STUDENTS' PERCEPTIONS OF SERVICE QUALITY AT TWO SOUTH AFRICAN HIGHER EDUCATION INSTITUTIONS

Rita Diedericks

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Supervisor: Dr N de Klerk
Co-supervisor: Prof A.L Bevan-Dye

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NORTH-WEST UNIVERSITY ®
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174, Vanderbijlpark
South Africa, 1900

Tel: 016 910-3111
Fax: 016 910-3116
Web: http://www.nwu.ac.za

Information Technology
Tel: (016) 910-3320
Fax: (016) 910-3116
Email: Aldine.Oosthuyzen@nwu.ac.za

To whom it may concern

14th November, 2011

I hereby confirm that I have done the statistical analysis for the dissertation of Rita Diedericks. The title of the dissertation is: STUDENTS' PERCEPTIONS OF SERVICE QUALITY AT TWO SOUTH AFRICAN HIGHER EDUCATION INSTITUTIONS.

Yours sincerely

Aldine Oosthuyzen
Campus IT Manager

TO WHOM IT MAY CONCERN

EDITING CERTIFICATE LETTER

This serves to confirm that the academic work in a form of a dissertation belonging to:

Ms. Rita Diedericks

titled

STUDENTS' PERCEPTIONS OF SERVICE QUALITY AT TWO SOUTH AFRICAN HIGHER EDUCATION INSTITUTIONS

was proofread and grammatically edited by the undersigned on 1-7 November 2011.

8/11/11

Mhlongo GJ (Mr.)
Lecturer and Language Practitioner
School of Languages
North West University
Vaal Triangle Campus
PO Box 1174
Vanderbijlpark 1900
Tel : 016 910 3430
Cell : 076 161 3118

DECLARATION

I declare that:

"Students' perceptions of service quality at two South African Higher Education Institutions"

is my own work, that all the sources used or quoted have been identified and acknowledged by means of complete references, and that this dissertation has not previously been submitted by me for a degree at any other university.

R. Diedericks
November 2011
Vanderbijlpark

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Rita Diedericks
Vanderbijlpark
2011

OPSOMMING

STUDENTE SE PERSEPSIES OOR DIE DIENSGEHALTE BY TWEE SUID-AFRIKAANSE HOËR ONDERWYSINSTELLINGS

SLEUTELWOORDE: Diensgehalte, SERVPERF, bemarking van dienste, persepsies, diensorganisasies, hoër onderwysinstelling, Suid-Afrika.

Suid-Afrikaanse hoër onderwysinstellings staar toenemend plaaslike sowel as internasionale mededinging in die gesig. Hierdie toenemende mededingende druk het hulle genoodsaak om bewus te word van die belangrikheid om ’n geskikte mededingende voorsprong te bou en in stand te hou. Hierby het die Suid-Afrikaanse ekonomie, sowel as die wêreldekonomieë, veranderende omstandighede waargeneem met betrekking tot die behoeftes, smake en voorkeure van verbruikers. In hierdie opsig is diensgehalte erken as ’n middel om hierdie uitdagings die hoof te bied.

Namate diensleweringsindustrieë ’n belangrike rol in verskeie ekonomieë regoor die wêreld speel, het dit te voorskyn gekom dat dit belangrik is om ’n voldoende vlak van diensgehalte te lewer. Hoër onderwysinstellings word ook nou opgeroep om aanspreeklikheid te aanvaar vir die dienste wat hulle lewer. Aangesien diensgehalte ’n belangrike strategiese kwessie en ’n deurdringende strategiese mag is, is die metodes wat ontplooi word vir die meting van diensgehalte van belang. Hoër onderwysinstellings het oorspronklik maatreëls getref om verantwoording te doen vir die akademiese standaarde wat hulle lewer, asook vir akkreditasie en prestasie-aanwysers van opvoeding en navorsing. Vanuit hulle primêre verbruikers se oogpunt moet hoër onderwysinstellings egter ook maatreëls tref om verantwoording te doen vir hulle studente se opvattings oor diensgehalte. Hoër onderwysinstellings moet hulle aandag fokus op dit wat volgens die studente belangrik is rakende dienslewering. Deur diensgehalte vanuit die studente se perspektief te meet, sal hoër onderwysinstellings in staat wees om hulle diensleweringprosesse te verbeter, wat sal bydra tot die skepping van verbruikerlojaliteit en die bou van ’n mededingende voorsprong oor die langtermyn.

Die primêre doelstelling van hierdie studie was om ’n vergelykende beskouing te voorsien op voorgraadse studente se opvattings ten opsigte van die diensgehalte wat deur twee Suid-Afrikaanse hoër onderwysinstellings gelewer word. Die studie bevat ’n literatuuroorsig en empiriese navorsing, en ’n beskrywende navorsingsontwerp is in werking gestel.

Die literatuuroorsig het gefokus op diensgehalte. Die literatuuroorsig het nie spesifiek op die ondersoek van diensgehalte vanuit die perspektief van hoër onderwysinstellings gefokus nie, maar eerder op diensgehalte vanuit die perspektief van algemene diensleweringsindustrieë. ’n Inleiding tot dienste en die bemarking daarvan is ook voorsien om sodoende die literatuur oor diensgehalte te vorm.

In die empiriese gedeelte van hierdie studie is kwantitatiewe navorsing aangewend deur die opname-metode te gebruik. Twee Suid-Afrikaanse hoër onderwysinstellings het as die twee steekprofgroepe in hierdie studie gedien. ’n Self-uitgevoerde vraelys is opgestel vir die toepaslike eerste-, tweede- en derdejaarstudente in ondernemings- en bemarkingsbestuur vanuit elke steekproefgroep se onderskeie fakulteite.

Die bevindinge wat blyk uit die primêre opname-vraelys is bespreek om sodoende insig te verkry oor studente se evaluasie van die diensgehalte van hoër onderwysinstellings. Weens die beperkinge en omvang van die studie, word ’n gebalanseerde beskouing van die twee steekproefgroepe gegee deurdat hierdie groepe verteenwoordigend verdeel is. Die aanbevelings wat in hierdie studie gemaak word, dien as riglyne vir die moontlike wyses waarop hoër onderwysinstellings hulself kan bemark om sodoende ’n volhoubare, mededingende voorsprong te kan handhaaf.

ABSTRACT

STUDENTS' PERCEPTIONS OF SERVICE QUALITY AT TWO SOUTH AFRICAN HIGHER EDUCATION INSTITUTIONS

KEY WORDS: Service quality, SERVPERF, services marketing, perceptions, service organisations, higher education institutions, South Africa.

South African higher education institutions are facing increasing competition from both local and global competitors. This increasing competitive pressure has forced them to become aware of the importance of building and sustaining a suitable competitive advantage. Adding to this, South Africa's economy, together with the world economies, has witnessed changing circumstances in relation to consumers' needs, tastes and preferences. In this light, service quality has been recognised as a means to meet these challenges.

As service industries play an important role in many economies around the world, the significance of providing an adequate level of service quality has emerged. Higher education institutions too are now being called upon to account for the quality of the services they provide. As service quality is a key strategic issue and a pervasive strategic force, the methods deployed in measuring service quality is of concern. Traditionally, higher education institutions used measures to account for the academic standards they provide, together with accreditation and performance indicators of teaching and research. However, from the viewpoint of their primary consumers, higher education institutions need to put measures in place to account for their students' perceptions of service quality as well. Higher education institutions need to concentrate their attention on what the students feel is important in delivering the service. In measuring service quality from the perspective of the students, higher education institutions will be able to improve their service delivery processes, which will help to create consumer loyalty and, in the long-term, build a competitive advantage.

The primary objective of this study was to provide a comparative view on the undergraduate students' perceptions of the service quality delivered by two South African higher education

institutions. The study comprised a literature review and an empirical study, and a descriptive research design was employed.

The literature review focused on service quality. The literature review did not focus specifically on examining service quality from higher education institutions perspective but rather looked at service quality from the perspective of general service industries. In addition, in order to shape the literature on service quality, an introduction to services and services marketing was provided.

Within the empirical portion of this study, quantitative research was applied using the survey method. Two South African higher education institutions formed the two sample groups in this study. A self-administered questionnaire was administered on the relevant first-, second- and third- year business and marketing management students of each sample's respective faculties.

The findings obtained from the main survey questionnaire are discussed in order to provide insights as to how students' evaluate the service delivery of higher education institutions. Given the limitations and scope of the study, a balanced view of the two sample groups is provided in that the sample groups were split representatively. The recommendations provided in this study provide guidelines regarding the possible ways in which higher education institutions can market themselves in order to build a sustainable competitive advantage.

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CHAPTER 1
INTRODUCTION AND PROBLEM STATEMENT

1.1 INTRODUCTION

In a world of global competition, quality service is a key success factor. The most powerful competitive trend currently shaping marketing and business strategy is service quality (Abdullah, 2006c). Research in the area of service quality in higher education institutions (HEIs) has concentrated on the various ways of determining a suitable measuring tool, evaluating the quality of courses delivered and examining the quality of teaching structures (Athiyaman, 1997; Bourner, 1998; Brochado, 2009; Dimitriades, 2006). These studies focused on evaluating what the HEIs perceive as important measures of service quality. However, according to Oldfield and Baron (2000), students should also be evaluated to determine what elements they perceive as being important to service quality.

Petzer, Steyn and Mostert (2008) indicate that in developed countries, the service industry constitutes approximately 80 percent of the total workforce. The service industry is viewed as one of the fastest growing sectors worldwide. This is especially true for South Africa as the importance of the service industry is expanding (Weeks, 2009). Owing to the South African economy undergoing structural changes and being characterised by factors such as high unemployment rates (Gbadamosi & de Jager, 2009), the potential of development in the service industry has received a great deal of attention over the past two decades (Kistan, 1999). The service industry in South Africa accounts for approximately 65 percent of the gross domestic product and contributes approximately 63 percent to the employment rates of the economy (Hodge, 2001). These figures depict that since the 1990s, the service industry has been the main source of growth for the economy.

The higher education sector qualifies as a service industry. The South African economy currently comprises 23 public HEIs, 79 registered and 15 provisionally registered private HEIs (Higher education in South Africa, 2009). According to Oldfield and Baron (2000), HEIs have experienced dramatic changes over the past decade, and these changes are evident in both the funding structures and the student numbers. Moreover, the researchers elaborate that prior to the 1990s, competitive advantage was an inferior concept to the higher education

sector; however, these institutions now need to acknowledge the importance of being in a 'market'. Smith, Smith and Clarke (2007) concur with this, stating that the quality of service delivered by a HEI is important for their marketing and financial performance. Smith *et al.* (2007) elaborate that service quality is important for remaining competitive in the market and for ensuring the re-purchase decisions of consumers. If an institution delivers an inadequate level of service, a negative reputation may develop through word-of-mouth communication. Consumers are more likely to discuss a negative service situation then a positive service situation. An institution may also develop a 'non-caring' reputation if internal staff members deliver poor service quality. According to Kimani, Kagira and Kendi (2011), service quality creates a sustainable advantage for the organisation over the competitors through differentiating the services to create a loyal consumer base who are prepared to support the organisation continuously and which provide positive word-of-mouth feedback on the organisation.

Within HEIs, marketing strategies and marketing mixes are developed to appeal to students, who are viewed as primary consumers. However, the objective in this specific service sector would be to determine how the service is perceived, consumed and enacted (Durvasula, Lysonski and Madhavi, 2011). The service sector is characterised by the determinants of the intangible, heterogeneous, inseparable, perishable and variable nature (Ivy, 2008) and, as students participate in the delivery of educational services, the higher education sector would qualify as any other service sector would (Durvasula *et al.*, 2011).

According to Chiware (2010), the quality of services delivered will largely depend on the historical structures of HEIs. There have been structural and environmental changes in the HEIs (Sahney, Banwet & Karunes, 2003), especially in South Africa where there is an increase in the number of science and technology institutions merging with universities (Gbadamosi & de Jager, 2009). According to Chiware (2010), the merging of colleges and technikons with universities creates a method for promoting entrepreneurship, innovation and industrial development in South Africa. These changes have made the industry more flexible in adopting changing technologies and in demanding different skills and expertise (Sahney *et al.*, 2003). There are various levels of service delivery and while lower levels were acceptable in the past, this no longer holds true. Students and their parents now relate the quality of a service to the 'value for money' concept. In addition, the levels of expectations

are increasing and there is a growth in the awareness of the quality of services being provided (Smith *et al*., 2007).

Zeithaml, Parasuraman and Berry (1990:23) developed the SERVQUAL instrument to measure the service quality provided, as perceived by the consumers. The SERVQUAL is a widely used instrument (Smith *et al.*, 2007) that measures the consumer's perceptions and expectations on a variety of service attributes relating to a five-dimension scale, namely reliability, responsiveness, assurance, empathy and tangibles (Zeithaml *et al.*, 1990:26).

The SERVQUAL model has been re-examined and an extension of this model has been provided, namely the SERVPERF model, which only measures the performance attributes of service quality (Oldfield & Baron, 2000). Cronin and Taylor (1992) are the original developers of the SERVPERF model. These researchers argue that measuring service quality in terms of the gap between the consumers' perceptions and expectations is ineffective and that measuring service quality in terms of the consumers' attitude will be more valuable. In relation to measuring service quality from the consumers' attitude perspective, the consumers' perceptions of the quality inherent in a service are evaluated.

1.2 PROBLEM STATEMENT

Service quality is an extensive strategic force and a key strategic issue in all service industries, including HEIs (Kimani *et al.*, 2011). HEIs in South Africa should view the personal service offerings provided and understand them in terms of how the market perceives them, as this may have important marketing and management indications (Gbadamosi & de Jager, 2009). Ntshoe, Higgs, Wolhuter and Higgs (2010) elaborate that the impingement of marketing and management indications in South Africa is to engage in entrepreneurial activities. Oldfield and Baron (2000) reiterate this by indicating that service quality in higher education should be viewed from an organisational perspective. Furthermore, these researchers state that the entire value of service quality consists of three salient dimensions, which include service processes, interpersonal factors and physical evidence.

HEIs perceive quality as an important measure of generalising and improving service standards over time. HEIs should constantly measure service quality as an appeal is

established in representing an important tool for attracting and retaining students (Faganel, 2010). Tari (2010) emphasises the measures of self-assessment processes in HEIs in developing and improving specific levels of service quality. According to Saunders (2008), there has been an increase in the importance of institutions measuring the quality of the service encounters due to the rapid changes and developments in the service industry. As with any service industry, the types of services delivered by HEIs will vary due to the different cultural and contextual issues found within the given institution.

HEIs need to pay special attention to developing a clear and concise meaning of quality in order to stay abreast and progress in a developing country (Abukari & Corner, 2010). Quality is a generally accepted and a commonly used term in management. On the contrary, confusion may occur on the meaning of service quality as each stakeholder within a given institution may adopt his or her own understanding of the concept (Faganel, 2010).

According to Ivy (2008), one of the elements of the marketing mix - people - refers to all the staff members of the HEI who deal with the prospective and current students. Furthermore, the academic staffs' portrayal of service on the front line has a direct impact on the students' perception of service quality. Kimani *et al.* (2011) state that in order to understand how students evaluate a service, it is necessary to determine their perception of service quality.

Oldfield and Baron (2000) indicate that within HEIs there is a direct link between all the staff members and the external consumers. The staff members who deliver the service are critically important to the consumers and to the representative institution. The various staff members should communicate and work together in providing a good service to the students. Ballentyne (2000) suggests that the institutions can improve the quality of services through ensuring a good quality of staff members. Therefore, staff members should also be treated as consumers of the institution and should be motivated by the institution.

Competition is increasing in the markets of HEIs. According to Hemsley-Brown and Oplatka (2010), HEIs need to do extensive marketing in order to remain competitive. Service quality has been identified as a key determinant of success in competitive markets in that it allows HEIs to differentiate themselves from the competitors (Ivy, 2008; Kimani *et al.*, 2011).

The problems addressed in this study centre on the quality of services provided by both academic and administrative staff members of two selected HEIs. This study is used to provide a comparative view on the service quality offered by the two selected HEIs.

1.3 OBJECTIVES OF THE STUDY

The following objectives were formulated for the study:

1.3.1 Primary objective

The main aim of this study was to provide a comparative view on undergraduate students' perceptions of service quality of two faculties at two South African HEIs in order to gain an understanding of their experiences.

1.3.2 Theoretical objectives

In order to achieve the primary objective, the following theoretical objectives were formulated for the study:

- Outline the fundamental principles of service marketing.
- Conduct a review of the relevant service quality literature.
- Outline the importance of service quality.
- Conduct a review of the relevant literature pertaining to the different service quality models.

1.3.3 Empirical objectives

In accordance with the primary objective of the study, the following empirical objectives were formulated:

- Investigate undergraduate students' perceptions of service processes of the faculty that influence and contribute to the students' overall experiences.

- Investigate undergraduate students' perceptions of the interpersonal factors of the faculty that influence and contribute to the students overall experiences.
- Investigate undergraduate students' perceptions of physical evidence of the faculty that influence and contribute to the students overall experiences.
- Compare the service quality of the two HEIs' faculties included in the study.
- Compare the first- and third-year student's perceptions of service quality.

1.4 HYPOTHESES

A hypothesis is viewed as a statement that is employed to make an assumption regarding the reason for the problem (Kolb, 2008:33). McDaniel and Gates (2001:28) emphasise that the development of a hypothesis leads to the development of the research design.

The following four hypotheses were formulated for the study:

Ho_1: There is no significant difference between the constructs on the undergraduate students' perceptions of service quality regarding the two faculties of each HEI.

Ha_1: There is a significant difference between the constructs on the undergraduate students' perceptions of service quality regarding the two faculties of each HEI.

Ho_2: There is no significant difference between the first-year and third-year undergraduate students' perceptions of service quality, regarding the two HEIs.

Ha_2: There is a significant difference between the first-year and third-year undergraduate students' perceptions of service quality, regarding the two HEIs.

1.5 RESEARCH DESIGN AND METHODOLOGY

The study comprised of a literature review and an empirical study. Quantitative research, using the survey method, was applied for the empirical portion of the study.

1.5.1 Literature Review

In order to support the empirical study of this research project, a review of South African and international literature was conducted. Secondary data sources included relevant textbooks, the Internet, journal articles, business articles, academic journals, newspaper articles and online academic databases.

1.5.2 Empirical study

The empirical portion of this study comprises the following methodology dimensions:

1.5.2.1 Target population

The target population relevant to this study are the full-time undergraduate students of two South African HEIs. The target population is defined as follows:

- Element: Full-time undergraduate students
- Sampling Unit: Two higher education institutions
- Extent: South Africa, Gauteng
- Time: 2011

1.5.2.2 Sampling frame

The sampling frame comprised 23 registered South African public HEIs, as listed by the Higher Education in South Africa (Higher education in South Africa, 2009). From the sampling frame, a convenience sample of two HEIs located within the Gauteng Province of South Africa was selected. A convenience sample of full-time undergraduate students registered at the two HEIs was then drawn. This study focused on two sister institutions located within the same province and on two identified faculties offering similar educational programmes within those institutions.

1.5.2.3 Sample method

Non-probability convenience samples of 700 full-time undergraduate students were drawn to conduct this study. The relevant departments of the two faculties of the selected HEIs were contacted regarding class lists of their undergraduate students. A structured format was applied whereby lecturers of the appropriate classes were contacted and permission was requested from them to carry out the survey. Thereafter, a hand-delivered self-administered questionnaire was distributed to the full-time undergraduate students during class time.

1.5.2.4 Sample size

The sample size of 700 full-time undergraduate students was considered sufficiently large and is in line with previous studies conducted of a similar nature, such as Abdullah (2006a) (sample size of 700), Gruber, Fub, Voss and Glaser-Zikuda (2010) (sample size of 550) and Shekarchizadeh, Rasli and Hon-Tat (2011) (sample size of 530). The sample size of 700 full-time undergraduate students was split equally between the two HEIs, thereby allowing a sample size of 350 full-time undergraduate students per HEI.

1.5.2.5 Measuring instrument and data collection method

Oldfield and Baron's (2000) SERVPERF measuring scale was applied in this research study. The researchers adopted this scale from the original SERVQUAL scale developed by Zeithaml *et al.* (1990:23). The SERVPERF scale only measures the perceptions and not the expectations that students have of a HEI's service quality. This scale employs three constructs to test the perceptions students have of service quality. These constructs include requisite variables, which directly contributes to a student successfully completing his/her studies, acceptable variables, which does not necessarily contribute directly to the student successfully completing his/her studies but which would be seen as a 'desirable' variable and functional variables, which would arise from a practical experience. An important note to make is that the SERVPERF scale was developed from the original SERVQUAL scale, which consisted of five constructs, namely responsiveness, reliability, empathy, assurance and tangibles. However, due to the SERVPERF's three constructs not corresponding with these five constructs, these constructs were eliminated from the SERVPERF model.

The perceptions that students have of the HEIs' service quality were measured on a five-point Likert scale (1= Strongly disagree to 5= Strongly agree). The respondents were requested to complete a questionnaire consisting of two sections. The first section consisted of demographic information and the second section included the 24 variables of the SERVPERF scale as previously described.

The questionnaire included a cover letter describing the nature and purpose of the study and requesting participation. The questionnaire was pilot tested on 40 students. These students did not form a part of the sampling frame of the final study. The results of the pilot test were taken into consideration prior to finalising the questionnaire for the main study.

1.5.3 Statistical analysis

The captured data was analysed using the Statistical Package for Social Sciences (SPSS), Version 18.0 for Windows. The following statistical methods were applied on the empirical data sets:

- Reliability and validity analysis
- Confirmatory factor analysis
- Descriptive analysis
- Correlation analysis
- Significance tests

1.6 ETHICAL CONSIDERATIONS

This study complied with the ethical standards of academic research. The identities and interests of respondents as well as confidentiality were guaranteed for all of the information provided by the respondents for the duration of this project and the years thereafter. The participation was voluntary in that no individual person or institution was forced to participate against his or her own will. The permission required to conduct this research was obtained from the relevant institutions.

1.7 CHAPTER CLASSIFICATION

Chapter 2 of this study provides an in-depth review of the service quality literature and the fundamental principles of services marketing. The literature on the importance of service quality in HEIs is briefly analysed. A literature review pertaining to the various service quality models is also presented in this chapter.

Chapter 3 concerns itself with the research design and methodology applied in this study. This chapter defines the population, sample frame, data collection methods and discusses the sampling method. The response rate to the questionnaire is examined and any problem experienced is discussed. The data analysis and statistical procedures employed in this study are also discussed.

Chapter 4 presents the reported results of the empirical study. This chapter provides an analysis, interpretation and evaluation of the research findings. Moreover, the results of the statistical analysis procedures that were applied to conduct the analysis on the sets of data are reported on. The results obtained from the reliability and validity analysis carried out on the measuring instrument are conferred.

Chapter 5 provides a final review of the entire study and presents the conclusions made from the study. Recommendations emanating from the study are also made. The limitations of this study and guidelines for future research opportunities are made upon complete conclusion.

1.8 SYNOPSIS

As competition in the HEIs market is increasing, HEIs need to realise the importance of being in a market (Oldfield & Baron, 2000). Students are viewed as primary consumers to HEIs, and as such, HEIs develop marketing strategies and marketing mixes to appeal to the students (Durvasula *et al.*, 2011). Consumers' levels of expectations are increasing and there is a growth in awareness of the quality of services being provided (Smith *et al.*, 2007). Service quality is seen as the most effective competitive trend shaping marketing and business strategy in organisations (Abdullah, 2006c).

In order for HEIs to build a competitive advantage in the market, focus should be centred on improving the level of service quality provided to the students and other consumer groups. The purpose of this study is, therefore, to provide a comparative view on the students' perceptions of the level of service quality delivered by two HEIs' faculties.

This chapter provided an outline of this study's problem statement, study objectives, hypotheses, research design and methodology, and chapter classification. In the next chapter, Chapter 2, a discussion pertaining to the service quality literatures will be provided. This will be in respect to an introduction to services, services marketing, service quality and service quality models.

CHAPTER 2
SERVICE QUALITY

2.1 INTRODUCTION

Service quality is an important issue in services marketing as it has become an accepted tool to use in obtaining operational efficiency and in enhancing business performance (Jain & Gupta, 2004). The increasingly important role of the services sector in many countries around the world, including South Africa (Weeks, 2009), has led to marketing being dominated by the service sector (Carrillat, Jaramillo & Mulki, 2007). According to Kimani *et al.* (2011), service quality is closely tied to an increase in profitability and is linked to presenting an essential competitive advantage, which is formed through repeated sales, positive word-of-mouth communications, consumer loyalty and service differentiation. Martin (1999) concurs, stating that any service organisation that concentrates on service quality will certainly gain a sustainable competitive advantage. Service quality, therefore, has become a persistent strategic force and a key strategic issue in any service organisation (Abdullah, 2006b).

Service quality in the higher education sector should be viewed from an organisational perspective (Oldfield & Baron, 2000). Kimani *et al.* (2011) concurs, indicating that the notion of service quality in the higher education sector is similar to the notion of service quality in other service context. Hill (1995), who refers to HEIs as Higher Education Organisations (HEOs), states that the higher education sector is increasingly providing a variation of services to the consumers, which fall beyond the scope of academic services and may be noted as financial and accommodation services. Abdullah (2006a) warns that HEIs have to realise that not only students but also other stakeholders, like the internal consumers, employers, the government, parents and the public, are their consumers and that they too need to be satisfied. South Africa's economy has witnessed social, economic, political and educational changes in the past few years. These changes have led to many markets witnessing increased levels of competition. Mammen (2006) advocates that HEIs should be prepared to handle any challenges that come about because of increased competitive pressures. Moreover, HEIs should realise the need to operate in a manner that ensures

productivity. Ivy (2008) elaborates that with the increasing competition and financial pressure, HEIs have had to learn how to market themselves within the economy.

This chapter focuses on providing insights into the service industry, including the specific service field of higher education. The proceeding section is five fold. In order to shape the focus of this study, an understanding of services marketing and the service sector is necessary. The first section provides an overview of services, with respect to the definition, characteristics and classifications. This section then leads into a discussion of services marketing. Within this section, the foundations, importance, contemporary issues and the future of services marketing are discussed, together with the services marketing mix. Thereafter, the primary focus of this study, service quality, is discussed in detail. The discussion highlights the definition, dimensions, consumer behaviours, consumer expectations and perceptions pertaining to service quality. In the last section of this chapter, a description of the various service-quality measurement models is provided.

2.2 INTRODUCTION TO SERVICES

This section presents an introduction to the services field that may be adapted to use in any service industry. The proceeding section provides a discussion on the definition of services, the characteristics of the services field, and the classification of services. The introduction to services lays the foundation for services marketing to be discussed.

2.2.1 Defining services

The first issue in differentiating services from physical products is in giving a good definition of what a service is (Gabbott & Hogg, 1997: ix). Abdullah (2006a) emphasises that the word ‘service’ has a wide range of meanings.

Lovelock and Wright (1999:5) provide a clear and concise definition of services by indicating that a service is offered from one party to another; subsequently, because services are intangible, a service does not result in the transfer of ownership of any of the factors of production. In addition, services may generate value and supply benefits to consumers through the adoption of change, reflected on behalf of the recipient of the service. Gronroos

(2001) defines a service as a process that is the result of an outcome put together through partly coinciding production and consumption processes. Services are behavioural rather than physical entities (Hill, 1995) and have been described as an act, deed, performance or an effort (Rathmell, 1996:59; Wilson, Zeithaml, Bitner & Gremler, 2008:5). In contrast, a product has been described as a thing, an object, an article, a device or a material. Even though a 'product' has generally been associated with a tangible element, a service may also be described as a 'product' (Palmer, 2009:264). In this sense, the service is a 'product' and could be anything of a tangible or intangible element that an organisation has to offer to its consumers. Shostack (1977) provides a suitable example of how a service can be anything of a tangible or intangible element. In this example, the services provided by airline travel and motorcars are examined, whereby the service provided by a motorcar is seen as a tangible element, which can be physically owned by the consumer. In comparison, airline travel is an example of a service provided through an intangible element in that the consumer does not take physical ownership of the aeroplane. Rather, the consumer uses the service through acquiring experience.

Wilson *et al.* (2008:6) make an important distinction between the types of services offered in the marketplace. First, there are service organisations in the marketplace that specialise in only offering essential services. Secondly, there are services that may be sold by non-service organisations. In this case, a service is sold to support the sale of a product, for example supporting features for the product (delivery of product). Thirdly, consumer services may be offered by service organisations and non-service organisations as a supplement to the core product offering. Lastly, services may be offered as a derived service, whereby the physical product offering is actually a service outcome but offered in the form of a physical product (for example, computers provide information services). Gronroos (2000:2) concurs, stating that an organisation producing physical products often provides supporting services to the consumers as a complete package, which is hidden in the billing structures of the organisation, thus enabling them to gain competitive advantages.

