Customer perception of service quality at the Business Studies Unit of the Durban University of Technology

By

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Submitted In Partial Fulfilment of the Requirements for the Degree

Of

Masters in Business Administration

**Business Studies Unit, Faculty of Management Sciences,
Durban University of Technology**

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November 2008

SUPERVISOR'S APPROVAL

Whom It May Concern:

Approval for submission

This research project has been reviewed by the undersigned and permission is hereby granted for submission for examination.

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Dr. J. P. Govender

DECLARATION

This work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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This dissertation is being submitted in partial fulfilment of the requirements for the degree of Masters in Business Administration.

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This dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledges by giving explicit references. A references list is appended.

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ACKNOWLEDGEMENTS

I thank my Lord and Saviour Jesus Christ for giving the strength throughout my studies. "I can do all things through Christ who strengthens me" (Phil 4.13).

I wish to express my gratitude and appreciation to my colleagues:-

Eureka Francis, thank you for your continued support throughout my years of study;

Senbie Pillay and Shamla Moodley, thank you for your words of inspiration, continued support and encouragement; and

Vimla Mariemuthoo, your support is beyond compare.

I also wish to thank Dr. J. P. Govender, my supervisor, for his professional support, encouragement and advice in completing my dissertation.

Finally, to my family, Tony, Shanelle and Bradley, thank you for your continuous support and encouragement.

DEDICATION

This dissertation is dedicated to my late dad Mr. Krishan Davsarang.

THANK YOU FOR BEING MY INSPIRATION

ABSTRACT

Customer satisfaction is the key ingredient to the success of any business. This is the most important factor that creates loyal customers. Presently, organisations are attempting to obtain increased customer satisfaction by focusing on the quality of their products and the service provided. Students were identified as customers of HEI's.

This research focuses on the determination of customer perception of service quality at the Business Studies Unit (BSU) of the Durban University of Technology. The objectives were: to identify expectations of students of the BSU; to identify the perceptions of students of the BSU and to measure and compare the expectations and perceptions of students using the SERVQUAL score.

Customer perceptions were determined by means of a quantitative survey conducted at the BSU lecture venues using the self-administered SERVQUAL questionnaire. One hundred and ninety five respondents were surveyed. Data was analysed using descriptive and inferential statistics. The questionnaire measured students' expectations and perceptions in five dimensions of service that consists of tangibles, reliability, assurance, responsiveness and empathy.

The results demonstrated that in each of the five SERVQUAL dimensions, there was a negative quality gap. The largest gap was in the tangibles dimension. Also, there were significant differences between perceptions and expectations of students in all of the five SERVQUAL dimensions ($p < 0.001$)

Improvements are needed across all five dimensions. Results have shown that students' perception of service quality at the BSU falls below their expectations, presenting a great challenge to the institution. In order to improve service quality, it is recommended that the BSU regularly assesses employees, as well as customers' experiences and provide prompt feedback.

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List of Abbreviations

BSU   Business Studies Unit

CHE   Council of Higher Education

DUT   Durban University of Technology

HEI   Higher Education Institution

HE   Higher Education

HEQC   Higher Education Quality Committee

QPU   Quality Promotions Unit

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION TO THE STUDY

Customer satisfaction is the key ingredient to the success of any business. This is the most important factor that creates loyal customers. Presently, organisations are attempting to obtain increased customer satisfaction by focusing on the quality of their products and the service provided.

Higher education is increasingly being recognised as a service industry and, as a sector, is placing greater emphasis on meeting the expectations and needs of its participating customers, that is, the students (Cheng & Tam, 1997:22). In response to this recognition, higher education institutions (HEIs) are, therefore, devoting considerable time and resources to enhance the quality of their courses, as perceived by their students.

It is important for an organisation to clearly identify its current and potential customers, because failure to identify them correctly results in wasted efforts and even failures in the entire quality initiative (Sirvanci, 1996:99). In order for the total quality philosophy to have a lasting impact on change and quality improvement in HEIs, it is important that educational institutions have the right customer focus.

Identifying the customers of the Business Studies Unit (BSU) is important in order to know how to proceed in establishing a feedback mechanism. Establishing a feedback mechanism is accomplished through a systematic, factual collection of data from customers so that the BSU can establish whether or not its service provision is efficient. This information would then be used for the purpose of continuous improvement.

The aim of the Business Studies Unit is to provide occupationally directed skills programmes, learnerships and qualifications to people at work. The education

and training is flexible and responsive to the dynamic requirements of a democratic South Africa. Its focus is lifelong learning that is relevant, practical and credible. The BSU constantly strives for excellence in the delivery of its product and service (BSU brochure).

1.2 PROBLEM STATEMENT

Increased competitiveness in the marketplace in which HEIs function has been one of the main reasons why quality service and customer care have become of great importance. In order to retain and expand market share, high quality service must be rendered.

Selecting an educational institution is the first step the student undertakes in the educational process of higher education. Any declining student numbers, as well as increased competition, should thus be of major concern to an HEI.

Also, in the preamble to the Higher Education Act (Act no. 101 of 1997) (South Africa, 1997) as enacted in South Africa, the Council on Higher Education (CHE) points out the desirability of pursuing excellence and realising the full potential of every student and functionary involved in Higher Education (HE). Consequently, since 1997, quality assurance in HE has been the main function of the higher education quality committee (HEQC) of the CHE. Furthermore, in terms of the above-mentioned Act, it is also incumbent of institutions of HE in South Africa to ensure that internal and external quality assurance mechanisms are in place in such institutions. This assurance ought to be reflected in all activities, including the development and delivery of programmes. Programmes offered by HEIs must be assessed regularly and the focus should be on teaching and learning systems, as well as on processes and outcomes of HE provision.

One of the problems facing the BSU in seeking to improve service quality is that a body of meaningful performance measures does not yet exist. This study attempts to ascertain current levels of expected and perceived service quality.

1.3 RESEARCH OBJECTIVES or QUESTIONS

The aim of this study is to determine customer perceptions of service quality at the Business Studies Unit.

The objectives of this study are:

➢ To identify expectations of students of the BSU;

➢ To identify the perceptions of students of the BSU; and

➢ To measure and compare the expectations and perceptions of students of the BSU.

1.4 RATIONALE FOR THE STUDY

A large part of being a good service provider is ensuring excellent customer service satisfaction. Due to the growing number of HEIs, the BSU needs to strive to become highly competitive. If not, competition may impact on the viable continued operation of the BSU.

Service industries are playing an increasingly important role in the overall economy of many nations. In today's world of global competition, rendering quality service is a key for survival and success, and many experts concur that the most powerful competitive trend currently shaping marketing and business strategy is service quality (Zeithaml *et. al.*, 1996:32).

Since the 1980's, service quality has been linked with increased profitability, and it is seen as providing an important competitive advantage by generating repeat sales, positive word-of-mouth feedback, customer loyalty, and competitive product differentiation. As Zeithaml and Bitner (1996: 76) point out, "... the issue of highest priority today evolves understanding the impact of service quality on profit and other financial outcomes of the organisation".

As the question of quality has materialised and becomes the object of study, feedback from students as a "quality indicator" in the quality assurance process, has grown in acceptance (Walker-Garvin, 2006).

Research of this nature was of great importance to the BSU so that the BSU can implement an appropriate set of processes to continuously review and refine customer service quality.

1.5 SCOPE OF THE STUDY/DELIMITATIONS

This study focused specifically on customers of the BSU, which is a department of the University of Technology. The findings of this study will be limited to this particular BSU and may thus not be applicable to any other department of the University of Technology.

The analysis of this study is only valid for the period in which the investigation is conducted.

1.6 CONTENT OF THE STUDY

The study consists of five chapters, viz:-

Chapter 1 *Introduction and overview of the study*
Chapter one is an introduction and highlights the motivation of the study. This chapter also focuses on the purposes and rationale of the study, research objectives, problem statement and delimitations.

Chapter 2   *Literature review*
Chapter two is comprised of a review of literature on customer service and quality relating to the service industry. This chapter also enhances the problems that were identified by researchers and other experts in the field of customer service and quality.

Chapter 3   *Research Methodology*

Chapter three describes research methodology used for the study. This chapter also includes the research design, data collection, data analysis, validity and reliability.

Chapter 4   *Presentation of results*

Chapter four covers the presentation and research findings, analysis of the data and interpretation of the results from the survey in accordance with theory discussed in the literature review.

Chapter 5   *Conclusions and Recommendations*

Chapter five contains the conclusions and recommendations of the study for the Business Studies Unit and scope for further research.

1.7 CONCLUSION

In this chapter, an introduction was given to the problem and highlighted the fact that Higher Education is increasingly being recognised as a service industry and, as a sector, is placing greater emphasis on meeting the expectations and needs of its participating customers, that is, the students. The Business Studies Unit has to become highly competitive due to the growing number of HEI's. Therefore, a feedback mechanism is needed to be put in place to measure service quality.

The next chapter presents a review of literature identified by other researchers and experts in the field of customer service and quality.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter two focuses on a review of appropriate literature on service quality relating to customer service. The chapter focuses on the review of students as customers, customers' expectations and perceptions of service quality and how these factors influence customer satisfaction and service quality dimensions in organisations.

In addition, the definition of customer expectation, perceptions and benefits of service quality and the link between service quality and customer satisfaction is also discussed. The literature shows that service quality is a factor that can influence return on investment and customer loyalty to any organisation.

As previously mentioned in chapter 1, the aim of the BSU is to constantly strive for excellence for product and service. Hence, this study was conducted to ascertain customer perceptions of service quality for use in the determination of a service quality strategy for continuous improvement of customer service.

2.2 DEFINING SERVICE QUALITY

Customer service can be described as the totality of what the organisation does to add value to its products and services in the eyes of the customer. Quality is described as the measurement of how well the product or service of the organisation conforms to the customers' wants and expectations. Another way to look at this issue is to say that quality is the ability of the organisation to meet or exceed customer expectations (Brink & Berndt, 2005:46-47).

The BSU, as a service provider, will be evaluated on a similar basis and should

the BSU's perceived service exceed expected service, then students would continue to further their studies at the institution.

2.3 UNDERSTANDING SERVICE QUALITY

According to Lovelock & Wright (2002:265-266), after making a purchase, customers compare the service expected to what is actually received. Customers decide how satisfied they are with service delivery and outcomes, and they also make judgements about quality. Although service quality and customer satisfaction are related concepts, they are not exactly the same thing. Many researchers believe that customers' perceptions about quality are based on long-term, cognitive evaluations of an organisation's service delivery, whereas customer satisfaction is a short term emotional reaction to a specific service experience. Following service encounters, customers may evaluate the levels of satisfaction or dissatisfaction and may use this information to update the perceptions of service quality. Customers must experience a service before they can be satisfied or dissatisfied with the outcome. Beliefs about quality don't necessarily reflect personal experience as people often make quality s about services that were never consumed, basing these evaluations on comments by acquaintances or on advertising messages. Figure 2.1 shows the relationship between customer expectations, customer satisfaction and service quality.

Figure 2.1. The relationship among expectations, customer satisfaction and service quality

Source: Lovelock & Wright, 2002:266
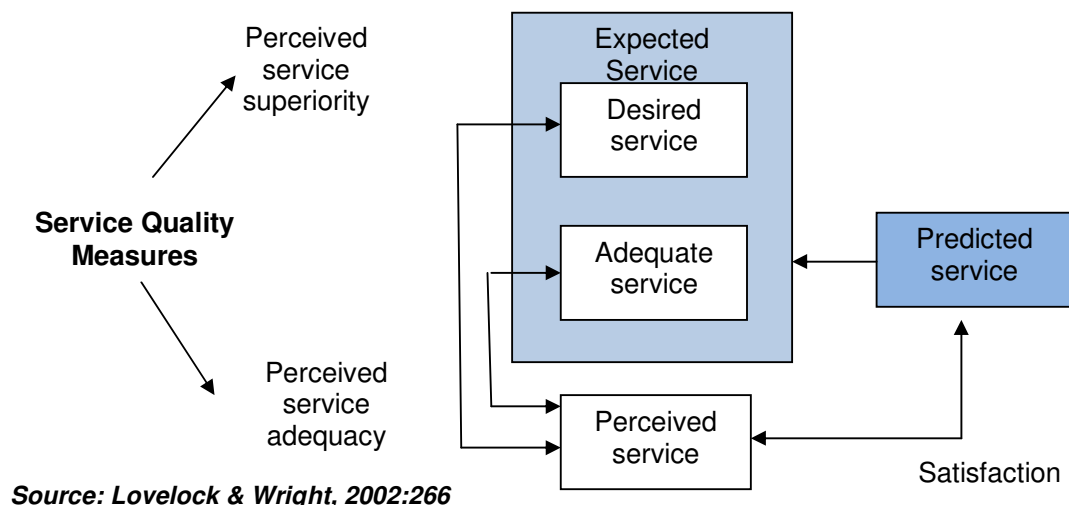
With reference to figure 2.1, managing a business to optimize customer satisfaction is a strategic imperative at many organisations, since the cost of mediocre service quality may be high as forty percent of revenues in some service organisations. Most organisations realize that, by improving performance on service attributes, customer satisfaction should increase. This increase should, in turn, lead to greater customer retention and improved quality (Lovelock & Wright, 2002:266).

2.4 SERVICE CHARACTERISTICS

Services may be characterised in many ways, with intangibility, inseparability, heterogeneity and perishability traditionally being used to distinguish services from physical products. Other characteristics, which may be used to classify services, include the time and place of service delivery, the level of customisation versus standardisation, the role of technology in service delivery, durability and the complexity of the assets needed (Matear *et al.*, 2000:784).

According to Webber (2001:1), the following are identified as being characteristics of services:-

- **Intangibility** The service cannot be touched or viewed, so it is difficult for customers to evaluate services prior to purchase and, therefore, service purchase may by risky. For example, lecturers at Business Schools provide information to students studying towards a degree, and even after the service is performed, the students may not fully understand the benefits received from the service itself. The only tangible component for the student is the lecture facilities or equipment being used on campus;

- **Inseparability of production and consumption** The service is being produced at the same time that the client is receiving it (e.g. during an online search, or a legal consultation);

- **Perishibility** Unused capacity cannot be stored for future use. For example, spare seats on one aeroplane cannot be transferred to the next

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flight, and query-free times at the reference desk cannot be saved up until there is a busy period. An example in a Business School situation would be that once a subject module has been presented to students, the service is complete and the students cannot return the subject module delivered if they wish to withdraw from the institution before completing a degree; and

- **Heterogeneity (or variability)** Services involve people, and people are all different. There is a strong possibility that the same enquiry would be answered slightly differently by different people (or even by the same person at different times). It is important to minimise the differences in performance (through training, standard-setting and quality assurance).

People often try to overcome some of these difficulties by ensuring that the physical manifestations of the service (the people running it, the library building, printed search results and web pages) indicate the quality of the service. The people running the service are more likely to inspire confidence in the service if they are responsive, reliable, courteous, and competent. If the information centre looks shabby and disorganised, or if the website is difficult to navigate with broken links, then users may assume that the services provided by the centre are slapdash (Webber, 2001:2).

According to Parasuraman *et al.* (1988), characteristics associated with services include intangibility, perishability, inseparability of production and consumption and heterogeneity. In contrast to products, services are usually short-lived as services are consumed as long as the activity or process lasts. Hence, service processes are perishable and cannot be stored in the way physical products can. Further, services are consumed, at the same time when produced, without any clear transfer of ownership. As such, each customer's expectation of service quality is different, and this has led to a lack of standardisation as it varies from situation to situation (Boulding *et al.,* 1993:8; Douglas *et al.*, 2006:251).

In this context, educational processes, in the form of lesson delivery and project supervision, can be regarded as a type of service provided by the BSU to students, who assume the role of customers.

2.5 CUSTOMER'S EXPECTATIONS AND PERCEPTIONS OF SERVICE

The definition of customer expectations

Customer expectations may be described as the desires or wants of the consumer. The crux is that customer expectations are what the customer expects from the organisation and its range of product or services, i.e. what customers feel the organisation should offer them. These expectations are, in most instances, different from what the customer gets in real-life situations from the organisation. What is important here is to focus on the customer perceptions, rather than on the reality of the performance (Brink and Berndt, 2005:59).

The definition of customer perceptions

Perceptions are defined in various ways. Strydom, Jooste and Cant (2000:84) define customer perception as the process of receiving, organising and assigning meaning to information or stimuli detected by the customer's five senses and opine that it gives meaning to the world that surrounds the customer. Perceptions are also described as the end result of a number of observations by the customer. Customers perceive services in terms of quality of services provided and the satisfaction level attained.

2.6 STUDENTS AS CUSTOMERS

Yeo (2008:269) offers two distinct views of students as customers; for instance, those who regard students as primary customers associate them as being involved in the input and output of the learning process. However, those who regard students' potential employers as primary customers argue that it is important to consider the economic reality of the situation where lesson contents should be tailored to employers' needs. Students, in both contexts, have been

regarded as internal customers. Jaraiedi and Ritz (1994:33) further argue that students have no conception of what they need to learn: as such, education is preparing them for the long-term benefits of the future. It is with this long-term view that potential employers are regarded as primary customers while students are regarded as secondary customers. In another view, students have been categorized as the primary beneficiaries of education and, hence, should be treated as customers. This perspective stems from the understanding that educational institutions are highly competitive on the market with strategies being aggressively developed to satisfy student needs in order to attract a sustainable market share (Joseph & Joseph, 1998:93).

2.7 RESEARCH INTO SERVICE QUALITY

Interest in service quality emerged in the late 1970s. Ever since, the topic has attracted substantial attention among researchers and practitioners. Grönroos introduced a service-oriented approach to quality (in English) in 1982 with the concept of *Perceived Service Quality* and the model of total perceived service quality. This approach is based on research into consumer behaviour and the effects of expectations concerning goods performance on post-consumption evaluations. The perceived service quality approach with its *disconfirmation construct* (that is, it measures how well experiences of the service process and its outcome meet expectations) still forms the foundation of most ongoing service quality research (Grönroos, 2002:62).

According to Williams (2000:2), customers are driven by needs, and increasingly expect to receive excellent service. "When service truly satisfies, it enhances the quality of our lives and we want more of it and as the service levels rise, we are less often surprised by excellent service. We demand faster and better service and are loyal to organisations that consistently provide the highest levels of service".

In today's global competitive marketplace, the demands of customers are forever increasing as they require improved quality of products and services. Also, in

some markets, there is an increasing supply of competitively priced products and services. Continuous improvement in total business activities, with a focus on the customer throughout the entire organisation and an emphasis on flexibility and quality, is one of the main means by which organisations face up to these competitive threats. This is why quality, its management and the associated continuous improvement are looked upon by many organisations as the means by which they can survive increasingly aggressive markets and maintain a competitive edge over their rivals. The organisations that do not change will fail (Dale, Van Der Wiele and van Iwaarden, 2007:34).

Many educational institutions are very hesitant to consider themselves as customer-driven entities (Magaud, 2007:332); yet one fact has been proven over and over again. Customer-driven organisations are effective because they are fully committed to satisfying, even anticipating, customer needs. The future success of colleges and universities will increasingly be determined by how they satisfy their customers. The successful ones will be those which very clearly identify both their mission and the customers they serve. Thus, it is very important for colleges and universities to fully identify their different customers and their corresponding needs.

No business or organisation can succeed without building customer satisfaction and loyalty. Likewise, no person can make a good living without meeting the needs of the customer. That is what people in organisations do: they serve others and they succeed through the service (Timm, 2008:3).

