

# **The improvement of service quality in a service organisation by determining clients' needs**

by

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## **OPSOMMING**

**TITEL: Die verbetering van dienskwaliteit in 'n diensonderneming deur middel van 'n kliëntebehoeftebepaling.**

### **INLEIDING**

Kwaliteit en verbruikerstevredenheid is baie belangrike onderwerpe en dit is daarom geen verassing dat hierdie onderwerpe wêreldwyd aansienlike aandag geniet nie. Die konsep dat kliënte die beste regters van dienskwaliteit is, is nog steeds relatief nuut. Wanneer die kliënt beskou word as die finale arbiter van kwaliteit, begin bemarkers 'n belangrike rol speel in die definiëring van verwagtings in kliëntebehoeftebepaling.

Die Instituut van Interne Ouditeure Suid-Afrika (IIO-SA), het 1 341 lede, teenoor die Instituut van Interne Ouditeure se ongeveer 60 000 lede wêreldwyd. Die IIO-SA kan beskou word as 'n doodgewone diensonderneming, wat in plaas van verbruikers net lede het. Die dienskwaliteit vraagstukke en konsepte is vir alle doeleindes eenders as dié van 'n diensonderneming. In hierdie verband, word die IIO-SA – nes ander diensondernemings – met menige uitdagings gekonfronteer. Lede, wil byvoorbeeld toenemend weet watter waarde hulle ontvang in ruil vir hul lidmaatskapsfooie. Lede vereis ook hoër vlakke van dienskwaliteit.

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### **DOEL**

Die oorhoofse doel van die studie is om die vlak van kliëntediens by die IIO-SA te bepaal en om dan riglyne ter verbetering van dienskwaliteit, voor te stel. Die volgende doelwitte is gestel:

- ❖ Om die verskille tussen goedere en dienste, dienskwiteit, kliëntetevredenheid, SERVQUAL en ander relevante literatuur te bestudeer;
- ❖ Om die diensverwagtings van die IIO-SA se lede te bepaal en op te weeg teenoor hul persepsie van diens werklik gelewer. Die gapings tussen verwagtings en persepsies word gemeet en geëvalueer; en
- ❖ Om riglyne / aanbevelings aan die IIO-SA se Raad van Direkteure te verskaf ter verbetering van dienskwiteit aan lede.

## **STUDIEMETODE**

Die studie bestaan uit 'n literatuurstudie oor dienskwiteit en verwante onderwerpe, asook 'n empiriese ondersoek met behulp van die SERVQUAL metingsinstrument. Die empiriese ondersoek se resultate word aan die hand van tabelle en grafieke in Hoofstuk 3 bespreek.



## **BEVINDINGE**

Al vyf die SERVQUAL dimensies, en 21 van die 22 SERVQUAL stellings, het negatiewe resultate getoon. Die betroubaarheidsdimensie het die grootste negatiewe gaping getoon, gevolg deur responsiwiteit, versekering, empatie en tasbaarheid. Respondente het ook in terme van belangrikheid, hierdie vyf dimensies in dieselfde volgorde geplaas. Moontlike oorsake vir die resultate is aangedui en sekere riglyne ter verbetering van dienskwiteit, is in Hoofstuk 4 bespreek.

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# CHAPTER 1

## INTRODUCTION

### 1.1 BACKGROUND

*“During the last decade, virtually every American business has undertaken a program to improve quality. Challenged by foreign competitors able to provide reliable products at attractive prices, many industries quickly got the message that improved quality was an essential ingredient of success. As America’s crisis of competitiveness deepened, farsighted business leaders soon realized that first-rate quality was not so much a key to success as a prerequisite for survival. What started in manufacturing soon spilled into the service sector, with essentially the same message: Your company will thrive or wilt on the basis of the quality of service it provides” (Thomas, Gallace & Martin, 1992:5).*

When reading the aforementioned, the question that comes to mind, is whether *any* company can afford *not* to strive for zero-defect, or doing the right things right, first time. Organisations are, however, very slow in adopting these quality concepts and the results can be seen in everyday situations where customer requirements are not exceeded, or at least satisfied.

Dissatisfaction with the final product or service of an organisation can be seen as being a quality problem. According to Crosby (1984:1), such troubled organisations have, amongst other, the following characteristics in common:

- The outgoing product or service normally contains deviations from the published, announced, or agreed-upon requirements.

- The company has an extensive field service or dealer network skilled in rework and resourceful corrective action to keep the customers satisfied.
- Management does not provide a clear performance standard or definition of quality, so the employees each develop their own.
- Management does not know the price, nor effects, of non-conformance.
- Management denies that it is the cause of the problem.

Quality and customer satisfaction are important topics and it is therefore not surprising that these issues receive attention world-wide. Well-managed service organisations have the following common virtues (Kotler & Armstrong, 1996:667):



- A history of top management commitment to quality;
- High standards for service quality are set;
- Service performance is well monitored – both their own and that of competitors; and
- Employees as well as customers are being satisfied.

The concept that customers are the best judges of the quality of a service process and its outcome is relatively new and replaces (or supplements) other concepts of quality. When the customer is seen as the final arbiter of quality, then marketing managers come to play a key role in defining expectations and in measuring customer satisfaction (Lovelock, 1996:488).

## 1.2 THE INSTITUTE OF INTERNAL AUDITORS

The Institute of Internal Auditors South Africa (IIA-SA) is affiliated to the Institute of Internal Auditors Inc. (IIA-Inc.) as a National Institute and is a member of the Southern Africa Region. The IIA Inc. has 60 000 members in more than 100 countries specialising in internal auditing, governance and internal control, IT audit, education and security. The IIA Inc. has chapters in more than 150 metropolitan areas and has national institutes in 22 countries around the globe (Institute of Internal Auditors South Africa, 1999).

The IIA-SA speaks out on issues affecting the profession, responds to the needs of auditing practitioners in South Africa and forms alliances in the best interest of the internal audit community. The IIA-SA further promotes the interests of the South African internal auditing community through its participation in business, governmental and educational organisations. Significant developments and technical innovations which impact on the internal auditing profession, are brought to the attention of internal auditors. The IIA-SA endeavours to be:

- ⇒ wholly representative of the Internal Auditing profession in South Africa;
- ⇒ the recognised authority on internal auditing practice in South Africa; and
- ⇒ leaders in research and development in internal auditing in South Africa.

The IIA-SA currently has 1 341 members. The IIA-SA is an association incorporated as a non-profit organisation under Section 21 of the Companies Act. The Institute's day-to-day operations are administered by three full-time staff members at the Institute's national office and works in tandem with volunteers from the Board of Directors and Institute Chapters. The Board of Directors are elected by Institute members at the Annual General Meetings.

### 1.3 PROBLEM DEFINITION

Today's business environment is characterised by rapid change which features prominently in business relationships with customers, suppliers, employees, and in competitive relationships. Although change has always been an essential part of the business environment, it has never before been as rapid and dramatic as is being seen now. Yesterday's assumptions are no longer safe for today and companies that were never competitors, now are. Customers are becoming more demanding and unpredictable. Many factors drive change in business relationships, but the three most powerful forces of change in today's world are technology; global competition; and rising customer expectations (Wolkins, 1996:1).

Rising customer expectations are perhaps the most important force for change. Customers' expectation to have the best service at the lowest price seems to be boundless, and just when a company feels that they have succeeded, the requirements change and get tougher. The ever-increasing customer expectations become even more involved when one considers that *customers* should be interpreted as meaning external customers; competitors' customers who the organisation would like to attract; and internal customers (employees).

Today's companies also need to address the question of how a company can not only maintain its current client base, but also stimulate new business. In the context of the IIA-SA, this translates to not only providing relevant services to members, but also in developing new and innovative services, and attracting new members by rendering a high quality service to existing members.

From the aforementioned it is clear that the IIA-SA, like most service companies, are faced with numerous challenges. Increasingly, members of the IIA-SA and any other professional bodies, want to know exactly what they receive in return

for their membership fees and also (rightfully) insist on a high level of customer service. The IIA-SA also needs to be customer-orientated if the mission of being wholly representative of the Internal Auditing profession in South Africa, is to be achieved.

#### **1.4 PURPOSE OF STUDY**

The overall goal of this study is firstly to measure the level of service offered by the IIA-SA and then to formulate guidelines as to how the service performance can be improved. The following objectives are formulated for this study:

- 1.4.1 To examine the differences between goods and services, the nature of the service activity, marketing considerations of services, defining and measuring service quality, customer satisfaction and customer focus, service quality information system, the service quality model and its failure gaps, and the SERVQUAL instrument;
- 1.4.2 To establish the service expectations of the IIA-SA members and to weigh these expectations up against the perceived level of customer service provided by the IIA-SA. The differences (gaps) between the members' expectations and the level of service provided by the IIA-SA are to be measured and evaluated; and
- 1.4.3 To provide guidelines / make recommendations to the IIA-SA Board for improving the quality of service to its members, so that the gap between customer expectation and service provision is minimised.

## 1.5 RESEARCH METHODOLOGY

The research consists of a literature study of service quality, which includes aspects such as the "Service Quality" model and the service quality gaps. The SERVQUAL instrument is then used as a basis for the measurement of the IIA-SA members' (customer) expectations and the evaluation of their service quality perceptions. The data is analysed and critically discussed and presented in a meaningful format in order to give insight into the various issues surrounding service quality.

## 1.6 DEMARCATION OF THE RESEARCH

The study consists of four chapters with the following layout:

**Chapter 2** contains a literature study which includes the differences between goods and services, the nature of the service activity, marketing considerations of services, defining and measuring service quality, customer satisfaction and customer focus, the service quality information system, an analysis of the service quality model in which the different gaps of quality customer service are analysed, as well as the SERVQUAL instrument.

**Chapter 3** contains the research methodology, the results and analysis of the empirical research as well as possible causes for the service quality gaps.

**Chapter 4** concludes the study by summarising all the chapters, drawing conclusions and making recommendations regarding the insight gained in service quality.

## **1.7 STUDY LIMITATIONS**

The research is only performed on existing members of the IIA-SA. This means that non-members' expectations and perceptions are not analysed which may also prove to be informative as such non-members may have ceased to be IIA-SA members or may not consider membership due to certain perceived shortcomings of the IIA-SA.





## CHAPTER 2

### LITERATURE STUDY

#### 2.1 INTRODUCTION

*“There are no bad customers; some are just harder to please than others.”*

Hoffman and Bateson (1997:235)

The problem definition as stated in Chapter 1 focuses on the changing business environment and increased competition due to the globalisation of markets, often referred to as “the global village”. These factors result in rising customer expectations and the importance of not only retaining existing customers, but also attracting new ones.

This chapter focuses on some of the concepts which are key to service quality and includes, among other things, the differences between services and goods, the differences in marketing services and goods, measuring quality, customer satisfaction, the service quality model and the SERVQUAL instrument.

Service quality offers a means of achieving success among competing firms that offer similar products (Hoffman & Bateson, 1997:319). Unlike a product, a service cannot be measured in isolation against a precise and objective set of standards. Just as beauty is in the eyes of the beholder, service quality is measured through the eyes of the customer (LoSardo & Rossi, 1993:45).

A quality service is provided to customers when their expectations are either met or exceeded. Many companies make the mistake of assuming they know what their customers expect – and then lose their customers. Because of the aforementioned, it is essential to determine what customers *really* want. To complicate matters further, people will experience service in different ways and each customer has a particular perception of the service rendered. In addition, the same individual customer's expectations and perceptions also varies from day to day.

## 2.2 SERVICES DEFINED

Zeithaml and Bitner (1996:5) states that in the most simple terms, services are deeds, processes and performances. On the other hand, goods can be defined as objects, devices or things (Hoffman & Bateson, 1997:5).

The distinction between goods and services is, however, not always perfectly clear and it is difficult to provide an example of pure goods or a pure service. It becomes apparent that services are not only produced by service organisations, but that they are also integral to the products offered by many manufacturing companies. In the same way, many services have physical components, for example the role of the aeroplane when one flies from point A to B. When considering the aforementioned, one can understand the confusion surrounding discussions of service and attempting to define service organisations.

In defining services in more detail, Zeithaml and Bitner (1996:5) includes all economic activities the output of which are not physical products or constructions; are generally consumed at the time of production; and provide added value in forms (such as convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser.

## **2.3 DIFFERENCES BETWEEN GOODS AND SERVICES**

Initial research into services sought to differentiate services from goods, particularly in terms of the following four generic differences - intangibility, heterogeneity (variability), perishability of output, and simultaneity of production and consumption (as outlined in Table 2.1). These four generic differences as discussed by Zeithaml and Bitner (1996:19-21), Hoffman and Bateson (1997:24-36) and Hannagan (1992:104-105), can be summarised as follows:

### **2.3.1 Intangibility**

The most basic difference between goods and services is intangibility. Because services are performances, deeds and efforts, they can not be seen, felt, tasted or touched in the same manner as tangible goods can be experienced.

Intangibility presents various marketing problems or challenges. Firstly, services cannot be kept in storage and fluctuations in demand are therefore often difficult to manage. Consequently, customers are commonly forced to wait for desired services, and service providers are limited in how much they can sell by how much they can produce. Secondly, due to the property of intangibility, services cannot be patented and new service concepts can therefore easily be duplicated by competitors. Thirdly, services cannot be readily displayed or easily communicated to customers with the effect that the service may be difficult to assess. In the last instance, services are difficult to price because the primary cost of producing a service is labour, and not cost of goods sold as with tangible goods.

### **2.3.2 Simultaneous production and consumption (inseparability)**

Different from most goods where production occurs first, followed by the sale of the goods and the consumption thereof, most services are sold first and then produced and consumed simultaneously. In some cases the customer is present while the service is being produced and may, therefore, even take part in the production process.

Simultaneous production and consumption presents some marketing problems. Firstly, in order for many services to take place, the service provider must be physically present to enable the delivery of the service. Owing to the intangibility of services, the service provider becomes a tangible clue upon which at least part of the customer's evaluation of the service experience becomes based. Secondly, the involvement of the customer in the production process affects the design of service operations to accommodate the customer's presence. Thirdly, customers may frequently interact with each other during the service production process and may thus influence each others' experiences. The interaction between customer and service provider defines a critical incident which represents the greatest opportunity for both gains and losses with regard to customer satisfaction and retention. The final problem is how to successfully mass produce services.

**Table 2.1**

**Differences between services and goods**

| Goods                                | Services                                | Resulting implications  |
|--------------------------------------|---|---|
| Tangible                             | Intangible                              | Services cannot be inventoried.<br>Services cannot be patented.<br>Services cannot be readily displayed or communicated.<br>Pricing is difficult.   |
| Standardised                         | Heterogeneous                           | Service delivery and customer satisfaction depend on employee actions.<br>Service quality depends on many uncontrollable factors.<br>There is no sure knowledge that the service delivered matches what was planned and promoted. |
| Production separate from consumption | Simultaneous production and consumption | Customers participate in and affect the transaction.<br>Customers affect each other.<br>Employees affect the service outcome.<br>Decentralisation may be essential.<br>Mass production is difficult.                              |
| Non-perishable                       | Perishable                              | It is difficult to synchronise supply and demand with services.<br>Services cannot be returned or resold.   |

Source: Zeithaml & Bitner (1996:19).



**2.3.3 Heterogeneity**

One of the most accentuated differences between goods and services is the lack of ability to control service quality before it reaches the consumer. Service encounters occur in real-time and consumers are already involved in the service production process, with the result that if something should go wrong during the service process, it is too late to institute quality control measures.

The major marketing problem presented by heterogeneity is the fact that service standardisation and quality control are difficult to achieve. Quality actually depends on many factors that cannot be fully controlled by the service supplier, such as the ability of the consumer to articulate his needs, the ability

and willingness of personnel to satisfy those needs, as well as the presence (or absence) of other customers, and the level of demand for the service.

### 2.3.4 Perishability

Perishability refers to the trait that services cannot be saved, stored, resold or returned. Without the benefit of carrying inventory, matching demand and supply within most service organisations is a major challenge.

According to Lovelock (1996:16) the aforementioned four characteristics of services (intangibility, heterogeneity, simultaneity and perishability) have been criticised as over-generalisations although they are still commonly cited and there is growing recognition that these are not universally applicable to all services. Lovelock (1996:16-19) rather suggests the following 8 generic differences, which are helpful in distinguishing service marketing from goods marketing:



#### ↳ ***Nature of the product***

The distinction is captured well by the following description of a product as “an object, a device, a thing” in contrast to a service which is “a deed, a performance, an effort”. Although services often include tangible elements – such as sitting in an airline seat, eating a meal, or getting damaged equipment repaired – the service performance itself is basically an intangible.

#### ↳ ***Greater involvement of customers in the production process***

Performing a service involves assembling and delivering the output of a combination of physical facilities and mental or physical labour. Customers are often also actively involved in helping to create the service product – either by serving themselves (as in a fast-food restaurant or laundromat) or by co-

operating with service personnel in settings such as hair salons, hotels, colleges or hospitals.

↳ ***People as part of the product***

In high contact services, customers not only come into contact with service personnel, they may also rub shoulders with other customers. Often the distinction between service businesses lies in the quality of employees who deliver the service and, similarly, the type of customers who frequent a particular service organisation helps to define the nature of the service experience.

↳ ***Greater difficulties in maintaining quality control standards***

Unlike manufactured goods that can be checked for conformance with quality standards long before they reach the consumer, services are consumed as they are produced and final “assembly” must take place under real-time conditions. As a result, mistakes and shortcomings are more difficult to conceal.

↳ ***Harder for customers to evaluate***

Most physical goods are relatively high in discernable qualities which are attributes which a customer can determine prior to purchasing a product, such as colour, style, shape, price, fit, feel, smell. Other goods and some services, by contrast, may emphasise experienceable qualities which can only be discerned after purchase or during consumption, for example taste, wearability, ease of handling and quietness. Finally, there are credence qualities – characteristics that customers find hard to evaluate even after consumption.

### ↳ ***Absence of inventories***

Because of the intangibility of services, they are perishable and cannot be inventoried. The necessary facilities, equipment, and labour can be held in readiness to create the service, but these simply represent productive capacity and not the product itself. The effect is that customers may be sent away disappointed when demand exceeds capacity.

### ↳ ***Importance of the time factor***

Due to the fact that many services are delivered in real-time, customers have to be physically present to receive service from organisations such as hospitals, hairdressers and restaurants. In addition, customers should also not be kept waiting too long and the service must be delivered swiftly.

### ↳ ***Different distribution channels***

Contrary to goods manufacturers which require physical distribution channels, many service organisations either use electronic channels (as in broadcasting or electronic funds transfer) or else combine the service factory, retail outlet and point of consumption into one entity.

## **2.4 SERVICES MARKETING**

Service organisations used to lag behind manufacturing organisations with regards to their use of marketing. Many service organisations are small and often consider marketing too costly or unnecessary. Other service organisations once had so much demand that they did not need marketing. Still, just like good manufacturing businesses, good service organisations use

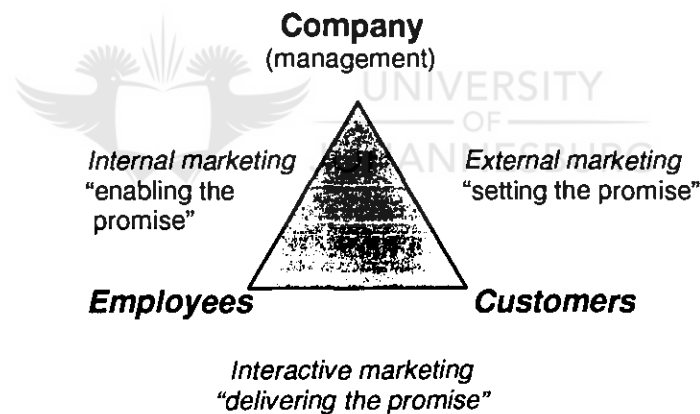


traditional marketing mix activities to position themselves strongly in chosen target markets.

However, because of the differences between services and goods (as discussed earlier in this chapter), services often require additional marketing approaches. Unlike products that are fairly standardised and that can wait on a shelf for the customer, the customer and contact employee interact to create the service. Because of this, service providers have to interact effectively with customers to create superior value during service encounters (Kotler & Armstrong, 1996:663).

**Figure 2.1**

**The service marketing triangle**



Source: Zeithaml & Bitner (1996:23).

The important role of contact employees is illustrated by the services marketing triangle in Figure 2.1. Three types of marketing are indicated that must be successfully carried out for a service organisation to be successful, and all of these revolve around making and keeping promises to customers. On the right side of the triangle is the external marketing function that the organisation uses to set up its customers' expectations and to make promises to customers regarding what is to be delivered. On the bottom of the triangle is

interactive marketing or real-time marketing where the actual service delivery takes place when the contact employees interact directly with customers. The left side of the triangle suggests the critical role played by internal marketing, which enables employees to keep the promises that have been made to customers. Internal marketing refers to the service organisation's activities to train, motivate and reward its employees. Internal marketing hinges on the assumption that employee satisfaction and customer satisfaction is inextricably linked (Zeithaml & Bitner, 1996:22-23).

## **2.5 NATURE OF THE SERVICE ACTIVITY**

As a result of the customer's involvement in service production, which is often cited as a distinctive characteristic of services, Lovelock (1996:28-29) suggests that service processes should be evaluated to determine if different types of processes result in different levels of customer involvement. Flowing from the services definition "deeds, acts or performances", two fundamental questions are: At whom (or what) is the activity directed? and Is the activity tangible or intangible? Table 2.2 shows that these two questions result in a four-way classification scheme, involving:

- Tangible actions to people's bodies, where customers need to be physically present throughout service delivery in order to receive the desired benefits of such services (people processing).