Zeithaml (1981:34) proposed a framework for the evaluation process of differentiating products and services on a basis of the classification of qualities. Owing to some of the tangible elements evident in a physical product, a consumer may easily evaluate a physical product before it is purchased, whereas a service is more difficult to evaluate before it is

purchased as no tangible elements are present (Boshoff & du Plessis, 2009:65). Similarly, Nelson (1970) developed a theory that explains how the consumer evaluates a physical product or service on two attributes, namely search qualities and experience qualities. Search qualities refer to the tangible elements a product has that enable a consumer to evaluate before purchasing it (Mitra, Reiss & Capella, 1999). Search qualities of a product may include tangible elements, such as colour, style, price, feel, fit, hardness and smell (Wilson *et al.*, 2008:30). According to Boshoff and du Plessis (2009:65), search qualities are generally more popular in products than in services. Experience qualities allow a product or service to be evaluated only after it has been purchased, or even during consumption (Zeithaml, 1981:34). Experience qualities may contain attributes such as taste and wearability (Wilson *et al.*, 2008:30). Darby and Karni (1973) added an extra attribute to Nelson's (1970) theory, namely credence qualities. These researchers suggest that with credence qualities, a consumer cannot fully evaluate the product or service after it has been purchased due to a lack of knowledge.

Wilson *et al.* (2008:5) identified that the service sector consists of several areas. These include distribution (motor, wholesale and retail trade), hotels and restaurants, and transport and communication (land, water, air and other modes of transport together with communication methods). In addition, the service sector includes business and finance (banking, insurance and pensions, other financial services, real estate, renting of products, computer services, research and development and other business services), and government and other services (public administration, education, health and social work, sanitation, membership organisations, recreation, domestic services and other services).

Gronroos (2000:47) argues that debates concerning service definitions are gratuitous and indicates that attention should rather be focused on developing an understanding of how to manage services. In order for service organisations to create a better understanding of how to manage these services, the focus should be on understanding the nature of some common characteristics of services.

2.2.2 Characteristics of services

In order for a service organisation to attract new consumers and to maintain a consistent level with the current consumers, solutions to the challenging characteristics of services are important (Kurtz & Clow, 1998:10). Hill (1995) concurs, indicating that in delivering service quality, service characteristics do and should play an important role.

Gronroos (2001) states that service characteristics should not be confused with physical products characteristics and that the most outstanding characteristic of a service is that it is a process and not an object, as is the case with physical products. Wilson *et al.* (2008:15) state that the differentiating characteristics of products are tangibility, standardisation, production being separate from consumption and products being non-perishable by nature. Whereas the differentiating characteristics of services are intangibility, variability, inseparable production and consumption processes and services being perishable. A discussion of these four characteristics follows:

- **Intangibility**

A service is characterised by an intangible nature in that it cannot be seen, touched, heard or tasted before being purchased (Kurtz & Clow, 1998:10; Palmer, 2009:264). Zeithaml, Parasuraman and Berry (1985) restate that products may be sensed, as they are physical objects, whereas services are performances that cannot be sensed in terms of being seen, touched, heard or tasted before being purchased. Gronroos (2000:46) points out that a basic characteristic of a service is that an exchange may take place, even though a tangible sense of a product is not experienced.

Wilson *et al.* (2008:16) identified that a major challenge created by the intangible characteristic of a service is that consumers may find the quality of a service difficult to assess. In comparison to a product organisation, service organisations cannot easily display and communicate the service offering before the service process takes place. In addition, a product is easier to patent and protect, whereas a service is more complicated to protect, which allows competitors to copy a concept in the early stages. Another imposing challenge created by the intangible characteristic of a service is that the cost for a single unit of a

service is difficult to determine, thus implicating that the price of a service is more complicated to determine than that of a product.

- **Perishability**

Unlike physical products, services are momentary in that the element of a service may only be utilised for the duration of the service process (Hill, 1995). In other words, when the service delivery process is completed, the consumption of the service is also fulfilled. Wilson *et al.* (2008:17) describe perishability in a sense that the service cannot be stored, saved, resold or returned. In comparison to a physical product, services cannot be stored in inventory and sold later, or a consumer cannot return a service if they are not satisfied with the service delivery (Kurtz & Clow, 1998:11).

Zeithaml *et al.* (1985) indicate that service organisations have a challenge in coordinating demand and supply levels. Palmer (2009:264) states that within the characteristic of a service being perishable, service organisations are unable to store the stock when demand is low. In other words, if the service is not sold at the available time, then the service offer is forfeited.

- **Inseparability**

The inseparability characteristic of services implies that the service organisation cannot produce the service in a separate location to where the consumer will consume the service, whereas with products, the objects can be produced in a factory beforehand and sold to the consumer at a later stage (Wilson *et al.*, 2008:16). In order for the service process to be delivered, both the consumer and the service organisation need to be present (Palmer, 2009:264; Brochado, 2009). According to Kurtz and Clow (1998:12), the quality of the service is reliant on the capability of the service organisations' skills and the quality of interaction is determined by the manner in which the service organisation communicates with the consumer.

While mass production is a salient cost-reducing activity in the production of physical products, it is not possible to mass produce services (Hill, 1995). Wilson *et al.* (2008:17) have identified several other challenges applicable to this service characteristic. First, the

interactions between the service organisation and the consumer will affect the quality of the service being delivered in 'real time'. Secondly, the service needs to be delivered to the consumer at a specific location, which can influence the service organisations ability to gain significant economies of scale, through irrelevant centralisation. Thirdly, the consumer is actively involved in the simultaneous production and consumption of the service process and, therefore, experiences either a positive or a negative quality of service.

- **Variability**

The high degree of human interaction and labour intensity experienced during the process of service delivery makes each service encounter unique and different from another (Hill, 1995). This can be attributed to the fact that the employees performance levels may differ on a daily and even hourly basis. In addition, consumers are different from one another in the sense that each demands different things and that each perceives the level of quality being delivered differently (Wilson *et al.*, 2008:16). Kurtz and Clow (1998:13) describe variability as a sense of irregular levels of service quality that is delivered to consumers through the service process.

Palmer (2009:264) states that within this characteristic of services, service organisations have a challenge in guaranteeing a high-level service quality as standardisation is difficult to obtain. Wilson *et al.* (2008:16) add that the service organisation cannot solely control the level of service quality being delivered due to variables such as the demand levels of consumers, the needs and wants of consumers and the employee's willingness to satisfy those needs and wants.

2.2.3 Classifying services

There are distinctive ways in which a service may be classified (Boshoff & du Plessis, 2009:8) and, as a result, a proliferation of work has been done on the level of classifying services (Lovelock, 1983).

Kurtz and Clow (1998:14) identified that service organisations may gain the following advantages in classifying a service:

- The service organisation may gain a deeper understanding of what the service entails.
- Owing to the common characteristics evident in services, paths may be created in identifying differences in specific service categories, together with other services.
- Classifying services may aid the service organisation in developing and applying effective marketing strategies and tactics.

Gronroos (2000:49) differentiates between two classification schemes of services, namely high-touch or high-tech services and discretely or continuously rendered services. According to the researcher, high-touch services are greatly dependent on the interactions of people in the service delivery process, which can include the management of technology-based systems and physical resources. High-tech services are essentially constructed using automated systems, information technology and other factors of physical resources. Discrete transactions are those offered for specific purposes and provide for irregular patterns of usage from the consumer. Whereas continuously rendered services are provided on regular basis, which allows the service organisation to create valuable relationships with the consumer. These classification schemes coincide with that of Boshoff and du Plessis (2009:8), who differentiate between equipment-based services (unskilled and skilled operators and automated services) and people-based services (unskilled and skilled labour and professionals).

Silvestro, Fitzgerald and Johnston (1992) agree with the abovementioned classifications and provide the following additional four classifications:

- Consumer contact time per transaction: High consumer contact is applicable to a service situation wherein the consumer is actively involved in the service delivery process for hours, days and even weeks. Low consumer contact is applicable to a service situation wherein the consumer is actively involved in the service delivery process for a limited period.

- Degree of customisation: When the service organisation offers the consumer a high degree of customisation, the service organisation adjusts the service process to satisfy individual consumer's needs. When the service organisation offers a consumer a low degree of customisation, the consumer will receive a non-varying standardised process of service delivery.
- Value-added front office/back office: Front-office staff members have contact with the consumer. The classification depends on a service situation where the back-office staff contingency is large or small in comparison to the front-office staff and vice versa.
- Product/process focus: The product/process will be dependent on the service situation of whether the organisation is product oriented (concentrated on what the consumer purchases), or process oriented (concentrated on how the service is delivered).

Similarly, Lovelock (1983) and, Lovelock and Wright (1999:32) differentiate between the following four groups of services classifications:

- People processing: Within people processing, the type of service involves the service organisation conducting tangible activities on the consumer's body.
- Possession processing: Within procession processing, the type of service involves the service organisation conducting tangible activities on products or other physical objects that belong to the consumer.
- Mental stimulus processing: The service organisation develops specific intangible activities directed at the consumer's mind/imagination.
- Information processing: The service organisation supplies intangible activities directed at the consumer's assets.

This section provided an overview on the definition of services, characteristics of the services field, and the classification of services. The following section discusses services marketing.

2.3 SERVICES MARKETING

In order to provide an understanding of the concept of service quality, an understanding of services marketing is necessary. This section is aimed at discussing the basic features of services marketing, with respect to the foundations, importance, contemporary issues and the future. In addition, this section also conceptualises the services marketing mix.

2.3.1 Foundations of services marketing

Services marketing was scarcely scattered in the literature and practice of marketing prior to the 1970s (Fisk, Brown & Bitner, 1993). The marketing literature and practices that dominated many countries around the world prior to this period were overpowered in product-oriented marketing (Shostack, 1977). Martin (1999) indicates that services were only recognised as instruments to support the sale of physical products. Kurtz and Clow (1998:6) emphasise that after World War II, a growth in services marketing was fuelled by European economies having to shift away from being manufacturing-based economies. Martin (1999) adds that during the post World War II period, competition increased for manufacturers in the European economies, which gave prominence to the notion of services. Wilson *et al.* (2008:7) add that the notion of services originated in the banking, transportation and retailing industries. Gronroos (2006) stresses that between 1977 and 2004, research increased in the areas of services marketing and relationship marketing. During this period, most of the service concepts and models of services marketing were developed.

According to Martin (1999), many economies around the world have experienced drastic transformational changes over the past few decades. As most economies were agricultural-based economies, transformation took place and the economies adapted to industrial-based economies. Now with the evolution of services, many economies are beginning to adapt and transform to service economies. Grove, Fisk and John (2003) state that the growth and maturity of the services marketing landscape is evident in the acceptance of the field by academics. In the twenty-first century, services as a field in study and research area may be viewed as a well-established academic predominant sub-discipline.

The field of services marketing was established on a paradigm for differentiating physical products and services in terms of the inherent characteristics that each of them posses (Lovelock & Gummesson, 2004). Vargo and Lusch (2004) add that marketing was originally founded in the product-centred and manufacturing-based model, and that the services marketing paradigm is built on the same broad use of the original product-marketing concept. Fisk *et al.* (1993) identified the following three stages in the development of the services marketing area, as stated in the literature:

- The crawling out stage (pre-1980): The crawling out stage was the first stage in the development process of services marketing. Scholars claimed the right for services marketing to exist and explained the notion of services marketing. This stage was characterised by high criticisms.
- The scurrying about stage (1980-1985): The scurrying about stage was developed after the criticisms in stage one had been lost. Scholars producing high levels of publications on services marketing literature formed this stage. This stage contributed to the development of various topics and interests in the area of services marketing.
- The walking erect stage (1986-onwards): The walking erect stage may be characterised by the successful implementation of the services marketing area to the marketing discipline.

The concept of services marketing is different from that of product marketing (Boshoff & du Plessis, 2009:2). In this respect, Weeks (2009) states that the nature of the differences between physical products and services calls for a new mindset and new ways of thinking with regard to differentiating the management perspective of both physical products and services. This researcher claims that it is impossible to manage the service process in the same manner as one would manage the production of physical products. Shostack (1977) adds that the respective role of product marketing has led to confusion in the appropriateness of service-based companies. Many service-based companies have tried to apply product-marketing strategies, which have led them to failure. Wilson *et al.* (2008:10) indicate that the skills and experience of a product marketer are not transferable to the service sector. In a study conducted by Berry and Parasuraman (1993), the conflicting debate of whether a separate field specifically for services marketing is truly necessary was tested. The results of

the study depicted that services marketing is an important field with several roots expected to attain sustainable growth. Therefore, a separate sub-discipline field for services marketing was deemed necessary.

2.3.2 Importance of services marketing

The transformational changes that many countries around the world undertook have led to an increase in the demand for services (Kurtz & Clow, 1998:6). These transformational changes were stimulated by the invention of the computer and advancements in telecommunications, which are evident in countries shifting from a manufacturing-based perspective to a service-based perspective. Wilson *et al.* (2008:8) state that the service sector is growing at a rapid pace and there is an increase in the dominance of services in the world economies. Petzer *et al.* (2008) emphasise that in most developed countries around the world, the service sector represents an average of 80 percent of the total workforce.

The services marketing concept was introduced to the world through the European markets during the 1970s (Fisk *et al.*, 1993). Kurtz and Clow (1998:6) have recognised several reasons for the growth in services, namely an aging population, longer life expectancies, increased leisure time, higher household and individual incomes, increased time pressure, an increasing female workforce, advances in telecommunications, changes in social and cultural patterns, and advances in technology. Boshoff and du Plessis (2009:2) advocate that the importance and nature of services should be placed in context with the country's Gross Domestic Product (GDP). In South Africa, as published by The World Factbook (2011), the services sector contributed an astonishing 65.8 percent to the country's GDP, followed by the industry and agricultural sector that contributed 31.2 percent and 3 percent respectively to the country's GDP. These figures are estimations for the most recent year of 2010. According to String Fellow Investments in South Africa (2011), South Africa's service sector has experienced increases in the country's GDP from the time services marketing was introduced to the world to the present, with figures on the country's GDP fluctuating from 53 percent in 1970 to 65.8 percent in 2010.

The cost of attracting new consumers and losing existing consumers is increasing, which increases the importance of an organisation attracting and retaining consumers (Petzer *et al.*,

2008). Boshoff and du Plessis (2009:14) state that an organisation can gain extensive profits if existing consumers are retained. Kurtz and Clow (1998:55) add that when an organisation retains existing consumers, repeat purchases are guaranteed, consumers become loyal to the organisation, and the loyal consumers may spread positive word-of-mouth communications about the organisation. Services play an important role in the field of retaining consumers (Petzer *et al.*, 2008). One articulating reason for this may be found in the long-term relationships that are built between the service organisation and the consumer (Gronroos, 1997). Zeithaml, Parasuraman and Berry (1996) speculate that consumers even remain loyal to a service organisation when they are dissatisfied with the service being delivered. This may be because the consumer does not see any alternatives.

Boshoff and du Plessis (2009:15) identified that competition in services marketing is increasing. In South Africa, the fall of the Apartheid era and the transition from the colonial past to the country's democratic dispensation and free markets has led to an increase in competition (Gbadamosi & de Jager, 2009). Petzer *et al.* (2008) elaborate that service organisations need to have strategies in place to develop competitive advantages. These strategies need to suit the organisation's structure and need to be implemented efficiently (Wilson *et al.*, 2008:11).

2.3.3 Services marketing – contemporary issues and the future

Services marketing literature is based on the foundation of differentiating products and services through the characteristics proposed to services, such as intangibility, heterogeneity, perishability, and the inseparability of the consumption and production processes of services (Gronroos, 1998). Martin (1999) indicates that the characteristics of services are fundamental developments in the services marketing literature. These characteristics of services are as important to the field of services marketing as the marketing mix elements are to marketing in general.

Zeithaml *et al.* (1985) identified that the following three underlying assumptions have contributed to the existence of growing literature in the field of services marketing:

- The differences between physical products and services are evident in the underlying characteristics of services.
- Owing to the underlying characteristics of services, services marketers are faced with more compelling problems than those faced by product marketers.
- Product marketing solutions cannot resolve services marketing problems; instead, services marketing require solutions that are specifically suited to the services field.

Services marketing literature has also been subjected to criticisms. This is evident in the early works of the 'crawling out stage', as depicted by Fisk *et al.* (1993). According to Gronroos (2006), various researchers have found too few differences between products and services to warrant making services significantly more important than products. Grove *et al.* (2003) concur, stating that the characteristics of services do not capture the full essence of the present and future service offering due to service characteristics being oversimplified. Vargo and Lusch (2004) support this notion by stating that the distinguishing service characteristics pose issues in the sense that the characteristics do not distinguish products and services from one another, the characteristics only have value from a manufacturing perspective, and the characteristics indicate improper normative strategies. Lovelock and Gummesson (2004) believe that the paradigm and conceptualisation of the unique service characteristics is severely defective.

Services' marketing literature, despite the various criticisms, has become a valued, well-recognised and accepted practice in the field of marketing (Zeithaml *et al.*, 1985). The adoption of a service-logic approach can provide powerful knowledge to the field of marketing (Gronroos, 2006). However, Grove *et al.* (2003) warn that through the expansion of the services market, the limits that denote it have become less apparent, which is leading the marketing field into maturity. As such, Lovelock and Gummesson (2004), advocate that the marketing field should adapt to new paths in order to survive. Zeithaml *et al.* (1985) state that in the area of services marketing, most of the work was previously focused on the differences that exist between service organisations and product organisations. However,

there are also significant differences found among various types of service organisations. Services marketing researchers need to define some of the differences that exist between the various types of service organisations and to develop a new phase that includes the numerous disciplines and industries found amongst service organisations. Lovelock and Gummesson (2004) argue that the future of services marketing might propose a united services mix consisting of both services marketing and product marketing. In contrast, these researchers also suggest that the future of services marketing may proceed with the current separation in services marketing and product marketing. However, the differences in service industries will be enlightened through the development of industry specific paradigms of the categories in services. Gronroos (1998) adds that in the future, it may not be necessary to sustain a distinctive distance between services and physical products.

The services marketing field is evolving with plenty of factors affecting its changing circumstances, for example the impact of technological inferences has affected the services marketing field in terms of corporate and consumer attitudes, behaviours in the marketplace, and political agendas (Lovelock and Gummesson, 2004). Grove *et al.* (2003) identified that technology, specifically the Internet and e-commerce, will have an effect on the future of services marketing. The aspects of services marketing that will be affected by the Internet will appear in the communication, delivery, sale and support of services.

2.3.4 Conceptualising the services marketing mix

The marketing mix concept forms a foundation for the marketing theory (Rafiq & Ahmed, 1995), and as such has been leading marketing research, thought and practice for over 40 years (Gronroos, 1997). The marketing mix concept is not designed through scientific analysis. Rather, it is designed through a conceptual framework configured as a means to assist service organisations or managers in making decisions on suitable offerings that best match consumers' collective and individual needs (Palmer, 2009:21). The marketing mix concept may be used to create long-term strategies and short-term strategies. Grove, Fisk and Bitner (1992) define the marketing mix as a set of elements that are very important to organisations. The organisations may use these elements to communicate with consumers and to satisfy the needs of their target market. Ivy (2008) adds that the marketing mix may be managed by an organisation to attain the required response from the consumers. Kurtz

and Clow (1998:21) concur, indicating that the marketing mix concept may be used to affect the demand levels of products and services through managing the marketing mix elements to produce sales and profits. An organisation may also use the marketing mix concept to create a competitive advantage. Moore, Petty, Palich and Longenecker (2008:183) state that the marketing mix concept is a combination of organisational activities that include product, pricing, promotion and distribution.

The marketing mix concept is conventionally used for tangible products (Ivy, 2008) and is known as a standardised traditional mix consisting of four elements better known as the four Ps (4Ps), namely product, price, place and promotion (Boshoff & du Plessis, 2009:9; Gronroos, 2000:240). According to Wilson *et al.* (2008:20), the underlying assumption developed is that the marketing mix elements work together and rely on each other. Therefore, if there is a change in one of the marketing mix elements the other marketing mix elements will be affected either positively or negatively.

The traditional marketing mix has been subject to criticisms, mainly arising from the services marketing area (Rafiq & Ahmed, 1995). According to Bitner (1990), the reason for the criticisms is due to the differentiating characteristics of a service. The foundation of the argument is built on the belief that the characteristics of services enable service organisations to satisfy consumers on more variables that fall beyond the scope of the traditional 4Ps. Wilson *et al.* (2008:20) explain that a high level of interaction between the service organisation's employees and the consumer is inevitable due to the services being inseparable from the service organisation. Therefore, both parties are a part of the service process. In addition, a service has an intangible nature, which implies that consumers look for tangible cues to help them grasp the nature of the service and to create a perception on what can be expected. Bitner (1990), states that within the services market, consumers have difficulty establishing tangible cues. This, in turn, results in consumers evaluating the service organisation's physical facilities and employees. According to Rafiq and Ahmed (1995), the nature of services makes services marketing unique and different.

The services marketing mix concept consists of the traditional 4Ps, together with an additional 3Ps (people, processes and physical evidence). This constitutes the services marketing mix of 7Ps (product, place, price, promotion, people, processes and physical

evidence) (Ivy, 2008). Rafiq and Ahmed (1995) state that the service delivery process may only resemble the traditional marketing mix concept when the service is standardised and quality may be controlled. Therefore, a services marketing mix is needed. The following section gives particular attention to each of the 7Ps.

- **Product**

An organisation uses a product to satisfy consumers' needs and to determine what is being sold. As such, a product forms an essential element in the exchange process (Ivy, 2008). Jooste, Strydom, Berndt and du Plessis (2008:355) emphasise that consumers purchase products for the benefits offered. The focus of the organisation should be on how the product is produced and presented (Hakansson & Waluszewski, 2005). According to Palmer (2009:22), an organisation may provide a tangible or intangible product that is controlled by variables such as quality, styling, unique designs, durability, packaging, warranties, after-sales services, brand image, ranges and sizes.

Kurtz and Clow (1998:22) identify that products have a technical and functional service outcome. The technical outcome is the result of the service (that is, what was actually delivered) and the functional outcome refer to the manner in which the service was delivered (that is, the way in which the service organisation's employees treated the consumer). Hakansson and Waluszewski (2005) elaborate that the product, together with the price, place and promotion, has a direct impact on the outcome of the delivery process.

- **Price**

The price of a service provides consumers with an indication of what to expect from the service delivery process, for example a high price may represent high quality service and a low price may represent low quality service (Kurtz & Clow, 1998:23). Jooste *et al.* (2008:355) identify that the price may be used as an indicator of quality when the quality of a service is difficult to assess, when there is a large demand for a high quality service and when the market is able to assess the level of quality offered by a service and accept the price offered.

Hakansson and Waluszewski (2005) indicate that a service organisation should adjust the price of a service to create an optimal mix. However, the market forces of supply and demand may also determine the price of a service. Palmer (2009:23) states that the revenue generated by the service is directly affected by the price of the service. Conversely, the price of a service may be set according to the production costs and competitors' prices. In addition, the price which consumers are prepared to pay for the service may also affect the price of the service.

- **Place**

The fundamental characteristics of a service create a challenge for the service organisation to allocate a suitable place for the service offering (Kurtz & Clow, 1998:23). Hakansson and Waluszewski (2005) state that the basic objective in determining a suitable place for the service offering is to bring the service to the consumer through matching supply and demand factors. When deciding on a suitable place for the service offering, Palmer (2009:23) advises that the service organisation considers the ease of producing the service at the given place and the consumers' ease of access to the service.

- **Promotion**

An organisation can use various promotional techniques, such as advertising, personal selling, public relations, sponsorships, sales promotions and direct marketing, to communicate the benefits of the service offering to the potential users in the selected target markets (Palmer, 2009:23). These promotional techniques are also used to inform, remind and persuade existing and potential consumers of the service offering (Jooste *et al.*, 2008:356). Kurtz and Clow (1998:24) state that because of the inherent characteristics of a service, a service may be more difficult to promote when compared to a physical product.

- **People**

The 'people' element forms one of the additional 3Ps specifically added to suit the services marketing mix concept (Rafiq & Ahmed, 1995). Jooste *et al.* (2008:357) note that people form a crucial element in the service delivery in that they contribute to consumers gaining a

positive and successful service experience. As such, people need to be actively involved in the service process. Wilson *et al.* (2008:21) define people as all the physical activities or interactions that are related to human actors in the service delivery process. The people (employees, consumers and other consumers) in a service organisation, who play an active role in the entire delivery process, may directly influence the buyer's perceptions of the service (Boshoff & du Plessis, 2009:10). Palmer (2009:24) states that the front-line employees, who interact directly with the consumers, have the most contact with the current and potential consumers, which may either lead to a positive or negative marketing effectiveness programme. The employees in a service organisation, together with their appearances, behaviours and attitudes, may also illustrate physical cues to the consumers (Bitner, 1990).

- **Physical evidence**

The physical evidence element is not well supplemented by researches in the services field due to the people element and processes element being conceptual in nature (Rafiq & Ahmed, 1995). Grove *et al.* (1992) relate physical evidence to the environment in which the service is produced and consumed, including both the consumer and the service organisations' interactions and activities. Physical evidence includes all the tangible elements of the service process (Ivy, 2008). These tangible elements may include variables such as the noise levels, odours, temperatures, colours, textures, comfort of the furnishings (Bitner, 1990), facility design, equipment, signage, corporate dress, annual reports, guarantees, business cards and financial statements (Boshoff & du Plessis, 2009:9). The tangible elements may communicate strong messages to the consumers and potential consumers as they may act as cues in describing the service organisation's purpose and the nature of the service (Wilson *et al.*, 2008:21). In comparison to product organisations, Kurtz and Clow (1998:24) advocate that service organisations have a difficulty in communicating service offerings. Consequently, physical evidence acts as the packaging to the service offering by assisting the service organisation in effectively communicating its message (Jooste *et al.*, 2008:356).

- **Processes**

Service organisations view the production concept as being critical in the service delivery process due to the 'high-contact' levels of interaction between the service organisation and its consumers (Palmer, 2009:24). According to Jooste *et al.* (2008:357), consumers are generally concerned with the outcome of the service process (end-result) and the process of service delivery (the experiences before, during and after the service delivery). Unlike a product, where the consumer pays for a product and immediately gains ownership of it to consume it anywhere he/she likes, a service requires longer periods of interaction and communication between the service organisation and the consumer (Ivy, 2008). In addition, the service process does not result in any transfer of ownership. Wilson *et al.* (2008:22) identify that a consumer may use two levels to evaluate the service process. First, consumers may evaluate the service on the degree of how complicated the service process is in terms of some services requiring long periods of interactions and complex routines. Secondly, a consumer may evaluate the service in terms of it being a standardised service or a customised service designed specifically to meet the individual consumer's needs.

This section provided an overview on the topic of services marketing. A comprehensive discussion on service quality will now follow.

2.4. SERVICE QUALITY

In accordance with the topic of this study, a comprehensive discussion on service quality will be given in the proceeding sub-sections of this section. The definition of quality and service quality is provided, followed by a discussion on the various dimensions of service quality. Section 2.4.3 provides an overview of consumer behaviour in services, whilst Section 2.4.4 provides an overview on the consumer expectations of services. Consumers' perceptions of service quality are discussed in Section 2.4.5 and Section 2.4.6 provides a discussion on measuring service quality. The section on service quality leads into an outline of service quality models.

2.4.1 Defining quality and service quality

Quality is an essential issue in services marketing (Boshoff & du Plessis, 2009:33). The word 'quality' has a variety of meanings to different people, which has led to an increase in the use of various connotations related to the word (Sahney *et al.*, 2003). The word 'quality' may be misleading and troublesome to define (Brochado, 2009; Parasuraman, Zeithaml & Berry, 1985). Jain and Kupta (2004) warn that quality in services marketing has become troublesome to identify and to define due to the inherent characteristics of services. Gabbott and Hogg (1997:171) state that there is a lack of consensus regarding the definition of the word 'quality'.

Chakrapani (1998:4) relates the word 'quality' to the price of a service, stating that if the perceived enjoyment of consuming the service exceeds the perceived cost thereof, the consumer will perceive that service as being of a high quality. Gronroos (2000:63) emphasises that the quality of a service is determined by the manner in which the consumer perceives it to be, rather than the price of the service. Lovelock and Wright (1999:18) concur, indicating that quality can be defined in terms of consumer satisfaction. In this sense, quality will be measured by the degree to which a service meets or exceeds the consumers' needs, wants and expectations. Similarly, Moore *et al.* (2008:525) define quality based on a service's physical features, which enable consumers to satisfy their needs.

Service quality is an important term to define, as it has become an attraction to the services marketing literature (Gabbott & Hogg, 1997:171). Lovelock and Wright (1999:92) define service quality as a consumer's long-term, intellective assessment of an organisation's service delivery process. Zeithaml *et al.* (1990:18) describe service quality as being perceived and measured by the difference between the consumers' expectations and perceptions. Therefore, the consumer measures service quality in terms of the service organisation either meeting or exceeding their expectations and perceptions. According to Cronin and Taylor (1992), "Service quality should be conceptualised and measured as an attitude". Abdullah (2006a) agrees but emphasises that the precise nature of this attitude is unclear.

