

**Service quality:  
A survey amongst convention consumers at the CSIR  
International Convention Centre**

by

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**I devote this degree to my parents, Wessel and Judith Swart.  
I thank them for allowing me the opportunity to explore life and to follow my heart.**

**To Wilmie**

**Your illness goes beyond human understanding, but you are my guidance to be  
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## EXECUTIVE SUMMARY

Many researchers (Cronin & Taylor: 1992, 1994, Grönroos, 1984; Parasuraman, Zeithaml & Berry: 1985, 1988) have devoted considerable attention to the development and testing of models for the measurement of service quality. Although some researchers (Chang & Yeh, 2002; Otto & Ritchie, 1996; Sergio & Hudson 2006) paid attention to service quality research within the tourism industry, little is known about service quality research within the business tourism sector and specifically at an International Convention Centre (ICC).

Service quality focuses on the standard of service delivery and the interaction between the customer and the service provider in order to ensure that the customer's expectations are met (Hernon, 2001:1; Palmer, 2005:64). The literature addresses several models for service quality for example "SERVQUAL" (Parasuraman *et al.*, 1985, 1988), the "Servicescape" model developed by Booms and Bitner (1981:39) and the "Servuction" model (Eiglier & Langeard, 1987 in Palmer, 2005:82).

SERVQUAL plays a more important role in the measurement of the service quality at a service firm, i.e. an ICC, than "Servicescape". SERVQUAL focuses on five service quality dimensions: (1) tangible; (2) reliability; (3) responsiveness; (4) assurance and (5) empathy as identified by Parasuraman *et al.* (1988:23), while "Servicescape" covers the physical features of a service firm.

In this study the researcher seeks to add some conceptual insight to the theoretical literature on service quality. This paper explores the use of the SERVQUAL model at an ICC as a diagnostic tool and examines the difficulties that arise with regards to the measurement of the gaps in service quality in the convention consumer market segments, both domestically and internationally. Suggestions are made that the full value of SERVQUAL may not be fully realised if the measurement processes are not well executed. It may be easy to adapt the SERVQUAL model and implement it in a survey (i.e. the Council of Scientific and Industrial Research (CSIR) ICC) and continue to measure the outcomes, but if that is not acted on it becomes a futile exercise.

The findings of this research are expected to assist marketing managers, at an ICC, in assessing the convention consumers' expectations about the quality of service delivered at an ICC and how to successfully address these expectations. The CSIR ICC will be used as an example for this proposed research.

The following research objectives were formulated for this SERVQUAL study at the CSIR ICC:

- To apply the SERVQUAL model as developed by Parasuraman *et al.* (1985, 1988) in a South African convention consumer context, specifically by applying the five service dimensions to the CSIR ICC.
- To determine and compare convention consumer's perceptions of the five service dimensions at the CSIR ICC.
- To determine and compare how convention consumer's respondent group's perceptions of the service dimensions correlate with the overall technical quality of the service at the CSIR ICC.
- To identify the dimensions that determine the convention consumer's evaluation of service quality at the CSIR ICC.
- To compare the interrelationships among the convention consumers' service quality dimensions amongst four conventions consumer market segments, namely association, academic, corporate and government groups, at the CSIR ICC.

The researcher aimed to investigate the following:

- P<sub>1</sub><sup>1</sup>:** To apply the SERVQUAL model to the measurement of service quality in a business tourism environment and specifically at an ICC, namely the CSIR ICC.
- P<sub>2</sub>:** To assess the overall service quality at the CSIR ICC from the perspectives of the convention consumer.
- P<sub>3</sub>:** To assess the service quality from the perspective of each different respondent user group, namely association, academic, corporate and government group.
- P<sub>4</sub>:** To identify the dimensions of the SERVQUAL model as applicable to the CSIR ICC, to determine the convention consumer's evaluation of the service quality at an ICC (i.e. the CSIR ICC).

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<sup>1</sup> P = Proposition

Chapter 1 was an introduction and orientation of the service quality study that was done amongst the convention consumers at the CSIR ICC.

Chapter 2 investigated the development of the tourism industry and specifically the business tourism industry in South Africa and globally. The economic factors that contributed to the development and growth of the tourism industry in South Africa were highlighted. A typology (Figure 2.3) of business tourism was used to place the business tourism market in perspective with other sectors in the tourism industry. The researcher developed a new business tourism framework (Figure 2.5) for the measurement of service quality at the CSIR ICC by adapting the structure of business travel tourism of Swarbrooke and Horner (2001:7). Various business tourism markets were investigated in this research, while a comparison was made between the international and domestic business tourism markets. Evidence was provided on the importance of the research in business tourism and specifically at the CSIR ICC.

Chapter 3 elaborated on the purpose of this research. Marketing literature was adapted to contextualise the application of the SERVQUAL model (Parasuraman *et al.*, 1985, 1988) as a service quality measurement instrument, against the background of the business tourism industry and specifically at the CSIR ICC. This research focused on the relevance of the various target markets, i.e. business-to-business (B2B) and business-to-consumer (B2C) markets. The service quality dimensions were evaluated to indicate which of the dimensions were applicable in the assessment of service quality at an ICC. The chapter concluded with criticisms from academia on the SERVQUAL model which were addressed as well as the different service quality models in South African.

Chapter 4 discussed the research methodology and research procedures used to conduct the research. A research design (Figure 4.1) illustrated the researcher's understanding of the research process in eight phases. The first seven phases were discussed in detail. Empirical research in this study analysed the service quality dimensions among the convention consumers at the CSIR ICC. A census among the convention consumers at the CSIR ICC were done through a service quality measurement instrument, namely the SERVQUAL model. This service quality model was selected as it has been used in research for the assessment of service quality in other sectors of the tourism industry (Ryan, 1999:267–281), although not in the business tourism context.

The first part of the research was carried out at the CSIR ICC, from 8 September 2005 to 1 November 2005, amongst B2C convention consumers. An example of delegates who attended a meeting for Old Mutual on 15 October 2005 was indicated in Table 4.5. This was an example of a B2C group used in this research at the CSIR ICC. The second part of the survey was conducted amongst the B2B convention consumers, i.e. Professional Conference Organisers (PCOs) who organised a conference or meeting at the CSIR ICC, through an e-mailed questionnaire from 8 September to 1 November 2005. These B2B convention consumers have been using the CSIR ICC's service since 2003.

Chapter 5 explained the application of the Parasuraman *et al.* (1985, 1988) SERVQUAL model in a business tourism environment and specifically at the CSIR ICC. Data were reported after a factor analysis was run on all 22-statements of the original SERVQUAL model as explained in Figure 4.1. Service quality gaps were measured across all 22-statements and ranked from the most positive to the most negative gaps in Table 5.3. During the scale purification a factor analysis was run on all the convention consumer groups to verify the dimensionality of the overall scale. Items were reassessed and restructured through a factor rotation. This resulted in the identification of new item scales across the Q (service quality gap), P (expectations) and E (experience) variables, presenting four new service quality dimensions instead of five service quality dimensions. These dimensions, supported by statements, determined the convention consumer's assessment of service quality at the CSIR ICC. The "new" SERVQUAL model was evaluated. The re-evaluation was done to verify the scale's internal consistency and dimensionality.

Chapter 6 concluded with a detailed discussion of the findings on research data reported in chapter 5. It is suggested that statements addressing employees are the most reliable in the measurement of service quality amongst convention consumers. Limitations were discussed referring to the insufficient responses from the international convention consumers as well as the B2B convention consumers. Management implications explored the opportunity of the development of a new service quality model, namely an ICCQUAL<sup>2</sup> model, for the measurement of service quality amongst convention consumers at an ICC.

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<sup>2</sup> International Convention Centre service quality model

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## LIST OF ABBREVIATIONS

ADR	- Average Daily Rate
AIDS	- Acquired Immune Deficiency Syndrome
AIPCO	- International Association of Professional Conference Organisers
AU	- African Union
B2B	- Business-to-Business
B2C	- Business-to-Consumer
CC	- Closed Corporation
CEO	- Chief Executive Officer
CHC	- Corporate Hospitality Companies
CMP	- Certified Meeting Professional
CMO	- Chief Marketing Officer
CONFEX	- Conference with parallel exhibition
COO	- Chief Operating Officer
CSEP	- Certified Special Events Professional
CSIR	- Council for Scientific and Industrial Research
CSIR ICC	- Council for Scientific and Industrial Research International Convention Centre
CTICC	- Cape Town International Convention Centre
CVB	- Convention and Visitors Bureau
DEAT	- Department of Environmental Affairs and Tourism
DFA	- Department of Foreign Affairs
DMC	- Destination Management Companies
DoE	- Department of Education
DTI	- Department of Trade and Industry
EXSA	- Exhibitions Association of South Africa
EMBOK	- Event Management Body of Knowledge
GDP	- Gross Domestic Product
GISSA	- Geo-Information Society of South Africa
GSI	- G Solutions Inc
GTA	- Gauteng Tourism Authority
HIV	- Human Immunodeficiency Virus

IACC	- International Association of Congress Centres
IAEM	- International Association of Exhibition Management
IAPCO	- International Association of Professional Congress Organisers
ICC	- International Convention Centre
ICCA	- International Congress & Conference Association
IFEA	- International Festival and Event Association
IMC	- Institute of Management Consultancy
IMC	- Integrated Marketing Communication
IMC	- International Marketing Council
ISES	- International Special Event Society
ISO	- International Organisation for Standardisation
IT	- Information technology
MCSE	- Microsoft Certified Systems Engineer
MEDUNSA	- Medical University of South Africa
MESE	- Meetings, Exhibitions and Special Events
MICE	- Meetings, Incentives, Conferences, Exhibitions/ Events
MPI	- Meetings Professional International
NEPAD	- New Partnership for Africa's Development
NGO	- National Government Organisation
NRF	- National Research Foundation
NSSM	- Nordic School of Service Marketing
PCMA	- Professional Convention Management Association
PCO	- Professional Conference Organiser
PMP	- Project Management Professional
ROI	- Return on Investment
SAA	- South African Airways
SAACI	- Southern African Association of the Conference Industry
SABS	- South African Bureau of Standards
SACO	- SAACI Accredited Conference Organiser
SAFCC	- South African Federation of Convention Cities
SAIMS	- Southern African Institute for Management Scientists
SAIPCO	- SAACI Accredited International Professional Conference Organiser
SAMIF	- South African Meetings Industry Federation
SAPCO	- SAACI Accredited Professional Conference Organiser

SAQI	- South African Quality Institute
SAT	- South African Tourism
SCC	- Sandton Convention Centre
SADC	- Southern African Development Countries
SANDF	- South African National Defence Force
SAWS	- South African Weather Services
SETA	- South African Training Authority
SMERF	- Social, Military, Educational, Religious and Fraternal organisations
SMME	- Small, Medium and Micro enterprises
SSA	- Statistics South Africa
TBCSA	- Tourism Business Council of South Africa
TGCSA	- Tourism Grading Council of South Africa
TIR	- Travel Industry Review
TLU	- Transvaalse Landbou Unie
TNN	- Travel News Now
TNW	- Travel News Weekly
TQM	- Total Quality Management
TSA	- Tourism Satellite Account
TTA	- Tshwane Tourism Association
UJ	- University of Johannesburg
UNISA	- University of South Africa
WSSD	- World Summit on Sustainable Development
WTTC	- World Travel and Tourism Council
WTO	- World Tourism Organisation
UIA	- Union of International Associations
UK	- United Kingdom
USA	- United States of America
US\$	- US Dollar
ZAR	- South African Rand
£	- British Pound

## CHAPTER 1

### CONCEPTUALISATION OF THE RESEARCH

---

#### 1.1 INTRODUCTION

##### 1.1.1 THE IMPORTANCE OF THE PROPOSED STUDY AT THE CSIR ICC

Many researchers (Cronin & Taylor: 1992, 1994, Grönroos, 1984; Parasuraman, Zeithaml & Berry: 1985, 1988) devoted considerable attention to the development and testing of models for the measurement of service quality in retail banks, long distance telephone companies and credit card companies. Some researchers (Chang & Yeh, 2002; Erto & Vanacore, 2002; Lennon & Mercer, 1994; Otto & Ritchie, 1996; Sergio & Hudson 2006, Weiermair & Fucks, 1999; Witt & Muhlemann, 1999) paid attention to service quality research within the tourism industry, i.e. consumer services at a tourist information centre, domestic airlines and amongst hospitality industry employees. According to Cadle (2005b) little research has been done on service quality research within the business tourism sector and specifically at an International Convention Centre (ICC). Breiter and Milman (2006:1365) conducted research on the application of the importance-performance theory at an ICC and they concluded that no major study was conducted in this field previously.

Service quality focuses on the standard of service delivery and the interaction between the customer and the service provider in order to ensure that the customer's expectations are met (Hernon, 2001:1; Palmer, 2005:64). The Nordic School of Service Marketing (NSSM) differentiates between the effects of the technical and functional elements of the service encounter on the customers. Grönroos (1984:38-40) however suggests a multi-dimensional construct for service quality consisting of three dimensions: (1) technical, (2) functional, and (3) image, where "image" is a filter in the service quality perceptions. For the purpose of this study the researcher focuses on the technical elements of the service encounter and its application to a service firm, such as an ICC.

### 1.1.2 AN EVALUATION OF THE DIFFERENT TYPES OF SERVICE QUALITY MODELS

The literature addresses several models for service quality for example “SERVQUAL” (Parasuraman *et al.*, 1985, 1988), the “Servicescape” model as developed by Booms and Bitner (1981:39) and the “Servuction” model (Eiglier & Langeard, 1987 in Palmer, 2005:82).

SERVQUAL can play a more important role in the measurement of the service quality at a service firm, i.e. an ICC, than “Servicescape” due to the five service quality dimensions: (1) tangibility; (2) reliability; (3) responsiveness; (4) assurance and (5) empathy as identified by Parasuraman *et al.* (1988:23). These authors hypothesise that the dimensions are related to the discrepancy between consumers’ perceptions and their expectations. It is considered that perceived service quality, by consumers, stems from a comparison of what customers feel the service firm, i.e. the Council of Scientific and Industrial Research ICC (CSIR ICC), should have offered and how this tallies with their perceptions of the performance of the firms providing the service (Kassim & Bojei, 2002:845).

In addition, SERVQUAL encompasses several unexplored dimensions that recently attracted research attention in other disciplines (Casadesús, Viadiu & Saizarbitoria, 2002; Jiang, Klein & Carr, 2002; Kang, James & Alexandris, 2002; Kassim & Bojei, 2002; Luk & Layton, 2002; Newman, 2001; Robinson, 1999; Wisniewski, 2001; Zhao, Bai & Hui, 2002), i.e. a department store, retail banking, public sector service and the telemarketing industry. An investigation of these issues is important for marketing managers at an ICC due to the niche target markets that attend meetings, conferences and exhibitions at the facility (Cadle, 2005b), the market share threat to an ICC due to the rapid development and expansion of similar facilities (Cadle, 2004:3) and to provide a guarantee to the ICC for future success (Breiter & Milman, 2006:1364).

### **1.1.3 SERVICE QUALITY RESEARCH IN THE TOURISM INDUSTRY**

Previous empirical research on service quality focused primarily on the measurement of service quality in other tourism sectors besides ICCs (Chang & Yeh, 2002:166; Erto & Vanacore, 2002:165; Lennon & Mercer, 1994:129; Vogt & Fesenmaier, 1995:763; Weiermair & Fuchs, 1999:1004). Very little formal research has been done on the measurement of the service quality dimensions at an ICC (Cadle, 2005b). Only evidence of one service priority research at an ICC by Breiter & Milman (2006) could be found.

Considering the SERVQUAL model, the service quality dimension research in particular is non-existent on the comparison of the service quality dimensions between the domestic and international consumer (Keillor *et al.*, 2004:9) at a service firm such as the CSIR ICC (Gauteng – South Africa's Golden Province, 2003:15). Consequently the researcher has an incomplete picture about the measurement of the service quality dimensions between the customers' expectations and service providers' understanding of their expectations (Luk & Layton, 2002:109).

### **1.1.4 CRITICISM ON THE SERVQUAL MODEL AS SERVICE QUALITY MEASURING INSTRUMENT**

Many scholars argue that SERVQUAL only reflects on the service delivery process (Kang & James, 2004:266) and does not address the service encounter outcomes (Grönroos, 1990 in Kang & James, 2004:268). In the early 1990's Cronin and Taylor (1992:55, 1994:125), Babakus and Boller (1992:253) as well as Carman (1990 as cited in Kang & James, 2004:267) criticised the SERVQUAL instrument due to the use of different scores, dimensionality, applicability and the lack of validity of the model with specific reference to the five dimensions.

### 1.1.5 THE PROPOSED STUDY'S MAIN CONTRIBUTION

In this study the researcher aims to add some conceptual insight to the theoretical literature on service quality. This research project explores the use of the SERVQUAL model at an ICC as a diagnostic tool and examines the difficulties that arises with regard to the measurement of the gaps in service quality in the convention consumer market segments, both domestically and internationally. Suggestions are made that the full value of SERVQUAL may not be fully realised if the measurement processes are not well executed. It may be easy to adapt the SERVQUAL model and implement it in a survey (i.e. the CSIR ICC) and continue to measure the outcomes, but if that is not acted on it becomes a futile exercise (Newman, 2001:1). Therefore this study investigates the impact of the service quality in all five of the dimensions as identified by Parasuraman *et al.* (1985; 1988). In addition, interrelationships among the customer's expectations in the domestic and international convention consumer market are examined at an ICC. The researcher wants to act on the outcomes of this research and to make relevant recommendations on the measurement of the service quality dimension amongst the convention consumers at an ICC.

The findings of this research are expected to assist marketing managers, at an ICC, in assessing the convention consumers' expectations about the quality of service delivered at an ICC and how to successfully address these expectations.

The CSIR ICC will be used as an example to benchmark the dimensions of service quality at an ICC in the various target markets.

This chapter concludes with two motivations: the first is the rationale for doing this research in the business tourism market and the second is a motivation for using the CSIR ICC as a case study for this research. One of the reasons for choosing the CSIR ICC, is that the CSIR ICC received a four star grading from the Tourism Grading Council of South Africa (TGCSA) in the meetings category (CSIR, 2004). The researcher will further elaborate on the importance of this "star grading" as well as other factors, such as the "convenience" of data collection at this specific ICC.

The dissertation is divided into 6 chapters. Chapter 1 gives a general introduction to the dissertation providing the background context, problem statement, objectives of the study, the importance of the research, methodology, scope of the study, and definitions of the relevant terms as used throughout the dissertation. In chapter 2 a management study in business tourism is developed and discussed, which will place the research into context. A literature study on business tourism is done focussing on the convention market and ICCs. Chapter 3 is a literature review focusing on theory regarding service quality and the service quality dimensions. In chapter 4, the research methodology is described and justified including the survey population, method of data collection, and development of the measuring instrument, operationalisation of variables as well as qualifying questions. In chapter 5 research procedures, the results of the analysis and data interpretation are discussed. Chapter 6 concludes the dissertation with a summation of findings and a discussion of the implications; the limitations in this research as well as future recommendations.

## **1.2 PROBLEM STATEMENT**

There is no empirical evidence that the SERVQUAL model can be applied successfully in the measurement of service quality in a business tourism environment and specifically at an ICC, namely the CSIR ICC. Secondly, the overall service quality of the CSIR ICC will be assessed from the convention consumer's perspectives. Thirdly, the service quality will be assessed from the perspective of each different respondent user group and finally to identify the dimensions of the SERVQUAL model, namely tangibles, reliability, responsiveness, assurance and empathy, that determine the convention consumer's evaluation of the service quality at the CSIR ICC.

### **1.3 RESEARCH OBJECTIVES**

The following research objectives are formulated for this SERVQUAL study at the CSIR ICC:

- To apply the SERVQUAL model as developed by Parasuraman *et al.* (1985, 1988) in a South African convention consumer context, specifically by applying the five service dimensions to the CSIR ICC.
- To determine and compare convention consumer's perceptions of the five service dimensions at the CSIR ICC.
- To determine and compare how convention consumer's respondent group's perceptions of the service dimensions correlate with the overall technical quality of the service at the CSIR ICC.
- To identify the dimensions that determine the convention consumer's evaluation of service quality at the CSIR ICC.
- To compare the interrelationships among the convention consumers' service quality dimensions amongst four conventions consumer market segments, namely association, academic, corporate and government groups, at the CSIR ICC.

### **1.4 LITERATURE REVIEW**

In the previous sections the author highlighted the research problem and research objectives. The literature study of the dissertation defines the following concepts as identified in the problem statement, namely: service quality, convention consumer and ICC.

## **1.4.1 AN OVERVIEW OF SERVICE QUALITY**

This section starts with a discussion on the importance of service quality and introduces the three different service quality models. The researcher defines service quality and discusses the SERVQUAL model as a measurement instrument for service quality amongst convention consumers at an ICC.

### **1.4.1.1 Service quality defined**

Definitions of service quality, prior to 1985, focused on the difficulty of consumers to evaluate service quality, the forming of service quality expectations in comparison with the actual service and the involvement of quality evaluations in the “process” of service delivery rather than the discrepancies that exist in the perceptions and expectations in the delivery of quality service to the customers (Parasuraman *et al.*, 1985:42; 44). Therefore since 1985 Parasuraman *et al.* have in their groundbreaking research provided the foundation for defining “service quality”, which has been investigated by several other authors as indicated in Table 1.1.

**Table 1.1: Definitions of service quality**

Author	Definition
Asubonteng, McCleary and Swan (1996: 64)	“... the difference between customer’s expectations for service performance prior to the service encounter and their perceptions of the service received.”
Bitner, Booms and Tetreault (1999 as cited in Kassim and Bojei, 2002:845)	“... service quality as the consumer’s overall impression of the relative inferiority/superiority of the organisation and its services .... Customer formulate his perception of actual service quality during his interaction with the contact personnel of the firm ... service quality is highly dependent on the performance of the employees ... service quality and service satisfaction affirm the importance of the quality of the customer/employee interactions with service.”
Hernon (2001:1)	“Service quality focuses on the interaction between the customer and the service provider”.
Lehtinen and Lehtinen (1982 as cited in Kang and James, 2004:267)	“Defined service quality in terms of the physical quality, interactive quality and corporate (image) quality. Physical quality relates to the tangible aspects of the service. Interactive quality involves the interactive nature of service and refers to the two-way flow that occurs between the customer and the service provider, or his/her representative, including both automated and animated interactions”.
Palmer (2005:64)	“The standard of service delivery, expressed in terms of the extent to which customer’s expectations are met.”
Robinson (1999:23)	“... is an attitude or global judgement about the superiority of a service, although the exact nature of this attitude is not agreed.”

This identification of the various service quality elements in Table 1.1 has led to the following collective definition:

Service quality is the superiority of service delivery (Robinson, 1999:23) in how the customer’s expectations are met (Hernon, 2001:1; Palmer, 2005:64; Robinson, 1999:23) through the interactivity between the customer and service provider (Hernon, 2001:1; Kassim & Bojei, 2002:845) in order to create customer satisfaction (Bitner, Booms & Tetreault, 1999 as cited in Kassim & Bojei, 2002:845).

To conclude, it is evident that Parasuraman *et al.* (1985; 1988) have laid the foundation for service quality. In the next section the researcher discusses the alternative models available in the measurement of service quality.

