to discuss key issues.
- Staff performances should be appraised regularly and any gaps identified with regards to customer service quality must be improved immediately.

5.4.4 Assurance

To close all the 'assurance' gaps, identified in 5.2.4, the following recommendations are made:

- Staff should invite suggestions through a suggestion box. This in essence may help them to identify critical areas of students' concerns.
- Managers should also consider and lend support to staff concerns due to their contact with students every day.
- Managers should audit employees' courtesy and attitude.

5.4.5 Empathy

To close all the 'empathy' gaps, mentioned 5.2.5, the following recommendations are made:

- Managers should have a communication plan which outlines communication policies, identifies the communication objectives and media, and then evaluates the overall quality of the communication system by comparing communication objectives to actual performance.
- Managers should conduct research to understand the students' needs. This research should be repeated annually to ensure a track is kept of students' changing needs.
- Staff interaction with students must be encouraged.

5.5 LIMITATIONS

As with all empirical studies, the present research had certain limitations.

- In order to evaluate the level of service (P-E) where P stands for perception and E stands for expectations, the following equation should be applied: If $P=E$ or $P>E$, the level of service is regarded excellent. Perception is obtained from customers (students), while E is obtained from the service providers (sport managers) and customers. However, for this study, the level of service was measured from the customer's point of view only.
- There is minimal literature that focuses on service quality in tertiary sport within higher education institutions (HEIs) in South Africa.
- In order to fully assess the level of service quality, all stakeholders should be evaluated. However, this was beyond the scope of this study.
- The data was gathered in a specific geographic area of South Africa (Durban). As a result, the study may have contained some information and results that

can be specific only for the Durban University of Technology. Hence, the results of this study cannot be generalised.

- The results of this study may not have been representative of the whole population, due to the fact that a convenience sampling method was used to collect the data.

5.6 DIRECTIONS FOR FUTURE STUDY

The present research lends important and interesting insights into assessing student satisfaction in sport. Although the context in which this study was conducted is important, in terms of the type of service industry and the large sample size, it is limited in that the results are only from one HEI. Extending the scope of this research to other HEIs would make additional contributions to this area of research.

A further area of investigation would be to ascertain if student satisfaction differs significantly among higher education institutions. This would provide the sports department of the Durban University of Technology with the ability to benchmark itself against their own past performance, against other similar institutions and against the best institutions in the African and Asian region. Additional research on the administration of the SERVQUAL instrument within the sports environment would be useful to determine whether or not students' expectations and perceptions are similar to other customers of other types of service organizations.

5.7 CONCLUSION

In conclusion, the researcher wishes to reiterate that each quality assurance system needs to be careful in analysing the situation of the specific institution. It needs to be very flexible in its approach, and the combination of process and technology needs to be carefully considered. The aim of this research was to develop a basis upon which quality in sport could be measured at the Durban University of Technology by constantly listening to the voice of the students.

The creation of a new culture is a long journey. Many voices are needed to guide this journey and ensure arrival at the desired destination. To hear these voices, strong customer relationships must be forged. Sports personnel and students involvement must be designed into the organizational structures of the Durban University of Technology.

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APPENDIX A

Dimension	Description	Example for DUT Sport
Tangibles	Physical facilities, equipment, and appearance of personnel.	Modern looking equipment
		physical facilities is visually appealing
		Personnel are neat in appearance
		Materials are visually appealing
Reliability	Ability to perform the promised service dependably and accurately.	Staff promises to do something by a certain time.
		Staff shows a sincere interest in solving members' problems.
		Staff get things right the first time.
		Staff provides their services at the time they promise to do so.
		Staff will insist on error-free records.
		Staff will tell members exactly when services will be performed.
Responsiveness	Willingness to help customers and provide prompt service.	Staff gives prompt service to members.
		Staff always willing to help members.
		Staff are never be too busy to respond to members' requests
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence.	Behaviour of personnel instils confidence in members.
		Members feel safe in their dealings with the staff.
		Staff are always polite
		Staff has the knowledge to answer members' questions.
Empathy	The firm provides its caring, individualised attention to its customers	Staff gives members individual attention.
		Operating hours are convenient to all members.
		Staff gives members personal attention.
		Staff have the members' best interests at heart
		Staff understands the specific needs of their members.