According to Magaud (2007:332) and Lewis and Smith (1994), it was observed that "every college and university has a mission but very few identify who they serve". They also noted that even fewer institutions acknowledge that they serve customers. This finding was surprising given the fact that, in order to be effective, organisations must be customer-driven. Customer-orientated organisations are successful because they have a unified focus on what they do as well as who they serve.

Organisations need to determine what their customers need and expect. The best

way to find out is to ask customers. Organisations can determine what customers expect and whether the company is exceeding, meeting or not meeting expectations over time (Swartzlander, 2004:40).

The "will-o'-wisp" nature of service quality is captured by Tan (1986:224), who describes it as being like beauty in the eye of the beholder; in other words, it has different meaning for different people. Similarly Berry *et al.*, (1990:29) see consumers as being the sole judge of service quality. In terms of how consumers actually assess service quality, Berry et al. (1985: 46) conclude that consumer perceptions of service quality result from comparing expectations prior to receiving the service with their actual experience of the service. Not surprisingly, if the consumer's expectations are met, service quality is perceived to be satisfactory; if they are not met, it is perceived to be less than satisfactory; and if they are exceeded, it is perceived to be more than satisfactory (delighting the customer). A similar approach is taken by Grönroos (2000:68). This has developed into the perceptions minus expectation (P-E) conceptualisation of service quality referred to as "gap theory". This gap "suggests the difference between consumers' expectations about the performance of a general class of service providers and their assessment of the actual performance of a specific firm within that class drives the perception of service quality" (Cronin and Taylor, 1992:55).

According to Zafiropoulos and Vrana (2007:34), HEIs are increasingly attracting more attention to service quality, mainly due to the fact that there is a social responsibility for quality evaluation in education. In many countries, this requirement is expressed directly through the establishment of independent quality assurance bodies, which place emphasis on students' experience as one of the assessment criteria.

Much of the work published on service quality aspects of higher education has concentrated on effective course delivery mechanisms, and the quality of courses and teaching. The mechanisms for measuring service quality of goods and programmes often rely on research instruments (e.g. student feedback questionnaires) devised by representatives of the HEIs to provide data that

address various externally set audit criteria (Oldfield *et al.*, 2000:85).

2.8 THE CONCEPTUALIZATION OF QUALITY – SOUTH AFRICAN PERSPECTIVE

According to Kistan (1999:125-126), **"**quality" has long been the touchstone in education globally. There is general agreement that quality and assurance of quality are important for the maintenance and enhancement of HEI's. The approach to what is intended by the word"quality", in the South African higher education context, is a flexible one. In July 1995, the universities, through the Committee of University Principles (CUP), established a Quality Promotion Unit (QPU) to investigate a quality assurance system for higher education in South Africa. The QPU argues that the notion of what is meant by "quality" should always exist, but should be characterised by four considerations, namely:

- The concept of quality is always influenced by political and economic developments;

- The notion of quality used in audits should be adaptable to suit the circumstances of each and every institution;

- The notion of quality used in audits would typically consist of a combination in various degrees of emphasis of the different concepts of quality; and

- The openness and flexibility in the approach to the definition of quality does not, however, imply that there is uncertainty or a lack of clarity in the approach.

Cheales (1994), who has more than forty articles published, has identified the following main reasons as to why South African customers defect from one organisation or service provider to another:

- Better value was offered;

- Better quality was offered;

- Superior service was received;

- Better response was received;

- Because the organisation had lost its uniqueness, and

- Because the organisation became inconsistent.

Cheales (1994) argues that organisations that meet and exceed customers' expectations create uniqueness in its most simplistic form. Another example is to provide a customer service level greater than that of its competitors.

In an article in *The Times*, Alderman (1996:2) summarises the whole concept and process of quality as follows:-

Quality in HEI's cannot be defined by reference to a set of bureaucratic procedures. Rather, in the words used by Erfurt, quality is "the working philosophy which the HEI employs to achieve standards. Such standards are defined as the explicit levels of attainment needed to obtain particular academic qualifications and other assessed outcomes". HEI's set their own goals and can be inspected to see whether these goals are being achieved.

The South African Qualifications Authority (1995) contains references to a quality assurance system for education and training in South Africa. This Act is expected to influence the quality assurance for HE in future. In this Act, the following objectives of the National Qualifications Framework (NQF) are stated:

- To create an integrated national framework for learning achievements;

- To facilitate access to and mobility and progression within education training and career paths; and

- To enhance the quality of education and training (Quality Promotion Unit, 1997:4).

2.9 THE BENEFITS OF QUALITY

According to Suganthi & Samuel (2004:8), as quality is becoming the key factor in every walk of life, everyone has to be educated in quality principles. Many industries, service organisations and educational institutions have implemented quality systems. In industries where implementations of quality systems were successful, it has resulted in the following benefits:-

- Reduction in complaints from customers, both internal and external;

- Reduction in cost of the product;

- Reduction in production time;

- Increased system efficiency;

- Increased morale of staff; and

- Increased customer satisfaction.

2.10 WHAT IS SERVQUAL?

The SERVQUAL developed by Zeithaml, Parasuraman, and Berry (1985) is a technique than can be used for performing a gap analysis of an organisation's service quality performance against customer service quality needs. SERVQUAL is an empirically derived method that may be used by a services organisation to improve service quality. This method involves the development of an understanding of the perceived needs of target customers. These measured perceptions of service quality for the organisation are then compared against an organisation that is "excellent". The resulting gap analysis may then be used as a driver for service quality improvement.

According to Kotler (2003:68), organisations that sell products, without transferring its property, are debating two interdependent competitive challenges: the differentiation and the continuous improvement of the quality. The quality of services is, therefore, a factor of strategic relevance for the organisation, having

to be measured and to be analysed.

2.11 THE USE OF SERVQUAL IN HIGHER EDUCATION

Zafiropoulos and Vrana (2007: 36-37) proposed SERVQUAL as an appropriate instrument for service quality measurement in the context of higher education for various reasons. However, when SERVQUAL was used, the result obtained did not turn up to be as good as expected, although the mean scores for perceptions on each of the dimensions (except tangibles) exceeded the mean expectation scores. Further analysis on the median and mode revealed that there might be comprehension difficulties, due to unsuitable words and negative clauses.

Ruby (1998:339) demonstrated how the use of SERVQUAL can be used to study students' satisfaction with four areas of support services hypothetically related to enrolment management (academic records, admissions, career services and financial aid). He claimed that the model may not suit all areas of education although it holds a promise as a means for evaluating the quality of selected support services. Slade *et al.,* (2000:1) also used the SERVQUAL instrument in order to capture perceptions of service quality of students leaving an institution before completing their studies, and those who stay to finish.

O'Neill (2003:310), using SERVQUAL, tried to understand the influence of time on students' perceptions of service quality by running a longitudinal study. The sample comprised the first year students in two stages: a) prior to orientation process; and b) after one month; and he discovered that students' perceptions of quality had deteriorated-suggesting service quality in HEI's may be influenced by time.

Chua (2004:1) used SERVQUAL to assess the attitudes of university stakeholders (including students, parents, faculty members and employers). The findings revealed that the dimensions of SERVQUAL are primarily related to the "process" stage of the "input-process-output framework". Sherry *et al.*, (2004:2), on the other hand, used SERVQUAL to assess the perceptions of international students (as opposed to local students), with the intention to serve better the legitimate needs and expectations of services offered to this group of students.

They concluded that SERVQUAL offered useful insights and was a good starting point to measure education quality, but a more in-depth analysis of the areas would be needed.

Shahin (2003:1) also verified that the adaptability of using the SERVQUAL model in the service industry by stating that SERVQUAL has a scientific basis. Furthermore, by identifying strengths and weaknesses pertaining to the dimensions of service quality, organisations can allocate resources to provide better service.

Customer service and quality are driving forces in the business community. As HEI's tussle for competitive advantage and high service quality, the evaluation of educational service quality is essential to provide motivation for and to give feedback on the effectiveness of educational plans and implementations, Tan & Kek (2004:17), in their research, presented an enhanced approach to using SERVQUAL for measuring students' satisfaction. The research involves the use of factors concerning students' services that are queried and surveyed using the SERVQUAL methodology. The proposed instrument was tested at two local universities.

2.12 MANAGING SERVICE QUALITY: THE GAP ANALYSIS APPROACH

Managing service quality is concerned with managing the gaps between expectations and perceptions on the part of management, employees and customers. The most important gap is that between the customers' expectation of service and their expectation of the service actually delivered, and this is the gap that SERVQUAL is designed to investigate

Berry and colleagues have developed the Gap Analysis Model (figure 2.2 below), which is intended to be used for analyzing the source of quality problems and for helping managers understand how quality service can be improved.

Figure 2.2: Conceptual model of service quality-the gap analysis

SERVQUAL or Gaps Model

(Zeithaml, Parasuraman and Berry)

```
┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│ Word-of-mouth   │    │ Personal needs  │    │ Past experience │
│ communication   │    │                 │    │                 │
└─────────────────┘    └─────────────────┘    └─────────────────┘
         │                      │                      │
         └──────────┐    ┌──────┴──────┐    ┌──────────┘
                    ▼    ▼             ▼    ▼
              ┌─────────────────────────────┐
              │      Expected service       │
              └─────────────────────────────┘
                    │  ▲ GAP 5        ▲
  CONSUMER          ▼  │              │
              ┌─────────────────────────────┐
              │      Perceived service      │◄──────────┐
              └─────────────────────────────┘           │
  - - - - - - - - - - - - - - - - - - - - - - - - - - - │- - -
              ┌─────────────────────────────┐    ┌──────────────┐
              │     Service delivery        │ GAP 4│  External    │
              │  including pre- and post-   │◄───► │communications│
              │        contracts            │      │ to customers │
  MARKETER    └─────────────────────────────┘    └──────────────┘
                    │  ▲ GAP 3          ▲              ▲
                    ▼  │                │              │
              ┌─────────────────────────────┐          │
              │     Translation of          │          │
  GAP 1       │     perceptions into        │──────────┘
              │   service quality specs     │
              └─────────────────────────────┘
                    │  ▲ GAP 2          ▲
                    ▼  │                │
              ┌─────────────────────────────┐
              │       Management            │
              │ perception of consumer      │
              │      expectations           │
              └─────────────────────────────┘
```

Source: **Grönroos,** *2002:101*

With reference to figure 2.2, this model demonstrates how service quality emerges. The upper part of the model includes phenomena related to the customer, while the lower part shows phenomena related to the service provider. The expected service is a function of the customers' past experiences and personal needs and word-of-mouth communication. It is also influenced by the market communication activities of the organisation.

The service experienced, which, in this model, is called perceived service, on the other hand, is the outcome of a series of internal decisions and activities.

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Management perceptions of customer expectations guide decisions about service quality specifications to be followed by the organisation, when service delivery (the execution of the service process) takes place. This basic structure demonstrates the steps that have to be considered when analyzing and planning service quality. The quality gaps illustrated are the result of inconsistencies in the quality management process. The ultimate gap is gap 5, which is between expected and perceived (experienced) service, which is a function of the other gaps that may have occurred in the process (Grönroos, 2002:101-102).

The Gaps Model highlights five gaps in the delivery of service which influence a customer's judgement about the quality of service received. These gaps include the gap between:

- Gap 1: Consumers' expectations and management's perception of these expectations;

- Gap 2: The perceptions of service quality held by top management and the translation of these into quality specifications;

- Gap 3: These specifications and the service delivery at the front line;

- Gap 4: What is promised in external communications and the actual service delivered; and

- Gap 5: Perceived performance and expectations, which is a function of gaps (1) to (4).

The notion of the service gap informs much of the work which has been undertaken to assess the satisfaction of service delivery against the expectations of the participating customer. In identifying where such gaps exist, one cannot only gauge the overall level of customer satisfaction but can also reveal specific areas where improvements can be made to raise the level of consumer satisfaction and, therefore, the success of the service offering.

SERVQUAL represents service quality as the discrepancy between customers' expectations for a service offering and the customers' perceptions of the service

received, requiring respondents to answer questions both about their expectations and their perceptions. The use of perceived, as opposed to actual service received, makes the SERVQUAL measure an attitude measure that is related to, but not the same as, satisfaction (Parasuraman *et al.*, 1988:15).

2.13 THE QUALITY GAPS

The concept of service quality gaps was developed from extensive research conducted by Berry and colleagues (Parasuraman *et al.*, 1985; Zeithamel *et al.*, 1988), where service quality is defined as a function of the gap between consumers' expectations of a service and perceptions of actual services received. This gap is influenced by several other gaps which may occur in an organisation.

2.13.1 The Management Perception Gap (Gap1)

This gap means that management perceives the quality expectations inaccurately. This gap arises when there is inadequate research into customer needs, poor communication and inadequate management structure (Rowley, 1997:9). This inadequacy can be resolved by always implementing better research, so that the needs and wishes of the customer are better observed and appreciated (Grönroos, 2002:102).

2.13.2 The Quality Specification Gap (Gap 2)

This gap means that service quality specifications are not consistent with management's perceptions of quality expectations. This gap is a result of planning mistakes or insufficient planning procedures, bad management planning and insufficient support for planning for service quality from top management. A reason for this deficiency is a lack of real commitment to service quality from top management because quality is not considered an issue of highest priority. A cure, in such situations, is to change an organisation's priority as quality, as perceived by customers, is an extremely vital success factor today, certainly in service competition (Grönroos, 2002:102).

According to Rowley (1997:9), management's understanding of customer expectations must be accurately translated into appropriate quality specifications and performance standards. This gap is caused by inadequate commitment to service quality, inappropriate goal setting, or management being inexperienced in this area.

2.13.3 The service Delivery Gap (Gap3)

This gap means that quality specifications are not met by performance in the service production and delivery process. This inadequacy is due to specifications being too complicated and not being in line with the existing corporate culture; bad management of service operations and lack of insufficient internal marketing. The issue of internal marketing is critical. The problems can be that the wrong personnel have been recruited in the first place; workload perceived by employees, for example too much paperwork or other administrative tasks involved, so that quality specifications cannot be fulfilled; and, perhaps, the technology and company's systems do not support quality or they may have not been properly introduced to the employee. The solution to these problems are to improve recruitment processes so that poor decisions can be avoided; clarify the tasks of all personnel and to find a solution where necessary tasks are dealt with, without interfering with quality performance and, finally, make proper changes to technology and systems so that they are supportive of the execution of the quality specifications or to improve training and internal marketing (Grönroos, 2002:104-105).

This gap arises from shortage of resources in key areas, lack of commitment and motivation, inadequate quality control procedures or inadequate staff training (Rowley, 1997:9).

2.13.4 The Market Communication Gap (Gap4)

This gap means that promises given by market communication activities are not consistent with the service delivered. This gap is due to market communication

planning not being integrated with service operations; lacking or insufficient coordination between traditional external marketing and operations; the organisation failing to perform according to specifications; and an inherent propensity to exaggerate and, thus, promise too much. Possible solutions are to create a system that coordinates planning and execution of external market communication campaigns with service operations and delivery. For example, every major campaign should be planned in collaboration with those involved in service production and delivery. Also, it would assist to improve planning of market communication, better planning procedures and closer management supervision (Grönroos, 2002:105).

2.13.5 The Perceived Service Quality Gap (Gap5)

This gap means that the perceived service is not consistent with the expected service. Parasuraman *et al.*, (1988) argue that gap 5 is the total sum of the preceding four gaps. If management want to close the gap between performance and expectations, it becomes important to design procedures for measuring service performance against expectations.

Considering the above, the instrument that will be used to measure the service quality at the BSU is the SERVQUAL approach. SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses (Parasuraman *et al.*, 1988:12).

2.14 DIMENSIONS OF SERVICE QUALITY

The five dimensions in service quality can be demonstrated in relation to educational settings as follows:

- **Tangibles** - *the physical facilities, equipment and staff appearance*. According to Brink and Berndt (2005:60), this dimension refers to the facilities, equipment and material which must reflect positively on the organisation. The dimension also includes the appearance of employees.

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The challenge for institutions is to ensure that service specifications such as course content, delivery and application meet the expectations of their customers consistently. This is a precarious concern as performance associated with these "specifications" is highly context-driven based on a variety of factors, sometimes beyond the control of the factors involved. Learning experience and orientation, at large, cannot entirely be evaluated by grades alone. Service performance should go beyond tangible forms. In addition, learning objectives need not necessarily lead to outcomes that are strictly quantifiable (Yeo, 2008:270).

- **Reliability** - *the ability to perform service dependably and accurately.* According to Yeo (2008:270), discrepancy between promise and delivery is largely the result of inaccurate communication from advertisement and exhibitions. Some institutions tend to oversell their services, leading to grand promises that misrepresent their actual potential and academic readiness. For instance, one of the most common strategies is the promotion of facilities and support services, ranging from "hardware" to "software" availability. Others boast of their state-of-the-art technology used in laboratories, computer systems and other learning facilities.

The organisation must provide the customer with accurate service the first time around. It must deliver what is promised within the specific time frame set out. If this delivery is done in a proper manner, it will enhance the perceived quality of the customer (Brink and Berndt, 2005:60).

- **Responsiveness** – *the willingness to help and respond to customer need.* Institutions should be responsive to the shifting needs of their customers (students) in providing courses and training programmes that are relevant in subject matter and teaching approaches. The learning process is expected to be academically rigorous, yet flexible, in areas pertaining to course selection and assessment (Yeo, 2008:270).

Dale *et al.*, (2007:240) define responsiveness as the willingness to assist customers and to provide prompt service on a continuous basis. Sometimes, this service may be out of the ambit of normal operating hours. This dimension focuses on attentiveness and willingness in dealing with customer requests, queries and prompt complaint resolution.

- **Assurance** – *the ability of staff to inspire confidence and trust.* Judgement of high or low service quality largely depends on how the customers perceive the actual performance based on their expectation. The level of tolerance in service standards across all areas; for instance, the more important the area, the smaller the boundary of tolerance. Customers' willingness to modify expectation of service standards can be appropriately managed through the availability of choices. These choices should diversify the expectation levels of customers in a way that the shortcomings of one service can be offset by the strengths of another (Yeo, 2008:270).

- **Empathy** – *the extent to which caring individualised service is given.* It is sometimes a challenge for institutions to exceed customer expectations and demand. For instance, shortages of teaching staff at the BSU and the need for optimal enrolments have seen an increase in class sizes, stretching the teacher-student ratio. This increased ratio has implication on the level of individual attention and empathy given to each student inside and outside class. Further, when lecturers are expected to assume multiple roles including curriculum writing, stand-up teaching, mentoring, project supervising and administrative responsibilities, the level of service quality may become less standardized and desirable over time (Yeo, 2008:270).

According to Brink and Berndt (2005:60), the organisation and its employees must try to understand the customers' problems and strive to execute activities with the customers' best interests in mind.

Lovelock & Wright (2002: 266-267) stated that, of these five dimensions, reliability

has consistently proven to be the most important factor in customers' judgement of service quality. Reliability improvements lie at the heart of service quality enhancement efforts because unreliable service implies broken promises on the attributes that customers care about the service received. If the core service is not performed reliably, customers may assume that the company is incompetent and may switch to another service provider.

2.15 ZONES OF TOLERANCE

Customers' expectations with respect to dimensions of service are generally reasonable: for example, they expect luggage to arrive with them on an aircraft and planes to arrive on time. They also expect basics, for example, from a hotel, in terms of security, cleanliness and being treated with respect. In addition, consumers have what Parasuraman *et al.*, (1991) refer to as "zones of tolerance", the difference between what is desired and what is considered adequate. The desired level of service is what the customer hopes to receive, a blend of what "can" and "should" be, which is a function of past experience. The adequate level is what they find acceptable; it is based in part on their assessment of what the service will be, the "predicted" service, and it depends on the alternatives that are available. Tolerance zones vary between individuals, between service aspects and with experience and tend to be smaller for outcome features than for process dimensions (Dale, Van der Wiele & Iwaarden, 2007: 242).