### 1.4.1.2 Overview of service quality models

Two competing perspectives (Grönroos, 1984 & Parasuraman *et al.*, 1985; 1988) offer explanations on how service quality should be tested. Parasuraman *et al.*, on the one hand, focus on the discrepancies in the perceptions and expectations in service quality (Zeithaml & Bitner, 2003:135). Grönroos (1984:36-37) on the other hand, has studied “how” the customers perceive service quality and the way in which service quality is influenced. Both of these perspectives are “Eurocentric perspectives” (Kang & James, 2004:267) which are in contrast to the “Afrocentric” perspective where the “Ubuntu<sup>3</sup>” perspective is followed which acknowledges that “nature and culture belong together .... all is liked in a natural process of life” (De Liefde, 2003:51-73). For the purpose of this research the researcher will not focus on these philosophical approaches in the measurement of the service quality.

Grönroos (1984:38-40) states that consumers evaluate service quality from two quality dimensions: “technical” quality and “functional” quality. Technical quality indicates the “what” those consumers receive after interaction with the service firm, where functional quality focuses more on the “process” of the delivering of the technical quality. The researcher therefore suggests a multi-dimensional construct for service quality consisting of three dimensions: (1) technical, (2) functional, and (3) image, where image is a filter in the service quality perceptions.

In contrast to the Grönroos model the NSSM developed a theory based on “technical” and “functional” quality. Technical elements refer to the “physical good quality” or “outcome” and the functional (or process) elements to the models which include “service quality” and “servicescape” (Keillor, Hult, Tomas & Kandemir, 2004:9, Lehtinen & Lehtinen 1982 in Kang & James, 2004: 266) The NSSM approach is more applicable to the United States of America (USA) service market (Keillor *et al.*, 2004:12). For the purpose of this study the researcher will focus on the technical elements of the service encounter, i.e. “the physical good quality”, and its application to a service firm, such as the CSIR ICC.

---

<sup>3</sup> An African word meaning “humanity to others” or “I am what I am because of who we all are” (Ubuntu – Linux for human beings: 2006)

Buttle (1994:8) together with Casadesús *et al.* (2002:998) are researchers in quality management who have motivated the introduction of quality systems in organisations. In marketing and specifically in service marketing, authors developed several models for the measurement of service quality.

As stated above, several models can be identified for the measurement of service quality, for example “SERVQUAL” (Parasuraman *et al.*, 1985, 1988), the “Servicescape” model as developed by Booms and Bitner (1981:39 in Palmer, 2005:80) and the “Servuction” model (Eiglier & Langeard, 1987 in Palmer, 2005:82).

The SERVQUAL model focuses on the consumer’s perception of service quality (Jiang *et al.*, 2002:145; Kassim & Bojei, 2002:845; Parasuraman *et al.*, 1985:42, 1988:15; Robinson, 1999:23; Wisniewski, 2001:381) and plays an important role in the measurement of the service quality at a service firm [ICC] due to the five service quality dimensions: (1) tangible; (2) reliability; (3) responsiveness; (4) assurance and (5) empathy as identified by Parasuraman *et al.* (1988:23). These authors hypothesise that the dimensions are related to the discrepancy between consumers’ perceptions and expectations.

SERVQUAL further encompasses several unexplored dimensions that lately have attracted research attention in other disciplines (Casadesús *et al.*, 2002; Jiang *et al.*, 2002; Kang *et al.*, 2002; Kassim & Bojei, 2002; Luk & Layton, 2002; Newman, 2001; Robinson, 1999; Wisniewski, 2001; Zhao *et al.*, 2002). Some of these unexplored service dimensions [gaps] in the SERVQUAL model appear to be important and worthy of investigation in the context of a service firm, such as the CSIR ICC.

An alternative view of the Servicescape role is (Booms & Bitner, 1981:39) in the measurement of service quality at a service firm. Because Servicescape is the environment in which the service is delivered and where the customer and seller interact (Baker & Cameron 1996 in Keillor *et al.*, 2004:9; Palmer, 2005:80) service delivery and consumption have to be simultaneous. As such, Servicescape determines the customer’s behavioural response to the service (Wakefield & Blodgett, 1994:66-68 as cited in Palmer, 2005:81) and may include “tangible cues” to ensure repeat business.

After a thorough investigation of the service quality models it was decided to use the SERVQUAL model in order to measure the overall impression of the inferiority or superiority of the services delivered at an ICC (i.e., CSIR ICC).

#### **1.4.1.3 The importance of the SERVQUAL model in this study**

Previous empirical research (in service quality) has focused primarily on the measurement of service quality at hotels (Erto & Vanacore, 2002:165); for domestic airlines (Chang & Yeh, 2002:166); tourist's judgements on service quality (Weiermair & Fuchs, 1999:1004); the "retailer's perceptions of the service levels at a tourism destination" (Vogt & Fesenmaier, 1995:763) and service quality at tourist information centres (Lennon & Mercer, 1994:129). It is evident that previous empirical research focused on service quality research in other sectors of the tourism industry and therefore justifies the research in the business tourism sector and specifically the application of the SERVQUAL model for the measurement of the service quality at an ICC.

Empirical research using the SERVQUAL model in a South African context is limited. Van der Wal, Pampallis and Bond (2002), Berndt (2006), De Jager and Du Plooy (2006) as well as Kgaile and Morrison (2006) have used the SERVQUAL model for research in a cellular telecommunications company, a motor dealership, public health as well as in education.

#### **1.4.1.4 Criticism of the SERVQUAL model**

In the previous section the importance of the use of the SERVQUAL model for the research was motivated and in this section the criticism of the SERVQUAL model will be discussed.

Many scholars argue that the SERVQUAL model only reflects on the service delivery process (Kang & James, 2004:266) and does not address the service encounter outcomes (Grönroos, 1990 in Kang & James, 2004:268). Toy, Kerstetter and Rager (2002:99) assessed the SERVQUAL model and criticised Parasuraman *et al.* (1985, 1988) for the lack of explaining the variability of the outcomes of the SERVQUAL model and have suggested a contingency model approach. Vogt and Fesenmaier (1995:763) have without success, used the SERVQUAL model to evaluate the tourists and retailer's perceptions of the service levels at a tourism destination.

In the early 1990's Cronin and Taylor (1992, 1994), Grönroos (1990), Babakus and Boller (1992) as well as Carman (1990) criticised this instrument due to the use of different scores, dimensionality, the applicability and the lack of the validity of the model with specific reference to the five dimensions (Kang & James, 2004:267). Buttle (1994:10-11) elaborates more on the criticism towards the use of the SERVQUAL model by dividing the criticism into "theoretical" and "operational" criticism.

To conclude, many authors have criticised the SERVQUAL model, however the researcher motivates the use of the model only in the measurement of the "service delivery process" and will not measure the service encounter outcomes that it has been criticised for.

#### **1.4.1.5 Perceived service quality versus customer satisfaction**

Zeithaml and Bitner (2003:85–86) differentiate between the two concepts by stating that perceived service quality is only one component of customer satisfaction, they elaborate by adding that service quality "reflects" the customer's perception of the service elements (i.e., the interaction and outcomes) where the satisfaction of the customers is more "inclusive" with its influence and its perceptions of the service quality. Cadle (2004:5) states that the level of service quality forms the basis for retaining the customers and leads to a competitive edge for an ICC. The next section will give more conceptual insight on the characteristics of the specific target markets that use the services at an ICC.

## **1.4.2 CONVENTION CONSUMERS**

In the previous section service quality was defined, the models for service quality measurement were compared, the SERVQUAL model and criticism for using it were discussed and finally a comparison between the “perceived service quality” and “customer satisfaction” was given.

### **1.4.2.1 Convention consumers defined**

Within the context of business tourism Swarbrooke and Horner (2001:137) differentiated between a “customer” and a “consumer”. Customers are the organisations, i.e. the CSIR ICC which employs business tourism suppliers to organise business tourism events. Consumers are the business tourist who attend the events and make use of the services at the CSIR ICC.

Secondary sources do not define a “convention consumer” in a business tourism context; therefore the researcher used the available secondary definitions of “consumer” and “convention” to define this concept. Experts in the tourism industry were asked during in-depth interviews to define a “convention consumer”. The researcher has used all these definitions to compile an own definition which will be used throughout the study when reference is made to the “convention consumer”.

A consumer can be defined as an ultimate end user, who travels to the destinations and can be the customer or the buyer itself, of the business tourism products or services (Masterson & Pickton, 2004: 413, Medlik, 2003:44, Swarbrooke & Horner, 2001:342).

Table 1.2 compares the definitions of two authors of a “convention” that will assist the researcher in the compilation of a definition of a “convention”.

**Table 1.2: A comparison between definitions of a convention**

<b>Medlik (2003: 44)</b>	<b>Davidson (1994) in Swarbrooke and Horner (2001: 5)</b>
A large meeting or assembly	An organised event or meeting
Described as a “convention” in the USA	Described as a “convention” in the USA and a “conference” in the UK
	People who discuss a topic of shared interest
Held on an annual basis	Held on premises away from the organisation who is running it
	Can be for commercial or non-commercial purposes
	Part of business tourism
Referring to an association meeting. Corporations and non-profit organisations can also hold meetings (Astroff & Abbey, 1998:15)	

For this research, convention is defined as, “a business tourism initiative of an organised large meeting, held on premises away from the organisation (i.e., association, corporation and non-profit organisations) that is running it, for people who discuss a topic of shared interest for commercial or non-commercial purposes”.

During the Event Management Body of Knowledge (EMBOK) meeting in July 2005 in Johannesburg, six internationally recognised industry consultants and academia were asked to define a “convention consumer”. The table on page 15 is a summary of their responses.

**Table 1.3: Convention consumer definitions**

Expert <sup>4</sup>	Definition
Goldblatt (2005a)	“An individual or group that consumes education, who networks and recognises the other resources provided by the organisation and can be the sponsor of a convention”
Gonzalez (2005)	“A person who participates and acquires assets (i.e., knowledge) in the benefit of furthering a cause.”
Nelson (2005a)	“An entity that convenes for meetings, conventions, tradeshows / exhibitions and events.”
Silvers (2005a)	“An individual or organisation that convenes in the context of a specific gathering.”
Tassiopoulos (2005a)	A person who purchases convention offerings such as meetings to exchange ideas or conclude business (where he only visits the event for the day as a same-day consumer/ visitor) and he who stays overnight is a convention consumer (or tourists)
Wünsch (2005a)	“A human being attending / visiting / being at meetings / gatherings for knowledge transfer / exchange / networking / fun...”

Based on the above Table 1.3; a convention consumer can be defined as an individual or organisation who gathers for a specific reason, to participate, acquire assets and education, for networking, meetings, conventions, tradeshows, exhibitions and events by recognising the resources provided by the organisation and who may sponsor it for the benefit of furthering the cause.

To conclude, a convention consumer is an ultimate user who travels to use the services on premises [ICC] where organised large meetings (i.e., association meeting, corporation and non-profit organisations) are held for people who discuss a topic of shared interest, are hosted for commercial or non-commercial purposes, who can be the business tourism customer or the buyer.

#### **1.4.2.2 The convention consumer market**

In the previous section a definition for a convention consumer was compiled. An overview of the convention consumer market follows.

<sup>4</sup> Experts are the event management specialists who have been acknowledged by international event management organisations. Please refer to the “References” for a discussion on each person’s expertise.

Swarbrooke and Horner (2003:7) have developed a structure of the business tourism and travel industry consisting of elements including the demand of consumers, intermediaries and suppliers. The element of demand of consumers includes the consumers or tourists who will use the services offered in business tourism. Customers may include individuals, companies or associations. Intermediaries consist of specialists in business tourism including business travel agents, event management companies, exhibition companies, incentive travel houses and destination marketing and management agencies. Suppliers refer to the transport operators, conference, exhibition, training courses, product launches, incentive travel venues (residential or non-residential) accommodation operators, ancillary services such as catering, specialised services such as audiovisual and entertainment equipment and information technology as well as visitor attractions. An International Convention Centre includes facilities and venues for conferences and exhibitions and can be regarded as a supplier of services to the customers in business tourism (Cadle 2004; 2005a).

The researcher has earlier in the chapter defined the convention consumer as the “customer” or the “buyer” of the convention services and will therefore include the “demand” and “intermediary” elements as stated by Swarbrooke and Horner (2003).

Based on the criteria above, the market services at the CSIR ICC have (since 2000) been divided into 13 markets, which are further, subdivided into 11 segments (Cadle 2004:2). However due to reasons of confidentiality the researcher may not reveal these markets and has decided to use four generic markets, namely associations, corporate, academic and government, that were used by a venue survey by Direct Access and Grant Thornton (Coertze, 2005:6-11). These markets will be investigated in chapters 2 and 5 to evaluate: (1) if these four generic market segments are sufficient for the market segmentation of the CSIR ICC and (2) if discrepancies exist in the service quality dimensions of these four generic convention consumer market segments.

### **1.4.3 INTERNATIONAL CONVENTION CENTRE**

#### **1.4.3.1 International Convention Centre defined**

Although the available subject literature does not define an “International Convention Centre” the International Congress & Conference Association (ICCA) acknowledges the definition as it has been stated by the International Association of Professional Congress Organisers (IAPCO). IAPCO acknowledges that the terms “convention centre”, “congress centre” and “conference centre” all have the same meaning. The organisation further states that the “Meetings Industry” defines the above mentioned concept as “premises built specifically for holding meetings and exhibitions” (Vleeming, 2005).

In the context of this study it is important to define an “International Convention Centre” as the conference centre at the CSIR is referred to as the CSIR ICC. According to the researcher’s knowledge it is evident that no secondary sources have sufficiently defined an ICC; therefore a definition was requested from international and national meetings industry academia and consultants during the EMBOK Conference during July 2005.

Table 1.4 differentiate between the various definitions for an ICC on the next page.

**Table 1.4: An International Convention Centre defined**

Experts	Definition
Goldblatt (2005a)	“A permanent facility equipped to have conventions, congressing delegates from multiple countries.”
Gonzalez (2005)	“An establishment that hosts multi-cultural “negotiations” [with] persons.”
Nelson (2005a)	“An International Convention Centre should include not only facilities for meetings, tradeshows and event space; but also international services such as a business centre, computer labs with high speed internet capability and state-of-the-art audio visual equipment in all space, including the laboratory and the rooms. The centre should also include a hotel either directly connected to the ICC or next door.”
Silvers (2005a)	“A centre that is capable of hosting conventions which markets this capability to multiple nations.”
Tassiopoulos (2005a)	“This is a venue that has been designed to meet the needs of the international convention market.”
Wünsch (2005a)	“A venue used / visited by meetings from other countries (plural) than the one [where] the centre is located.”

Based on the above Table 1.4 an ICC can be defined as a permanent facility equipped with rooms to have meetings, tradeshows and event space; but that also includes international services such as a business centre, computer laboratories with high speed internet capability and state-of-the-art audio visual equipment in all the spaces, including the laboratories and the rooms. The centre should also include a hotel either directly connected to the ICC or in a close proximity to host delegates from multiple countries.

These definitions were e-mailed to all the parties who participated in this survey. Only three of the experts (Silvers, 2005b; Nelson, 2005b; Wünsch, 2005b) responded, but all the feedback indicated that the summation on the definition of an ICC was appropriate.

#### 1.4.4 SUMMARY

From the literature the researcher defined the three constructs of the study, namely service quality, convention consumer and international convention centre. The SERVQUAL model was introduced as the instrument for the measurement of service quality at an ICC. Criticism on the SERVQUAL model has been addressed (refer to paragraph 1.4.1.4) and it has been motivated (refer to paragraph 1.4.1.3) why the SERVQUAL model is used in this study.

#### 1.5 RESEARCH PROPOSITIONS

No empirical evidence has been found that the SERVQUAL model has been tested in a business tourism environment or at the CSIR ICC before. Therefore the following propositions are formulated for this research:

- P<sub>1</sub><sup>5</sup>**: The application of the SERVQUAL model for the measurement of service quality in a business tourism environment and specifically at an ICC, namely the CSIR ICC.
- P<sub>2</sub>**: The assessment of the overall service quality at the CSIR ICC from the perspectives of the convention consumer.
- P<sub>3</sub>**: The assessment of service quality from the perspective of each of the different respondent user groups, namely association, academic, corporate and government group.
- P<sub>4</sub>**: The identification of the dimensions of the SERVQUAL model as applicable to the CSIR ICC, to determine the convention consumer's evaluation of the service quality at an ICC (i.e. the CSIR ICC).

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<sup>5</sup> P = Proposition

## 1.6 IMPORTANCE OF THE STUDY

Previous empirical research in service quality focused primarily on the measurement of service quality in other tourism sectors besides ICCs (Chang & Yeh, 2002:166; Erto & Vanacore, 2002:165; Lennon & Mercer, 1994:129; Vogt & Fesenmaier, 1995:763; Weiermair & Fuchs, 1999:1004). Very little, if any, research has been done on the measurement of service quality at an ICC and specifically in the South African tourism context (Cadle, 2005a). This study may urge a new culture of service quality assessment at ICCs amongst the convention consumers.

Taylor (2002a:52) states that South Africa is a fairly new player in the convention and meetings industry market. The challenge for South Africa and Africa is to raise its profile as a desirable meetings destination. Taylor elaborates by stating that growth in the business tourism market to the African continent can be accelerated through world-class standard service offerings and the marketing of the destination's assets to the correct target audience.

South African Tourism (2004a:31) published statistics that revealed that "conference facilities with good service levels (other than ICCs)" is an area where a product gap exists. However, in 2005 Taylor (2005a:8) also stated that the meetings industry in South Africa is remaining far too domestically focused as a result that the South African tourism market does not comply with the international norms in the delivering of services. In the dissertation the legitimacy of this statement will be tested through the use of the SERVQUAL model (Parasuraman *et al.*, 1985, 1988). The researcher further examines the difficulties of the measuring gaps in service quality on the convention consumer market segments (domestic and international) at a specific service firm (i.e., the CSIR ICC).

According to South African Tourism (South African Tourism, 2004a:32) domestic tourism has positioned business tourism as a product with an average ( $\pm 48\%$ ) “desired experience” and a very low ( $\pm 8\%$ ) “usage profile”. International tourists have positioned business tourism on a very low rating with regard to “desired experience” and have indicated a 26% on the “usage profile” (South African Tourism, 2004a:33). Due to the intangible nature of a service it can also be defined as a “product” (Masterson & Pickton, 2004:191; Jobber, 2004:261). Therefore the researcher seeks to test the relevance of these “experience” discrepancies in service (product) quality in the local and international convention consumer market. In addition, interrelationships among the customer expectations in the domestic and international convention consumer market are examined at the CSIR ICC.

The Deputy President of the Republic of South Africa, Phumzile Mlambo-Ngcuka, highlighted the need of high quality services at facilities in order to create an unforgettable tourist experience (Modisane, 2005).

Finally the findings of this research hope to assist marketing managers in assessing the convention consumers’ expectations about the quality of service delivered at an ICC and how to successfully address these expectations to gain a competitive advantage. The CSIR ICC will be used as a case study for conducting the research.

## **1.7 MOTIVATION FOR DOING RESEARCH IN THE BUSINESS TOURISM MARKET**

### **1.7.1 AN INTERNATIONAL MOTIVATION**

The meetings industry is highly competitive and constantly changing. One of the best mechanisms for the driving of motivation, culture and education remains through meetings. According to Roger Helms (IMEX, 2005b:3) the world is becoming smaller and smaller, but the clients are increasingly collaborating across cultures to achieve their cross-cultural boundary goals. Daily communication and meetings remain the best opportunities to build trust.

In the mid 1980's Simons (1986:S4) acknowledged that the Convention Facilities Group indicated a 7% to 10% growth in demand for (international) convention centre space. This author further indicated that convention and business meetings were the biggest contributor to the tourism industry in Atlanta, Georgia.

According to Rod Cameron, chairman and representative of the International Association of Congress Centres (IACC), the business tourism market is becoming much more complex due to the great surge for value creation to the end customer and that it is more important to work together and to share more information (IMEX, 2005a:16).

A key trend is that meetings are becoming shorter, are more frequently held, and have a reduced lead-time, which includes multi-year contracts with venues and suppliers. It is expected of the business to put more emphasis on the securing of the objectives of the meeting and to measure the return on investment (ROI). The business aims to build more industry relationships and product knowledge as a matter of "matching the right client to the right venue" (IMEX, 2005b:3).

The World Tourism Organisation (WTO) highlights the following on conventions:

1. Conventions have the reputation of generating high expenditure on a per visitor basis and create economic growth for the host destination.
2. The financial risks posed by a convention centre outweigh the larger economic impact on the host community and economy.
3. Large convention events bring prestige to a city, which are often covered in the national and international news.
4. Tourist expenditures at a destination can have a positive “ripple effect” throughout the host economy.
5. Due to the intangibility of convention services these services cannot be easily measured to determine if the required standards are met. The service experience is judged by the convention consumer’s perception and experience. It is acknowledged that the same services might be evaluated differently by two or more different convention consumers. Therefore the researcher will use the SERVQUAL model in this research to test the service quality dimensions amongst the convention consumers attending the same conference, meeting or workshop during September to November 2005 at the CSIR ICC.
6. The tourism product is a combination of many different tourism services, i.e. during a conference the convention consumer requires transportation, food and beverage and entertainment, which are provided by various service providers. A poor experience in any of these service experiences can affect the customer satisfaction for the entire conference and business tourism trip (WTO, 1999:128-130, 162-163).

The measurement of the service quality dimensions aims to identify the expectation of the convention consumer at the ICC and to adapt the services offered at the venue with the needs of the client.

Research by Rogers (1998:185) indicates that the conference market is much more active with interaction, networking and the sharing of information in comparison to how it used to be. Another trend is that delegates spend less time in plenary sessions in the main conference auditorium, and more time in smaller groups in the breakaway rooms.

This behaviour of delegates created a need for purpose-built conference centres in order to address this need for smaller groups in break-away rooms with the result that delegates can still participate in the conference at the same venue. All across the world destinations have started to address this need through the building of “purpose built conference centres”, i.e. the ICC in Birmingham, England (Shone, 1998:35), the Convention Centre in Florida, Hong Kong Convention and Exhibition Centre, Durban ICC in South Africa and Melbourne Convention and Exhibition Centre in Australia (Rogers, 2003:47) to name a few.

All of the above mentioned convention centres provide more or less the same business tourism products; the only perceived differentiating factor is the delivering of quality services to maintain a competitive advantage and to make money (Fenich, 1992:313-318). The British Tourism Authority (2003:8) indicates that corporate conference organisers demand high quality meeting facilities and services for the hosting of the conference, meeting and exhibitions.

The rationale for using the CSIR ICC as a case study will be discussed in the following sub-categories, namely, the need for research in the ICC field, the South African Tourism perspective, the importance for venues to be graded by the TGCSA and the convenience of and opportunity for the researcher.

### **1.7.2 A NATIONAL MOTIVATION**

SAT has identified “conference facilities with good service levels (other than ICCs)” as an area where a product gap exists. According to SAT business tourism was positioned in the domestic tourism market as a product with an average ( $\pm 48\%$ ) “desired experience” and a very low ( $\pm 8\%$ ) “usage profile” as indicted in paragraph 1.6. According to research conducted amongst international tourists, business tourism was positioned on a very low rating with regard to “desired experience” with 26% on the “usage profile” (South African Tourism, 2004a:31-33). Through these statistics it is evident that the ICCs in South Africa provide good services, however the ratings on the “usage profile” and “desired experience” are below 50%.