According to Zeithaml *et al.* (1985), service quality has three underlying challenges for the service marketer. First, product quality is easier for the consumer to evaluate than service

quality. Secondly, a comparison between consumer expectations with actual service performance results in service quality perceptions. Thirdly, quality evaluations are made from a combination of the outcome of a service and the evaluation of the service delivery process. Lovelock and Wright (1999:94) suggest that consumers use the dimensions of service quality to evaluate the quality of the service provided.

2.4.2 Dimensions of service quality

Chakrapani (1998:32) states that although there are some basic dimensions of service quality, no general agreements as to how many factors underlie service quality exist. Kimani *et al.* (2011) emphasise that attention should not only be focused on a specific dimension of service quality but rather it should be focused on all the dimensions equally. The reason for this is that the dimensions of service quality have a collective effect on the development of the consumer's perceptions and overall satisfaction. The manner in which a consumer perceives service quality leads to how the service is evaluated.

Zeithaml *et al.* (1990:20) identified the following ten dimensions of service quality:

- Tangibles: This includes the service organisation's presentation of physical facilities, equipment, personnel and communication component
- Reliability: The service organisation's ability to deliver the promised service accurately and attentively
- Responsiveness: Service organisation's eagerness to help consumers and to provide immediate service
- Competence: The service organisation's ability to obtain the required skills and knowledge to deliver the service
- Courtesy: The contact personnel's kindness, respect, attention and friendliness
- Credibility: The service organisation's dependability, credibility, and honesty
- Security: Freedom from threat, risk or fear
- Access: The service organisation's ease of approachability and contact

- Communication: Ensuring the service organisation gives the consumer information in a general language that he/she can understand
- Understanding the consumer: The service organisation's willingness to know and understand the consumer's needs and wants

As the work advanced in determining the dimensions of service quality, the ten original dimensions of service quality were reduced to five unique dimensions (Boshoff & du Plessis, 2009:38). Zeithaml *et al.* (1990:26) indicate that even though the original ten dimensions of service quality have been reduced to five dimensions, three of these are still the original ones and the two new dimensions capture the essence of the seven original dimensions. Therefore, according to Zeithaml *et al.* (1990:26), the official five dimensions of service quality are as follows:

- Tangibles: This includes the service organisation's presentation of physical facilities, equipment, personnel and communication component
- Reliability: The service organisation's ability to deliver the promised service accurately and attentively
- Responsiveness: Service organisation's eagerness to help consumers and to provide immediate service
- Assurance: The required knowledge and courteousness of employees, and the employees' capability to transfer trust and confidence to the consumers
- Empathy: The service organisation's ability to give consumers caring and individualised attention

According to Tait and de Jager (2009), various researchers have different perceptions on the service quality dimensions. Oldfield and Baron (2000) suggest that service quality comprises three important dimensions, namely service processes, interpersonal factors and physical evidence. Boshoff and du Plessis (2009:9) define service processes in terms of identifying all the combined methods (procedures, programmes, devices, activities and operations) used to ensure the delivery of a service. Hill (1995) states that service processes refer to the manner in which services are perishable and cannot be stored. Gronroos (2000:14) adds that services are processes because there is no evidence of the production and that the outcome of the service process is evident in the interactions between the consumer and the service

organisation. Kurtz and Clow (1998:223) identify interpersonal factors as situations that can affect the service environment. These situations can refer to the appearance, behaviour and mood displayed by both the employees of the service organisation and the consumers. Lovelock and Wright (1999:200) relate physical evidence to the tangible objects and metaphors confronted by consumers in the service delivery process. These tangible metaphors are linked to the concepts of communicating relevant advertisements, symbols and trademarks in the service delivery process. Wilson *et al.* (2008:241) concur, stating that physical evidence relates to the contextual circumstances in which the service organisation delivers the service to the consumer.

Gronroos (1998) states that perceived service quality has two underlying dimensions. First, functional quality that involves the manner in which the service is being delivered and secondly, technical quality that involves what the consumer is actually receiving from the service. Oldfield and Baron (2000) add that functional service quality relates to the three dimensions that underlie service quality, namely service processes, interpersonal interactions and physical evidence. Hill (1995) states that within the delivery of a service, consumers are often a critical element in formation of production and service processes. Therefore, it would seem vital to provide an overview on consumer behaviour in services.

2.4.3 Consumer behaviour in services

Clow, Kurtz, Ozment and Ong (1997) state that consumers' behaviour relates to the manner in which the service is being delivered (functional quality). Service organisations should pay particular attention to the manner in which the service is delivered, as this will directly influence the consumers' assessments of satisfaction or dissatisfaction.

Zeithaml *et al.* (1996) declare that favourable behavioural intentions are expressed by consumers through an increase in satisfaction and, thereby, an increase in purchasing, willingness to pay higher prices, loyalty, and a preference for the service organisation over competitors' services. In contrast, unfavourable behavioural intentions are an indication that consumers are dissatisfied and therefore present behaviours such as threats to leave the service organisation, an increase in complaints, and a decrease in spending. Martin (1999) warns that as competition is escalating in the service markets, unfavourable behavioural

intentions affect the service organisations negatively due to an increased need to retain existing consumers. Boshoff and du Plessis (2009:93) concur, stating that consumer satisfaction is essential to a service organisation. Consequently, service organisations need to understand the factors deployed by the consumer's interpretations of satisfaction. Lovelock and Wright (1999:36) believe that the service employees, interior and exterior physical environment, self-service equipment, and behaviours of other consumers may affect a consumer's level of satisfaction.

Consumers may simultaneously experience a collection of satisfactions and dissatisfactions in the delivery of services (Rafiq & Ahmed, 1995). Brochado (2009) indicates that consumers, through their own satisfaction or dissatisfaction, may directly affect the level of service quality being delivered. A consumer's behaviour, as deeply influenced by the determinants of satisfaction or dissatisfaction, is a function of the expectations and perceptions consumers hold of the service (Martin, 1999).

2.4.4 Consumer expectations of services

Expectations play an important role in the management of service quality. As such, service organisations should be able understand the basic features of consumers' expectations, the development of such expectations and the implications these expectations have on service quality (Hill, 1995). Consumer expectations may be defined as a specific perception that is developed by the consumer prior to the service delivery process. The consumers then use these perceptions as a standard to judge the level of performance during and after the service delivery process (Wilson *et al.*, 2008:55; Abdullah, 2006b). According to Lovelock and Wright (1999:88), consumers build perceptions on factors such as experiences with a particular service organisation, with a competitor's service offering in the same industry or even with related service offerings in other industries. Consumers may even build perceptions of the service offering on factors such as advertising and word-of-mouth (Boshoff & du Plessis, 2009:40). Lovelock and Wright (1999:88) suggest that if perceptions are based on these factors, then consumers have an appropriate level of personal experience in that specific service industry. Kimani *et al.* (2011) indicate that although consumers' expectations are powerful, changes in these expectations are found from time to time. In

other words, the perceptions consumers use to evaluate the service process today may change tomorrow.

Wilson *et al.* (2008:57) state that consumers may use different types of expectations to develop perceptions on the service process. Zeithaml *et al.* (1996) identified that these different types of expectations may be referred to as a desired service, an adequate service, a predicted service and a zone of tolerance. Boshoff and du Plessis (2009:38) state that consumers want and hope for a specified level of service quality in the delivery of a service, which is known as a desired service level. The desired service level that the consumer has of the service encounter is also the ideal expectation of the service. Lovelock and Wright (1999:90) add that even though consumers hope to receive an ideal service level, expectations are kept in line with what a person may reasonably expect to receive from a service organisation. This in turn, has led to a lower level of expectations to be developed for a suitable and an acceptable service encounter, referred to as an adequate service. Lovelock and Wright (1999:91) emphasise that the adequate service is the lowest level of service quality that a consumer is willing to accept without jeopardising satisfaction levels. Any level of services offered below an adequate service will result in the consumer being disappointed. Clow *et al.* (1997) stress that consumers will form a predicted service level based on the level of service quality that they believe the service organisation capable of performing. Factors such as the consumer's past experience, advertising, word-of-mouth communications, and promises made by the service organisation will affect the predicted service level encounter. In a situation where the adequate service is on the lower extreme and the desired service is on the upper extreme, Zeithaml *et al.* (1996) state that a zone of tolerance contains the parameters of the differences between services, which are used by the service organisations to meet consumers' expectations. Wilson *et al.* (2008:58) elaborate that the zone of tolerance is affected by the variability of a service, and is developed by a consumer's recognition and acknowledgement of these factors.

Expectations have a great influence on the delivery of service quality (Devlin, Gwynne & Ennew, 2002). Gronroos (2000:68) states that when a service organisation is aiming at delivery a quality service, it might sometimes be better to under promise than over promise in the service offering. Doing so provides the service organisation with the opportunity to exceed the consumers' expectations. This notion may be better understood by way of an

example: a consumer's expectations will be raised to a maximum level if there are plenty of promises made for the service offering, which, in turn, may lead to an idea of low service quality after the service delivery process. The opposite effect of this notion may be applicable if under promises are made for the service offering. Wilson *et al.* (2008:65) warns that when a service organisation makes promises on highly customised and differentiated service offerings, a challenge may be created as the level of service quality is unknown.

The following section examines the consumer perceptions of services.

2.4.5 Consumer perceptions of services

A consumer's perceptions of a service encounter are greatly influenced by service quality. Fundamentally, service quality is viewed as a critical element of consumer perceptions (Wilson *et al.*, 2008:83). However, within the literature pertaining to service quality, the topic of consumers' perceptions has not received much attention. Consequently, consumers' perceptions are placed second to consumers' expectations (O'Neill, Palmer & Beggs, 1998). According to Cronin and Taylor (1992), consumers' perceptions are vital to the measurement of service quality in any service organisation, as service quality should be measured as an attitude. Robledo (2001) concurs, articulating that the developers of the perception paradigm strongly believe that within the measurement of service quality, only consumers' perceptions are essential.

Gronroos (1998) identifies that in service processes, consumers' perceptions are essential for the evaluation of service quality and for the evaluation of the complete quality of a service. Consumers utilise a process of gathering, selecting, organising and interpreting information from the external and internal environments (Boshoff & du Plessis, 2009:40). This process is known as the formation of perceptions, which may be influenced by a consumer's existing knowledge and cognitive feelings of the service. Gronroos (2001) accentuates that consumers carry all their previous experiences into each service encounter. A service organisation should always grasp the concept of service quality from a consumer's perspective, as consumers only examine their own perceptions of the service quality and not the service organisation's view of service quality (Kurtz & Clow, 1998:102).

According to Wilson *et al.* (2008:78), consumers develop perceptions of a service based on the quality evaluation of the service and on the overall satisfaction with the service process. Kong and Muthusamy (2011) indicate that a consumer will be satisfied with a service when the perceptions of the service process meet the expectations of the service offering. However, a consumer will be delighted if the service experience exceeds the expectations of the service offering. In addition, an inadequate level of service quality is delivered when a service experience does not match the consumers' expectations of the service. In turn, this will result in the consumer being dissatisfied. A consumer's perceptions of service quality may change from one experience to the next (O'Neill *et al.*, 1998). Consumers may re-evaluate the perceptions of a service offering through examining new information on a service offering. Unfortunately, when consumers re-evaluate their perceptions, their expectation levels may double (O'Neill, 2003). The increase in the expectation level of consumers actually decreases the consumer's previous evaluations of perceptions on the level of quality. O'Neill *et al.* (1998) elaborate that consumers' re-evaluation of perceptions has an important implication on the level of repurchase decisions, as consumers will only re-evaluate their perceptions when repurchasing the service.

Gronroos (2000:67) emphasises that a high-perceived service quality may arise when the consumers' experienced quality matches their expected quality. Kurtz and Clow (1998:99) concur, specifying that consumer's perceptions of service quality are a result of the difference between what was expected from the service process, before the service delivery, and the level of service actually received.

According to Martin (1999), a consumer's perceptions of a service may also be influenced by the tangible elements added to the physical environment of the service organisation. Rafiq and Ahmed (1995) add that the physical environment is critical in the service process, as it may provide tangible cues that consumers use to estimate the quality of the service offering and delivery. Owing to services being inseparable in the production and consumption process, consumers often use the service organisation and the employees as a basis on which to develop perceptions of the service quality. Bitner (1990) agrees, indicating that service organisations need to manage each person in the service encounter in order to improve consumers' perceptions of service quality.

2.4.6 Measuring service quality

According to Brochado (2009), the complications involved in defining quality and service quality has led to a debatable issue concerning measuring service quality. Wilson *et al.* (2008:132) state that a sufficient measure of service quality is essential in guiding an organisation to distinguish which aspects of the service require performance improvements, how much improvement is needed on each aspect, and in evaluating the impact of each improvement. The selection of an appropriate measurement tool is important, as it will guide managers to assess the quality of services being provided thereby improving the value of the service delivery process (Brochado, 2009).

This section provided an overview of service quality. In order to gain a comprehensive understanding of service quality, as the main heading of this study suggests, a background on the various service quality models is vital and this is given in the following section.

2.5 SERVICE QUALITY MODELS

The goal of most service organisations is to increase the level of service quality provided. However, it is not sufficient to believe only in the importance of providing a desirable level of service quality (Zeithaml *et al.*, 1990:35). There are discrepancies found in service quality models, where the actual results do not always match the expected results (Chakrapani, 1998:172). Kurtz and Clow (1998:106) emphasise that the service organisations should keep in mind that the respondents always measure the organisations level of service quality against an ideal organisations level service quality. Chakrapani (1998:172) states that one of the most essential issues in delivering a quality service lie in what the consumers expect from the service delivery process and what is actually delivered by the service organisation.

The different service quality models, namely the SERVQUAL Model, Gap Analysis Model, SERVPERF Model and HEdPERF Model will be discussed in the following sections.

2.5.1 SERVQUAL Model

The SERVQUAL model is a well-known instrument that is generally recognised and used by many researchers in the services marketing field (Gronroos, 2000:73, Palmer 2009:162, Boshoff & du Plessis, 2009:43). The SERVQUAL model was developed by Zeithaml *et al.* (1990:23) as an instrument to measure the expectations and perceptions consumers have of service quality. This instrument is based on a theory that service quality is the difference between consumer's expectations and perceptions (Kurtz & Clow, 1998:103). According to Boshoff and du Plessis (2009:43), the SERVQUAL instrument is based on the disconfirmation paradigm. The disconfirmation paradigm identifies the manner in which consumers evaluate the service organisation, in terms of the expectations (E) and the assessed performance (P). As such, service quality may be calculated as follows:

SQ= E – P

The calculation of the overall service quality experience is determined by the consumer's assessment of expectations and performance. In a simpler form, when the consumer's performance ratings are lower than the expectations (Lovelock & Wright, 1999:101), a negative service quality score will be obtained, which represents a low level of service quality (Boshoff & du Plessis, 2009:43). A high-quality service delivery experience that results in a positive score occurs when the consumer's expectations are exceeded by the performance of service delivery.

The SERVQUAL instrument is made up of two pertaining sections (Zeithaml *et al.*, 1990:23). The first section utilises 22 statements to measure the consumers' expectations of a service and the second section replicates the 22 statements but adjusts them to measure consumer's performance ratings of a specific sector within the service category. These 22 statements are usually used to depict the five determinants of service quality, namely tangibles, reliability, responsiveness, assurance and empathy (Gronroos, 2000:76; Zeithaml *et al.*, 1990:26).

Parasuraman *et al.* (1985) state that an advantage of the SERVQUAL model is that it may be used to measure perceived service quality across a variety of different service industries. However, the wording of the model should be adjusted to suit the specific service industry and to meet context-specific requirements. Abdullah (2006a) concurs, explaining the model

as a basic 'skeleton' that needs to be modified. Wilson *et al.* (2008:132) have identified the following purposes of the SERVQUAL model:

- Service organisations may identify average gaps for each service attribute, through identifying differences between consumers' perceptions and expectations.
- The five SERVQUAL dimensions may be used to assess the service organisations service quality.
- Using individual service attributes or the SERVQUAL dimensions, service organisations may monitor consumers' perceptions and expectations.
- Service organisations may compare the service quality ratings against those provided by competing firms.
- The service organisations service performance measurements may be used to identify and examine differences in consumer segments.
- The SERVQUAL model may be used to measure the internal service quality offered by the service organisations departments or divisions.

Abdullah (2006a) states that despite the wide use and popularity of the SERVQUAL model, criticisms have surfaced on the conceptual and operational levels of the model. One of the most severe criticisms found in the use of this model is based on the work of Cronin and Taylor (1992). These researchers tested the reliability and validity of the model's perception and expectation dimensions. The results of the study depicted that because service quality should be conceptualised and measured on an attitude basis, the current SERVQUAL model appears to be based on a flawed paradigm of measuring service quality on a satisfaction basis. The five dimensions of this model have also failed to be sufficient across all the service industry levels tested in the study. Kurtz and Clow (1998:105) highlight that the SERVQUAL model was developed to suit the specifications of an ideal service organisation and may therefore not be applicable to use for a particular service organisation in the service setting.

Kurtz and Clow (1998:106) have identified criticisms of the SERVQUAL model in the areas relating to the timing of the measurement. This criticism is based on a theory that if a consumer is asked to relate the experiences and expectations of the service offered after the

service has been consumed and the consumer has had a positive experience then this will lead to biased results, as the consumer will rate the expectations on a lower level. This, in turn, will lead to sizeable gaps to measure in terms of what the consumer expected from the service offering and what was actually received. When a consumer is believed to have had a negative experience from the service offering, the opposite effects will be the result. Consequently, the consumer will rate the expectations of the service offering on a higher level, than that when a positive experience is the result, this will lead to a negative gap.

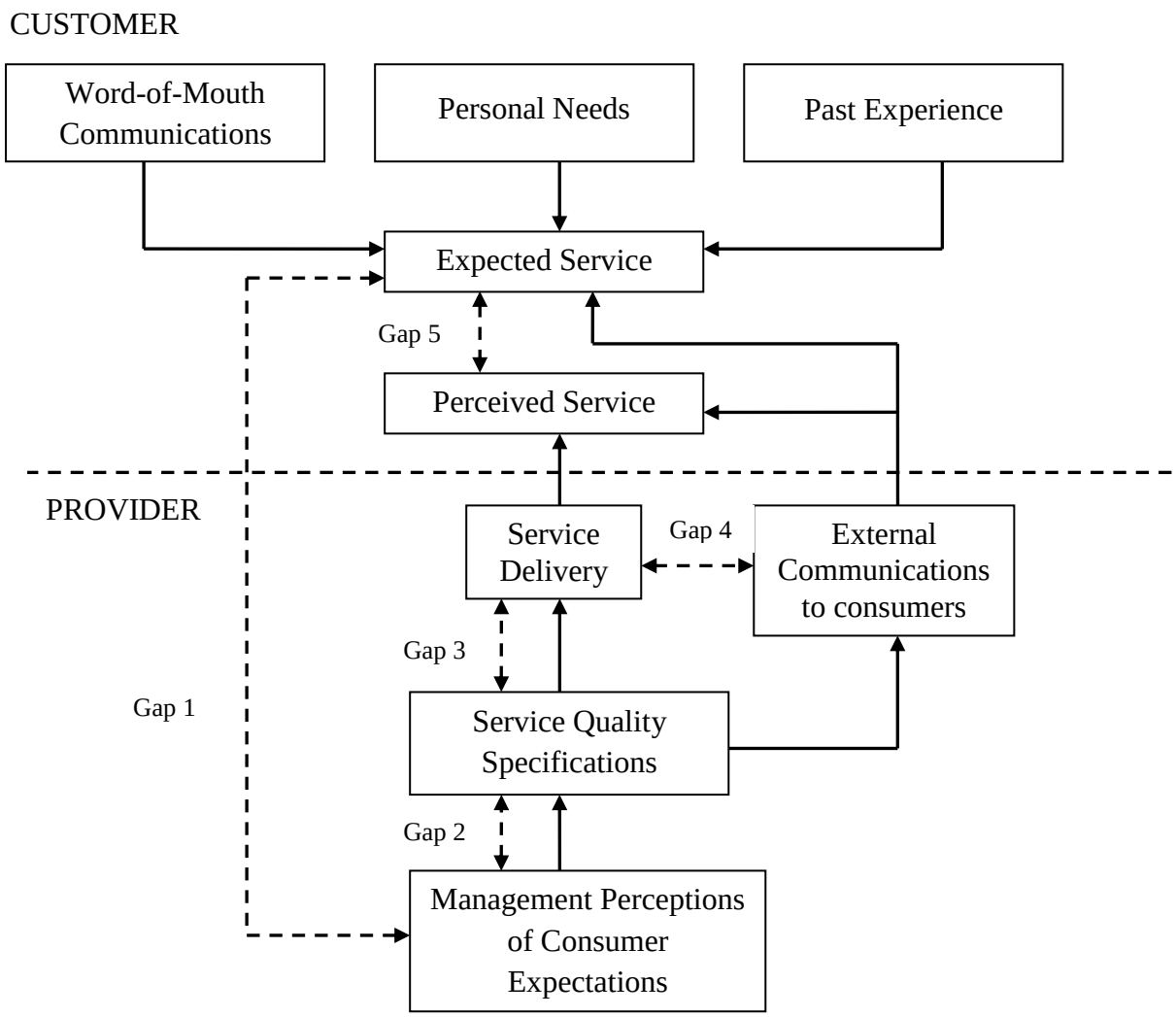
The SERVQUAL model examines overall service quality as the difference between what the consumer perceives the service to be and the expectations of the service. Zeithaml *et al.* (1990:35) identified that service organisations should constantly supervise consumers' perceptions of service quality, diagnose any shortfalls in the service quality being delivered and take corrective actions to improve the level of service quality. This led the researchers to develop the Gap Analysis Model.

2.5.2. Gap Analysis Model

The Gap Analysis Model may be used to improve overall service quality by guiding service organisations in identifying quality problems and in finding solutions for these problems (Gronroos, 2000:100; Kurtz & Clow, 1998:106). Chakrapani (1998:172) states that the Gap Analysis Model is an approach that determines what has been accomplished and what still needs to be accomplished.

The Gap Analysis Model is made up of five gaps found in the delivery of service quality (Zeithaml *et al.*, 1990:36). A quality gap can be defined as the dissimilarity between the service organisation's performance and the consumers' expectations (Lovelock & Wright, 1999:94). According to Boshoff and du Plessis (2009:48) and Kurtz and Clow (1998:110), the gap bounded by the consumers' expectations and perceptions of the service delivery process is known as Gap 5 and is often affected by or calculated by the other four gaps (Gaps 1, 2, 3 and 4). The next section presents a figure of the Gap Analysis Model, and thereafter the five gaps will be discussed in detail.

FIGURE 2.1 Gap Analysis Model



Source: Zeithaml *et al.* (1990:46)

The Gap Analysis Model illustrates how service quality is derived (Gronroos, 2000:101). The gaps are separated to indicate the category. Gap 5, which is situated above the broken line, represents a consumer-oriented category, while the other four gaps (Gap 1, 2, 3 and 4) situated below the dashed line, represent a firm-oriented category (Kurtz & Clow, 1998:110). The four gaps that contribute to Gap 5 (Zeithaml *et al.*, 1990:37) may be described as follows:

2.5.2.1. Gap 1: Consumers' Expectations – Management-Perceptions Gap

Gap 1 is the difference between what consumers expected the service to be and what the managers perceived consumers expected the service to be (Kurtz & Clow, 1998:110; Zeithaml *et al.,* 1990:37; Boshoff & du Plessis, 2009:48). In other words, management incorrectly perceives the quality expectations of consumers (Gronroos, 2000:102). Chakrapani (1998:172) provides an of example of this misinterpretation by indicating that managers might view prompt service as being efficient, whereas the consumer might view prompt service as being a knowledgeable service. Gap 1 is sometimes referred to as an understanding gap (Chakrapani, 1998:172) and the knowledge gap (Boshoff & du Plessis, 2009:48; Lovelock & Wright, 1999:93).

There are many reasons that contribute to the existence of this gap. Gronroos (2000:102), states that the problems may arise from incorrect information, incorrect interpretation of information, a nonexistent demand analysis, a lack of upward communication between consumers and management or even too many people involved in the upward communication of information. Boshoff and du Plessis (2009:48), concur, indicating that service organisations lack the correct information to determine what consumers needs are. Wilson *et al.* (2008:106) accentuate that managers may be unfamiliar with consumers needs because they do not have direct interaction with them and are not willing to address them or might even be resistant to ask them about the expectations.

There is plenty of ways or methods including providing a relative fix for the inaccuracies, which organisations may use to close this gap. Gronroos (2000:102) suggests that the management's knowledge of consumers needs has to be improved. This may be done through appropriate market research, and through improving the internal flows of information. Boshoff and du Plessis (2009:49) state that service organisation need to develop appropriate listening skills, through creating 'listening systems' or 'listening posts'.

2.5.2.2. Gap 2: Management's Perceptions – Service-Quality Specifications Gap

Gap 2 may be defined as the difference between management's perception of consumer expectations and the quality standards established for the service delivery (Lovelock &

Wright, 1999:93; Boshoff & du Plessis, 2009:49; Chakrapani, 1998:172). Gap 2 is also referred to as the standards gap (Boshoff & du Plessis 2009:49; Lovelock & Wright, 1999:93), not being able to select the right service quality designs and standards gap (Wilson *et al.*, 2008:107) and the design gap (Chakrapani, 1998:172).

The existence of this gap may be an indication of defective planning, poor management of planning, unclear goal setting, and inadequate support for planning activities (Gronroos, 2000:102). Wilson *et al.* (2008:108) add that management sometimes view consumer's expectations as unrealistic or unreasonable, and are, therefore, reluctant to implement quality programmes. In addition, management avoids tackling the challenges involved in providing an outstanding service quality. Boshoff and du Plessis (2009:50) state that management faces a true challenge in converting consumers' expectations into service quality specifications.

Kurtz and Clow (1998:114) and Gronroos (2000:103) suggest that in order to close this gap, there should be a solid commitment of management to provide a high level of service quality. Wilson *et al.* (2008:108) emphasise that services should have a clear, simple and complete design. Boshoff and du Plessis (2009:50) add that the organisation should have planned goals and standards for everyone involved in the service delivery process.

2.5.2.3. Gap 3: Service Quality Specifications – Service-Delivery Gap

Chakrapani (1998:172) defines Gap 3 as the difference between the intentions of management's service standards and the actual service delivered. Wilson *et al.* (2008:109) define gap 3 as a situation when management often fails to provide the service at a rate above the planned designs and standards of service delivery. This gap is also referred to as the service delivery gap (Gronroos, 2000:103) and the delivery gap (Lovelock & Wright, 1999:93; Chakrapani 1998:172).

Zeithaml *et al*. (1990:42) identify one of the major causes of this gap to be a lack of equal standards in the employees who actually deliver the service. Gronroos (2000:103) adds that management might not be dedicated enough to quality behaviours, the specifications might be too confusing, internal marketing might be slacking and the technology and systems might not be operating in accordance with the specifications.

Kurtz and Clow (1998:117) identify teamwork as major source in closing this gap. Wilson *et al.* (2008:110) state that the standards should be backed and constrained by suitable people, processes and technology. The employees who actually deliver the service should also be monitored and examined against these standards.

2.5.2.4. Gap 4: Service Delivery – External Communications Gap

The final gap in this section may be defined as dissimilarity between the quality of service conveyed in an organisation's external communications and the true quality of service delivered (Boshoff & du Plessis, 2009:51). This gap is also referred to as a communication gap (Chakrapani, 1998:172) and the market communication gap (Gronroos, 2000:105).

Wilson *et al.* (2008:111) state that some of the major issues contributing to this gap are a deficiency of integrated services marketing communication, inadequate management of consumer expectations, over-promising in advertising, personal selling, and through physical evidence ques. Boshoff and du Plessis (2009:51) state that broken promises may occur and this will have an undesirable affect on the communication gap.

Gronroos (2000:105) suggests that a solution for this gap would be to improve the systems of planning with the external marketing campaigns and to create a greater commitment to the promises made. Wilson *et al.* (2008:112) stress that the organisations need to avoid breaking promises in order to avoid increases in the consumers' expectations.

2.5.3. HEdPERF Model

In a quest to develop an industry specific measuring instrument of service quality for the higher education sector, Abdullah (2006a), developed the Higher Education PERformance only (HEdPERF) measuring scale. In the study, Abdullah (2006a) viewed students as the primary and only consumers in the higher education setting. Therefore, this researcher aimed at developing a scale that measures the students' experiences on a range of all the service components, together with academic components. Abdullah (2006b) developed the HEdPERF scale and then tested the reliability, unidimensionality, validity and explained variance against the variables of the SERVPERF measuring scale developed by Cronin and

Taylor (1992). The results of the study conducted led Abdullah (2006b) to refine the HEdPERF scale by incorporating some variables of the SERVPERF scale.