**Table 2.2**

**Understanding the nature of the service act**

| <b>What is the nature of the service act?</b> | <b>What or Who is the direct recipient of the service?</b>  |   |
|---|---|---|
|   | <i>People</i>   | <i>Possessions</i>  |
| <i>Tangible actions</i>                       | <p><b>Services directed at people's bodies</b></p> <p>Passenger transportation<br/>Health care<br/>Lodging<br/>Beauty salons<br/>Physical therapy<br/>Fitness centres<br/>Restaurant/bars<br/>Haircutting</p>   | <p><b>Services directed at physical possessions</b></p> <p>Freight transportation<br/>Repair and maintenance<br/>Warehousing /storage<br/>Janitorial services<br/>Retail distribution<br/>Laundry and dry cleaning<br/>Landscaping/lawn care<br/>Disposal/recycling</p> |
| <i>Intangible actions</i>                     | <p><b>Services directed at people's minds</b></p> <p>Advertising/PR<br/>Arts and entertainment<br/>Management consulting<br/>Education<br/>Information services<br/>Concerts<br/>Psychotherapy<br/>Religion</p> | <p><b>Services directed at intangible assets</b></p> <p>Accounting<br/>Banking<br/>Data processing<br/>Insurance<br/>Legal services<br/>Programming<br/>Research<br/>Software consulting</p>  |

Source: Lovelock (1996:29)

- Tangible actions to goods and other physical possessions, where the object requiring processing must be present, but the customer needn't be (possession processing).
  
- Intangible actions directed at people's minds, where customers need not be physically present but can be located either in a specific service facility or in a remote location connected by broadcast signals or telecommunication linkages (mental stimulus processing).

- Intangible actions directed at intangible assets, where no direct involvement with the customer may theoretically be needed once the request for service has been initiated (information processing).

## 2.6 SERVICE QUALITY AND PRODUCTIVITY

*“The textbooks stress the four P’s of marketing – product, place, promotion, and price – but in a service business none of this works very well without a Q – for quality”*

(Berry & Parasuraman, 1991:4).

A service organisation can distinguish itself by delivering consistently higher quality services than its competitors. The key is to exceed the customers’ service quality expectations, such expectations being based on past experiences, word of mouth, and service organisation advertising. Customers whose perceived service from an organisation exceeds the expected service, are likely to use the organisation again. A service organisation’s ability to retain its customers, depends on how consistently it delivers value to them and is therefore perhaps the best measure of quality. Compared to a manufacturer’s quality goal which may be “zero defects”, the service organisations goal is, or at least should be, “zero defections” (Kotler & Armstrong, 1996:667).

Only the customer can judge the quality of services and therefore service quality is the conformance of the service to customer specifications and expectations (Ivancevich, Lorenzi, Skinner & Crosby, 1994:510). A customer’s judgement of service quality is affected by both process and outcome. *Process* is how a customer is treated during the service interaction and *outcome* is the actual end result (LoSardo & Rossi, 1993:47).

Service quality is the basis of services marketing because the core product being marketed is a performance. The performance *is* the product; the performance is what customers buy. A strong service concept gives companies the opportunity to compete for customers; a strong performance of the service concept builds competitiveness by earning customers' confidence (Berry & Parasuraman, 1991:5).

Poor quality, on the other hand, places a firm at a competitive disadvantage. If customers perceive quality as unsatisfactory, they may be quick to take their business elsewhere. Service quality problems are not confined to traditional service industries. Many manufacturing firms are struggling to improve the quality of the supplementary services that support their products (Lovelock, 1996:462).

The core of service quality is reliability – keeping the service promise. Companies that frequently break their promises, that are not dependable, that make frequent mistakes, lose the confidence of their customers. And the confidence of customers is a service company's most precious asset (Berry & Parasuraman, 1991:175).

Productivity improvements are important for marketers for several reasons. First, it helps to keep costs down which gives the company the flexibility to either earn higher profits, or to keep prices low. The company with the lowest costs in an industry has the option to position itself as the low-price leader which is usually a significant advantage among price-sensitive market segments. Productivity improvement programs do sometimes have an impact on customers, and it is the marketer's responsibility to ensure that negative impacts are avoided or minimised and that new procedures are carefully presented to customers. If, however, the impact is a positive one, then the improvements can be promoted as a new advantage (Lovelock, 1996:462).

## 2.7 QUALITY MEASUREMENT

It's commonly said that "you cannot manage what you do not measure" or "the better you measure, the better you can manage". Without measurement, managers cannot identify where their firm or products stand now and whether desired goals are being achieved. Measurement, in turn, requires careful definition, so that people agree on what they are talking about and what they are measuring. Customers' expectations play a paramount role in judging a company's service. Service quality is assessed by comparing what the customers want or expect with what they perceive they are getting (Berry & Parasuraman, 1991:57). Companies must consistently perform at levels which customers perceive as meeting or surpassing their expectations before a reputation for quality service is earned.

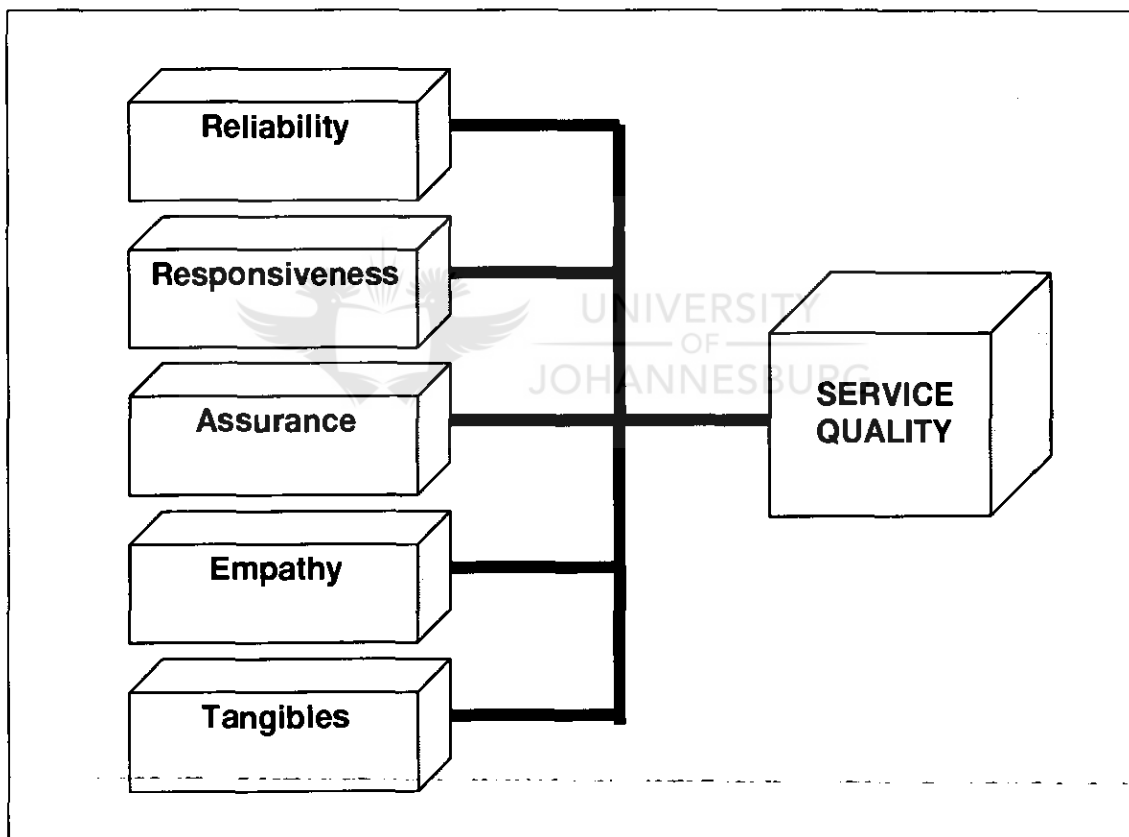
Research suggests that customers' assessment of quality includes perceptions of multiple factors, for example it has been suggested that the following eight dimensions of quality are applied to all goods and services: performance, features, reliability, conformance, durability, serviceability and perceived quality (Zeithaml & Bitner, 1996:118). Other researchers have found that consumers consider five dimensions in their assessments of service quality, as shown in Figure 2.2 and defined as follows:

- Reliability: Ability to perform the promised service dependably and accurately
- Responsiveness: Willingness to assist customers and provide prompt service
- Assurance: Employees' knowledge and courtesy and their ability to inspire trust and confidence

- Empathy: Caring, individualised attention given to customers
  
- Tangibles: Appearance of physical facilities, equipment, personnel, and written materials.

**Figure 2.2**

**Dimensions of service quality**



Source: Zeithaml & Bitner (1996:119).

## 2.8 CUSTOMER SATISFACTION AND CUSTOMER FOCUS

*“Customer satisfaction is but a milestone on the long, hard road to customer loyalty and lifelong retention. Customer loyalty is the flip side of the same coin called company profit”*

Bhote (1996:30)

*“If we don’t take care of the customer, somebody else will.”*

Moreo (1996:89)

In today’s increasingly competitive environment, customer relationship management is critical to corporate success. Delivering high quality service and achieving high customer satisfaction has been closely linked to profits, cost savings and market share (Anton, 1996:2).

Although the terms “satisfaction” and “quality” are often used interchangeably by writers, researchers have attempted to be more precise about the meanings of the two concepts. Current thinking suggests that both service quality and customer satisfaction can be viewed at the individual service encounter (transaction) level or at a more global level. While they have certain things in common, satisfaction is generally viewed as a broader concept than service quality assessment, which focuses specifically on dimensions of service (Zeithaml & Bitner, 1996:123). With this view, perceived service quality is a component of customer satisfaction.

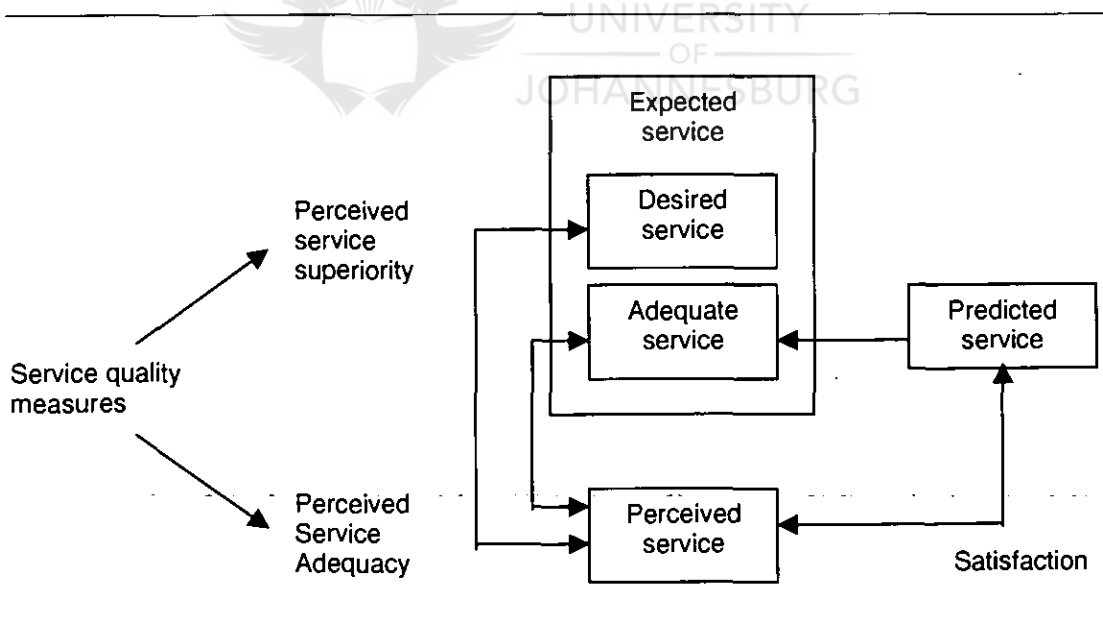
Comparing expectations with perceptions when developing customer satisfaction evaluations may sound straightforward. Expectations serve as benchmarks against which present and future service encounters are compared. However, this relatively simple scenario becomes more confusing when considering that at least three different types of expectations exist (as



depicted in Figure 2.3). *Predicted service* is a *probability expectation* that reflects the level of service customers believe is likely to occur. *Desired service* is an *ideal expectation* that reflects what customers actually want. Hence, in most instances, desired service reflects a higher expectation than predicted service. Comparing desired service expectations to perceived service received results represents a measure of *perceived service superiority*. In contrast, *adequate service* is a *minimum tolerable expectation* and reflects the level of service the customer is willing to accept. Adequate service is based on experiences or norms that develop over time. Comparing adequate service with perceived service produces a measure of *perceived service adequacy*.

**Figure 2.3**

**Comparison between customer evaluation of service quality and customer satisfaction**



Source: Hoffman & Bateson (1997:285).

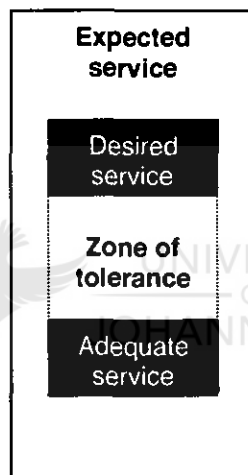
Because of the heterogeneity characteristic of services, consumers expect variation in service delivery from one location to another and even in the same

provider from one day to the next. Consumers develop a zone of tolerance which separates the desired and adequate service levels as shown in Figure 2.4). The zone of tolerance is a range of service performance that a customer considers satisfactory. Customer frustration and decreased customer loyalty occurs when performance falls below the tolerance zone. A performance level above the tolerance zone will pleasantly surprise customers and strengthen their loyalty.

**Figure 2.4**

**The zone of tolerance**

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Source: Berry & Parasuraman (1991:58).

According to the Chairman and CEO of Federal Express customer satisfaction begins with employee satisfaction. The basis for Federal Express' commitment to employee satisfaction is that all people, irrelevant of the industry and organisation, have certain universal questions regarding their work. Federal Express (AMA Management Briefing, 1991:15-16) identifies the following employee questions:

- ◊ What do you expect of me?
- ◊ What's in it for me?
- ◊ Where do I go with a problem?

Federal Express is of the opinion that management can only expect employees' personal aspirations and interests to align with corporate goals once management has responded to these fundamental questions. Federal Express, therefore, implements measures that answer these questions on an ongoing basis. By linking company interests to individual concerns, employees are empowered to pursue primary corporate quality goals. The Federal Express formula in other words is that you have to answer the employees' fundamental questions through very visible, understanding policies, procedures and programs if you want them to be interested in customer service.

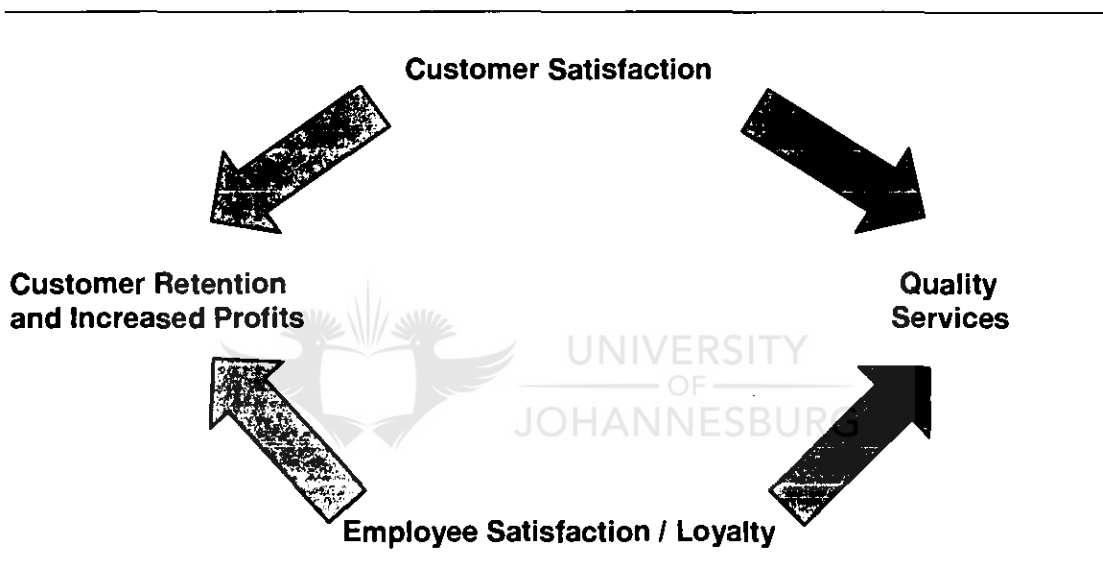
Contact employees represent the service organisation and can directly influence customer satisfaction. These employees, therefore, perform marketing functions. Even in situations where the contact employee does not perform the service entirely, he/she may still personify the service organisation in the customer's eyes.

Zeithaml and Bitner (1996:306) states that contact employees can directly influence all five of the service quality dimensions (tangibles, reliability, responsiveness, assurance and empathy). Delivering the service as promised (*reliability*), is often totally within the control of front-line employees. These contact employees can also often directly influence the customer's perception of *responsiveness* through their personal willingness to help and their promptness in serving customers. *Assurance* is highly dependent on employees' ability to communicate their credibility and to inspire trust and confidence. *Empathy* implies that employees will pay attention, listen, adapt, and be flexible in delivering what individual customers need and this is clearly very closely linked to the contact employees. Finally, the *tangibles* dimension of service quality includes employee appearance and dress.

Figure 2.5 depicts the underlying logic connecting employee satisfaction and loyalty to customer satisfaction. The figure illustrates how employee satisfaction, customer satisfaction and customer loyalty reinforce each other over time.

**Figure 2.5**

**Underlying logic of relationships between customer satisfaction and employee satisfaction**



Source: Zeithaml & Bitner (1996:306).

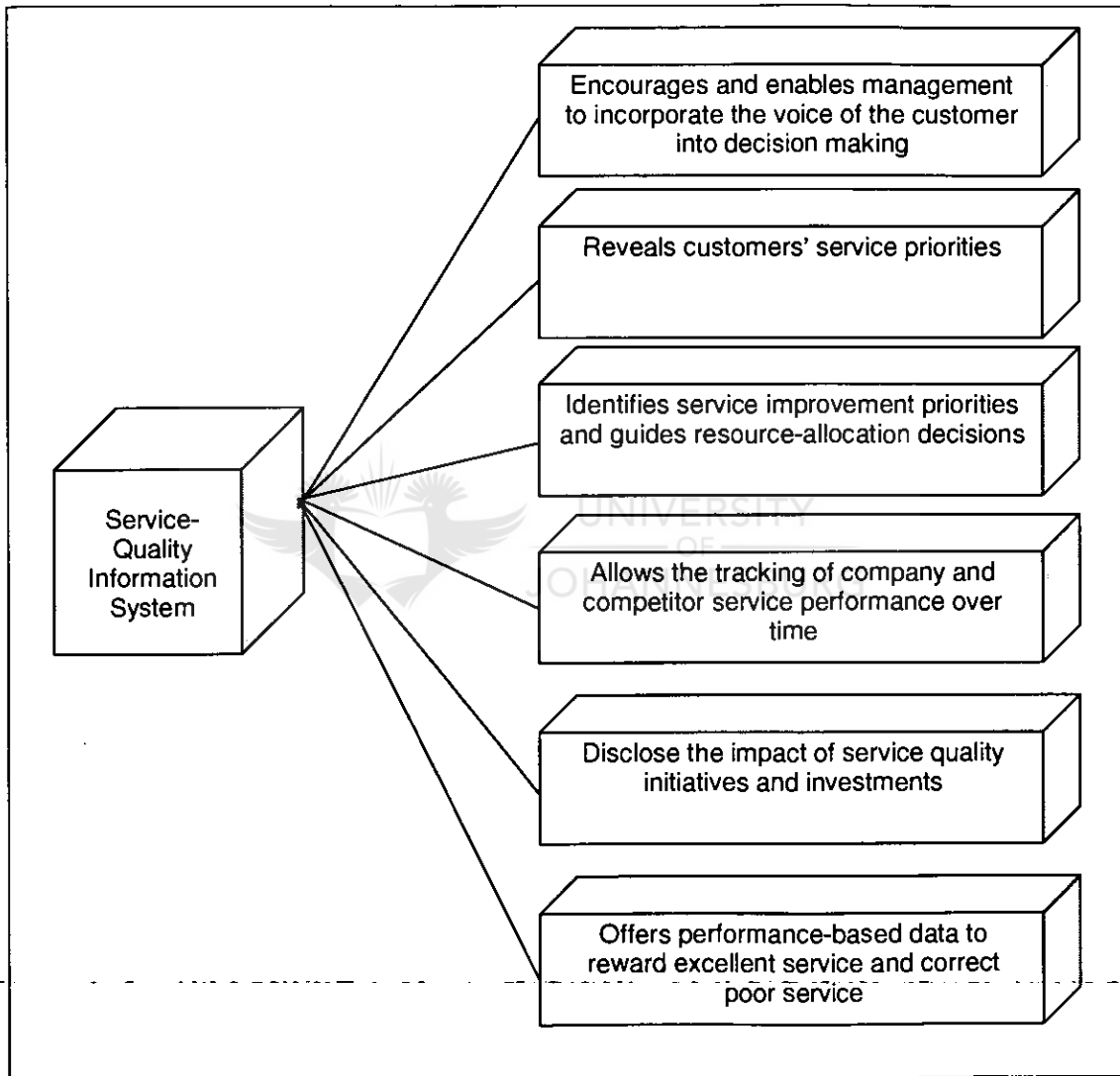
**2.9 SERVICE-QUALITY INFORMATION SYSTEM**

According to Berry and Parasuraman (1997:65), organisations set on improving service need to listen continuously to three types of customers: external customers who have experienced the organisation's service; competitors' customers who the organisation would like to attract; and internal customers (employees) who depend on internal services in order to provide their own services in turn. A service-quality information system is an ongoing

research process that can provide relevant data regarding such customer and noncustomer research to managers (Hoffman & Bateson, 1997:314).

**Figure 2.6**

**Principal benefits of an effective service-quality information system**



Source: Berry & Parasuraman (1997:66).