2.16 MANAGING TOLERANCE ZONES

According to the disconfirmation concept of the Perceived Service Quality model, according to which the experiences of customers are compared to their expectations, customers' expectation of the level of a given service attribute is thought of and measured as one singular level of expectation. No variation in expectations is included. The zone of tolerance can vary from customer to customer, and from service attribute to service attribute. It may also, for a given customer, vary from time to time. It is suggested that, in general, it is narrower for outcomes-related service features and broader for process-related features.

Measuring the zone of tolerance of expectations and comparing them to the experiences of customers may give management useful information about where service quality problems exist, and where there is no need for immediate action. For those attributes where the experience measurement falls in between the desired and adequate levels of expectations, the levels of perceived service quality is at least tolerable. Again, for those attributes where the experience measurement is lower than the adequate level, immediate corrections may be required, so that the overall level of perceived quality does not decrease. It is urgent to take action if such an attribute is considered central to customers' quality perception, than if its impact is only marginal (Grönroos, 2002:106-107)

2.17 CUSTOMER – DEFINED VALUE

Goetsch and Davis (2003: 225-226) state that it is important for organisations to understand how customers define value. The value of a product or service is the sum of a customer's perceptions of the following factors:

- Product/service quality;
- Service provided by the organisation;
- The organisation's personnel;
- The organisation's image;
- Selling price of the product or service; and
- Overall cost of the product/service.

Goetsch and Davis (2003:226) allege that all of these factors are important to customers. The product or service must have the attributes that customers want and those attributes must be of the quality expected. The customer's interaction with the organisation and how this interaction is measured are important. Making a good product or service is not enough, customer satisfaction will also be affected by how effectively, courteously and promptly customers are served. The appearance, knowledge and attitudes of an organisation's personnel also affect the level of satisfaction that customers experience. Customers will build relationships with personnel in an organisation who are knowledgeable,

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professional in appearance and positive. Such relationships promote loyalty. On the other hand, no matter how satisfied customers are with a product or service, if they don't like an organisation's personnel, they are likely to deflect to the competition. An organisation's image is important to customers. It is vital not just to have quality products, service and personnel but also to project an image that is consistent with these quality characteristics. Selling price is also important as it is the easiest characteristic to compare. A competitive selling price is a must in the modern workplace but it should not be achieved by sacrificing quality or service. Whether customers are satisfied will depend on the sum of their perceptions relative to all these factors.

2.18 THE LINK BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION

According to Brink & Berndt (2005:59-60), customers perceive services in terms of the quality of service provided and the satisfaction level attained. These two concepts, service quality and customer satisfaction, are the focus of attention of organisations because they want to quantify (measure) them. The reason for the focus on quality of service and customer satisfaction is the belief that organisations can differentiate themselves by means of providing better service quality and overall customer satisfaction. The linkage between service quality and customer satisfaction is indicated in figure 2.3.

Fig: 2.3: *The linkage between Service Quality and Customer Satisfaction*
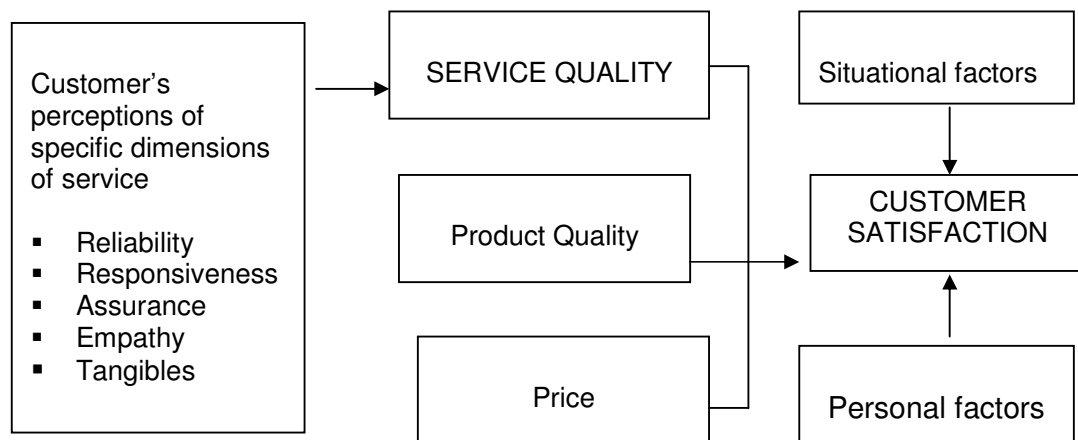
Source: Brink and Berndt, 2005: 59.

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2.19 THE BENEFITS OF CUSTOMER SATISFACTION AND SERVICE QUALITY

Although every successful organisation wants to provide a service that satisfies customers, this is not the only goal. Organisations can't lose sight of other basic business goals such as achieving a competitive advantage or making a profit.

Fig 2.4 Benefits of customer satisfaction and service quality

Source: Lovelock & Wright, 2002: 274

As figure 2.4 shows, customer satisfaction provides many benefits for a firm, and higher levels of customer satisfaction lead to greater customer loyalty. In the long-run, it is more profitable to keep good customers than to constantly attract and develop new customers to replace the ones who leave. Highly satisfied customers spread positive word-of-mouth and, in effect, become a walking, talking advertisement for a firm, which lowers the cost of attracting new customers (Lovelock & Wright, 2002:274-275).

2.20 THE IMPORTANCE OF CUSTOMER SATISFACTION SURVEYS

The importance of customer service cannot be underestimated. After all, customer satisfaction can impact every aspect of an organisation from earnings to profits. Customer satisfaction surveys measure and evaluate the attitudes, opinions and satisfaction levels of customers. Customer surveys also identify areas of organisations that do not meet customer expectations. Not only are customer surveys quick and inexpensive to produce, they are also guaranteed to yield invaluable results. Organisations can then use the data to implement and revise policies and procedures. Customer satisfaction surveys can be an important first step towards achieving the ultimate goals of exceptional customer satisfaction, loyalty and retention. These goals provide the foundation in which organisations can build customer relationships (http://www.infosurv.com/customer -satisfaction-survey.htm).

According to Lin and Jones (1997:4), customer satisfaction results from providing goods and services that meet or exceed customer needs. Customer satisfaction surveys have been used, to a great extent, as the method to assess customer satisfaction. These surveys usually fulfill two needs. The first need provides valuable information that enables an organisation to compare the performance of one business unit or several business units in different time periods and locations. Second, customer satisfaction surveys can be a rich source of information for generating continuous quality improvements, but only if they are examined carefully and used within a consistent framework.

Lin and Jones (1997:5) also state that customer satisfaction surveys are not without problems. Common problems include a tendency to show a high level of satisfaction, a lack of standard satisfaction scales, the proliferation and excessive use of surveys and the overall effectiveness of customers' satisfaction research is an ongoing analytical discipline. Another weakness of customer satisfaction surveys is that an increasing number of customers are tired of being surveyed. Moreover, many customer satisfaction surveys appear to be just random data gathering of customer perceptions and opinions with little effort for intelligent follow-up and meaningful investigations.

2.21 CONCLUSION

The importance of quality in education is undeniable. Today's students are tomorrow's leaders and without quality education, the nation will continue to lose its competitive edge and lag even further behind the rest of the industrialised world at a time where organisations can least afford to fail. Quality is a function of people, process and policy. In education, quality must be improved in many areas such as training, resource management and curriculum (Milakovich, 2006: 255).

Students are viewed as customers of HEI's as they are the primary beneficiaries of education. The gap analysis model should guide management in finding out where the reason (or reasons) for the quality of the service problem lie and discovering appropriate ways to close this gap. The Gap analysis is a straightforward and appropriate way of indentifying inconsistencies between a service provider and customer perception of service performance. Addressing these gaps is a logical basis for developing service processes in which expectations and experiences consistently meet. Good perceived quality will most likely be increased in this way.

The importance of gap 5, i.e. the difference between customers' expectations and perceptions of service quality is highlighted as the most important service quality gap forming the basis of this research. This will be used by the BSU as the instrument to measure customer perceptions and expectations. This survey is of great importance to the BSU, as it can be the initial step towards achieving the ultimate goals of exceptional customer satisfaction, loyalty and retention.

This chapter presented a review of the literature gathered on the various topics related to the study including customer service, quality, SERVQUAL and the gap model. The five dimensions of the model were also discussed. Moreover, this chapter included a discussion of how these dimensions influenced the customers' perception within the zones of tolerance as well as how the zones of tolerance could be managed.

Chapter 3 covers the research methodology used in this study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter three describes the research methodology used in this study. It addresses the target population, sampling techniques, size and data collection and validity of the instrument used in the study.

The research proposes to investigate the students' perceptions of service quality at the BSU. The study is descriptive in nature. The research will employ a questionnaire to gather data, make use of appropriate statistical techniques to evaluate the data and reach conclusions. This study is classified as quantitative and a single cross-sectional study.

Welman and Kruger (2001:18) regard descriptive research as a description of how things are and, in doing so, define the nature of this study object.

3.2 TARGET POPULATION

The target population is the population to which the researcher ideally would like to generalise the results. In attitude surveys, population validity is of extreme importance; therefore, great care should be taken to obtain a representative sample in order to prevent a biased result (Welman & Kruger, 2005:18). According to the records of the BSU, there are currently 350 part-time students registered on the various courses offered by the institution. These students are adult learners from different business working environments.

3.3 SAMPLING TECHNIQUE

Non-probability sampling was used, despite the availability of a sampling frame. This decision is due to anticipated problems in locating specific respondents. According to Welman & Kruger (2005:69), the advantage of non-probability sampling is that they are less complicated and more economical in terms of time and financial expenses. Non-probability sampling may be done on a spontaneous basis to take advantage of available respondents, without the statistical complexity of a probability sample.

3.4 SAMPLE SELECTION AND SIZE

Data was obtained from current students at the BSU. Convenience sampling was used in locating 195 respondents. Convenience sampling was used in locating respondents to ensure validity of the study (Sekaran, 2003: 294).

3.5 QUESTIONNAIRE DESIGN

Wegner (1993:17) states that "the *design* of a questionnaire is critical to ensure that the correct research questions are addressed and that accurate and appropriate data for statistical analysis is collected".

The questionnaire was an adaptation of the SERVQUAL instrument developed by Parasuraman, Zeithaml and Berry. The questionnaire, based for this study, was the standard 22 item questionnaire for expectations' and perceptions' sections. The 5 point Likert scale where 1 = strongly disagree and 5 = strongly agree was used (Refer to appendix 2).

The five dimensions and their respective statements in the questionnaire were as follows:

- Tangibles-statements 1-4:

    Condition of facilities, equipment and appearance of personnel;

- Reliability-statements 5-9:

    Ability to perform the promised service dependably and accurately;

- Responsiveness-statements 10-13:

    Willingness to help customers and provide prompt service;

- Assurance-statements 14-17:

    Knowledge and courtesy of employees and their ability to inspire trust and confidence; and

- Empathy-statements 18-22:

    Caring, individualised attention that the organisation provides its customers.

3.6 DATA COLLECTION

The object of data-collection is to get a good overall picture of how a process performs. It is important that, before any study or process is carried out, calibrated gauges, which are adequate for the purpose, are available. Also, all operational personnel must fully understand what is going on and what is required of them. The data collected should accurately reflect the performance of the process (Dale *et al.*, 2007:449-450).

Permission was requested from lecturers of the Business Studies Unit to conduct research at the lecture venues. Self-administered questionnaires (SERVQUAL) were used as the research instrument to obtain the required data. These questionnaires were personally handed by the researcher to students, together with a letter of consent acknowledging confidentiality and were collected in the same manner.

The group contact method of collection was used in this research procedure. According to Welman & Kruger (2005:152), collecting data from groups of people have many advantages, which are as follows:

- A captive audience, in this instance, students, is available;
- Since a single person is required to provide instructions in one room, the cost per questionnaire is much lower than that of personal interviews; and
- The researcher is in full control of the questionnaire. The session is arranged with permission from the appropriate authorities (in this case, lecturers) so that no respondent has an excuse for not completing the questionnaire.

The questionnaires and its contents were carefully explained by the researcher prior to handing out the questionnaires. 195 questionnaires were handed out registering a response rate of 100%.

3.7 THE RATING SCALE

There are four different types of attitude scale, which measures different degrees of attitude, namely: the summated or Likert scale, semantic differential, the Gutmann scale and the Thurstone scale. The Likert scale is the most popular because it is easier to compile than any other scale. The Likert scale, unlike other scales, may be used for multi-dimensional attitudes. It also consists of statements whereby respondents have to indicate the degree to which they agree or disagree with its content. Some statements will represent a positive attitude, whereas others will represent a negative attitude (Welman & Kruger, 2005:156-157).

A Likert scale produces interval data (Wegner, 1993:42). The chi-square statistic is applicable to such a scale, when it is possible to group responses into nominal categories, as is the case in this study (Cooper and Schindler, 2001:499).

3.8 DATA ANALYSIS AND PROCESSING

The primary data of each respondent was captured by the researcher onto a Microsoft excel spreadsheet and forwarded to the statistician. In order to ensure that all the questions in the questionnaires were completed, the questionnaires were screened to ensure that properly completed questionnaires were included in the analysis. The response for each question was coded on a scale from 1 to 5 where 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree and 5 = strongly agree.

Data was processed by a qualified statistician using the SPSS statistical package Version 15 for the generation of results. The analysis and interpretation of data were presented using descriptive and inferential statistics. According to Welman & Kruger (2005:242), descriptive statistics involve the description and summary of data, while inferential statistics involve the inferences that are drawn from the results. Ultimately, the results of statistical investigations can be represented graphically by means of bar charts or pie charts. In this instance, bar charts were used to compare values across categories.

3.8.1 DESCRIPTIVE STATISTICS

Descriptive statistics describes the organising and summarising of quantitative data. Univariate and bivariate analysis are most appropriate for descriptive statistics. Univariate analysis is concerned with measures of central tendency and measures of dispersion. The most appropriate measure of central tendency for interval data is the mean and the most appropriate measure of dispersion for interval data is the standard deviation. Bivariate analysis concerns the measurement of two variables at a time (Lind, Marchal & Mason, 2001:6).

From the results obtained in the descriptive statistics, the researcher was able to calculate the expectation mean and the perception mean, which were ultimately applied to the SERVQUAL calculation to calculate Gap scores for each question for each of the five dimensions of service quality. Data extracted from the

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descriptive statistics highlighted the dimension gap scores and indicated areas which presented the greatest challenge for improvement by the BSU. The greatest dimension gap scores proved to be questions 1 and 2 of the tangibles dimension and the lowest dimension gap scores emerged from the reliability dimension.

3.8.2 INFERENTIAL STATISTICS

Inferential statistical analysis is concerned with the testing of hypothesis. The independent t-test is the most appropriate parametric test for interval measurement. This test relates to any significant difference between the two variables, perception and expectation of service quality. Primary data was collated and analysed and comments and concluding discussions were thereafter based on the results obtained (Lind *et al.*, 2001:457-460).

Tests were performed to determine whether there was a statistically significant difference between the expected and perceived scores (refer to Table 4.3). The table indicates that the p-values are all less than 0.05. This finding shows that there is a significant difference between the perceived and expected values, and that the results are not due to chance.

3.9 RELIABILITY

The advantage of SERVQUAL is that it is a tried and tested instrument which can be used comparatively for benchmarking processes (Brysland and Curry, 2001: 390).

Critics of the SERVQUAL instrument include Brown, Churchill and Peter (1993: 65), who tested the instrument and showed strong reliabilities for both the expectation (0.94) and perception (0.96) component of the questionnaire using Cronbach's Alpha, suggesting high levels of reliability and internal consistency (Parasuraman *et al.*, 1988:16).

Most users would agree that a comprehensive and thorough examination of service needs and service quality provides an invaluable approach to improving service quality. SERVQUAL provides detailed information about:

1. Customer perceptions of service (a benchmark established by your own customers);
2. Performance levels as perceived by customers;
3. Customers' comments and suggestions; and
4. Impressions from employees with respect to customers' expectation and satisfaction.

3.10 FACTOR ANALYSIS

Why is factor analysis important?

Factor analysis is a statistical technique whose main goal is data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors. For example, as part of a national survey on political opinions, participants may answer three separate questions regarding environmental policy, reflecting issues at the local, state and national level. Each question, by itself, would be an inadequate measure of attitude towards environmental policy, but *together* they may provide a better measure of the attitude. Factor analysis can be used to establish whether the three measures do, in fact, measure the same thing. If so, they can then be combined to create a new variable, a factor score variable that contains a score for each respondent on the factor. The table of communalities for expected and perceived values are listed in Annexure 2.
 (http://www.ats.ucla.edu/stat/spss/faq/alpha.html).

Factor techniques are applicable to a variety of situations. A researcher may want to know if the skills required to be a decathlete are as varied as the ten events, or if a small number of core skills are needed to be successful in a decathlon. One need not believe that factors actually exist in order to perform a factor analysis,

but, in practice, the factors are usually interpreted, given names, and spoken of as real things (Curwin & Slater, 2002:277-278).

The communality for a given variable can be interpreted as the proportion of variation in that variable explained by the factors that make up the variable. In this instance, for example, there are 4 variables that make up the first component (as indicated in the component matrix table in Appendix 3). The analysis is similar to that for multiple regression: signage against the two common factors yields an R^2 = 0.699 (for the first variable), indicating that about 70% of the variation in terms of the expected equipment is explained by the factor model.

In order to group the 22 items in the questionnaire into meaningful clusters, factor analysis was conducted using the extraction method via principle component analysis. The principal component analysis was used because it seeks to include as many factors as there are in the analysis. In considering the suitable rotation strategy, orthogonal varimax was used because it minimizes the number of variables which have high loadings on any one given factor, resulting in easier identification of each variable with a single factor. Factor analysis shows inter-correlations between variables (refer to Annexure 3: Rotated Component Matrix)

This argument can then be extended to the rest of the model as the communality values are high for both expected and perceived scores.

As previously mentioned, factor analysis is a statistical technique whose main goal is data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors (Refer to Annexure 3: Rotated Component Matrix):

- The principle component analysis was used as the extraction method, and the rotation method was Varimax with Kaiser Normalization. This is an orthogonal rotation method that minimizes the number of

> variables that have high loadings on each factor. It simplifies the interpretation of the factors;
>
> - Factor analysis/loading show inter-correlations between variables;
> - Items of questions that are loaded similarly imply measurement along a similar factor. An examination of the content of items loading at or above 0.5 (and using the higher or highest loading, in instances where items cross-loaded at greater than this value) are effectively measured along the five dimensions.

It is noted that it was only for the Assurance dimension that the four variables that constituted the component loaded perfectly in one factor for both the expected (E) and perceived (P) scores. This means that the questions (variables) that constituted this dimension perfectly measured the dimension.

However, all of the other dimensions have factors that overlap, indicating a mixing of the factors. This means that the questions in the overlapping dimensions did not specifically measure what they set out to measure. Therefore, respondents did not clearly distinguish between the questions constituting the dimensions.

Many of the components spread over two components. However, the Responsiveness dimension yielded the most spread across components.

3.11 CRONBACH'S COEFFICIENT OF RELIABILITY

The Cronbach Alpha test was computed to measure the internal consistencies of the factors used in the questionnaire.

According to the Academic Technology Services at the University of California, Los Angeles (UCLA Academic Technology Services: 2002), the Cronbach's alpha measures how well a set of items (or variables) measures a single one-dimensional latent construct. When data have a multidimensional structure, Cronbach's alpha will usually be low. Technically speaking, Cronbach's alpha is not a statistical test - it is a coefficient of reliability (or consistency).