Abdullah (2006b) identified five dimensions of the HEdPERF model that concurs with the effective measurement of service quality in the higher education sector. According to Brochado (2009), these five dimensions may be described as follows:

- Non-academic aspects: The inputs of non-academic staff members that contribute to a student successfully fulfilling the study obligations.
- Academic aspects: The responsibilities academic staff members have in contributing to a students' study obligations.
- Reputation: All the sectors in the HEI have the responsibility of displaying a professional image.
- Access: Aspects relating to approachability, ease of contact, availability and convenience.
- Programme issues: The HEIs ability to offer wide ranges of reputable academic programmes, together with specialised flexible structures and health services.

The original formulation of the HEdPERF model actually consisted of six dimensions (Abdullah, 2006a). However, owing to the low reliability score of the sixth variable, the model was reduced to five dimensions (Abdullah, 2006b). The sixth variable was 'understanding' and involved the understanding of students' specific needs (Abdullah, 2006a).

A few limitations of the HEdPERF model may be noted. First, there is no profound difference in the concept of service quality between HEIs and other service organisations, which has led to the generalisation of service quality concepts in the services market (Kimani *et al.*, 2011). This may pose as a limitation to the HEdPERF model, as the model was developed specifically for the HEI sector and is therefore only relevant to measuring service quality in the particular service setting (Abdullah, 2006a). Secondly, as noted by the researcher (Abdullah, 2006a), the HEdPERF model is concentrated on viewing students as the primary and the only consumer. This could be a limitation because HEIs have other

consumer groups that also need to be satisfied. Thirdly, Yildiz and Kara (2009), argue that the HEdPERF measures service quality in HEIs from a macro perspective and is not suitable for measuring service quality from a micro perspective. The micro perspectives referred to above includes the measurements of service quality in specific faculties or schools within a HEI.

2.5.4. SERVPERF Model

There have been criticisms about the various methods employed to measure service quality, which has led researchers to search for alternative ways to measure service quality (Wilson *et al.*, 2008:135). Cronin and Taylor (1992) developed the SERVPERF model in an attempt to re-examine and extend the existing measure of service quality as proposed by the SERVQUAL Model, which was developed by Zeithaml *et al.* (1990:16). In the study, Cronin and Taylor (1992) compared the 22 performance-based and 22 expectations-based items of the SERVQUAL model to the 22 items of the SERVPERF model, which only incorporates the performance-based section of the SERVQUAL model. The results of the study conducted show that the contemporary conceptualisation and measurement of service quality is based on a defective paradigm and that the empirical and literature presentations of the SERVPERF model is efficient enough to say that it is a valid method to use when measuring service quality, in comparison to the SERVQUAL model.

The SERVPERF model has become popular in the measurement of service quality and is based on the hypothesis that the consumer's expectations change when the service is physically received, which only validates the performance-based items in the evaluation of service delivery (Boshoff & du Plessis, 2009:46). Jain and Gupta (2004) state that the SERVPERF model only measures the perception-based items of service quality, as it is assumed that the expectation-based items are needless because a respondent will routinely rate the perceptions against the expectations in the evaluation. Service quality, therefore, should be measured as an attitude (Cronin & Taylor, 1992; Abdullah, 2006a).

The original SERVPERF model (Cronin & Taylor, 1992) consisted of the five dimensions pertaining to the SERVQUAL model, namely tangibles, reliability, responsiveness, assurance and empathy (Refer to Section 2.4.6.1). However, as is the case with the SERVQUAL

model, the SERVPERF model should be adopted to meet context-specific requirements for the service industry (Abdullah, 2006a). Oldfield and Baron (2000) adopted the SERVPERF model to meet the service industry of the particular study, and from the study, it was concluded that the SERVPERF model has three distinctive dimensions, namely service processes, interpersonal factors, and physical evidence (Refer to Section 2.4.2). These three dimensions are closely tied to the three constructs recovered in the study, which may be described as follows:

- Requisite variables: These items are essential to a consumer in the service delivery process.
- Acceptable variables: These are the items that consumers view as desirable, however not essential, during the course of service delivery.
- Functional variables: These items relate to the practical or serviceable environment in the service delivery process.

In addition, these three constructs may be broken down to consist of specific variables, whereby the requisite variables may consist of fifteen variables, the acceptable variables may consist of six variables and the functional variables may consist of three variables (Oldfield & Baron, 2000). The three constructs and their respective variables are represented in Table 2.1 below.

TABLE 2.1 Service quality constructs and variables

VARIABLES	DESCRIPTION	AUTHORS
CONSTRUCT 1: REQUISITE VARIABLES		
Sincere interest in solving problems	This variable refers to the staff member's interest in solving a consumer's problem.	Oldfield & Baron (2000); Abdullah (2006a); Kimani *et al.* (2011)
Knowledge of needs	This variable relates to the staff members understanding of a consumer's needs.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006b); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:22)

TABLE 2.1 Service quality constructs and variables (continued...)

VARIABLES	DESCRIPTION	AUTHORS
CONSTRUCT 1: REQUISITE VARIABLES		
On-time service provision	This variable is concerned with the service organisation's ability to perform the service correctly for the first time.	Oldfield & Baron (2000); Abdullah (2006b); Zeithaml *et al.* (1990:21)
Efficient/punctual dealing with queries	This variable refers to the staff member's ability to provide efficient and prompt service when dealing with a consumers query.	Oldfield & Baron (2000); Abdullah (2006a, 2006b); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Responding to request for assistance	This refers to the staff member's ability to not be too busy to respond to a consumers request for assistance.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011)
Accurate and retrievable records	This relates to the service organisation maintaining accurate records of the consumer's transactions.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011)
Timely dealing with assistance	This refers to the staff member's ability to assist a consumer promptly.	Oldfield & Baron (2000); Kimani *et al.* (2011)
Knowledgeable in service provision	This relates to the staff member's knowledge on the specific service.	Oldfield & Baron (2000); Abdullah (2006a, 2006b); Zeithaml *et al.* (1990:22)
Promises kept	This refers to the service organisation's ability to keep promises and to provide the service in the manner and time it promised to do so.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Considerate attention	This variable refers to the staff member's portrayal of a caring attitude towards the consumers.	Oldfield & Baron (2000); Abdullah (2006a); Zeithaml *et al.* (1990:21)
Appealing physical facilities	This variable relates to whether the physical facilities (buildings and surrounding) are visually appealing to the consumer.	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)

TABLE 2.1 Service quality constructs and variables (continued...)

VARIABLES	DESCRIPTION	AUTHORS
CONSTRUCT 1: REQUISITE VARIABLES		
Feeling secured with transactions	This variable relates to whether the consumer feels secure in the transactions made with the service organisation.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011)
Feeling confident in staff	This variable relates to whether the consumer feels confident with the service organisation's staff members.	Oldfield & Baron (2000); Zeithaml *et al.* (1990:22)
Staffs professional appearance/image	This relates to the staff member's appearance and professionalism.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Attractive materials associated with service delivery	This relates to whether the materials (signs, notices etc.) displayed with the service delivery are attractive towards the consumers.	Oldfield & Baron (2000); Brochado (2009); Zeithaml *et al.* (1990:21)
CONSTRUCT 2: ACCEPTABLE		
Responding to request for assistance	This refers to any of the other staff members' ability not to be too busy to respond to a consumers request for assistance.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011)
Giving individualised attention	This refers to the staff member's ability to provide the consumer with individual attention.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011)
Sincere interest in solving problems	This variable refers to any other staff members' interest in solving a consumer's problem.	Oldfield & Baron (2000); Abdullah (2006a); Kimani *et al.* (2011)
Providing services within a reasonable time	This refers to the service organisation providing a service to the consumer, in the time one might reasonably expect.	Oldfield & Baron (2000); Abdullah (2006b); Kimani *et al.* (2011)

TABLE 2.1 Service quality constructs and variables (continued...)

VARIABLES	DESCRIPTION	AUTHORS
CONSTRUCT 2: ACCEPTABLE		
Equal treatment and respect	This relates to all the staff members being consistently courteous to the consumers.	Oldfield & Baron (2000); Abdullah (2006a, 2006b); Kimani *et al.* (2011)
Willingness to help consumers	This refers to any staff members who are not willing to help consumers.	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009); Zeithaml *et al.* (1990:21)
CONSTRUCT 3: FUNCTIONAL VARIABLES		
Convenient opening hours	This refers to the service organisation's ability to provide convenient opening hours for the consumers.	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011)
Up-to-date equipment	This refers to whether the service organisation is using use up-to-date equipment to service the consumer's needs.	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009); Kimani *et al.* (2011)
Providing service within promised time	This refers to the service organisation's ability to provide a service to the consumer, in the time it promised to do so.	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009)

According to Carrillat *et al.* (2007), the specific service industries will have an impact on the performance of the SERVPERF model. However, a number of studies have depicted the successful evaluations of the SERVPERF's performance measures, across a variety of service industries (Cronin & Taylor, 1992; Oldfield & Baron, 2000; Brochado, 2009). Jain and Gupta (2004) emphasise that the SERVPERF model may be used as a reliable measurement instrument when specifically related to service quality comparisons made across different service industries.

A decision was made to employ the SERVPERF model, which Cronin and Taylor (1992) originally developed, as a measuring instrument for this study in order to obtain the information required. However, this study particularly adopted the SERVPERF model from Oldfield and Baron (2000) that developed a slightly modified version of the original model.

2.6 SYNOPSIS

The focus of this study is on providing insights to the students' perceptions of service quality in HEIs. However, given the scope, this chapter was focused on collaborating insights on service quality applicable to all service industries, and thus, not solely on providing insights on service quality specifically suited for HEIs. Within this chapter, the following topics were discussed: an introduction to services (Section 2.2), services marketing (Section 2.3), service quality (Section 2.4) and service quality models (Section 2.5). In addition, the service quality models examined included the SERVQUAL Model (Section 2.5.1), Gap Analysis Model (Section 2.5.2), HEdPERF Model (Section 2.5.3) and the SERVPERF Model (Section 2.5.4).

The following chapter, Chapter 3, analyses the research methodology laid out for the empirical portion of this study. Within this chapter, the following topics for this study are discussed: formulating the research objectives and research design, data requirements, the research instrument, developing a sample plan and statistical analysis.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter concentrated on providing a literature review from the perspective of services in any given industry. However, as the heading of this dissertation suggests, this chapter focuses solely on discussing the research methodology employed in this study from the perspective of HEIs. As stated in the first chapter of this dissertation, this chapter critically analyses the empirical foundations laid out for the study. Although the previous chapter concentrated on services from the viewpoint of any industry and not necessarily on services in HEIs, the literature discussed still contributed to the development of the research instrument and the research methodology used in this study.

The research methodology analysed in this chapter begins with stating the research objectives in Section 3.2. The research objectives stated are in accordance with the research objectives formulated in Chapter 1, and are noted together with the research design of the study. In Section 3.3, the data requirements for the study are stated. In Section 3.4, the research instrument is discussed with regard to the development of the questionnaire items, questionnaire wording, questionnaire specifications and design, and the determinants of a suitable measuring scale. In addition, Section 3.4 describes the pre-testing methods of the questionnaire.

The second last section of this chapter, Section 3.5, describes the development of the sampling plan. The sampling plan involves defining the target population of this study, selecting the data-gathering method, specifying the sampling frame, selecting the sampling method, and deciding on the sample size. Moreover, the sampling plan also includes decisions on the operational procedures applied for executing the plan. Within the last section of this chapter, Section 3.6, the statistical analysis techniques applied in this study, namely, reliability analysis, validity analysis, confirmatory analysis, descriptive analysis, correlation analysis and significance tests are described.

3.2 FORMULATING THE RESEARCH OBJECTIVES AND RESEARCH DESIGN

The research objectives, applicable to the empirical portion of this study, were formulated in Chapter 1 and are be described as follows:

- Investigate undergraduate students' perceptions of service processes of the faculty that influence and contribute to the students' overall experiences.
- Investigate undergraduate students' perceptions of the interpersonal factors of the faculty that influence and contribute to the students overall experiences.
- Investigate undergraduate students' perceptions of physical evidence of the faculty that influence and contribute to the students overall experiences.
- Compare the service quality of the two HEIs' faculties included in the study.
- Compare the first- and third- year students' perceptions of service quality.

The measuring instrument applied in this study was adopted from Oldfield and Baron (2000), who presented a modified version of the SERVPERF scale (refer to Section 2.5.4), specifically suited for service quality in higher education. The modified model was closely linked to the three underlying dimensions of service quality, namely service processes, interpersonal factors and physical evidence (refer to Section 2.4.2). As such, the measuring instrument employed in this study concurs with the first three objectives stated above.

Due care was taken in the compilation of the questionnaire applied in this study and thereafter it was examined by experienced researchers in the relevant field. After the questionnaire was examined and any shortcomings rectified, it was pilot tested on a group of 40 full-time undergraduate students, who did not form part of the main sample of this study. Once again, shortcomings of the questionnaire were noted and corrected before it was administered on the main sample for the final study.

As a comparative study (refer to the fourth objective stated above), it was aimed at measuring service quality as perceived by undergraduate students, delivered by two HEIs' specific faculties. The first sample was taken from a traditional university (hereafter referred to as Sample A) and the second sample was taken from a university of technology (hereafter

referred to as Sample B). These two HEIs were selected by means of a convenience sample owing to both being situated in the same region and having two identified faculties offering similar educational programmes. In line with previously conducted studies, such as Abdullah (2006a) (sample size of 700), Gruber *et al.* (2010) (sample size of 550) and Shekarchizadeh *et al.* (2011) (sample size of 530), it was decided to conduct a non-probability convenience sample of 700 full-time undergraduate students. This study further aimed at measuring the first-, second- and third- year students' perceptions of service quality, offered within the specific faculty of each of the two HEIs, respectively.

The first step in conducting the final study was to gain permission from the two HEIs' respective faculties. After permission was obtained, the academic staff members responsible for undergraduate students at these institutions were contacted telephonically and permission was solicited to distribute the self-administered questionnaire to their students over the course of a single class period. It was decided to give the academic staff members a period of two weeks in order to distribute the questionnaires to their students and at their convenience. The questionnaires were personally delivered to the academic staff member and collected in the same way.

3.3 DATA REQUIREMENTS

The types of data required for the study were as follows:

- service quality dimensions data
- dimension data pertaining to service quality models
- demographical data.

3.4 THE RESEARCH INSTRUMENT

The survey approach was employed to gather the relevant data in this study. According to Kolb (2008:29), a survey is a set of predetermined questions that is displayed as a written instrument. McDaniel and Gates (2001:30) emphasise that within the survey method, information pertaining to a participant's facts, opinions and attitudes is gathered using a structured or unstructured questionnaire. Therefore, the survey approach was employed in

this study to collect information pertaining to the students' perceptions of service quality in HEIs by means of a structured questionnaire. Furthermore, the structured questionnaire contained a cover letter, as suggested by Swanepoel, Swanepoel, van Graan, Allison, Weideman and Santana (2006:291). The reason for the cover letter was to explain the purpose of the study.

Churchill (1996:343) states that in the development of a questionnaire, special care needs to be taken with regards to determining what information to include, the content of each question, the wording of each question, the type of measuring scale to apply and the sequence of each question. Aaker and Day (1990:235) highlight that a questionnaire should specifically be designed to attain the research objectives of the study.

The research instrument applied in this study was an adopted version of the instrument used by Oldfield and Baron (2000). The instrument was adopted based on previous literature and research studies pertaining to service quality, as reviewed in Chapter 2. This is in accordance with the general objective of this study as formulated in Chapter 1.

3.4.1 Development of questionnaire items

The first stage in the development of the questionnaire employed in this study was to gather information pertaining to the socio-economic and demographic descriptions of the respondents. Malhotra (2010:350) claims that the information pertaining to socio-economic and demographic descriptions can be referred to as classification information. Classification information is essential in a study as it assists in classifying the respondents and in understanding the results of the final study. Therefore, the socio-economic and demographical information collected in this study was centred on gathering classification information related to the main aims of this study.

The second stage in the development of the questionnaire was applied to gather the information directly related to the main topic of the study and to the research objectives laid out for the study. It was decided to apply the SERVPERF model, which Cronin and Taylor (1992) originally developed, as a measuring instrument for this study in order to obtain the information required. However, this study particularly adopted the SERVPERF model from Oldfield and Baron (2000) who developed a slightly modified version of the original model

with the purpose of incorporating the measurement of service quality in HEIs, specifically. A discussion on this model can be found in Chapter 2, Section 2.5.4.

Table 3.1 below summarises the SERVPERF variables relating to service quality, as outlined in Chapter 2 (refer to Table 2.1). These variables are formed using three constructs, namely, the requisite, acceptable and functional constructs (Oldfield & Baron, 2000). Furthermore, the requisite construct consists of fifteen variables, the acceptable construct consists of six variables and the functional construct consists of three variables. It should, however, be noted that even though these variables are specifically adopted from Oldfield and Baron (2000), numerous other authors (Abdullah, 2006a & 2006b; Kimani *et al.*, 2011; Brochado, 2009; Zeithaml *et al.*, 1990:21) concur with these variables in the measurement of service quality.

Table 3.1 SERVPERF variables relating to the service quality dimensions

Variables	Authors
Construct 1: Requisite	
Sincere interest in solving problems	Oldfield & Baron (2000); Abdullah (2006a); Kimani *et al.* (2011)
Knowledge of needs	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006b); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:22)
On-time service provision	Oldfield & Baron (2000); Abdullah (2006b); Zeithaml *et al.* (1990:21)
Efficient/punctual dealing with queries	Oldfield & Baron (2000); Abdullah (2006a, 2006b); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Responding to request for assistance	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011)

Table 3.1 SERVPERF variables relating to the service quality dimensions (continued...)

Variables	Authors
Construct 1: Requisite	
Accurate and retrievable records	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011)
Timely dealing with assistance	Oldfield & Baron (2000); Kimani *et al.* (2011)
Knowledgeable in service provision	Oldfield & Baron (2000); Abdullah (2006a, 2006b); Zeithaml *et al.* (1990:22)
Promises kept	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Considerate attention	Oldfield & Baron (2000); Abdullah (2006a); Zeithaml *et al.* (1990:21)
Appealing physical facilities	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Feeling secured with transactions	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011)
Feeling confident in staff	Oldfield & Baron (2000); Zeithaml *et al.* (1990:22)
Staffs professional appearance/image	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011); Zeithaml *et al.* (1990:21)
Attractive materials associated with service delivery	Oldfield & Baron (2000); Brochado (2009); Zeithaml *et al.* (1990:21)

Table 3.1 SERVPERF variables relating to the service quality dimensions (continued...)

Variables	Authors
Construct 2: Acceptable	
Responding to request for assistance	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011)
Giving individualised attention	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a, 2006b); Brochado (2009); Kimani *et al.* (2011)
Sincere interest in solving problems	Oldfield & Baron (2000); Abdullah (2006a); Kimani *et al.* (2011)
Providing services within a reasonable time	Oldfield & Baron (2000); Abdullah (2006b); Kimani *et al.* (2011)
Equal treatment and respect	Oldfield & Baron (2000); Abdullah (2006a, 2006b); Kimani *et al.* (2011)
Willingness to help consumers	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009); Zeithaml *et al.* (1990:21)
Construct 3: Functional	
Convenient opening hours	Oldfield & Baron (2000); Cronin & Taylor (1992); Abdullah (2006a); Brochado (2009); Kimani *et al.* (2011)
Up-to-date equipment	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009); Kimani *et al.* (2011)
Providing service within promised time	Oldfield & Baron (2000); Cronin & Taylor (1992); Brochado (2009)

These 24 variables were placed in the questionnaire of this particular study, as 24 structured-undisguised questionnaire variables. In addition, as advised by Brochado (2009), it was decided to incorporate an open-ended question to the second section of this questionnaire.

An open-ended question is flexible in that it can ask respondents information about their attitudes, intensions and behaviour (Iacobucci & Churchill, 2010:212). Malhotra (2010:322) advices that an open-ended question can be helpful in confirming whether the scale performs as expected to, in relation to the other variables. The open-ended question, included in the questionnaire, clearly asked the students whether they would recommend the university to someone else.

3.4.2 Question format

The format of a question or questionnaire refers to the total amount of liberty given to the participants in providing their responses (Aaker & Day, 1990:238). According to Kolb (2008:214) self-administered questionnaires elicit the presence of a researcher or interviewer and, therefore, avoids researcher manipulations and reactions to responses. Self-administered questionnaires are suitable to apply when questionnaires are presented in a structured manner (McDaniel & Gates, 2001:201). Malhotra (2010:343) differentiates between a structured and an unstructured questionnaire by stating that the questions on a structured questionnaire are predetermined and the response formats are specified, whereas the questions on an unstructured questionnaire are narrowly predetermined and respondents are requested to answer in their own manner. Iacobucci and Churchill (2010:188) states that a disguised questionnaire aims to hide the intention of the study, whereas an undisguised questionnaire makes the purpose of the study evident in the questions asked. The 24 variables examined in the section above were placed in the self-administered questionnaire in an undisguised, structured manner.

An unstructured question provides the participant with an opportunity to express their own objectives, instead of being limited to a set of possible answers provided by the researcher. This provides the researcher with an advantage of gaining deeper insights to the participant's responses, as it may sometimes be challenging for the researcher to project the overall conclusion from participant's responses (Pallant, 2007:8). Therefore, it was decided to include a single unstructured question, together with the 24 structured questionnaire variables in the self-administered questionnaire of this study. Within the development of this open-ended question, a dichotomous (yes or no) response was expected from the participant; however, as advised by Pallant (2007:9) two lines were provided in order to present the respondent with the opportunity to express their opinion.

3.4.3 Questionnaire specifications and design

In this particular section, three critical elements are discussed, namely, the layout, phrasing and length of the questionnaire.

The layout design of a questionnaire reflects the manner in which questions and answers are visually represented (Kolb, 2008:205). If a questionnaire is poorly designed, it can create confusion, which can either lead to the participant providing the researcher with incorrect information or simply leaving the questions unanswered (Proctor, 2000:169). Therefore, it is important to have logically structured questions in the questionnaire layout (Malhotra, 2010:351). Iacobucci and Churchill (2010:220) state that the questionnaire should begin with questions that are easy to answer, interesting and auspicious. Swanepoel *et al.* (2006:294) advise that the questions relating to biographical information should be placed first, followed by the questions specifically relating to the study. The layout of the questionnaire was divided into two sections. The first section pertained to the gathering of demographical information and the second section was related to the gathering of information for this particular study. Swanepoel *et al.*, (2006:294) advices that questions with a related nature should be placed together, as this is easier for the participants to answer. Therefore, the 24 undisguised questionnaire variables were placed together under the three constructs, namely the requisite construct, acceptable construct and functional construct, followed by the single open-ended question. However, it should be noted that the questions relating to these three constructs were placed together in the questionnaire; however, the names of the constructs were not mentioned.

According to Iacobucci and Churchill (2010:216), the phrasing of each question is essential, as it can directly influence the response of the question. If the question is misinterpreted or misunderstood by the respondent, it will lead to the provision of an incorrect answer or an unanswered question (Malhotra, 2010:346). Pallant (2007:10) provides the following guidelines to employ in the phrasing of questions:

- avoid using long complex sentences; instead employ short sentences that are easy to read
- avoid using double negatives

- avoid using the word ‘and’, as it can lead to a double-barrelled question
- avoid using jargons or abbreviations
- avoid using culture-specific terms
- avoid the use of words that can relate to a number of meanings
- avoid using leading questions
- avoid using words that are emotionally loaded.

In the phrasing of each question of this questionnaire, the above guidelines were adhered to and the questions were carefully phrased. An effort was made to ensure that the language applied was simple and without ambiguous meaning. Due care was taken to ensure that each question was phrased in a clear manner that only requested information about the relevant faculty and not the student’s perception of the entire HEI.

The length of the questionnaire relates to the average time it takes a single participant to complete the questionnaire (McDaniel & Gates, 2001:198). Various authors concur that an extensive questionnaire is less appealing to a participant as it takes time to complete, and therefore the participant may be discouraged in completing the questionnaire (Kolb, 2008:205; Iacobucci & Churchill, 2010:223). Munteanu, Ceobanu, Bobalca and Anton (2010) advise that a questionnaire should be tested to ensure that it can be completed in less than 15 minutes, therefore the suggested time of 10 minutes to complete the questionnaire of this study is acceptable. The questionnaire is presented in Annexure C.

3.4.4 Determining the measurement scale

The measurement referred to, in a research study, can be defined as a procedure of collecting various scores or numbers designated to various attributes relating to people or objects (Proctor, 2000:136). Iacobucci and Churchill (2010:234) warn that within a measurement, the actual individual is not specifically measured, rather the tendencies relating to the individual is measured, for example the persons income, height or attitudes. A scale employed in a research study, on the other hand, can be defined as a measuring tool employed in the process of attempting to decide upon quantitative measures for subjective or objective concepts (McDaniel & Gates, 2001:263). Chakrapani (1998:230) differentiates between a scale applied for subjective purposes and objective purposes, by stating that a scale

applied for subjective purposes aims to measure a person's personal feelings, whereas a scale applied for objective purposes aims to measure a person's impersonal evaluations. Furthermore, the scale ratings employed for subjective purposes includes points such as very satisfied, satisfied, neutrally satisfied and dissatisfied, whereas a scales ratings for objective purposes includes points such as excellent, good, average, poor and very poor. Proctor (2000:136) identifies that it is essential for the researcher to understand and apply the correct scaling technique in the research study, owing to the various measurements that will influence the interpretation and analysis of the data produced. In this study, a measuring scale was applied to measure student's perceptions towards service quality, therefore the study implicated the measurement of a person's feelings and furthermore the measurement of attitudes.

According to Malhotra (2010:308), an itemized rating scale is employed to measure a person's attitude, whereby the scale generally consists of both a numerical number and short description of each category. The respondents are requested to specify which category best describes the objects being rated. Churchill (1996:423) dictates that the measures associated with a person's attitude is very popular, and therefore numerous methods are deployed in the measurement of attitudes. The three most frequently applied itemized rating scales consist of a semantic differential scale, Staple scales and Likert scales (Malhotra, 2010:308; Churchill, 1996:423; Iacobucci & Churchill, 2010:239).

A semantic differential scale consists of a scale containing a number of bipolar adjectival phrases or statements that could be applied to illustrate the objects being measured (Proctor, 2000:143). McDaniel and Gates (2001:270) add that opposite pairs of words are employed to define the concept being measured and the respondents are suppose to indicate on a non-numerical (blank) scale, to which extent they feel is most relevant. For example, the words modern and old-fashioned can be employed as an opposite set of words in a phrase. Moreover, these opposing pairs of words assist the respondent in identifying how well the adjectives actually fit the concept being measured. The application of this scale is popular with respect to the measurement of corporate, brand and product images (Churchill, 1996:425).

A Staple scale is similar to the semantic differential scale, but it is modified in a manner that the descriptive phrases are employed separately in the measurement of objectives and the

blank points on the scale are filled by numerical numbers (Iacobucci & Churchill, 2010:242). Proctor (2000:145) states that respondents are still asked to identify how well the specific phrase describes the subject, but the phrase only consists of one term, instead of two opposing terms. According to McDaniel and Gates (2001:272), the Staple scale is aimed at measuring both the direction and intensity of attitudes at the same time. However, the Staple scale has been criticised for being confusing and difficult to apply, therefore it is not a commonly applied technique in measurement of attitudes (Malhotra, 2010:311).

In contrast to the other two techniques employed to measure attitudes, a Likert scale does not involve the development of opposing pairs of words or dichotomous adjectives, rather the scale contains a set of statements that expresses a favourable or unfavourable attitude in relation to the object being measured (McDaniel & Gates, 2001:274). Numerical numbers, usually ranging from 1 to 5, are attached to each set of statements applied in the scale, whereby respondents are asked to rate their relative agreements or disagreements in accordance to the statements (Churchill, 1996:424). Moreover, the scale can consist of various positive or negative statements whereby the respondent can indicate agreement or disagreement towards positive and negative statements through using the numerical digit 5, which represents 'strongly agree' or the numerical digit 1, which represents 'strongly disagree'. Iacobucci and Churchill (2010:240) express that this type of scale provides meaningful information. The scores obtained from this scale are summated and is employed, by the researcher, to identify whether the respondents had a positive or negative attitude towards the object being tested (McDaniel & Gates, 2001:276). The application of a Likert scale is very popular because it is simple to develop and to monitor. The scale is also simple for the respondent to employ and generally, more researchers are aware of this particular scale, which in turn increases the understanding of the application of this scale (Malhotra, 2010:309).