A service-quality information system uses multiple research approaches to systematically capture, organise and disseminate service-quality information that supports decision making. A service quality information system can include the following: solicitation of customer complaints; after-sales surveys;

customer focus group interviews; mystery shopping; and employee surveys. An effective service-quality information system, therefore, offers a company's executive a larger view of service quality and helps to focus service improvement planning and resource allocation. Figure 2.6 illustrates some principal benefits of an effective service-quality information system.

## 2.10 THE SERVICE QUALITY MODEL AND FAILURE GAPS

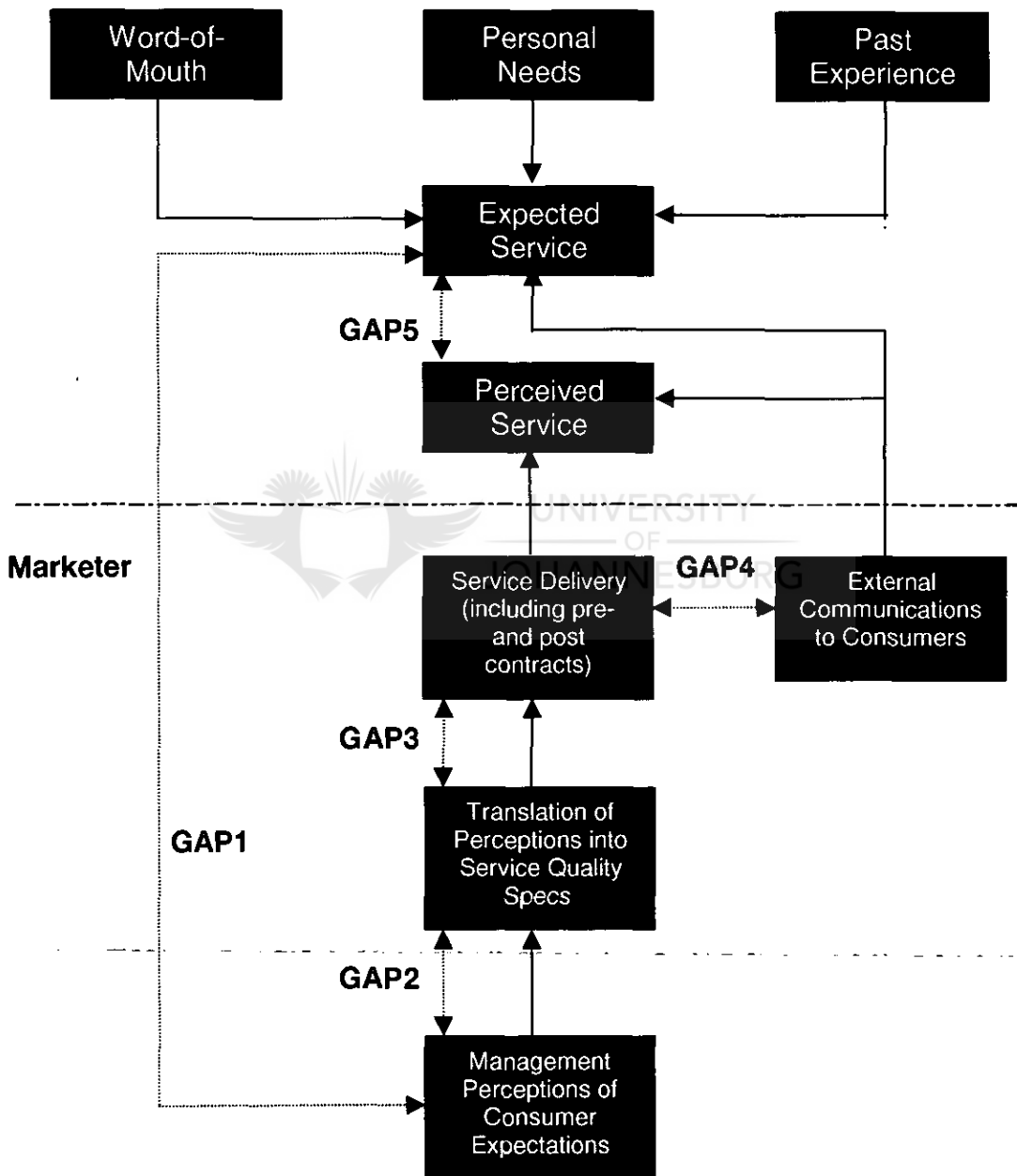
The service quality process can be examined in terms of gaps between expectations and perceptions on the part of management, employees and customers, as indicated in Figure 2.7.

Gap 5 - between customers' expectations of service and their perception of the service actually delivered – is the most important of the five gaps. The ultimate goal of a service organisation should therefore be to close this gap, or at least narrow it as far as possible. However, before an organisation can close gap 5, it needs to close or attempt to narrow the other four gaps. These are:

- \* *Gap 1:* The difference between what consumers expect of a service and what management perceives consumers to expect.
- \* *Gap 2:* The difference between what management perceives and consumers expect and the quality specifications set for service delivery.
- \* *Gap 3:* The difference between the quality specifications set for service delivery and the actual quality of that service delivery.
- \* *Gap 4:* The difference between the actual quality of service delivery and the quality of that service delivery as described in the organisation's external communications.

**Figure 2.7**  
**Conceptual model of service quality**

**Consumer**



Source: Collier (1994:168).

Gap 5 is a function of gaps 1 to 4 – as each of these gaps increases or decreases, gap 5 responds similarly. Table 2.3 contains the key factors leading to gaps 1 to 4. Hoffman and Bateson (1997:300-306) and Collier (1994:168-169) explain these four gaps as follows:

### 2.10.1 Gap 1 (the knowledge gap)

The cause of this gap is that managers think they know what their consumers want, but are actually mistaken. When this gap occurs, a variety of other mistakes tend to follow. Examples of such mistakes are that the service organisation may hire unsuitable staff, provide inappropriate training to them, provide undesirable facilities to the consumer, and services may be provided that customers have no use for. On the other hand, services that the customers do desire are not offered.

Three main factors influence the size of this gap. First, the organisation's *research orientation*, which indicates its attitude towards conducting consumer research, can drastically influence the size of the gap. Second, the amount of *upward communication* - the flow of information from front-line personnel to upper levels of the organisation – can affect the knowledge gap. Finally, the *number of management levels* in the organisation can also influence the size of the knowledge gap. More management levels added to an organisation may result in higher levels of management becoming more distant from customers and the day-to-day activities of an organisation, with the result that the knowledge gap will tend to increase.



### **2.10.2 Gap 2 (the standards gap)**

Even if customer expectations have been accurately determined, the second gap may increase between management's perceptions of customer expectations and the actual standards set for the service delivery. An organisation should identify all points of contact with its customers and then write detailed standards specifying the way the system should operate and the behaviour of contact personnel at each point of the system.

Sometimes management has no commitment to the delivery of service quality and corporate leadership may actually set priorities that interfere with setting the standards that lead to good service. Sometimes there is simply no culture of service quality, and management genuinely fails to understand the issues involved. In other cases, management may wish to meet customer requirements but may feel restricted by ineffective methods of measuring quality, or by converting those measurements into standards.

### **2.10.3 Gap 3 (the delivery gap)**

This gap occurs between the actual performance of a service and the standards set by management. This gap depends on both the willingness and the ability of employees to provide the service according to specification.

Employees' willingness to provide a service can vary greatly from time to time and a considerable range exists between what the employee is actually capable of accomplishing and the minimum the employee must do in order to keep his/her job. Most service managers find it difficult to keep employees working at their full potential all of the time. On the other hand, some

employees may not be able to perform the service according to the specification, and this is referred to as the *employee-job fit*. *Role conflict* is another common factor affecting the size of this gap and refers to the inconsistency in the service providers' minds between what the service manager expects them to provide and the service they think their customers actually want. Another cause of the gap is *role ambiguity*, which results when employees do not understand the roles of their jobs or what their jobs are intended to accomplish.

#### 2.10.4 Gap 4 (the communications gap)

The difference between the service that the service organisation promises to deliver as expounded by its external communications, and the service it actually delivers is referred to as the communications gap. If advertising or sales promotions promise one kind of service and the consumer receives a different kind of service, gap 4 becomes wider.

Two factors primarily influence gap 4. First, the inclination of the organisation to over-promise often occurs in highly competitive business environments when organisations try to outdo one another. The second factor is the flow of horizontal communication within the organisation. A lack of horizontal communication places an unsuspecting service provider in an uncomfortable position when a customer requests the service promised and the provider has no idea what had been promised to the customer.

**Table 2.3**

**Key factors leading to the provider gaps**

| <b>GAP 1</b>   | <b>GAP 3</b>   |
|--|--|
| <p><b>Inadequate marketing research orientation</b></p> <ul style="list-style-type: none"> <li>▪ Insufficient marketing research</li> <li>▪ Research not focused on service quality</li> <li>▪ Inadequate use of market research</li> </ul> <p><b>Lack of upward communication</b></p> <ul style="list-style-type: none"> <li>▪ Lack of interaction between management and customers</li> <li>▪ Insufficient communication between contact employees and managers</li> <li>▪ Too many layers between contact personnel and top management</li> </ul> <p><b>Insufficient relationship focus</b></p> <ul style="list-style-type: none"> <li>▪ Lack of market segmentation</li> <li>▪ Focus on transactions rather than relationships</li> <li>▪ Focus on new customers rather than relationship customers</li> </ul> | <p><b>Deficiencies in human resource policies</b></p> <ul style="list-style-type: none"> <li>▪ Ineffective recruitment</li> <li>▪ Role ambiguity and role conflict</li> <li>▪ Poor employee-technology job fit</li> <li>▪ Inappropriate evaluation and compensation systems</li> <li>▪ Lack of empowerment, perceived control, and teamwork</li> </ul> <p><b>Failure to match supply and demand</b></p> <ul style="list-style-type: none"> <li>▪ Failure to smooth peaks and valleys of demand</li> <li>▪ Inappropriate customer mix</li> <li>▪ Over-reliance on price to smooth demand</li> </ul> <p><b>Customers not fulfilling roles</b></p> <ul style="list-style-type: none"> <li>▪ Customers lacking knowledge of their roles and responsibilities</li> <li>▪ Customers negatively impacting each other</li> </ul> |
| <b>GAP 2</b>   | <b>GAP 4</b>   |
| <p><b>Absence of customer-driven standards</b></p> <ul style="list-style-type: none"> <li>▪ Lack of customer-driven service standards</li> <li>▪ Absence of process management to focus on customer requirements</li> <li>▪ Absence of formal process for setting service quality goals</li> </ul> <p><b>Inadequate service leadership</b></p> <ul style="list-style-type: none"> <li>▪ Perception of unfeasibility</li> <li>▪ Inadequate management commitment</li> </ul>   | <p><b>Ineffective management of customer expectations</b></p> <ul style="list-style-type: none"> <li>▪ Failure to manage customer expectations through all forms of communication</li> <li>▪ Failure to educate customers adequately</li> </ul> <p><b>Over-promising</b></p> <ul style="list-style-type: none"> <li>▪ Over-promising in advertising</li> <li>▪ Over-promising in personal selling</li> <li>▪ Over-promising through physical evidence cues</li> </ul>  |
| <p><b>Poor service design</b></p> <ul style="list-style-type: none"> <li>▪ Unsystematic new service development process</li> <li>▪ Vague, undefined service designs</li> <li>▪ Failure to connect service design to service positioning</li> </ul>   | <p><b>Inadequate horizontal communications</b></p> <ul style="list-style-type: none"> <li>▪ Insufficient communication between sales and operations</li> <li>▪ Insufficient communication between advertising and operations</li> <li>▪ Differences in policies and procedures across branches or units</li> </ul>   |

Source: Zeithaml & Bitner (1996:49).

## **2.11 THE SERVQUAL INSTRUMENT**

One popular method for assessing service quality is the SERVQUAL scale. SERVQUAL is a survey instrument developed by the Berry-Parasuraman-Zeithaml research team. It consists of two major parts, namely one capturing customer expectations for a given type of service, and the second for customer perceptions of experiences with a given service provider (thus gap 5 of the service quality model). The parts consist of parallel statements where each statement focuses on an aspect of one of the five dimensions of service quality (namely tangibles, responsiveness, reliability, assurance and empathy) and has a response scale ranging from 1 to 7 (LoSardo & Rossi, 1993:56).

Customers use the SERVQUAL scale to indicate the degree to which they agree or disagree with the particular statement. A comparison is then made of the responses to the expectation and perception statements and a score is calculated by subtracting the expectation response from the perception response. If the expectation response is higher than the perception response, the score will be negative, which indicates the existence of a service quality gap. This means that the service provider is not meeting customers' expectations. In contrast to this, a positive score relates to performance exceeding customer expectations. This represents an area of strength and can represent a competitive advantage for the service provider. The five dimensions as discussed in Hoffman and Bateson (1997:307-310), are as follows:

### **2.11.1 The tangibles dimension**

Consumers often have to rely on the tangible evidence surrounding the service, because of the absence of a physical product. SERVQUAL's tangibles dimension compares consumer expectations and the organisation's

performance in managing its tangibles. An organisation's tangibles include a wide variety of objects such as carpets, desks, lighting, wall colours, brochures, daily correspondence, and the appearance of the organisation's personnel. The tangibles component is two-dimensional – one focusing on equipment and facilities and the other on personnel and communications materials.

The tangibles component of SERVQUAL is obtained via four expectation questions and four perception questions. The expectation questions apply to excellent organisations within a particular industry, while the perception questions apply to the specific organisation under investigation. The statements that pertain to the tangibles dimension are as follows:

Tangibles Expectations:

- E1. Excellent companies will have modern-looking equipment.
- E2. The physical facilities at excellent companies will be visually appealing.
- E3. Employees of excellent companies will be neat in appearance.
- E4. Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent company.

Tangibles Perceptions:

- P1. XYZ has modern-looking equipment.
- P2. XYZ's physical facilities are visually appealing.
- P3. XYZ's employees are neat in appearance.
- P4. Materials associated with the service (such as pamphlets or statements) are visually appealing at XYZ.

### **2.11.2 The reliability dimension**

In general, reliability reflects the consistency and dependability of an organisation's performance. Consumers perceive the reliability dimension to be the most important of the five SERVQUAL dimensions, subsequently, failure to provide reliable service generally translates into an unsuccessful organisation. The questions used to assess the reliability gap are as follows:

#### Reliability Expectations:

- E5. When excellent companies promise to do something by a certain time, they will do so.
- E6. When customers have a problem, excellent companies will show a sincere interest in solving it.
- E7. Excellent companies will perform the service right the first time.
- E8. Excellent companies will provide their services at the time they promise to do so.
- E9. Excellent companies will insist on error-free records.

#### Reliability Perceptions:

- P5. When XYZ promises to do something by a certain time, it does so.
- P6. When you have a problem, XYZ shows a sincere interest in solving it.
- P7. XYZ provides the service right the first time.
- P8. XYZ provides its services at the time it promises to do so.
- P9. XYZ insists on error-free records.

### **2.11.3 The responsiveness dimension**

Responsiveness reflects a service organisation's commitment to provide its services in a timely manner, and as such, the responsiveness dimension of SERVQUAL concerns the willingness and/or readiness of employees to

provide a service. The SERVQUAL expectation and perception items that address the responsiveness gap are as follows:

**Responsiveness Expectations:**

- E10. Employees of excellent companies will tell customers exactly when services will be performed.
- E11. Employees of excellent companies will give prompt service to customers.
- E12. Employees of excellent companies will always be willing to help customers.
- E13. Employees of excellent companies will never be too busy to respond to customer requests.

**Responsiveness Perceptions:**

- P10. Employees of XYZ tell you exactly when service will be performed.
- P11. Employees of XYZ give you prompt service.
- P12. Employees of XYZ are always willing to help you.
- P13. Employees of XYZ are never too busy to respond to your questions.

#### **2.11.4 The assurance dimension**

SERVQUAL's assurance dimension addresses the competence of the firm, the courtesy it extends its customers, and the security of its operations. Competence relates to the organisation's knowledge and skill in performing its services. Courtesy refers to how the organisation's personnel interact with the customer and the customer's possessions. Security addresses a customer's feelings that he/she is free from danger, risk and doubt. The SERVQUAL items that address the assurance gap are as follows:

Assurance Expectations:

- E14. The behaviour of employees of excellent companies will instill confidence in customers.
- E15. Customers of excellent companies will feel safe in their transactions.
- E16. Employees of excellent companies will be consistently courteous with customers.
- E17. Employees of excellent companies will have the knowledge to answer customer questions.

Assurance Perceptions:

- P14. The behaviour of employees of XYZ instills confidence in customers.
- P15. You feel safe in your transactions with XYZ.
- P16. Employees of XYZ are consistently courteous with you.
- P17. Employees of XYZ have the knowledge to answer your questions.

**2.11.5 The empathy dimension**



Empathy refers to the ability to experience another's feelings as one's own. Empathetic firms are in touch with what it would be like to be a customer of their own organisation and they, therefore, understand their customer's needs and make their service accessible to the customer. The SERVQUAL empathy dimension addresses the empathy gap as follows:

Empathy Expectations:

- E18. Excellent companies will give customers individual attention.
- E19. Excellent companies will have operating hours convenient to all their customers.
- E20. Excellent companies will have employees who give customers personal attention.
- E21. Excellent companies will have the customer's best interests at heart.



E22. The employees of excellent companies will understand the specific needs of their customers.

Empathy Perceptions:

P18. XYZ gives you individual attention.

P19. XYZ has operating hours convenient to all its customers.

P20. XYZ has employees who give you personal attention.

P21. XYZ has your best interests at heart.

P22. Employees of XYZ understand your specific needs.

## **2.12 CRITICISMS OF SERVQUAL**

Since its development, the SERVQUAL instrument has received its fair share of criticism. The major criticisms involve the length of the questionnaire, the validity of the five service quality dimensions, and the predictive power of the instrument with regards to future consumer purchases (Hoffman & Bateson, 1997:310/311).

### **2.12.1 Length of the questionnaire**

The expectation and perception items of SERVQUAL combined results in a 44-item survey instrument. SERVQUAL opponents argue that the questions are highly repetitive and unnecessarily increase the questionnaire's length. The opponents also argue that the expectations section of the instrument is of no real value and that only the perceptions (actual performance) section should be utilised to assess service quality. The SERVQUAL developers have argued that the expectations section enhances the managerial usefulness of the scale as a diagnostic tool because of the gap scores developed for each dimension. Perception scores alone will only indicate whether the respondent agrees or disagrees with each question.

Creative suggestions have been made to decrease the questionnaire length by 22 questions and still keep the expectations section. Three of these approaches are as follows:

- To ask respondents on a single scale where they would rate a high-quality company and then where they would rate the organisation under investigation.
- Utilise the scale's midpoint as the expected level of service from a high-quality company, and then rate the specific organisation in relation to the midpoint – above expectation or below.
- Utilise the end point as the expected level of a high-quality company, and then rate the specific organisation relative to the high-quality company on the same scale.

### **2.12.2 Validity of the five dimensions**

Another criticism is that the five SERVQUAL dimensions, namely reliability, responsiveness, assurance, empathy and tangibles don't hold up under statistical scrutiny. The SERVQUAL opponents question the validity of the specific dimensions in the measurement instrument. The developers of SERVQUAL argue that the five dimensions, although representing conceptually distinct facets of service, are in fact interrelated. The SERVQUAL developers add that when the respondents are asked to assign importance weights to each dimension, results indicate that the respondents do indeed distinguish among the five dimensions.

### 2.12.3 Predictive power of the instrument

The third major criticism relates to SERVQUAL's ability to predict consumer purchase intentions. Research has indicated that the performance (SERVQUAL perceptions) section alone is a better predictor of purchase intentions than the combined expectations-minus-perception instrument. As a result of this, the opponents conclude that satisfaction has a more significant effect on purchase intentions than service quality. The SERVQUAL developers' most important counterpoint is the diagnostic value of the expectations-minus-perceptions approach. The developers of SERVQUAL make a convincing argument that the instrument provides richer information because of the incorporation of expectations, than the perception scores alone.

### 2.12.4 Other criticisms of SERVQUAL

In 1993, Brown, Churchill and Peter (BCP) issued a research note titled "Improving the Measurement of Service Quality". Several analysts have suggested that SERVQUAL has serious shortcomings, which limits its usefulness. According to Brown, et al. (1993:128), some of these shortcomings are as follows:

- SERVQUAL needs to be customised to the service in question in spite of the fact that it was originally designed to provide a generic measure that could be applied to any service. Adding items or changing the wording of items may be necessary. It is also suggested that more than the five current dimensions are needed. The item-factor relationships are unstable and the measurement of expectations is a problem.

- SERVQUAL is not appropriate in a retail store setting and more refinement is needed for specific companies and industries.
- The perception component of SERVQUAL outperforms SERVQUAL itself – the disconfirmation paradigm was inappropriate for measuring perceived service quality.

According to Brown, et al. (1993:128-131), there are a number of problems with SERVQUAL's conceptualising of service quality as a difference score. They warn that the calculation of such a difference score can lead to several psychometric problems, namely:

❖ *Reliability*

Difference score measures often demonstrate poor reliability, primarily because any positive correlation between the component scores extends the reliability of the resulting difference score.

❖ *Discriminant validity*

Discriminant validity refers to the degree to which measures of theoretically unrelated constructs do not correlate too highly with one another. One potential problem relates to how the reliability of measures affects discriminant validity – low measure reliability attenuates correlation between constructs. A measure with low reliability may, therefore, appear to possess discriminant validity simply because it is unreliable. Since difference score measures are usually less reliable than non-difference score measures, they can be particularly subject to this.

❖ *Variance restriction*

Another problem with difference scores is variance restriction which occurs when one of the component scores used to calculate the difference score, is consistently higher than the other component. When people respond to “what is desirable” compared to “what there is now”, they seldom rate the former lower than the latter. Similarly, with SERVQUAL the expected level of service is almost always higher than the perceived level of service.