The researcher aims to measure the service quality dimensions at the CSIR ICC to establish where the “product gaps” exist during the service delivery. The SERVQUAL model will be used for the measurement of the service quality dimensions.

The CSIR ICC, formerly known as the CSIR Convention Centre, was the first purpose-built convention centre in South Africa, in 1980. It has a rich history and laid the foundation for the development for the business tourism industry in South Africa (Cadle, 2005b).

There was an increase from 4.9% to 5.3%, during 2002 / 2003, in the number of business tourists for MICE (Meetings, Incentives, Conventions and Exhibitions / Events) purposes to South Africa (South African Tourism, 2004c:15). However Taylor, (2002b:52) states that South Africa is a fairly new player in the convention and meetings industry market and that one of the challenges for South Africa and Africa is to raise the profile as a desirable meetings destination. Taylor elaborates on the statement by stating that growth in the business tourism market to the African continent can continue through world-class standard service offerings and the marketing of the destination’s assets to the right target audience. The researcher aims to establish whether the service quality dimensions, as measured by SERVQUAL, can assist a marketing manager at an ICC to establish if the services that are offered at an ICC are of world class standard. Once the key dimensions are identified the marketing manager can measure the perceptions and expectations in the service quality offering at an ICC.

Authors such as Elzinga (2002:28) and Taylor (2002a:2) have already recognised the crucial role of convention centres in the MICE industry, now referred to as business tourism, to attract business people and foreign currency. This is confirmed through qualitative research (Viljoen, 2002) that indicated the importance of research in the convention centre market. South Africa has made a mark on the international conference scene in a big way, which has led to the construction of multi-million rand purpose built centres with state-of-the-art facilities. The City of Durban was the first city in South Africa, in 1998, to establish an internationally acknowledged ICC for years and the only city to have a special convention and marketing bureau (Shevel, 2002).

South Africa now has a wealth of conference facilities; including custom-built centres (i.e., the Durban ICC, Sandton ICC (SCC), Cape Town ICC (CTICC) and CSIR ICC), which have been designed to meet the most demanding international specifications (South African Tourism, 2002:2). In the mid-1990's there was an increase from 20% - 25% in the use of congress centres as venues for international meetings (ICCA, 2005b). However internationally there was a decline from 1996 to 1998 from 43% to 36% and to 33% respectively in the population of congress centres with in-house hotel facilities.

### **1.7.3 LIMITATIONS FROM PREVIOUS STUDIES**

Gartrell (1994:405) states that in order for a convention centre to function properly, the management and operation responsibilities should be well defined, proper funding should be available for all the services offered and the relationship with the stakeholders is of the utmost importance in order to enhance the credibility and accountability of the centre.

Weber (2001:1) states that the business tourism [MICE] industry, in a global and country specific context, is one of the fastest growing segments in the tourism industry. Weber further states that little research has been done in this field, despite the economic significance of this sector. Although Weber (2001:1) investigated the level of service satisfaction of service offered at a Convention and Visitors Bureau (CVB) the SERVQUAL model was not used in this measurement.

## **1.8 MOTIVATION FOR USING THE CSIR ICC AS AN EXAMPLE FOR THE TESTING OF THE SERVICE QUALITY DIMENSIONS AT AN ICC**

### **1.8.1 THE TOURISM GRADING COUNCIL OF SOUTH AFRICA**

The TGCSA was commissioned by South African Tourism in 2000 to establish and manage a grading system for the entire tourism industry. This is the only recognised grading system for South Africa and is credible domestically and internationally. A few objectives for the TGCSA include the assistance in South Africa's transformation process: politically, sociologically and economically. Another objective is that tourism must be accessible, affordable, market driven and voluntary to all the people (Tourism Grading Council of South Africa, 2005).

The TGCSA awarded a grading certificate to the CSIR ICC, as one of the "first 20 venues to be star-graded under the newly launched National Star Grading Scheme for the Business Tourism [MICE] sector" as referred to in Appendix B (CSIR, 2004; First 20 Conference Venues are Graded, 2004:27). The CSIR ICC was awarded with a four star grading in the "Meetings, Exhibitions and Special Events venues (MESE)". According to a press statement by Dr Salifou Siddo, from the Grading Council, this grading will improve and maintain the quality of services of tourism products in South Africa (CSIR, 2004). Marthinus van Schalkwyk, Minister of Environmental Affairs and Tourism, has "announced that from 1 January 2005 government business will only go to graded establishments". (First 20 Conference Venues are Graded, 2004:28). The National Government is one of the key market segments of the CSIR ICC (Cadle, 2004:3), which the CSIR ICC intends to continue serving with excellent service.

The CSIR ICC is listed as one of the conference venues most frequently used by meeting planners according to the Direct Access and Grant Thornton (2005) research (Appendix A).

### **1.8.2 THE OPPORTUNITY AND CONVENIENCE FOR THE RESEARCHER**

Since 2002 the researcher has developed a strong relationship with the management of the CSIR ICC since 2002. The CSIR ICC management has indicated an interest in assisting the researcher with research in post-graduate studies and offered the use of the venue as an area for data collection. In addition the CSIR ICC is close to the University of Pretoria where the researcher is registered for the MCom in Tourism Management. This convenient location of the CSIR ICC together with the assistance offered for the data collection creates an ideal opportunity for the researcher to use the CSIR ICC as a case study to measure the service quality dimensions through the SERVQUAL model.

### **1.9. THE MARKETING OF SOUTH AFRICA AS A BUSINESS TOURISM DESTINATION**

The International Marketing Council (IMC) of South Africa was established in 2001 by the Department of Environmental Affairs and Tourism (DEAT) (Olver, 2004) with the specific aim to brand and market South Africa. This initiative was the pre-campaign for the “Alive with possibility” campaign which was launched in the same year (10 years tourism review by TBCSA & DEAT, 2003:12). In line with the IMC’s approach, SAT is using the slogan “Discover South Africa ....Rediscover yourself” (10 years tourism review by TBCSA & DEAT, 2003:13). The aim of this campaign is to position South Africa as a world-class destination that combines the scenic beauty, wildlife and diverse cultures to deliver the ultimate African holiday experience. SAT is South Africa’s destination marketing company which is commissioned by DEAT for the marketing of the various destinations of South Africa. Destination marketing is the promotion that is targeted at selling a particular location as a meeting site and / or tourist attraction (Astroff & Abbey, 1998:82). Therefore it is essential that SAT will provide support and market intelligence on tourism products to South Africans, not only in specific market segments, i.e. business tourism, but also in the other market segments that justify an investment.

Unfortunately not all the market segments will be examined due to the limited resources. However business tourism will fortunately remain a key area of focus for South Africa's local and provincial authorities (10 years tourism review by TBCSA & DEAT, 2003:29).

Destination Management Companies (DMCs) will play a key role in the marketing of business tourism initiatives. Astroff and Abbey (1998:58) define a destination management company as a professional management company specialising in the design and delivery of convention events, activities, tours, staffing and transportation, utilising local knowledge, expertise and resources. In South Africa most of the cities that are members of the Southern African Federation of Convention Cities (SAFCC) have established some form of destination marketing companies to promote business tourism. In the City of Tshwane the Tshwane Tourism Association (TTA) aims to develop tourism in the city. Although the TTA does not have a formal office the organisation meets most of the criteria as it has been stated in the definition. The CSIR ICC is one of the association members of the TTA.

## **1.10. MOTIVATION FOR THE TESTING OF SERVICE QUALITY IN THE BUSINESS TOURISM MARKET**

Since South Africa's re-introduction to the international tourism arena in 1994, foreign tourist arrivals have grown by more than 3 million arrivals (South African Tourism, 2005:1). Due to the expansion in the market the quality of service delivery within the tourism industry was criticised by many national and international tourists and tourism product buyers. Although research has been done within other sectors of the tourism industry with regards to the testing of service quality through the use of the SERVQUAL model as mentioned in section 2.6.1, the researcher could not find any research on the specific measurement of the service quality dimensions as identified by Parasuraman *et al.* (1985, 1988) at an ICC. Cadle (2005b) indicated that little, if any is known about service quality research within the business tourism sector and specifically at an ICC. One of the challenges in the research is the lack of recent secondary data to test the service quality dimensions at an ICC.

Consequently the researcher has an incomplete picture of the measurement of the service quality dimensions between the customers' expectations and service providers' understanding of the expectations (Luk & Layton, 2002:109) in a business tourism environment and specifically at an ICC.

This study aims to provide more insight on the dimensions of service quality amongst convention consumers. The researcher aims to indicate the importance of the application of the service quality dimensions in service marketing and how these can influence the perceptions and expectations of services delivered at an ICC amongst convention consumers.

## **1.11 METHODOLOGY**

### **1.11.1 RESEARCH DESIGN**

The research design is the "blueprint" for the measurement of the collected data (Cooper & Schindler, 2003:146). The proposed study is quantitative in nature and aims to provide a holistic perspective of a large population with a representative sample (Mouton, 2001:152).

An empirical design classification will include the testing of a theoretical differentiation between the three constructs (service quality, convention consumer and ICC) that has not been tested previously. The researcher will further examine the relationship between the three constructs in order to set up an experiment to test the specific hypotheses (Bak, 2004: 11; Cooper & Schindler, 2003: 13; Mouton, 2001: 152; Summers, 2001: 408).

Eight different descriptors can be identified in the classification of the design and are summarised in the Table 1.5 on page 31.

**Table 1.5: Seven different descriptors in the classification of the research design**

DESCRIPTORS	APPLICATION TO THE STUDY
Design classification	Exploratory
Method of data collection	Communication based
Purpose of the study	Descriptive
Time dimension	Cross-sectional survey
Topical scope	Statistical study
Research environment	Field setting
The power of the researcher to produce effects in the variables	Ex post facto

(Adapted from Cant, Gerber-Nel, Nel & Kotze, 2003:31–35; Cooper & Schindler, 2003:146-171; Mouton, 2001:152–153)

Table 4.1 (chapter 4) will elaborate more on the theoretical explanation and application of each of the descriptors to the research.

### 1.11.2 SAMPLING

A sample is a carefully selected representation of the targeted population (Cooper & Schindler, 2003:179). Non-probabilistic sampling gives every respondent in the targeted population a nonzero chance of selection and is used in this research (Cooper & Schindler, 2003:183-185; Mouton, 2001:153).

#### 1.11.2.1 Target population

A population includes all the respondents which the researcher wishes to make inferences about (Cooper & Schindler, 2003:186). Convention consumers who attended or organised meetings or exhibitions at the CSIR ICC from September to November 2005 were the target population for this study. Questionnaires were distributed from 8 September 2005 to 1 November 2005 amongst the “delegates” who attended meetings, conferences or workshops at the CSIR ICC. The intermediaries or “clients” were requested to complete an e-mailed questionnaire which was e-mailed back to the sales and marketing manager, Ms Bronwen Cadle, for data collection.

The population proportion is an equation to the number of elements in the convention consumer population belonging to the category of interest (i.e., ICC), which are divided by the total number of elements in the population (Cooper & Schindler, 2003:187). The CSIR ICC wanted to determine where the biggest discrepancy was in perceived service quality, whether at the domestic or at the international convention consumers level (i.e., buyers and delegates / consumers).

#### **1.11.2.2 Sampling method**

A non-probability sampling method was used in the selection of the respondents (Cooper & Schindler, 2003:183). The data collection amongst the business-to-business (B2B) respondents (intermediaries or “clients”) was a computer generated census list of 2 549 (Cadle, 2005c) convention buyers who have previously bought service from the CSIR ICC. This list was provided by the sales and marketing manager, Ms Bronwen Cadle, of the CSIR ICC. The list serves as the sampling frame for the research for the B2B market survey.

A structured electronic survey questionnaire was e-mailed to all 2 549 business-to-business respondents on the sample frame. This was done to realise a large enough sample equation modelling based on the recommendations by Cooper and Schindler (2003:188-190). The final realised sample was only 25 respondents.

Meetings, conference and workshops at the CSIR ICC, from 8 September 2005 to 1 November 2005, were identified for the business-to-consumer (B2C) data capturing. Local and international delegates representing associations, academia, corporate companies and government were requested to complete the structured questionnaires. Questionnaires were distributed to all these delegates attending the meeting, conference or workshop. These delegate responses served as a sample frame for the B2C market survey. The final realised sample was 517 questionnaires.

In total a number of 542 questionnaires were collected from the B2B as well as the B2C convention consumer groups.

### **1.11.2.3 Sample size**

The size of the population will affect the size of the probability sample (Cooper & Schindler, 2003:190-191). In this case a 22-element 7-point Likert scale of the SERVQUAL model (Parasuraman *et al.*, 1985; 1988) was used to conduct a census at the CSIR ICC in the B2B convention consumer market. A census list of 2 549 respondents was drawn from the B2B market segment (i.e., professional conference organisers (PCOs) or DMCs), that can provide the estimated precision needed by the researcher. A total of 13 meetings, conferences and workshops were identified to collect the 517 questionnaires for B2C market.

Socio-demographic profiles of the respondents who participated in the study were not measured. The sample was mainly divided into domestic and international respondents in four generic markets, namely associations, academic, corporate and government.

### **1.11.3 DATA COLLECTION**

This study consisted of the collection of primary and secondary data. Secondary data was data recorded in previous studies and is discussed in the literature review. In the survey method the collection of primary data is discussed in detail (Cooper & Schindler, 2003:87). The Delphi method was used amongst business tourism industry and academia experts to define two definitions, namely: “convention consumer” and “international convention centre” (Appendix C).

#### **1.11.3.1 Survey method**

The initial questionnaire was pre-tested with a convenience sample of 62 convention consumers (Appendix D). Data for the main study was collected from September to November 2005 with an electronic survey and fieldworkers, following an adapted version of the Parasuraman *et al.* (1985; 1988) 22-question/element Likert scale. Follow-up mail was sent to the respondents electronically to remind them to complete the questionnaire. Follow-up surveys were sent to respondents who had not returned the surveys within the one-month period. No incentives were provided to respondents to complete the questionnaire.

Data was also collected during September to November 2005 via venue intercept surveys conducted at the CSIR ICC to obtain information directly from the delegates. Before the conducting of the survey, each client's permission was first obtained. To avoid the potential bias owing to the use of non-probability sampling, intercept surveys were conducted at various times of the day (i.e., tea or lunch), two days of the week, depending on the venue bookings, at different meeting rooms. Questionnaires were handed out to all the attending delegates with a cover letter of instruction. Delegates who had finished his/her lunch or tea in the exhibition area of the CSIR ICC were requested to complete the structured questionnaire on arrival in the venue. Questionnaires were collected from the venue during the next break.

#### **1.11.4 DATA ANALYSIS**

##### **1.11.4.1 Factor analysis**

A factor analysis was a major tool as it provides a means of determining which questions in the SERVQUAL model are measuring dimension number one, which questions are measuring dimension number two and so on, as well as which questions do not distinguish between dimensions and the number of dimensions in the data. Questions that were not clearly rated to a dimension were discarded. The result was a 16-item question scale for the service quality gap, measuring four basic dimensions, namely (1) tangible, (2) reliability and (3) empathy while (4) responsiveness and assurance collapsed into one dimension (Asubonteng *et al.*, 1996:64-65).

Since both expectations are measured using the 16 questions, and performance is rated using 16 parallel questions, 32 questions in total are used. The convention consumer rating an ICC would indicate his or her extent of agreement or disagreement with each statement with 7 indicating "highly agree" and 1 indicating "low agreement", with 6,5,4,3,2 for the rating between the "highly agree" to "low agreement".

Quality was measured as performance-expectations for each of these pair of questions and the summary score across all 16 questions was the measure of the quality. An example is that if the performance score was a 6 and the expectations score was also a 6, the CSIR ICC would have met the service quality expectations, with a quality score of zero ( $6-6=0$ ) (Asubonteng *et al.* 1996:65).

#### **1.11.4.2 Testing for reliability**

The SERVQUAL model was also tested for reliability and validity. The major test of reliability was the Cronbach Coefficient Alpha, a measure to determine the extent of internal consistency between, or correlation among, the set of questions making up each of the four dimensions, such as the four tangible questions. The minimum reliability that is acceptable is difficult to specify. If the reliability is low, such as below 0.6, the researcher could be faced with the choice of investing time and money in additional research in an attempt to develop a revised measure with greater reliability. Higher reliabilities, such as 0,90 or above are desirable (Asubonteng *et al.* 1996:65).

#### **1.11.4.3 Testing validity**

The validity of a measure of service quality is difficult to test as a proven criterion, as it is not available. The general approach for testing the validity of marketing scales is to measure the agreement between the measure of interest, SERVQUAL, and a second measure of quality, convergent validity and a measure of a variable that should be related to quality and concurrent validity (Asubonteng *et al.* 1996:65).

## 1.12 NATURE AND FORM OF RESULTS

The final research findings will be published as a research article in an accredited tourism journal such as the *Annals of Tourism Research* or *Tourism Management*. Business tourism suppliers and specifically marketing managers at ICCs will benefit from the findings of this research. Findings on the gap score were already presented at the Southern African Institute for Management Scientists (SAIMS) conference in September 2006 (Swart & Van Heerden, 2006).

Service quality can be measured with the SERVQUAL model at the CSIR ICC; although SERVQUAL has proven to generate unstable data, which should be refined for more detailed analysis in the market segments, i.e. corporate market.

Firstly, the gap score was measured through the original 22-statements of the SERVQUAL model. Secondly, a factor analysis was run on all the P<sup>6</sup>, Q<sup>7</sup> and E<sup>8</sup> variables. The original five factors of the SERVQUAL model collapsed into four factors, namely (1) Responsiveness & Assurance, (2) Tangibles, (3) Empathy and (4) Reliability, for all the convention consumer data. The cumulative variance declared a factor solution that explains a minimum of 60% of the total variance for the variables Q, P and E on the convention consumers. These four factors were reported in a table format to declare the variance of each factor.

Lastly, the 22-original SERVQUAL statements from the gap score were reduced to 16-statements that can be applied in the measurements of service quality at the CSIR ICC. The SERVQUAL model's service quality measurement seems to be unstable for the Q, P and E variables on the B2C convention consumer subgroups, namely association, academic, corporate and government.

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<sup>6</sup> P = P-variables (expectations / perceptions)

<sup>7</sup> Q = Q-variables (quality)

<sup>8</sup> E = E-variables (experience / feelings)

### **1.13 LIMITATIONS IN THIS RESEARCH**

Limitations experienced in this research were the lack of sufficient responses from the international market from both the B2B as well as the B2C markets. Another limitation was insufficient feedback from the 2549 B2B national and international respondents to justify an unreliable outcome from the statistics in this group.

### **1.14 CONCLUSION**

Chapter 1 is an introduction and orientation of the service quality study that was done amongst the convention consumers at the CSIR ICC. The research problem and study objectives were highlighted followed by a discussion on the definitions of the constructs. Four research propositions indicated the challenges of the research that needed to be undertaken. The study was motivated by focusing on the needs in the business tourism market and the reason for the use as the CSIR ICC as a case study. The methodology was discussed focussing specifically on the research design, sampling and data collection. Finally the nature and the form of the results were reported.

In the next chapter the business tourism market will be discussed in detail. This sector on the tourism industry will be explained from a historical global and national perspective. The economic contribution of business tourism will support the importance of this industry in the international and South African economy. Business tourism markets are identified which support the development of a business tourism market framework for the measurement of service quality at the CSIR ICC.

## CHAPTER 2

### BUSINESS TOURISM

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#### 2.1. INTRODUCTION

This chapter investigates the development of the tourism industry and the business tourism industry in South Africa and globally. The economic factors that contribute to the development and growth of the tourism industry in South Africa are highlighted. A typology (Figure 2.3) of business tourism is used to place the business tourism market in perspective with other sectors in the tourism industry. The researcher has developed a new business tourism framework (Figure 2.5) for the measurement of service quality at the CSIR ICC by adapting the structure of business travel tourism of Swarbrooke and Horner (2001:7). Various business tourism markets are investigated in this research, while a comparison is made between the international and domestic business tourism markets.

#### 2.2. THE TOURISM INDUSTRY: A GLOBAL PERSPECTIVE

The tourism industry also referred to as *Travel and Tourism* (WTTC, 2002a:1,4) is globally regarded as the largest and fastest growing industry, with the biggest return on investment and the largest generator of jobs (Grimaldi, 1994:64; Lickorish & Jenkins, 1997:63; Middleton & Clarke, 2001:vii; Moutinho, 2000:10; Rogers, 1998:183; South African Tourism, 2004c:4; WTO, 1999:17; World Travel and Tourism Council (WTTC), 1992:1). Global tourism has grown by 10% in 2004 where South Africa is claimed to be one of the fastest growing destinations (Ruscoe, 2005). *Travel and Tourism* is regarded as one of the highest priority industries and seen as one of the catalysts for social development across the whole of South Africa (WTTC, 2002a:1, 4).

## 2.2.1 THE TOURISM INDUSTRY

Before one can investigate the topic, one needs to understand the three ways in which the study of tourism can be described, namely as an “industry” or an “activity” or a “system” (Lubbe, 2003:3). Each of these concepts has a different focus namely: tourism as an “industry” tends to focus on the “supply” offered in tourism, whereas tourism as an “activity” will focus more on the “demand” side in tourism (Lubbe, 2002:3). The “supply-side” indicates that *Travel and Tourism* is an “industrial activity” consisting of diverse products, i.e. durables, non-durables, and services (i.e. transportation, convention centre services and food and beverage) (Lubbe, 2002:3, WTTC, 2002:25). The tourism “system” demonstrates how the tourism “supply” (the industry) and tourism “demand” (the activity) relates to one another and how interrelated and dependent all the parts are of one another (Lubbe, 2002:3).

As such, the study of tourism as an “industry” will be investigated in more detail. It is evident in the definition of *Travel and Tourism* by the WTTC that tourism should be described as an “industry” due to the measurement of its economic contribution to a country’s economy, i.e. South Africa’s, economy. In this definition the WTTC recognises the tourism industry as a “network of businesses that is engaged in the transport, accommodation, feeding, entertainment and the care of the traveller” (WTTC, 2002:25).

Key challenges highlighted by the WTO (1999:162) indicate that the supply of tourism services cannot be adjusted rapidly to accommodate changes in tourism demand, i.e. a lot of time and money is needed to develop an ICC and once it is built it is difficult to change the facilities. Furthermore, tourism demand is highly elastic which means that a relatively small change in tourist income may result in a proportionately larger change in demand. Tourism services are often viewed by consumers as interchangeable between different service providers (WTO, 1999:163). Only the service quality dimensions will be evaluated from the convention consumer’s point of view at one ICC. A similar service quality study was conducted at the Orange Country Convention Centre in Orlando, Florida, US amongst five different B2C groups attending an exhibition (Breiter & Milman, 2006:1366).

## 2.2.2 THE TOURISM INDUSTRY TRADE

The tourism industry is very diverse and comprises of various tourism segments, i.e. transport, accommodation, travel and trade and attractions (Lickorish & Jenkins, 1997:100; Lubbe, 2003:6-8), or types (Medlik, 2003:166). Medlik defines the tourism industry by referring to the firms and establishments, industries, customers (see the interpretation of the meaning of “consumer” in paragraph 1.4.2.1), hotels and tour operators that contribute towards the economic activities with the aim of meeting the needs of the tourist.