For the second section of this studies questionnaire (Section B), a Likert scale was applied to measure the respondents' agreement or disagreement towards the specific object being tested. The statements were related to numerical numbers, ranging from the numbers 1 to 5, whereby 1 indicated 'strongly disagree' and 5 indicated 'strongly agree'. The following section reports on the methods employed for the pre-testing of the questionnaire.

3.4.5 Pre-testing of questionnaire

The main purpose of pre-testing a questionnaire is to ensure that the resulting information obtained by the questionnaire is in line with the information that the questionnaire was intended to obtain (Aaker & Day, 1990:257). Malhotra (2010:354) adds that pre-testing is employed as a means to identify and correct any errors or deficiencies. Therefore, it is important to test every feature of the questionnaire during the pre-testing phase. The features of a questionnaire that need to be administered include the question content, wording, sequence, form and layout, question complexity and instructions. Iacobucci and Churchill (2010:223) state that pre-testing of a questionnaire is a vital stage in the development of a research instrument as the questionnaire is tested under real circumstances. Therefore, the respondents chosen for the pre-testing should be similar to the respondents that will be employed to administer the final questionnaire. This study initially involved two steps in the pre-testing phase to warrant both face validity and content validity of the research instrument.

First, two experienced researchers, in the relevant field, examined the questionnaire to search for any obvious mistakes or potential problems. Secondly, the debriefing approach to pre-testing was applied to ensure the understanding of the questionnaire. Two academic staff members and one assisting staff member was chosen to participate in the debriefing approach to pre-testing the questionnaire. Aaker and Day (1990:258) explain that within the debriefing approach to pre-testing, the questionnaire is presented to the respondent in exactly the same way, as it would be when representing the final questionnaire. The respondent is kindly requested to complete the questionnaire, and after completion, the researcher asks the respondent about their thought processes obtained while they were completing the questionnaire, as well as any other problems that could be noted after completing the questionnaire. The main aim of using this approach in this study, was to ascertain that the questionnaire could be understood by English and non-English speaking respondents. This is in accordance to the multilingual context of the South African environment. Proctor (2000:169) reiterates that the debriefing method is employed as an important method of ensuring the questions, instructions and layout of the questionnaire can be easily understood. Therefore, only one of the three respondents employed in the debriefing method of this study had English as their first representative language, whereby the other two respondents had English as their second representative language.

The results obtained from the two pre-testing methods were applied to refine the questionnaire. It was decided to adjust a single question into two separate questions that pertained to the acceptable construct of the questionnaire. Within the study conducted by Oldfield and Baron (2000), a similar case was noted, whereby a single question spawned two separate questions. In addition, refinements were made to the questionnaire regarding the suggested time for completion of the questionnaire, the flow of questions in the questionnaire and the wording of specific questions. For example, the word 'administration' was revised to 'administrative' and the word 'keeps' was revised to 'keep'.

After all the applicable adjustments and refinements were made to the questionnaire, as noted in the pre-testing phase, the questionnaire was subject to pilot testing. Within the pilot testing, a non-probability judgement sample of respondents was drawn in order to test the reliability of the questionnaire. Swanepoel *et al.* (2006:290) elaborate that a pilot test is useful in confirming reliable statistical inferences from the sample drawn. The sample employed within the pilot study included 37 full-time undergraduate students pertaining to a faculty that does not form part of the two faculties being tested within the main survey. As suggested by Iacobucci and Churchill (2010:224), this pilot test also provided the researcher with an opportunity to do a trial analysis on the coding and tabulating of the data. The results of the pilot study are analysed and reported on in Chapter 4.

3.5 DEVELOPING A SAMPLE PLAN

Mostert and du Plessis (2007:63) state that researchers gather a sample from a research population, in order to gain information from them through using the relevant research instruments. In addition, a sample plan can be viewed as a detailed description of how the sample is going to be developed. Swanepoel *et al.* (2006:13) emphasise that the information collected should be relevant to the problem being analysed and the factors associated with the study. Therefore, it can sometimes be said that the entire population is not observable and that a sample of the population is more efficient.

3.5.1 Defining the target population

Malhotra (2010:372) defines the target population as a combination of elements or objects that retain the information required by the researcher and about which deductions are to be

made. Mullins (2006:263) states that the first thing to keep in mind is that the population from which the sample is to be drawn must be detailed in a clear and concise manner. The population has to be defined accurately owing to an imprecise definition of the population will result in an imprecise sample being drawn, which will in turn result in unreliable data collection (Mostert & du Plessis, 2007:63). The target population selected in this study was the full-time undergraduate students of two HEIs in South Africa. For the purpose of this study the target population are defined as full-time first-, second- and third year business management undergraduate students enrolled at the Business Management Faculties of two HEIs in South Africa. In order to keep the study manageable, the respondents were drawn from two HEIs in South Africa.

3.5.2 Selecting the data collection method

The drop-off survey questionnaire was selected as a data collection method. In this method, the questionnaire is hand-delivered to the respondent and an arrangement is made for the researcher to recollect the completed questionnaire at a later stage (Malhotra, 2010:228). The drop-off survey was selected as the data collection method of this study, due to the numerous amounts of advantages offered by this method, in terms of high response rates and the ability to screen potential respondents (Aaker & Day, 1990:216). The two HEIs' respective faculties were contacted beforehand in order to obtain permission for the questionnaires to be distributed. Thereafter the relevant faculties' academic staff members were contacted telephonically in order to request permission to distribute the questionnaire over the course of a single class period. With the permission and consent of the academic staff, the questionnaire was hand-delivered to the relevant institutions' premises. The structured-undisguised design of the questionnaire conveniently enabled the academic staff members to distribute the questionnaire. A two-week allowance period was given to the academic staff members for the distribution of the questionnaire. The academic staff members were again contacted telephonically after the two weeks had expired and arrangements were made for the collection of the completed questionnaires.

3.5.3 Specifying the sampling frame, sampling method and sample size

A sampling frame can be described as a list of population elements from which a sufficient sample unit can be derived (McDaniel & Gates, 2001:333). The manner in which the sample

unit is derived can be defined as the sampling method (Swanepoel *et al.*, 2006:14). Mostert and du Plessis (2007:66) warn that in order to have a reliable sampling frame, it should be complete and free from duplication or equivalent elements. Malhotra (2010:374) simply defines the sample size as the amount of elements or units to be accommodated in the study. Mullins (2006:264), states that the sample size should be large enough to provide confidence and to narrow the possibility of error.

The sampling frame applied in this study comprised of 23 registered South African public HEIs as listed by the higher education in South Africa (Higher education in South Africa, 2009). These 23 registered South African public HEIs could be further broken down to consist of 11 universities, 6 comprehensive universities and 6 universities of technology. A listing of these HEIs is available from the Universities in South Africa website (http://www.4icu.org/za/south-african-universities.htm).

From this sampling frame, a convenience sample of two HEIs was selected. The first sample was taken from a traditional university (Sample A) and the second sample was taken from a university of technology (Sample B). Hereafter, a convenience sample of full-time undergraduate students registered at the two HEIs was selected. The reasons for choosing a convenience sample of these two HEIs are that the two identified faculties offered similar educational programmes.

For this study, a non-probability convenience sample of 700 full-time undergraduate students was employed as the sample method. Mostert and du Plessis (2007:63) state that a sample is generally preferred to a census because it is often less expensive, less time consuming and less labour intensive. In line with previous similar studies conducted, such as Abdullah (2006a) (sample size of 700), Gruber *et al.* (2010) (sample size of 550) and Shekarchizadeh *et al.* (2011) (sample size of 530), a sample size of 700 full-time undergraduate students was considered sufficiently large. The sample size of 700 full-time undergraduate students was equally divided between the two HEIs, thereby allowing a sample size of 350 full-time undergraduate students per HEI.

3.5.4 Determining the operational procedure for sampling

The operational procedures followed in this study were complete and precise. First, the faculties of the two relevant institutions were contacted in order to obtain permission to conduct the study. After the permission had been obtained, a non-probability convenience sample of 700 full-time undergraduate students was applied. The class lists of the full-time undergraduate students were obtained from the two relevant faculties of each institution. The academic staff members of the 700 full-time undergraduate students, as per institution, were contacted in order to request permission to distribute the questionnaire over the course of a single class period. Once the permission had been obtained, the questionnaires were hand-delivered to the academic staff members on the premises of the university. The questionnaires did not take longer than 10 minutes to complete and could be done in a single class period, under the supervision of the academic staff member. A period of two weeks was given to each academic staff member for the distribution and completion of the questionnaires. It was decided to give the academic staff members a period of two weeks in order to distribute the questionnaires to the undergraduate students at their convenience. Once the two-week period had expired, each academic staff member was contacted telephonically and arrangements were made to collect the questionnaires personally, by the researcher, on the premises of the institution.

3.5.5 Sample plan execution

Malhotra (2010:375) describes the sample plan execution as a comprehensive description of how the sampling design decisions are to be implemented, concerning the population, sampling frame, sampling unit, sampling technique and sample size.

The sample plan was duly executed according to the operational procedure described above. Permission to deliver the questionnaires was obtained telephonically from the two faculties' representative academic staff members. The questionnaire was then hand delivered personally, by the researcher, to the contacted academic staff members of the two faculties at each institution. The contacted academics then distributed the questionnaire to the first- second- and third- year students, who were requested to complete the questionnaire during one class period. A total response of 287 completed questionnaires was received from Sample A and a total response of 364 completed questionnaires was received from Sample B.

Thus, yielding a combined response of 651 completed questionnaires, calculated to a response rate of 93 percent. Table 3.2 represents the data collected from both the HEIs respective faculties.

Table 3.2 Sampling elements

SAMPLE	SAMPLE SIZE	PERCENTAGE
Sample A	287	44.1
Sample B	364	55.9
TOTAL	**651**	**100**

The final data obtained from the study was then tabulated and analysed in order to draw conclusions and make recommendations. The analysed data and respective findings are represented in Chapter 4.

The next section is employed to describe the statistical analysis techniques applied in order to present the data obtained from the main survey questionnaire.

3.6 STATISTICAL ANALYSIS

In the analysis of extensive amounts of data, statistical analysis is essential for the identification of trends that exist in the data (Proctor, 2000:234). Swanepoel *et al.* (2006:3) state that statistics is applied in a process of extracting information from data. In addition, statistics forms a short part in the research process that is primarily focused on the analysis of data and the interpretation of observations. Mostert and du Plessis (2007:73) make a differentiation between analysis and interpretation of data by stating that the interpretation of data is a process whereby interpretations are deduced from the analysis. These authors furthermore highlight that within the research process, data is often not entirely reported and therefore a profound interpretation of the data is disregarded.

SPSS is a system applied in the analysis of statistics and it was created to manage very complicated statistical procedures (Pallant, 2007: xiii). According to Proctor (2000:261), the SPSS statistical package is very powerful in the analysis of data. In order to have managed the statistics of this study, the captured data was analysed using the statistical package for Social Sciences (SPSS), Version 18.0 for Windows. The following statistical methods were applied on the empirical data sets:

- Reliability and validity analysis
- Confirmatory factor analysis
- Descriptive analysis
- Correlation analysis
- Significance tests

The following sections will describe these statistical methods in detail.

3.6.1 Reliability Analysis

A reliability analysis is essential for conducting a research study as it aims to ensure consistency amongst the specific variables applied in the research instrument (Mostert & du Plessis, 2007:72). The consistency referred to in this analysis examines the instrument on a basis of whether it would produce the same variables if applied repeatedly. Pallant (2007:6) states that in the analysis of reliability, measures of how clear the scale is of random error are indicated. Malhotra (2010:318), who defines random error as a form of measurement error that results from casual variations in respondent or measurement circumstances, adds that in the reliability analysis, random errors create inconsistency that results in a lower reliability measure of the scale. Therefore, McDaniel and Gates (2001:254) emphasise that a reliable scale would be the result of unsubstantial errors found within the measurement. Moreover, an acceptable scale to apply would indicate no errors. However, Malhotra (2010:318) has identified that systematic roots error that affects the measurement in a constant manner and denotes stable factors over the course of various measurements, does not affect the reliability analysis negatively and it does not lead to inconsistency.

It has been identified that in the analysis of reliability, three various methods of assessment have been deployed, namely, test-retest reliability, alternative-forms reliability and internal consistency reliability (McDaniel & Gates, 2001:254; Malhotra, 2010:318; Iacobucci & Churchill, 2010:259). These are discussed in detail below:

- **Test-Retest Reliability:** Test-retest reliability refers to the testing of an instrument through using the same objects or individuals, under the same conditions, at two different points in time (Iacobucci & Churchill, 2010:259; McDaniel & Gates, 2001:254). The differences or similarities found between these two measurements are calculated by using a correlation coefficient (Malhotra, 2010:319). Pallant (2007:6) indicates that a reliable instrument will be the result of a high test-retest correlation coefficient. According to Iacobucci & Churchill (2010:259), if the objects or individuals have not changed in the space of time between the two occasions, a perfect correlation coefficient is obtained. However, in contrast, if random disturbances have affected either one or both of the measurements, a low correlation coefficient measurement is obtained (Iacobucci & Churchill, 2010:259). The result of the correlation coefficient can also be stable, meaning that there were a small number of differences found between the two measurements (McDaniel & Gates, 2001:255). However, there have been a few pitfalls noted with the application of this method. Pallant (2007:6) states that the period between the two measurements is critical, especially when measuring an individual's moods or attitudes. According to Iacobucci and Churchill (2010:259), an individual's moods or attitudes tend to vary in time and if the time period is too short, respondents might repeat the previous responses. Malhotra (2010:319) advises that two to four weeks is a reasonable time period between the two measurements. McDaniel and Gates (2001:255) point out three pitfalls in employing this particular method. First, participants may not be willing to participate in the measurement for a second time. Secondly, the second measurement can vary due to environmental or personal factors affecting the individual. Thirdly, the first measurements responses can alter an individual's responses in the second measurement. Malhotra (2010:319) concurs with these pitfalls and adds that in particular circumstances it might be impossible to re-test an individual's reactions, for example when testing the introduction of a new product.

- **Alternative-Forms Reliability:** In a similar respect to the test-retest reliability method, McDaniel and Gates (2001:255) state that within alternative-forms reliability two equivalent, or similar, instruments are designed and tested on the same people or objects, but on two different occasions. The differences between the two methods are within the measurement scales applied. In addition, the difference between these two instruments or scales is calculated by measuring a difference in correlation between the respective scores. According to Malhotra (2010:319), two potential pitfalls can be associated with employing this method. First, plenty of time, trouble and expenses are incurred in the construction of two equivalent or similar scales. Secondly, it may be difficult to construct two equivalent or similar forms of a scale, as it is important to keep the content of each scale on the same level.

- **Internal Consistency Reliability:** Within the internal consistency method, the items or variables underlying the main subject of the measurement instrument or scale is summated to ensure that it is measuring the same attribute and an overall score that represents the measurement scale is concluded upon (Pallant, 2007:6; Malhotra, 2010:319). The internal consistency method has to be separated into two separate measurements. According to Iacobucci and Churchill (2010:259), one of the first measurements of this method is known as the split-half reliability measurement. Employing this method require that the scales total items are equally split into two halves, whereby the two halves are either split randomly or specifically to represent the 'odd' and 'even' numbered items. In the end, the two halves scores, irrespective of how they were split, are correlated to gain an approximate reliability of the scale. However, McDaniel and Gates (2001:256) state that this can cause a major pitfall for the application of this method, as the coefficient of reliability in the correlation of scores, becomes reliant on the manner in which the items were split, even though it is said that the different splits should not affect the resulting correlations. The second measurement method, Cronbach's coefficient alpha, which measures the average correlation between all of the variables employed to make up the scale (Pallant, 2007:6), is generally a more efficient manner of measuring the internal consistency of a scale (Churchill, 1996:406). Malhotra (2010:319) states that Cronbach coefficient alpha even measures the average correlation found between all the various items

found in the split-half coefficients, regardless of the manner in which they were essentially split.

Pallant (2007:95) warns that with the analysis of reliability, results depicted by the reliability of the particular scale are influenced by the sample applied within the study. Therefore, it is essential to check that the sample concurs with the reliability of the scale. Churchill (1996:405) adds that the reliability ratings of a particular scale need to be recognized rather before than after the scale is applied. In this study, the reliability analysis was conducted prior to the study and after the study. This study deployed the application of the internal consistency method, through adopting the Cronbach coefficient alpha technique. A pilot study was conducted before the final study, to ascertain its general consistency and to ensure that all the variables that were employed within the scale were generally reliable.

3.6.2 Validity Analysis

The validity of a measuring instrument determines whether the variables that are employed within the measuring instrument is actually measuring what it suppose to measure and not something else (Mostert & du Plessis, 2007:72). Pallant (2007:7) concurs with this by stating that the true validity measures of a scale are expressed through the collection of empirical evidence pertaining to its application. Iacobucci and Churchill (2010:256) add that systematic biases or random errors should not affect the validity measures of a measuring instrument. Conversely, the differences in the associated scores should reflect solid characteristics of the variables being measured.

It is important to note that the validity of a scale is based on the reliability of a scale, because an unreliable measuring instrument will not provide steady results for the measuring the same tendency over a period of time (McDaniel & Gates, 2001:258). However, in contrast Iacobucci and Churchill (2010:259), who emphasise that the reliability measures of a scale are easier to determine over the validity measures of a scale, claim that reliability is essential to conduct a validity measure. Conversely, the reliability measures are not a pre-requisite for the validity of a scale. Churchill (1996:405) explains that if a measuring scale is not reliable, it is generally not valid, but if a measuring scale is valid, it is certainly reliable. Therefore, it can be seen that the reliability measures of a scale can provide a basis for the validity

measures of a scale, or be deficient in the validity measures of a scale. However, the reliability measures of a scale cannot justify the presence of validity in a scale.

There are three various methods that can be employed in the determination of a measuring scale. These three methods can be noted as content validity (often referred to as face validity), criterion validity and construct validity (Malhotra, 2010:320; Iacobucci & Churchill, 2010:256; Churchill, 1996:402; McDaniel & Gates, 2001:260; Pallant, 2007:7). The following section is aimed at giving a short description of each validity method.

- **Content Validity:** The content validity of a measuring instrument generally refers to how well the measuring instrument has grasped the domain of content (Pallant, 2007:7). Malhotra (2010:320) simplifies this definition by stating that this method examines the extent to which the actual content of the measuring instrument has achieved the requirements for the measurement sample in the research study. According to Iacobucci and Churchill (2010:257), the face validity of a research instrument refers to the judgements made by the researcher, through looking at the research instrument. Moreover, if the research instrument appears to be testing the specified domain then it can be said that the research instrument is valid. McDaniel and Gates (2001:260) express that the method deployed to determine the content validity is challenging. Churchill (1996:403) states that the first step in identifying the content validity is to examine previously produced literature on the subject. The second step would be to establish a measuring instrument on a wide range of variables that define the specific subject. The final step would entail testing the measuring instrument on a wide base of individuals in order to refine the research instrument into a final draft, specifically suited for the specific subject. In this research study, the research instruments content validity was developed through following these specific steps, which resulted in a pilot test being conducted to ensure the content validity. In addition, an open-ended question was also applied to determine whether the scale had content validity.

- **Criterion Validity:** The method employed in criterion validity is relatively easy to establish, however it is one of the least important methods deployed to assess validity (Churchill, 1996:403). Criterion validity explores the linkages found between the

specified measuring instruments scores and pre-determined, measurable criterion (Pallant, 2007:7). Malhotra (2010:320) adds that the pre-determined criteria can relate to variables including demographic or psychographic characteristics, attitudinal or behavioural tendencies, or even associated scores obtained from other measuring instruments. According McDaniel and Gates (2001:261), criterion validity is built on two categories. First, predictive validity is employed to assess the degree to which the current measurement instrument can be applied to determine the future prediction of a criterion variable. Secondly, concurrent validity is concerned with the 'here and now' of a measurement, and it is applied to determine the interconnections found between a measure and the criterion variable, which both occur at the same point in time.

- **Construct Validity:** Construct validity is referred to in a manner of evaluating the specific measuring instrument in accordance to the theoretical foundations underlying the theory (Pallant, 2007:7). Therefore, various hypotheses are created in conjunction with the specific scale. Malhotra (2010:321) identifies that construct validity consists of convergent, discriminant and nomological validity. McDaniel and Gates (2001:262) differentiate between convergent and discriminant validity, by stating that convergent validity measures the extent to which a high degree of correlation can be found between various measuring instruments that are suppose to measure the same concept. Discriminant validity, on the other hand, measures the degree to which low correlations can be found amongst various measuring instruments that are intended to be different from one another. Malhotra (2010:321) defines nomological validity as an extent to which the measuring instrument concurs with pre-determined underlying theory of connected, but dissimilar, measuring instruments. In this study, the Cronbach alpha values and inter-item correlations were employed to determine the construct validity of the scale.

3.6.3 Confirmatory Factor Analysis

A confirmatory factor analysis is conducted based on meeting the requirements on the factors applied in a research study, with a measuring instrument, against information underlying the various set of variables (Pallant, 2007:179). According to Malhotra (2010:725), pre-determined hypotheses or theories are developed on a set of variables that enact as boundaries that should be satisfied by the various factors in the study. In addition, this can be conducted

by measuring the variables loadings against the expected number of factor loadings. Furthermore, a complicated set of techniques is required in order to conduct a confirmatory factor analysis later in the research study.

In this study, confirmatory factor analysis using varimax rotation was employed to ascertain whether the 25 variables concluded on the three proposed constructs.

3.6.4 Descriptive Analysis

A descriptive analysis allows the researcher to explore common variables within the research study, through the identification of frequency. Furthermore, a descriptive analysis research also provides the researcher with an ability to compare the formation of relationships between two variables (Iacobucci & Churchill, 2010:59). McDaniel and Gates (2001:410) add that the determination of descriptive statistics generates value to large sets of data, through revealing some form of characteristics on the data. Swanepoel *et al.* (2006:6) concur with this by stating that large sets of data enact as raw sets of data to the researcher, until it is adjusted and presented in a graphical or tabular method. It should however be noted that various hypotheses lead the way for the conveyance of a descriptive analysis in a research study. According to Pallant (2007:53), a descriptive analysis includes the calculation of a range of scores associated with the mean, median, mode, standard deviation, skewness and kurtosis.

A measure of location or central tendency is applied in a research study to determine, by a solitary number, what the central point or position of a relevant sample would be (Swanepoel *et al.*, 2006:56). Furthermore, in order to determine the measure of location or central tendency, a calculation of the arithmetic mean, median and mode is necessary. McDaniel and Gates (2001:410) state that an arithmetic mean is calculated by taking the accumulated value of a specific variable applied in within an observation, and dividing the value by the number of observations employed within the study; thereby allowing the calculation of an average on the variable. The median as a measure of location or central tendency is calculated as the value positioned in the middle of an ordered set of variables; in other words, the median is the value above which half of the values are placed and below which half of the values are placed (Proctor, 2000:238). The mode as a measure of location or central tendency, however, it is the value that is most frequently occurred, within the ordered set of variables (Malhotra, 2010:486). According to Iacobucci and Churchill (2010:394), the application of the

arithmetic mean, median and mode in the measure of location or central tendency, is suitable to apply when the data has been collected in accordance to an interval or ratio scale.

A measure of location or central tendency needs a measurement of dispersion, to emphasise the extent to which the data is spread and to add value to the completion of the overall set of data (Swanepoel *et al.*, 2006:75). Proctor (2000:239) states that the most common measures of dispersion are found in the calculation of a standard deviation, variance and range. A variance is associated with calculating the mean squared deviation, from all the values pertaining to the calculation of the mean (Churchill, 1996:642). McDaniel and Gates (2001:412) define a standard deviation as the square root of a variance. A range, in contrast to the standard deviation and variance, is calculated through gathering all the values of distribution, and then calculating the differences between the lowest and highest value (Malhotra, 2010:487).

The last two sections involved in the determination of descriptive analysis, refers to the scores associated with skewness and kurtosis. Pallant (2007:56) differentiates between skewness and kurtosis by stating that skewness relates to the symmetry of distribution and kurtosis relates to the 'peakedness' or 'flatness' of distribution. Swanepoel *et al.* (2006:68) add that when the distribution is not symmetrical, it is referred to as skewed, which can lead to calculation of a positively or negatively skewed distribution. Furthermore, if the data shows small frequencies to the right hand side of a data set placed on a number line, then the data is said to represent a positively skewed distribution; whereas the opposite effects will indicate small frequencies to the left hand side of a data set placed on a number line, representing a negatively skewed distribution.

Descriptive statistics were applied in this study to identify some form of characteristics on the large sets of data, and to determine whether the data was normally distributed. Specifically, the descriptive statistics applied in this study included the measures of the mean, medium, standard deviation, skewness and kurtosis.

3.6.5 Correlation Analysis

Correlation analysis is employed to identify if there is a relationship between two variables, and to measure the strength of association between the variables (Aaker & Day, 1990:442).

Pearson correlation coefficient is applied in correlation analysis to determine the degree to which the variation found within one variable is related to the variation found within the other variable (Malhotra, 2010:562). According to McDaniel and Gates (2001:448), Pearson's correlation coefficient is employed when there is metric data. A perfect positive correlation (+1.0) is found when an increase in one variable causes an increase in the other variable; however, a perfect negative correlation (-1.0) is found when an increase in one variable causes a decrease in the other variable (Iacobucci & Churchill, 2010:452). In this study, correlation analysis was undertaken in order to identify the strength of the relationships of the variables pertaining to each construct.

3.6.6 Significance Tests

Significance testing is the process used to test the hypotheses formulated for a study. Kolb (2008:257) explains that within the significance tests, the measured variable of the particular research study will be tested against the proposed outcome stated in the hypothesis. The types of tests employed to examine the statistical significance will depend on the measuring instrument and the resulting data collected. According to McDaniel and Gates (2001:431), the hypothesis is a specific assumption, created by the researcher, on the variables to be tested in a study. Churchill (1996:116) states that the hypothesis explains how two or more variables are connected in a statistical sense. The researcher has to find evidence, in the form of statistical significance, against the hypothesis created (Proctor, 2000:239).

This study involves hypothesis testing of differences of means between independent samples. Luck and Rubin (1987:449) recommend that for statistical significance testing, the t-test should be used when the sample size (denoted as n) is small and the standard deviation of the population in question is unknown and that the z-test is appropriate where a population standard deviation is known or in the case of larger sample sizes ($n > 30$). Even though the statistical package used in this study (SPSS) does not differentiate between the t-test and z-test and refers to both as t-tests, Chapter 4 of this study refers to the z-test given that the study's sample size exceeds 30. Cohen's d-statistic was used to assess the practically significant difference in the construct means between the two sample groups.

3.7 SYNOPSIS

This chapter presented the outline of the research methodology applied within the empirical portion of this study. Specific reference was made to the formulation of the research objectives and design, data requirements, the research instrument, developing a sample plan and to the statistical analysis procedures.

The following chapter, Chapter 4, provides the results of the empirical portion of this study, in accordance to the research methodology laid out in this chapter (Chapter 3). Within Chapter 4, the results obtained from the pilot study are discussed, which leads way for a preliminary data analysis to be conducted in the form of tabulation and coding. In addition, the results pertaining to the demographical information, correlation analysis, descriptive analysis and hypotheses testing are discussed.

CHAPTER 4
ANALYSIS AND INTERPRETATION OF EMPIRICAL FINDINGS

4.1 INTRODUCTION

This chapter reports on the analysis and interpretation of the empirical findings found within the sets of data that were obtained from the main survey questionnaire of this study. The first section, Section 4.2 highlights the results obtained from the pilot questionnaire. The pilot testing of the questionnaire laid the foundation for a preliminary data analysis to be conducted, in terms of coding and tabulation. The preliminary data analysis is found in Section 4.3 of this chapter.

The first section in the main survey questionnaire used in this study aimed to gather demographical information on the respondents. The data pertaining to the demographical information of the respondents is reported on in Section 4.4 of this chapter. However, as there were two sample groups used in the main survey questionnaire, the demographical data is reported on separately for each sample group, namely Sample A and Sample B.

In Section 4.5, the descriptive analysis of the data sets is reported on, in terms of the total sample, Sample A and Sample B. The calculations used in the descriptive analysis refer to the mean calculation, standard deviation, skewness and kurtosis. Within this section, the measures undertaken were used to characterise the large sets of data and to determine whether the data was normally distributed. In addition to this section, the validity and reliability of the scale was analysed and reported on. The validity and reliability of the scale measured the Cronbach alpha value of the three constructs used within the scale, as well as the inter-item correlations of the total sample, Sample A and Sample B.

The strength of the relationships found between the variables of each construct is reported on in Section 4.6. In the last section of this chapter, Section 4.7, the results of the comparative analysis undertaken are reported on, which were in accordance to the hypotheses developed in Chapter 1. Specifically, z-tests were used as the main comparative measures in this section.