APPENDIX B

29 Henley Road
Burlington Heights
Shallcross
4093

Dear Sir/Madam

My name is Nad Pillay and I am conducting research for my M Tech degree in Marketing at the Durban University of Technology (DUT). The title of my research project is to analyse students' expectations and perceptions of sport at the DUT. I would appreciate your co-operation in completing a questionnaire.

The completion of the questionnaire should not take longer than 15 minutes of your time. I wish to thank you in advance for your time. Please be informed that your identity will remain anonymous and your response will be kept confidential.

Participation in this research is voluntary and you may withdraw from the study at any time without giving any reasons. If you have any questions, please feel free to contact me. If you have any other questions or concerns regarding the study and would like to talk to someone other than the researcher, you may contact Dr. J. Govender, Department of Marketing, Retail and Public Relations, 7th floor, B block, M L Sultan campus at 031 373 5396.

Yours sincerely

Nad Pillay

APPENDIX C

SECTION A: LEVEL OF EXPECTATIONS OF SERVICE QUALITY

Please indicate your opinion on each of the following statements, as they apply to your **expectations** of the sports offering at DUT. There is no right or wrong answers. Just encircle the number that truly reflects your feelings. Based on your experience as a customer of the sports offering at DUT, please think about the kind of service that would deliver excellent quality.

Tick only one number for each statement and remember to answer all questions. Thank you for your assistance.

	EXPECTATIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Modern looking equipment	1	2	3	4	5
2	physical facilities is visually appealing					
3	Personnel are neat in appearance					
4	Materials are visually appealing					
5	Staff promises to do something by a certain time.					
6	Staff shows a sincere interest in solving members' problems.					
7	Staff get things right the first time.					
8	Staff provides their services at the time they promise to do so.					
9	Staff will insist on error-free records.					
10	Staff will tell members exactly when services will be performed.					
11	Staff gives prompt service to members.					
12	Staff always willing to help members.					
13	Staff are never be too busy to respond to members' requests					
14	Behaviour of personnel instils confidence in members.					
15	Members feel safe in their dealings with the staff.					
16	Staff are always polite.					
17	Staff has the knowledge to answer members' questions.					
18	Staff gives members individual attention.					
19	Operating hours are convenient to all members.					
20	Staff gives members personal attention.					
21	Staff have the members' best interests at heart					
22	Staff understands the specific needs of their members.					

SECTION B: LEVEL OF PERCEPTIONS OF SERVICE QUALITY

Please indicate your opinion on each of the following statements, as they apply to your **perceptions** of the sports offering at DUT.

	PERCEPTIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Modern looking equipment	1	2	3	4	5
2	physical facilities is visually appealing					
3	Personnel are neat in appearance					
4	Materials are visually appealing					
5	Staff promises to do something by a certain time.					
6	Staff shows a sincere interest in solving members' problems.					
7	Staff get things right the first time.					
8	Staff provides their services at the time they promise to do so.					
9	Staff will insist on error-free records.					
10	Staff will tell members exactly when services will be performed.					
11	Staff gives prompt service to members.					
12	Staff always willing to help members.					
13	Staff are never be too busy to respond to members' requests					
14	Behaviour of personnel instils confidence in members.					
15	Members feel safe in their dealings with the staff.					
16	Staff are always polite.					
17	Staff has the knowledge to answer members' questions.					
18	Staff gives members individual attention.					
19	Operating hours are convenient to all members.					
20	Staff gives members personal attention.					
21	Staff have the members' best interests at heart					
22	Staff understands the specific needs of their members.					

SECTION B: CLASSIFICATION DATA

1. Please indicate your level of study:

First Year

Second Year

Third Year

2. Please indicate whether you reside at the residence.

Yes

No

Please indicate your:

3. Gender

Male

Female

4. Race:

African

White

Asian

Coloured

5. Age:

18-20

21-23

24+