Cronbach's alpha can be written as a function of the number of test items and the average inter-correlation among the items. Below, for conceptual purposes, is the formula for the standardized Cronbach's alpha:

$$\alpha = \frac{N \cdot \bar{r}}{1 + (N-1) \cdot \bar{r}}$$

Here, N is equal to the number of items and r-bar is the average inter-item correlation among the items.

One can see from this formula that, if one increases the number of items, one also increases the Cronbach's alpha. Additionally, if the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach's alpha increases as well.

This explanation makes sense intuitively - if the inter-item correlations are high, there is evidence that the items are measuring the same underlying construct. This is really what is meant when people say they have "high" or "good" reliability. They are referring to how well their items measure a single one-dimensional latent construct. (http://www.ats.ucla.edu/stat/spss/faq/alpha.html).

A reliability coefficient of 0.80 or higher is considered as "acceptable" (UCLA Academic Technology Services, 2002).

The reliability score of 0.95 indicates a high degree of acceptable, consistent scoring for the different categories for this research.

The two most important aspects of precision are **reliability** and **validity**.

Reliability refers to the reproducibility of a measurement. Reliability is quantified simply by taking several measurements on the same subjects. Poor reliability degrades the precision of a single measurement and reduces the ability to track changes in measurements in experimental studies.

The items in the factorial groups were then tested for reliability. The reliability test was undertaken to ensure that the research findings have the ability to provide consistent results in repeated incidences. The reliability score of 0.95, for the study, indicated a high degree of consistent scoring for each of the categories for this research.

3.12 VALIDITY

Validity refers to the agreement between the value of a measurement and its true value. Validity is quantified by comparing one's measurements with values that are as close to the true values as possible. Poor validity also degrades the precision of a single measurement, and it reduces the ability to characterize relationships between variables in descriptive studies (Lind *et al.*, 2001:457-460).

Furthermore, according to Brysland and Curry (2001: 390), SERVQUAL does, however, benefit from being a statistically valid instrument as a result of extensive field testing and refinement. SERVQUAL, therefore, escapes the disadvantage of being perceived by service users and providers as "something that has been invented off the top of the head" or a questionnaire that has been skewed to elicit certain types of response. As a generic and universally applicable instrument, SERVQUAL can also be administered on a repeated, regular basis and used for comparative benchmarking purposes.

3.13 CONCLUSION

This chapter covered the research methodology in terms of the appropriate and relevant application of the various techniques in accordance with the fundamental principles and practices of research methodology.

Chapter four presents the research findings and the interpretation of the results from the survey.

CHAPTER 4

PRESENTATION OF RESULTS

4.1 INTRODUCTION

Chapter four graphically presents the collected data which was used to investigate customer perceptions of service quality at the Business Studies Unit. The data from the SERVQUAL questionnaires were analysed using the appropriate statistical methods i.e. descriptive and inferential statistics.

The responses obtained from respondents for each of the 22 questions is presented.

4.2 SERVQUAL METHODOLOGY

The standardised SERVQUAL instrument was used. It is constructed from 22 items, which form five dimensions, namely:

• Tangibles;
• Reliability;
• Responsiveness;
• Assurance; and
• Empathy.

The research ascertained what students perceive about the institution. It also identified gaps between expectations and perceptions. Students were asked to rank their perceptions and expectations in relation to service quality with a five-point Likert scale, thus measuring, respectively, an excellent business school and the BSU service quality. Scores for the above five dimensions of SERVQUAL were also calculated and measured.

The formula on perceived service quality, developed by Parasuraman *et al.,* (1985), was stated as follows:

$$Q \text{ (Quality)} = P \text{ (Perceptions)} - E \text{ (Expectations)}$$

By subtracting the perceived from the expected rating, the net satisfaction can be estimated from the quality for each student.

A total of 195 questionnaires were completed, comprising a response rate of 100%.

4.3 GRAPHIC ANALYSIS OF EXPECTATIONS AND PERCEPTIONS

The analyses are displayed using bar charts. The research questions addressed the research objectives for this study. The respondents' responses to the expectations and perceptions questions are indicated below:

4.3.1 The organisation has modern-looking equipment

Figure 4.1: The organisation has modern-looking equipment
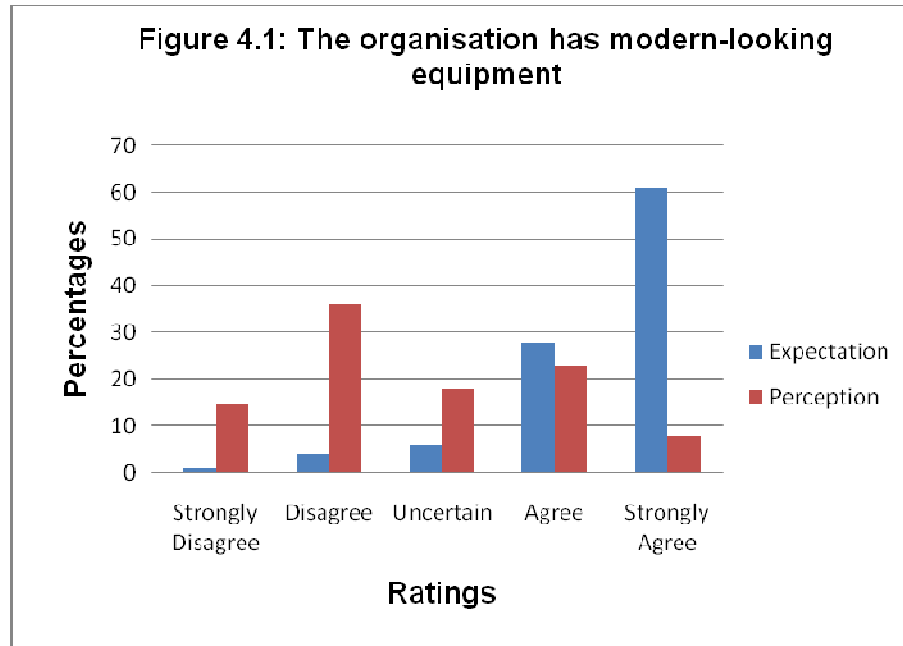
Q1		Expectation	Perception
	Strongly Disagree	1	15
	Disagree	4	36
	Uncertain	6	18
	Agree	28	23
	Strongly Agree	61	8
	Percentage	100	100

With reference to figure 4.1, the majority of the respondents (students) (89%), agreed with the statement that an excellent business school should have modern-looking equipment. Respondents expect an excellent business school to have modern-looking equipment so that the institution can provide efficient services to students. 31% of the respondents agreed that the BSU has modern-looking equipment. 18% were uncertain and majority i.e 51% of the respondents disagreed with the statement that the BSU has moden-looking equipment.

4.3.2 The physical facilities are visually appealing

Figure 4.2: The physical facilities are visually appealing
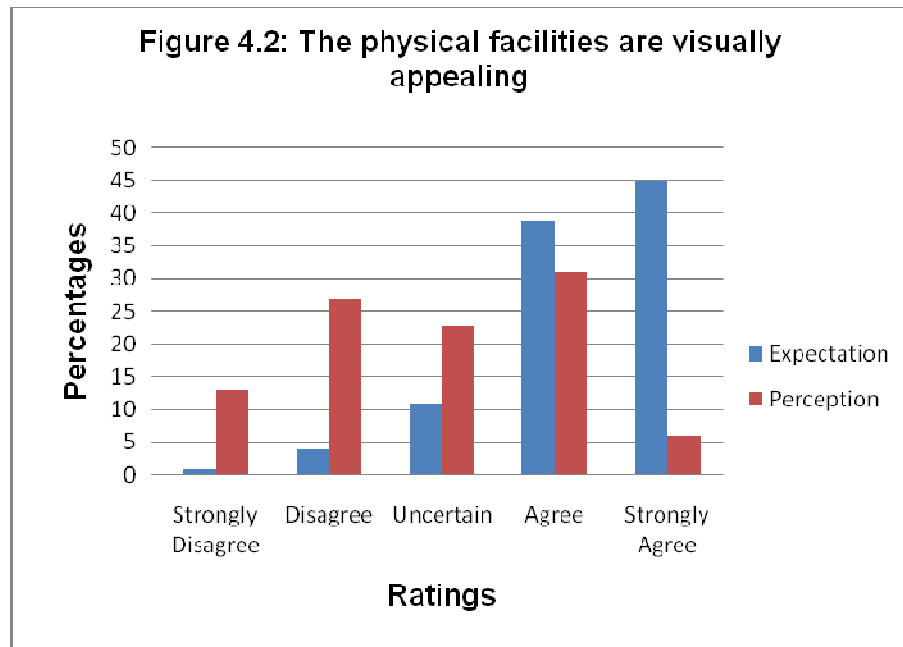
Q2	Percentages	Expectation	Perception
	Strongly Disagree	1	13
	Disagree	4	27
	Uncertain	11	23
	Agree	39	31
	Strongly Agree	45	6
	Percentage	100	100

Figure 4.2 illustrates that 84% of the respondents agreed that excellent business schools should have visually appealing facilities, while 5% disagreed with this statement. 37% of the respondents agreed with statement that the physical facilities at the BSU are visually appealing. 23% of the respondents were uncertain, while 40% of the respondent disagreed with the statement that BSU has visually appealing facilities.

4.3.3 Employees appear professionally dressed

Figure 4.3: Employees appear professionally dressed
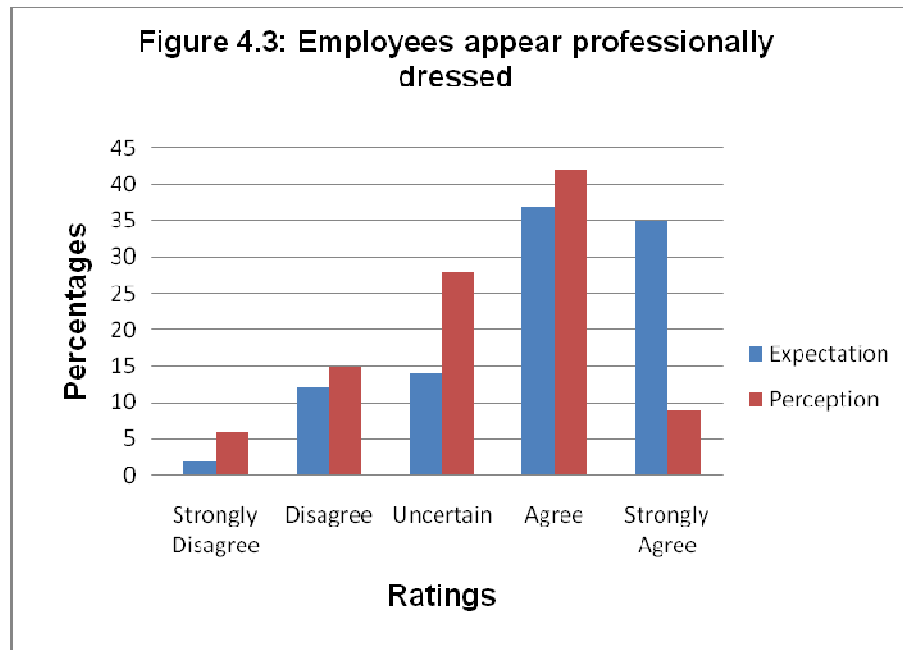
Q3		Expectation	Perception
	Strongly Disagree	2	6
	Disagree	12	15
	Uncertain	14	28
	Agree	37	42
	Strongly Agree	35	9
	Percentage	100	100

The findings, as indicated in figure 4.3, reflect that most (72%) respondents expect employees at execllent business schools to appear professionally dressed. 14% of the respondents, respectively, disageed and were uncertain with this statement. Most of the respondents (51%) agreed that employees at the BSU are professionally dressed. 28% of the respondents were uncertain and 21% of the respondents disagreed with the statement that the employees at the BSU are professionally dressed.

4.3.4 Materials associated with the service (promotional brochures, invoices etc) are visually appealing

Figure 4.4: Materials associated with the service (promotional brochures, invoices etc) are visually appealing
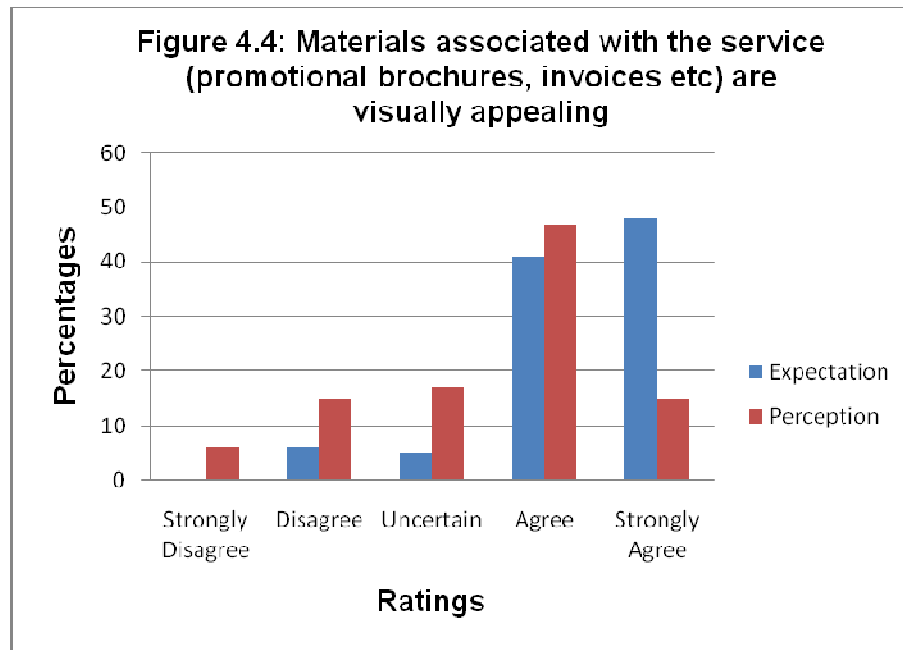
Q4		Expectation	Perception
	Strongly Disagree	0	6
	Disagree	6	15
	Uncertain	5	17
	Agree	41	47
	Strongly Agree	48	15
	Percentage	100	100

With reference to figure 4.4, the majority of the respondents (89%) agreed that materials such as brochures and handouts, which provide information to students, must be visually appealing. No respondents strongly disagreed with this statement, emphasising the importance of visually appealing brochures and handouts. The majority of the respondents (62%) agreed with the statement that the BSU has visually appealing promotional material. 21% of the respondents disagreed with the statement that BSU has visually appealing promotional material and 17% of the respondents were uncertain in their answer to this statement.

4.3.5 Timelines for completing promised tasks will be adhered to

Figure 4.5: Timelines for completing promised tasks will be adhered to
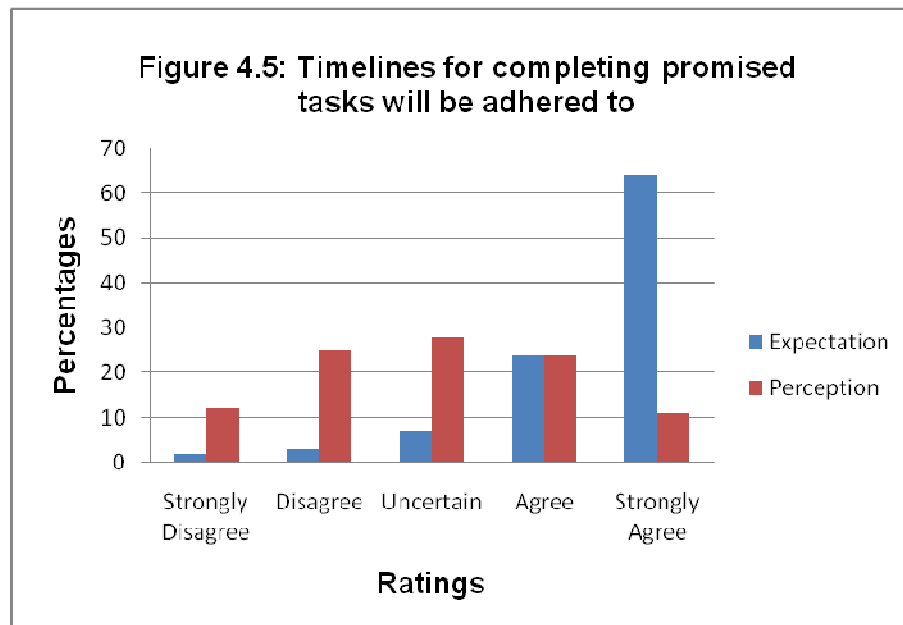
Q5		Expectation	Perception
	Strongly Disagree	2	12
	Disagree	3	25
	Uncertain	7	28
	Agree	24	24
	Strongly Agree	64	11
	Percentage	100	100

With reference to figure 4.5, 88% of the respondents agreed with this statement. i.e. they expect excellent business schools to honour their promise to deliver services at times specified. 7% of the respondents were uncertain and only 5% disagreed with this statement. 35% of the respondents agreed with the statement that BSU delivers on service promises timeously. 28% of the respondents were uncertain in their response with the statement and the majority of 37% disagreed with the statement that BSU carries out promises timeously.

4.3.6 When a customer has a problem, there is a sincere interest in solving it

Figure 4.6: When a customer has a problem, there is a sincere interest in solving it
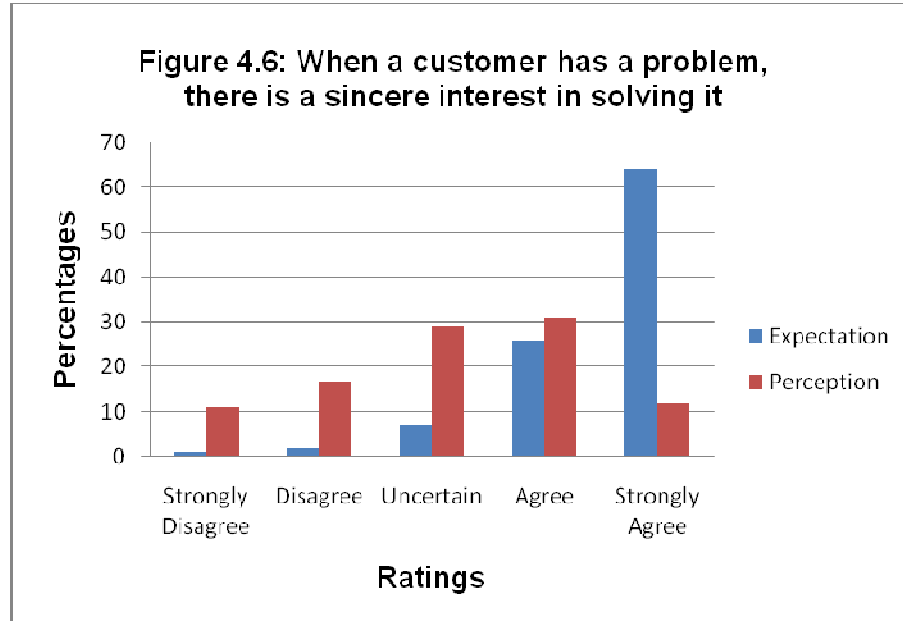
Q6		Expectation	Perception
	Strongly Disagree	1	11
	Disagree	2	17
	Uncertain	7	29
	Agree	26	31
	Strongly Agree	64	12
	Percentage	100	100

The findings in figure 4.6 reflect that a majority of 90% of the respondents agreed with the statement and expect an excellent business school to show sincere interest in solving their problems. 7% were uncertain in their response to this statement. 43% of the respondents agreed with the statement that the BSU shows keen interest in solving students' problems. 29% of the respondents were uncertain in their response to this statement and 28% of the respondents disagreed with the statement that BSU shows sincerity in solving students' problems.