4.2 PILOT TESTING OF QUESTIONNAIRE

As discussed in Chapter 3, the pilot test was used to investigate the reliability of the questionnaire. In accordance to the study conducted by Mandhachitara and Poolthong (2011), the pilot test aimed at measuring the reliability of the questionnaire by using Cronbach's Alpha. Moreover, the pilot test also allowed the questionnaire to be tested against ambiguity and faultiness relating to confusion created by the respondents. Chau and Kao (2009) emphasised the importance of a pilot study by stating that any questionnaire should be pilot tested before it is deemed suitable for use by the public.

The initial questionnaire used within this study was subject to pre-testing through utilising two experienced researchers, two academic staff members and one assisting staff member. As discussed in Chapter 3, the results of the pre-testing methods were used to refine the questionnaire and to adjust the wording, flow of questions and the timeliness of the questionnaire. The pre-testing methods also gave light to the addition of an extra Likert-scaled question. Therefore, the refined and adjusted questionnaire consisted of 25 Likert-scaled questions, rather than 24 Likert-scaled questions, as stated in the development of the initial questionnaire. After the necessary refinements and adjustments were made, the questionnaire was pilot tested on a non-probability judgement sample of 37 full-time students pertaining to the Faculty of Humanities of Sample A.

The reliability of the research instrument was determined through calculating the Cronbach alpha coefficient of the total scale and of each of the three constructs. A reliability coefficient of above 0.70 is acceptable and a reliability coefficient of 0.80 is considered good and preferable (Pallant, 2007:98). However, a reliability coefficient below 0.50 is deemed unacceptable (Ko, Zhang, Cattini, Pastore, 2011). The five-point scale used within the pilot test of this study returned a preferable Cronbach alpha value, for the entire scale, of 0.923 (refer to Table 4.1), which is considered high and exceeded the suggested level of 0.70.

The reliability of the scale in the pilot test on the total sample is represented for each of the three constructs measured, namely requisite, acceptable and functional constructs (refer to Table 4.1). The results for the requisite and acceptable constructs returned a Cronbach alpha value of 0.883 and 0.873, respectively. This is deemed acceptable, as it is above the

recommended value of 0.50. However, Construct 3 (functional) returned a low Cronbach alpha value of 0.479. The Cronbach alpha value tends to increase with an increase in the number of scale items and the value tends to decrease with a decrease in the number of scale items (Malhotra, 2010:319; Pallant, 2007:6, Sultan & Wong, 2010). Therefore, although the reliability of Construct 3 (functional) was lower than the recommended level (due to the limited variables in this construct), a decision was taken to include Construct 3 in the main survey owing to the value this construct has to the study.

Table 4.1 Reliability for each of the three constructs and for the entire scale

	Dimension	**Number of items**	**Valid *N***	**Cronbach Alpha**
Construct 1	Requisite	15	37	0.883
Construct 2	Acceptable	7	37	0.873
Construct 3	Functional	3	37	0.479
Entire scale		25	37	0.923

In addition to the reliability calculations of the Cronbach alpha, it was decided to compute an average inter-item correlation score, to determine whether any variables were producing identical or similar concepts. The average inter-item correlations for all the variables produced a score of 0.333, which is within the recommended range of 0.15 and 0.50 (Clark & Watson, 1995). The average inter-item correlations depict that there is evidence of convergent validity, as the variables in the scale are adequately correlated (Churchill, 1996:405). However, the inter-item correlations also depict evidence of discriminant validity, as the variables in the scale are not vastly correlated on the terms of how each are meant to differ (McDaniel & Gates, 2001:262). This implies that the research instrument does measure the construct that it is suppose to measure, namely students perceptions of service quality (refer to Section 3.6.1).

The questionnaire originally consisted of 24 variables, however through the process of pre-testing (refer to Section 3.4.5) and pilot testing, these 24 variables were increased to 25 variables. Table 4.2 below provides an overview of the descriptions of these variables and

constructs. These 25 variables were then used to prepare the main survey questionnaire (refer to Annexure C), which was administered to a larger sample size.

Table 4.2 Students' perceptions of service quality at the pilot stage

Code	Variables	Construct
B1	Sincere interest in solving problems	
B2	Knowledge of needs	
B3	On-time service provision	
B4	Efficient/punctual dealing with queries	
B5	Responding to request for assistance	
B6	Accurate and retrievable records	
B7	Timely dealing with assistance	
B8	Knowledgeable in service provision	Construct 1
B9	Promises kept	
B10	Considerate attention	
B11	Appealing physical facilities	
B12	Feeling secured with transactions	
B13	Feeling confident in staff	
B14	Staffs professional appearance/image	
B15	Attractive materials associated with service delivery	
B16	Too busy in responding to request for assistance	
B17	Willingness to help consumers	
B18	Giving individualised attention	
B19	Sincere interest in solving problems	Construct 2
B20	Willingness to help consumers	
B21	Providing services within a reasonable time	
B22	Equal treatment and respect	
B23	Convenient opening hours	
B24	Up-to-date equipment	Construct 3
B25	Providing service within promised time	

4.3 PRELIMINARY DATA ANALYSIS

Kolb (2008:199) advises that a pre-test should be conducted on the coding and tabulation of the data analysis process before the final survey questionnaire is administered, as it is easier in the preliminary stage to correct any potential problems on the tabulation and coding of

data. Therefore, the following two sections provide a preliminary basis of coding and tabulation with the representing data retrieved from the pilot testing.

4.3.1 Coding

The process of coding pertains to the grouping of various responses to each particular question and to the assignment of attaching numeric values to the responses of each particular question (McDaniel & Gates, 2001:393). Proctor (2000:235) emphasises that coding transforms the responses of questions into a simplified countable figure. In the questionnaire, the questions were classified into two sections. The first section, Section A, was associated with gathering data pertaining to the respondents' demographics, and the second section, Section B, was concentrated on gathering information pertaining to the students' perceptions of service quality. Table 4.3 below provides an overview of the variable codes and assigned values that were used in Sections A and B of the final survey instrument.

Table 4.3 Coding information

Section A: Demographical data		
Question	**Construct measured**	**Code**
Question 1	Institution	A1
Question 2	Year	A2
Question 3	Gender	A3
Question 4	Designated group	A4
Section B: Students' perception of service quality		
Question	**Construct measured**	**Code**
Question 1	Requisite construct	B1
Question 2	Requisite construct	B2
Question 3	Requisite construct	B3
Question 4	Requisite construct	B4
Question 5	Requisite construct	B5
Question 6	Requisite construct	B6

Table 4.3 Coding information (continued...)

Section B: Students' perception of service quality		
Question	**Construct measured**	**Code**
Question 7	Requisite construct	B7
Question 8	Requisite construct	B8
Question 9	Requisite construct	B9
Question 10	Requisite construct	B10
Question 11	Requisite construct	B11
Question 12	Requisite construct	B12
Question 13	Requisite construct	B13
Question 14	Requisite construct	B14
Question 15	Requisite construct	B15
Question 16	Acceptable construct	B16
Question 17	Acceptable construct	B17
Question 18	Acceptable construct	B18
Question 19	Acceptable construct	B19
Question 20	Acceptable construct	B20
Question 21	Acceptable construct	B21
Question 22	Acceptable construct	B22
Question 23	Functional construct	B23
Question 24	Functional construct	B24
Question 25	Functional construct	B25

4.3.2 Tabulation: all variables

Proctor (2000:234) states that tabulation is the simplest way of presenting summary data and refers to the design of the data in easy-to-read summary tables. Tabulation ascribes to the representation of the number of responses each individual question obtained by conducting a frequency analysis (Aaker & Day, 1990:435). Table 4.4 below provides the frequency table pertaining to Section B of the questionnaires, which aims to measure students' perceptions of service quality. The data represented in this table was obtained from the results of the pilot study.

Table 4.4 Frequency table for students' perceptions of service quality in Higher Education Institutions

Code	No response 0	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
Construct 1: Requisite						
B1	0	1	5	10	19	2
B2	0	0	3	6	21	7
B3	0	2	7	10	13	5
B4	0	1	3	11	16	6
B5	0	2	5	14	11	5
B6	0	0	2	10	14	11
B7	0	1	1	12	18	5
B8	0	0	0	6	17	14
B9	0	2	4	12	15	4
B10	0	2	1	12	13	9
B11	0	2	2	12	9	12
B12	0	0	3	11	15	8
B13	0	0	3	2	20	12
B14	0	0	0	8	20	9
B15	0	1	2	7	18	9
Construct 2: Acceptable						
B16	0	1	3	14	16	3
B17	0	0	2	6	19	10
B18	0	2	0	6	22	7
B19	0	1	3	6	22	5
B20	0	1	2	6	21	7
B21	0	0	2	11	18	6
B22	0	0	1	14	18	4
Construct 3: Functional						
B23	0	0	2	6	19	10
B24	0	3	1	16	12	5
B25	0	1	2	12	13	9

The data given above has been subdivided into the two sample groups, referred to as Sample A and Sample B respectively. Classification data pertaining to the two sample groups follows.

4.4 DEMOGRAPHICAL INFORMATION

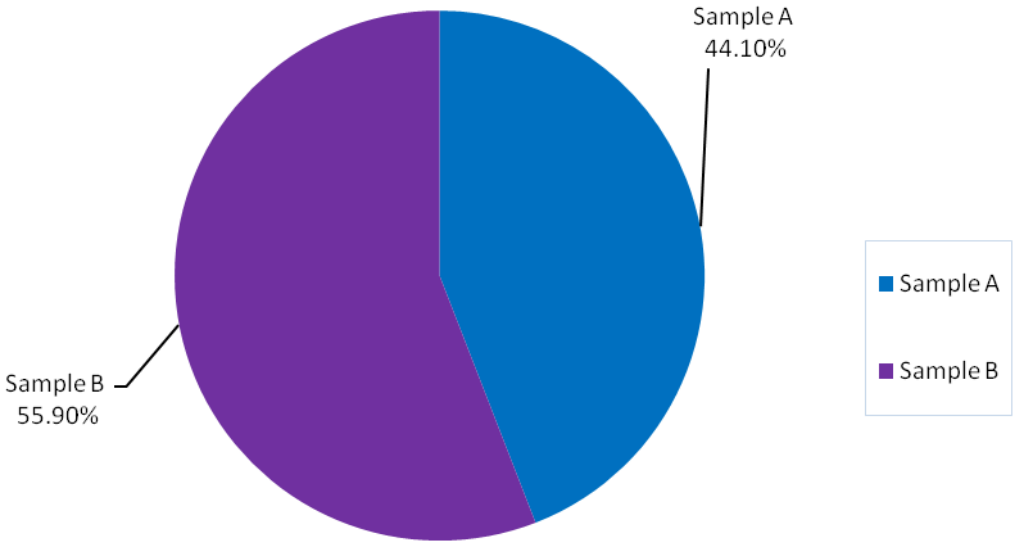
Demographical information is closely tied to socio-economic information, and both are referred to as classification information, as the aim of collecting this data is to classify the respondents (Malhotra, 2010:350). In addition, the results obtained from collecting the classification information help the researcher understand the results of the final survey questionnaire.

In this study, two sample groups were used, namely Sample A and Sample B, and therefore two sets of classification information will be presented in this section. However, it is worthy to present the sample classification, in a view of the total sample. In Table 4.5 below, the sample classification is represented by means of a frequency table and a pie chart. As a view of the total sample (N), made up of Sample A and Sample B, it can be seen that 44.10 percent of the responses came from Sample A and 55.90 percent of the responses came from Sample B. This study was aimed at achieving an equal ratio of responses from each sample, however as the results from the sample classification show, the responses from each sample were split representatively.

Table 4.5 follows on the next page.

Table 4.5 Sample classification

	f	%
Sample A	287	44.10
Sample B	364	55.90
N	651	100.0



The information obtained from these two groups is represented by frequency tables, bar graphs and pie charts. The classification data requested from Sample A and Sample B was simple and direct. Section A of the research instrument related, *inter alia*, to the demographic information of Sample A and Sample B and refers to the following:

- year of study
- gender
- racial group

In the discussion to follow, the classification information pertaining to Sample A and Sample B will be discussed and analysed separately.

4.4.1 Demographical data pertaining to Sample A

Table 4.6 below presents the respondents' year of study.

Table 4.6 Respondents' year of study

	f	%
1st Year	93	32.30
2nd Year	114	39.60
3rd Year	78	27.10
Missing	3	1.00
N	288	100.0

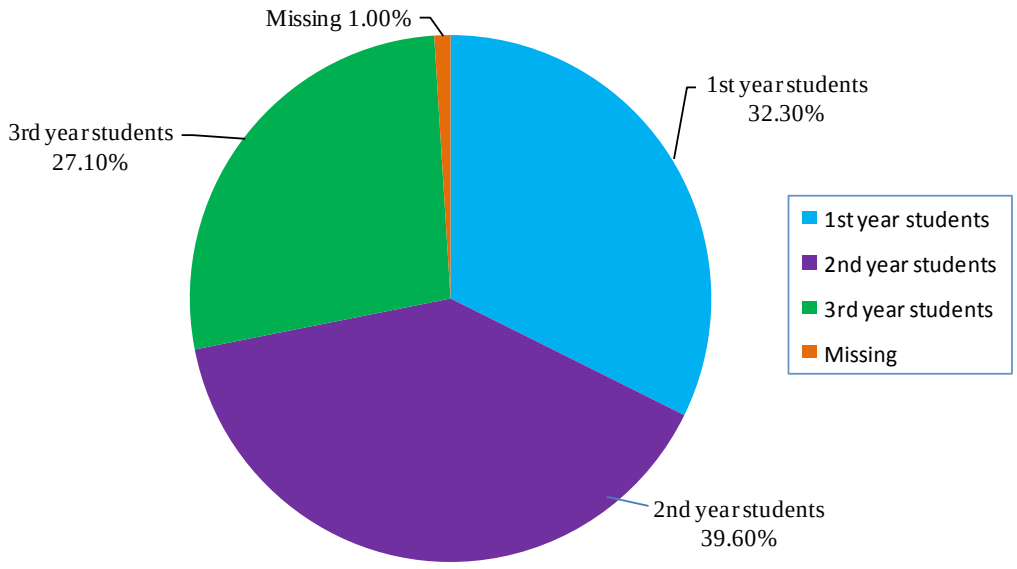
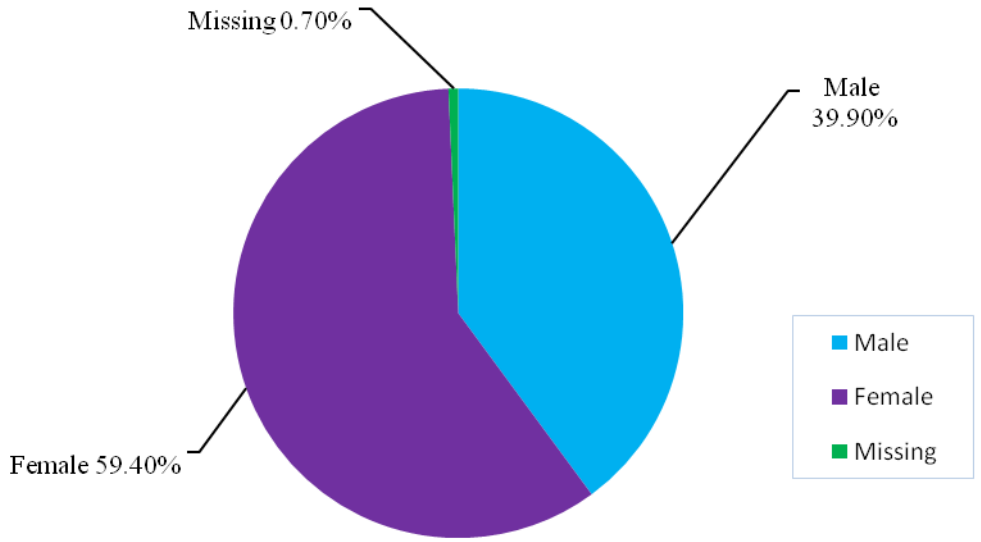


Table 4.6 above illustrates the classification information relating to the respondents' year of study. Three respondents failed to provide information on this question and therefore 1.00 percent of the information is missing. It is clear from the Table 4.6 that the majority of

respondents, belonging to this sample group, were in the second year of study, as represented by 39.60 percent of the sample group. The second largest section of this group was in the first year of study, which represents 32.30 percent of the sample group. Lastly, third year students represented the minority of this sample group, with a percentage of 27.10 percent.

Table 4.7 Gender groups

	f	%
Male	115	39.9
Female	171	59.4
Missing	2	0.7
N	288	100.0



The gender differences of this group suggest that 39.90 percent of the respondents were male and 59.40 percent of the respondents were female. Thereby, indicating that the majority of respondents were females. Two respondents did not complete this question on the

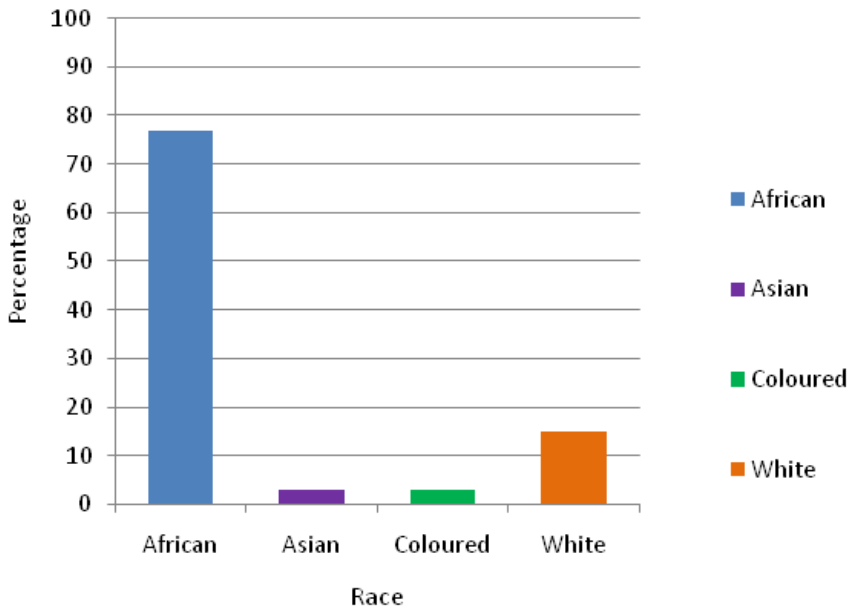
classification data, thus signifying a 0.70 percent of the responses. These results are indicated and illustrated in the frequency table and pie chart in Table 4.7 below.

Z-tests were undertaken on the total sample group of respondents, consisting Sample A and Sample B respondents, to determine if the gender differences had an impact on the results of the final survey questionnaire. As suspected, no significant difference was found within the gender groups of the total sample group of respondents. Therefore, the gender differences pertaining to Sample A, will not have an effect on the final results obtained from the survey questionnaire administered.

Table 4.8 follows on the next page.

Table 4.8 Racial groups

	f	%
African	222	77.10
Asian	11	3.80
Coloured	10	3.50
White	44	15.30
Missing	1	0.30
N	288	100.0



The last section of the classification data was selected to determine the respondents' racial groups. As illustrated by Table 4.8 above, the majority of respondents were African, representing 77.10 percent of Sample A respondents. This was followed by the respondents being White, with a value of 15.30 percent. Further, the respondents who belonged to the last two racial groups, namely, Asian and Coloured groups, represented a small percentage of this

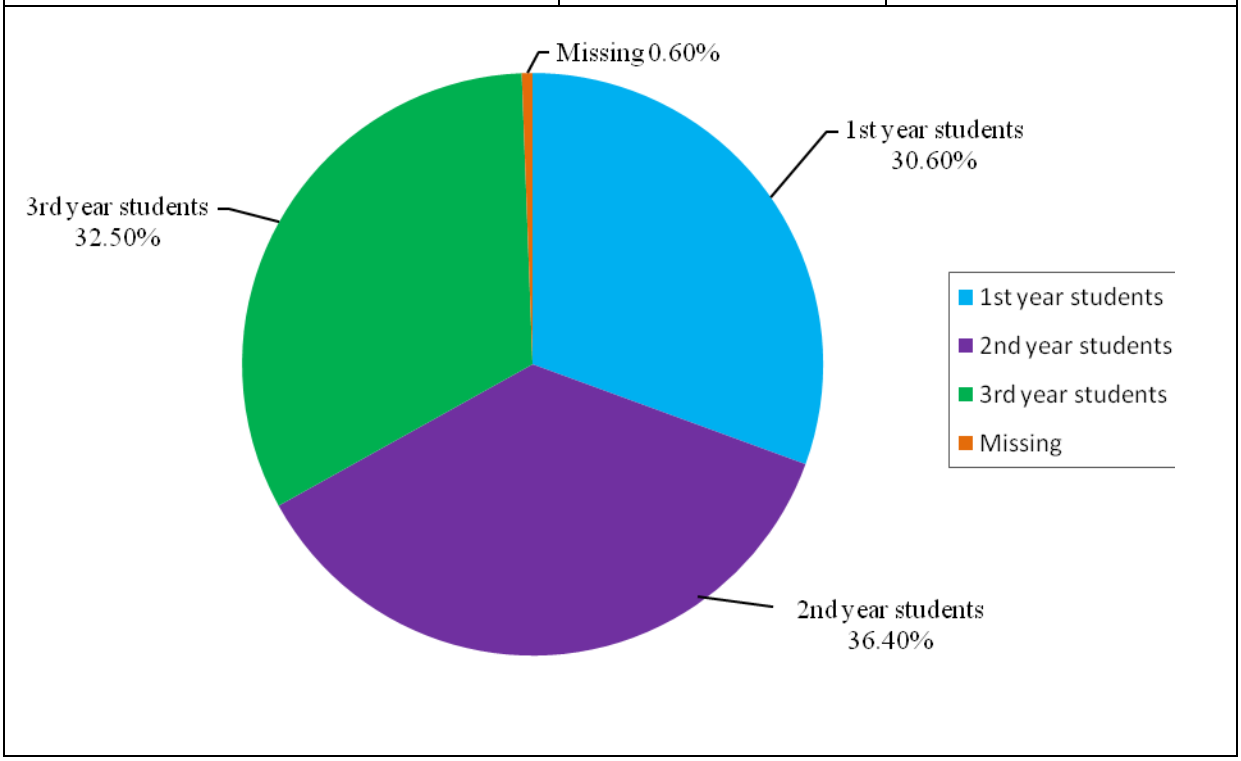
sample group, with values of 3.80 percent and 3.50 percent, respectively. One respondents' information is missing on this respect, indicating a 0.30 percent.

4.4.2 Demographical data pertaining to Sample B

Table 4.9 below illustrates the respondents' year of study.

Table 4.9 Respondents' year of study

	f	%
1st Year	111	30.60
2nd Year	132	36.40
3rd Year	118	32.50
Missing	2	0.60
N	363	100.0



In Sample B, the majority of respondents were in the second year of study, as indicated by 36.40 percent in Table 4.9 above. This is in correspondence with Sample A. However, there is a slight percentage difference on the number of respondents in the second year of study. Further, the respondents in the third year of study were second place, with a 32.50 percent, which was then followed by the respondents in the first year of study, with a 30.60 percent. Therefore, the respondents currently in the first year of study represented the minority percentage of Sample B. This differs from the respondents in Sample A, as the respondents in the third year of study indicated the minority percentage of the group. Two respondents had failed to provide an answer on this classification question in Sample group B, hence implicating a 0.60 percent of missing data.

Table 4.10 follows on the next page.

Table 4.10 Gender groups

	f	%
Male	142	39.10
Female	219	60.30
Missing	2	0.60
N	363	100.0

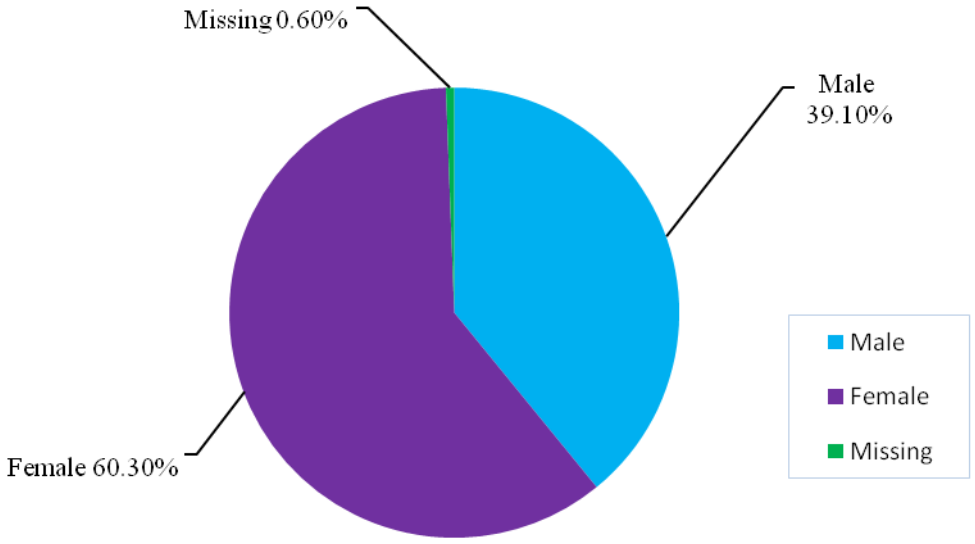


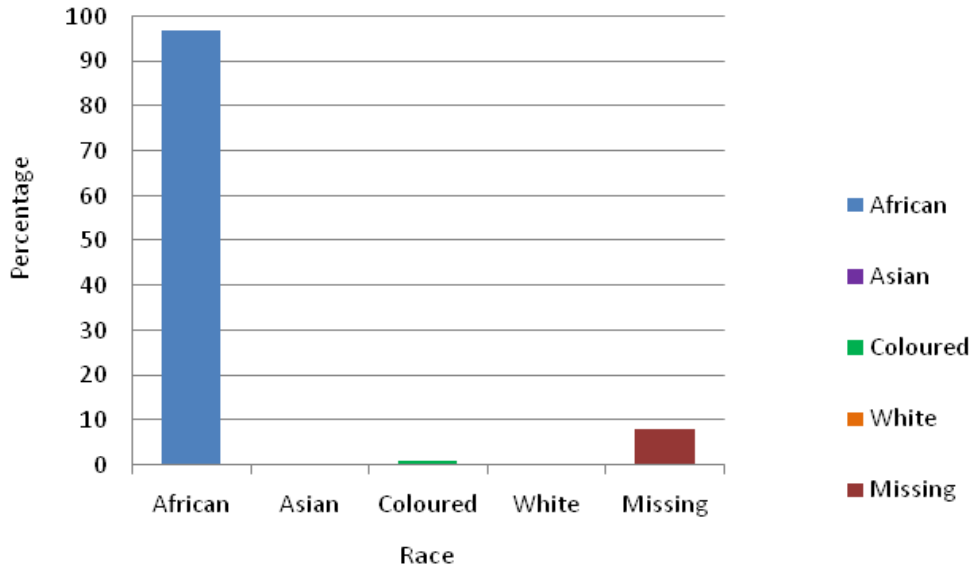
Table 4.10 above presents the gender differences found within Sample B. Female respondents represent the majority of this group with a value of 60.30 percent. The male respondents hold the minority with 39.10 percent. Two respondents did not indicate their genders, which leaves a 0.60 percent of missing data. The same results were obtained by the respondents in Sample A whereby female respondents were in the majority and male respondents were in the minority.

As is the case with Sample A, z-tests were conducted on the total sample of respondents, consisting of Sample A and Sample B respondents. The results depicted that the gender

difference found within the group did not influence the results of the final survey questionnaire. Thereby, it can be assumed that the same result will be applicable to Sample B, whereby the gender difference found will not influence the results obtained from the final survey questionnaire.

Table 4.11 Racial groups

	f	%
African	354	97.50
Asian	0	0.00
Coloured	6	1.70
White	0	0.00
Missing	3	0.80
N	363	100



The results obtained from the respondents various designated groups are presented in Table 4.11 above. The majority of respondents found within Sample B, with a 97.50 percent, were African. This was followed by 1.70 percent of respondents being Coloured. Further, there were no respondents on the Asian or White designated groups. Three of the respondents did not indicate their racial group. The missing respondents thus obtained by Sample B stood at 0.80 percent.

The previous section described the biographical information regarding the two different sample groups of the study. The following section presents the descriptive statistics of the data.

4.5 DESCRIPTIVE ANALYSIS

Descriptive statistics is used to present sets of data through the process of collecting and summarising the data (Kolb, 2008:251). McDaniel and Gates (2001:410) state that it is essential to conduct measures of central tendency and measures of dispersion within the descriptive statistics. The following section will report on the descriptive statistics of this study with the representing data being obtained from the main survey questionnaire of this study. The first section involves the descriptive statistics which is relevant to the total sample, the second section involves the descriptive statistics relevant to Sample A, and the third section involves the descriptive statistics relevant to Sample B. In addition, the validity and reliability measures of the scale are also reported on.