The WTO refers to a tourist as a visitor who stays away from home for at least one night for business, leisure or other tourism reasons (Medlik, 2003:167). DEAT (1996:5) defines tourists as people who travel away from home and who are staying away for at least one night. Tourists can be domestic tourists, i.e. residents from Johannesburg staying one night in Durban, a regional tourist, i.e. a visitor from Namibia spending one or more nights in the Free State, or an overseas tourist, i.e. a resident from Germany staying one or more nights in the North-West Province. A tourist travels for different purposes including business, leisure, conference and incentives. Correlations between these concepts indicate that a tourist is a consumer who will participate in the tourism activities offered by the various sub-segments of the industry.

For the purpose of this study the researcher will focus on the “industry” and “consumer” parts of the definition as defined by Medlik (2003:166) in paragraph 1.4.2.1. An industry normally includes certain economic activities, that are carried out by various organisations or “establishments” that have a “mutual bond amongst them”. This bond may include a type of product or service that stimulates economic activity for the specific organisation or firm. On the other hand the consumer is the user of the product offered by the industry (Medlik, 2003:42, 92).

### 2.2.3 LEISURE TOURISM AND BUSINESS TOURISM

Leisure tourists and business tourists are the two main categories in the tourism industry that indicate the “demand force” through the movement of tourists in the tourism system (Lubbe, 2003:3; Davidson (1994) as cited in Rogers, 2003:22; WTO, 1999:139). Leisure tourism is “associated with people taking photos, buying souvenirs, having limited contact with residents and staying for short periods of time” (WTO, 1999:139). The researcher will only discuss the impact of business tourism on the tourism industry. All the tourism industry sub-sectors, i.e. transport and accommodation, contribute towards the economic activities in the business tourism category (British Tourist Authority, 2003:5, 2005:2; Scottish Executive News, 2004; WTO, 1999:128).

Davidson (1994 as cited in Swarbrooke & Horner, 2001:3) states that: “Business tourism is concerned with people travelling for a purpose, which is related to their work”. As such it represents one of the oldest forms of tourism; man having travelled for this purpose of trade since very early times (Shone, 1998:3-4). Swarbrooke and Horner elaborate on this definition by including “all the aspects of the experience of the business traveller”. Medlik (2003:29) defines business tourism as “trips and visits made by employees and others in the course of their work, including attending meetings, conferences and exhibitions”. Business tourists can be regarded as “true” tourists because they are tourists who stay away from their home for at least one night to conduct business (Rogers, 2003:20, Swarbrooke & Horner, 2001:3).

Thus to summarise, business tourism includes elements of people who travel for work related activities (i.e., meetings, conferences and exhibitions) and who stay away from their home for at least one night.

A business tourism visitor is a person, aged 15 years or above, whose main purpose is the attending of meetings, exhibitions or conferences or who is travelling on incentive programmes and spends more than three times more on average than leisure visitors (Australian Capital Tourism, 2005; British Tourist Authority, 2005:2). Although business tourism is also represented by the acronym MICE, which refers to Meetings, Incentives, Conferences and Exhibitions or Events, it is increasingly referred to as “Business Tourism” or “Business Events” (Tourism Australia, 2005).

From the above discussion it is evident that there was a paradigm shift from the acronym MICE to “Business Tourism”. The term “Business Tourism” or “convention industry” will be used in discussions of MICE related references in the dissertation. Where statistics and references are made to the MICE industry the researcher will acknowledge them as “Business Tourism” statistics or references.

#### **2.2.4 BUSINESS TOURISM: CHARACTERISTICS AND TOP TEN TRENDS**

Although business tourism as a concept was discussed in the previous paragraph it is necessary to identify the characteristics of this sector and specify why it is an important part of the tourism industry. The top ten trends indicate where the business tourism industry will position itself over the next few years.

#### 2.2.4.1 The characteristics of business tourism

In 2003, the British Tourist Authority (2003:5) identified the following principle characteristics of business tourism. However, where possible, these characteristics are supported with South Africa research conducted in:

- Business Tourism is of a high quality, and at the high yield end of the tourism spectrum.
- Business tourism is an all year round activity which counters seasonality at a destination; although in South Africa business tourism is partly seasonal by nature (Heath, Pretorius & Fairer-Wessels, 2005:2). Business tends to “slow down” during the school holiday seasons as most business people spend more time with family and the holiday destinations charge higher prices for the use of facilities. The diverse climate regions have an impact on the tourists’ choice of destinations and during the low season destinations have more special packages to attract the business tourist (Shone, 1998:13).
- Business tourism relies on the same infrastructure as the leisure tourism industry and they are complementary.
- Business tourism stimulates further inward investment at a destination, where business tourism facilities lead to the regeneration of urban and inner city areas, as is evident from South African cities which are part of the SAFCC such as the Tshwane Metropolitan area, Durban, Johannesburg, Cape Town, Port Elizabeth and Bloemfontein urban areas (Taylor, 2002a).
- Business people “experience” the destination and become “unpaid ambassadors” for the destination. According to research published in the Conference Delegate Expenditure Survey of 1998, approximately 40% of business travellers will return with their families to a destination.
- More labour-intensive service suppliers are required in business tourism due to the higher quality requirements of personal services and this in turn translates into higher levels of job creation.
- Higher added-valued and fewer negative environmental impacts make business tourism more sustainable than mass leisure tourism.

- Infrastructure development designed primarily for business tourism, i.e. hotels, transports and communication facilities, restaurants and attractions) provide benefits which can also be enjoyed by the leisure tourist.
- In comparison to leisure tourism, business tourism is less affected by economic downturns or by disasters such as Foot and Mouth Epidemics or Bird Flu (Avian Influenza) in Europe and the Far East. In South Africa tourists are affected by Malaria, Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS), to name a few.

Grimaldi (1994:65) adds to these characteristics by stating that it is easier to trace and document the economic impact of business tourism compared to leisure tourism. It is therefore easier to monitor the economic impact of business tourism on a destination and to publish more reliable and accurate statistics.

The following paragraph will describe the top ten trends in business tourism.

#### **2.2.4.2 The top trends in business tourism**

Top business tourism trends are indicating shifts towards (Davidson, 2006):

- new business tourism destinations, such as central and Eastern Europe, the Middle East and China that are creating more competition;
- a buyers market with more aggressive negotiations, procurement professional involvement and shorter lead times;
- more competition for association participation where business travellers need to be convinced to join associations and to attend conferences;
- more competition for the delegates' time where business travellers are money-rich and time-poor and prefer to spend more time with friends and family;
- growing professionalism in the business tourism industry where education at universities and professional training with associations are essential;
- changing profile of the conference attendees. The profile consists of more women, multicultural and older delegates;
- the "Xer Generation" delegates who are seeking more adventure and extreme activities;

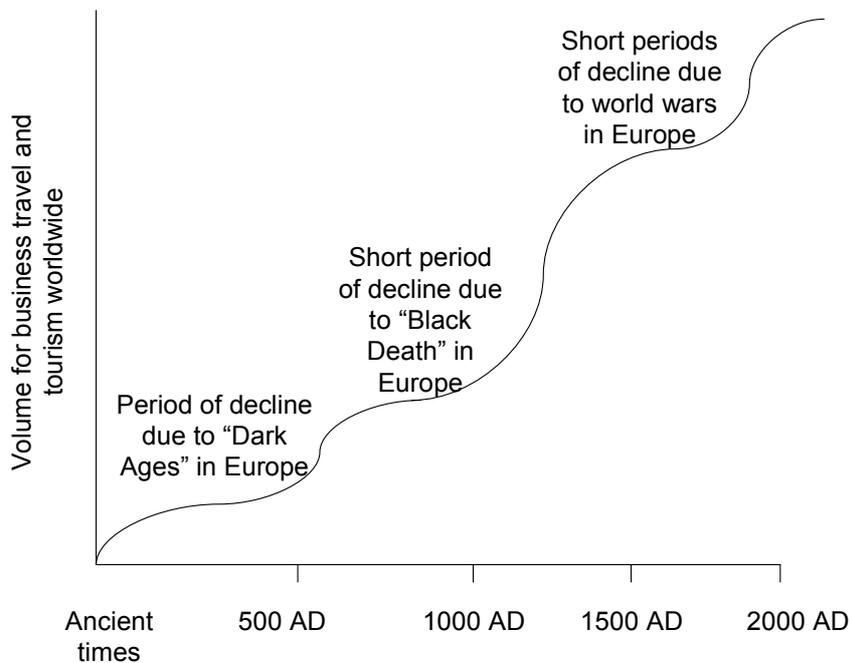
- delegates who are socially conscious, and focus on “green practices”, are ethically sound and generate positive public relations for the association or business;
- delegates who want to be pampered, with discretion, at spas; and
- constant Wi-Fi connection that is free of charge, as delegates need to stay in contact with their businesses while they attend a conference and need to have 24/7 internet access.

## 2.3. DEVELOPMENT OF THE GLOBAL BUSINESS TOURISM MARKET

### 2.3.1 THE HISTORY OF BUSINESS TOURISM

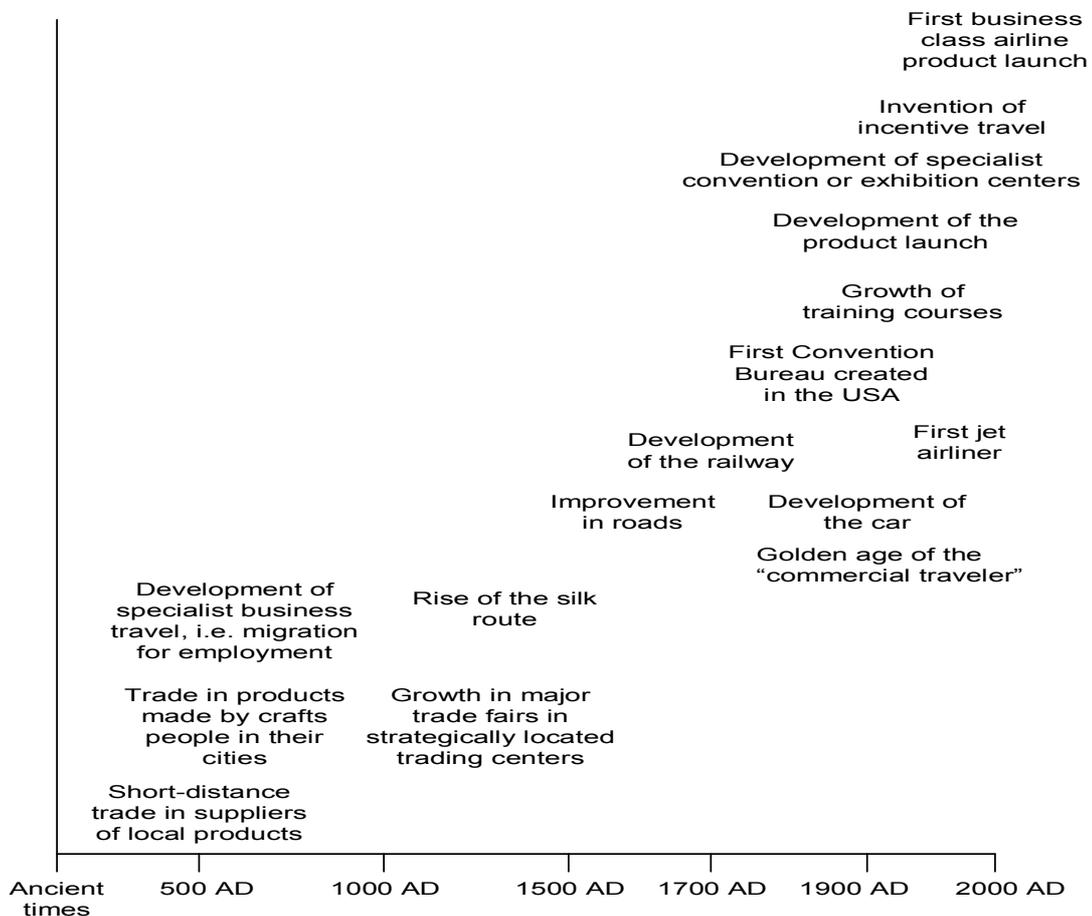
The availability of sources in the historical development of business tourism is limited. One of the sources includes the timeline of its development. In this research Swarbrooke and Horner (2001:13) highlight the major developments in the history of business travel and tourism (refer to Figure 2.1 & Figure 2.2).

**Figure 2.1: The historical growth of business travel and tourism worldwide**



(Swarbrooke & Horner, 2001:13)

**Figure 2.2: Major developments in history of business travel and tourism**



(Swarbrooke & Horner, 2001:14)

From the above figures (Figure 2.1 & Figure 2.2) it is evident that the evolution of the conference industry can be dated back to more than 2000 years with the development of the spa towns and the expansion of trade amongst the Roman-British societies in the community centres of England and Ireland (Shone, 1998:4). Business tourism originated with trade between communities and the need to exchange agricultural products. This has led to the growth of markets to which producers travelled hundreds of kilometres to trade their products. Artisans as small-scale traders can therefore be regarded as the earliest business tourists (Lickorish & Jenkins, 1997:11-23; Swarbrooke & Horner, 2001:15).

Figure 2.2 illustrates the major developments in history that have led to the evolution of business tourism. A few of these developments were:

- Great Empires, including Egypt, Persia, Greece and Rome that stimulated the growth of trade-based business travel, (i.e., the Roman Empire developed the well-established trade routes across the empire);
- By the Middle Ages business travel for trade was well-established and the infrastructure included a number of large trade fairs in strategically located towns and cities, i.e. the Beaucaire Trade Fair on the Rhône River in Southern France;
- The “Silk Route” is recognised as the “greatest business travel route of all times” which reached its peak in the Middle Ages; and
- Other specialist business tourism developments included: priests undertaking pilgrimages to shrines; soldiers travelling to take part in battles; and migrating workers (Holloway, 2002:19-24; Swarbrooke & Horner, 2001:14-15).

Business tourism grew dramatically between 1750 and 1900 in Europe (Swarbrooke & Horner, 2001:16). With the development of the fashionable Georgian towns (1700s), i.e. Buxton, prior to the industrial revolution many public buildings with assembly rooms were created (Shone, 1998:7). Many European countries developed colonies in Africa, the Middle East and Asia, which created a demand for travel. Roads improved in Europe that eased business travel (Hollway, 2002:31-41; Swarbrooke & Horner, 2001:16-17). Victorian resorts were built in the 1800s to address the demand for meetings in public venues. Assemblies and congresses continued to be driven by trade and industry after the 1900s. In the 1950's business tourism showed a dramatic growth in demand, such as the growth of professional associations and societies based on shared interests and professions; positive changes on the supply side which have facilitated growth for business tourism and the development of specialist facilities such as convention and exhibition centres. After each of the World Wars the conference trade continued to expand and has been recognised as part of the hospitality industry's turnover since the 1960s. The greatest expansion however occurred during the past 30 years with the development of major purpose-built civic conference venues as Brighton in 1977 in the United Kingdom (UK) (Hollway, 2002:42-45; Shone, 1998:3-9) and venues in the United States of America (USA). Figure 2.2 further highlights the onset of incentive travel and the first business class airline product launch in the 1980s.

### 2.3.2 RESEARCH BY INTERNATIONAL ASSOCIATIONS IN BUSINESS TOURISM

Business tourism is a major contributor to the economy of a country (British Tourist Authority, 2005:2; Scotland Executive News, 2004; Shone 1998:3). ICCA reveals that the business tourism segment, with specific reference to the convention market is expanding rapidly (King, 2002b:4). Research in business tourism by the ICCA and the Union of International Associations (UIA) has shown that South Africa is a top selling destination for business tourism (South African Tourism, 2002:2).

Great Britain (British Tourist Authority 2003, 2005) and Scotland (Scottish Executive News, 2004) are of the few destinations in their field that have published research findings on business tourism destinations. Tony Rogers, from Great Britain, is one of the few researchers that has done extensive research in business tourism. He highlights the importance of the foundation of trade associations in the business tourism industry and has identified the following principal business tourism associations with their founding dates:

- International Association of Exhibition Management (IAEM) 1928
- Professional Convention Management Association (PCMA) 1957
- International Congress and Conference Association (ICCA) 1963
- International Association of Professional Congress Organisers (IAPCO) 1968
- Meetings Professional International (MPI) 1972  
(Rogers, 2003:4)
- Union of International Associations (UIA) 1949

These associations are responsible for the professional liaison between the various suppliers and buyers in the business tourism industry.

ICCA and UIA (ICCA, 2001; King, 2002b; Rogers, 2003, 8-13; Taylor, 2002c) are the acknowledged international organisations conducting research in the business tourism field. For the past 56 years the UIA has undertaken statistical studies on the proceedings of each year's international meetings (UIA, 2005). The WTTC has commissioned the Tourism Satellite Account (TSA) (WTTC, 2005a; WTO, 2005) to conduct research in the global tourism market. The leading cities and destinations in business tourism as cited in the ICCA and UIA statistics for 2005 are summarised below. Also refer to Appendix G for the full account.

The USA was indicated as the top business tourism country in the world (ICCA, 2005a; UIA, 2005). Germany was ranked second (ICCA, 2005a) and Spain third (UIA, 2005) respectively. In a comparison between the ICCA (2005a) and UIA (2005) rankings: France, the United Kingdom, Spain, Italy and Austria were all present in the top ten countries for both these sets of data, although the sequence is different. ICCA (2005a) acknowledged the Netherlands, Australia and Japan as three additional top ten countries, where the UIA (2005) mentioned Switzerland, Belgium, China, Hong Kong and Macau as its other best performers. Refer to Appendix G for more detail.

Also in 2005 Barcelona ranked as the top city according to ICCA (2005a) and seventh with the UIA (2005), while Paris had the number one position in the UIA (2005) and seventh in the ICCA (2005a) rankings. Vienna was the only city that was ranked second by both of these associations' statistics. Singapore, Berlin, Copenhagen were other top cities in the ICCA and UIA statistics. Hong Kong, Lisbon, Stockholm and Budapest were the other top cities in the ICCA rankings, while Brussels, Geneva, London and Seoul were favourites in the UIA rankings.

Neither South Africa nor one of its cities are listed on either the ICCA or UIA's top ten destinations, which is a concern within the parameters of this research as South Africa clearly does not compare to the best in the world in terms of business tourism. The researcher, however, believes that amongst others quality service at an ICC can contribute to the improvement of South Africa's position in the business tourism world rankings. Therefore this research will investigate the application of the SERVQUAL model in the measurement of the service quality dimensions at the CSIR ICC.

Taylor (2005a:8) states in a press release that the [business tourism] industry in South Africa is remaining far too domestically focused with the effect that the South African tourism market does not comply with the international norms of service delivering. From the above comparisons the assumption can be made that the South Africa business tourism industry has to focus on quality service in order to generate a competitive advantage in the international business tourism market and to gain better positions in the ICCA and UIA rankings. An improvement for South Africa in these international business tourism rankings may ensure the sustainability of the business tourism industry with more GDP and ROI.

## **2.4 THE DEVELOPMENT OF BUSINESS TOURISM IN SOUTH AFRICA**

In the South African tourism market new federations and tourism bodies have developed since the 1980s to enhance the profile of the business tourism sector. These organisations include Exhibitions Association of South Africa (EXSA), the Southern African Association for Conference Industries (SAACI) and the SAFCC. In October 2004 an umbrella body, the South African Meetings Industry Federation (SAMIF) was established to advance the member association's mutual interest in the business tourism sector (Thomson, 2004).

Since South Africa's re-entering into the international tourism arena in 1994, research by the WTTC (2002:4) predicted that the country has the potential to become one of the world's great new tourism destinations. The South African government has expressed its commitment to the development of the country's tourism potential through the appointment of a Ministry for Tourism (WTTC, 2002:8).

DEAT together with SAT (previously SATOUR) have committed themselves to the development of tourism and specifically business tourism in South Africa (Mosola, 2005).

Over the past decade a few publications were published with research on the tourism industry in general and research on the business tourism sector in particular, namely:

- In 1996 DEAT compiled a Tourism White Paper in which the need for tourism development in the country was highlighted (Department of Environmental Affairs and Tourism, 1996:14-18);
- The Gauteng Tourism Department realised the need for a provincial Tourism White Paper and developed the Gauteng Tourism White Paper in 1997 (Gauteng Tourism Department<sup>9</sup>, 1997). In both of these papers the development of the MICE industry was seen as a priority for South Africa and the Gauteng Province;
- In 2002 the need for an updated Tourism White Paper was identified and the challenge was put to the government (WTTC, 2002:8). An updated version of the Tourism White Paper has since not been published;
- SAT has realised the need for a tourism strategy and has commissioned various research organisations to research priority sectors, i.e. business tourism. namely:
  - A SATOUR Conference Study in 2000 by Grant Thornton Kessel Feinstein (Tourism South Africa, 2000).
  - South African Tourism International Tourism Marketing Strategy Development Project (South African Tourism, 2001).
  - Tourism Growth Strategy (South African Tourism & The Monitor Group, 2002).
  - 2003 Annual Tourism Report (South African Tourism, 2003).
  - Gearing up to be globally competitive: The development of the Tourism Growth Strategy 2001-2003 (South African Tourism, 2004b).
- The Department of Trade and Industry (DTI), DEAT and SAT published the Global Competitiveness Project: Summary of Key Findings Phase 1 in October 2004 (SAT, DEAT& DTI, 2004d).

Business tourism was identified as a priority tourism sector for the economic development of South Africa, in the majority of these reports.

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<sup>9</sup> Gauteng Tourism Department was renamed to the Gauteng Tourism Authority (GTA)

#### **2.4.1 THE DEVELOPMENT OF INTERNATIONAL CONVENTION CENTRES**

In South Africa many initiatives have been taken in the development of the business tourism industry. According to a press statement by Dr Tanya Abrahams, former Executive Director of the Tourism Business Council of South Africa (TBCSA) and member of the WTO advisory board, South Africa is promoted by South African Tourism as a “world-class business tourism destination, with outstanding banking and IT [information technology] infrastructures” (The Tourism Business Council of SA: promoting unity in a diverse destination, 2005:73). The Durban ICC (1997) was the first international convention centre to be built, followed by the SCC (2000) (10 years Tourism review by TBCSA & DEAT, 2003: 15) and the CTICC (2003) (Siebert, 2004, WTTC, 2002:9; 37). In addition conference centres have been transformed to ICCs such as the CSIR Convention Centre to the CSIR ICC in 2003. Two new ICCs are in the development phase i.e. the ZAR1.5 billion Tshwane International Convention Centre (Sandras, 2004a; 2004b; Taylor, 2005a:8) in the City of Tshwane (Pretoria) and the Mangaung International Convention Centre in Bloemfontein.

Further evidence of the growth in the demand for ICCs is the expansion project of the Durban ICC. The intention is to double the size of the Durban ICC at a cost of ZAR430 million. This world class centre has boosted South Africa’s position as a business tourism destination by being listed as one of the top 10 “Best Congress Centres in the World” by the International Association of Congress Centres (IACC) (Siebert, 2004b).

It is evident that the business tourism sector is expanding in South Africa, especially with the development of all the ICCs. Cadle (2005a; 4) stated that the competition in this market will become more competitive. All the venues provide more or less the same type of physical product. In future, the only differentiation will be in the delivery of quality services, the venue’s location / destination, the product bundle offering and incentives. Therefore, this research aims to test the quality of services delivered at the CSIR ICC, as one of the differentiating factors.