4.3.7 Service is performed correctly the first time

Figure 4.7: Service is performed correctly the first time
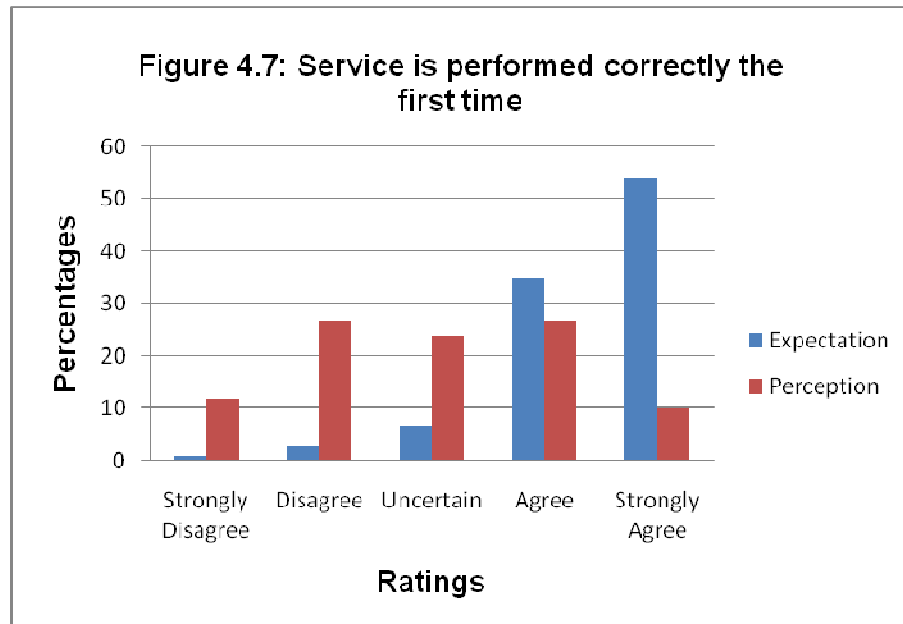
Q7		Expectation	Perception
	Strongly Disagree	1	12
	Disagree	3	27
	Uncertain	7	24
	Agree	35	27
	Strongly Agree	54	10
	Percentage	100	100

Figure 4.7 illustrates that the majority of the respondents (89%) agreed with the statement that an excellent business school must be accurate in their work and strive for service quality. 7% were uncertain and only 4% of the respondents disagreed with the statement and did not expect business schools to deliver the correct services the first time. 37% of the respondents agreed with the statement that the BSU performs services correctly the first time. 24% of the respondents were uncertain with their response and 39% of the respondents disagreed with the statement that service at the BSU are performed correctly the first time.

4.3.8 Services are provided at the time they are promised

Figure 4.8: Services are provided at the time they are promised
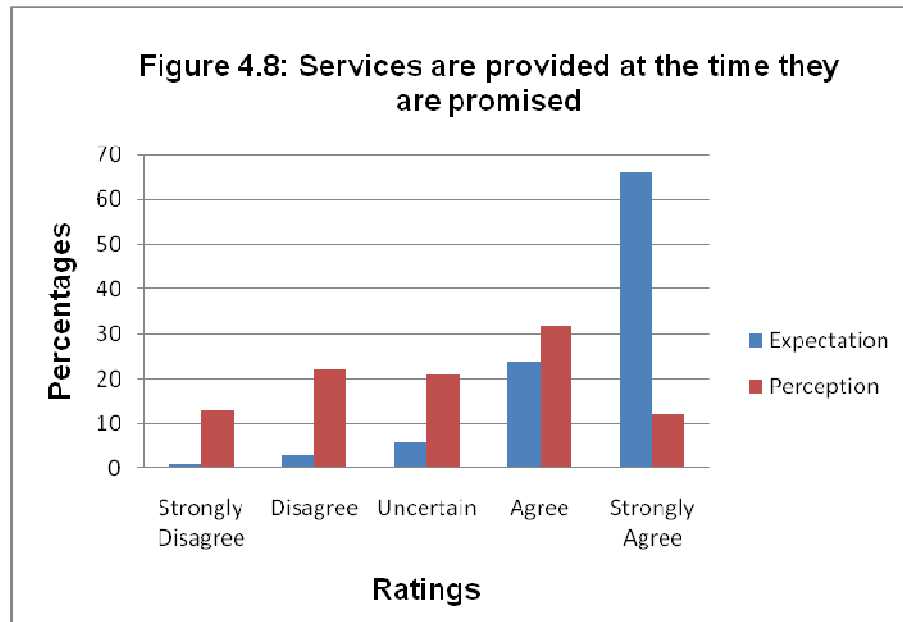
Q8		Expectation	Perception
	Strongly Disagree	1	13
	Disagree	3	22
	Uncertain	6	21
	Agree	24	32
	Strongly Agree	66	12
	Percentage	100	100

With reference to figure 4.8, the majority of the respondents (90%) agreed with the statement and expect excellent business schools to meet deadlines once they are set. 6% of the respondents were uncertain and only 4% did not expect excellent business schools to deliver services at the times promised. 44% of the repondents agreed with the statement that the BSU provides their services when promised. 21% of the respondents were uncertain with this statement, while 35% of the respondents disagreed that the BSU provides its service at the promised time.

4.3.9 Records are error-free

Figure 4.9: Records are error-free
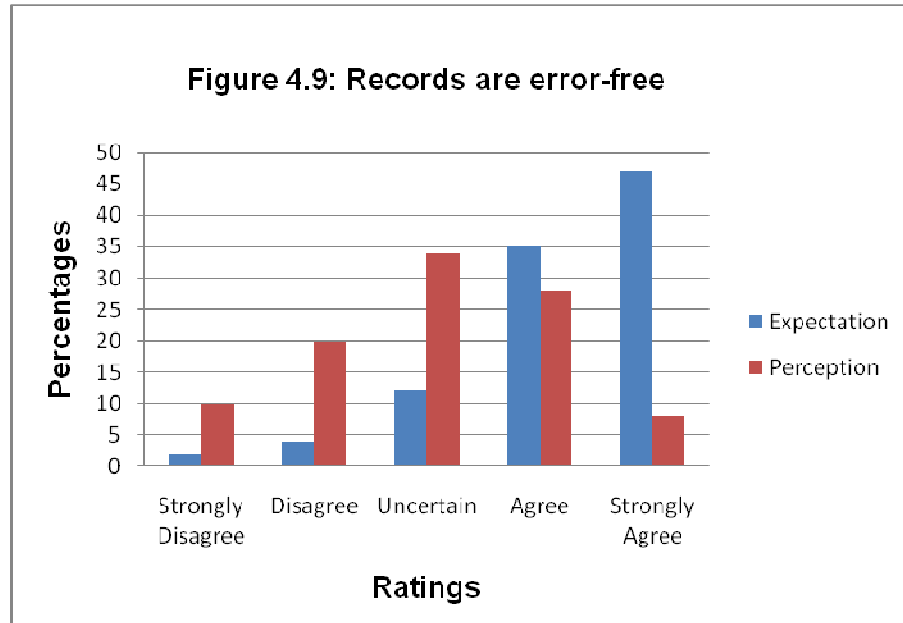
Q9		Expectation	Perception
	Strongly Disagree	2	10
	Disagree	4	20
	Uncertain	12	34
	Agree	35	28
	Strongly Agree	47	8
	Percentage	100	100

Figure 4.9 reflects that many respondents (82%) agreed with the statement and expect staff at excellent business schools to have error-free records. 12% were uncertain while 6% disagreed that excellent business schools will insist on error-free records. 36% of the respondents agreed with the statement that the BSU insists on error-free records. 34% of the respondents were uncertain with their responses and 30% of the respondents disagreed with the statement that the BSU insists on error-free records.

4.3.10 Employees will tell customers exactly when services will be performed

Figure 4.10: Employees will tell customers exactly when services will be performed
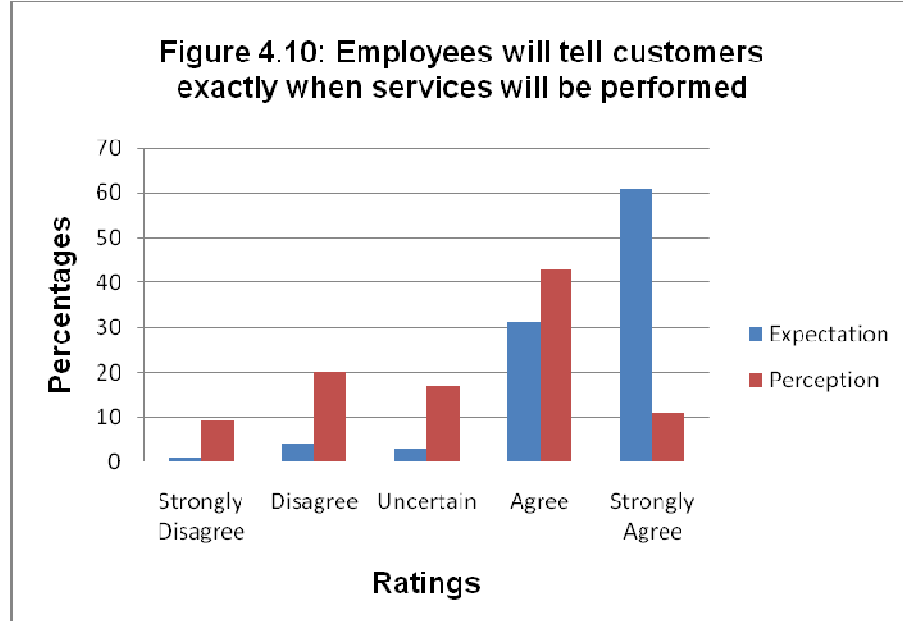
Q10		Expectation	Perception
	Strongly Disagree	1	9
	Disagree	4	20
	Uncertain	3	17
	Agree	31	43
	Strongly Agree	61	11
	Percentage	100	100

The findings in figure 4.10 reflect that a majority of 92% of the respondents agreed with the statement and expect employees of an excellent business school to inform students exactly when services would be performed. Only 5% disagreed with the statement and 3% were uncertain. Most of the respondents (54%) agreed that the BSU informs students exactly when services will be perfomed. 17% of the respondents were uncertain in their response to this statement and 29% of the respondents disagreed that the BSU informs students exactly when services will be peformed.

4.3.11 Employees give prompt service to customers

Figure 4.11: Employees give prompt service to customers
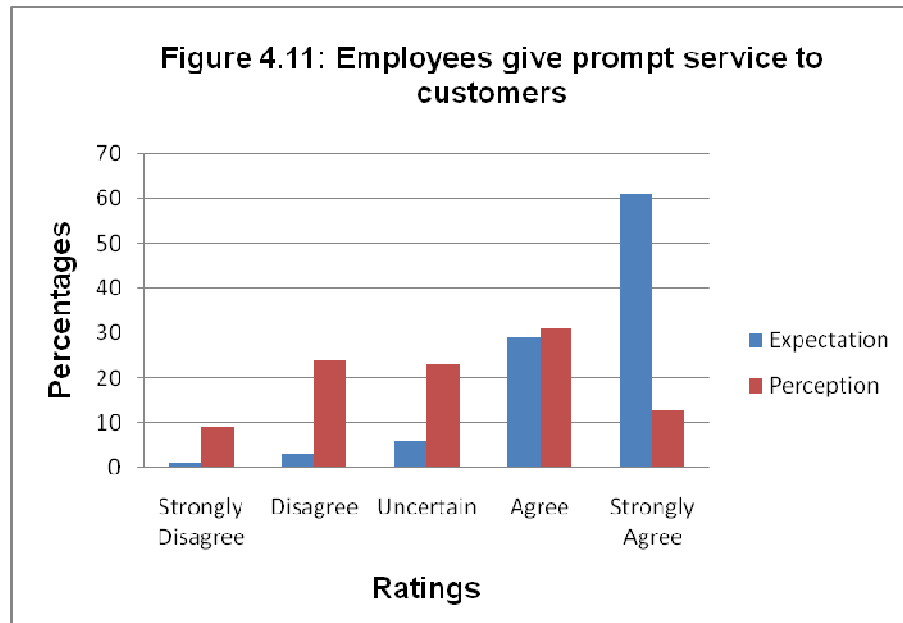
Q11		Expectation	Perception
	Strongly Disagree	1	9
	Disagree	3	24
	Uncertain	6	23
	Agree	29	31
	Strongly Agree	61	13
	Percentage	100	100

According to figure 4.11, 90% of the respondents agreed with the statement that business schools' staff must give prompt service to students at all times. 4% disagreed with the statement and 6% of the respondents were uncertain. 44% of the respondents agreed that the BSU gives students prompt service. 23% of the respondents were uncertain in their response to the statement and 33% of the respondents disagreed with the statement that the BSU provides prompt services.

4.3.12 Employees will always be willing to help customers

Figure 4.12: Employees will always be willing to help customers
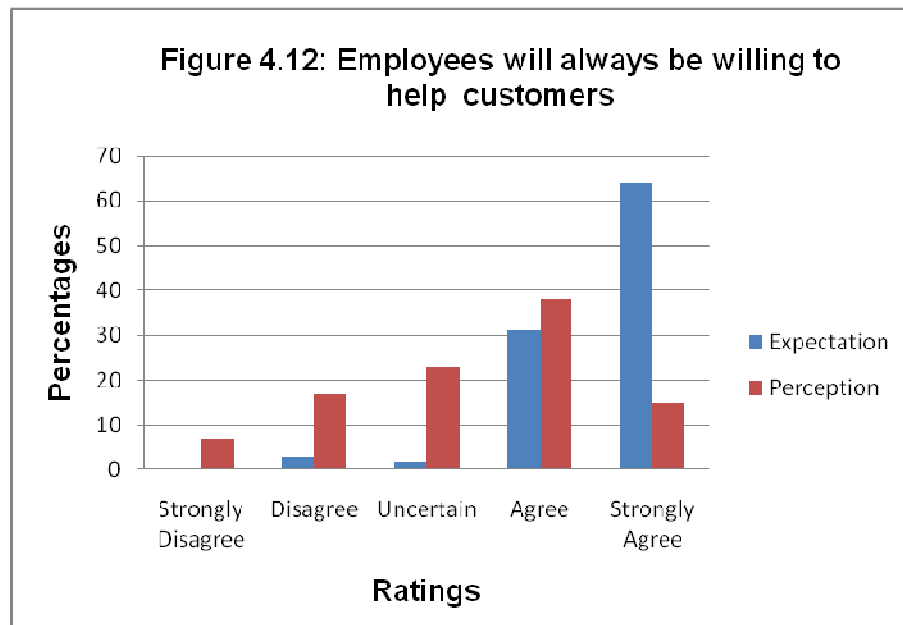
Q12		Expectation	Perception
	Strongly Disagree	0	7
	Disagree	3	17
	Uncertain	2	23
	Agree	31	38
	Strongly Agree	64	15
	Percentage	100	100

With reference to figure 4.12, the majority of the respondents (95%) agreed with the statement and expect employees at an excellent business school to willingly help students. Only 3% of the respondents disagreed with this statement. 53% percent of the respondents agreed with the statement that the BSU has employees who are willing to help students. 23% of the respondents were uncertain in their responses and 24% of the respondents disagreed with the statement that the BSU has employees who are willing to help.

4.3.13 Employees will be never too busy to respond to customers' requests

Figure 4.13: Employees will never be too busy to respond to customers' requests
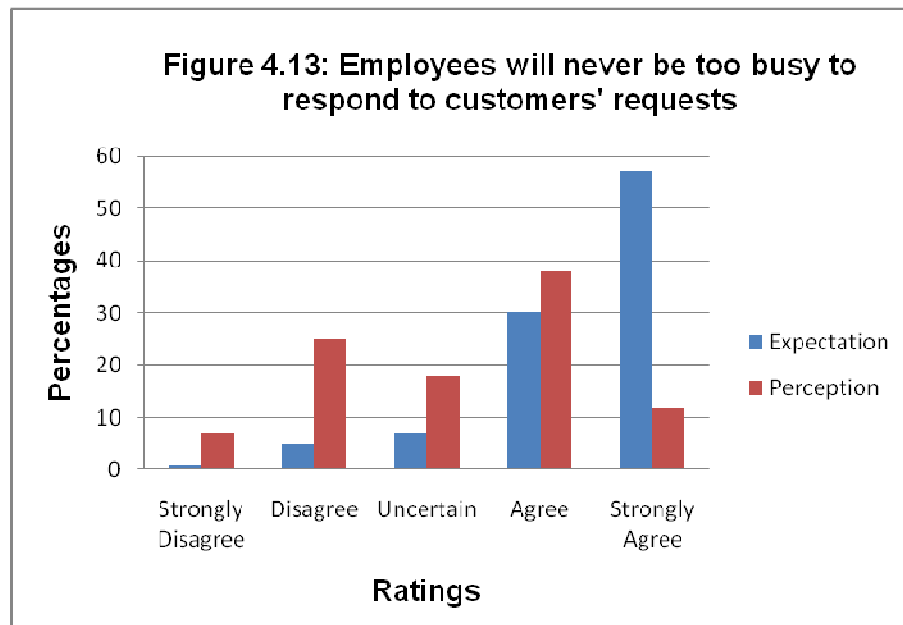
Q13		Expectation	Perception
	Strongly Disagree	1	7
	Disagree	5	25
	Uncertain	7	18
	Agree	30	38
	Strongly Agree	57	12
	Percentage	100	100

Figure 4.13 illustrates that the majority of the respondents (87%) agreed with the statement and expect employees from excellent business schools to be never too busy to respond to students' requests. 7% of the respondents were uncertain in their response to this statement and only 6% disagreed that they expect business schools will never be too busy to respond to students' needs. 50% of the respondents agreed with the statement that employees in the BSU are never too busy to respond to students' requests. 32% of the respondents disagreed with this statement while 18% of the respondents were uncertain with their responses.

4.3.14 The behaviour in employees instills confidence in customers

Figure 4.14: The behaviour of employees instills confidence in customers
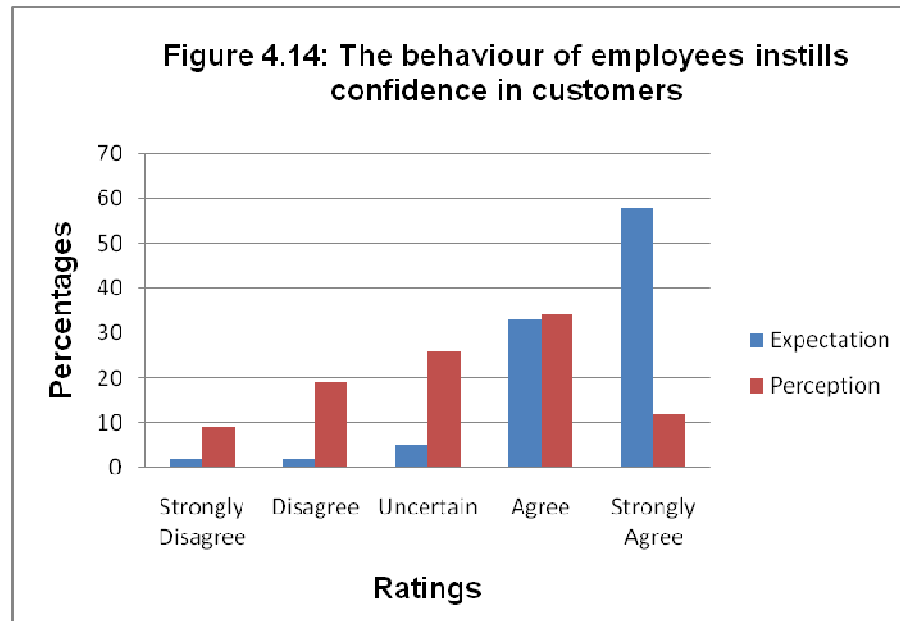
Q14		Expectation	Perception
	Strongly Disagree	2	9
	Disagree	2	19
	Uncertain	5	26
	Agree	33	34
	Strongly Agree	58	12
	Percentage	100	100

With reference to figure 4.14, most of the respondents (91%) agreed with the statement that the behaviour of employees in an excellent business school will instill confidence in the students. 5% of the respondents were uncertain in their response to this statement and only 4% disagreed that the behaviour of employees will instill confidence in students. 46% of the respondents agreed with the statement that the behaviour of the employees in the BSU instills confidence in students, while 28% of the respondents disagreed with this statement. 26% of the respondents were uncertain in their response whether the behaviour of employees in the BSU will instill confidence in students.