4.5.1 Descriptive statistics pertaining to the total sample

The descriptive statistics pertaining to the total sample measured in the main survey questionnaire of this study is presented in Table 4.12 below. The total sample referred to in this section includes both of the sample groups that were chosen as the sample of the main study. The measures of central tendency and the measures of dispersion are calculated on the three pre-determined constructs, namely, the requisite, acceptable and functional constructs. The number of the completed questionnaires is shown as the Valid *N* in the table below. The minimum and maximum values depict the responses to the Likert-scaled questions of each dimension, ranging from strongly agree (5) to strongly disagree (1).

The arithmetic mean is strongly used to base the calculations on a set of data, for the variables on an interval or ratio scale (McDaniel & Gates, 2001:410). In this study, the arithmetic mean was used to base the calculations on a set of data specifically relevant to the variables of an interval scale. The mean score ratings of the three constructs can be placed in order from the highest to the lowest. Therefore, Construct 1 (requisite variables) indicates the highest mean rating of 3.280, followed by Construct 3 (functional variables) with a mean rating of 3.240 and followed by Construct 2 (acceptable variables), which indicates the lowest mean rating of 3.188. It can, therefore be said that the respondents consider the variables relating the Construct 1 as more important to the variables relating to the Constructs 2 and 3. Further, the respondents view the variables relating to Construct 3 as more important than the variables relating to Construct 2, but less important than the variables relating to Construct 1. Lastly, the respondents view the variables relating to Construct 2 as the least important, in comparison to the other two constructs.

Table 4.12 Descriptive statistics: Total Sample

Construct	Valid N	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
C1	651	3.280	1.13	5.00	0.686	-0.205	-0.150
C2	651	3.188	1.00	5.00	0.785	-0.162	-0.315
C3	651	3.240	1.00	5.00	0.947	-0.243	-0.542

The standard deviation is a linked to the arithmetic mean in that it is a measure that attempts to resolve the average distance of interpretations from the measurement of the arithmetic mean interpretations. Further, if these values are compared against each other, the result will depict some positive and negative values and as the value of 0.00 is unfit, the values above 1.00 will be considered (Swanepoel *et al.*, 2006:79). Construct 1 (requisite variables) obtained a standard deviation value of 0.68559, Construct 2 (acceptable variables) obtained a standard deviation value of 0.7853 and Construct 3 (functional variables) obtained a standard deviation value of 0.947. Therefore, Construct 3 obtained the highest value, followed by Construct 2, followed by Construct 1, which received the lowest value. However, the standard deviation values are below the value 1.00, and therefore the arithmetic mean was viewed as providing a suitably satisfactory indication of the responses.

Skewness refers to the symmetry of distribution, where a cluster of positive values represents a positively skewed symmetry of distribution and where a cluster of negative values represents a negatively skewed symmetry of distribution. In addition, the calculation of a kurtosis represents information on the 'peakedness' of the distribution, where a cluster of positive kurtosis values (value > 0) show that the distribution is peaked and a cluster of negative kurtosis values (value < 0) show that the distribution is flat (Pallant, 2007:56). All three constructs of this study produced negative values of skewness, thereby indicating that the data has a negatively skewed symmetry of distribution. The three constructs also obtained negative values of kurtosis, thereby implicating that the distribution is flat.

4.5.2 Descriptive statistics pertaining to Sample A

The descriptive statistics that pertained to Sample A, measured in the main survey questionnaire of this study, is presented in Table 4.13. The measures of central tendency and the measures of dispersion are calculated on the three pre-determined constructs, namely, the requisite, acceptable and functional constructs. The number of the completed questionnaires is shown as the Valid *N* in the table below. The minimum and maximum values depict the responses to the Likert-scaled questions of each dimension, ranging from strongly agree (5) to strongly disagree (1).

The mean calculated for each of the three constructs may be placed in ranking order from highest to lowest. The highest mean calculated is for Construct 3 (functional variables), followed by Construct 1 (requisite variables), which is followed by Construct 2 (acceptable variables), indicating values of 3.71, 3.6266 and 3.522, respectively. Therefore, the respondents of Sample A indicate that the variables pertaining to Construct 3 is more important than the variables pertaining to Construct 1 and 2 and the variables pertaining to Construct 1 is more important than the variables pertaining to Construct 2, but less important than the variables pertaining to Construct 3. Lastly, the respondents of Sample A indicate that the variables pertaining to Construct 2 are the least important, in comparison to the variables pertaining to Construct 1 and 3. This differs from the mean obtained from the respondents in the Total Sample, as indicated in Section 4.5.1, as the respondents ranked Construct 1 (requisite variables) as being more important than Construct 3 (functional variables). However, the respondents of Sample A concur with the respondents of the total

sample, in that Construct 2 (acceptable variables) is considered the least important of all three constructs.

Table 4.13 Descriptive statistics: Sample A

Construct	Valid N	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
C1	288	3.627	1.80	5.00	0.577	-0.289	0.029
C2	288	3.522	1.30	5.00	0.678	-0.248	0.042
C3	288	3.710	2.00	5.00	0.757	-0.307	-0.461

Construct 3 (functional variables) returned the highest standard deviation value of 0.757. This value obtained is the highest of all three constructs, conversely all three constructs values are still below 1.00 and therefore the mean value still holds an adequate indication of the responses. However, even though the results are below 1.00 and the mean value still holds an adequate indication of the responses, it is still worthy to note that the ranking order of standard deviation values obtained from Sample A is in accordance to the standard deviation values obtained from the total sample of respondents (Section 4.5.1).

The skewness values obtained from the respondents of Sample A suggest that all the values are negatively skewed (value < 0) as none of the values is positive (value > 0). Construct 1 (requisite variables) and Construct 2 (acceptable variables) obtained positive values of kurtosis, respectively 0.029 and 0.042, indicating that the distribution is rather peaked. However, Construct 3 (functional variables) obtained a negative kurtosis value of -0.461, thus indicating that the distribution is also flat.

4.5.3 Descriptive statistics pertaining to Sample B

The descriptive statistics that pertained to Sample B measured in the main survey questionnaire of this study is presented in Table 4.14 below. The measures of central tendency and the measures of dispersion are calculated on the three pre-determined constructs, namely, the requisite, acceptable and functional constructs. The number of the

completed questionnaires is shown as the Valid *N* in the table below. The minimum and maximum values depict the responses to the Likert-scaled questions of each dimension, ranging from strongly agree (5) to strongly disagree (1).

The mean values obtained from the respondents of Sample B indicate that the variables pertaining Construct 1 (requisite variables) are more important than the variables pertaining to Construct 2 (acceptable variables) and Construct 3 (functional variables), as the value obtained for Construct 1 is 3.0051, thus indicating the highest value of all three constructs. The respondents of Sample B indicate that the second most important construct is Construct 2 (acceptable variables) owing to the variables pertaining to this construct obtained a mean value of 2.924. Lastly, the respondents view the variables pertaining to Construct 3 (functional variables) as being the least important, in comparison to the other two constructs. Construct 3 received a mean value of 2.87 from the respondents of Sample B. If the responses obtained for the three constructs are compared with the responses obtained in Sample A and B, a difference can be found as the respondents of Sample A indicated that the variables belonging to Construct 3 is the most important, whereas the respondents of Sample B indicated that the variables pertaining to Construct 3 is the least important. In addition, the respondents of Sample A concurred with the respondents of the total sample, in that the variables implicating Construct 2 is of the least important amongst the variables pertaining to all three constructs. Therefore, there is a large difference perceived in the value of the mean responses to Sample B.

Table 4.14 follows on the next page.

Table 4.14 Descriptive statistics: Sample B

Construct	Valid N	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
C1	363	3.005	1.13	4.87	0.639	-0.095	0.038
C2	363	2.924	1.00	5.00	0.764	0.019	-0.317
C3	363	2.870	1.00	5.00	0.917	0.005	-0.547

In ranking order from the highest value obtained for the standard deviation, to the lowest value obtained for the standard deviation, Construct 3 (functional variables) retrieved the highest score, followed by Construct 2 (acceptable variables), which was then followed by Construct 1 (requisite variables). The values were 0.917, 0.7642 and 0.63893, respectively. Sample B respondents ranked the order of constructs in the same manner as the respondents of Sample A. Even so, the respondents of Sample B standard deviation values are still below 1.00 and the mean values, therefore still hold a sufficient indication of the responses to Sample B.

The skewness values for the respondents of Sample B indicate that Construct 2 (acceptable variables) and Construct 3 (functional variables) have a positively skewed distribution, as the values are above 0.00 (value > 0). Although, for Construct 1 (requisite variables), the result depicts that there is a negatively skewed (value < 0) distribution. The results of the respondents of Sample B differ to the respondents of Sample A, as Sample A had a negatively skewed distribution across all three constructs. The kurtosis values reported for Sample B indicates that Construct 2 (acceptable variables) and Construct 3 (functional variables) have a negative value and therefore, a rather flat distribution. Construct 1 (requisite variables), conversely represented a positive value of kurtosis, thus implicating that the distribution is slightly peaked and that there might be outliers to some of the answers pertaining to the variables on this question. This differs from the responses obtained from Sample A, where Construct 1 and 2 both produced positive values of kurtosis and Construct 3, a negative value of kurtosis.

4.5.4 Validity and reliability of the scale

In measuring the validity of a scale, the researcher attempts to determine whether what was supposed to be measured, is actually measured (McDaniel & Gates, 2001:258). Reliability, on the other hand, measures the levels of consistency found within measurable independent objects or constructs (Iacobucci & Churchill, 2010:258). The following sections reports on the results of the reliability and validity measures found within the main survey questionnaire conducted in this study.

Table 4.15 below represents the reliability and validity measures of the survey questionnaire, as obtained from the separate sample groups, and the entire scale. The Cronbach alpha was calculated at 0.937 for the entire scale and the overall sample, which consisted of 651 respondents. Sample A, which consisted of 288 respondents, returned a Cronbach alpha value of 0.932 and Sample B, which consisted of 363 respondents, returned a Cronbach alpha value of 0.915. A reliability coefficient of below 0.50 is deemed unacceptable (Ko *et al.*, 2011), a reliability coefficient of 0.70 and above is deemed acceptable; however, a reliability coefficient of 0.80 and above is good (Pallant, 2007:98). Therefore, it can be said that the Cronbach alpha value obtained for the entire scale and for the separate sample groups (Sample A and B) is good, thus indicating a high level of consistency. Further, these high values of Cronbach alpha obtained in Sample A and Sample B is an indication of convergent validity.

Table 4.15 Reliability and validity analysis: analysis as per group and as per total group

	Sample A	**Sample B**	**Total Sample**
Valid *N*	288	363	651
Cronbach alpha	0.932	0.915	0.937

The reliability of the main survey questionnaire can also be assessed by looking at the Cronbach alpha values produced by the three constructs measured in the study. Table 4.16 provides an overview of the reliability analysis of each construct. Construct 1 (requisite

variables), which consisted of 15 variables, obtained a Cronbach alpha value of 0.893, Construct 2 (acceptable variables), which consisted of seven variables released a Cronbach alpha value of 0.879 and, lastly, Construct 3 (functional variables), which consisted of three variables, provided a Cronbach alpha value of 0.688. As the recommended value of an acceptable Cronbach alpha is 0.70 and a good recommended value is 0.80, Construct 1 and Construct 2 are deemed acceptable, and further good. However, Construct 3 produced a value of above the recommended unacceptable value of 0.50, but failed to obtain a recommended value of 0.70 in order to be acceptable. Malhotra (2010:319) advises that the Cronbach alpha value decreases if there is a low number of variables within the construct, which can be seen as the case with Construct 3, as it contained the least amount of variables in comparison to Construct 1 and 2. However, the Cronbach alpha value returned by Construct 3 is considerably close to the suggested value of 0.70, and can consequently be taken as acceptable. The point of emphasis here is that both sample groups, Sample A and B, produced a high value of Cronbach alpha, as analysed in Table 4.15 below. The respective Cronbach alpha values were calculated at 0.932 for Sample A and at 0.915 for Sample B.

Table 4.16 Reliability analysis: main survey questionnaire

	***N* of items**	**Valid *N***	**Cronbach alpha**
Construct 1	15	651	0.893
Construct 2	7	651	0.879
Construct 3	3	651	0.688

In addition to the reliability coefficients examined above, it is also worthy to examine the construct validity of the scale, through analysing the inter-item correlations. The inter-item correlations reported on the entire scale, which consisted of Sample A and Sample B, was computed at 0.378. In addition the inter-item correlations calculated on Sample A, returned a value of 0.361 and the inter-item correlations on Sample B returned a value of 0.304. Clark and Watson (1995) advise that the inter-item correlation values should fall within the ranges of 0.15 and 0.50. Thus indicating that the inter-item correlations calculated for the entire sample, Sample A and Sample B are within these recommended ranges of 0.15 and 0.50. The average inter-item correlations depict that there is evidence of convergent validity, as the

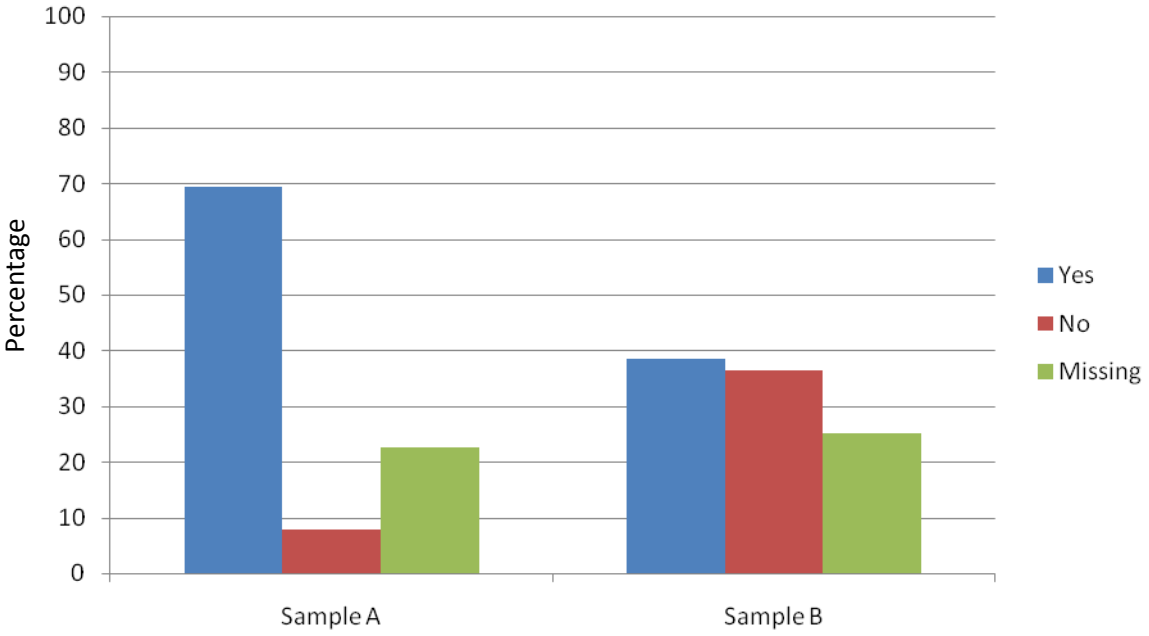
variables in the scale are adequately correlated (Churchill, 1996:405). However, the inter-item correlations also depict evidence of discriminant validity, as the variables in the scale are not vastly correlated in terms of how each is meant to differ (McDaniel & Gates, 2001:262). This implies that the research instrument does measure the construct that it is supposed to measure, namely students perceptions of service quality.

Factor analysis is used to examine the interrelationships found in a large set of variables and to determine the dimensions that underpin these variables (Proctor, 2000:255). Confirmatory factor analysis was used on the data sets to determine whether the 25 variables used within the scale produced the three proposed constructs and to identify whether the variables loaded on the intended constructs. Factor analysis, using varimax rotation, was conducted on the 25 variables and, in accordance to the study conducted by Oldfield and Baron (2000) three constructs were formed with eigenvalues greater than 1.0. These three constructs are known as the requisite construct (15 variables), acceptable construct (seven variables) and functional construct (three variables). However, it should be noted that not all the variables loaded on the correct construct as stated by Oldfield and Baron (2000), but the majority of the variables did. The three-construct model explained 51.074 percent of the total variance, which can be used to indicate that this is a good model. In addition to the confirmatory factor analysis conducted, the Cronbach's alpha was also taken into consideration for each of the three constructs. Construct 1 returned a Cronbach alpha value of 0.893 and Construct 2 returned a Cronbach alpha value of 0.879. Both these values are above the general guideline of 0.70. However, Construct 3 returned a low Cronbach alpha value of 0.688. Conversely, it has been warned that within the measurement of the Cronbach alpha, the value tends to increase with an increase in the number of scale items and the value tends to decrease with a decrease in the number of scale items (Malhotra, 2010:319; Pallant, 2007:6, Sultan & Wong, 2010). Therefore, although the reliability of Construct 3 was slightly lower than the recommended value of 0.70 (due to the limited variables in this construct), the value returned by this construct is still deemed acceptable.

On the survey questionnaire, in Section B, an open-ended question was asked in order to gain deeper insights to the respondents' experiences and to confirm content validity of the scale. The open-ended question asked the respondents to stipulate whether they would recommend the University to someone else, and to motive the reasoning to the answer. Figure 4.1 below

summarises the respondent's experiences for Sample A and Sample B, in terms of the respondents who said 'yes' they would recommend the respective HEI and the respondents who said 'no' they would not recommend the respective HEI. Further, some of the respondents did not complete this question and are therefore, represented by the 'missing' percentage.

Figure 4.1 Respondents' experiences



For Sample A in Figure 4.1 above, 69.40 percent of the respondents indicated that they would recommend the university to someone else, thus implicating they had a positive experience with the university. However, 8.0 percent of the respondents said that they would not recommend the university to someone else, thus indicating they had a negative experience. In comparison to Sample A, a difference in the results can be found in Sample B, whereby 38.60 percent of the respondents had a positive experience with the university and 36.40 percent of the respondents had a negative experience with the university. The missing percentages for Sample A and Sample B were 22.60 percent and 25.10 percent, respectively.

For the respondents of Sample A who motivated the reasoning for saying 'yes' they would recommend the university to someone else, they provided answers as follows: the university has a good learning environment, there are less disturbances when studying, the academic staff are caring towards students and are experienced, the university is physically appealing,

safe and secure. Generally, the academic fields are up to standard and accurate, the level of service quality is a high and it is a good HEI with a reputable background. For the respondents of Sample A, who said that they would not recommend the university to someone else, the following reasons were provided: the academic standards are too high, incompetent staff members, there is space for advancement and development and the fees are too high.

For Sample B, the respondents who said that they would recommend the university to someone else provided the following reasons: the fees are affordable, high education levels, better education, good course guidance's, good quality of academic staff members and the university provides a good service quality level. In contradiction, the respondents who said that they would not recommend the university to someone else provided the following reasoning: empty promises are made by the university, poor levels of service quality, out-dated equipment, slow service delivery, unprofessional service levels provided, long queuing periods and poor administrative services. However, from Sample A and Sample B, a few respondents suggested that they would 'maybe' recommend the university to someone else, in terms of if the university provided opportunities for improvements.

The descriptive statistics have been outlined in the previous section in order to uncover the central tendency and distribution of the data. The descriptive statistics provided a summary of the data obtained from the respondents, which included measures of central tendency and measures of dispersion.

4.6 CORRELATIONS BETWEEN CONSTRUCTS

Proctor (2000:247) explains that a correlation analysis is used to identify the strength of relationships between the relevant variables. In this study, correlation analysis is used to identify the strength of the relationships of the variables pertaining to each construct. Table 4.17 below aims to highlight the correlations found between the constructs over the entire sample.

Table 4.17 Construct correlations – whole sample

	C1	C2	C3
Construct 1	1.00	0.79*	0.69*
Construct 2		1.00	0.63*
Construct 3			1.00
* Marked correlation significant at > 0.5			

Table 4.17 above illustrates that there is correlations between the constructs that implicates that relations can be found between the constructs. Swanepoel *et al.* (2006:106) state that a positive linear relationship is found when the correlations between the constructs is above 0.00, hence, there is a positive linear relationship found between all the constructs, as all the values are above 0.00 (value > 0.00). The strength of the relationship is determined on the basis of the correlation value calculated with each construct, the relationships strength can vary from small, which is represented by a value between 0.10 to 0.29, medium, which is represented with a value between 0.30 and 0.49 and large, which is represented with a value between 0.50 and 1.0 (Pallant, 2007:132). Consequently, as the correlation values of all the constructs are between the ranges of 0.50 and 1.00, large relationship strengths can be found between all these constructs. However, the largest relationship strength calculated in this study is between Construct 1 and Construct 2, indicating a correlation value of 0.792. This indicates that there is a potentially strong relationship between these two constructs and, therefore, Sample A and Sample B need to provide equal attention to both these constructs.

4.7 HYPOTHESES TESTING

A hypothesis is defined as an assumption made by the researcher on some characteristic of the population being measured, whereby significance tests are conducted as a form of evidence (Proctor, 2000: 239). Generally, two forms of hypotheses can be made, first a null hypothesis and secondly an alternative hypothesis. A null hypothesis has no difference or effect on the characteristics being measured, whereas an alternative hypothesis has a difference or effect on the characteristics being measured (McDaniel & Gates, 2001:415).

The hypotheses testing thus involved a comparative analysis, in the form of z-tests, to be conducted in order to determine the degree of difference, or no difference, on the two sample

groups of this study. The comparative analysis was used to examine if there was a difference, or not, between the undergraduate students' perceptions of service quality of the respective HEIs' faculties. A comparative analysis was conducted to determine if there was a difference, or not, between the first- and third- year undergraduates students perceptions of service quality pertaining the two HEIs faculties respectively.

In order to determine whether there were any statistically significant differences found between the sample groups at subject, significance test were conducted. According to Kolb (2008:259), significance tests are represented by a significance level that are traditionally set at 5 percent, that is, $\alpha = 0.05$. In addition, the decision rules applicable are as follows (Pallant, 2007:235):

If P-value > α, then conclude Ho
If P-value ≤ α, then conclude Ha

In addition to the significance tests undertaken, Cohen's D calculations were computed in order to determine whether there were any practically significant differences in the construct means between the two sample groups tested in the main survey questionnaire. Pallant (2007:208) states that Cohen's D calculations use the standard deviation units to present the difference between groups. Moreover, Cohen's D calculations involve the determination of an effect size. According to Iacobucci and Churchill (2010:408), an effect size is determined by measuring the difference between the assumed value under the null hypothesis and the true unknown value. In order to determine the strength of the various effect sizes, the guidelines are as follows (Pallant, 2007:208):

- $0.20 \leq d < 0.50$ – small effect, practically non-significant;
- $0.50 \leq d < 0.80$ – medium effect, points towards being practically significant;
- $0.80 \leq d$ – large effect and the results are practically significant.

The following sections present the results of the findings on the comparative tests undertaken in order to determine the statistical and practical significance of the differences found between the two sample groups.

4.7.1 Comparison between Sample A and Sample B

There were two hypotheses developed in order to determine the statistical significant differences of the constructs on the undergraduate students' perceptions of service quality between the two faculties of the respective HEIs. These hypotheses are as follows:

Ho_1: There is no significant difference between the constructs on the undergraduate students' perceptions of service quality regarding the two faculties of each HEI.

Ha_1: There is a significant difference between the constructs on the undergraduate students' perceptions of service quality regarding the two faculties of each HEI.

Table 4.18 below aims to highlight the mean scores of the three constructs associated with the two sample groups of this study namely, Sample A and Sample B. The mean values of the two separate samples were obtained from the group statistics of the z-tests that were conducted. The P-value reported on in this table denotes the significance, 2-tailed values, that were obtained in the independent samples test of z-test for equality of the means.

Table 4.18 Mean construct scores: Sample A and Sample B

	N Sample A	N Sample B	Mean Sample A	Mean Sample B	P-value	Cohen's D
Construct 1	288	363	3.627	3.005	0.00*	0.97#
Construct 2	288	363	3.522	2.924	0.00*	0.78#
Construct 3	288	363	3.710	2.870	0.00*	0.92#

* Statistically significant at $p < 0.05$
\# Large effect, practically significant
** Small effect, practically non-significant
*** Medium effect and moving towards practical significance

In Table 4.18 above, it can be seen that the P-values for Constructs 1, 2 and 3 were proved statistically significant for Sample A and Sample B, as the P-values reflected were below the recommended value of 0.05. For Construct 1 (requisite variables), a P-value of 0.00 was

released, thus confirming a statistically significant difference between the two samples, as P-value $\leq$ 0.05. For Construct 2 (acceptable variables) and for Construct 3 (functional variables), the same effect was achieved as a P-Value of 0.00 was obtained for both samples, whereby a statistically significant difference is found, as the P-value $\leq$ 0.05. As the results of these three constructs depict for the two sample groups, the null hypothesis, Ho1 hypothesis is rejected and the alternative hypothesis, Ha1 hypothesis is concluded upon, owing to the P-values that lend support to the Ha1. In other words, a statistically significant difference is found between the two sample groups respective faculties, pertaining to the three constructs of the undergraduate students' perceptions of service quality.

As a 95 percent confidence interval confirms the Ho1 being rejected, it can be inferred that, across the three constructs measured, the undergraduate students' perceptions of the faculties service quality differs between the responses obtained in Sample A and the responses obtained in Sample B.

As represented in Table 4.18, Cohen's D calculations were conducted in order to determine the practically significant differences found between Sample A and Sample B. As the P-values calculated for each of the three constructs were statistically significant, Cohen's D calculations could be conducted on all three constructs. For Construct 1 (requisite variables), the effect size was 0.97. For Construct 2 (acceptable variables) and Construct 3 (functional variables), the effect sizes were calculated at 0.78 and 0.92, respectively. Thus, all three constructs returned large effect sizes, which were practically significant.

Therefore, the differences between the mean scores are both statistically and practically significant for all three constructs compared between Sample A and Sample B.

4.7.2 Comparison between first- and third- year students

There were two hypotheses developed in order to determine the statistical significant differences of the constructs on the first-year undergraduate students' perceptions of service quality and the third-year undergraduate students' perceptions of service quality between the two respective HEIs. These hypotheses are as follows:

Ho_2: There is no significant difference between the first year and third year undergraduate students' perceptions of service quality, regarding the two HEIs.

Ha_2: There is a significant difference between the first year and third year undergraduate students' perceptions of service quality, regarding the two HEIs.

Table 4.19 outlines the mean scores obtained for three constructs measured coupled with the first- and third- year undergraduate students' perceptions of service quality, across the whole sample of this study. The mean values reported on within this table denote the group statistics scores, as obtained in the z-tests. In addition, the P-value refers to the significance, 2-tailed, values as returned by the independent samples test of the z-test for equality of means.

Table 4.19 Mean construct scores: First- and Third- year undergraduate students

	N Year 1	N Year 3	Mean Year 1	Mean Year 3	P-value	Cohen's D
Construct 1	204	196	3.561	3.130	0.00*	0.64***
Construct 2	204	196	3.462	3.045	0.00*	0.52***
Construct 3	204	196	3.490	3.100	0.00*	0.42**

* Statistically significant at $p < 0.05$
\# Large effect, practically significant
** Small effect, practically non-significant
*** Medium effect and moving towards practical significance

As can be seen from Table 4.19, Constructs 1, 2 and 3 were proved to be statistically significant for the first- and third- year undergraduate students perceptions pertaining to the two HEIs, as the reported P-values were below the suggested level of 0.05, that is P-value $\leq$ 0.05. For Construct 1 (requisite variables), Construct 2 (acceptable variables) and Construct 3 (functional variables), the P-values returned were all the same, respectively, at a value of 0.00, consequently confirming a statistically significant difference between the first- and third- year undergraduate students' perceptions pertaining to the entire sample, since the p-

value ≤ 0.05. Therefore, as the P-value lends more support to the Ha2 hypothesis, the Ho2 hypothesis can be rejected.

Accordingly, it can be inferred that across the three constructs measured, the first-year undergraduate students' perceptions of service quality pertaining to both the HEIs differ from the third-year undergraduate students' perceptions of service quality pertaining to both the HEIs. In accordance to this statement, a 95 percent confidence index was assured on the Ho2 hypothesis being rejected.

Cohen's D calculations were employed in order to determine whether there were any practically significant differences found on the three constructs, between the first and third year undergraduate students perceptions pertaining to the two HEIs. As represented by Table 4.19, the P-values on each of the three constructs were statistically significant, thus enabling the Cohen's D calculations. For Construct 1 (requisite variables) and Construct 2 (acceptable variables), an effect size of 0.64 and 0.52 was returned, respectively. Consequently, these two constructs represent a medium effect that is moving towards practical significance. For Construct 3 (functional variables), a small effect size was recovered (0.42), implicating non-significance.