## **2.4.2. MAJOR INTERNATIONAL EVENTS HOSTED IN SOUTH AFRICA**

The business tourism market remains a major untapped market in South Africa and has been the stepchild, due to a lack of strategic focus, within the tourism marketplace for far too long (Taylor, 2005a). King (2001:8) states that this tourism sub-segment has emerged to an economic colossus in its own right over the past few years, however it is still too domestically focused (Taylor, 2005a:8). Evidence of the economic contribution has been the winning of bids to host a number of significant international conferences, such as the World Summit on Sustainable Development (WSSD) in 2002 in Johannesburg; the African Union Summit and the United Nations Conference on Racism in 2001 in Durban. South Africa has further hosted a number of mega-sports events such as the 2003 Cricket World Cup, the Rugby World Cup in 2005; The Soccer African Nations Cup in 1996 and has won the bid to host the FIFA Soccer World Cup in 2010 (Mackenzie, 2001; Shevel, 2002; 10 years Tourism review by TBCSA & DEAT, 2003:15; WTTC, 2002:37). The WTTC (2002:20) notes that although 11.1 million delegates and 14.8 million days were hosted globally in 1999/2000 the bulk of the conference demand is still the domestic market. However it is noteworthy that the business tourism market has grown at 5% per annum over the last six years. Paragraph 2.5 supports the growth of the business tourism industry with a discussion on its economic contribution to South Africa's economy.

## **2.5 THE ECONOMIC CONTRIBUTION OF BUSINESS TOURISM**

### **2.5.1 ECONOMIC CONTRIBUTION OF BUSINESS TOURISM TO A COUNTRY'S ECONOMY – AN INTERNATIONAL PERSPECTIVE**

According to an article entitled: "Business Tourism Highest Yielding Sector" (2004:48) business tourism is acknowledged as the biggest economic contributor in the inbound tourism sector which is supported by Medlik (2003:171), Rogers (2003:7), Swarbrooke and Horner (2001:3) and Tourism Australia (2005). These authors claim that business tourism will be a global industry with all the international investment as evident in the building of new ICCs, the development of international business tourism organisations, like ICCA, and the major international shows, like IMEX<sup>10</sup>-Frankfurt (Rogers, 1999:7).

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<sup>10</sup> IMEX is an important worldwide exhibition for meetings and incentive travel.

In 2004 business tourism was worth nearly £1 billion per annum in Scotland (Scottish Executive News, 2004). Britain has an international business visitor contribution of £3.5 billion to its economy (British Tourist Authority, 2005:2). As stated earlier business tourism includes segments of association conferences, corporate meetings, incentive travel, corporate events, outdoor events, business (or individual) travel, exhibitions and trade fairs (British Tourist Authority, 2003:5; Business Tourism Highest Yielding Sector, 2004:48; Rogers, 2003:20; Tourism Australia, 2005).

According to the British Conference Market Trends Survey in 2001 (British Tourist Authority, 2003:4) the different sub-sectors in business tourism had the following economic impact on Britain's economy:

- **Conferences and meetings** were estimated to be £7.3 billion which indicated an increase of 10% on 2000's figure of £6.6 billion;
- **Exhibitions and trade fairs** were the 5<sup>th</sup> largest marketing medium attraction to Brittan and attracted 11% of the media expenditure, with an estimated value of £2.04 billion annually;
- **Incentive travel** was valued at £165 million in 1996;
- **Corporate events** had an annual value of £700 million to £1 billion;
- **Outdoor events** contributed nearly £1 billion annually, and
- **Business (or individual corporate) travel** was estimated at £6 billion in 1998.

## 2.5.2 THE CONTRIBUTION OF BUSINESS TOURISM TO THE SOUTH AFRICAN ECONOMY

Tourism in South Africa was a “Cinderella” industry (Olver, 2004) before the first democratic elections in 1994, but has grown to be a “star” performer in the South African economy. In 2003 South Africa was one of the fastest growing tourism destinations in the world with a 21% growth in international arrivals (Schmidt, 2003). South Africa has further experienced a sustainable and consistent tourism growth of 6.8% per annum. Rated as the number one destination in Africa and 32<sup>nd</sup> in the world (WTTC, 2005a) – with a 23% tourism market share, it is evident that tourism in South Africa plays a key role in the country’s economic contribution and the development of the society (De Villiers, 2004; Olver, 2004). According to research by the TSA for the WTTC (2005a) other African countries performing well in the tourism industry are Egypt (43<sup>rd</sup> in the world), Tunisia (68<sup>th</sup> in the world) and Tanzania (102<sup>nd</sup> in the world) out of a 146 countries world wide.

DEAT together with DTI announced in the Global Competitiveness Project (South African Tourism, 2004a:26) that the tourism sector’s Gross Domestic Product (GDP) is the highest absolute contributor to the South African economy with a growth rate in the top four sectors (South African Tourism, 2004a:26). The South African business tourism market has grown by 125% since 1994 (Business tourism is the solution to seasonality, 2004:17).

Preuss (2005) supports these statements in a press release that South Africa has accomplished the following:

- South Africa has earned more foreign exchange from tourists in 2003 than previous years.
- The tourism foreign exchange earnings are estimated at an amount of ZAR53.9 billion. In 2004 this growth continued with the rise of tourism revenue to an estimated ZAR56.6 billion.
- The net gold exports accounted for only ZAR34.2 billion for the South African economy in 2004, dropping to ZAR32.8 billion in the same year.

According to Statistics South Africa (SSA) the tourism industry can become a huge source of potential economic growth in South Africa (Van Tonder, 2002). The Tourism Growth Strategy states that tourism is the “new gold” for the South African economy due to its contribution to the GDP and job creation (South African Tourism, 2005:1).

### **2.5.3 THE TOURISM SATELLITE ACCOUNT AS A MEASURING INSTRUMENT**

Tourism as an industry is measured by its economic contribution to a country’s economy. The Tourism Satellite Account (TSA) is responsible for the measurement of this economic activity and is a conceptual framework that has been approved by the United Nations Statistical Commission. This statistical instrument qualifies tourism economic impacts and makes valid comparisons with other industries and between countries (WTO, 2005).

The TSA forecasted the following figures in global *Travel and Tourism* economic expenditure for 2005:

- US\$ 6,201,49 billion of economic activity
- 10.6% of total GDP
- 221 568 jobs or 8.3% of the total employment (WTTC, 2005a)

In paragraph 2.2.1 it is mentioned that the tourism system consists of “demand” and “supply” factors. The “demand-side”, that describes tourism as an “activity”, consists of two basis aggregates in the TSA namely the “Travel and Tourism Consumption” and the “Travel and Tourism Demand” (that includes the residual components of the final demand in travel and tourism). For purposes of this research the focus will be on the “Travel and Tourism Consumption” that represents the value of the products and services that have been consumed by tourists. Four elements can be distinguished for the “Travel and Tourism Consumption” demand, namely: personal travel and tourism; business travel; government expenditures; and visitor exports (WTTC, 2002:25). The business travel element will further be investigated as one of the target markets that provides convention consumers for the consumption of the services rendered at an ICC.

According to the WTTC (2002:32) the level of personal *Travel and Tourism* expenditure can directly be linked to the development of a country's economy. The WTTC (2005b) refers to the growth in the following categories in South Africa for 2005:

- The total *Travel and Tourism* demand of South Africa represented 0.5% of the world market share;
- *Travel and Tourism* was expected to generate ZAR191.3 billion (US\$30.3 billion) in economic activity in 2005;
- Tourism demand was expected to grow by 7.1% (ZAR535.3 billion);
- The South African "Travel and Tourism Economy Employment" was estimated at 1 100 460 jobs which indicated an 8.3% of the total employment of the country or 1 in every 12 jobs;
- The "Travel and Tourism Industry" in South Africa would contribute 3.9% (ZAR58.7 billion) to the GDP 2005;
- Visitor exports would be 14% (ZAR58.3 billion) of the total exports of *Travel and Tourism* in South Africa;
- Personal *Travel and Tourism* was estimated at 6.3% (ZAR61.6 billion) of the personal consumption in 2005; and
- Tourism Capital Investment was estimated at 14.1% (ZAR36.1 billion) of the total investment for the year 2005.

The above figures can be compared to previous forecasts in Table 2.1 that illustrate the *Travel and Tourism* growth in South Africa from 2002 to 2004. Table 2.1 further illustrates that South Africa experienced an expected growth of 7.1% in 2002 with a rise to 7.4% in 2004. The total tourism employment in 2002 was 1 172 000 and has increased to 1 208 000 in 2004. It can therefore be concluded that tourism remains a priority sector for South Africa's economic growth and job creation, with the aim to close the poverty gap and to serve the interest of the people of South Africa (Makhubela, 2005). The statistics have further indicated an expectation that *Travel and Tourism* will account for 9.0% of the GDP to generate ZAR187 billion to the South African economy in 2005 (Sandras, 2005c).

Tourism's economic contribution to the South African economy for 2002 and 2004 was as follows:

- The measurement of tourism's contribution to the GDP was ZAR72.5 billion (7.1%) in 2002 and has increased to 93.6 billion (7.4%) in 2004.
- Direct employment measurement indicated a total of 520 000 jobs in 2002 and has increased to 539 000 jobs in 2004.
- Total employment in tourism totalled at 1 172 000 in 2002 and 1 208 700 in 2004. (South African Tourism, 2005:10).

According to the 2002 WTTC statistics (WTTC, 2002:28; 32) South Africa's total *Travel and Tourism* demand was measured at US\$935.4 million. It was further predicted that "Personal Travel and Tourism" in South Africa will grow by an annual rate of 5.2 % and 6.4 % for Business/Government Travel respectively.

**Table 2.1: Economic contribution of tourism in South Africa: 2002 to 2005 compared**

Measure	2002	2004	2005
Tourism's contribution to the GDP	ZAR72.5 billion	ZAR93.6billion	ZAR58.7billion
	7.1%	7.4%	3.9%
Direct employment in tourism	520 000	539 000	Not available
Indirect employment in tourism	651 000	669000	Not available
Total employment in tourism	1 172 000	1 208 700	1 100 460
	Not available	Not available	8.3%

(Adapted from South African Tourism, 2005: 10; WTTC, 2005b)

In conclusion, Table 2.1 illustrates the realities of the South African *Travel and Tourism* industry. It further indicates that the contribution of tourism to the GDP and the total growth of employment to the industry did not meet the expectations for 2005. Insufficient numbers on the employment contribution to the growth of the tourism industry cannot justify an interpretation of the statistics.

#### **2.5.4 THE CONTRIBUTION OF BUSINESS TOURISM TO THE SOUTH AFRICAN ECONOMY**

In South Africa, business tourism has shown a growth rate of greater than 50% in international meetings since 1992. According to statistics published by the UIA, South Africa is one of the few countries that is called the “Tigers of the Decade: 1992 – 2001” heading the list with a growth rate of 336% in international meetings over the past 10 years (Taylor, 2002c:53; Union of International Associations, 2001). From the South African perspective, this expected growth rate was even higher during 1993 – 1998 with the annual compound of business tourism to the South African tourism growth at 46%. In total this has shown a market growth of 12% per annum (South African Tourism & The Monitor Group, 2002) with a general tourist growth of 17%, which will more than likely contribute to the overall growth in South Africa causing it to become a sought after convention destination (King: 2002b).

As explained earlier exhibitions are one sector of the business tourism (*MICE*) industry. In 2002 nearly 2 000 conference venues contributed to the total business tourism GDP of ZAR20 billion in South Africa. The exhibition industry alone has indicated an economic contribution of ZAR3 billion to business tourism with more than one hundred exhibitions held annually (Conference Crazy, 2003). This is an indication that this sector of the business tourism industry contributes to the growth and success of South Africa as a business tourism destination.

It is clear that South Africa remains an increasingly popular destination for the hosting of international conferences, meetings, exhibitions and/or events. According to Weaving (Meetings Africa Draws in International Buyers, 2005:6) the meetings industry has already contributed ZAR21 billion to the country’s economy and ranks 6<sup>th</sup> in the world as a “best business location” with a current return of investment of 35% in ZAR. The creation of jobs and the upliftment of the local community contribute to the multiplier effect in a country’s economy (Shone 1998:3). It is therefore evident that business tourism sustains about 260 000 jobs, ZAR4 billion to the central fiscal in the form of taxes and pays in the excess of ZAR6 billion in salaries per annum (De Sousa, 2004; Sandras, 2005e; Thomson, 2005a).

The statistics on the previous page indicate that business tourism is a segment in the South African “Travel and Tourism industry” that contributes to a huge part of the economy and the creation of jobs in a sustainable manner.

## **2.6 MARKET SEGMENTATION IN THE SOUTH AFRICAN TOURISM INDUSTRY**

Market segmentation is the “process used to group people with similar wants and needs in a target market” (WTO, 1999:163). Researchers acknowledge that different target market segments, i.e. government, corporate, association and academic can be developed and that convention products can be tailor-made for each segment to meet their needs (Direct Access & Grant Thornton, 2005). The different market segments in business tourism will be discussed later in this research. This section focuses on the market segmentation in the South African tourism industry.

South African Tourism has identified the business tourism market as a market that will contribute towards the future growth of the South African tourism industry (South African Tourism, 2004c:14).

From the 2004 international tourism statistics (ICCA, 2005a; UIA, 2005) it is clear that international tourism experienced a decline worldwide. The South African business tourism industry has to bear this in mind for the targeting of key countries for business to South Africa. According to Taylor (New National Convention Bureau head sets the industry on fire, 2004:12) the core business tourism markets to South Africa include the USA, UK, France Germany, The Netherlands and Australia. Preuss (2005) indicates that the overall number of overseas visitors from non-European countries to South Africa has risen by 6.5% in 2004, while the number of visitors from Europe declined by 2.3%. In 2004, the UK retained its position as the leading source country for overseas visitors to South Africa despite strong competition from the USA, which overtook the UK on occasion during the same year. By contrast there was a 10.8% increase in Americans visiting South Africa in 2004 amounting to an overall total of 213 322 tourists. In June 2004 alone, the number of visitors from the USA was 21 326 compared to only 19 844 from the UK.

The statistics on the previous page indicate that that the USA and non-European tourism markets are key destinations for South Africa. Unfortunately, these statistics did not specify the number of business tourists to South Africa or their countries of origin.

The following section describes the criteria in selecting target markets for South Africa as a tourism destination. These criteria are: value for money, marketing and market information and the priority target markets for SAT.

### 2.6.1 VALUE-FOR-MONEY

Value-for-money is an important criterion for tourists in the evaluation of the tourism products (South African Tourism, 2004a). Table 2.2 indicates the expectations of South Africa as a value-for-money destination.

**Table 2.2: South Africa as a value-for-money destination**

Criteria	International Business Tourism	International Leisure Tourism
Product's failure to meet the expectations	50%	67%
Service level's failure to meet expectations	69%	Not available
Price	63%	73%
Service Quality	53%	50%

(South African Tourism, 2004a:35, 40-41)

From Table 2.2, 50% of the international business tourists and 67% of international leisure tourists indicate that South African products fail to meet their expectations (South African Tourism, 2004a:35). Domestic and international tourists perceive South Africa to be “expensive” (South African Tourism, 2004a:34), “not as friendly and fun” (South African Tourism, 2004a:41), “unsafe” and “unwelcome” destination with “internal transportation difficulties” (South African Tourism, 2004a:40). International business tourists appear to be more demanding.

Of international business tourists, 69% indicated that service levels failed to meet expectations (South African Tourism, 2004a:35). Price (63% of business tourists and 73% of leisure tourists) and service quality (53% of business tourists and 50% of leisure tourists) are two other concerns that have failed to meet the expectations of the international tourist (South African Tourism, 2004a:35), but “price” will not be addressed in this dissertation as price is outside the scope of this research.

## **2.6.2 MARKETING AND MARKET INFORMATION**

Marketing and market information in the field of tourism are underdeveloped in South Africa due to insufficient research in the tourism industry (South African Tourism, 2004a:64). The tourism industry in South Africa “has an undifferentiated market approach which is not yielding the desired results”. With regard to the “Targeted International Tourists vs. Serviced Clientele” only 58% of the targeted respondents for “multi-purpose business travellers who add some holiday and visiting friends and relatives to their trip” were reached (South African Tourism, 2004a:43).

## **2.6.3 PRIORITY TARGET MARKETS FOR SOUTH AFRICAN TOURISM**

Lamb, Hair, McDaniel, Boshoff and Terblanche (2004:37) define a target market as “a fairly homogeneous group that managers feel is most likely to buy of a firm’s product”.

In the repositioning of South Africa’s Tourism brand, four “brand audiences” or priority target markets have been identified, namely the “Luxury in Africa”, “Value for money in Africa”, “Africa as Hip” and “South Africa for Business and Entertainment”. The predominant aim of the last-mentioned market segment is to indicate South African Tourism’s commitment to the marketing activities aimed at the business tourism market (South African Tourism & The Monitor Group, 2002:26–28). DEAT and SAT have recognised this important element in the South African tourism mix and recognise the untapped potential of the business tourism market (South African Tourism snaps up Cape Town Convention Chief, 2004:5).

Suggestions by the WTTC (2002:37) and Grant Thornton (Tourism South Africa, 2000:xvi) have led to the establishment of a National Convention Bureau for South Africa. This body was founded in June 2004 (New National Convention Bureau head sets the industry on fire, 2004) disbanded a year later and was reintroduced in March 2006.

However business tourism remains a priority for the South African Tourism market, with Moeketsi Mosola, Chief Executive Officer (CEO) of SAT (Business tourism comes of age, 2005:10; Thomson, 2005a), when he announced the launch of “businessunusual” at the INDABA Leisure Tourism Trade Show in 2005, with the “aim to use this marketing campaign around traditional South African concepts such as *Imbizo*<sup>11</sup> strategy meetings and the *Lekgotla*<sup>12</sup> or *Bosberaad*<sup>13</sup>. Mosola further stated that South Africa must move the marketing focus to concentrate on this growing market. Former Chief Marketing Officer (CMO) of SAT, Themba Khumalo, emphasised that through “businessunusual” South Africa has a unique offering based on the potential of this brand positioning (Business Tourism comes of age, 2005:10).

#### **2.6.4 THE IMPORTANCE OF SOUTH AFRICA’S BUSINESS TOURISM MARKET SHARE**

The WTO has indicated that Africa, as a continent, has the strongest increase in growth in the number of international tourist arrivals of all the continents in 2005, with an estimated growth of 10% (Lewitton, 2006). South Africa further contributes to 63% of the total tourism market in Africa during 2001 (Shevel, 2002). However when considering business tourism, Africa is still in its infant shoes and constitutes only 4% (with 28 million visitors in 2000) of the international meetings industry market share, according to the 2004/2005 ICCA statistics (De Sousa, 2004; Sandras, 2005a; Siebert, 2004a; 10 years tourism review by TBCSA & DEAT, 2003:46). Africa’s business tourism market share has dropped in 2005 to only 2.5% of the world market share (Gilmour, 2006).

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<sup>11</sup> IsiZulu word which means “a gathering” (Goldblatt, 2005b,xvi).

<sup>12</sup> A meeting of members of traditional African tribes when current questions arise in the community (De Liefde, 2003:2&56).

<sup>13</sup> Note that the concepts of “Imbizo”, “Lekgotla”, “Bosberaad” and “Indaba” can all be regarded as synonyms in the South African context.

UIA statistics reveal that Africa has a total of 4.3% share of the world associations' meeting market ranking South Africa 25<sup>th</sup> according to the number of meetings held in the country for 2001 (Taylor, 2002c:53). South Africa was ranked as 21<sup>th</sup> by ICCA during 1999/2000 (ICCA, 2001; Tourism South Africa, 2000: ii), 22<sup>nd</sup> during 2000/2001 (ICCA, 2001), 27<sup>th</sup> in 2004/2005 (Sandras, 2005a) and has dropped to 31<sup>st</sup> in 2005/2006 (Couturier, 2006) on the ICCA rankings as the most popular associations' meetings destination in the world. In comparison with the WTTC (2005a) statistics for 2004, South Africa has further dropped as a tourism destination and is holding the 32<sup>nd</sup> position. However, South Africa remains first in Africa accounting for 56% of the total events hosted in Africa during 2000 (Tourism South Africa, 2000:ii) and remains in the first position for 2005/2006 with a 51.3% of the meetings market share (Couturier, 2006).

The current Minister of Environmental Affairs and Tourism, Marthinus van Schalkwyk, CEO of SAT, Moeketsi Mosola, and former CMO at SAT, Themba Khumalo, supports the marketing of business tourism. They recognise business tourism as a major potential market and a crucial platform within the overall South African marketing mix strategies (Business tourism comes of age, 2005:10; SA set to be a top business tourist venue, 2006). The Minister has indicated his support for this sector in tourism by recognising South Africa as a "meeting place of note and a business tourism destination of distinction" during the 43<sup>rd</sup> General Assembly of ICCA in October 2004 (Siebert, 2004c).

Taylor has already stated in 2003 that the international convention is starting to take South Africa seriously as a convention destination. With the assistance of the "New Partnership for Africa's Development" (NEPAD) the image of Africa will be improved as a meetings destination (Conference Crazy, 2003). This statement was confirmed by Elzinga (2002), managing director of the CTICC, in 2004 when he stated that international event planners are discovering South Africa as a value for money destination with scenic beauty and world class facilities.

As South Africa is the leading business tourist destination in Africa the country is faced with the challenge to remain in the number one position. The potential growth of the country's business tourism market share is supported by national government, which will support the industry to sustain the current 12 000 jobs. South Africa has further the responsibility to grow the continent's market share, this can be achieved through strategic partnerships with the other Southern African Development Countries (SADC) like Kenya (Taunyane, 2006).

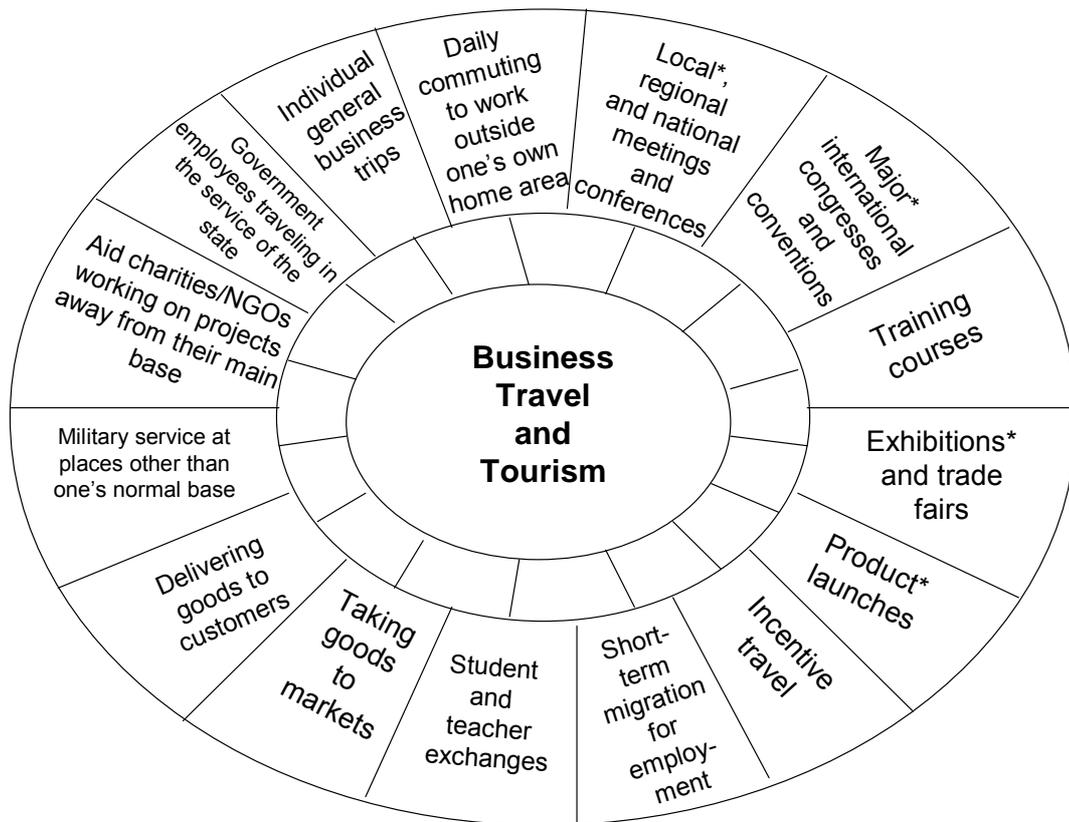
## **2.7 THE BUSINESS TOURISM MARKETS**

As mentioned earlier the following section will evaluate the different tourism market segments. In the previous section business tourism was identified as one of the sectors in tourism. Business tourism markets will now be discussed with a focus on the different segments as defined by Swarbrooke and Horner (2001:4).