In response to BCP’s critique of SERVQUAL’s difference-score conceptualisation, Parasuraman, Zeithaml and Berry (PZB) issued a research note in the same year, entitled “More on Improving Service Quality Measurement”. In this article, PZB responded to the criticism of BCP by addressing their concerns, raising questions (in turn) about several of the interpretations of BCP, and also introduced additional issues that must be considered in comparing alternative scale formats (Parasuraman, Zeithaml & Berry, 1993:140-143).

The research team of PZB defended SERVQUAL on the psychometric issue of reliability by emphasising that the expectations component of SERVQUAL is a general measure and pertains to customers’ *normative* standards, being the service levels customers believe excellent companies in a sector should deliver. PZB explained further that the perception component, on the other hand, pertains to customers’ perceptions of a given company’s service within the sector. As a result of this, PZB argued that there is no conceptual reason for a customer’s general evaluation standards to be correlated with his/her company-specific assessments.

Regarding the comments of BCP on discriminant validity, PZB replied that the reliability of the SERVQUAL formulation has been shown to be consistently high and that the problem is unlikely to appear in studies using the difference score formulation of SERVQUAL. In addressing the view that a difference-score measurement would necessarily lack discriminant validity because it will be correlated with its two components, PZB replied that they themselves indicated that service quality is a function of the discrepancy between customers' expectations and perceptions which implies that the former construct is necessarily related to the latter two.

In answer to the comments on variance restriction by BCP, PZB agreed that the concern that the high mean value and low standard deviation for the expectations component of SERVQUAL relative to the perceptions component will restrict the variance of the difference scores at higher levels of service quality. The problem is not relevant when the difference scores are used for diagnostic purposes, i.e. to identify the most serious shortfalls along the general SERVQUAL dimensions or specific service attributes, but only when the difference scores are used in multivariate analyses.

### **2.13 SUMMARY**

As a result mainly of global competition, many companies compete for the same customers and consumers face a variety of very similar products and services promising similar benefits. Recognising this, more organisations are focusing on quality of service to set them apart. Enhancing service quality is, however, complicated because customers, who have varying demands and expectations, participate in the process. It is extremely difficult for service organisations to quantify service quality due to the subjective nature thereof, and as a result, service quality is difficult to measure.

The SERVQUAL tool provides service organisations with a way of quantifying service quality from the customers' perspective which means that one can use those service features that customers use in order to judge quality of service. Although the SERVQUAL instrument has generated considerable interest in service quality measurement, it has also raised numerous questions and the SERVQUAL developers have presented counter-arguments, clarifications and additional evidence to reaffirm the instrument's psychometric soundness and practical value over the last couple of years. Major unresolved issues emerging from the ongoing debate include the empirical versus diagnostic value of expectations in service quality measurement, the difference-score vs. non-difference score formulations of the perception-expectation gap, and the dimensionality of the instrument's items. Notwithstanding the criticisms, as discussed, SERVQUAL can be used as a reliable and generally applicable instrument.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY, RESULTS AND ANALYSIS**

#### **3.1 INTRODUCTION**

The research results of the empirical study to measure the IIA-SA's service quality, are presented in this chapter. The purpose of the empirical study is to establish the service expectations of the IIA-SA members and to measure these against the perceived level of customer service provided by the IIA-SA; and to measure and evaluate the gaps between the members' expectations and the level of service provided by the IIA-SA.

The results are analysed and presented by means of tables and figures. Recommendations for improvement, where applicable, are provided in Chapter 4.

#### **3.2 RESEARCH METHODOLOGY**

##### **3.2.1 The instrument**

The SERVQUAL instrument, as discussed in Chapter 2, was used to conduct the empirical research. The standard SERVQUAL questionnaire was used and a cover letter accompanied the questionnaire explaining the reasons for the survey. Copies of the cover letter and questionnaire are included in Annexure A.



### **3.2.2 Sample selection**

The IIA-SA members' database was utilised for the empirical study. On 14 April 1999, this database consisted of 1 341 members. Of these members, 11 were excluded for the purpose of this study, viz. the IIA-SA Chief Executive Officer and the Directors. The reasoning behind this is that these 11 members can be viewed as IIA-SA employees and are therefore not necessarily objective enough to rate the service quality of the IIA-SA. Also, these 11 members are ultimately responsible for service quality and implementing changes to achieve acceptable levels of service quality, which may have resulted in their opinions being biased.

The population of 1330 members, sorted in ascending membership numbers, formed the final population. Systematic sampling was conducted with a randomly chosen starting point from which every sixth member was selected. This sample of 222 members represents 17% of the population.

This research was originally also to have been performed on a second population, namely ex-members of the IIA-SA. The second population would have consisted of 73 ex-members, of which 18 would have been selected for sampling purposes. Due to outdated address information, this sample selection could not be successfully completed. An observation is that the majority of members leaving the IIA-SA, are where auditors (the members) leave the profession (in which case the IIA-SA membership may be irrelevant) or emigrate (in which case the person would rather join up with a local chapter of the IIA in his/her new country). Owing to these problems the ex-members' perceptions could not be obtained and the research focused only on the membership database.

### 3.2.3 Distribution method and response rate

Of the 222 questionnaires, 160 were distributed by mail and 62 by electronic mail (e-mail). The questionnaires sent by mail included self-addressed, postage paid envelopes for the convenience of the respondents. A portion of the questionnaires was sent by means of electronic mail (as opposed to regular mail) in order to gauge the general acceptability of this communication method amongst members..

At the cut-off date, 76 questionnaires were returned which relates to a response rate of 34%. Five of these initial questionnaires which were returned, were incomplete insofar as the ratings of the perception statements were concerned. The relevant respondents indicated that they could not rate the IIA-SA on some or all of the perception questions, as they had not had any service encounters with the IIA-SA or had only been members for a very short time. The standard SERVQUAL questionnaire, as was used for the research, does not allow or provide for "I don't know" type of replies. Therefore, it was preferable to exclude the five incomplete questionnaires entirely from the research results. Hence, an effective response rate of 32% was achieved which can surely be regarded as excellent for this type of research project. Table 3.1 indicates response rates of 29% and 40% for regular mail and e-mail, respectively. The relatively high response rate for the questionnaires sent by e-mail suggests that this medium may be put to good use for communication with IIA-SA members.

**Table 3.1**

**Distribution methods and relevant response rates**

| Description             | Distribution Method |        | Total |
|-------------------------|---------------------|--------|-------|
|                         | Mail                | E-mail |       |
| Questionnaires sent     | 160                 | 62     | 222   |
| Questionnaires returned | 46                  | 25     | 71    |
| Response Rate           | 29%                 | 40%    | 32%   |

### 3.3 RESULTS AND DISCUSSIONS

#### 3.3.1 Overview of the results

The five dimensions of service quality represented in the SERVQUAL questionnaire, are as follows:

- ◆ Tangibles : statements 1 – 4
- ◆ Reliability : statements 5 – 9
- ◆ Responsiveness : statements 10 – 13
- ◆ Assurance : statements 14 – 17
- ◆ Empathy : statements 18 – 22

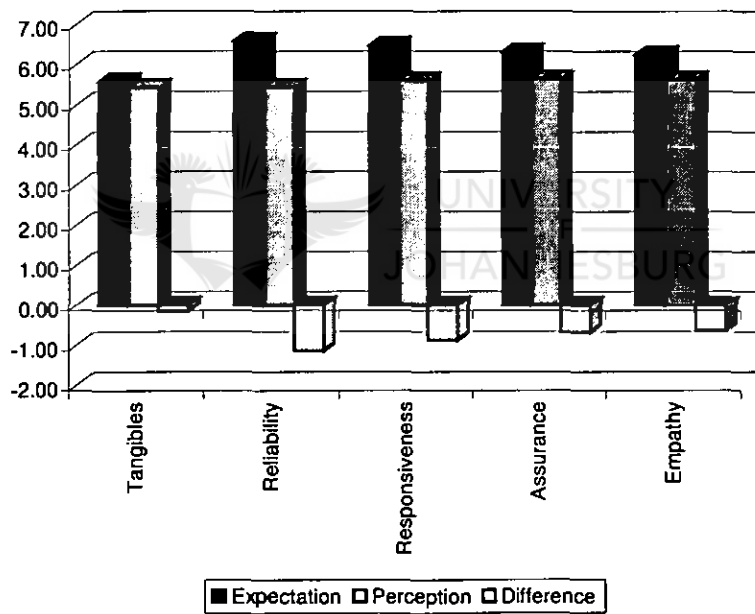
The quantifying of these five dimensions is done by determining the average differences (perception minus expectation) for the relevant statements in the questionnaire. A positive value for any dimension is an indication of a higher than expected service quality, while a negative value indicates customer dissatisfaction with regards to that specific dimension. The differences (gaps) between expected service and perceptions of service per dimension, are presented in Table 3.2 and Figure 3.1.

**Table 3.2**

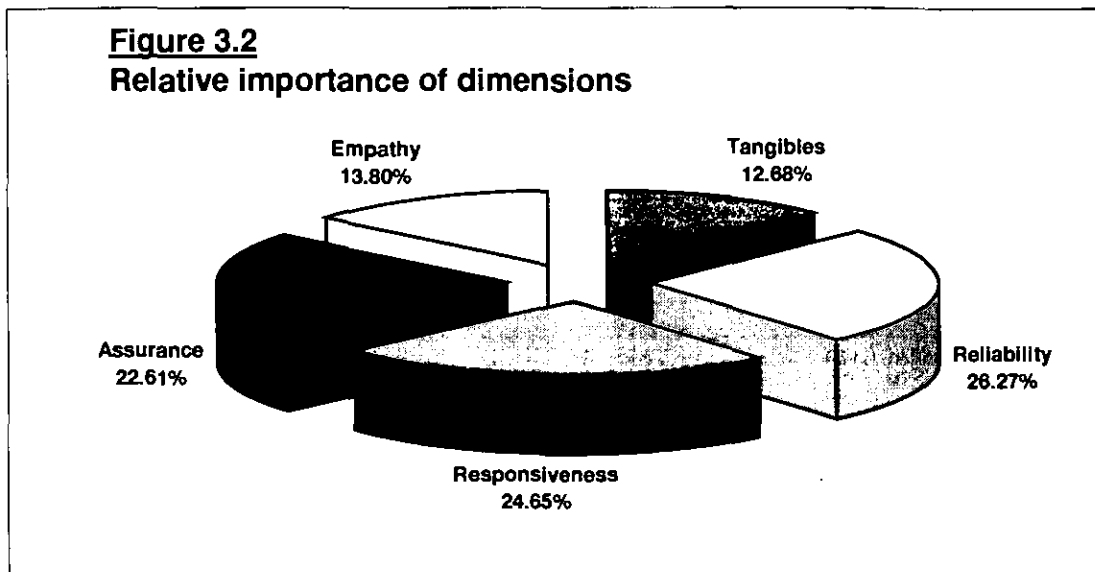
**Differences between expectations and perceptions (per dimension)**

| Dimension      | Expectation | Perception  | Difference   |
|----------------|-------------|-------------|--------------|
| Tangibles      | 5.57        | 5.43        | -0.14        |
| Reliability    | 6.59        | 5.44        | -1.15        |
| Responsiveness | 6.48        | 5.60        | -0.88        |
| Assurance      | 6.31        | 5.64        | -0.68        |
| Empathy        | 6.26        | 5.62        | -0.64        |
| <b>Average</b> | <b>6.24</b> | <b>5.54</b> | <b>-0.70</b> |

**Figure 3.1**  
**Service quality results per SERVQUAL dimension**



The relative importance of each of the five dimensions, as indicated by respondents, is illustrated in Figure 3.2.



A combination of the gaps per dimension (Table 3.2 and Figure 3.1) and the importance per dimension (Figure 3.2) results in weighted factors. These are important because the gaps in service quality are viewed in the light of the importance placed on each dimension by the respondents. The five dimensions' weighted factors are displayed in Table 3.3.

**Table 3.3**

**Dimensional gaps and the relative importance of each**

| Dimension      | Difference | Importance | Weighted Gap |
|----------------|------------|------------|--------------|
| Tangibles      | -0.14      | 12.68%     | -1.83        |
| Reliability    | -1.15      | 26.27%     | -30.19       |
| Responsiveness | -0.88      | 24.65%     | -21.70       |
| Assurance      | -0.68      | 22.61%     | -15.28       |
| Empathy        | -0.64      | 13.80%     | -8.79        |

The most significant difference between members' service quality expectations and perceptions of service rendered, can be seen in the *reliability* dimension with a difference of -1.15. Second is the *responsiveness* dimension (difference of -0.88), third is the *assurance* dimension (-0.68), closely followed by the *empathy* dimension (-0.64) and in fifth place the *tangibles* dimension with a very slight difference of -0.14. Interestingly, the respondents rated the importance of the five dimensions in exactly the same order, namely *reliability* first (26.27%); *responsiveness* second (24.65%); *assurance* third (22.61%); *empathy* fourth (13.80%) and in fifth place *tangibles* (12.68%). This correlation between the severity of the differences between expectations and perceptions on the one hand, and the importance from the respondents' perspectives on the other, can be interpreted as follows: the more insignificant a dimension is in the respondents' opinion, the smaller the service quality gap of that dimension.


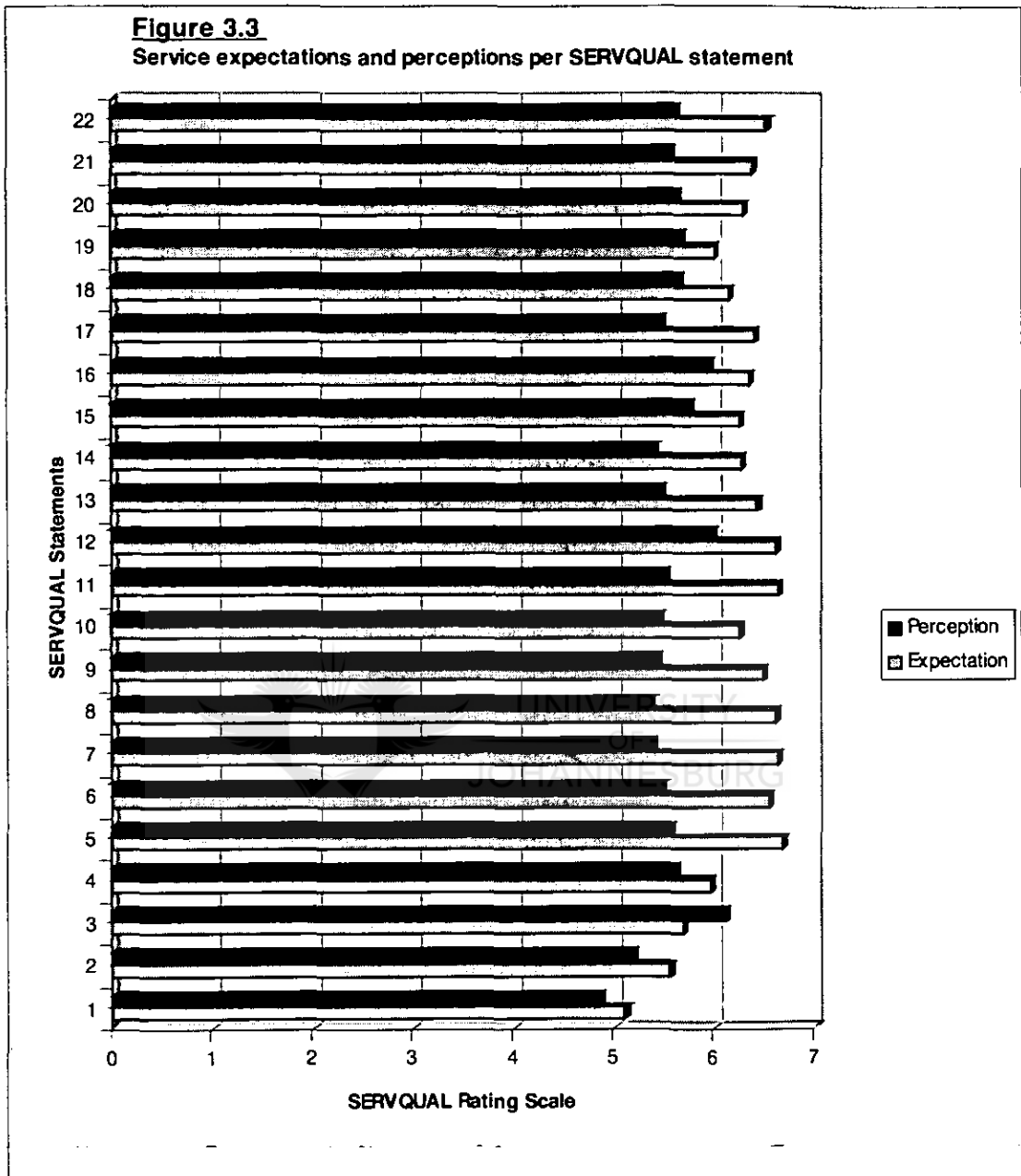


Figure 3.3 depicts the expectations and perceptions of all 22 SERVQUAL statements. The research showed that 21 of the 22 SERVQUAL statements produced negative differences or gaps, which means that the respondents' service quality expectations exceeded their perceptions of the service rendered by the IIA-SA. Only statement three under the tangibles dimension, dealing with the neatness of employees, produced a positive gap. The average difference of the 22 statements is -0.70.



The individual results of each of the dimensions' elements are discussed in the following sections.

### 3.3.2 Results of the tangibles dimension

The tangibles dimension displayed the lowest negative variance of the five SERVQUAL dimensions researched. For ease of reference, extracts of the particular SERVQUAL statements are listed in Table 3.4, along with their expectation, perception and difference values.

**Table 3.4**

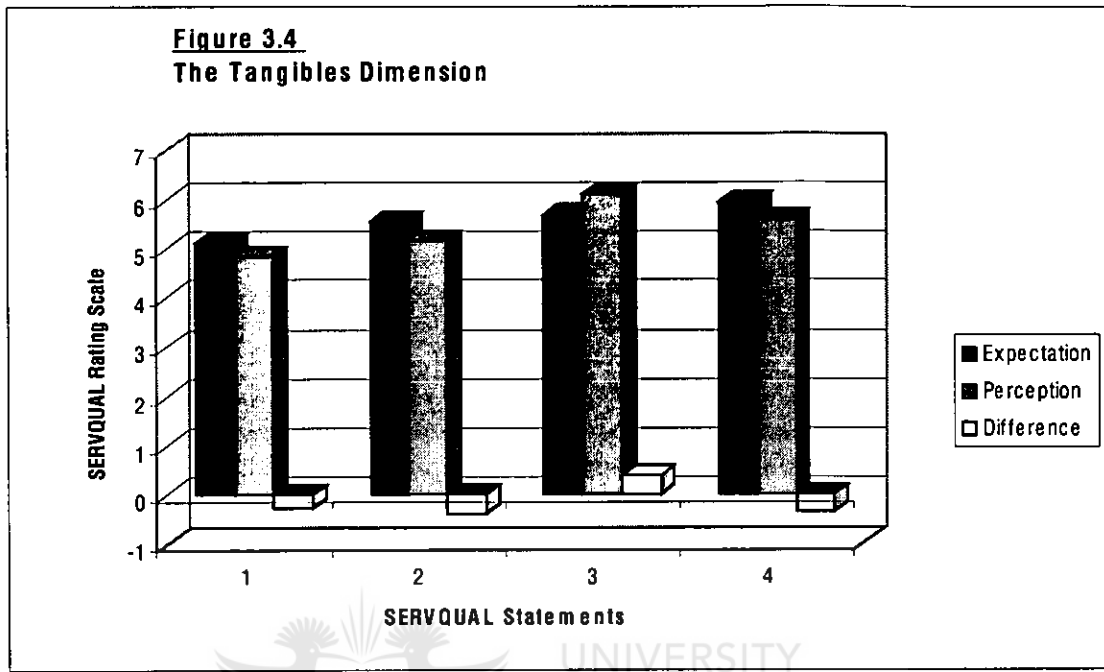
**TANGIBLES: Appearance of physical facilities, equipment, personnel and communications materials**

| Statement extract                    | Expectation | Perception  | Difference   |
|--------------------------------------|-------------|-------------|--------------|
| 1. Modern looking equipment          | 5.10        | 4.85        | -0.25        |
| 2. Facilities are visually appealing | 5.55        | 5.17        | -0.38        |
| 3. Employees are neat in appearance  | 5.69        | 6.10        | 0.41         |
| 4. Materials are visually appealing  | 5.96        | 5.61        | -0.35        |
| <b>Dimension average</b>             | <b>5.57</b> | <b>5.43</b> | <b>-0.14</b> |

The positive value for statement three's difference in Table 3.4, indicates that the members are more than satisfied with the IIA-SA employees' appearance (a difference of 0.00 indicates client satisfaction). The dimension shows a very slight overall negative gap and it can hence be assumed that the respondents are reasonably satisfied with the IIA-SA's tangibles. In a service organisation like the IIA-SA, the appearance of offices and employees are sometimes the only physical evidence of service quality. The recent expansion of the IIA-SA Head Office to offer a conference/training room and library, should go a long way to address and possibly eliminate any minor negative variances within this dimension.



Figure 3.4 illustrates the tangibles dimension's results for each of the elements.