4.3.15 Customers will feel safe in their transactions

Figure 4.15: Customers will feel safe in their transactions
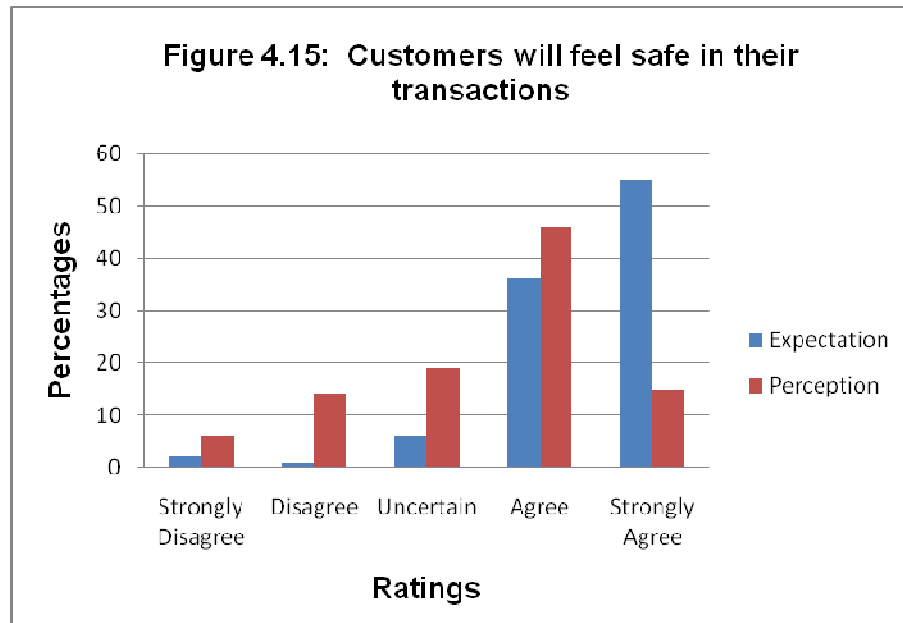
Q15		Expectation	Perception
	Strongly Disagree	2	6
	Disagree	1	14
	Uncertain	6	19
	Agree	36	46
	Strongly Agree	55	15
	Percentage	100	100

Figure 4.15 reflects that the majority of the students (91%) agreed with the statement and expect students to feel safe in their transactions at excellent business schools. 6% of the respondents were uncertain with this statement and only 3% disagreed with the statement. Most of the respondents agreed with the statement that students feel safe in their transactions with the BSU. 20% of the respondents disagreed with this statement and 19% of the respondents were uncertain in their responses in this regard.

4.3.16 Employees will be consistently courteous to customers

Figure 4.16: Employees will be consistently courteous to customers
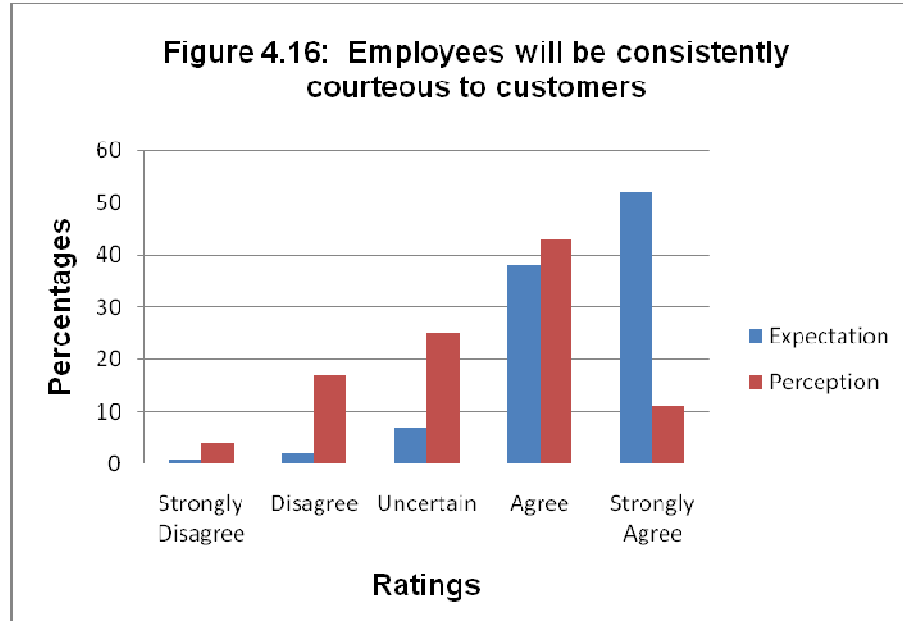
Q16		Expectation	Perception
	Strongly Disagree	1	4
	Disagree	2	17
	Uncertain	7	25
	Agree	38	43
	Strongly Agree	52	11
	Percentage	100	100

The findings in figure 4.16 reflect that most of the respondents (90%) agree with the statement and expect employees of excellent business schools to be consistently courteous. 7% of the respondents were uncertain and only 3% disagreed with this statement. 54% of the respondents agreed with the statement that the BSU employees show courtesy to students. 21% of the respondents disagreed with this statement, while 25% of the respondents were uncertain in their response in this regard.

4.3.17 Employees will have the knowledge to answer customers' questions

Figure 4.17: Employees will have the knowledge to answer customers' questions
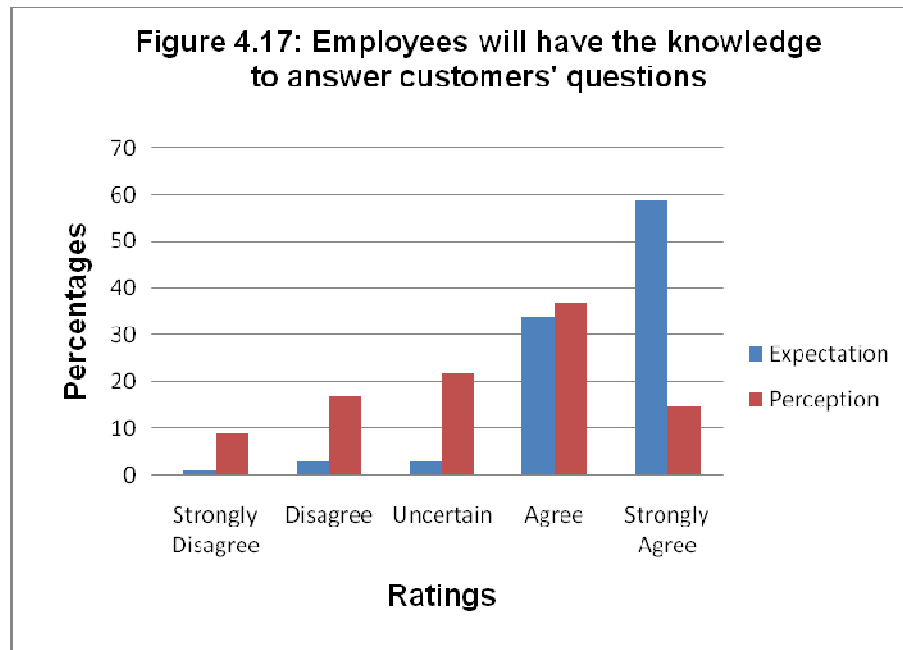
Q17		Expectation	Perception
	Strongly Disagree	1	9
	Disagree	3	17
	Uncertain	3	22
	Agree	34	37
	Strongly Agree	59	15
	Percentage	100	100

With reference to figure 4.17, the majority of the respondents (93%) agreed with the statement and expect employees in excellent business schools to have the knowledge to answer questions. 4% of the respondents disagreed with this statement. 52% of the respondents agreed with the statement that the BSU employees have the knowledge to answer students' questions, 26% of the respondents disagreed with this statement and 22% of the respondents were uncertain with their response in this regard.

### 4.3.18 Customers will be given individual attention

Figure 4.18: Customers will be given individual attention
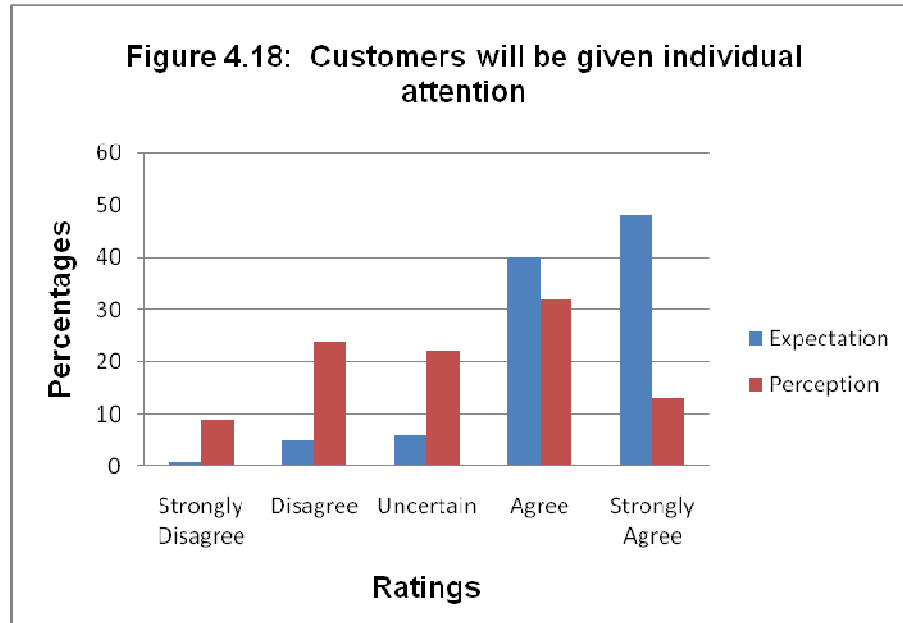
Q18		Expectation	Perception
	Strongly Disagree	1	9
	Disagree	5	24
	Uncertain	6	22
	Agree	40	32
	Strongly Agree	48	13
	Percentage	100	100

Figure 4.18 illustrates that the majority of the students (88%) agreed with the statement and expect an excellent business school to give students individual attention.   6% of the respondents, respectively, were uncertain and disagreed with this statement. 45% of the respondents agreed with the statement that the BSU gives individual attention to students. 22% of the respondents were uncertain while 33% of the respondents disagreed with the statement that the BSU gives individual attention to students.

4.3.19 Operating hours will be convenient to all their customers

Figure 4.19: Operating hours will be convenient to all their customers
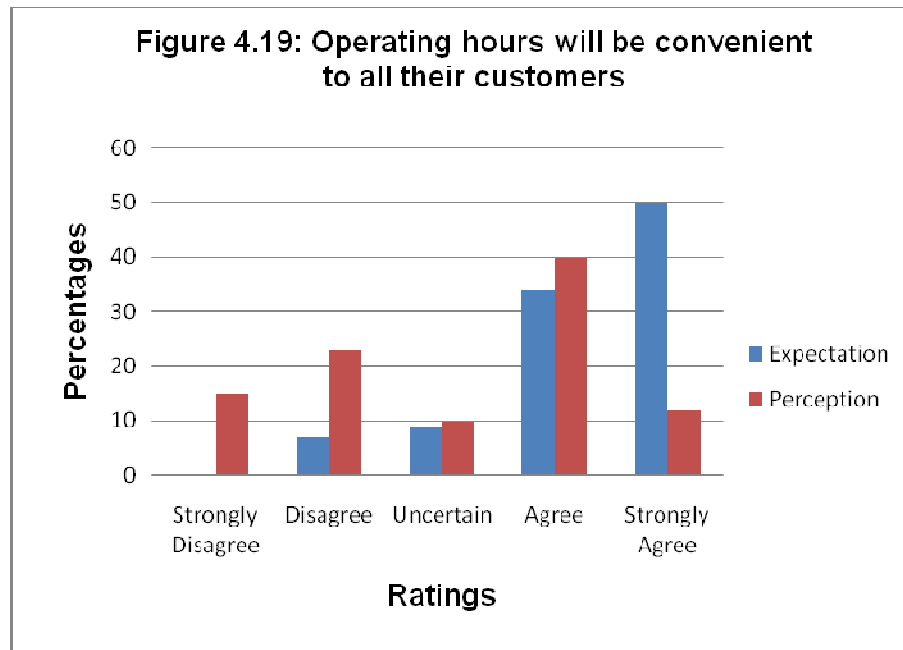
Q19		Expectation	Perception
	Strongly Disagree	0	15
	Disagree	7	23
	Uncertain	9	10
	Agree	34	40
	Strongly Agree	50	12
	Percentage	100	100

With reference to figure 4.19, most of the respondents (84%) agreed with the statement and expect excellent business schools to have convenient operating hours for all their students. 9% of the respondents were uncertain while 7% disagreed that excellent business schools will have operating hours convenient to students. 52% of the respondents agreed with the statement that the BSU has operating hours convenient to students. 38% of the respondents disagreed with the statement that BSU has convenient operating hours while 10% of the respondents were uncertain in their response in this regard.

4.3.20 Employees give customers personal attention

Figure 4.20: Employees give customers personal attention
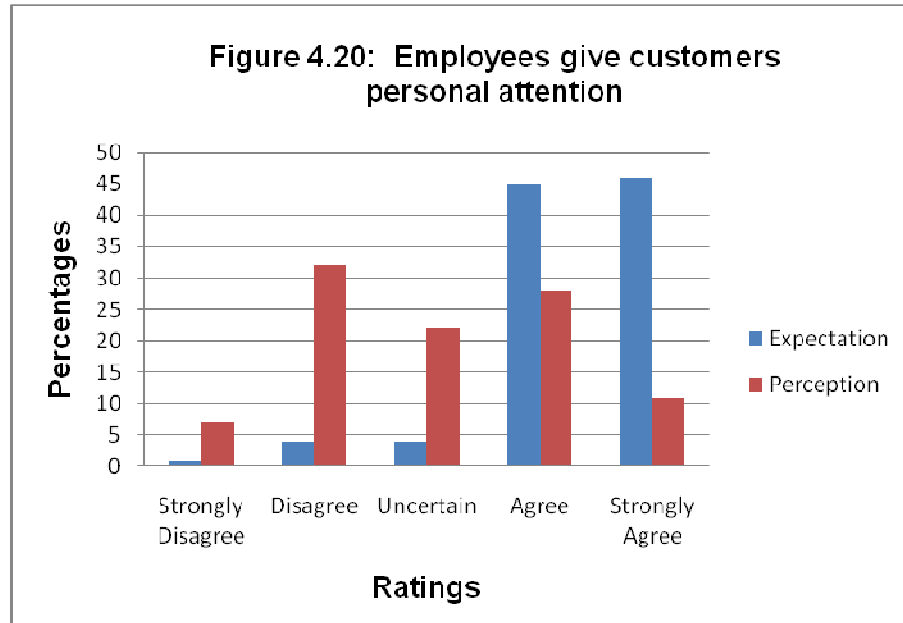
Q20		Expectation	Perception
	Strongly Disagree	1	7
	Disagree	4	32
	Uncertain	4	22
	Agree	45	28
	Strongly Agree	46	11
	Percentage	100	100

The findings in figure 4.20 reflect that most of the respondents (91%) agreed with the statement and expect excellent business schools to have employees who will give students personal attention. 4% of the respondents were uncertain and 5% disagreed with this statement. 39% of the respondents agreed with the statement that the BSU has employees who give students personal attention. 39% of the respondents disagreed with this statement while 22% of the respondents were uncertain with their response in this regard.

### 4.3.21 The organisation will have the customers' best interests at heart

Figure 4.21: The organisation will have the customers' best interests at heart
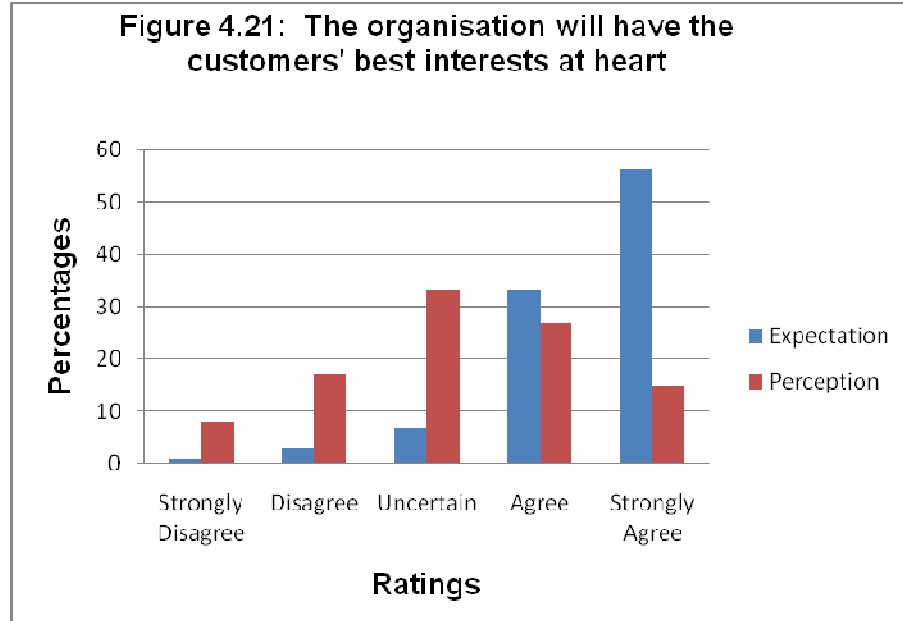
Q21		Expectation	Perception
	Strongly Disagree	1	8
	Disagree	3	17
	Uncertain	7	33
	Agree	33	27
	Strongly Agree	56	15
	Percentage	100	100

According to figure 4.21, the majority of the respondents (89%) expect excellent business schools to have the students' best interests at heart. 7% of the respondents were uncertain and 4% disagreed with this statement. 42% of the respondents agreed with the statement that the BSU has the students' best interests at heart. 33% of the respondents were uncertain in this regard and 25% of the respondents disagreed with the statement that the BSU has the students' best interests at heart.