### **2.7.1 SEGMENTS IN THE BUSINESS TOURISM MARKET**

The "typology of business travel and tourism" (Figure 2.3) as developed by Swarbrooke and Horner aims to differentiate between fifteen subdivisions, namely training courses; exhibition and trade fairs; product launches; incentive travel; short-term migration for employment; student and teacher exchanges; taking goods to markets; delivering goods to customers; military services at places other than one's normal base; aid charities; government employees travelling in the service of the state; individual general business trips; daily commuting to work outside one's own home area; local, regional and national meetings and conferences, and major international congress and conventions for business travel and tourism (Swarbrooke & Horner, 2001:4-6). All of these types have subdivisions, which is an indication of the complexity and diversity of fields in business tourism.

**Figure 2.3: A typology of business travel and tourism**



(Swarbrooke & Horner, 2001:4)

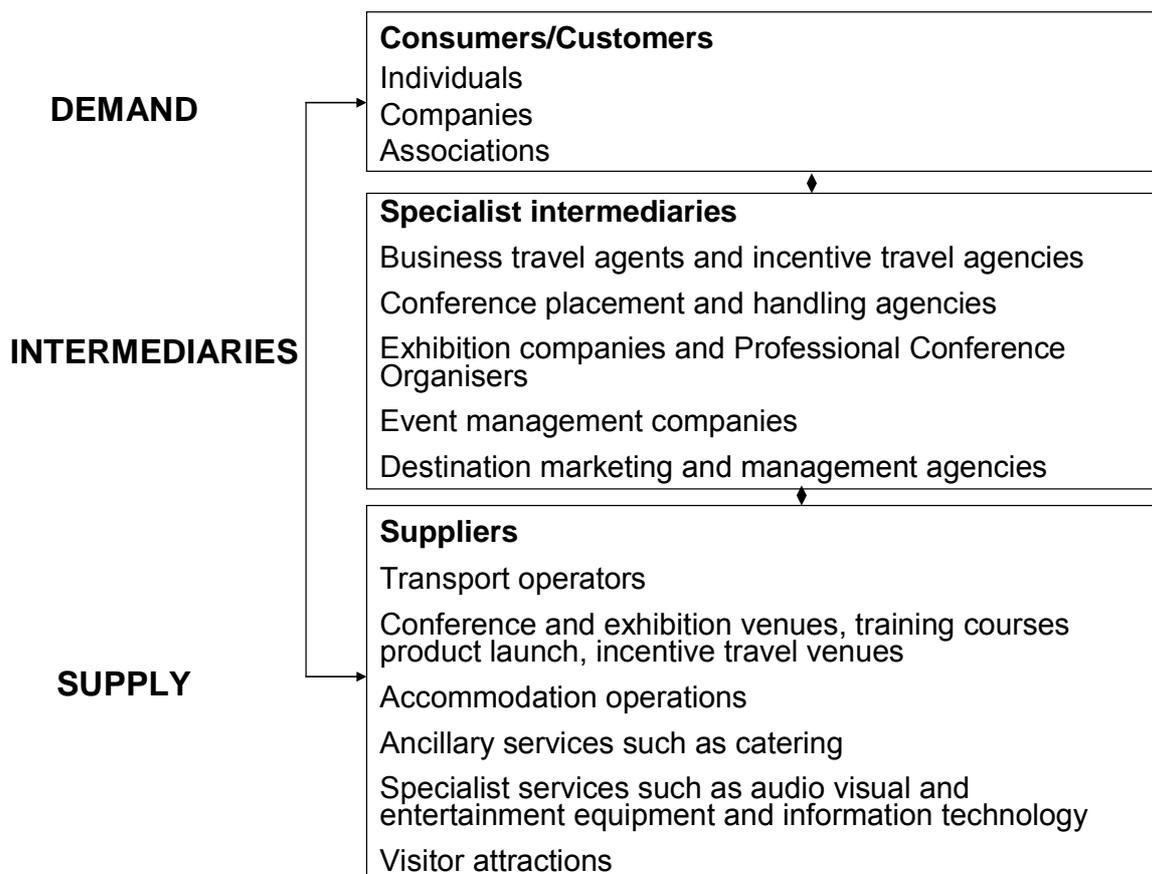
This research only focuses on four\* of these sub-divisions and their applications in the measurement of service quality. These sub-divisions are: local, regional and national meetings and conferences; major international congresses and conventions; exhibitions and trade fairs; and product launches. All of these mentioned sub-divisions can take place at the CSIR ICC according to the marketing manager Ms Bronwen Cadle. In paragraph 2.8 the different target markets used in this research will be indicated and their representation in all of these sub-divisions.

## 2.7.2 A BUSINESS TOURISM STRUCTURE

Swarbrooke and Horner (2001:7) have compiled a structure for the business tourism market as illustrated in Figure 2.4 below. These authors clearly differentiate between the supply, intermediary and buying components in the business tourism industry. This structure has been used as a basis to compile a dedicated business tourism framework for an ICC in the context of this research, refer to Figure 2.5.

At the outset the structure of *Business Travel and Tourism* (Figure 2.4) will be discussed and the importance of the different sections indicated, namely demand, intermediary and supply. As these three sections are fundamental in the dedicated business tourism framework (Figure 2.5) they are discussed in more detail in paragraph 2.8.

**Figure 2.4: The structure of business travel and tourism**



(Adapted from Swarbrooke & Horner, 2001:7)

### **2.7.2.1 Demand in business travel and tourism**

Rogers (2003:28-61) and Tassiopoulos (2005b:41-53) clearly differentiate between the “buyer” and “supplier” markets for business tourism with specific reference to events, conferences and conventions. The buyers are the “conference organisers and meeting planners, who buy, or more accurately, hire conference venues and related services in order to stage their “event” (Rogers, 2003:28). Buyers represent the “demand” side as indicated in Figure 2.4. Both these authors have identified the following types of buyer, namely:

- Corporate buyer;
- Association buyer; and
- Public sector buyers or government buyer.

Rogers (2003:40-45) has further differentiated between the national and international association buyer and entrepreneurial buyer. The researcher acknowledges these types of buyers but will not discuss or investigate the service quality expectations from all these sub-segments of buyers as it does not comply with the research objectives of this study.

### **2.7.2.2 Suppliers in business travel and tourism**

Gartrell (1994:193-194) and Rogers (2003:46) refer to suppliers as the transport operators, conference and exhibition venues, training courses, product launches, incentive travel venues (residential or non-residential) accommodation operators, ancillary services such as catering, specialist services such as audiovisual and entertainment equipment and information technology as well as visitor attractions. Suppliers also include those products or service providers who make products and services available for the external hire of the venues, destinations and many other specialist services without which today’s conferences can not take place. Venues and destinations are the two main suppliers in the business tourism industry.

Rogers (2003:46-61) and Tassiopoulos (2005b: 41-53) both regard the following venues as important in *Business Travel and Tourism*, namely:

- Civic venues, i.e. The City Hall;
- College, university and other academic venues, i.e. a university auditorium;
- Purpose built centres, i.e. Durban ICC; and
- Unusual venues, i.e. a rugby club.

Rogers (2003:49) elaborates on the following other specialist services, as a sub-group at the venues: i.e. audiovisual contractors, telecommunication companies, transport operators, interpreters and translators, after-dinner speakers, speciality caterers, floral contractors, exhibition/exposition contractors, companies that develop specialist computer software.

The venue sub-categories are the same for both authors but they disagree on the sub-groups for the destination category. The researcher acknowledges these suppliers, but for the purpose of this research will only focus on the service quality at a purpose-built venue and more specifically at an ICC.

### **2.7.2.3 Agencies and intermediaries in business travel and tourism**

Rogers and Tassiopoulos, differentiate between the different agencies and intermediaries. “Agencies are used to describe a range of different organisations that are both suppliers and buyers” (Rogers, 2003:50), where an “intermediary is a person or organisation acting between parties” (Medlik, 2003:94).

Rogers (2003:50-59) discusses the following in this category, namely: PCOs, venue finding agency, conference production company, incentive travel house, DMCs, corporate events company, business travel agency, exhibition/exposition organiser and other agencies such as training companies.

In South Africa most of the metropolitan cities are members of the SAFCC and have established some form of DMC or regional tourism organisation to promote business tourism. In the City of Tshwane the TTA aims to develop tourism in the city. Although the TTA does not have a formal office, the organisation meets most of the criteria as has been stated in the definition on “agencies and intermediaries”. The CSIR ICC is one of the association members of the TTA (Tshwane Visitors CC, 2004:4).

Tassiopoulos (2005b:48-53) indicates “event agencies” as the main category, but further differentiates between the following sub-categories:

- Principle types of event intermediaries, namely: business travel agencies and CVBs;
- Agencies to assist with housing reports such as corporate hospitality companies (CHCs) and DMCs;
- DMCs that will coordinate relationships between the event production house, exhibition organisers and ground transportation; and
- Alternative specialists that include incentive travel houses, PCOs, special event planners, venue finding agencies and other agencies.

From the above discussion it is clear that the authors have identified the same types of intermediaries and agencies, with the exception of how they are further sub-divided. In the discussion of the business tourism framework (Figure 2.4) the relationships between the suppliers, intermediaries and buyers from a B2B and B2C perspective are referred to. All the sub-groups indicated in the above literature can be regarded as part of these relationships.

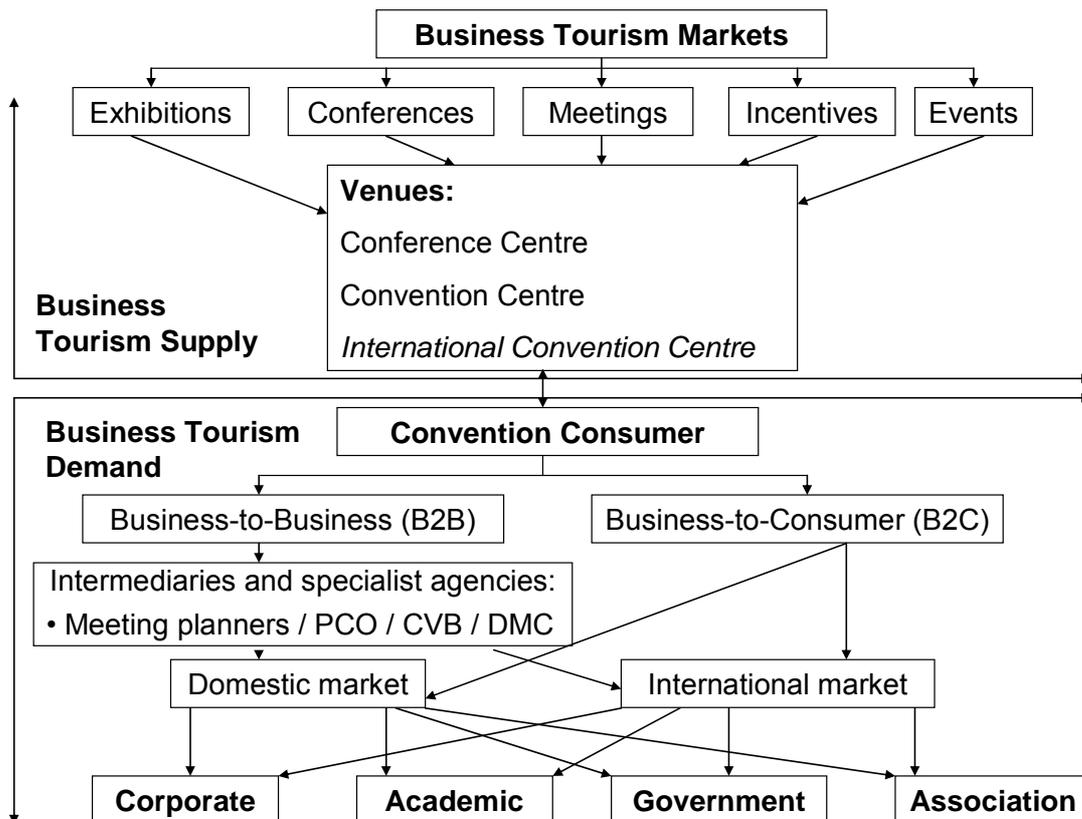
The professional development of business tourism is important and requires bodies and structures to monitor the function properly. Bodies include trade associations, i.e. MPI, trade media, i.e. Travel News Now (TNN), national tourism organisation, i.e. SAT, consultants, i.e. Grant Thornton and educational institutions, i.e. universities (Rogers, 2003:59-61; Tassiopoulos, 2005b:52-53).

To contextualise the research, Figure 2.4 above was used as a guideline to develop a framework for service quality research in business tourism. This framework is applied to an ICC and presented in paragraph 2.8.

## 2.8 A BUSINESS TOURISM MARKET FRAMEWORK

It is clear that a high degree of interdependency exists between the role players in business tourism. Swarbrooke and Horner (2001:7) have developed a structure of the business tourism and travel industry consisting of elements including the demand, intermediaries and supply as already discussed in Figure 2.4. This structure for business *Travel and Tourism* includes all the parties, i.e. transport operators and incentive travel agencies, involved in this sector. The demand element includes the consumers or customers in Figure 2.4, who will use the services offered in business tourism. Figure 2.5 illustrates the researcher's understanding of the interrelationship between supply and demand within the various target markets or sub-divisions in this complex industry for the measurement of service quality at the CSIR ICC. This figure and its relevance to this research are discussed in detail in this section.

**Figure 2.5: The business tourism market framework for the measurement of service quality at the CSIR ICC**



## **2.8.1 BUSINESS TOURISM SUPPLY AT AN ICC**

The application of “supply” in *Business Travel and Tourism* was discussed earlier. In this section the researcher will elaborate on the supply in business tourism focusing on applying it to an ICC. An [International] Convention Centre includes facilities and venues for conferences and exhibitions and can therefore be regarded as a supplier of services to the customers in business tourism (Gartrell, 1994:193-194). The business tourism markets are further sub-divided as indicated by the definition in paragraph 2.2.4, into: meetings, incentives, conferences and exhibitions/events.

For this research, meetings, conferences and exhibitions are discussed in more detail as these business tourism activities are the activities that are used for the data collection in the measurement of service quality at the CSIR ICC.

### **2.8.1.1 Meetings and conferences**

#### **a) Meetings**

Many authors have defined the term “meeting”. The researcher will examine a few definitions and conclude with a definition of her own.

- Davidson (1994) in Swarbrooke and Horner (2001:5) defines a meeting as “an organised event, which brings people together to discuss a topic of shared interest. It may be commercialised or non-commercialised which may be attended by six or many hundreds of delegates with a duration from a few hours to a week. What makes a meeting qualify as part of business tourism is that it engages some of the services of the tourism industry, and is usually held away from the premises of the organisation running it”.
- The WTO (1999:125) defines a meeting as “events designed to bring people together for the purpose of exchanging information. Meetings can be held on the premises at one of the companies or organisations that is convening the meeting, or off-premise at other sites, requiring the rental of meeting facilities. It is the off-premise meeting market that is of primary concern to the tourism industry”.

- A meeting is referred to as a small gathering of delegates where the term “conference” in the UK or “convention” in the USA is used to describe a large meeting (Swarbrooke & Horner, 2001:5).
- Tassiopoulos (2005b:14) refers to a meeting as a “generic term applicable to a group of people assembled for any purpose, and usually refers to a small private business event”.

The term “meetings” includes various types of events that differ in their size, subject matter and agenda. The criteria used to distinguish among the different types of meetings is not clear and is therefore used in terms of themselves to distinguish among the many different kinds of events that business tourism organisations host (WTO, 1999:126). For the purpose of this research a meeting is defined as a commercialised or non-commercialised event, which is a gathering of a smaller number of business tourists to discuss a topic of shared interest and to exchange information at a venue away from the organisation’s premises.

## **b) Conferences**

“A conference is a formal meeting or assembly for information, consultation and discussion purposes, sometimes also called a congress or convention” (Medlik, 2003:41). The use of the terminology such as “convention” and “conference” can be confusing in business tourism. In this study the researcher investigates the service quality dimensions at an ICC; therefore a definition of a “convention” will be discussed in more detail.

The British Tourist Authority (2003:6) published the following characteristics for conferences and meetings:

- More delegates attend conferences than corporate events;
- Corporate events, i.e. Standard Bank's Arts Festival, have a duration of 1.3 days and 40% of the attendees are residential;
- "Out-of-town" hotels, city centre hotels and residential conference centres are the top three venue types for the hosting of conferences and meetings;
- Venue choices are influenced by the location, price and access of the venue, quality of services are also indicated as a very important deciding factor; and
- The average lead time for an event is 5 months.

### **c) Convention**

Conventions refer to events that combine both meetings and expositions (WTO, 1999:128).

According to Davidson (2000), Gartrell (1994:31), Getz (1997), Lawson (1981), McCabe, Poole, Weeks and Leiper (2000); Swarbrooke and Horner (2001:5), a convention is a larger assembly of people from associations, organisations, a legislative body, social or economic group attending a general and formal meeting (Goldblatt & Nelson 2001:47) for action on a particular matter (Astroff & Abbey, 1998:58). Getz (1997) states that the delegates attending a convention will be either members of an organisation or must undergo a screening process in order to attend. At conventions, the parties involved, will provide information and formulate policies as well as select candidates for the office of a specific organisation or association (Davidson, 2000, Goldblatt & Nelson, 2001:47). McCabe *et al.* (2000) state that world-class exhibitions are incorporated at a convention with or without exhibits (Astroff & Abbey, 1998:58). A convention usually has a limited duration with set objectives and will not determine frequency of occurrence (Goldblatt & Nelson, 2001:47). Astroff and Abbey (1998:58) conclude that conventions involve a general session and supplementary smaller meetings.

Medlik (2003:44) further defines convention as a large meeting or assembly as commonly described by the USA when referring to an association meeting held on an annual basis.

Therefore, a convention can be summarised as:

- A large assembly of people from associations or organisations;
- Screening of members prior to attending a specific convention;
- Formed around a specific theme;
- Having a set of objectives where information is distributed with the aim to achieve the goals of the association;
- Incorporating world-class exhibitions;
- Usually of limited duration; and
- A term commonly described by the USA.

From the above definitions it is evident that “conferences” and “conventions” can be regarded as the same business tourism activity and therefore have the same characteristics.

#### **2.8.1.2 Exhibitions**

The WTO (1999:127) as well as Swarbrooke and Horner (2001:5) refer to the term “exhibition” as “exposition”. The WTO defines an exhibition as a “large event where vendors display and market their products or services to a contingent of potential clients and buyers [who] normally pay a fee to set up their displays”. Display fees are based on the size of the area the vendors require.

An exhibition is a presentation or display of products or services to an invited audience with the object of introducing a sale or informing the visitor. Exhibitions are considered part of the business tourism industry because they stimulate travel. During an exhibition a high level of demand for travel services, catering and accommodation are created by the invited audience (Davidson, 1994 as cited in Swarbrooke & Horner, 2003:5).

The aim of exhibitors is to attract attendees, to inform them of the product or service on display and to establish a contact that will hopefully lead to a sale (WTO, 1999:127). Although exhibitors differentiate between “consumer exhibitions” and “trade” exhibitions”, this research will not differentiate between the two and will view the exhibition market from a holistic perspective.

Key characteristics as identified by the British Tourist Authority (2003:17):

- Exhibitions tend to be annual and are normally held at the same venues every year, e.g. the INDABA Leisure Tourism Trade Show is hosted annually at the Durban ICC.
- The time slot for the hosting of an exhibition is critical for the success of the event, e.g. INDABA Leisure Tourism Trade Show is held at the beginning of May.
- The market conditions of the trade sector influence the choice of venue and the time of year to host the event.
- Rental and service cost, the capacity of the venue, location of the venue, contractual relationships with the venue and the venue accessibility are key factors that influence the choice of venue for the hosting of the exhibition.

### **2.8.1.3 Venues for the supply in business tourism**

A venue is the tangible product offering for the hosting of business tourism events (Rogers, 2003:46). The researcher aims to differentiate between the various concepts and aims to indicate the applicability of these terms on the convention consumer market, namely a conference centre, convention centre and the applicability of the ICC market in the South African context. Where applicable, the researcher will refer to trends in each market of these concepts. It is important to note that different authors interpret the concepts differently.

The researcher has already defined the concept of an “International Convention Centre” in paragraph 1.4.3 and will only refer to it in this discussion. However, in the literature the concept “convention centre” is more broadly used and will be elaborated on further. Other possible types of venues to consider for the measurement of the service quality dimensions are discussed below.

### **a) Conference Centre**

Astroff and Abbey (1998:58) formulate that conference centres are often located outside metropolitan areas and may provide extensive leisure facilities. The authors further elaborate that conference centres are designed facilities that provide an environment to facilitate and support meetings averaging 20 to 50 people. Four basic types can be distinguished:

- Conference centres/executive centres that feature on-site lodging, conference space and equipment, dining and accommodation.
- Resort Conference Centres that offer extensive recreational amenities in addition to regular conference facilities.
- Ancillary Conference Centres that are connected to one another (for example, to the wing, or the floor of a hotel / resort).
- Non-residential Conference Centres that do not offer accommodation (Astroff & Abbey, 1998: 23-24).

According to the WTO (1999:376) a conference centre refers to an establishment offering facilities for, i.e. congresses, conferences, courses, vocational training and mediation. The sleeping accommodation in these establishments is generally only available to participants of the specialised activities organised by the establishment. A conference centre is smaller than a convention centre and is more geared for the top management market that requires sophisticated audio-visual capabilities and quality amenities (WTO, 1999:132).

In South Africa the conference venue managers are optimistic (78%) with regard to an increase in the business level expectations according to a conference industry benchmark survey done in 2005 by Direct Access and Grant Thornton (Coertze, 2005:4-5).

### **b) Convention Centres**

The WTO (1999:131) is vague in their definition of a convention centre and refers to it as a “large facility that accommodates events”. The researcher has already defined an ICC in paragraph 1.4.3 and will therefore focus on the business strategies of a convention centre.

The convention business has experienced tremendous expansion since the early 1970s which has led to the building or expansion of cities' exhibit halls in the late 1980s. At the end of 1989 the US market had already accounted a total of 331 convention centres (Fenich, 1992:183).

Since September 11, 2001, the conference centre market (which can also be regarded as an ICC), specifically in Las Vegas (Nevada), Orlando (Florida) and Hawaii, in the USA has shifted its positioning towards the local and regional meeting market (Patten, 2002:10). As the USA is the top convention destination globally it is regarded as a convention market leader and can be used as benchmark for the identification of market trends (ICCA, 2005b:14). Other destinations have to adhere to these trends and need to focus on the marketing of their centres locally to remain sustainable.