### 3.3.3 Results of the reliability dimension

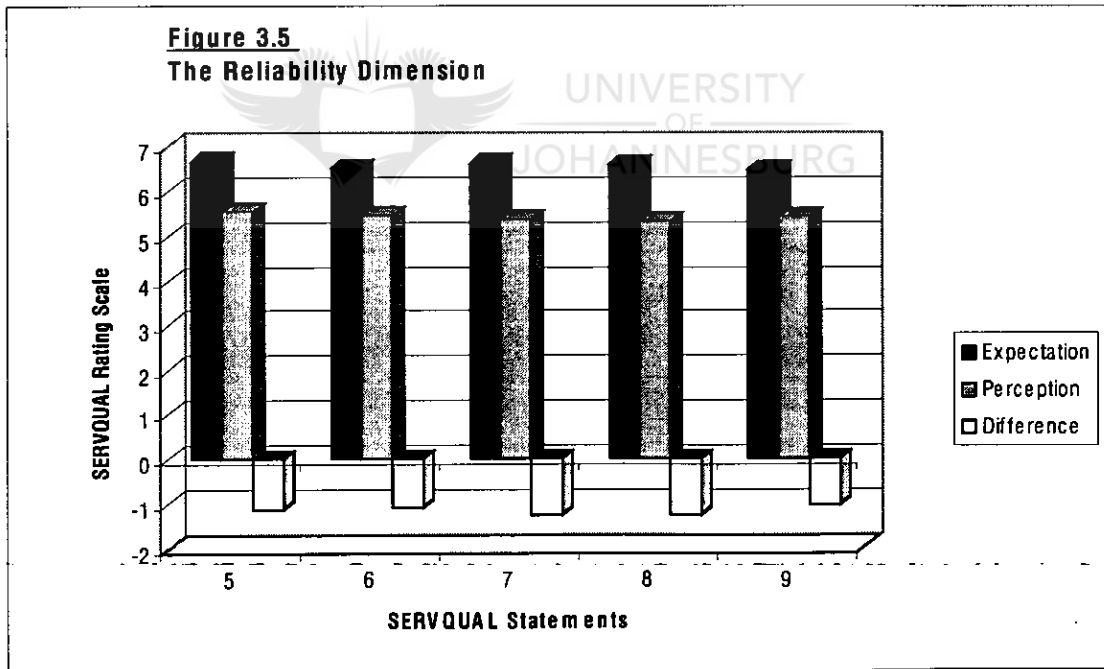
The reliability dimension displayed the highest negative difference of the five SERVQUAL dimensions researched, and therefore represents the biggest problem and challenge to the IIA-SA. It can, however, also be mentioned that an increase in this dimension's service quality, will have a considerable positive effect on total service quality, due to the fact that respondents rated this as the most important dimension. Extracts of the particular SERVQUAL statements are listed in Table 3.5, along with their expectation, perception and difference values.

**Table 3.5**

**RELIABILITY: Ability to perform the promised service dependably and accurately**

| Statement extract                        | Expectation | Perception  | Difference   |
|--|-------------|-------------|--------------|
| 5. Keeps promises made                   | 6.68        | 5.55        | -1.13        |
| 6. Shows interest in solving problems    | 6.54        | 5.46        | -1.07        |
| 7. Performs the service right first time | 6.63        | 5.38        | -1.25        |
| 8. Provides service at time it promises  | 6.61        | 5.35        | -1.25        |
| 9. Insists on error-free records         | 6.48        | 5.44        | -1.04        |
| <b>Dimension average</b>                 | <b>6.59</b> | <b>5.44</b> | <b>-1.15</b> |

Figure 3.5 illustrates the reliability dimension's results for each of the elements.



Of the five individual statements of this dimension, the three with relatively high negative gaps briefly relate to: keeping promises made; performing the service right first time; and providing service at the time promised. A possible reason for these gaps is that the IIA-SA may currently be understaffed in the administrative section with the result that respondents perceive the reliability to be lacking. Another possible cause for these somewhat negative respondent perceptions, is the administrative interaction with Head Office (IIA Inc.). An example is where answers cannot be given to members immediately, or information is not provided to the member on the time promised, because of delayed replies from IIA Inc. In these instances, the IIA-SA member will not (and need not) understand the internal difficulties and hence, perceive this as inferior service quality.

### **3.3.4 Results of the responsiveness dimension**

The responsiveness dimension displayed the second highest negative variance of the five SERVQUAL dimensions researched. Extracts of the particular SERVQUAL statements are listed in Table 3.6, along with their expectation, perception and difference values.

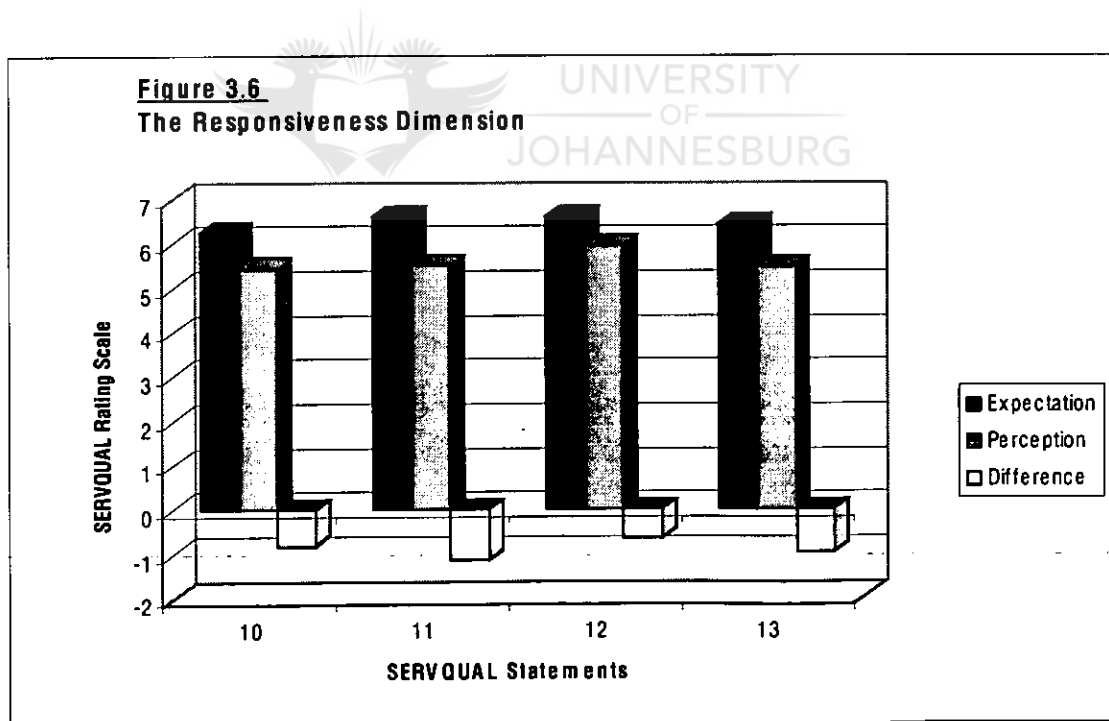
Similar to the results of the reliability dimension, the responsiveness dimension displays some problems. The possible causes for these negative perceptions are the same as those discussed in paragraph 3.3.3 for the reliability dimension. In addition to this, the recent appointment of the first IIA-SA Chief Executive Officer should also play a key role in addressing negative perceptions of members in general.

**Table 3.6**

**RESPONSIVENESS: Willingness to help customers and provide prompt service**

| Statement extract                            | Expectation | Perception  | Difference   |
|--|-------------|-------------|--------------|
| 10. Indicates when service will be performed | 6.25        | 5.45        | -0.80        |
| 11. Provides prompt service                  | 6.63        | 5.51        | -1.13        |
| 12. Are always willing to help               | 6.61        | 5.97        | -0.63        |
| 13. Never too busy to respond to requests    | 6.42        | 5.46        | -0.96        |
| <b>Dimension average</b>                     | <b>6.48</b> | <b>5.60</b> | <b>-0.88</b> |

Figure 3.6 illustrates the responsiveness dimension's results for each of the elements.



### 3.3.5 Results of the assurance dimension

The assurance dimension displayed the third highest negative variance of the five SERVQUAL dimensions researched. Extracts of the particular SERVQUAL statements are listed in Table 3.7, along with their expectation, perception and difference values.

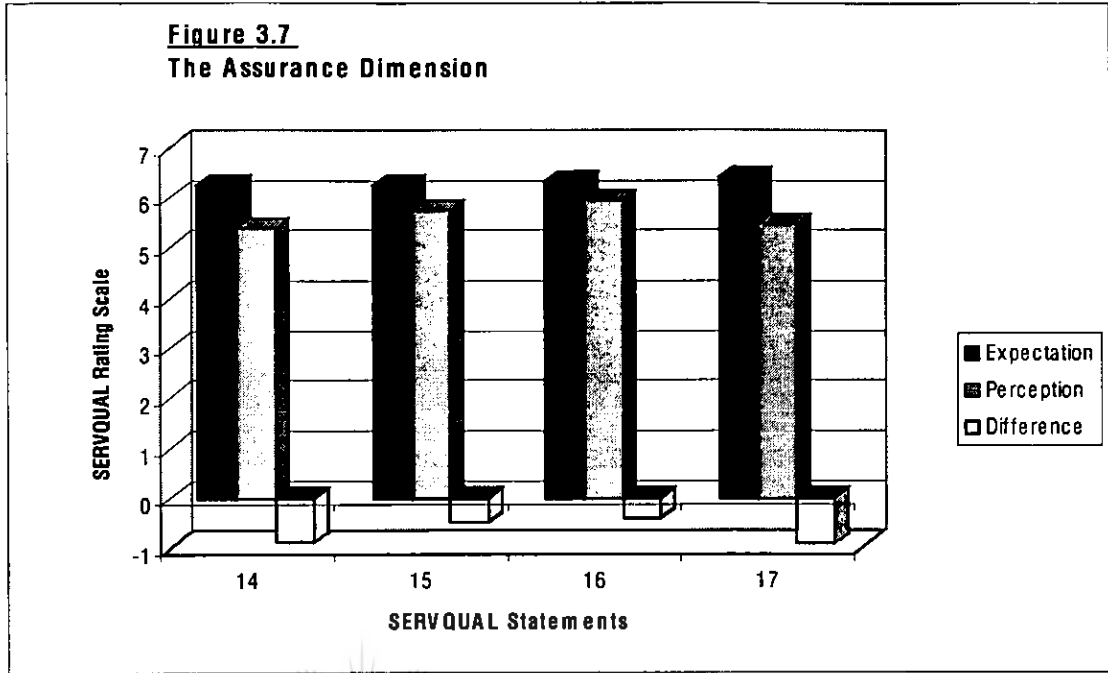
**Table 3.7**

**ASSURANCE: Knowledge and courtesy of employees and their ability to convey trust and confidence**

| Statement extract                                | Expectation | Perception  | Difference   |
|--|-------------|-------------|--------------|
| 14. Behaviour of employees instills confidence   | 6.27        | 5.39        | -0.87        |
| 15. Feel safe in transactions                    | 6.25        | 5.76        | -0.49        |
| 16. Employees are constantly courteous           | 6.34        | 5.93        | -0.41        |
| 17. Employees have knowledge to answer questions | 6.39        | 5.46        | -0.93        |
| <b>Dimension average</b>                         | <b>6.31</b> | <b>5.64</b> | <b>-0.68</b> |

Figure 3.7 illustrates the assurance dimension's results for each of the elements.

Interestingly, the ratings of two of the four assurance statements differ considerably from the other two. The two statements with the higher negative values relate to whether the behaviour of employees instill confidence and how knowledgeable the employees are. These perceptions may exist as a result of new employees in the service of the IIA-SA and/or a lack of training. The possible staff shortage may also have a negative impact on the attendance of training courses. Once new employees' knowledge of the IIA-SA and the profession increase, the members' perception of the assurance dimension should become more positive.



### 3.3.6 Results of the empathy dimension

The empathy dimension displayed the second lowest negative variance of the five SERVQUAL dimensions researched. Extracts of the particular SERVQUAL statements are listed in Table 3.8, along with their expectation, perception and difference values.

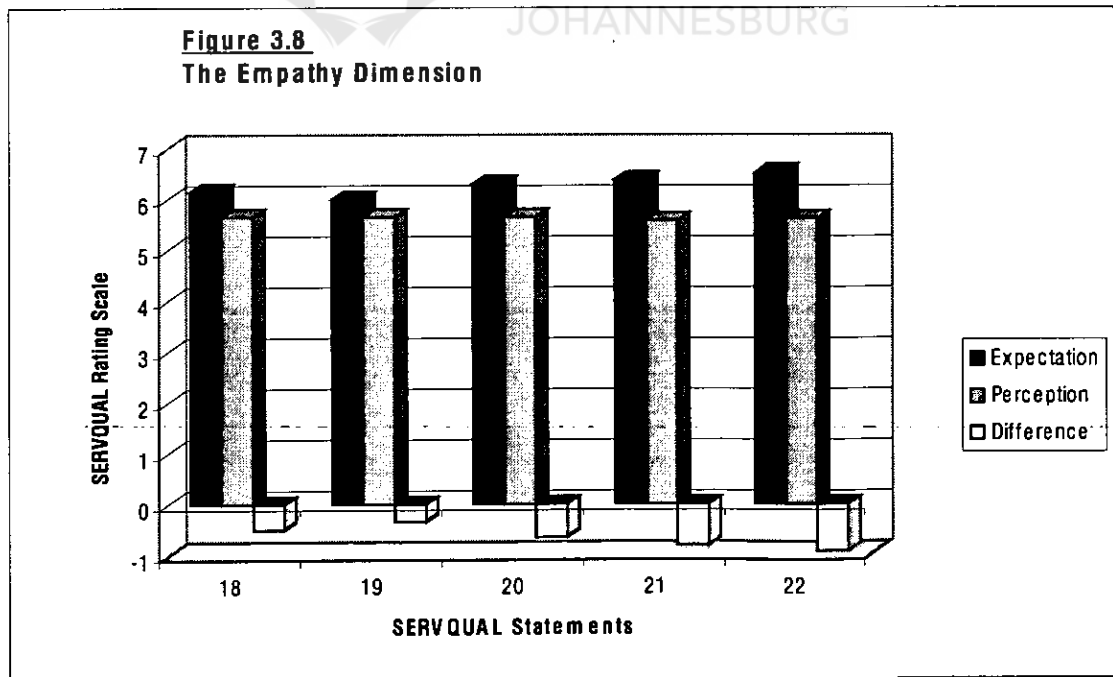
The two largest negative gaps under this dimension relate to having the customers' best interests at heart and having employees who understand the member's specific problems. These respondent perceptions may indicate that employee training is necessary as well as reviewing the staff complement. If employees are overworked, it may be extremely difficult to be empathetic towards members with queries and problems.

**Table 3.8**

**EMPATHY: Caring, individualised attention provided to customers**

| Statement extract                                | Expectation | Perception  | Difference   |
|--|-------------|-------------|--------------|
| 18. Gives individual attention                   | 6.14        | 5.65        | -0.49        |
| 19. Has convenient operating hours               | 6.00        | 5.66        | -0.34        |
| 20. Employees who give personal attention        | 6.28        | 5.63        | -0.65        |
| 21. Has customer's best interests at heart       | 6.37        | 5.56        | -0.80        |
| 22. Employees who understand your specific needs | 6.51        | 5.61        | -0.90        |
| <b>Dimension average</b>                         | <b>6.26</b> | <b>5.62</b> | <b>-0.64</b> |

Figure 3.8 illustrates the empathy dimension's results for each of the elements.



### 3.4 SUMMARY

The objectives of the empirical research were to establish the service expectations of the IIA-SA members and to measure them against the perceived level of customer service provided by the IIA-SA; and to measure and evaluate the gaps between the members' expectations and the level of service provided by the IIA-SA.

The research showed that the service quality expectations of the IIA-SA members were relatively high and that these exceeded the perceptions of services rendered in all but one SERVQUAL statement. All five of the SERVQUAL dimensions displayed negative differences, but all five were not equally poor. The worst dimensions were reliability, responsiveness and assurance. By linking these dimension gaps to the importance placed on each dimension by the respondents, weighted values were derived. These weighted values are useful in prioritising what needs to be done in order to increase perceived service quality to the IIA-SA members.

The results are indicative to the IIA-SA executive that certain areas need to be addressed, but it should be mentioned that the negative gaps are actually not that serious when considering that the maximum negative variance which can be achieved, is  $-6$  (where the expectation is 7 and the perception only 1). Over the years, researchers have also indicated that two SERVQUAL dimensions are always stable, namely reliability as the worst and tangibles as the best rated dimension. The IIA-SA's results are thus in line with this general trend in service organisations.

Based on the results of the empirical research and the theoretical insight obtained in the literature study, some recommendations and/or comments are made. It should be noted, however, that the IIA-SA's current processes have not been studied and the recommendations do not imply or reflect



weaknesses in the IIA-SA's systems or work methods. The following chapter focuses on some general recommendations and also concludes the previous chapters.



# CHAPTER 4

## CONCLUSIONS AND RECOMMENDATIONS

### 4.1 INTRODUCTION

*"We cannot direct the wind ... but we can adjust the sails."*

Anonymous

This chapter concludes the study by summarising all the chapters, drawing conclusions and making recommendations regarding the insight gained in service quality.



### 4.2 SUMMARY OF CHAPTERS

Chapter 1 provides a background of some of the problems experienced by organisations. One major problem is increased competition, and in the context of South African businesses, this problem also relates to increased international competition. Another major problem is poor service levels and subsequently, dissatisfied customers.

In order for organisations to not only survive in their respective markets, but also to thrive and increase market share, the impetus should be on providing high quality products (goods or services). Manufacturers of goods may find it easier to achieve the aforementioned as they normally have systems that control the final product's quality before distributing it to the customer. In this way, they can strive for "zero defects". On the other hand, service organisations need to strive for "zero defections". Service organisations find it

more problematic to perform quality control on services mainly as a result of the characteristics of services (as opposed to that of goods), which are discussed in detail in Chapter 2.

Background is also provided on the IIA-SA, which forms the subject of the empirical part of this study. Professional institutes such as the IIA-SA can be categorised in the same class as other service organisations, one difference being that their customers are referred to as members. However, such institutes face the same risks as regular service organisations.

The problem definition mentioned the effect that change has on today's businesses, which obviously makes it more difficult for organisations to stay aligned with, and focus on, the needs of their customers. In these difficult times organisations also have to focus on developing new and innovative services and attracting new customers (members in the case of the IIA-SA) by rendering a consistently high quality service to existing customers.

The study objectives were to: provide sufficient information on service quality, the SERVQUAL instrument, as well as other relevant topics; establish the service expectations of the IIA-SA members and to measure them against the perceived level of customer service provided by the IIA-SA; measure and evaluate the gaps between the members' expectations and the level of service provided by the IIA-SA; and to provide guidelines / make recommendations to the IIA-SA Board for improving the quality of service to its members.

Chapter 2 contains a study of the relevant literature and definitions, and discussions of service-related concepts are provided. Differences between services and goods, as well as the characteristics of services are discussed in detail. The nature of the service activity is examined as well as the problems associated with defining and measuring quality. Quality of service is

sometimes harder to evaluate than that of goods because of the intangible, multifaceted nature of many services. In addition to this, customers' perceptions of service quality differ as do their expectations. It is also mentioned that consumers consider five dimensions in their assessments of service quality, namely reliability, responsiveness, assurance, empathy and tangibles.

The service quality model is discussed as well as the various failure gaps in service quality. It is explained that the service quality process can be examined in terms of gaps between expectations and perceptions on the part of management, employees and customers. Five generally found gaps are discussed, namely the service, knowledge, standards, delivery and communications gaps. Of these, the most important is the service gap (Gap 5) that represents the difference between the customers' service expectations and their perceptions of the service actually delivered. The ultimate goal of an organisation should therefore be to close, or at least minimise, this particular gap. Key factors leading to the other four gaps, are discussed in detail.

The SERVQUAL instrument is discussed next, including the five dimensions tested by it and the statements related to each dimension. Criticism of the SERVQUAL instrument is also mentioned and the conclusion is drawn that notwithstanding the criticisms of SERVQUAL, the instrument can still be used as a reliable and generally applicable measure of service quality.

Chapter 3 contains an analysis of the research methodology and research results. A description of the application of the SERVQUAL instrument, the nature of the population and the sample selection, the distribution method utilised for the questionnaires and the response rate achieved, are also discussed.

Briefly, the results show that all five of the dimensions and 21 of the 22 SERVQUAL statements, reflect negative service quality gaps or differences. In other words, the respondents rated the quality of the IIA-SA's services rendered (perceptions) lower than their general expectations of service organisations. Discussions of the results are presented by means of tables and graphic illustrations. Of the five dimensions tested by means of SERVQUAL, the reliability dimension experiences the largest negative difference, followed by the responsiveness, assurance, empathy and tangibles dimensions. Correlation exists between the ranking of these dimensions and the levels of importance assigned to them by the respondents.

### **4.3 RECOMMENDATIONS**

By keeping the recommendations in this chapter generic rather than company specific, the writer feels that this research document will be more valuable and generally applicable to service organisations. In some cases, though, specific reference will be made to the IIA-SA's situation.

In Chapter 2 the service quality model is discussed as well as the five service quality gaps that can occur. Gap 5 is cited as the most important of the five gaps and encompasses the other four gaps. The SERVQUAL instrument, as discussed in Chapter 2 and used for the empirical testing as outlined in Chapter 3, measures gap 5 of the service quality model, being the difference between customers' service quality expectations and their quality perception of the service rendered. Hence, the SERVQUAL results can be seen as indicative of the size of gap 5. Paragraphs 4.3.1 to 4.3.4 contain some of the solutions for closing gaps 1 to 4, as suggested by Lovelock (1996:470) and diluted from Zeithaml and Bitner, 1996 (chapters 13 – 18).

#### 4.3.1 Gap 1 Prescription: Learn what customers expect

- Obtain a better understanding of customer expectations through research, complaint analysis, customer panels, etc.
- Increase direct interactions between managers and customers in order to improve understanding
- Improve upward communication from contact personnel to management and reduce the number of levels between the two
- Turn information and insights into action

Being unaware of customer expectations, is one of the main causes of not delivering to customer expectations. Gap 1 is the difference between customer expectations of service and the organisation's understanding of those expectations (Zeithaml & Bitner, 1996:38/39).