4.3.22 Employees will understand the needs of their customers

Figure 4.22: Employees will understand the needs of their customers
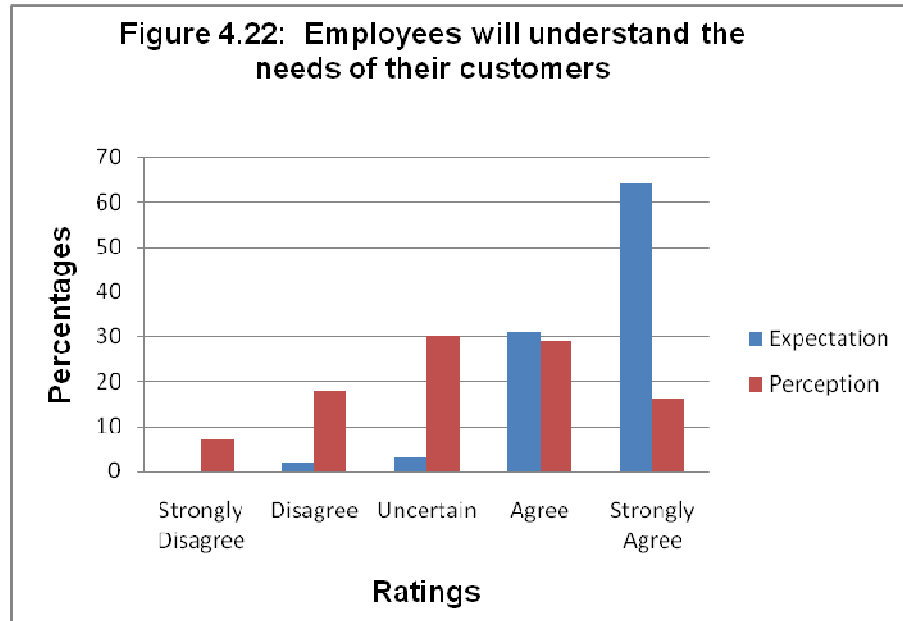
Q22		Expectation	Perception
	Strongly Disagree	0	7
	Disagree	2	18
	Uncertain	3	30
	Agree	31	29
	Strongly Agree	64	16
	Percentage	100	100

With reference to figure 4.22, the majority (95%) of the respondents agreed that excellent business schools will understand the needs of their customers. 3% of the respondents were uncertain and only 2% disagreed with this statement.

45% of the respondents agreed with the statement that the BSU will understand students' needs. 30% of the respondents were uncertain with the statement that the BSU will understand the students' needs while 25% of the respondents disagreed with this statement.

4.4 RESULTS OF THE RELIABILTY AND VALIDITY TESTS

The reliability and validity tests, identified in Chapter Three, are the Cronbach Alpha and Factor Analysis tests, respectively.

4.4.1 Cronbach's Alpha Test

The Cronbach alpha test was computed to measure the internal consistency of the factors used in the questionnaire. According to Ghauri and Gronhaug (2002: 69), the various questions pertaining to a factor should correlate positively but they should not be perfectly correlated, as they would imply that they are capturing identical data.

Table 4.1 presents a summary of the Cronbach alpha reliability scores for the expected and perceived service levels for the BSU.

Table 4.1 *Cronbach's Alpha Reliability Coefficient*

Section	Cronbach's Alpha
Expected	0.953
Perceived (BSU)	0.965
Overall	0.947

The interpretation of the alpha value is that values greater than 0.6 indicate internal reliability and consistency. The high alpha of 0.947, being close to 1, indicates that the research instrument was statistically reliable with a high degree of consistency for the scoring of the different categories in this research.

4.4.2 Factor Analysis

The tables of communalities for expected and perceived values are presented in Annexure 2. It is noted that certain components are split into finer components. This split is explained in the rotated component matrix (Refer to Annexure 3).

An assessment of how well this model is doing can be obtained from the communalities (Refer to Annexure 2). The ideal is to obtain values that are close to one. This would indicate that the model explains most of the variation for those variables. In this case, the model is fairly decent as it explains approximately 76% of the variation for the 22 factors.

The average scores of the dimensions are as follows:

Tangibles = 78%;
Reliability = 78%;
Responsiveness = 75%;
Assurance = 75%; and
Empathy = 75%.

The average scores of the dimensions give the percentages of variation explained in the model. This might be looked at as an overall assessment of the performance of the model. However, this percentage is higher than the proportion of variation explained by the first eigen value, obtained earlier. The individual communalities tell how well the model is working for the individual variables, and the total communality gives an overall assessment of performance.

4.4.3 Dimension Analysis of Gap Scores

The graphs below indicate the expected and perceived (BSU) scores in addition to the gap for each question for each dimension.

Figure 4.23 **Tangibles**
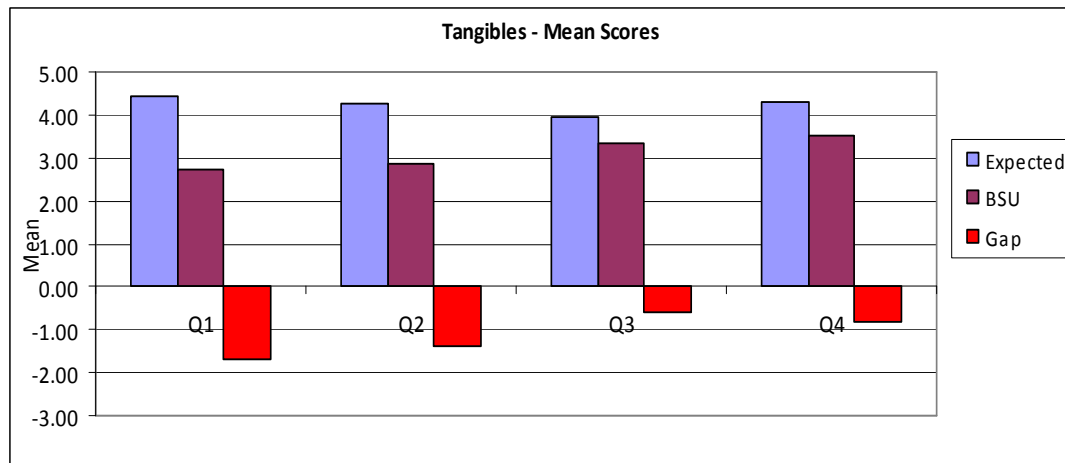
With reference to figure 4.23, it is observed that the average score for this dimension was 4.23 for the expected scores, which indicates a fair degree of agreement with the statements that constitute this dimension. Almost all of the expected scores are similar to the average score. The indication is that the respondents believe that an institution should have acceptable levels of tangibles (in terms of the layout and design of the institution). The actual rating of the BSU, however, is one of un-decidedness, as illustrated by the mean score of 3.11. This finding implies that there were as many respondents who were satisfied with the manner of the physical design and attributes of the BSU, as those that were not. Questions 1 and 2, which dealt with having modern equipment and visual appeal, respectively, showed the largest gaps.

Expectation of tangibles

89% of respondents strongly agreed that business schools should have modern-looking equipment, so that staff can provide an efficient service to students. 84% of students agreed that business schools should have visually appealing facilities.

Figure 4.24 **Reliability**

Reliability - Mean Scores
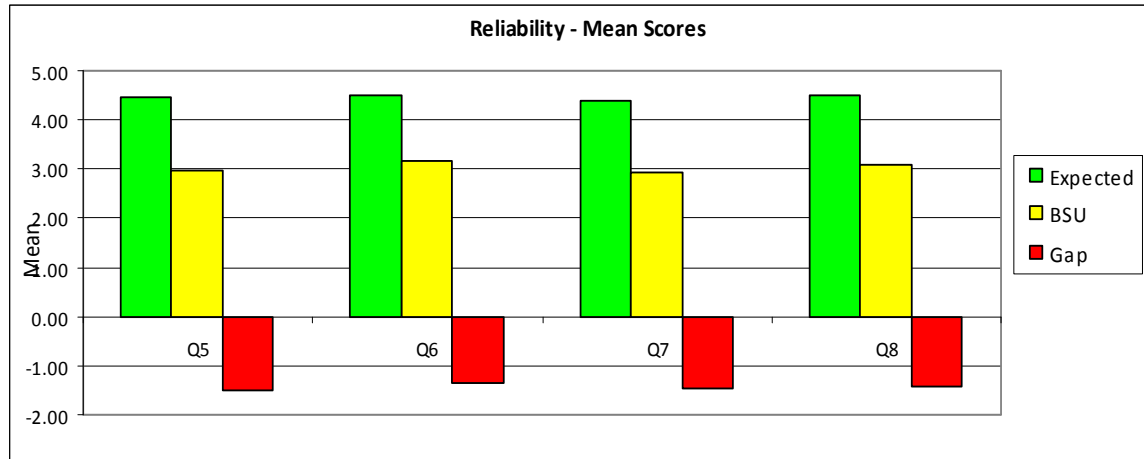
With reference to figure 4.24, this dimension effectively measures the timelines to solving and giving attention to customers' problems. The average score for this dimension was 4.45 for expected values.

All of the variables that constitute this dimension had a similar score. Once again though, the perceived score was 3.03. This finding implies that there were as many who agreed with the questions that constituted this dimension, as those who disagreed. It is also observed that the gaps are consistent and more than 1 scale rating factor in magnitude.

Expectation of reliability

The majority of respondents expect business schools to honour their promises to deliver services on time. 90% also expect business schools to show sincere interest in solving their problems. These scores for this dimension mean that students expect business schools to strive for quality, be accurate in their work and meet deadlines when promised.

Figure 4.25 **Responsiveness**

Responsiveness - Mean Scores
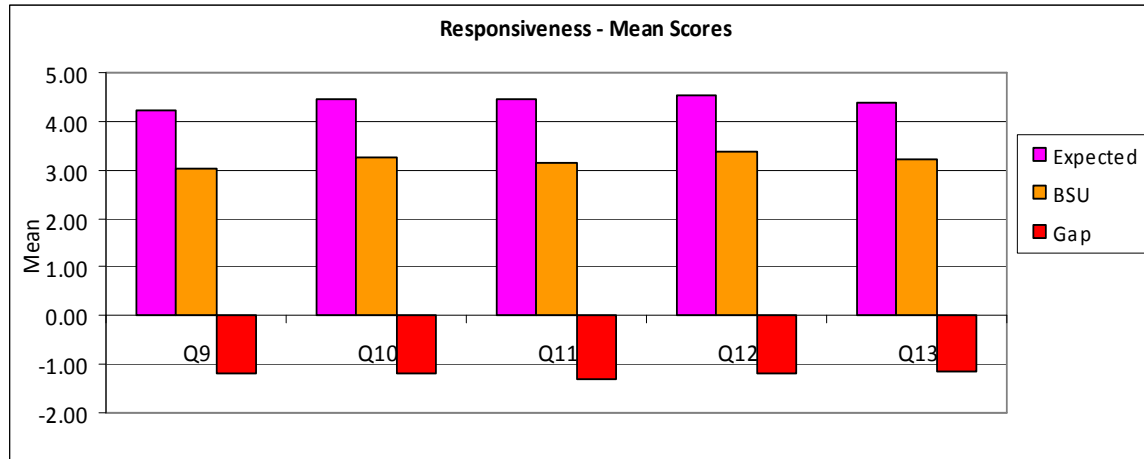
With reference to figure 4.25, this dimension measures the responses to customers' queries/requests. The average score for this dimension was 4.41 for expected values. It compares favourably to the Reliability dimension for expected values as customers want good service promptly.

All of the variables that constitute this dimension had a similar score. The perceived score was 3.21. Again, this finding implies that there were as many who agreed with the questions that constituted this dimension, as those who disagreed. It is also observed that the gaps are consistent and more than 1 scale rating factor in magnitude.

Expectation of responsiveness

Business school staff is expected to help students. 90% of students expect prompt services at all times, 87% expect staff to provide good service, while 92% expected to be informed timeously when services will be performed.

Figure 4.26 **Assurance**
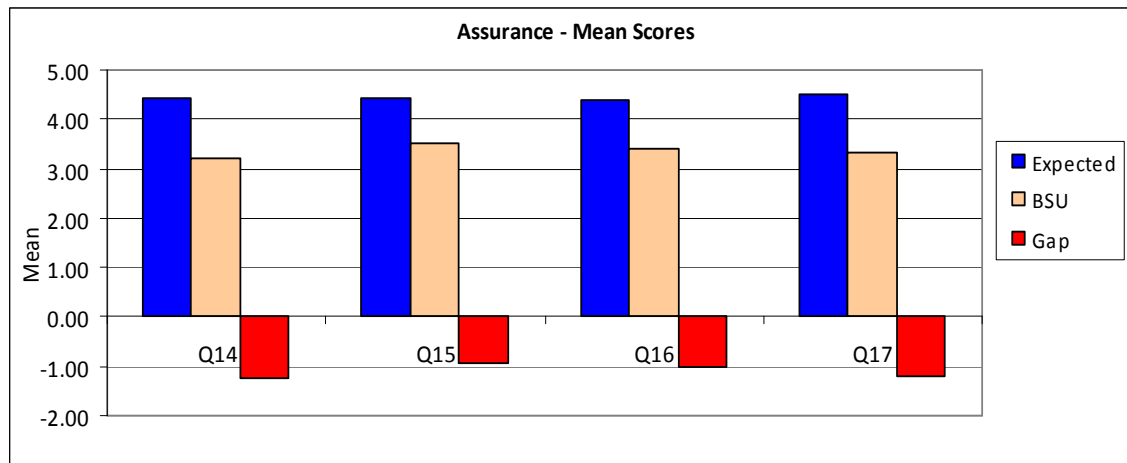
With reference to figure 4.26, the mannerisms of the employees also ranked extremely highly to customers. As employees are at the touch-points (coal-face) of interaction, the demeanour and deliverable service of the employees was of utmost importance. The expected value for this dimension was 4.44. The perceived (BSU) rating was 3.35. This finding ranked below the agreement level, but was higher than the Reliability and Responsiveness dimensions.

The indication is that although the staff are meeting some Assurance criteria, they are also falling short in others. In particular, the behaviour and the extent to which staff were knowledgeable needed to be examined.

Expectation of Assurance

The behaviour of staff is expected to instil confidence in customers. 91% agreed with this statement. 90% expected staff from business schools to be consistently courteous. 93% of students expect staff to have the knowledge to answer questions. The assurance dimension of service quality is highly dependent on employees' ability to inspire confidence and trust in customers.

Figure 4.27 **Empathy**
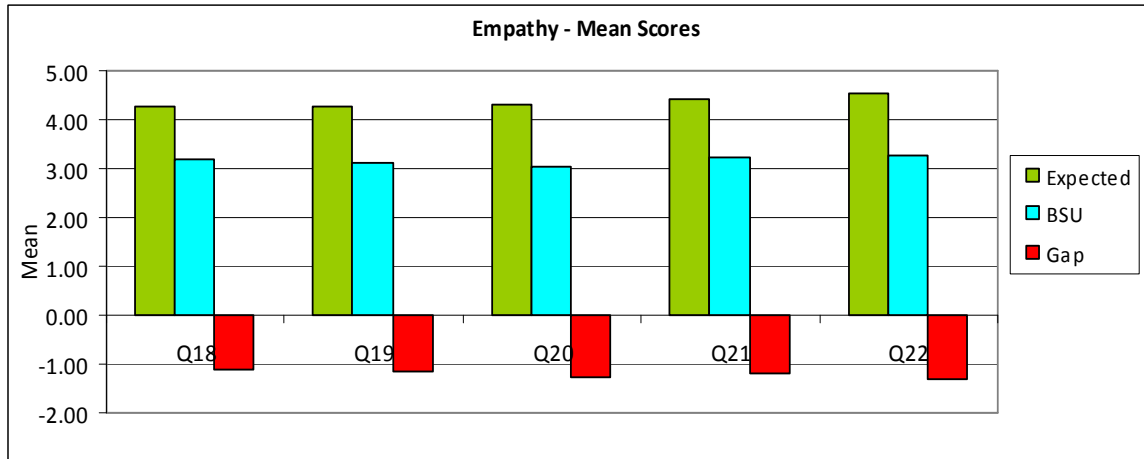
With reference to figure 4.27, the degree of attention was perceived at a mean score of 4.37. The perceived score was 3.17. It is observed that the gaps are more than one scale rating in magnitude. This finding makes a difference in terms of the rating as the scale could change from Undecided to Agree, or Agree to Strongly Agree. The expected and perceived ratings are almost consistent within the categories, so the manner of the scoring indicates consistency. Although this dimension ranked only slightly lower than all but one of the others, the attention given to customers' needs to be addressed.

Expectation of empathy

Students expect staff of business schools to provide individual attention, to have convenient operating hours and have the student's best interests at heart. 95% of the students agreed that business schools must understand the needs of customers.

Tests were performed to determine whether there was a statistically significant difference between the expected and perceived scores. The results are presented in the Table 4.2.

Table 4.2

	Sig. (2-tailed)
The organisation has modern looking equipment	0.0000
The physical facilities are visually appealing	0.0000
Employees appear professionally dressed	0.0000
Materials associated with the service (promotional brochures, invoices etc) are visually appealing	0.0000
Timelines for completing promised tasks will be adhered to	0.0000
When a customer has a problem, there is a sincere interest in solving it	0.0000
Service is performed correctly the first time	0.0000
Services are provided at the time they are promised	0.0000
Records are error-free	0.0000
Employees will tell customers exactly when services will be performed	0.0000
Employees give prompt service to customers	0.0000
Employees will always be willing to help customers	0.0000
Employees will never be too busy to respond to customers' requests	0.0000
The behaviour of employees instils confidence in customers	0.0000
Customers will feel safe in their transactions	0.0000
Employees will be consistently courteous to customers	0.0000
Employees will have knowledge to answer customers questions	0.0000
Customers will be given individual attention	0.0000
Operating hours will be convenient to all their customers	0.0000
Employees give customers personal attention	0.0000
The organisation will have the customers' best interests at heart	0.0000
Employees will understand the needs of their customers	0.0000

Paired Samples T-Test:

The traditional approach to reporting a result requires a statement of statistical significance. A **p-value** is generated from a **test statistic.** A significant result is indicated with "p < 0.05".

Table 4.2 indicates that the p-values are all approximately zero (rounded off). These findings show that there is a significant difference between the perceived and expected values, and that the results are not due to chance.

These results verify the gap analysis done earlier. A chi-square test (refer to annexure 1), per variable, also proves that there is a significant difference in the number of respondents per option. That is, respondents were not evenly spread out in their scoring per question. They tended to aggregate around a particular value.

4.5 CONCLUSION

The results have indicated that the majority of respondents expect an excellent business school to deliver services that will exceed their expectations. The findings that were discussed indicate a generally negative and uncertain perception of service quality by the respondents. The analysis further indicated that the results were statistically significant and did not happen by chance. Results show that in every question, the customers' expectation exceeded customers' perception. These results presents a great challenge to the BSU in all five dimensions of SERVQUAL as every dimension has a negative quality gap. Thus, improvements are needed across all five dimensions.

The next chapter will present the conclusions and recommendations and scope for further research.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter five presents the conclusions of the study and recommendations for improvement in the quality of the service of the Business Studies Unit of the Durban University of Technology as well as future research.

5.2 CONCLUSIONS: RESEARCH FINDINGS

The main research objective of this study was to ascertain customer perception of service quality at the BSU. The results of the relevant research questions are presented with conclusions based on the findings discussed in chapter 4. The results demonstrated that in each of the five SERVQUAL dimensions, there was a negative quality gap. Questions 1 and 2, which dealt with having modern equipment and visual appeal, respectively, in the Tangibles dimension, showed the largest gaps closely followed by the Reliability and Empathy dimensions. Gaps for Responsiveness and Assurance were similar. Negative quality gaps indicate that responsibilities have not been fulfilled well to meet students' (customers) expectations.

Objective 1: To identify expectations of students of the BSU.

The results have shown that respondents expectations about the services they receive from business schools exceed their perceptions, thus improvements are needed across all five dimensions. The gaps in all the dimensions present a challenge for the staff and management of the BSU as the institution is expected to offer their customers, the students, excellent services at all times. If the expectations are greater than perceptions, then the perceived quality is less than satisfactory and, hence, customer dissatisfaction occurs.

Objective 2: To identify the perceptions of students of the BSU.