In the above discussions it seems that the definitions of a “conference centre” and “convention centre” are similar. However the difference between the two definitions is based on the perspectives of a specific market. The concept “convention centre” is commonly used in the USA and is adapted to the context of this research where it is referred to as an “International Convention Centre”.

Convention centres can be regarded as part of the “intermediaries and specialist agencies” (paragraph 2.7.2.3) in the business travel market. Although the researcher acknowledges this categorisation, segmentation will only be discussed from a “supply” perspective for the purposes of this research.

### **c) The applicability of the ICC market in a South African context**

“South Africa is the first country to apply a grading scheme to its conference facilities” according to Rick Taylor, [former] head of SAT's Convention Bureau. The grading of conference facilities is a means of differentiating the standards of facilities and a service delivered and is an endorsement of the services offered. It serves as an effective marketing tool and allows the industry to benchmark the products available to the convention consumers (To be or not to be... graded, 2005:5).

Flexibility, reliability and the ability to accommodate expansion and renovations are the three main considerations that will affect the design for an international convention centre (Casey, Schmidt & Grinberg, 1994:34). Two of these considerations are essential in the measurement of the service quality dimensions, namely, flexibility and reliability. In terms of flexibility the centre must be able to host groups of various sizes; this need can be overcome by the incorporation of subdivided meeting rooms and exhibition spaces. Reliability means that no disturbance may occur during the meeting. Sufficient back-up mechanisms have to be in place to maintain all IT systems (Casey *et al.*, 1994:34).

According to Richard Joaquim, President and Chief Operating Officer (COO) of International Conference Resorts Inc, the correct personnel discipline and supporting organisations make modern conference facilities better facilities (than hotels) for business meetings. In order for conference centres to remain competitive they must constantly search for methods to improve their services offered to the clients (Forstenzer, 1988:81). The SERVQUAL model will support this statement through the measurement of the service quality dimensions in the convention consumer market.

## **2.8.2 BUSINESS TOURISM DEMAND AT AN ICC**

The demand for business travel and tourism was discussed earlier. The application of the “demand” factor’s application to the framework (Figure 2.5) for this research will be discussed below.

### **2.8.2.1 Convention consumer**

Convention consumers may include individuals, companies (public or private) or associations. These intermediaries or “middlemen” consist of specialists in business tourism including the commercial market (i.e., business travel agents, event management companies, exhibition companies and destination marketing and management agencies), which generate a commission from the services rendered to the suppliers.

Association businesses are also non-profit orientated, but may generate commission to cover expenses, and are divided into two sub-categories, namely professional organisations (i.e., government and agencies & trade unions and political parties) and voluntary associations (i.e., youth groups, voluntary and charitable bodies & religious groups) (Shone, 1998:22–27). These consumers will be discussed in the paragraphs below.

The “convention consumer” was defined in chapter 1. It is also important to indicate the role players for investigation in this research project. These role players are divided into four potential target markets, namely the corporate market, the academic market, the government market and the association markets as discussed in paragraph 2.8.4. It is noteworthy that all four of these markets can be investigated from a B2B market or a B2C market perspective. Figure 2.5 (refer to paragraph 2.8) further illustrates that the B2B market can use intermediaries and specialist agencies for negotiation between the suppliers, i.e. the CSIR ICC and the four potential target markets. The four potential markets can be sourced from the domestic or international business tourism markets. This research will focus on the service quality dimensions of the B2C market where the domestic convention consumer evaluates the service quality at the CSIR ICC. The researcher will discuss all four of these markets, as indicated in Figure 2.5 and further differentiate between the B2B tourism markets as well as the B2C markets within all four of the sub-market segments. Reference was made to these sub-market segments earlier in the research.

### **2.8.2.2 Specialised markets in the B2B tourism market**

In B2B markets, marketing places emphasis on the marketing of goods and services to individuals and organisations for purposes other than personal consumption (Lamb *et al.*, 2004:454). Studies of service quality in B2B markets are few and limited. Farley, Daniels and Pearl (1990 as cited in Metha & Durvasula, 1998:40) was the first study to address the measurement of service quality in B2B marketing by using the SERVQUAL model. The measurement of service quality in the B2B markets is complex due to the relationships between the service company with specific reference to this research project at the CSIR ICC, and the consumer company, i.e. the PCO, which involves many people. Service quality in B2C markets has the additional dimension of the corporate interaction applying to the customer and not just the supplier. One of the criticisms for using the SERVQUAL model in this market is its rigidity to identify service problems. Research has indicated that service quality studies in B2B markets can create ideas for consumer services, but that managers must acknowledge the need to change the organisational culture in tandem with the organisational development (Metha & Durvasula, 1998:52).

### **2.8.2.3 The components of the B2B tourism markets – intermediaries and specialist agencies**

The B2B tourism market has become highly specialised and important to the tourism industry. Well-established components have developed over the years, each with a different function and include: meeting planners, [international] convention centres, convention and visitors bureaus, event managers and destination management companies. Rogers (2003:50-58), Swarbrooke and Horner (2001:7) and Tassiopoulos (2005b:48-53) have already referred to these sectors as was discussed in paragraph 2.7.2.3 and Figure 2.4. These components can also be acknowledged as B2B markets, acting as intermediaries in the business tourism industry with specific relevance to an ICC. Although the majority of these markets are discussed, the statistics in the measurement of the service quality dimensions at an ICC will be collected, analysed and presented.

Service dimensions offered to the B2B consumers are normally 10% commission which is offered by the venue (Coertze, 2005:6) and this might be an indication of how important it is to retain the customers for a specific venue.

**a) Meeting planners / PCO**

The success of a meeting requires planning of logistical coordination and to oversee many different functional areas and activities. PCOs are often appointed to fulfil this overall responsibility. These professional meeting planners, better known as PCOs, can be an independent business performing service for client organisations, or employees at a large organisation that often host meetings (WTO, 1999:129).

In a joint research project by Direct Access and Grant Thornton (Coertze, 2005:2) it is evident that PCOs or the venues organise the business meetings on behalf of their clients. However the number of delegates and the type of organisation (i.e. government or private business) determines the use of an intermediary. During 2004, 41% of all meetings organised by PCOs in South Africa were business meetings, while the rest of the percentages were made up by the B2B markets.

Site or venue selection is a crucial part of the event planning process. PCOs have to design criteria for the event and match it with the realities of the ICC / meeting (WTO, 1999:130). It is important to compile and consult the proposed centres on the short list before the final decision on a venue is made. Isabel Bardinnet, developing executive director at the Palais des Congres de Paris emphasizes the importance by stating that “Centres can feel left out if a client goes to a PCO and a slight jealousy can appear on both sides”. She further states that this should not be the case because both sides are able to exchange knowledge of the event. There must be a win-win situation for centres, the PCO and the customer (A meeting of hearts and minds, 2005:16).

This research aims to measure the service quality dimensions as experienced by the PCO and whether these dimensions can be an indication of the “knowledge exchange” between the ICC and the PCO.

The PCO is one of the prominent B2B convention consumers in the ICC market. SAACI has established three “chapters”<sup>14</sup>, i.e. a conference and events chapter, a venue chapter; and a service chapter; for the accreditation of the members. The aim of these “chapters” is to enhance the professionalism in the industry as well as the credibility, awareness and regulation of each chapter (SAACI, 2006). A “chapter” specifically developed for event management, DMCs and exhibition organisers is the “conferencing and events chapter” (Sandras, 2005b). This “chapter” further differentiates between the levels of professionalism and divides the members into three categories, namely the SAACI Accredited Conference Organiser (SACO), the SAACI Accredited Professional Conference Organiser (SAPCO) and the SAACI Accredited International Professional Conference Organiser (SAIPCO) (SAACI, 2006).

Taylor (2005a:8) states that 86% of PCOs indicated that their first concern was the relevancy of the meeting agenda and content. Therefore an ICC can use this information to assist the planners with content development. The service quality dimensions will be an indication whether the CSIR ICC meets these challenges.

## **b) Convention and Visitors’ Bureaus**

The WTO (1999:130) refers to a Convention and Visitors Bureau (CVB) as a “non-profit organisation that promotes the destination area it represents, usually a city, to travel buyers”. It will facilitate a coordinated effort by business tourism suppliers, i.e. PCOs, to gain the business tourism buyer’s travel business, i.e. an International Conference for the city. Tassiopoulos (2005b:49) elaborates on the functions of the CVB and states that these are non-profit-making umbrella organisations that do not organise the events but that will assist business tourism companies with specific information and services to stage a successful event.

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<sup>14</sup> A “chapter” is a special interest group within SAACI to represent the issues and interests of individuals and organizations in the meetings, conference and events industry. (SAACI, 2006)

**c) Event managers**

According to the WTO (1999:132) an event manager can act as an intermediary between the ICC and the client. Polivka (1998:708 as cited in Tassipoulos, 2005b:33) defines an event manager as an individual whose job description is to organise, plan and execute events for individuals who meet for a common cause, whether it is for educational, recreational or motivational purposes or as an incentive to achieve objectives. Event managers enhance the professionalism of the event industry and can also act as PCOs who can apply to be graded by the SAACI.

**d) Destination Management Companies**

Destination Management Companies (DMCs) will play a key role in the marketing of business tourism initiatives. Astroff and Abbey (1998:58) define a DMC as a professional management company specialising in the design and delivery of convention events, activities, tours, staffing and transportation, utilising local knowledge, expertise and resources. There seems to be an overlap between services offered by a DMC, a PCO and a CVB (Tassiopoulos: 2005b:50), however this overlapping will not be investigated in this research as it does not comply with the research objectives.

**e) Previous studies in service quality in the B2B markets**

Previous research on service quality was done by Metha and Durvasula (1998:40), Pels, Brodie and Johnston (2004:368) as well as Woo and Ennew (2004:1178) within the field of marketing. Metha and Durvasula (1998:40) were the only authors who applied the SERVQUAL model to B2B marketing services measurement. The measurement of service quality through the SERVQUAL model amongst the B2B convention consumers will contribute to this lack of research as identified by Metha and Durvasula (1998:40).

#### **2.8.2.4 B2C markets in business tourism**

The B2C market involves the marketing when the supplier market distributes the products or service directly to the consumer (Alzola & Robaina, 2005:46; Weber, 1999:164). An example in business tourism is when the ICC delivers service directly to the delegates without interaction of the intermediary, i.e. the PCO. This research aims to establish whether the service quality dimensions at a venue, namely the CSIR ICC, will test in all these markets from a B2C market perspective. Although the research by Direct Access and Grant Thornton (Coertze, 2005:10) investigates the types of events including business meetings, association meetings, academic meetings, government/diplomatic meetings, business breakfasts/lunch/dinners, cocktail parties and launch events, research will only be conducted in the four previously mentioned market segments: association delegates, government delegates, academic delegates and corporate delegates. These segments are discussed in more detail in paragraph 2.8.4.

As discussed in paragraph 2.2.3 business tourism includes segments such as association conferences, corporate meetings, incentive travel, corporate events, outdoor events, business (or individual) travel, exhibitions and trade fairs (British Tourist Authority, 2003:5; Business Tourism Highest Yielding Sector, 2004:48; Rogers, 2003:20; Tourism Australia, 2005). For purposes of this research meetings, conventions and exhibitions as major markets to the ICC market will be investigated.

#### **2.8.3 INTERNATIONAL VS DOMESTIC BUSINESS TOURISM MARKET**

National and international delegates are evident in all market segments, it is therefore essential for a business tourism service provider, such as an ICC, to affiliate with a national or international organisation or association. Considering the SERVQUAL model, no research appears to have been done on the comparison of the measurement of service quality dimensions between the national and international consumers, associations or organisations (Keillor *et al.*, 2004:9), in particular at a service firm such as the CSIR ICC.

As business tourism platforms, these organisations create opportunities to network with one another in the global target audiences as well as the creation of professional development opportunities within the industry (Taylor 2005a:8). Hence this research will focus on the importance of the national and international convention consumer market in South Africa and how these two markets influence the business of an ICC from a B2B and a B2C point of view.

### **2.8.3.1 International business tourism market**

#### **a) International business tourism is growing**

International tourism is growing rapidly with almost 700 million international arrivals worldwide in 2000, with a total in tourism receipts of US\$476 billion. It is an overall increase of 4.5% since 1999. In the Tourism Vision 2020, the WTO forecasts a 1.6 billion international tourists arrivals worldwide with a total tourism spend of US\$2 trillion by 2020 (10 Year Tourism Review by TBCSA & DEAT, 2003:46)

At the 2005 ITB<sup>15</sup> in Berlin a dedicated area was provided for the business travel market with the introduction of the Business Travel Lounge. Davis Ruetz, The ITB Berlin project manager, stated that the aim was to provide for this lucrative market with the “level of attention it deserves” in the business tourism market (Thomson, 2005b).

#### **b) International business tourism to South Africa**

In South Africa the foreign business tourism market has since 2002-2003 shown an increase of visitation for business tourism activities from 6 to 7 days (South African Tourism, 2004c:36).

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<sup>15</sup> ITB Berlin is a prime business tourism exhibition in Germany along with a comprehensive congress programme and supporting events representing the entire product spectrum of the tourist industry (ITB Berlin, 2006)

In a press statement, Elzinga (2002:28) states that according to statistics measuring the spending patterns of international conference tourists, this market is regarded as high spenders who spend an average of ZAR1 450 per day during a conference and ZAR916 per day before and after the event. Elzinga is of the opinion that these figures are too conservative and believes that the figure should be increased to an average of at least ZAR2 000 per day. Taylor (2005a:8) adds that an increase of 3.7% was shown in the average daily rate (ADR) during 2004, with a 2.8 % forecasted for 2005 and a 2.7 % drop for 2007 respectively. Research by Grant Thornton (Tourism South African, 2000:92) indicates that 19% of foreign delegates bring an accompanying person and 39% of these delegates add a pre- or post-tour trip to their visit to South Africa.

In a press release, Taylor (2005a:8) states that the meetings industry in South Africa is still far too domestically focused, and confirms a few trends as identified by global research:

- It is expected that business travel will increase by 3.6% in 2005.
- Business travel in Europe is expected to grow during 2005. Europe is South Africa's core meetings market.
- More off-site meetings for corporate meeting planners (23%) and association meeting planners (16%) are expected for 2005.
- Another trend for the next three years is a reduction in the length of the meetings (21%) and to spend less money of the budget (18%).
- Pricing and value for money remain a competitive focus in the selling of any destination to the meeting market.

Recent research by Direct Access and Grant Thornton (Coertze. 2005:14) indicates that only 6.4% of all meetings organised by meeting planners in 2004 are international events, where an international event is defined as an "event where approximately 25% or more of all delegates are from outside of South Africa's borders".

**c) Challenges to South Africa as an international business tourism destination**

One of the challenges to the tourism industry in South Africa is the perception of South Africa as an “unsafe” destination for international travellers (WTTC, 2002:21). “Safety and security” remain a concern to the international tourist travelling to South Africa (SAT, DEAT & DTI, 2004d:66). It is thus evident that South Africa has to focus on the international market with regard to better safety and security. This research intends to indicate how an ICC can obtain the international business tourism market through the investigation of the service quality dimensions amongst the international convention consumers.

**2.8.3.2 Domestic business tourism market**

The domestic tourism campaign of SAT aims to promote a better understanding of the diverse cultural lifestyles that will contribute to tourism development and the harmonious living of the local communities. Since 2000 South African Tourism has invested a lot in domestic tourism with the theme “Preserve, Discover and Rediscover Your Country” (WTTC, 2002:37). The “Sho’t Left” campaign was launched in 2004 to support this initiative (South African Tourism, n.d. Take a Sho’t Left)

In South Africa business trips are mainly undertaken by males in the 25-49 age groups with an approximate equal proportion of black and white persons (10 Years Tourism Review by TBCSA & DEAT, 2003:29). This is in contrast to the global trend as identified by Davidson (2006) in paragraph 2.2.4, with the profile changing towards women and older delegates as conference attendees.

**a) The provinces' market share in business tourism**

The Gauteng Province is the economic hub of South Africa (Gauteng - South Africa's Golden Province, 2003:12-13, South African Tourism, 2001b:15; South African Tourism, 2004c:51; Tourism South Africa, 2000:81). As the smallest of the nine provinces in South Africa (Gauteng: SA's "Big Marula, 2005:24), Gauteng is the leading event destination in South Africa (Direct Access & Grant Thornton, 2005:1). Gauteng Province is the most visited province in the country and remains a popular province to host conferences (Conference Crazy, 2003). The most meeting planners (56%) in South Africa can also be found in this province. Meeting planners across the country have indicated that 61% of all events are organised in Gauteng. Second to Gauteng is the province of KwaZulu-Natal, followed by the Western Cape Province (Coertze, 2005:21).

During 2003, 12.8% of the total domestic spend was on business tourism (South African Tourism, 2004c:50) with the highest expenditures in Gauteng followed by Kwa-Zulu Natal and the Western Cape (South African Tourism, 2004c:51). Gauteng Province has indicated as having the highest "inter-provincial flow of business trips" during 2003, followed by KwaZulu-Natal (South African Tourism: 2004c:54). Currently Gauteng is ranked at the 10<sup>th</sup> position according to the ICCA top African Cities, with Cape Town in the 1<sup>st</sup> place, Durban is 2<sup>nd</sup> place, Johannesburg is fourth and Pretoria is in the 14<sup>th</sup> place (Couturier, 2006).

#### **2.8.4 THE FOUR TARGET MARKETS**

Before continuing with the discussion, is it necessary to refer to various authors' approaches to the possible target markets that attend business tourism activities at an international convention centre. The various concepts will be acknowledged and the applicability of it to this research will be indicated.

Taylor states (New National Convention Bureau Head Sets the Industry on Fire, 2004:12) that key target markets can be sourced from associations, corporate meeting events and government related conventions. Astroff and Abbey (1998:15) support these target markets and states that corporations, associations and non-profit organisations, hold meetings.

The economies of scale have indicated that the main target market for the CSIR ICC is events with delegate numbers of between 200 and 500 persons attending exhibitions, functions and break-away sessions. These types of events are indicated to be the most cost-effective for the running of an ICC such as the CSIR ICC (Cadle, 2004:2). The Diamond Auditorium is the largest venue at the CSIR ICC and can host 450 people, schoolroom style; the second biggest venue is the Ruby Auditorium that can host 136 people, schoolroom style per event (CSIR ICC, n.d.). It is thus evident from the venue capacity perspective that the CSR ICC can host events with delegate numbers of between 200 and 500 people.

The researcher justifies these markets by a recent study by Direct Access and Grant Thornton (2005:6-11) where the type of markets in which the research was conducted for PCOs were association, corporate, government and academic meetings with an average delegate size of between 50 and 399 delegates. Rogers (1998:33) and Tassiopoulus (2005b:39-53; 359) support the above identified markets.

These four target markets from the sub-groups are identified in Figure 2.5 (paragraph 2.8) and discussed below.

#### **2.8.4.1 The association market**

An “association” is “a group of people joined together for a common purpose” (Astroff & Abbey, 1998:81) and it is accounted that there are 9 000 international associations in the world with an expected rotation of meetings of 50% globally. Only 3% of meetings or associations are held in Africa (Siebert, 2004c).

Meetings held by associations are referred to as association meetings which “include activities of a variety of different types of groups, including social, military, educational, religious and fraternal organisations, often collectively referred to as “SMERF” (WTO, 1999:126). Rogers (2003:8-14) further differentiates between the national association meetings market and the international association meetings market.

A joint research project by Direct Access and Grant Thornton (Coertze, 2005:6;46) indicates that 35% of association meetings are organised by in-house association planners. It is further evident that meeting planners organise 15% of association meetings in South Africa of which the venues only indicate a 1% spin-off.

SAT refers to the association market as the “enablers” with characteristics such as:

- enabling personal/organisational growth and development;
- enabling custodians to help and council the industry;
- empowering people;
- challenging an establishment for a better world;
- being “cause” orientated; and
- being principled and responsible (Khumalo, 2005).

Mosola (2005) indicates that SAT’s strategy will be to focus on global and regional associations with a significant engagement by South Africa, together with senior representation on the management committees of these associations.

Rogers (1998:188) indicates that a “study is needed of the national association market in the UK to confirm the numbers of association by segment, by volume and the type of business to be placed, and by rotational pattern in site selection”.

This research will contribute to the need expressed by Rogers, as the targeted convention consumers (both from a B2B and a B2C perspective) will indicate the measurement of the service quality dimensions in this market segment as well as indicate the identified dimension measuring the strongest in this market. The SERVQUAL model will provide a framework for such an investigation at an ICC, specifically from a South African perspective, focusing on the CSIR ICC.

#### **2.8.4.2 The corporate / business meetings market**

The corporate or business meetings market appoints the corporate buyer to organise corporate events, i.e. annual general meetings, exhibitions, incentive travel events and team building events to name but a few. The budget for a corporate event per delegate in terms of the expenditure is usually higher in comparison with association events. Delegates are less price sensitive as the corporate company will cover the expenses of the corporate event on behalf of the delegate (Tassiopoulus, 2005b:41-43).

In the corporate market little research has been done to confirm that the corporate market is the largest demand generator with regard to income by the conference industry (Shone, 1998:22).

In a joint research project by Direct Access and Grant Thornton (Coertze, 2005:6; 46) it is indicated that 27% business breakfasts/ lunch or dinners and 23% of business meetings are organised through in-house association planners. It is further evident that 53% of business meetings are organised by corporate in-house planners. International events constitute 9% of the meeting planner business in contrast to the 2% spin-off received by venues in South Africa.

Mosola (2005) indicates that the strategy by SAT is to do business with international companies who have significant investment in South Africa. Corporate leaders are defined as the “leadership” which include, power and control, to be goal-orientated, seeking for distinction and accomplishment, prestige/status, quality seekers and self confidence (Khumalo, 2005).

The above information supports the measurement of the service quality dimensions in this market. The SERVQUAL model will indicate which one of the service quality dimensions measures the strongest in this market segment, both from a B2B and B2C perspective.

#### **2.8.4.3 The academic market**

Educational and training institutions encourage their workforce to attend conference and workshops for the gaining of more knowledge and to contribute towards the academic and research growth of their profession (Tassiopoulus, 2005b:52-53).

Direct Access and Grant Thornton (Coertze, 2005:6) indicate that the government department's in-house planners organise 30% of academic meetings, for example the Department of Education (DoE) organising an Educators Conference. The researcher aims to establish the market share of this market at the CSIR ICC and the measurement of the service quality dimensions through the SERVQUAL model.

#### **2.8.4.4 The government market**

Government buyers organise meetings / conferences and workshops for the local and regional government departments as well as the support service to government. Non-profit-making business tourism events are hosted as these delegates are in the service of the country and are spending the public funds (Tassiopoulus, 2005b: 45).

According to a statement made by the former chairperson of SAACI, Brian McDonald, this association aims to be at the forefront of business tourism. McDonald further states that one of the largest sectors of business tourism is the government parastatals and donor organisations (Tourism industry players prove to be busy BEEs, 2005:57).

Direct Access and Grant Thornton (Coertze, 2005:6) indicate that government in-house planners organise 60% of the government meetings, for example the Department of Foreign Affairs (DFA) organising an African Union (AU) Conference.

The CSIR ICC indicates that the government market is one of the biggest target markets (Cadle, 2005a:4), which will be justified in this study. The research aims to measure the strongest service quality dimension, through the SERVQUAL model, in this market from a B2B and a B2C point of view.