##### **(a) *inadequate marketing research orientation***

This type of research on IIA-SA members has not been performed recently, if at all, which means that it may be the first time that the IIA-SA really knows how their members perceive their services. It is suggested that the IIA-SA should in future perform additional marketing research to determine the level of service quality as perceived by members. By doing this, members' preferences can also become known and the IIA-SA should be able to close the gap between members' expectations on the one hand, and services and products offered, on the other.

##### **(b) *Lack of upward communication***

Linked to market research is the extent of interaction between the IIA-SA management and its members. Problems are generally experienced when there is lack of interaction between management (IIA-SA management) and customers (members); insufficient communication between contact employees

and IIA-SA management; and too many layers between contact personnel and top management. The latter is not applicable to the IIA-SA, but the first two causes may well be. Sufficient interaction, combined with marketing research, should enable the IIA-SA to know its members better, and hence have a more member-centered focus.

**(c) *Insufficient relationship focus***

Organisations that have strong bonds with their customers are less likely to experience gap 1. Organisations need to implement strategies to retain customers and strengthen relationships with them. This concept of relationship marketing is distinct from transactional marketing where a more conventional emphasis is placed on acquiring new customers rather than on retaining them. Organisations sometimes focus too much on attracting new customers and then fail to understand the changing needs and expectations of their current customers. In the case of the IIA-SA, there is (rightfully so) a drive to attract new members, but it should be remembered that the needs and expectations of current members should also be understood and not neglected.

#### 4.3.2 Gap 2 Prescription: Establish the right service quality standards

- Ensure that top management displays ongoing commitment to quality as defined from the customers' point of view
- Get middle management to set, communicate, and reinforce customer-oriented service standards for their work units
- Train managers in the skills needed to lead employees to deliver quality service
- Become receptive to new ways of doing business that overcome barriers to delivering quality service
- Standardise repetitive work tasks to ensure consistency and reliability by substituting hard technology for human contact and by improving work methods (soft technology)
- Establish clear service quality goals that are challenging, realistic and explicitly designed to meet customer expectations
- Clarify to employees which job tasks have the biggest impact on quality and should receive the highest priority
- Ensure that employees understand and accept goals and priorities
- Measure performance and provide regular feedback
- Reward managers and employees for attaining quality goals

Gap 2 is the difference between the organisation's understanding of customer expectations and the development of customer-driven service designs and standards. These standards are different from conventional performance standards which most service organisations establish because they are based on pivotal customer requirements which are visible to, and measured by, customers. These are operations standards set to correspond to customer expectations and priorities rather than to organisational concerns such as productivity or efficiency.



### **4.3.3 Gap 3 Prescription: Ensure that service performance meets standards**

- Clarify employee roles
- Ensure that all employees understand how their jobs contribute to customer satisfaction
- Match employees to jobs by selecting for the abilities and skills needed to perform each job to its optimum level
- Provide employees with the technical training needed to perform their assigned tasks effectively
- Develop innovative recruitment and retention methods to attract the best people and build loyalty
- Enhance employee performance by selecting the most appropriate and reliable technology and equipment
- Teach employees about customer expectations, perceptions and problems
- Train employees in interpersonal skills, especially for dealing with customers under stressful conditions
- Eliminate role conflict among employees by involving them in the process of setting standards
- Train employees in priority setting and time management
- Measure employee performance and link compensation and recognition to delivery of quality service
- Develop reward systems that are meaningful, timely, simple, accurate and fair
- Empower managers and employees in the field by pushing decision-making power down the organisation; allow them greater discretion in the methods they use to reach goals
- Build teamwork so that employees work well together, and use team rewards as incentives

Gap three represents the discrepancy between the development of customer-driven service standards and actual service performance by company employees. Standards must be backed by appropriate resources and must also be supported in order to be effective.

#### **4.3.4 Gap 4 Prescription: Ensure that delivery matches promises**

- Seek inputs from operations personnel when new advertising programs are being created
- Develop advertising that features real employees performing their jobs
- Allow service providers to preview advertisements before customers are exposed to them
- Encourage sales staff to involve operations staff in face-to-face meetings with customers
- Develop internal educational, motivational, and advertising campaigns to strengthen links between marketing, operations, and human resource departments
- Ensure that consistent standards of service are delivered across multiple locations
- Ensure that advertising content accurately reflects those service characteristics that are most important to customers in their encounters with the organisation
- Manage customers' expectations by letting them know what is and is not possible – and the reasons why
- Identify and explain uncontrollable reasons for shortcomings in service performance
- Offer customers different levels of service at different prices, explaining the differences between these levels

The fourth gap represents the difference between service delivery and the service provider's external communications. The discrepancy, if any, between actual and promised service broadens the gap between the customers' service quality expectations and perceived quality of rendered services.

#### **4.4 OTHER RECOMMENDATIONS**

Another very important factor in improving service quality is retention strategies. Although some of the issues related to this topic may have been discussed previously, this concept warrants a more detailed discussion.

##### **4.4.1 Retention strategies**

Zeithaml and Bitner (1996:189-195) suggest the following regarding retention strategies.

###### **(a) Monitor relationships**

Implementing a thorough means of monitoring and evaluating relationship quality over time is a basic strategy for customer retention. Current members should be surveyed to determine their perceptions of value received, quality, satisfaction with services, and satisfaction with the provider relative to competitors. A well-designed member database is a foundation for member (customer) retention strategies. In the case of cancelled memberships, information on termination should also exist in the database.

###### **(b) Recovery – retaining members when things go wrong**

Reliability and “doing things right the first time” are critical factors in customers' judgements of service quality. Service failures and mistakes are, however,

inevitable even for the best service organisations. As services are often performed in the presence of the customer, such failures are difficult to hide or disguise and it is usually impossible to “start over” as it might be with a manufactured product. Effective recovery is therefore essential to save and even build the relationship. Should the organisation fail in recovery, it has failed the customer twice, which is a double deviation from customer expectations. Some essential ingredients for an effective recovery strategy, are the following:

*Track and anticipate recovery opportunities*

Organisations need systems to track and identify failures and should view them as opportunities to save and retain customer relationships. An effective service recovery strategy requires identification of failure points in the system through listening to customers. This means not only monitoring complaints, but really listening and being pro-active in searching out potential failure points. A variety of types of market research can be used to identify recovery opportunities, e.g. collecting critical incidents, monitoring complaints and offering a toll-free number.

A practical suggestion is to consider developing a feedback form on the IIA-SA Internet site where members (and non-members) can provide their comments or questions. In order for this to be successful, timeous action will have to be taken on addressing the issues raised in such a forum. Another suggestion is that the IIA-SA newsletter, the IA Adviser, could include such a feedback form or merely encourage members to voice their comments. The formalisation of the query/complaints-handling process from members (and non-members) may prove to be advantageous. By doing this, IIA-SA staff will not only be able to manage turnaround times on such queries or complaints, but should also obtain valuable insight into members' problems and concerns.

*Take care of customer problems on the front lines*

From the customer's point of view, the most effective recovery is accomplished when a front-line worker can take the initiative to solve the problem on the spot. Often all the customer wants is acknowledgement of the problem, an apology, an explanation when appropriate and a solution to the problem.

*Solve problems quickly*

Employees should act quickly to solve problems once failure points have been identified, because problems not solved can quickly escalate.

*Empower the front line to solve problems*

Because customers demand that service recovery take place on the spot and quickly, front-line employees need the skills, authority and incentives to engage in effective recovery.

*Learn from recovery experiences*

Recovery experiences are also a valuable source of diagnostic information for improving customer service. The sources of the problems can be identified and by modifying the processes, the need for service recovery can sometimes almost completely be eliminated.

## 4.5 CLOSING REMARKS

Service quality can no longer be ignored. A quality service is provided to customers when you either meet or exceed their expectations. Some companies make the mistake of assuming they know what their customers expect – and then end up losing customers. It is essential to find out what your customers really want. Different people will also experience your service in

different ways because of differing preferences, backgrounds and needs. It is, therefore, necessary that customer expectations and perceptions are studied on a representative sample of your customer base. To conclude, *quality is what the customer says it is*, and not what your internal guidelines indicate as satisfactory.



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South Africa  
2000

22 April 1999

Dear IIA-SA Member

Re: Market Research

As the final part of my M. Com. (Business Management) studies at the Rand Afrikaans University (RAU), I have to complete a dissertation on a curriculum related topic. I have chosen the subject of measuring service quality by means of researching customer expectations and perceptions.

The IIA-SA have given me permission to conduct this research among its members by means of an empirical study. In deciding on this topic, numerous factors played a role, but chiefly the desire to add value to an organisation whilst still meeting RAU's requirements in this regard motivated my choice. I would like to point out that although the research results will be presented to the IIA-SA Chief Executive as well as the Board of Directors, I am performing this project in a personal capacity and IIA funds and assets (except for providing the database information), will not be utilised for any part of this study.

To conclude, I am positive that this research project can and will (with your input), provide insight into our members' expectations and perceptions, which can then be considered for future strategic plans. It is in this context that I kindly ask you to complete the attached questionnaire and return it as soon as possible in the self-addressed envelope provided. Your response will be treated with utmost confidentiality.

Best regards

*<Original letter signed by the writer>*

Johan Fourie CIA

IIA membership number : 79092  
(Work Telephone number : 011 242-2161)

**A. General Service Quality Expectations**

Please indicate your opinion by ticking a block where "7" represents a feature absolutely essential for an excellent company, and where ticking "1" means that the feature is not essential at all.

|    | QUESTION   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|--|---|---|---|---|---|---|---|
| 1  | Excellent companies will have modern-looking equipment.  |   |   |   |   |   |   |   |
| 2  | The physical facilities found at excellent companies will be visually appealing.   |   |   |   |   |   |   |   |
| 3  | Employees of excellent companies will be neat in appearance.   |   |   |   |   |   |   |   |
| 4  | Materials associated with the service (such as pamphlets or statements) will be visually appealing, in an excellent company. |   |   |   |   |   |   |   |
| 5  | When excellent companies promise to do something by a certain time, they will do so.   |   |   |   |   |   |   |   |
| 6  | When customers have a problem, excellent companies will show a sincere interest in solving it.                               |   |   |   |   |   |   |   |
| 7  | Excellent companies will perform the service right the first time.   |   |   |   |   |   |   |   |
| 8  | Excellent companies will provide their services at the time they promise to do so.   |   |   |   |   |   |   |   |
| 9  | Excellent companies will insist on error-free records.   |   |   |   |   |   |   |   |
| 10 | Employees of excellent companies will tell customers exactly when services will be performed.                                |   |   |   |   |   |   |   |
| 11 | Employees of excellent companies will give prompt service to customers.  |   |   |   |   |   |   |   |
| 12 | Employees of excellent companies will always be willing to help customers.   |   |   |   |   |   |   |   |
| 13 | Employees of excellent companies will never be too busy to respond to customer requests.                                     |   |   |   |   |   |   |   |
| 14 | The behaviour of employees of excellent companies will instill confidence in customers.                                      |   |   |   |   |   |   |   |
| 15 | Customers of excellent companies will feel safe in their transactions.   |   |   |   |   |   |   |   |
| 16 | Employees of excellent companies will consistently be courteous with customers.  |   |   |   |   |   |   |   |
| 17 | Employees of excellent companies will have the knowledge to answer customer questions.                                       |   |   |   |   |   |   |   |
| 18 | Excellent companies will give customers individual attention.  |   |   |   |   |   |   |   |
| 19 | Excellent companies will have operating hours convenient to all their customers.   |   |   |   |   |   |   |   |
| 20 | Excellent companies will have employees who give customers personal attention.   |   |   |   |   |   |   |   |
| 21 | Excellent companies will have the customer's best interest at heart.   |   |   |   |   |   |   |   |
| 22 | The employees of excellent companies will understand the specific needs of their customers.                                  |   |   |   |   |   |   |   |

P.T.O.

**B. Service Quality Perceptions of the IIA-SA**

Please indicate your opinion by ticking a block where "1" means that you strongly disagree that the IIA-SA has the relevant feature, and a "7" means that you strongly agree that the IIA-SA has the specific feature. The term "IIA-SA employees" in this context includes the IIA-SA's administrative personnel, the CEO and Directors of the Board.

|    | QUESTION  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|---|---|---|---|---|---|---|---|
| 1  | IIA-SA has modern-looking equipment.  |   |   |   |   |   |   |   |
| 2  | IIA-SA's physical facilities are visually appealing.  |   |   |   |   |   |   |   |
| 3  | IIA-SA's employees are neat in appearance.  |   |   |   |   |   |   |   |
| 4  | Materials associated with the service (such as pamphlets, brochures and flyers) are visually appealing at IIA-SA. |   |   |   |   |   |   |   |
| 5  | When the IIA-SA promises to do something by a certain time, it does so.   |   |   |   |   |   |   |   |
| 6  | When you have a problem, the IIA-SA will show a sincere interest in solving it.                                   |   |   |   |   |   |   |   |
| 7  | IIA-SA performs the service right the first time.   |   |   |   |   |   |   |   |
| 8  | IIA-SA provides its services at the time it promises to do so.  |   |   |   |   |   |   |   |
| 9  | IIA-SA insists on error-free records.   |   |   |   |   |   |   |   |
| 10 | Employees of IIA-SA tell you exactly when service will be performed.  |   |   |   |   |   |   |   |
| 11 | Employees of IIA-SA give you prompt service.  |   |   |   |   |   |   |   |
| 12 | Employees of IIA-SA are always willing to help you.   |   |   |   |   |   |   |   |
| 13 | Employees of IIA-SA are never too busy to respond to your requests.   |   |   |   |   |   |   |   |
| 14 | The behaviour of IIA-SA employees instills confidence in customers.   |   |   |   |   |   |   |   |
| 15 | You feel safe in your transactions with IIA-SA.   |   |   |   |   |   |   |   |
| 16 | Employees of IIA-SA are constantly courteous with you.  |   |   |   |   |   |   |   |
| 17 | Employees of IIA-SA have the knowledge to answer your questions.  |   |   |   |   |   |   |   |
| 18 | IIA-SA gives you individual attention.  |   |   |   |   |   |   |   |
| 19 | IIA-SA has operating hours convenient to all its customers.   |   |   |   |   |   |   |   |
| 20 | IIA-SA has employees who give you personal attention.   |   |   |   |   |   |   |   |
| 21 | IIA-SA has your best interests at heart.  |   |   |   |   |   |   |   |
| 22 | IIA-SA employees understand your specific needs.  |   |   |   |   |   |   |   |

**C. Point Allocation**

Listed below are five features pertaining to service organisations and the services they offer. Please indicate how important each of these features are to you when evaluating quality of service by allocating a total of 100 points amongst the five features. The more important a feature is to you, the more points you should allocate to it. Please ensure that the points allocated add up to 100.

|   | FEATURE  | POINT      |
|---|--|------------|
| 1 | The appearance of the physical facilities, equipment, personnel and communication materials.       |            |
| 2 | The ability of the service organisation to perform the promised service dependably and accurately. |            |
| 3 | The willingness of the service organisation to help customers and provide prompt service.          |            |
| 4 | The knowledge and courtesy of the employees and their ability to convey trust and confidence       |            |
| 5 | The caring, individualised attention the service organisation provides its customers               |            |
|   | <b>TOTAL</b>   | <b>100</b> |

**RESEARCH RESULTS (SUMMARY)**

| <b>Question Number</b>          | <b>Average Expectation</b> | <b>Average Perception</b> | <b>Average Gap</b> | <b>Point Allocation</b> | <b>Weighted Gap</b> |
|---------------------------------|----------------------------|---------------------------|--------------------|-------------------------|---------------------|
| 1                               | 5.10                       | 4.85                      | -0.25              |                         |                     |
| 2                               | 5.55                       | 5.17                      | -0.38              |                         |                     |
| 3                               | 5.69                       | 6.10                      | 0.41               |                         |                     |
| 4                               | 5.96                       | 5.61                      | -0.35              |                         |                     |
| <b>Average</b>                  | <b>5.57</b>                | <b>5.43</b>               | <b>-0.14</b>       | <b>12.68</b>            | <b>-1.83</b>        |
| 5                               | 6.68                       | 5.55                      | -1.13              |                         |                     |
| 6                               | 6.54                       | 5.46                      | -1.07              |                         |                     |
| 7                               | 6.63                       | 5.38                      | -1.25              |                         |                     |
| 8                               | 6.61                       | 5.35                      | -1.25              |                         |                     |
| 9                               | 6.48                       | 5.44                      | -1.04              |                         |                     |
| <b>Average</b>                  | <b>6.59</b>                | <b>5.44</b>               | <b>-1.16</b>       | <b>26.27</b>            | <b>-30.19</b>       |
| 10                              | 6.25                       | 5.45                      | -0.80              |                         |                     |
| 11                              | 6.63                       | 5.51                      | -1.13              |                         |                     |
| 12                              | 6.61                       | 5.97                      | -0.63              |                         |                     |
| 13                              | 6.42                       | 5.46                      | -0.96              |                         |                     |
| <b>Average</b>                  | <b>6.48</b>                | <b>5.60</b>               | <b>-0.88</b>       | <b>24.65</b>            | <b>-21.70</b>       |
| 14                              | 6.27                       | 5.39                      | -0.87              |                         |                     |
| 15                              | 6.25                       | 5.76                      | -0.49              |                         |                     |
| 16                              | 6.34                       | 5.93                      | -0.41              |                         |                     |
| 17                              | 6.39                       | 5.46                      | -0.93              |                         |                     |
| <b>Average</b>                  | <b>6.31</b>                | <b>5.64</b>               | <b>-0.68</b>       | <b>22.61</b>            | <b>-16.28</b>       |
| 18                              | 6.14                       | 5.65                      | -0.49              |                         |                     |
| 19                              | 6.00                       | 5.66                      | -0.34              |                         |                     |
| 20                              | 6.28                       | 5.63                      | -0.65              |                         |                     |
| 21                              | 6.37                       | 5.56                      | -0.80              |                         |                     |
| 22                              | 6.51                       | 5.61                      | -0.90              |                         |                     |
| <b>Average</b>                  | <b>6.26</b>                | <b>5.62</b>               | <b>-0.64</b>       | <b>13.80</b>            | <b>-8.79</b>        |
| <b>Average (all dimensions)</b> | <b>6.24</b>                | <b>5.54</b>               | <b>-0.70</b>       | <b>100.00</b>           |                     |

# RESEARCH RESULTS PER QUESTIONNAIRE

## EXPECTATIONS

### QUESTION NUMBERS

|    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  |
| 2  | 3 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5  | 7  | 7  | 7  | 7  | 7  | 5  | 5  | 7  | 5  | 7  | 5  | 7  |
| 3  | 2 | 2 | 1 | 4 | 7 | 7 | 7 | 7 | 6 | 7  | 7  | 5  | 5  | 5  | 5  | 4  | 5  | 4  | 4  | 4  | 4  | 5  |
| 4  | 5 | 6 | 5 | 6 | 7 | 7 | 7 | 6 | 6 | 6  | 6  | 6  | 5  | 5  | 5  | 6  | 5  | 6  | 5  | 6  | 5  | 6  |
| 5  | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 5  | 7  | 7  | 7  |
| 6  | 5 | 5 | 5 | 7 | 6 | 7 | 6 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 7  | 6  | 7  | 7  | 6  |
| 7  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 7  | 7  | 7  |
| 8  | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 6  | 6  | 6  | 7  | 6  | 6  | 6  | 7  | 6  | 7  | 7  | 6  | 7  |
| 9  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 10 | 6 | 6 | 4 | 3 | 7 | 7 | 6 | 5 | 3 | 6  | 6  | 5  | 5  | 6  | 5  | 4  | 6  | 5  | 4  | 5  | 6  | 6  |
| 11 | 1 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 5  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 12 | 5 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 6  | 6  | 7  | 6  | 7  | 7  | 6  | 7  | 5  | 5  | 5  | 6  | 6  |
| 13 | 5 | 6 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 5  | 7  | 7  | 7  | 7  | 5  | 7  | 5  | 6  | 4  | 6  | 7  | 7  |
| 14 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  |
| 15 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 16 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 6  | 6  | 6  |
| 17 | 4 | 4 | 4 | 4 | 6 | 5 | 7 | 6 | 7 | 5  | 7  | 6  | 6  | 5  | 5  | 6  | 6  | 5  | 4  | 6  | 5  | 7  |
| 18 | 3 | 5 | 4 | 6 | 7 | 7 | 7 | 7 | 5 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 6  | 5  | 7  | 7  | 6  |
| 19 | 4 | 5 | 5 | 6 | 7 | 7 | 6 | 7 | 6 | 6  | 6  | 6  | 6  | 7  | 7  | 6  | 6  | 6  | 5  | 6  | 6  | 6  |
| 20 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 6  | 6  | 6  |
| 21 | 4 | 7 | 4 | 7 | 5 | 5 | 5 | 5 | 7 | 5  | 5  | 5  | 4  | 4  | 7  | 5  | 5  | 5  | 5  | 5  | 5  | 5  |
| 22 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 23 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 24 | 7 | 6 | 4 | 4 | 5 | 6 | 4 | 4 | 5 | 3  | 3  | 6  | 3  | 3  | 5  | 4  | 2  | 4  | 4  | 2  | 4  | 2  |
| 25 | 4 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 5  | 7  | 7  | 7  |
| 26 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 6  | 7  | 7  | 7  | 7  | 6  | 6  | 7  | 7  | 7  |
| 27 | 7 | 6 | 7 | 6 | 4 | 6 | 5 | 7 | 7 | 7  | 7  | 7  | 7  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  |
| 28 | 4 | 4 | 6 | 6 | 7 | 7 | 7 | 7 | 5 | 7  | 7  | 6  | 7  | 7  | 7  | 6  | 7  | 6  | 7  | 7  | 6  | 7  |
| 29 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7  | 7  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 7  | 7  |
| 30 | 4 | 4 | 4 | 4 | 6 | 5 | 7 | 6 | 7 | 5  | 7  | 6  | 6  | 5  | 5  | 6  | 6  | 5  | 4  | 6  | 5  | 7  |
| 31 | 4 | 5 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 5  | 7  | 7  | 7  | 5  | 6  | 7  | 7  |
| 32 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 33 | 4 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 7  | 7  | 6  | 6  | 6  | 6  | 7  | 5  | 6  | 5  | 7  | 7  | 7  |
| 34 | 3 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 35 | 1 | 5 | 2 | 6 | 7 | 7 | 6 | 6 | 6 | 6  | 7  | 7  | 6  | 6  | 6  | 6  | 7  | 7  | 7  | 7  | 6  | 7  |
| 36 | 5 | 4 | 4 | 4 | 7 | 6 | 7 | 7 | 6 | 6  | 7  | 6  | 6  | 7  | 7  | 6  | 7  | 5  | 7  | 7  | 7  | 7  |
| 37 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 5  | 5  | 7  | 6  | 6  | 7  | 6  | 7  | 7  |
| 38 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 6  | 6  | 6  | 7  | 7  |
| 39 | 5 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 5 | 6  | 6  | 5  | 7  | 6  | 5  | 6  | 7  | 4  | 4  | 6  | 5  | 7  |
| 40 | 5 | 5 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 6  | 6  | 7  | 7  | 6  | 7  | 7  | 7  | 7  |
| 41 | 4 | 4 | 4 | 5 | 6 | 6 | 6 | 7 | 5 | 5  | 6  | 6  | 5  | 6  | 4  | 5  | 5  | 5  | 5  | 4  | 4  | 6  |
| 42 | 5 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 5 | 6  | 7  | 7  | 7  | 7  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 7  |
| 43 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 6  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 44 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 45 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 7  | 7  | 6  | 7  |
| 46 | 2 | 2 | 4 | 5 | 7 | 7 | 7 | 7 | 6 | 6  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 7  | 7  | 7  | 7  |
| 47 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 6 | 7 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 5  | 6  | 6  | 6  |
| 48 | 5 | 6 | 6 | 6 | 7 | 6 | 7 | 7 | 6 | 7  | 7  | 6  | 6  | 6  | 6  | 7  | 7  | 6  | 7  | 7  | 6  | 7  |
| 49 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 6  | 6  | 6  |
| 50 | 5 | 7 | 6 | 6 | 7 | 6 | 7 | 6 | 7 | 6  | 7  | 6  | 6  | 6  | 6  | 7  | 6  | 7  | 6  | 6  | 6  | 6  |