4.8 SYNOPSIS

This chapter represented the results found in the research section of this study. The first section (Section 4.2) presented the results found within the pilot test of this study. These results were presented in terms of reliability and validity analysis. The results of the pilot study laid the foundation for a preliminary data analysis (Section 4.3) to be conducted in the form of tabulation and coding. The following section, Section 4.4, illustrates the results obtained from the final survey questionnaire on the demographical information. The results on the demographical data pertain to the two sample groups analysed in the main survey questionnaire. Section 4.5 provided the results obtained from the descriptive analysis conducted on the main survey questionnaire. Specifically, these descriptive analysis techniques included the measures of central tendency, related to the mean, median and mode, and the measures of location, related to standard deviation, skewness and kurtosis.

Moreover, this section highlighted the results obtained from the reliability and validity analysis techniques conducted on the main survey questionnaire.

Section 4.6 of this chapter was applied in order to determine whether there were any correlations on the three constructs employed within this study. Lastly, in Section 4.7, the results obtained from the z-tests conducted are depicted. These tests were employed in order to test the hypotheses created for the study, in terms of whether a difference could be found in the students perceptions of service quality delivered by each HEI and whether a difference could be found between the first- and third- year students perceptions of service quality.

The following chapter, Chapter 5, is constructed by means of an overview of the study, contributions of the study, recommendations, limitations and futures research opportunities. In addition, this chapter provides an overall conclusion made on the study. The inputs of this chapter are in accordance to the insights gained over the previous chapters.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

South African HEIs have had to come to terms in dealing with increased pressures flowing from an increased level of local and global competition. Increasing competition on South Africa's HEIs front has made HEIs aware of the importance of building and sustaining a suitable competitive advantage. In addition, South Africa's economy, together with the world economies, has witnessed changing circumstances in relation to consumers' needs, tastes and preferences. In this light, service quality has been recognised as a means to meet these challenges.

As service industries play an important role in many economies around the world, the significance of providing an adequate level of service quality has emerged. HEIs are called upon to account for the quality of services they provide. Owing to service quality being a key strategic issue and a pervasive strategic force, the methods deployed in measuring service quality is of concern. Traditionally, HEIs have used measures to account for the academic standards they provide, together with accreditation and performance indicators of teaching and research. However, from a view of HEIs' primary consumers, measures to account for the students' perceptions of service quality have to be accounted for. HEIs need to concentrate their attention on what the students feel is important in delivering the service. In measuring service quality from the perceptions students hold, HEIs will be able to improve the service delivery process and thus sustain consumer loyalty and, build a competitive advantage.

The main objective of this chapter is to provide suitable conclusions and recommendations based on the inputs of the four previous chapters. In Section 5.4, the recommendations are provided on a view of the three individual constructs that underlie the service quality dimensions. In addition to this section, a recommended implementation approach is given. This section is then followed by the study's limitations and future research opportunities, as indicated by Section 5.5. Section 5.4 and Section 5.5 were provided against the background

of an overview of this study (Section 5.2) and the contributions made by the study (Section 5.3).

5.2 OVERVIEW OF THE STUDY

In order to provide balanced recommendations on this study, it is necessary to include the insights gained over the four previous chapters. The primary objective of this study, as formulated in Chapter 1, is reviewed in Section 5.2.1, followed by the theoretical objectives in Section 5.2.2 and the empirical objectives in Section 5.2.3.

The main purpose of indicating Chapter 1 was to introduce this study, and to provide the reader with the problem statement. However, Chapter 1 was also used to supplement the objectives formulated for the study and to present the design of the study. The theoretical objectives of this study were explained in Chapter 2. These theoretical objectives included an introduction to services (Section 2.2), full discussions on services marketing (Section 2.3), and service quality (Section 2.4). Section 5.2 provided an overview of the various service quality models. Chapter 3 described the research methodology used within this study, with regard to the research objectives and research design (Section 3.2), the data requirements (Section 3.3), the research instrument (Section 3.4), the development of a sample plan (Section 3.5) and the statistical analysis techniques used (Section 3.6). The analysis and interpretation of the empirical findings were discussed in Chapter 4. The results of this chapter were in accordance to the empirical objectives formulated for the study, as revised in Section 5.2.3 below.

The objectives of the study were stated as follows:

5.2.1 Primary objective

The primary objective of the study was to investigate the undergraduate students' experiences in order to provide a comparative view of the undergraduate students' perceptions of service quality at two selected South African HEIs.

5.2.2 Theoretical objectives

In order to achieve the primary objective, the following theoretical objectives were formulated for the study:

- Outline the fundamental principles of service marketing.
- Conduct a review of the relevant service quality literature.
- Outline the importance of service quality.
- Conduct a review of the relevant literature pertaining to the different service quality models.

5.2.3 Empirical objectives

In accordance with the primary objective of the study, the following empirical objectives were formulated:

- Investigate undergraduate students' perceptions of service processes of the faculty that influence and contribute to the students' overall experiences.
- Investigate undergraduate students' perceptions of the interpersonal factors of the faculty that influence and contribute to the students' overall experiences.
- Investigate undergraduate students' perceptions of physical evidence of the faculty that influence and contribute to the students' overall experiences.
- Compare the service quality of the two HEIs' faculties included in the study.
- Compare the first- and third- year students' perceptions of service quality.

The main conclusion drawn from this study, in respect of the primary objective, is that there is a significant difference between the undergraduate students' perceptions of service quality, investigated between the two respective faculties pertaining to each separate HEI. Thereby implicating that, the two HEIs need to focus on improving the level of service quality currently being delivered.

5.3 CONTRIBUTIONS OF THE STUDY

HEIs committed to providing service quality need to measure service quality continuously in order to stay abreast with the consumers' changing needs, tastes and preferences. Policies should be implemented in order to document students' experiences in a systematic way that enables year-on-year comparisons. In this sense, quality issues may be addressed.

In order to remain relevant, HEIs need to focus on the level of service quality expected from students. In determining the level of service quality to provide, a clear and concise meaning of service quality applicable to the HEIs specific circumstances should be developed. Through measuring students' perceptions of service quality at two HEIs, this study offers a balanced view whereby a comprehensive model was used to focus on the distinct characteristics of the higher education sector. In addition, this study provides a balanced view in that the questionnaire was designed specifically from the students' perspective, in order to gain deeper insights to their true experiences. To this end, this study contributes to undergraduate students' experiences at HEIs by identifying a comprehensive inventory of important aspects within the framework of service quality. The perceptions students hold on service quality together with the suggested implementation method can be used to guide the integration of these variables into HEIs.

With competition fiercely affecting HEIs processes of delivering a quality service, HEIs are explicitly being counted on to demonstrate educational and service quality. To this end, this study may guide HEIs in establishing policy objectives to enhance service quality, as well as in defining policy strategies to improve service quality in the higher education sector.

In large and complex industries such as HEIs, small units often work in isolation to one another and more often than not, the departments do not share information and ideas with one another (Oldfield & Baron, 2000). The operational and strategic managers within the HEIs faculties may apply this study as a guide to minimising indifferent personnel by continuously evaluating service levels transferred within the classroom. The proposed recommendations based on the students' experiences may assist operational and strategic managers in providing an environment for the academic staff members that is conductive to teaching and learning.

At the academic staff level, this study may contribute in assisting teaching and learning in the classroom to be directly responsive to the students' perceptions of service quality.

This study has confirmed that the SERVPERF model is a suitable model to use in measuring undergraduate students' perceptions of service quality. To this extent, the approach and methodology employed within this study may be followed by other HEIs.

Section 5.4 is aimed at providing recommendations to enhance the HEIs' service quality levels.

5.4 RECOMMENDATIONS

In order to provide a balanced set of recommendations with applicable strategies, this section has incorporated the inputs of all the previous chapters, specifically Chapter 2, together with the results obtained from the statistical analysis techniques composed on both the sample groups, namely, Sample A and Sample B.

In Chapter 2, the SERVPERF Model, together with the three constructs that underlie the model (refer to Table 2.1), were discussed in detail. These three constructs formed the basic constructs applied in this study in order to measure the undergraduate students' perceptions of service quality. These constructs are known as the requisite construct (refer to Section 2.5.4), the acceptable construct (refer to Section 2.5.4) and the functional construct (refer to Section 2.5.4). In line with the empirical objectives of this study, these three constructs are directly related to the three dimensions of service quality, namely, service processes, interpersonal factors and physical evidence.

The findings of this study, as discussed in Chapter 4 (refer to Section 4.5.4), indicate that the majority of the respondents of Sample A have had positive experiences on the level of service quality delivered by the concerned HEI. Thus, Sample A needs to concentrate on the variables pertaining to each construct in order to maintain the satisfactory level of service quality delivered. In contrast, the results of this study revealed that the respondents of Sample B have had approximately equal positive and negative experiences on the level of service quality delivered by the concerned HEI. As such, Sample B needs to pay particular

attention to improving the level of service quality delivered by concentrating on the variables pertaining to each construct.

It is recommended that the following variables, pertaining to the requisite construct (refer to Section 2.5.4), acceptable construct (refer to Section 2.5.4) and functional construct (refer to Section 2.5.4), together with the suggestions on each variable, be included in the HEIs service policy objectives and strategies.

The following section provides recommendations based on the variables pertaining to these three constructs.

5.4.1 Construct 1: Requisite variables

This construct concerns itself with the items that the students view as important in the service delivery process. Further, this construct is made up of 15 variables. In order for the HEIs to enhance the level of service quality, the following suggestions on each variable need to be incorporated:

5.4.1.1 Sincere interest in solving problems

This variable refers to the administrative staff members' interest in solving students' problems. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Training administrative staff members to improve the technical and functional service process outcomes.
- Ensuring that administrative staff members are available and actively involved in solving a student's problem.
- Incorporating systems that deal with routine and repetitive tasks in order to allocate sufficient time for administrative staff members to deal with student problems.

5.4.1.2 Knowledge of needs

This variable relates to the academic staff members' understanding of a student's needs. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Training academic staff members to improve the technical and functional service process outcomes.
- Ensuring that the academic staff members are able to understand students needs.
- Ensuring channels of communication between academic staff members and students.

5.4.1.3 On-time service provision

This variable is concerned with the faculty's ability to perform the service correctly for the first time. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Improving the technical and functional service process outcomes.
- Creating effective systems to improve service processes.
- Service standardisation.
- Ensuring that the faculty and staff members work together in providing the service accurately.

5.4.1.4 Efficient/punctual dealing with queries

This variable refers to the staff members' ability to provide efficient and prompt service when dealing with a student's query. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Providing internal training opportunities to ensure staff members are knowledgeable and have the capability to efficiently deal with a student's request.
- Motivating staff members to think, operate, take action and make decisions.

- Ensuring that staff members are actively involved in the service delivery process.
- Providing staff members with the necessary equipment to be effective and efficient in dealing with a student's request.

5.4.1.5 Responding to a request for assistance

This refers to a situation where the administrative staff members are never too busy to respond to a student's request for assistance. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Creating service standardisation.
- Incorporating systems that deal with routine and repetitive tasks to enable adequate time for administrative staff members to assist students.
- Ensuring that the administrative staff members are actively involved in the service delivery process.
- Providing students with sufficient consultation times to request assistance.
- Ensuring that these consultation times are effectively communicated to the students.

5.4.1.6 Accurate and retrievable records

This relates to the administrative staff maintaining accurate records of the students' service encounters. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Improving the technical and functional service process outcomes.
- Creating systems which maintain accurate and retrievable student records.
- Training administrative staff members to be effective in working with the implemented systems.

5.4.1.7 Timely dealing with assistance

This refers to the staff members' ability to assist a student promptly. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Motivating staff members to improve the technical and functional service process outcomes.
- Ensuring that the staff members are actively involved in the service process.
- Incorporating systems that improve service processes.
- Providing internal training to ensure that staff members have the knowledge and confidence in presenting a student with assistance.

5.4.1.8 Knowledgeable in service provision

This relates to the academic staff members' knowledge on the service processes, course provisions and course materials. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Ensuring academic staff members have suitable knowledge on the HEIs service processes, visions, missions, goals and policies.
- Providing internal training in order to ensure that academic staff members have sufficient knowledge on the service processes, course provisions and course materials.
- Providing the academic staff members with the opportunity to attend workshops and conferences on the service processes, course provisions and course materials.
- Providing training opportunities for academic staff members to apply appropriate interpersonal skills in the service delivery process.

5.4.1.9 Promises kept

This refers to the support services of the service organisation's ability to keep promises and to provide the service in the manner and time it promised to do so. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Improving the technical and functional service process outcomes.
- Ensuring support services of faculty have the ability to deliver the service in the manner promised.
- Avoiding over promising and under delivering or under promising and over delivering.
- Implementing systems which enable support services to improve service processes.

5.4.1.10 Attention to having a considerate disposition

This variable refers to the academic staff members' portrayal of a caring attitude towards the students. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Providing training opportunities for academic staff members to integrate the service offering with interpersonal skills.
- Ensuring academic staff members demonstrate high service quality to the students through having a caring attitude.
- Generating positive attitudes in the service environment.

5.4.1.11 Appealing physical facilities

This variable relates to whether the physical facilities (buildings and surrounding) are visually appealing to the students. In order to improve service quality on this variable, the HEIs need to concentrate on:

- Improving the physical elements to the environment in which the service is delivered.
- Ensuring front-line staff members demonstrate a quality service through physical elements and presentation.

5.4.1.12 Attractive materials associated with service delivery

This relates to whether the materials (signs, notices) displayed with the service delivery are attractive for the students. In order to improve service quality on this variable, HEIs need to concentrate on:

- Improving the physical elements to the environment in which the service is delivered.
- Ensuring front-line staff members demonstrate a quality service through physical elements and presentation.
- Providing staff members with up-to-date technology in order to deliver the service offering efficiently.

5.4.1.13 Staff's professional appearance/image

This relates to the academic staff members' appearance and professionalism. In order to improve service quality on this variable, HEIs need to concentrate on:

- Ensuring the academic staff members are neat and smart in appearance.
- Motivating academic staff members to attend training opportunities provided in order to integrate professionalism into the service offering.
- Creating a standardised level of professionalism among academic staff members.

5.4.1.14 Feeling secured with processes

This variable relates to whether students feel secure in the service processes made with the service organisation. In order to improve service quality on this variable, HEIs need to concentrate on:

- Improving the technical and functional service process outcomes.
- Integrating service processes in support of students needs and confidentiality.

5.4.1.15 Feeling confident in staff

This variable relates to whether students feel confident with the service organisation's staff members. In order to improve service quality on this variable, HEIs need to concentrate on:

- Ensuring staff members are actively involved in the service process.
- Ensuring staff members demonstrate high service quality to the students.
- Ensuring that the faculty and staff members work together to provide a uniform consumer experience.
- Providing internal and external training to ensure staff members are knowledgeable and acquire the skills to efficiently deliver the service.

5.4.2 Construct 2: Acceptable variables

This construct consists of seven variables and is concerned with the items that students view as desirable. However, these items are not essential in enabling students to complete their study obligations. In order for HEIs to enhance the level of service quality, the following suggestions on each variable need to be incorporated:

5.4.2.1 Responding to request for assistance

This refers to a situation where the academic staff members are never be too busy to respond to a student's request for assistance. In order to improve service quality on this variable, HEIs need to concentrate on:

- Creating service standardisation.
- Incorporating systems that deal with routine and repetitive tasks in order to allocate sufficient time for academic staff members to assist students.
- Ensuring that the academic staff members are available and actively involved in the service delivery process.
- Providing students with sufficient consultation times to request assistance.
- Ensuring that these consultation times are effectively communicated to the students.

5.4.2.2 Willingness to help students

This refers to the academic staff members who are willing to help students. In order to improve service quality on this variable, HEIs need to concentrate on:

- Motivating academic staff members in improving the technical and functional service process outcomes.
- Ensuring academic staff members are actively involved in the service delivery process through having a willingness to help students.
- Providing training opportunities for academic staff members to have the skills and knowledge required to help students.
- Motivating academic staff members to be willing to assist students.

5.4.2.3 Giving individualised attention

This refers to the academic staff members' ability to provide students with individual attention. In order to improve service quality on this variable, HEIs need to concentrate on:

- Ensuring academic staff members allocate sufficient consultation times to provide students with individual attention.
- Providing a standardised service together with a sense of customisation.
- Providing training opportunities for academic staff members to manage the individual consumers' experience confidently.

5.4.2.4 Sincere interest in solving problems

This variable refers to the academic staff members' interest in solving a student's problem. In order to improve service quality on this variable, HEIs need to concentrate on:

- Training academic staff members to improve the technical and functional service process outcomes.
- Ensuring that academic staff members are actively involved in solving a student's problem.
- Incorporating systems that deal with routine and repetitive tasks to enable adequate time for academic staff members to deal with student problems.

5.4.2.5 Willingness to help students

This refers to the administrative staff members who are willing to help students. In order to improve service quality on this variable, HEIs need to concentrate on:

- Motivating administrative staff members in improving the technical and functional service process outcomes.
- Ensuring administrative staff members are actively involved in the service delivery process through having a willingness to help students.
- Providing training opportunities for administrative staff members to be knowledgeable and have the skills required to help students.

5.4.2.6 Providing services within a reasonable time

This refers to the service organisation providing a service to the student, in the time one might reasonably expect. In order to improve service quality on this variable, HEIs need to concentrate on:

- Improving the technical and functional service process outcomes.
- Creating effective systems to improve routine processes.
- Service standardisation.
- Ensuring that HEIs, faculties and staff members work together in providing the service in the time the student may expect.

5.4.2.7 Equal treatment and respect

This relates to all the staff members being consistently courteous to the students. In order to improve service quality on this variable, HEIs need to concentrate on:

- Ensuring that staff members are polite and courteous to students.
- Creating service standardisation in order to maintain a level of consistency.
- Establishing positive emotions for staff members in the service environment.

5.4.3 Construct 3: Functional variables

This construct was one with the least variables employed, as it only consisted of three variables. The variables within this construct relate to the practical or serviceable environment in the service delivery process. In order for the HEIs to enhance the level of service quality, the following suggestions on each variable need to be incorporated:

5.4.3.1 Convenient opening hours

This refers to the service organisation's ability to provide convenient opening hours for the students. In order to improve service quality on this variable, HEIs need to concentrate on:

- Improving the process of service delivery and the outcome of the service process.
- Effectively communicating the operating hours of the HEI to the students.

5.4.3.2 Up-to-date equipment

This refers to whether the service organisation is using use up-to-date equipment to service students' needs. In order to improve service quality on this variable, HEIs need to concentrate on:

- Improving the physical elements to the environment in which the service is delivered.
- Providing staff members with up-to-date equipment in order to simplify and improve the service offered to consumers.

5.4.3.3 Providing service within promised time

This refers to the service organisation's ability to provide a service to students, in the time it promised to do so. In order to improve service quality on this variable, HEIs need to concentrate on:

- Improving the technical and functional service process outcomes.
- Creating effective systems to improve routine processes.
- Service standardisation.

- Ensuring that the HEI, faculty and staff members work together to provide a uniform consumer experience.
- Avoiding over promising and under delivering or under promising and over delivering.

In addition to the proposed suggestions made on construct 1, construct 2 and construct 3, HEIs may also refer to the Gap Analysis Model (Section 2.5.2). Specifically, HEIs may apply the recommended strategies to close Gap 2 (Section 2.5.2.2), Gap 3 (Section 2.5.2.3) and Gap 4 (Section 2.5.2.4).

In order for the two HEIs to use service quality as a competitive tool, the above recommendations on each of the separate constructs will assist in building a competitive advantage. However, as competition in the HEIs market is fierce, it is also recommended that particular attention be paid to student attraction and student retention.

5.4.4 Recommended implementation approach

As it would seem reasonable for the HEIs to provide superior service quality on the three constructs identified in this study, particular attention should be paid to allocating their resources according to the most important attributes of service quality identified by the undergraduate students. This implies that HEIs should continuously measure the undergraduate students' perceptions of service quality, and they should try meeting their requirements. However, the HEIs should not manage the three constructs in isolation to one another, as prioritising one construct and ignoring the other two constructs may have a negative effect on undergraduate students' overall perceptions of service quality. Therefore, indicating that the three constructs have a collective effect on each other in the establishment of the undergraduate students' perceptions of service quality.

The implementation approach, based on students' experiences of service quality, may be recommended at micro, intermediate and macro levels. The micro level incorporates recommendations based to the staff members of each HEI. At this level, the academic staff members should proactively provide the services in line with the students' perceptions.

The implementation approach recommended on the intermediate level involves recommendations made to the HEIs' specific faculties. These recommendations may be most beneficial to the operational and strategic managers of each faculty. At this level, it is recommended that operational and strategic managers should ensure that academic programme design, syllabus formulation and content design meet the service quality standards of the said HEI. The managers of each faculty should continuously measure the level of service quality offered to the students in order to identify the areas within the service processes that need further improvements. As such, the managers will be able to prioritise the dimensions of service quality most relevant to the specific circumstances and thus direct efforts and limited resources to improving the quality of services. The managers of each faculty should consider meeting personnel and infrastructural requirements based on students' experiences of service quality.

The recommendations based on the macro level refer to the institutional level. At this level, HEIs should be involved in quality improvement planning and additional measures should be undertaken in order to ensure continuous self-evaluations on the level of quality offered. In order to be effective, service quality should be incorporated in the HEIs' service processes, vision, mission, institutional plan, campus and faculty plans, performance agreements and performance evaluations. Students should be placed at the heart of the service processes. This implies that from the outset, institutions should ensure that service policy frameworks acknowledge students' diverse characteristics, circumstances and learning needs in order to offer them quality service. Policy formulation and strategy development should be directed in transcending short-term realities and interests to invest in service quality. Through investing in service quality policies, institutions will be able to create a sufficient understanding of students' experiences. In creating an understanding of the students' experiences, institutions will be able to comprehensively market themselves and communicate service quality to potential consumers. In order to match students' experiences of services quality, institutions need to exercise hiring competent managers within each faculty.

5.5 LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This study has provided comparative views on the students' perceptions of service quality on two faculties pertaining to separate HEIs. Further, this study also aimed at providing a comparative view between the first-year and third-year students' perceptions of service quality. On a basis for future research opportunities, qualitative research can be undertaken in order to determine why students have these perceptions, and why these perceptions differ across the years, and across the various HEIs. A full examination, comparison and in-depth analysis would be useful in determining why students' perceptions of service quality differ from the first-, second- and third-year cases. In addition, the qualitative research will also provide an indication of the importance of technical and functional service quality.

This study was limited in that it only provided comparative views on the two specific HEIs located within the same region, and only one specific faculty of each HEI was evaluated, namely, the faculty of economic/management sciences. This study can be adopted to discover whether the same constructs are recovered in other HEIs, or across various HEIs, and across different faculties within HEIs. Moreover, the results of this sort of evaluation will give an indication as to whether students' perceptions differ, or not, from this study, and can be used to enhance this study or it can be used in a comparative sense.

This study was further limited in that it only evaluated full-time undergraduate students' perceptions of service quality within the specific faculty of each HEI. Opportunities exist in that the study can be replicated and further compared to the post-graduate students' perceptions of service quality and to the part-time students' perceptions of service quality. Moreover, the results of this study depicted that there was no significant difference between the male and female perceptions of service quality offered. However, the concentration of this study was not on gender differences, therefore, opportunities could be found in specifically examining the students' perceptions of service quality between the genders in order to determine whether there is a difference.

As the main concentration of this study was on HEIs, the model used was adjusted to be industry specific to the higher education sector. However, this model can be adopted and modified in order to suit any other industry. As a future research possibility, the model used

could be adopted to suit a different industry or sector, or to provide coverage across a variety of different industries. This model can also be adopted to use in other countries, such as, developing countries, third world countries and developed countries. The idea of adopting and modifying this model to suit other circumstances could be used to determine whether the results produced by this model remain consistent under different environments.

Students are viewed as the primary consumers to HEIs. Therefore, this study was limited in that it only provided views from the students' perceptions of service quality. Consequently, as HEIs are no different from any other service industries, they pose to have more consumer groups. These consumer groups can be referred to as internal consumers, employers, parents and even the general public. This model can be adopted in order to determine whether the same perceptions are found amongst the other consumer groups that HEIs are known to service.

5.6 CONCLUDING REMARKS

In the worldwide economies, competition is a significant problem facing HEIs. HEIs generally need to find ways in order to stay abreast in attracting and retaining students and in generating repeat sales, positive word-of-mouth communications, consumer loyalty and service differentiation.

Providing a quality service is seen as a means to combat the challenges currently facing HEIs, in provisions of creating a local and global competitive advantage. HEIs should continuously measure the level of service quality in order to identify any defections in the level of service quality being delivered. More importantly, HEIs should make sure that their limited resources are in line with delivering the level of service quality perceived by students' requirements.

The two HEIs respective faculties, represented by Sample A and Sample B, in this study can use the SERVPERF model as confirmed means in continuously measuring the levels of service quality. The comparative method used in this study can further guide the two HEIs' faculties in identifying the areas that need improvements in the level of service quality, as highlighted in the recommendations. In addition, other HEIs can use SERVPERF model as a

means to measuring the levels of service quality being delivered, and as a means of comparing the results to the results of this study.

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ANNEXURE A

Cover Letter

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

Students' perceptions of service quality at South African higher education institutions

Dear Student,

My name is Rita Diedericks. I am registered as a full-time student for an M.Com in Marketing Management at the North-West University (Vaal Triangle Campus) and am currently working towards my dissertation under the supervision of Dr N. de Klerk. The study is on students' perceptions of service quality at two South African higher education institutions.

Please take a few minutes to assist me and complete the attached questionnaire on students' perceptions of service quality at higher education institutions. It should not take you longer than 10 minutes to complete. All responses are anonymous and will merely be outlined in the form of statistical data in the analysis.

Thank you for your consideration in this regard. Should you wish to have any further information about the results of the study or if you have any further questions please do not hesitate to contact me.

Thank you most sincerely

Rita Diedericks

North-West University

072 687 2201

ritadiedericks@ymail.com

ANNEXURE B

Survey questionnaire – Section A

Questionnaire

THIS QUESTIONNAIRE IS CONFIDENTIAL AND ANONYMOUS

Section A: Demographical information

Please mark each question with a cross (X) in the appropriate box.

1.	Name of institution	North-West University	Vaal University of Technology

2.	Year	1st year	2nd year	3rd year

3.	Gender	Male	Female

4.	Race	African	Asian	Coloured	White
		Other (please specify):			

ANNEXURE C

Survey questionnaire – Section C

Section B: Questionnaire

This section deals with the perceptions you have on the level of service quality currently being delivered to you by your University's **Faculty of Economic/Management Sciences**. Please rate your perceptions on a scale of 1-5, whereby 1= Strongly disagree and 5= Strongly agree by encircling the corresponding number.

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
B1	When I have a problem, the administrative staff of this faculty show a sincere interest in solving it	1	2	3	4	5
B2	Academic staff of this faculty understand the needs of their students	1	2	3	4	5
B3	Services delivered by this faculty are performed right the first time	1	2	3	4	5
B4	Queries are dealt with efficiently and promptly by this faculty	1	2	3	4	5
B5	Administrative staff of this faculty are never too busy to respond to a request for assistance	1	2	3	4	5
B6	Administrative staff of this faculty keep accurate records	1	2	3	4	5
B7	I am dealt with promptly when requesting assistance from this faculty	1	2	3	4	5
B8	Academic staff of this faculty have the knowledge to answer my questions relating to course provision	1	2	3	4	5
B9	When the support services of this faculty promise to do something by a certain time they do so	1	2	3	4	5
B10	Academic staff of this faculty deal with me in a caring	1	2	3	4	5

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	fashion					
B11	The physical facilities of this faculty are visually appealing (i.e. building and surroundings)	1	2	3	4	5
B12	Materials associated with course delivery offered by this faculty (such as study guides, notices, notice boards, signs) look good and attractive	1	2	3	4	5
B13	Academic staff of this faculty dress smartly and are neat in appearance	1	2	3	4	5
B14	I feel secure in my transactions with this faculty	1	2	3	4	5
B15	This faculty employs staff in whom I have confidence	1	2	3	4	5
B16	Academic staff of this faculty are never too busy to respond to a request for assistance	1	2	3	4	5
B17	Academic staff of this faculty always show a willingness to help students	1	2	3	4	5
B18	Academic staff of this faculty are willing to give students individual attention	1	2	3	4	5
B19	When I have a problem, academic staff of this faculty show a sincere interest in solving it	1	2	3	4	5
B20	Administrative staff of this faculty always show a willingness to help students	1	2	3	4	5
B21	This faculty provides its services within the time one might reasonably expect	1	2	3	4	5
B22	All staff of this faculty are consistently courteous to me	1	2	3	4	5

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
B23	The opening hours of this faculty are convenient for me	1	2	3	4	5
B24	This faculty has up-to-date equipment	1	2	3	4	5
B25	This faculty provides its services at the time it promises to do so	1	2	3	4	5

Would you recommend this University to someone else? Please motivate your answer.

Thank you for your cooperation