The analysis of the dimensions indicates that respondents do not believe that the BSU places the emphasis to be a service quality institution. All the items in the dimensions indicate negative responses as the expectations exceed perceptions of the BSU.

Objective 3: To measure and compare the expectations and perceptions of students of the BSU.

The research on measuring service quality has focused primarily on how to meet or exceed customers' expectations and has viewed service quality as a measure of how the delivered service level matches consumers' expectations. The concept of measuring the difference between expectations and perceptions in the form of the SERVQUAL gap score proved useful for assessing levels of service quality.

Discussion of the study findings in respect of the individual dimensions is as follows:-

The tangibles dimension - questions 1 and 2 - showed the highest gaps in this dimension. 31% of the respondents agreed that the BSU has modern-looking equipment. This finding means that management has to upgrade the equipment so that the BSU can provide efficient service to students. 37% of the respondents agreed that the BSU has visually appealing facilities. The challenge for the BSU is to ensure that service specifications, such as course content, delivery and application, meet the expectations of customers consistently.

The reliability dimension – 35% of the respondents agreed that the BSU delivers services when promised. The BSU must provide the customer with accurate service the first time. It must deliver what is promised within the specific time frame set out. If this is done in a proper manner, perceived quality of the customer will be enhanced (Brink and Berndt, 2005:60).

The responsiveness dimension – 44% of the respondents agreed that the BSU gives students prompt services. Dale *et al.*, (2007:240) define responsiveness as the willingness to assist customers and to provide prompt service on a continuous basis. Sometimes, this service may be out of the ambit of normal operating hours. The BSU should focus on attentiveness and willingness in dealing with customers' requests, queries and prompt complaint resolution.

The assurance dimension – Although this dimension fared better than the others, the BSU needs to train staff to improve on product knowledge to answer students' questions.

The empathy dimension – 39% of the respondents agreed that the BSU staff give students personal attention and 42% agree that the BSU has the students' best interests at heart. According to Brink and Berndt (2005:60), the BSU and its employees must try to understand the customers' problems and strive to execute activities with the customers' best interests in mind.

5.3 RECOMMENDATIONS

Research of this nature is of great importance to the BSU so that the institution can implement an appropriate set of processes to continuously review and refine customer service quality. The gaps between expectations and perceptions of the results from this survey indicate that there is a need for customer service improvements to be put in place. The following recommendations are, therefore, made:-

• Management must focus attention and resources on the purchase of new equipment and ensure that the facilities that customers (students) utilize are well maintained and visually appealing;

- Staff must be trained in service quality programmes e.g. Customers' Service Improvement Workshops, Product Knowledge Workshops, Communication Workshops and Interpersonal Skills Workshops;

- Management must incalculate a service quality culture amongst all employees;

- Management must ensure that correct feedback mechanisms are in place to check deadlines promised to students, carrying out promises timeously as well as sincerity shown by staff to solve students' problems;

- Management must clarify tasks of all personnel and find a solution, where necessary and deal with tasks without interfering with quality performance; and

- Management should make proper changes to technology and systems so that they are supportive of the execution of the quality specifications.

RECOMMENDATIONS FOR THE IMPROVEMENT OF THE QUALITY GAPS ARE AS FOLLOWS:-

a) The BSU should have measures of performance based on rigid measures of customer satisfaction. The measures should be regularly monitored and fed back to all internal suppliers and customers and a system of planning put in place to close all any gaps between actual performance and expectations;

b) Teamwork should be encouraged to create the best influence of synergy by offering team building training and rewarding team efforts with group incentives;

c) Winning the "hearts and minds" of employees and cultivating motivation and commitment amongst the staff should remain a key issue. The Senior Management Team must strive to share the BSU's vision, mission and values and ensure that it becomes a reality, and also foster and promote an

environment where people feel secure, trusted and respected;

d) Timely and accurate data are a prerequisite of effective, quality-related decision-making. Quality information systems and quality databases need to be developed further in order to facilitate this accuracy. Feedback of internal and external data is a key issue;

e) Most quality service problems are caused by poor communications. The BSU needs to develop effective methods and channels which encourage open and honest communication between employees at all levels and customers (students); and

f) Quality must start with education. The BSU must invest to train employees at all levels in improvement skills in order to facilitate changes in behaviour and attitude.

5.4 SCOPE FOR FUTURE RESEARCH

In order to improve service quality, it is necessary for the BSU to regularly assess employees as well as customers' experiences. Like the external customer, an internal customer, too, considers categories of service attributes such as reliability and responsiveness, in judging the quality of the internal service.

To appreciate the benefits of using SERVQUAL, surveys should be conducted every year for the following reasons:-

- To allow yearly comparisons;

- To determine how service improvements have affected customers' expectations and perceptions of the service delivery of the BSU over time; and

- To determine the effectiveness of service development and continuous service improvement in targeted dimensions.

5.5   SUMMARY

In conclusion, knowing how customers perceive service quality and being able to measure service quality can benefit the BSU. The measurement of service quality can provide specific data that can be used in quality management. Hence, the BSU would be able to monitor and maintain quality service. By assessing service quality and better understanding how various dimensions affect overall service quality the BSU would be able to efficiently devise the service delivery process. Also, by identifying strengths and weaknesses pertaining to the dimensions of service quality, the BSU can better allocate resources to provide better service to external customers, the students.

10. <u>REFERENCES</u>

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11. APPENDICES

Appendix: 1   1 Sloane Square

247 Moore Road

Durban

4001

Dear Participant,

ACKNOWLEDGEMENT OF CONSENT

I am currently undertaking a research project towards an MBA degree at the Business Studies Unit, Durban University of Technology. Your valued input is highly beneficial to my study. ***(All information received is highly confidential and will be used for analysis purposes only).***

The purpose of this survey is to assess the responses of students' perception of service quality at the Business Studies Unit.

Please respond as honestly as possible as the information obtained from this survey will help to improve the service of the BSU to you.

Thank you for your participation

Yours faithfully

Nishi Manuel (Mrs)

Research Supervisor: Dr Jeeva Govender

Senior Lecturer: Department of Marketing

Faculty of Commerce: DUT

031 – 3735396

Directions for service expectations questionnaire

Based on your experiences as a student at the Business Studies Unit, please consider the kind of educational institution that would deliver excellent quality of service, the institution with which you would be pleased to do business.

Please show the extent to which you think such an institution would possess the feature described by each statement

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly Agree

		Expectations questionnaire				
		Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree
1	An excellent business school will have modern looking equipment	1	2	3	4	5
2	The physical facilities at the business school will be visually appealing	1	2	3	4	5
3	Employees at the business school will appear professionally dressed	1	2	3	4	5
4	Materials associated with the service (promotional brochures, invoices etc) will be visually appealing at an excellent business school	1	2	3	4	5
5	When excellent business schools promise to do something by a certain time, they will do so	1	2	3	4	5
6	When a customer has a problem, excellent business schools will show a sincere interest in solving it	1	2	3	4	5
7	Excellent business schools will perform the service right first time	1	2	3	4	5
8	Excellent business schools will provide their services at the time they promise to do so	1	2	3	4	5
9	Excellent business schools will insist on error free records	1	2	3	4	5

		Expectations questionnaire				
		Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree
10	Employees in excellent business schools will tell customers exactly when services will be performed	1	2	3	4	5
11	Employees in excellent business schools will give prompt service to customers	1	2	3	4	5
12	Employees in excellent business schools will always be willing to help customers	1	2	3	4	5
13	Employees in excellent business schools will never be too busy to respond to customers' requests	1	2	3	4	5
14	The behaviour of employees in excellent business schools will instill confidence in customers	1	2	3	4	5
15	Customers of excellent business schools will feel safe in their transactions	1	2	3	4	5
16	Employees in excellent business schools will be consistently courteous to customers	1	2	3	4	5
17	Employees in excellent business schools will have knowledge to answer customers' questions	1	2	3	4	5

		Expectations questionnaire				
		Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree
18	Excellent business schools will give customers individual attention	1	2	3	4	5
19	Excellent business schools will have operating hours convenient to all their customers	1	2	3	4	5
20	Excellent business schools will have employees who give customers personal attention	1	2	3	4	5
21	Excellent business schools will have the customers' best interests at heart	1	2	3	4	5
22	Employees in excellent business schools will understand the needs of their customers	1	2	3	4	5

Service perceptions of the business studies unit questionnaire

The following set of questions relate to your feelings about the Business Studies Unit (BSU). For each statement please show the extent to which you think the Business Studies Unit (BSU) has the feature described by each statement.

Selecting 1 means you strongly disagree that the BSU has the feature** and **selecting 5 means you strongly agree that the BSU has the feature.

If your feelings are less strong then select one of the numbers in between. There are no wrong or right answers, only your perceptions about the BSU are important.

		Perceptions questionnaire				
		Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree
1	BSU has modern looking equipment	1	2	3	4	5
2	The physical facilities at the BSU are visually appealing	1	2	3	4	5
3	Employees at the BSU are professionally dressed	1	2	3	4	5
4	BSU materials associated with the service (promotional brochures, invoices etc) are visually appealing	1	2	3	4	5
5	When BSU promise to do something by a certain time, they will do so	1	2	3	4	5

		Perceptions questionnaire				
		Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree
6	When a customer has a problem, BSU shows a sincere interest in solving it	1	2	3	4	5
7	BSU performs the service right first time	1	2	3	4	5
8	BSU provide their services at the time they promise to do so	1	2	3	4	5
9	BSU insists on error-free records	1	2	3	4	5
10	Employees in BSU tell you exactly when services will be performed	1	2	3	4	5
11	Employees in BSU give prompt service to you	1	2	3	4	5
12	Employees in the BSU are always willing to help you	1	2	3	4	5
13	Employees in the BSU are never too busy to respond to your requests	1	2	3	4	5
14	The behaviour of employees in the BSU instills confidence in you	1	2	3	4	5
15	You feel safe in your transactions with the BSU	1	2	3	4	5
16	Employees in the BSU will be consistently courteous to you	1	2	3	4	5

		Perceptions questionnaire				
		Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree
17	Employees in the BSU have the knowledge to answer your questions	1	2	3	4	5
18	The BSU gives you individual attention	1	2	3	4	5
19	The BSU has operating hours convenient to you	1	2	3	4	5
20	The BSU has employees who give you personal attention	1	2	3	4	5
21	The BSU has your best interest at heart	1	2	3	4	5
22	The BSU understands your needs	1	2	3	4	5

Annexure 1

Test Statistics	Chi-Square	df	Asymp. Sig.
The organisation has modern looking equipment - E	239.44	4	0.00
The organisation has modern looking equipment - P	48.56	4	0.00
The physical facilities are visually appealing - E	171.69	4	0.00
The physical facilities are visually appealing - P	40.77	4	0.00
Employees appear professionally dressed - E	96.26	4	0.00
Employees appear professionally dressed - P	85.28	4	0.00
Materials associated with the service (promotional brochures, invoices etc) are visually appealing - E	205.28	4	0.00
Materials associated with the service (promotional brochures, invoices etc) are visually appealing - P	99.85	4	0.00
Timelines for completing promised tasks will be adhered to - E	277.38	4	0.00
Timelines for completing promised tasks will be adhered to - P	20.97	4	0.00
When a customer has a problem, there is a sincere interest in solving it - E	285.49	4	0.00
When a customer has a problem, there is a sincere interest in solving it - P	37.18	4	0.00
Service is performed correctly the first time - E	220.26	4	0.00
Service is performed correctly the first time - P	27.33	4	0.00
Services are provided at the time they are promised - E	300.67	4	0.00
Services are provided at the time they are promised - P	27.85	4	0.00
Records are error free - E	156.36	4	0.00
Records are error free - P	48.77	4	0.00
Employees will tell customers exactly when services will be performed - E	260.10	4	0.00
Employees will tell customers exactly when services will be performed - P	71.03	4	0.00
Employees give prompt service to customers - E	253.23	4	0.00
Employees give prompt service to customers - P	30.00	4	0.00
Employees will always be willing to help customers - E	299.69	4	0.00
Employees will always be willing to help customers - P	48.21	4	0.00
Employees will never be too busy to respond to customers requests - E	217.18	4	0.00
Employees will never be too busy to respond to customers requests - P	62.82	4	0.00
The behaviour of employees instills confidence in customers - E	251.49	4	0.00
The behaviour of employees instills confidence in customers - P	40.00	4	0.00
Customers will feel safe in their transactions - E	232.36	4	0.00
Customers will feel safe in their transactions - P	84.36	4	0.00
Employees will be consistently courteous to customers - E	216.26	4	0.00
Employees will be consistently courteous to customers - P	87.54	4	0.00
Employees will have knowledge to answer customers questions - E	274.72	4	0.00
Employees will have knowledge to answer customers questions - P	45.38	4	0.00
Customers will be given individual attention - E	186.87	4	0.00
Customers will be given individual attention - P	32.21	4	0.00
Operating hours will be convenient to all their customers - E	173.79	4	0.00
Operating hours will be convenient to all their customers - P	66.10	4	0.00
Employees give customers personal attention - E	206.51	4	0.00
Employees give customers personal attention - P	45.28	4	0.00
The organisation will have the customers' best interests at heart - E	228.46	4	0.00
The organisation will have the customers' best interests at heart - P	36.26	4	0.00
Employees will understand the needs of their customers - E	293.08	4	0.00
Employees will understand the needs of their customers - P	36.26	4	0.00

Annexure 2

Expected:

Communalities

	Initial	Extraction
The organisation has modern looking equipment - E	1.000	.699
The physical facilities are visually appealing - E	1.000	.665
Employees appear professionally dressed - E	1.000	.811
Materials associated with the service (promotional brochures, invoices etc) are visually appealing - E	1.000	.760
Timelines for completing promised tasks will be adhered to - E	1.000	.738
When a customer has a problem, there is a sincere interest in solving it - E	1.000	.694
Service is performed correctly the first time - E	1.000	.693
Services are provided at the time they are promised - E	1.000	.731
Records are error free - E	1.000	.591
Employees will tell customers exactly when services will be performed - E	1.000	.664
Employees give prompt service to customers - E	1.000	.775
Employees will always be willing to help customers - E	1.000	.710
Employees will never be too busy to respond to customers requests - E	1.000	.660
The behaviour of employees instills confidence in customers - E	1.000	.718
Customers will feel safe in their transactions - E	1.000	.773
Employees will be consistently courteous to customers - E	1.000	.785
Employees will have knowledge to answer customers questions - E	1.000	.678
Customers will be given individual attention - E	1.000	.798
Operating hours will be convenient to all their customers - E	1.000	.792
Employees give customers personal attention - E	1.000	.801
The organisation will have the customers' best interest at heart - E	1.000	.786
Employees will understand the needs of their customers - E	1.000	.779

Extraction Method: Principal Component Analysis.

Perceived:

Communalities

	Initial	Extraction
The organisation has modern looking equipment - P	1.000	.781
The physical facilities are visually appealing - P	1.000	.810
Employees appear professionally dressed - P	1.000	.900
Materials associated with the service (promotional brochures, invoices etc) are visually appealing - P	1.000	.646
Timelines for completing promised tasks will be adhered to - P	1.000	.776
When a customer has a problem, there is a sincere interest in solving it - P	1.000	.702
Service is performed correctly the first time - P	1.000	.807
Services are provided at the time they are promised - P	1.000	.840
Records are error free - P	1.000	.611
Employees will tell customers exactly when services will be performed - P	1.000	.765
Employees give prompt service to customers - P	1.000	.792
Employees will always be willing to help customers - P	1.000	.784
Employees will never be too busy to respond to customers requests - P	1.000	.776
The behaviour of employees instills confidence in customers - P	1.000	.756
Customers will feel safe in their transactions - P	1.000	.758
Employees will be consistently courteous to customers - P	1.000	.764
Employees will have knowledge to answer customers questions - P	1.000	.735
Customers will be given individual attention - P	1.000	.694
Operating hours will be convenient to all their customers - P	1.000	.745
Employees give customers personal attention - P	1.000	.811
The organisation will have the customers' best interest at heart - P	1.000	.777
Employees will understand the needs of their customers - P	1.000	.722

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component - E					Component - P				
	1	2	3	4	5	1	2	3	4	5
The organisation has modern looking equipment	0.0300	0.7725	0.1201	0.1543	0.2508	0.0191	0.2597	0.1499	0.8295	0.0521
The physical facilities are visually appealing	0.1596	0.7037	0.1511	0.1545	0.3124	0.2025	0.2718	0.1725	0.8015	0.1506
Employees appear professionally dressed	0.0938	0.1892	0.2296	0.0283	0.8441	0.2128	0.1884	0.1293	0.1986	0.8733
Materials associated with the service (promotional brochures, invoices etc) are visually appealing	0.2523	0.4580	0.0027	0.2801	0.6392	0.4105	0.0996	0.2345	0.5855	0.2650
Timelines for completing promised tasks will be adhered to	0.5083	0.6596	0.0998	0.0575	0.1757	0.3117	0.6936	0.2468	0.3584	0.0923
When a customer has a problem, there is a sincere interest in solving it	0.4842	0.5193	0.2558	0.3003	0.1841	0.4305	0.6219	0.2691	0.2213	0.0905
Service is performed correctly the first time	0.5202	0.5028	0.0614	0.3856	0.1316	0.2686	0.6378	0.3311	0.4100	0.2240
Services are provided at the time they are promised	0.5204	0.5747	0.1248	0.3335	-0.0582	0.2810	0.7598	0.2804	0.3054	0.1080
Records are error free	0.2921	0.4024	0.1641	0.5620	-0.0342	0.5039	0.2349	0.1282	0.5344	-0.0068
Employees will tell customers exactly when services will be performed	0.5115	0.4597	0.3772	0.2080	-0.0736	0.4137	0.7123	0.1539	0.2113	0.1331
Employees give prompt service to customers	0.5423	0.5971	0.3430	0.0737	-0.0288	0.5404	0.6064	0.2905	0.1360	0.1718
Employees will always be willing to help customers	0.5921	0.3514	0.4188	0.2297	0.0877	0.7114	0.4083	0.3013	0.1359	0.0493
Employees will never be too busy to respond to customers' requests	0.4519	0.3013	0.4668	0.3780	0.0647	0.7684	0.2728	0.2604	0.2024	0.0502
The behaviour of employees instils confidence in customers	0.7357	0.1804	0.2008	0.3012	0.1145	0.6632	0.4190	0.2864	0.1779	0.1655
Customers will feel safe in their transactions	0.8198	0.1573	0.1718	0.1833	0.1153	0.7084	0.3335	0.1651	0.1717	0.2966
Employees will be consistently courteous to customers	0.7293	0.1698	0.3657	0.2199	0.2044	0.7023	0.3301	0.2381	0.1125	0.3042
Employees will have knowledge to answer customers' questions	0.5518	0.1912	0.3115	0.4563	0.1782	0.6844	0.2334	0.3817	0.2478	0.0690
Customers will be given individual attention	0.2803	0.1111	0.8254	0.0859	0.1372	0.4436	0.3790	0.5760	0.1292	-0.0686
Operating hours will be convenient to all their customers	0.1309	0.1932	0.7749	0.3631	0.0733	0.1569	0.1704	0.7827	0.1717	0.2217
Employees give customers personal attention	0.2386	0.1017	0.8178	0.2206	0.1278	0.4192	0.3644	0.6729	0.2231	0.0093
The organisation will have the customers' best interest at heart	0.2685	0.1300	0.4033	0.7148	0.1515	0.5702	0.2441	0.5651	0.2307	0.1405
Employees will understand the needs of their customers	0.3427	0.1853	0.3470	0.6924	0.1643	0.4505	0.2932	0.6042	0.2515	0.0659

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.