**RESEARCH RESULTS PER QUESTIONNAIRE (Continued)**

**EXPECTATIONS**

**QUESTION NUMBERS**

|      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 61   | 5   | 5   | 6   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   | 7   | 6   | 6   |
| 62   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   |
| 63   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 5   | 6   | 6   |
| 64   | 6   | 6   | 6   | 6   | 5   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 7   | 6   | 5   | 6   | 6   | 6   | 7   | 6   |
| 65   | 5   | 5   | 7   | 5   | 7   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 6   | 7   | 5   | 5   | 5   | 6   | 6   |
| 66   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 7   |
| 67   | 5   | 6   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   |
| 68   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 7   |
| 69   | 5   | 6   | 5   | 6   | 6   | 6   | 6   | 6   | 5   | 5   | 6   | 6   | 5   | 5   | 5   | 6   | 5   | 5   | 6   | 5   | 5   | 6   |
| 70   | 6   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   | 7   | 7   | 7   | 7   |
| 71   | 5   | 5   | 6   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   | 7   | 7   | 7   | 7   | 6   | 6   | 7   | 7   |
| 72   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 7   |
| 73   | 5   | 7   | 6   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 7   | 7   | 6   | 6   | 6   | 7   | 7   | 6   | 7   | 6   | 6   | 6   |
| 74   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 5   | 6   | 6   |
| 75   | 6   | 7   | 6   | 6   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 5   | 6   | 6   | 6   |
| 76   | 5   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 6   | 7   | 7   | 6   | 6   | 6   | 7   | 7   | 6   | 7   | 6   | 6   | 6   |
| 77   | 5   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 6   | 7   | 7   | 6   | 6   | 6   | 7   | 7   | 6   | 7   | 7   | 6   | 7   |
| 78   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 7   |
| 79   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 7   |
| 80   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 7   |
| 81   | 6   | 6   | 6   | 6   | 7   | 6   | 7   | 7   | 7   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   | 7   | 7   | 7   | 7   |
| AVG. | 5.1 | 5.5 | 5.7 | 6.0 | 6.7 | 6.5 | 6.6 | 6.6 | 6.5 | 6.3 | 6.6 | 6.6 | 6.4 | 6.3 | 6.3 | 6.3 | 6.4 | 6.1 | 6.0 | 6.3 | 6.4 | 6.5 |



# RESEARCH RESULTS PER QUESTIONNAIRE

## PERCEPTIONS

### QUESTION NUMBERS

|    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2 | 3 | 5 | 6 | 4 | 4 | 4 | 4 | 3 | 4  | 6  | 6  | 6  | 6  | 6  | 6  | 3  | 6  | 3  | 6  | 6  | 4  |
| 2  | 2 | 2 | 6 | 7 | 3 | 3 | 3 | 5 | 1 | 5  | 5  | 5  | 3  | 2  | 7  | 7  | 7  | 7  | 6  | 7  | 2  | 4  |
| 3  | 3 | 6 | 7 | 6 | 5 | 5 | 5 | 6 | 6 | 5  | 6  | 7  | 5  | 3  | 4  | 4  | 5  | 4  | 5  | 4  | 4  | 5  |
| 4  | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5  | 4  | 5  | 4  | 5  | 4  | 4  | 5  | 4  | 6  | 4  | 4  | 5  |
| 5  | 4 | 4 | 5 | 3 | 5 | 4 | 4 | 4 | 5 | 4  | 5  | 5  | 5  | 4  | 5  | 5  | 5  | 4  | 6  | 4  | 1  | 1  |
| 6  | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 7  | 7  | 7  | 7  | 7  |
| 7  | 4 | 5 | 4 | 4 | 5 | 1 | 2 | 5 | 5 | 5  | 4  | 2  | 2  | 3  | 3  | 6  | 2  | 5  | 4  | 4  | 6  | 6  |
| 8  | 6 | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 9  | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4  | 4  | 4  | 4  | 4  | 7  | 7  | 7  | 7  | 4  | 4  | 7  | 4  |
| 10 | 6 | 6 | 7 | 5 | 6 | 5 | 5 | 5 | 6 | 5  | 5  | 5  | 5  | 5  | 6  | 5  | 5  | 5  | 6  | 5  | 6  | 5  |
| 11 | 4 | 4 | 6 | 6 | 7 | 7 | 4 | 5 | 7 | 5  | 4  | 6  | 5  | 3  | 4  | 5  | 4  | 6  | 4  | 5  | 5  | 3  |
| 12 | 5 | 5 | 5 | 5 | 5 | 6 | 5 | 5 | 5 | 5  | 5  | 5  | 5  | 5  | 6  | 5  | 6  | 1  | 4  | 1  | 6  | 5  |
| 13 | 4 | 4 | 4 | 6 | 4 | 2 | 5 | 4 | 4 | 4  | 5  | 7  | 7  | 4  | 7  | 7  | 7  | 7  | 4  | 4  | 4  | 4  |
| 14 | 4 | 4 | 6 | 5 | 6 | 6 | 6 | 6 | 4 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  |
| 15 | 5 | 5 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 5  |
| 16 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 6  | 6  | 6  | 7  | 7  |
| 17 | 4 | 3 | 6 | 7 | 2 | 7 | 4 | 2 | 5 | 2  | 4  | 6  | 4  | 3  | 5  | 7  | 6  | 6  | 7  | 5  | 4  | 6  |
| 18 | 4 | 4 | 4 | 6 | 7 | 7 | 4 | 4 | 4 | 7  | 7  | 7  | 6  | 7  | 7  | 7  | 7  | 7  | 7  | 6  | 7  | 6  |
| 19 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  |
| 20 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 6  | 6  | 6  | 7  | 7  |
| 21 | 2 | 2 | 3 | 4 | 4 | 4 | 1 | 4 | 4 | 1  | 3  | 7  | 4  | 4  | 4  | 7  | 4  | 2  | 4  | 3  | 4  | 4  |
| 22 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 1 | 3 | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 4  | 3  | 3  | 3  | 3  | 3  |
| 23 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 5  | 5  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  |
| 24 | 2 | 5 | 3 | 6 | 4 | 4 | 3 | 4 | 4 | 2  | 3  | 4  | 3  | 5  | 5  | 3  | 4  | 4  | 4  | 4  | 4  | 4  |
| 25 | 4 | 4 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6  | 5  | 5  | 7  | 7  | 7  | 4  | 5  | 5  | 5  | 6  | 5  | 5  |
| 26 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 6 | 6 | 6  | 6  | 6  | 6  | 5  | 6  | 6  | 6  | 6  | 5  | 6  | 6  | 6  |
| 27 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 7  | 6  | 7  | 6  | 6  | 6  | 6  | 7  | 6  | 7  | 6  | 6  | 7  |
| 28 | 6 | 5 | 6 | 5 | 6 | 4 | 5 | 5 | 2 | 2  | 6  | 6  | 4  | 4  | 4  | 7  | 5  | 6  | 7  | 6  | 5  | 5  |
| 29 | 4 | 5 | 7 | 5 | 4 | 6 | 5 | 5 | 6 | 5  | 5  | 6  | 6  | 6  | 5  | 6  | 6  | 6  | 6  | 6  | 5  | 5  |
| 30 | 4 | 4 | 7 | 7 | 3 | 7 | 4 | 2 | 5 | 2  | 4  | 6  | 4  | 3  | 5  | 7  | 5  | 5  | 7  | 5  | 4  | 6  |
| 31 | 4 | 4 | 6 | 3 | 2 | 1 | 2 | 2 | 1 | 4  | 2  | 1  | 1  | 1  | 3  | 5  | 2  | 2  | 2  | 2  | 1  | 1  |
| 32 | 4 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 5  | 7  | 7  | 7  | 7  | 7  |
| 33 | 4 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 5  | 5  | 5  | 6  | 6  | 6  | 6  | 6  | 4  | 5  | 5  | 6  | 6  |
| 34 | 3 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6  | 7  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 7  | 6  | 6  | 6  |
| 35 | 5 | 5 | 5 | 3 | 1 | 1 | 2 | 1 | 4 | 2  | 4  | 4  | 4  | 2  | 2  | 6  | 2  | 2  | 4  | 2  | 1  | 3  |
| 36 | 5 | 5 | 5 | 7 | 4 | 5 | 5 | 4 | 4 | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 4  | 5  | 7  | 5  |
| 37 | 5 | 5 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 4  | 4  | 4  | 3  | 4  | 7  | 7  | 7  | 7  |
| 38 | 5 | 4 | 7 | 4 | 6 | 7 | 6 | 6 | 5 | 6  | 7  | 7  | 6  | 6  | 7  | 7  | 5  | 4  | 5  | 6  | 7  | 6  |
| 39 | 6 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 5 | 6  | 6  | 7  | 6  | 5  | 7  | 7  | 5  | 5  | 6  | 6  | 5  | 5  |
| 40 | 5 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 7 | 7  | 6  | 7  | 7  | 6  | 7  | 7  | 7  | 7  | 6  | 7  | 7  | 6  |
| 41 | 5 | 4 | 5 | 4 | 6 | 5 | 5 | 5 | 4 | 5  | 6  | 6  | 5  | 5  | 6  | 5  | 5  | 5  | 6  | 5  | 5  | 5  |
| 42 | 6 | 6 | 7 | 6 | 6 | 4 | 5 | 6 | 5 | 5  | 5  | 6  | 6  | 6  | 6  | 5  | 6  | 5  | 5  | 4  | 6  | 5  |
| 43 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  |
| 44 | 5 | 5 | 5 | 4 | 5 | 6 | 5 | 5 | 5 | 4  | 5  | 5  | 5  | 5  | 5  | 6  | 4  | 5  | 4  | 6  | 4  | 4  |
| 45 | 5 | 6 | 7 | 6 | 5 | 6 | 6 | 6 | 5 | 6  | 7  | 7  | 5  | 6  | 7  | 7  | 6  | 7  | 7  | 7  | 6  | 6  |
| 46 | 4 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7  | 7  | 7  | 6  | 7  | 7  | 7  | 6  | 6  | 6  | 6  | 7  | 6  |
| 47 | 5 | 6 | 7 | 6 | 7 | 6 | 6 | 6 | 7 | 6  | 6  | 6  | 6  | 6  | 7  | 6  | 6  | 6  | 6  | 7  | 6  | 6  |
| 48 | 6 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 6 | 7  | 6  | 7  | 6  | 7  | 6  | 7  | 6  | 7  | 6  | 7  | 6  | 7  |
| 49 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6  | 6  | 6  | 7  | 6  | 6  | 6  | 5  | 5  | 6  | 6  | 6  | 6  |
| 50 | 6 | 6 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6  | 6  | 6  | 6  | 6  | 7  | 5  | 6  | 6  | 6  | 7  | 6  | 7  |



**RESEARCH RESULTS PER QUESTIONNAIRE (Continued)**

**PERCEPTIONS**

**QUESTION NUMBERS**

|      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 51   | 6   | 6   | 7   | 6   | 6   | 6   | 7   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 7   | 7   | 6   | 6   | 6   | 6   |
| 52   | 5   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 5   | 6   | 7   | 6   | 6   | 7   | 6   | 6   | 7   | 6   | 6   | 5   | 6   |
| 53   | 5   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   |
| 54   | 6   | 6   | 7   | 5   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 7   | 7   | 6   | 7   | 6   | 6   | 7   | 5   | 6   | 5   | 6   |
| 55   | 5   | 5   | 6   | 6   | 6   | 7   | 7   | 6   | 6   | 6   | 6   | 7   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   |
| 56   | 5   | 5   | 6   | 6   | 5   | 5   | 5   | 5   | 5   | 6   | 5   | 6   | 5   | 6   | 5   | 5   | 5   | 7   | 6   | 6   | 6   | 7   |
| 57   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   |
| 58   | 5   | 5   | 6   | 6   | 5   | 5   | 6   | 5   | 5   | 6   | 5   | 6   | 5   | 6   | 5   | 5   | 5   | 4   | 6   | 6   | 6   | 5   |
| 59   | 5   | 5   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 7   | 6   | 6   |
| 60   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 7   |
| 61   | 5   | 5   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 7   | 7   | 7   | 7   | 6   |
| 62   | 5   | 5   | 6   | 6   | 5   | 5   | 5   | 5   | 5   | 6   | 5   | 6   | 5   | 6   | 5   | 5   | 5   | 7   | 6   | 6   | 6   | 7   |
| 63   | 6   | 6   | 7   | 6   | 7   | 7   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 5   | 6   | 6   | 6   | 7   | 6   | 7   |
| 64   | 5   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   | 6   |
| 65   | 5   | 6   | 7   | 6   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 7   | 6   | 6   |
| 66   | 6   | 6   | 7   | 6   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 7   | 6   | 7   |
| 67   | 6   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 7   |
| 68   | 5   | 5   | 6   | 6   | 5   | 5   | 5   | 5   | 5   | 6   | 5   | 6   | 5   | 6   | 5   | 5   | 5   | 7   | 6   | 6   | 6   | 7   |
| 69   | 5   | 5   | 6   | 6   | 5   | 5   | 5   | 5   | 5   | 6   | 5   | 6   | 5   | 6   | 5   | 5   | 5   | 7   | 6   | 6   | 6   | 7   |
| 70   | 5   | 5   | 6   | 6   | 5   | 5   | 6   | 5   | 5   | 6   | 5   | 6   | 5   | 6   | 5   | 5   | 5   | 4   | 6   | 6   | 6   | 5   |
| 71   | 6   | 6   | 7   | 6   | 6   | 6   | 6   | 6   | 6   | 7   | 6   | 7   | 6   | 7   | 6   | 6   | 6   | 7   | 6   | 6   | 6   | 7   |
| AVG. | 4.8 | 5.2 | 6.1 | 5.6 | 5.5 | 5.5 | 5.4 | 5.4 | 5.4 | 5.5 | 5.5 | 6.0 | 5.5 | 5.4 | 5.8 | 5.9 | 5.5 | 5.6 | 6.7 | 5.6 | 5.6 | 5.6 |



**DIFFERENCES BETWEEN EXPECTATIONS AND PERCEPTIONS**

**QUESTION NUMBERS**

|    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | -2 | -1 | 0  | 1  | -2 | -2 | -2 | -2 | -3 | -2 | 0  | 0  | 0  | 0  | 0  | 0  | -3 | 0  | -3 | 0  | 0  | -2 |
| 2  | -1 | -3 | -1 | 0  | -4 | -4 | -3 | -2 | -6 | 0  | -2 | -2 | -4 | -5 | 0  | 2  | 2  | 0  | 1  | 0  | -3 | -3 |
| 3  | 1  | 4  | 6  | 2  | -2 | -2 | -2 | -1 | 0  | -2 | -1 | 2  | 0  | -2 | -1 | -1 | 1  | -1 | 1  | 0  | 0  | 0  |
| 4  | -1 | -2 | 0  | -2 | -2 | -2 | -2 | -1 | -1 | -1 | -2 | -1 | -2 | 0  | -1 | -1 | -1 | -1 | 0  | -1 | -2 | -2 |
| 5  | -1 | -2 | -1 | -3 | -2 | -3 | -3 | -3 | -2 | -3 | -2 | -2 | -2 | -3 | -2 | -2 | -2 | -3 | 1  | -3 | -6 | -6 |
| 6  | 2  | 2  | 1  | -1 | 0  | -1 | 0  | -1 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 1  |
| 7  | -3 | -2 | -3 | -3 | -2 | -6 | -5 | -2 | -2 | -2 | -3 | -5 | -5 | -4 | -4 | -1 | -5 | -2 | -2 | -3 | -1 | -1 |
| 8  | -1 | -1 | 0  | 0  | 1  | 0  | -1 | 0  | 1  | 1  | 1  | 1  | 0  | 1  | 1  | 1  | 0  | 1  | 0  | 0  | 1  | 0  |
| 9  | -3 | -3 | -2 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | 0  | 0  | 0  | 0  | -3 | -3 | 0  | -3 |
| 10 | 0  | 0  | 3  | 2  | -1 | -2 | -1 | 0  | 3  | -1 | -1 | 0  | 0  | -1 | 1  | 1  | -1 | 0  | 2  | 0  | 0  | -1 |
| 11 | 3  | -1 | 1  | -1 | 0  | 0  | -3 | -2 | 0  | -2 | -3 | -1 | -2 | -2 | -3 | -2 | -3 | -1 | -3 | -2 | -2 | -4 |
| 12 | 0  | 0  | -2 | 0  | -2 | -1 | -2 | -2 | -1 | -1 | -1 | -2 | -1 | -2 | -1 | -1 | -1 | -4 | -1 | -4 | 0  | -1 |
| 13 | -1 | -2 | -1 | 2  | -3 | -5 | -2 | -3 | -3 | -1 | -2 | 0  | 0  | -3 | 2  | 0  | 2  | 1  | 0  | -2 | -3 | -3 |
| 14 | -2 | -2 | 0  | -1 | 0  | 0  | 0  | 0  | -2 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| 15 | -1 | -2 | -1 | -2 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -2 |
| 16 | 0  | 1  | 0  | 0  | 0  | -1 | 0  | -1 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | -1 | 0  | 1  | 1  |
| 17 | 0  | -1 | 2  | 3  | -4 | 2  | -3 | -4 | -2 | -3 | -3 | 0  | -2 | -2 | 0  | 1  | 0  | 1  | 3  | -1 | -1 | -1 |
| 18 | 1  | -1 | 0  | 0  | 0  | 0  | -3 | -3 | -1 | 0  | 0  | 0  | -1 | 0  | 0  | 0  | 1  | 1  | 2  | -1 | 0  | 0  |
| 19 | 1  | 0  | 0  | -2 | -2 | -2 | -1 | -2 | -1 | -1 | -1 | -1 | -1 | -2 | -2 | -1 | -1 | -1 | 0  | -1 | -1 | -1 |
| 20 | 0  | 1  | 0  | 0  | 0  | -1 | 0  | -1 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | -1 | 0  | 1  | 1  |
| 21 | -2 | -5 | -1 | -3 | -1 | -1 | -4 | -1 | -3 | -4 | -2 | 2  | 0  | 0  | -3 | 2  | -1 | -3 | -1 | -2 | -1 | -1 |
| 22 | -4 | -4 | -2 | -4 | -6 | -5 | -5 | -6 | -4 | -4 | -4 | -4 | -4 | -4 | -4 | -4 | -3 | -4 | -4 | -4 | -4 | -4 |
| 23 | -1 | -2 | -2 | -1 | -1 | -1 | -1 | -1 | -1 | -2 | -2 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 |
| 24 | -5 | -1 | -1 | 2  | -1 | -2 | -1 | 0  | -1 | -1 | 0  | -2 | 0  | 2  | 0  | 1  | 1  | 0  | 0  | 2  | 0  | 2  |
| 25 | 0  | 0  | 0  | -1 | -1 | -1 | -2 | -1 | -1 | -1 | -2 | 0  | 0  | -2 | 0  | 0  | -3 | -2 | 0  | -2 | -1 | -2 |
| 26 | 0  | 0  | 1  | 0  | -1 | -1 | -2 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 0  | -1 | -1 |
| 27 | -2 | -1 | -1 | 0  | 3  | 1  | 2  | 0  | -1 | 0  | -1 | 0  | -1 | -1 | 0  | 0  | 1  | 0  | 1  | 0  | 0  | 1  |
| 28 | 2  | 1  | 0  | -1 | -1 | -3 | -2 | -2 | -3 | -5 | -1 | -1 | -2 | -3 | -3 | 0  | -1 | -1 | 1  | -1 | -2 | -1 |
| 29 | -1 | 0  | 1  | -1 | -2 | 0  | -2 | -2 | -1 | -2 | -2 | -1 | 0  | 0  | -1 | 0  | 0  | 0  | -1 | -2 | -2 | -2 |
| 30 | 0  | 0  | 3  | 3  | -3 | 2  | -3 | -4 | -2 | -3 | -3 | 0  | -2 | -2 | 0  | 1  | -1 | 0  | 3  | -1 | -1 | -1 |
| 31 | 0  | -1 | 1  | -1 | -5 | -6 | -5 | -5 | -6 | -3 | -5 | -6 | -6 | -6 | -2 | -2 | -5 | -5 | -3 | -4 | -6 | -6 |
| 32 | -1 | 1  | 0  | -2 | 0  | 0  | 0  | 0  | -1 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | -2 | 0  | 0  | 0  | 0  | 0  |
| 33 | 0  | 1  | 1  | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -2 | -2 | -1 | 0  | 0  | 0  | -1 | -1 | -1 | 0  | -1 | -1 |
| 34 | 0  | 1  | 0  | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 0  | -1 | -1 | -1 | -1 | -1 | -1 | 0  | 0  | -1 | -1 | -1 |
| 35 | 4  | 0  | 3  | -3 | -6 | -6 | -4 | -5 | -2 | -4 | -3 | -3 | -3 | -4 | -4 | 0  | -5 | -5 | -3 | -5 | -5 | -4 |
| 36 | 0  | 1  | 1  | 3  | -3 | -1 | -2 | -3 | -2 | -1 | -2 | -1 | -1 | -2 | -2 | -2 | -1 | -2 | -1 | -2 | 0  | -2 |
| 37 | 0  | 0  | 0  | -1 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | -1 | -1 | -3 | -3 | -2 | 0  | 1  | 0  | 0  |
| 38 | -2 | -2 | 1  | -3 | -1 | 0  | -1 | -1 | -2 | 0  | 0  | 0  | -1 | -1 | 0  | 0  | -2 | -2 | -1 | 0  | 0  | -1 |
| 39 | 1  | 1  | 0  | -1 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | -1 | -1 | 2  | 1  | -2 | 1  | 2  | 0  | 0  | -2 |
| 40 | 0  | 0  | 1  | 1  | 1  | -1 | -1 | -1 | 0  | 0  | -1 | 0  | 0  | -1 | 1  | 1  | 0  | 0  | 0  | 0  | 0  | -1 |
| 41 | 1  | 0  | 1  | -1 | 0  | -1 | -1 | -2 | -1 | 0  | 0  | 0  | 0  | -1 | 2  | 0  | 0  | 0  | 1  | 1  | 1  | -1 |
| 42 | 1  | 1  | 1  | 0  | -1 | -2 | -1 | 0  | 0  | -1 | -2 | -1 | -1 | -1 | 0  | -1 | 0  | -1 | -1 | -2 | -1 | -2 |
| 43 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| 44 | 0  | -1 | -2 | -3 | -2 | -1 | -2 | -2 | -2 | -3 | -2 | -2 | -2 | -2 | -2 | -1 | -3 | -2 | -3 | -1 | -3 | -3 |
| 45 | 2  | 3  | 2  | 1  | -2 | -1 | -1 | -1 | -2 | -1 | 0  | 0  | -2 | -1 | 0  | 0  | -1 | 0  | 1  | 0  | -1 | 0  |
| 46 | 2  | 4  | 3  | 2  | 0  | -1 | 0  | 0  | 1  | 1  | 0  | 0  | -1 | 0  | 0  | 0  | -1 | -1 | 0  | -1 | 0  | -1 |
| 47 | -1 | -1 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 1  | 0  | 0  |
| 48 | 1  | 0  | 1  | 0  | 0  | 0  | 0  | -1 | -1 | 1  | -1 | 0  | 0  | 1  | 0  | 0  | -1 | 1  | -1 | 0  | 0  | 0  |
| 49 | -1 | 0  | 0  | -1 | -1 | -1 | -1 | -1 | -1 | 0  | 0  | 0  | 1  | 0  | 0  | 0  | -1 | -1 | -1 | 0  | 0  | 0  |
| 50 | 1  | -1 | 1  | 0  | 0  | 1  | -1 | 0  | 0  | 0  | -1 | -1 | 0  | 0  | 1  | -2 | -1 | 0  | -1 | 1  | 0  | 1  |

**DIFFERENCES BETWEEN EXPECTATIONS AND PERCEPTIONS (Continued)**

|                |    | QUESTION NUMBERS |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                |    | 1                | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| Questionnaires | 61 | 1                | 1  | 1  | 0  | -1 | -1 | 0  | 0  | -1 | -1 | -1 | 0  | -1 | -1 | -1 | 0  | 0  | 0  | -1 | 0  | 0  |    |
|                | 62 | -1               | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | -1 | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | -1 | 0  |
|                | 63 | -1               | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  |
|                | 64 | 0                | 0  | 1  | -1 | 1  | 0  | -1 | 0  | 0  | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 1  | 1  | -1 | 0  | -2 | 0  |
|                | 65 | 0                | 0  | -1 | 1  | -1 | 0  | 0  | -1 | 0  | 0  | 0  | 0  | 1  | -1 | -1 | 0  | -1 | 1  | 1  | 1  | 0  | 0  |
|                | 66 | -1               | -1 | 0  | 0  | -2 | -1 | -1 | -1 | -1 | 0  | -2 | -1 | -2 | 0  | -1 | -1 | -2 | 1  | -1 | -1 | -1 | 0  |
|                | 67 | 1                | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|                | 68 | -1               | -1 | 0  | 0  | -2 | -2 | -1 | -2 | -2 | -1 | -2 | -1 | -2 | 0  | -1 | -1 | -2 | -2 | -1 | -1 | -1 | -2 |
|                | 69 | 0                | -1 | 2  | 0  | 0  | 0  | 1  | 0  | 1  | 2  | 0  | 0  | 1  | 1  | 1  | 1  | 1  | 1  | 0  | 2  | 1  | 0  |
|                | 70 | 0                | 0  | 1  | 0  | -1 | 0  | -1 | -1 | -1 | 1  | -1 | 0  | -1 | 0  | -1 | -1 | -1 | 1  | -1 | -1 | -1 | 0  |
|                | 71 | 0                | 0  | 0  | 0  | -1 | -1 | 0  | 0  | 0  | 0  | -1 | -1 | -1 | 0  | -1 | -1 | -1 | 0  | 1  | 1  | 0  | -1 |
|                | 72 | -1               | -1 | 0  | 0  | -2 | -1 | -1 | -1 | -1 | 0  | -2 | -1 | -2 | 0  | -1 | -1 | -2 | 1  | -1 | -1 | -1 | 0  |
|                | 73 | 1                | -1 | 1  | 0  | 0  | 1  | -1 | 0  | 0  | 0  | -1 | -1 | 0  | 0  | 1  | -2 | -1 | 0  | -1 | 1  | 0  | 1  |
|                | 74 | -1               | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  |
|                | 75 | -1               | -1 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 1  | 0  | 0  |
|                | 76 | 1                | 0  | 1  | 0  | 0  | 0  | -1 | -1 | 0  | 0  | -1 | -1 | 0  | 0  | 1  | -1 | -1 | 0  | -1 | 1  | 0  | 1  |
|                | 77 | 1                | 0  | 1  | 0  | 0  | 0  | 0  | -1 | -1 | 1  | -1 | 0  | 0  | 1  | 0  | 0  | -1 | 1  | -1 | 0  | 0  | 0  |
|                | 78 | -1               | -1 | 0  | 0  | -2 | -1 | -1 | -1 | -1 | 0  | -2 | -1 | -2 | 0  | -1 | -1 | -2 | 1  | -1 | -1 | -1 | 0  |
|                | 79 | -1               | -1 | 0  | 0  | -2 | -1 | -1 | -1 | -1 | 0  | -2 | -1 | -2 | 0  | -1 | -1 | -2 | 1  | -1 | -1 | -1 | 0  |
|                | 80 | -1               | -1 | 0  | 0  | -2 | -2 | -1 | -2 | -2 | -1 | -2 | -1 | -2 | 0  | -1 | -1 | -2 | -2 | -1 | -1 | -1 | -2 |
|                | 81 | 0                | 0  | 1  | 0  | -1 | 0  | -1 | -1 | -1 | 1  | -1 | 0  | -1 | 0  | -1 | -1 | -1 | 1  | -1 | -1 | -1 | 0  |

-0.3 -0.4 0.4 -0.4 -1.1 -1.1 -1.3 -1.3 -1.0 -0.8 -1.1 -0.6 -1.0 -0.9 -0.5 -0.4 -0.9 -0.5 -0.3 -0.6 -0.8 -0.9



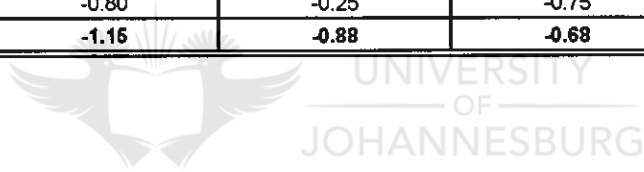
### AVERAGE GAP PER DIMENSION

|    | (Questions 1 - 4) | (Questions 5 - 9) | (Questions 10 - 13) | (Questions 14 - 17) | (Questions 18 - 22) |
|----|-------------------|-------------------|---------------------|---------------------|---------------------|
|    | Tangibles         | Reliability       | Responsive          | Assurance           | Empathy             |
| 1  | -0.50             | -2.20             | -0.50               | -0.75               | -1.00               |
| 2  | -1.25             | -3.80             | -2.00               | -0.25               | -1.00               |
| 3  | 3.25              | -1.40             | -0.25               | -0.75               | 0.00                |
| 4  | -1.25             | -1.60             | -1.50               | -0.75               | -1.20               |
| 5  | -1.75             | -2.60             | -2.25               | -2.25               | -3.40               |
| 6  | 1.00              | -0.40             | 0.00                | 0.00                | 0.40                |
| 7  | -2.75             | -3.40             | -3.75               | -3.50               | -1.80               |
| 8  | -0.50             | 0.20              | 0.75                | 0.75                | 0.40                |
| 9  | -2.75             | -3.00             | -3.00               | -0.75               | -1.80               |
| 10 | 1.25              | -0.20             | -0.50               | 0.00                | 0.20                |
| 11 | 0.50              | -1.00             | -2.00               | -2.50               | -2.40               |
| 12 | -0.50             | -1.60             | -1.25               | -1.25               | -2.00               |
| 13 | -0.50             | -3.20             | -0.75               | 0.25                | -1.40               |
| 14 | -1.25             | -0.40             | 0.00                | 0.00                | 0.00                |
| 15 | -1.50             | -1.00             | -1.00               | -1.00               | -1.20               |
| 16 | 0.25              | -0.40             | 0.00                | 0.25                | 0.20                |
| 17 | 1.00              | -2.20             | -2.00               | -0.25               | 0.20                |
| 18 | 0.00              | -1.40             | -0.25               | 0.25                | 0.40                |
| 19 | -0.25             | -1.60             | -1.00               | -1.50               | -0.80               |
| 20 | 0.25              | -0.40             | 0.00                | 0.25                | 0.20                |
| 21 | -2.75             | -2.00             | -1.00               | -0.50               | -1.60               |
| 22 | -3.50             | -5.20             | -4.00               | -3.75               | -4.00               |
| 23 | -1.50             | -1.00             | -1.50               | -1.00               | -1.00               |
| 24 | -1.25             | -1.00             | -0.75               | 1.00                | 0.80                |
| 25 | -0.25             | -1.20             | -1.25               | -1.25               | -1.40               |
| 26 | 0.25              | -1.20             | -1.00               | -1.00               | -0.80               |
| 27 | -1.00             | 1.00              | -0.50               | 0.00                | 0.40                |
| 28 | 0.50              | -2.20             | -2.25               | -1.75               | -0.80               |
| 29 | -0.25             | -1.40             | -1.25               | -0.25               | -1.00               |
| 30 | 1.50              | -2.00             | -2.00               | -0.50               | 0.00                |
| 31 | -0.25             | -5.40             | -5.00               | -3.75               | -4.80               |
| 32 | -0.50             | -0.20             | 0.00                | -0.50               | 0.00                |
| 33 | 0.25              | -1.00             | -1.50               | -0.25               | -0.80               |
| 34 | 0.00              | -1.00             | -0.75               | -1.00               | -0.60               |
| 35 | 1.00              | -4.60             | -3.25               | -3.25               | -4.40               |
| 36 | 1.25              | -2.20             | -1.25               | -1.75               | -1.40               |
| 37 | -0.25             | 0.00              | 0.00                | -2.00               | -0.20               |
| 38 | -1.50             | -1.00             | -0.25               | -0.75               | -0.80               |
| 39 | 0.25              | 0.20              | 0.25                | 0.00                | 0.20                |
| 40 | 0.50              | -0.40             | -0.25               | 0.25                | -0.20               |
| 41 | 0.25              | -1.00             | 0.00                | 0.25                | 0.40                |
| 42 | 0.75              | -0.80             | -1.25               | -0.50               | -1.40               |
| 43 | 0.00              | 0.00              | 0.25                | 0.00                | 0.00                |
| 44 | -1.50             | -1.80             | -2.25               | -2.00               | -2.40               |
| 45 | 2.00              | -1.40             | -0.75               | -0.50               | 0.00                |
| 46 | 2.75              | 0.00              | 0.00                | -0.25               | -0.60               |
| 47 | -0.25             | 0.00              | 0.00                | 0.25                | 0.40                |
| 48 | 0.50              | -0.40             | 0.00                | 0.00                | 0.00                |
| 49 | -0.50             | -1.00             | 0.25                | -0.25               | -0.40               |
| 50 | 0.25              | 0.00              | -0.50               | -0.50               | 0.20                |

**AVERAGE GAP PER DIMENSION (Continued)**

|    | (Questions 1 - 4) | (Questions 5 - 9) | (Questions 10 - 13) | (Questions 14 - 17) | (Questions 18 - 22) |
|----|-------------------|-------------------|---------------------|---------------------|---------------------|
|    | Tangibles         | Reliability       | Responsive          | Assurance           | Empathy             |
| 51 | 0.75              | -0.60             | -0.75               | -0.75               | -0.20               |
| 52 | 0.00              | 0.00              | 0.00                | 0.25                | 0.00                |
| 53 | 0.00              | 0.00              | 0.00                | 0.00                | 0.20                |
| 54 | 0.00              | 0.00              | 0.50                | 0.25                | -0.40               |
| 55 | 0.00              | -0.40             | 0.25                | -0.75               | 0.60                |
| 56 | -0.50             | -1.20             | -1.25               | -1.00               | -0.40               |
| 57 | 0.75              | 0.00              | 0.00                | 0.00                | 0.00                |
| 58 | -0.50             | -1.80             | -1.50               | -1.00               | -1.40               |
| 59 | 0.25              | 0.40              | 0.75                | 1.00                | 0.80                |
| 60 | 0.25              | -0.80             | -0.25               | -0.75               | -0.40               |
| 61 | 0.00              | -0.40             | -0.75               | -0.75               | 0.20                |
| 62 | -0.50             | -1.20             | -1.25               | -1.00               | -0.40               |
| 63 | 0.25              | 0.00              | -0.50               | -0.50               | 0.20                |
| 64 | 0.00              | 0.00              | 0.00                | 0.00                | 0.20                |
| 65 | -0.25             | 0.00              | 0.00                | 0.25                | 0.40                |
| 66 | 0.50              | -0.40             | -0.50               | -0.25               | 0.20                |
| 67 | 0.50              | -0.40             | 0.00                | 0.00                | 0.00                |
| 68 | -0.50             | -1.20             | -1.25               | -1.00               | -0.40               |
| 69 | -0.50             | -1.20             | -1.25               | -1.00               | -0.40               |
| 70 | -0.50             | -1.80             | -1.50               | -1.00               | -1.40               |
| 71 | 0.25              | -0.80             | -0.25               | -0.75               | -0.40               |
|    | <b>-0.14</b>      | <b>-1.15</b>      | <b>-0.88</b>        | <b>-0.68</b>        | <b>-0.64</b>        |

Questionnaires



**POINT ALLOCATION PER DIMENSION**

|    | Tangibles | Reliability | Responsive | Assurance | Empathy | Total |
|----|-----------|-------------|------------|-----------|---------|-------|
| 1  | 5         | 25          | 15         | 35        | 20      | 100   |
| 2  | 10        | 20          | 25         | 20        | 25      | 100   |
| 3  | 20        | 20          | 20         | 20        | 20      | 100   |
| 4  | 10        | 30          | 30         | 10        | 20      | 100   |
| 5  | 10        | 20          | 40         | 20        | 10      | 100   |
| 6  | 15        | 30          | 20         | 20        | 15      | 100   |
| 7  | 15        | 25          | 20         | 20        | 20      | 100   |
| 8  | 10        | 30          | 30         | 20        | 10      | 100   |
| 9  | 15        | 20          | 20         | 30        | 15      | 100   |
| 10 | 20        | 20          | 30         | 15        | 15      | 100   |
| 11 | 10        | 40          | 20         | 20        | 10      | 100   |
| 12 | 20        | 20          | 20         | 20        | 20      | 100   |
| 13 | 10        | 30          | 30         | 20        | 10      | 100   |
| 14 | 15        | 35          | 20         | 20        | 10      | 100   |
| 15 | 20        | 30          | 20         | 10        | 20      | 100   |
| 16 | 10        | 30          | 30         | 20        | 10      | 100   |
| 17 | 15        | 30          | 30         | 10        | 15      | 100   |
| 18 | 10        | 30          | 30         | 20        | 10      | 100   |
| 19 | 10        | 30          | 20         | 30        | 10      | 100   |
| 20 | 30        | 30          | 20         | 10        | 10      | 100   |
| 21 | 10        | 30          | 30         | 20        | 10      | 100   |
| 22 | 5         | 25          | 25         | 25        | 20      | 100   |
| 23 | 10        | 20          | 30         | 20        | 20      | 100   |
| 24 | 15        | 20          | 20         | 30        | 15      | 100   |
| 25 | 10        | 20          | 30         | 30        | 10      | 100   |
| 26 | 20        | 20          | 20         | 20        | 20      | 100   |
| 27 | 5         | 30          | 35         | 20        | 10      | 100   |
| 28 | 10        | 30          | 30         | 20        | 10      | 100   |
| 29 | 10        | 30          | 35         | 10        | 15      | 100   |
| 30 | 20        | 30          | 30         | 10        | 10      | 100   |
| 31 | 10        | 30          | 30         | 20        | 10      | 100   |
| 32 | 10        | 20          | 20         | 30        | 20      | 100   |
| 33 | 10        | 40          | 20         | 20        | 10      | 100   |
| 34 | 10        | 20          | 30         | 30        | 10      | 100   |
| 35 | 5         | 30          | 30         | 30        | 5       | 100   |
| 36 | 20        | 20          | 20         | 20        | 20      | 100   |
| 37 | 15        | 20          | 30         | 20        | 15      | 100   |
| 38 | 10        | 35          | 20         | 25        | 10      | 100   |
| 39 | 10        | 30          | 30         | 20        | 10      | 100   |
| 40 | 10        | 35          | 30         | 10        | 15      | 100   |
| 41 | 15        | 30          | 20         | 20        | 15      | 100   |
| 42 | 10        | 35          | 25         | 20        | 10      | 100   |
| 43 | 10        | 35          | 25         | 20        | 10      | 100   |
| 44 | 10        | 30          | 20         | 25        | 15      | 100   |
| 45 | 20        | 20          | 20         | 20        | 20      | 100   |
| 46 | 15        | 35          | 30         | 10        | 10      | 100   |
| 47 | 10        | 25          | 25         | 25        | 15      | 100   |
| 48 | 15        | 25          | 20         | 30        | 10      | 100   |
| 49 | 10        | 25          | 25         | 20        | 20      | 100   |
| 50 | 20        | 20          | 20         | 20        | 20      | 100   |

Questionnaires

**POINT ALLOCATION PER DIMENSION (Continued)**

|             | Tangibles   | Reliability | Responsive  | Assurance   | Empathy    | Total |
|-------------|-------------|-------------|-------------|-------------|------------|-------|
| 61          | 15          | 20          | 25          | 20          | 20         | 100   |
| 62          | 10          | 25          | 25          | 30          | 10         | 100   |
| 63          | 15          | 25          | 20          | 25          | 15         | 100   |
| 64          | 15          | 20          | 25          | 30          | 10         | 100   |
| 65          | 15          | 25          | 20          | 25          | 15         | 100   |
| 66          | 10          | 20          | 30          | 30          | 10         | 100   |
| 67          | 15          | 25          | 20          | 25          | 15         | 100   |
| 68          | 10          | 25          | 20          | 35          | 10         | 100   |
| 69          | 10          | 30          | 20          | 20          | 20         | 100   |
| 60          | 10          | 30          | 20          | 30          | 10         | 100   |
| 61          | 10          | 25          | 25          | 20          | 20         | 100   |
| 62          | 10          | 20          | 30          | 30          | 10         | 100   |
| 63          | 20          | 20          | 20          | 20          | 20         | 100   |
| 64          | 15          | 25          | 20          | 25          | 15         | 100   |
| 65          | 10          | 25          | 25          | 25          | 15         | 100   |
| 66          | 15          | 25          | 20          | 30          | 10         | 100   |
| 67          | 15          | 25          | 20          | 30          | 10         | 100   |
| 68          | 10          | 20          | 30          | 30          | 10         | 100   |
| 69          | 10          | 20          | 30          | 30          | 10         | 100   |
| 70          | 10          | 25          | 20          | 35          | 10         | 100   |
| 71          | 10          | 30          | 20          | 30          | 10         | 100   |
| <b>12.7</b> | <b>26.3</b> | <b>24.6</b> | <b>22.6</b> | <b>13.8</b> | <b>100</b> |       |

Questionnaires