## **2.9. CONCLUSION**

In this chapter an overview was given of the business tourism industry globally and in South Africa. The tourism industry was discussed followed by a brief overview of the development of the business tourism industry in first world countries, i.e. Europe and as of America as well as in South Africa. The economic impact of the tourism industry is essential in this study and is highlighted. A business tourism framework for the measurement of service quality at the CSIR ICC was developed and benchmarked against a structure for the business travel and tourism market. The various subdivisions within the business tourism industry were defined and investigated. Evidence was provided on the importance of the research in business tourism and specifically at the CSIR ICC.

Chapter 3 will elaborate on the purpose of this research. Marketing literature will be adapted to contextualise the application of the SERVQUAL model as a service quality measurement instrument, against the background of the business tourism industry and specifically at the CSIR ICC.

## CHAPTER 3

### THE SERVICE QUALITY DIMENSIONS

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#### 3.1. INTRODUCTION

The focus of this chapter is to provide proof, based on previous research and existing data, of the importance of research on the service quality dimensions with specific application to an ICC. Service quality, together with the models for the measurement of service quality, is the main themes for this chapter. Service marketing places the development of service quality into perspective and notes the formulation of the various service quality models which has derived from various theories. It will also discuss the development of the SERVQUAL model, with specific reference to the service quality dimensions as associated with the work of Parasuraman, Zeithaml and Berry (1985; 1988). The question will be raised whether this form of measurement will help the marketing manager of an ICC to understand the nature and causes of satisfaction that arises from the convention consumer expectations and experiences.

This research will focus on the relevance of the various target markets, i.e. B2B and B2C markets. The service quality dimensions will be evaluated to indicate which of the dimensions will be applicable in the testing of service quality at an ICC. The importance of service quality depends on the nature of the job and the nature of the consumption experience at an ICC. However, not all service companies and industries are alike, nor are they faced the same strategic issues (Bitner, 1992:58). Therefore, the SERVQUAL model will be used to test the service quality dimensions at the CSIR ICC with the recognition of the different target markets.

The purpose of this chapter is twofold: (1) to place service marketing in the context of the research and (2) to describe the development of the SERVQUAL model as well as the other service quality measuring instruments and their potential applications.

## 3.2. MARKETING

### 3.2.1 MARKETING DEFINED

Marketing is one of the management functions in an organisation with the ability to develop a mix, including the firm's product, price, packaging and distribution, promotions and communications, people, programming as well as partnerships (Getz, 1997:251; Kotler, 2000:8; Swarbrooke & Horner, 2001:127; WTO, 1999:165-169). It has also been defined as strategies and involved activities of research, lending, integrating, planning and coordinating strategies (Astroff & Abbey, 1998:58; Getz, 1997:249; Goldblatt & Nelson 2001:120), to influence the customers to buy a product or services and to achieve the organisational goals (Getz, 1997:249; Kotler, 2000:8) or objectives (Middleton & Clarke, 2001:19-20). Marketing is the process via which a firm creates value customers (Getz, 1997:249) of the target market to build or maintain a competitive advantage (Getz, 1997:249) in order to establish and develop a long term customer relationship to satisfy the customer's needs (Kotler, 2000:8).

For the purpose of this research and in the context of business tourism, marketing is defined as:

- the ability to develop a mix, including the 8Ps<sup>16</sup>, or strategies;
- involving activities of research, planning, lending, integrating and coordinating strategies;
- influencing the consumers to buy a product or service to achieve the organisational goals and objectives;
- the process via which a firms, i.e. created value;
- for the clients and customers of the target market;
- the ability to build or maintain a competitive advantage;
- establishing and developing long term customer relationships; and
- to satisfy the customer's needs.

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<sup>16</sup> 8Ps are product, price, place, programming, people, partnerships, promotions and communication as well as packaging and distribution (Getz, 1997:251).

Swarbrooke and Horner (2001:127) list 7P's as product, price, place, promotion, people, process and physical evidence.

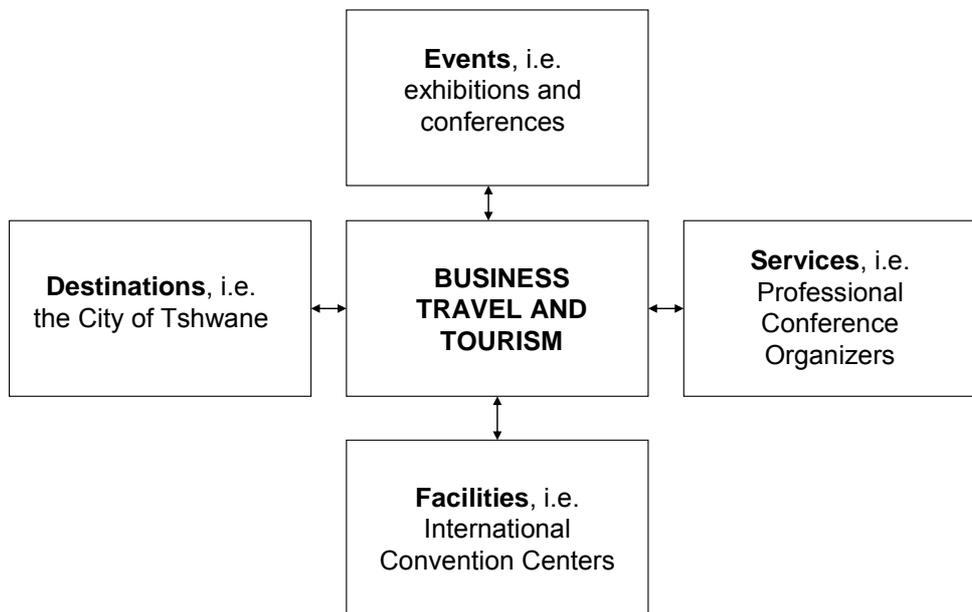
### 3.2.1.1 Marketing defined from a tourism perspective

Marketing from a tourism perspective includes aspects such as quality management, events marketing and marketing of business travel and tourism. It is evident from the above definition that organisations want to build long term relationships with the customers through the satisfaction of their “needs” and “wants”. Ryan (1999:268) acknowledges that poor quality tourism products are likely to elicit dissatisfaction from the tourists. He further highlights the importance of good service quality and its contribution to customer satisfaction in the tourism industry. However consumers and suppliers have identified a need for the creation of a platform against which they can measure good service quality to ensure that all the required standards are met. This has led to the development of the International Organisation for Standardisation (ISO) 9000 standards in the 1990s in Europe for better quality management for tangible products as well as services (Buttle, 1997:936). Casadesús *et al.* (2002:998) differentiate between two aspects of quality management, first is the introduction of the quality assurance systems and secondly, the setting up of models for overall quality management. Ryan (1996:148) incorporates a definition of quality with the ISO 9000 standards as “the total features and the characteristics of a product or service that bear on its ability to satisfy stated or implied needs”.

Getz (1997:250) defines events marketing as “the process of employing the marketing mix to attain organisational goals through creating value for clients and [convention consumers]. The organisation must adapt a marketing orientation that stresses the building of mutually beneficial relationships and the maintenance of a competitive advantage”. This definition is not the same as the definition corporations use to describe their marketing through the “sponsorship” or “production of events”, this definition is aimed at the marketing of events from a business tourism perspective through, i.e. an ICC.

Swarbrooke and Horner (2001:123) have identified the nature of marketing in business travel and tourism in terms of what is marketed, as illustrated in Figure 3.1.

**Figure 3.1: The nature of marketing in business travel and tourism**



(Adapted from Swarbrooke & Horner, 2001:123)

Considering the findings of Swarbrooke and Horner as depicted in the above figure, marketing of business travel and tourism can be done from four perspectives, namely events, services, destinations and facilities. The researcher has adapted this figure through the application of South African based examples to the perspectives in a business tourism context. The marketing of services, through the application of the SERVQUAL model, will be investigated at a facility, the CSIR ICC, during events, including meetings and conferences in the City of Tshwane.

Swarbrooke and Horner (2001:123) further acknowledge that marketing is a function of different types and sizes of organisations from B2B market to B2C markets as discussed in chapter 2. According to them marketing can focus on international, domestic or on both of these markets. Both of these markets are investigated in the measurement of the service quality dimensions at the CSIR ICC.

### 3.2.2 THE MARKETING MIX AND THE MARKETING MIX FOR EVENTS

Marketing will first be defined in terms of the marketing mix and marketing philosophies as indicated by the WTO (1999:160).

In paragraph 3.2.1.1 the researcher formulated a definition of business tourism marketing and referred to the basic marketing philosophies. Lamb *et al.* (2004:7) acknowledge the concept of “exchange” as one of the key terms in the marketing definition. Exchange is when a buyer, i.e. the PCO, is willing to “give up” money to get the products and services from the seller, i.e. the CSIR ICC. This exchange must be mutually beneficial and voluntary for the PCO (buyer) and the CSIR ICC (seller) otherwise the relationship will fail. Keegan, Moriarty, Duncan and Paliwoda (1995:xiv) state that “contemporary marketing is about building relationships. A product, service, brand, or corporation is successful only to the degree that it means something important to the people with whose lives it is linked”. Relationships are vital not only with the customers, but also with the suppliers and the stakeholders. In this research the focus will be on the relationship between the supplier, i.e. the CSIR ICC and the convention consumers, i.e. the delegates using the facilities of the CSIR ICC.

Keegan *et al.* (1995) refer to three principles of contemporary marketing, namely:

- the creation of customer value that is greater than that of the competitors;
- the creation of a competitive advantage through a more attractive “total offer”; and
- by focusing on the [convention consumer’s] needs and wants.

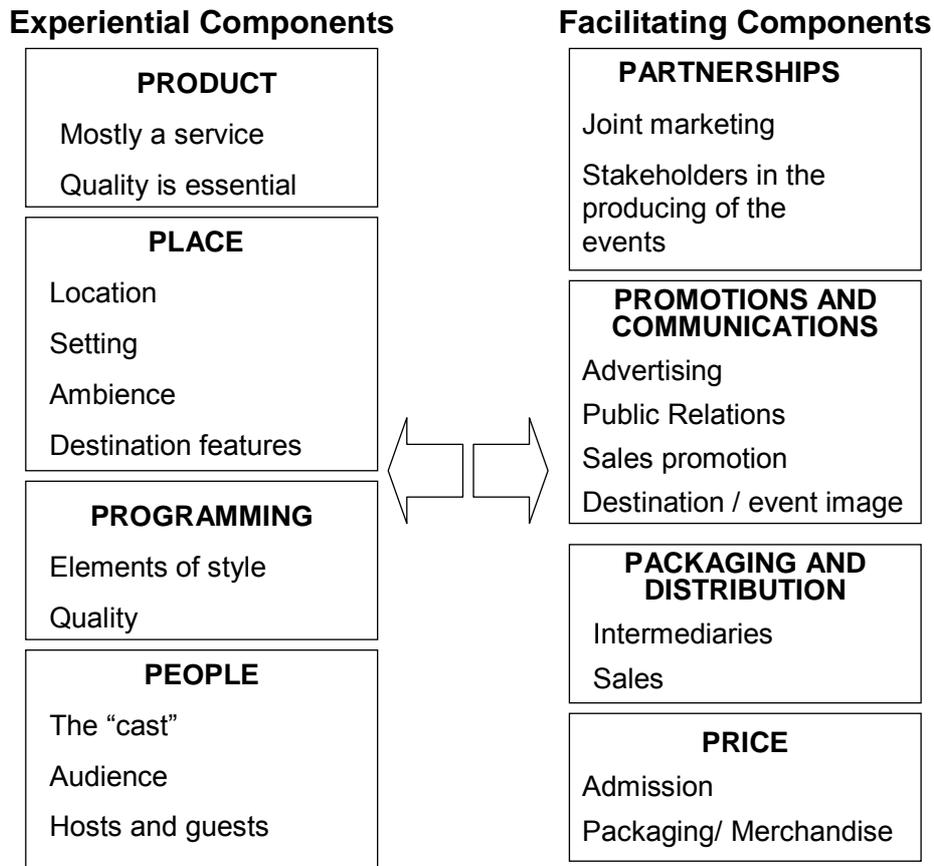
Meetings, conferences and workshops are business tourism events which are produced for commercial clients, i.e. associations. The producer, i.e. the PCO, of this type of event has a primary relationship with the end user, i.e. delegates attending an Old Mutual conference, and often views the end users as guests, rather than convention consumers. The principles in service quality management and customer satisfaction will be different from that of the supplier, i.e. the CSIR ICC and the end user, i.e. delegates attending an Old Mutual conference (Getz, 1997:250).

For this research the focus will be on the last mentioned service quality principle, namely the service quality management and customer satisfaction delivered by the supplier to the end user (or delegate), as well as that between the supplier and the producer (or intermediary) who organise the business tourism event.

Once the ICC management or marketing manager has selected the convention consumer target markets, a marketing strategy must be developed to meet the needs of each convention consumer market. This strategy will include factors such as timing, branding, packaging, pricing, channels of distribution, product, image, advertising, selling and public relations. The marketing mix consists of how the different factors are combined and grouped into four basic categories namely: product, place, price and promotion (WTO, 1999:165-166).

Getz (1997:250) adapts an additional 4 elements to the marketing mix from Morris (1995). According to Getz some marketing elements affect the convention consumer more directly in business tourism. Figure 3.2 illustrates the marketing mix for events and business tourism as adapted from Getz (1997:251) and indicated by the WTO (1999:165-169) and Swarbrooke and Horner (2001: 128-131).

**Figure 3.2: The marketing mix for events**



(Adapted from Getz, 1997:251)

Figure 3.2 classifies the components of the marketing mix as being “experiential” and “facilitating”. These elements will be discussed in the next section in the context of the figure.

### 3.2.2.1 Product

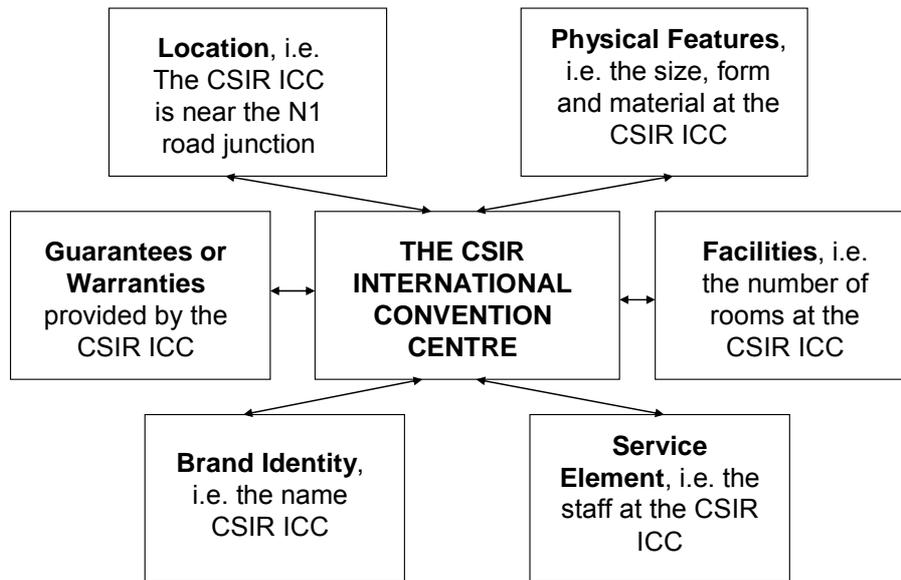
A product is regarded as one of the marketing mix elements with characteristics that include tangible and intangible aspects in order to satisfy the customers’ needs and wants. Most products have a service aspect attached to it (Jobber, 2004:260; Masterson & Pickton, 2004:192).

The tourism product includes the physical products and services, together with branding, packaging and planning and development (WTO, 1999:167). In the decision of the offering of a new tourism product the WTO (1999:167) suggests several criteria that must be met. In an attempt to contextualise these criteria in the specific CSIR ICC environment the researcher has adapted several of these criteria for example:

- There must be a sufficient demand for the convention product or service to generate a profit for the ICC.
- The new convention product or service offering must fit in with the overall image and mission of the ICC, i.e. the CSIR ICC intends to add an exhibition centre to the existing facilities that will be marketed as part of the ICC and be complemented by the same branding strategies.
- Sufficient resources should be available to offer the convention product or services, i.e. well trained employees. This outcome will be measured, as one of the service quality dimensions, through the SERVQUAL model at the CSIR ICC.
- The new convention product or service should contribute to the overall profit and growth of the ICC.

The convention product or service is what is offered to the convention consumer. Management hopes that the products and service provided will meet the needs and expectations of the convention consumer (WTO, 1999:160). Swarbrooke and Horner (2001:127) state that all business tourism products have a range of factors which constitute the ICC product as illustrated in Figure 3.3. The marketing of the ICC products involves the packaging of all these elements to create a satisfactory experience for the convention consumer. The “packaging” of the ICC products will be discussed in paragraph 3.2.2.5.

**Figure 3.3: The features of the ICC product**



(Adapted from Swarbrooke & Horner, 2001:128)

Figure 3.3 illustrates the different features of a product at an ICC as adapted from Swarbrooke and Horner (2001:128). These are the location of the CSIR ICC, the physical features, the facilities, guarantees or warranties, the brand identity and the service element.

In the measurement of the service quality at the CSIR ICC, the SERVQUAL model will address three of the six features, i.e. the physical features, the facilities and the service element, as the other features do not meet the requirement for the measurement of service quality. Getz (1997:251) cautions business tourism suppliers not to sell the event from a “product orientation” perspective, because suppliers have to consider the other marketing mix elements before the “total product” can be offered to satisfy all the needs and wants of the convention consumers.

Although the features identified in Figure 3.3 contribute towards the total product offering at an ICC.

Middleton and Clarke (2001:42) distinguish between the generic characteristics of a product through a comparison between goods and services as indicated in Table 3.1 below.

**Table 3.1: Goods vs services**

<b>Goods</b>	<b>Services</b>
<ul style="list-style-type: none"> <li>• Goods are manufactured</li> <li>• Made on the premises not normally open to the customers (separate)</li> <li>• Goods are delivered to places where customer live</li> <li>• Purchase conveys ownership and right to use at own convenience</li> <li>• Goods possess tangible attributes at the point of sale and can be inspected prior to sale</li> <li>• Stocks of product can be created and held for future sale</li> </ul>	<ul style="list-style-type: none"> <li>• Services are performed</li> <li>• Performed on the producer's premises, often with full customer participation (thus the service delivery and purchase process are inseparable)</li> <li>• Customers travel to places where the service is delivered</li> <li>• Purchase confers temporary right of access at a prearranged place and time</li> <li>• Service is intangible at the point of sale; it often cannot be inspected (other than "vitality")</li> <li>• Perishable: services cannot be inventoried but stocks of products can be held</li> </ul>

(Adapted from Middleton & Clarke, 2001:42)

From these characteristics the "products" provided by an ICC are better suited to those of "service" than those of "goods". Services are discussed in more detail in paragraph 3.3.

### **3.2.2.2 Promotion and communication**

Promotion is the communication with the goal to change the consumer's behaviour, specifically in terms of the purchase of the business tourism product, i.e. a venue at an ICC. The ICC's management has to set the objectives of the campaign, which are quantifiable, measurable, specific and attainable within a specified time frame (WTO, 1999:170).

Intense selling and promotion by die sales and marketing team of an ICC are needed to ensure the sufficient sales of the venues at the centre (WTO, 1999:160).

The promotional mix or marketing communication mix consists of different promotional “tools” for categorisation namely: advertising, personal selling, sales promotion and public relations (Getz, 1997:252; Swarbrooke & Horner, 2001:129-131; WTO, 1999:172). In business tourism the suppliers, i.e. the ICC, has to maintain a relationship, through the promotional mix activities, with the convention consumer on an ongoing basis.

### 3.2.2.3 Price and availability

The ICC management has to produce the service as effectively as possible to keep the costs low and the prices competitive to the convention consumer market. Today’s market is based on the concept of choice but with the challenge of keeping the cost as low as possible (WTO, 1999:160).

Setting of prices for the convention consumer market involves internal and external ICC considerations. The researcher has adapted the WTO’s (1999:168–169) internal and external pricing considerations for the convention consumer market to indicate the possible implications on the market, which are illustrated in Table 3.2.

**Table 3.2: Internal and external pricing considerations for the convention consumer market**

Internal factors	External factors
<ol style="list-style-type: none"> <li>1. How the new convention consumers perceive the quality of service relative to the competitors.</li> <li>2. The survival of the ICC during economic recession, over capacity and strong competition.</li> <li>3. Market share leadership for an ICC is based on the belief that the largest “player” in the convention market will result in long-term profit.</li> <li>4. Service quality leadership involves ICCs who aim to lead in terms of quality services by charging a higher price.</li> <li>5. Pricing of the services must be competitive and ensure sustainability of the ICC.</li> </ol>	<ol style="list-style-type: none"> <li>1. Trends in pricing often negate a price war amongst ICCs.</li> <li>2. The ICC should be aware of the convention consumer’s perception of service quality and the price they are prepared to pay for it.</li> <li>3. Competitor analysis in terms of price, benefits and features should be conducted on a regular basis.</li> </ol>

Table 3.2 indicates that the marketing manager at an ICC has to consider more internal pricing considerations than external pricing considerations. In the measurement of the service quality the SERVQUAL model does not make provision for the measurement of the expectations or experiences of the internal or external pricing considerations. The SERVQUAL model as a measurement instrument will be discussed later in paragraph 3.6.1 in this chapter.

#### **3.2.2.4 Place**

Place is referred to as one of the marketing mix elements. From a marketing mix perspective the “place” is the location and setting of the events or business tourism activity. It can also be linked to the “distribution” of the business tourism product. In this research the ICC will fulfil this need and address the various needs and wants according to the ambience, atmosphere, design and programming of the business tourism event. In Figure 3.2 a direct correlation can be seen between “place” and “packaging and distribution”. The choice of the distribution channel must be compatible with the other elements of the marketing mix. In the business tourism industry multi-level distribution systems or intermediaries, combining direct sales, sales promotions and personal selling are used to sell the “place”, i.e. the CSIR ICC (Swarbrooke & Horner, 2001:129; WTO, 1999:168).

#### **3.2.2.5 Packaging and distribution**

In the previous paragraph the close relationship between the “place” and “packaging and distribution” is emphasised. A “package” is any combination of elements offered for sale at a single price (Getz, 1997:252). Packaging aims to make the business tourism experience more attractive by lowering the price, maximising the convenience and providing “value added” extra features that would not be part of the initial experience. In the selling of these business tourism packages the distribution network becomes important. An example is when an ICC uses yield management to sell the venues during low seasons. Special discounts are included in these packages and sometimes it can be a joint marketing effort between the ICC and the destination or other business tourism suppliers to overcome seasonality problems.

### **3.2.2.6 Programming**

The “programming” element at the ICC is essential to the marketing of the facilities. Various “elements of style” are used to create a unique and attractive programme to enhance the service quality and the success of the event at the ICC (Getz, 1997:251).

The CSIR ICC is only supplying the venue for an event and has no control over the programme for each event. It is recognised that an unsuccessful programme will impact on the overall convention consumer’s experience but does not evaluate the service quality of the programme, due to the fact that the intermediaries, i.e. the PCO are directly responsible for the compilation and execution of the programme. However, this does not form part of the SERVQUAL measurement requirements as the SERVQUAL model does not make provision for the testing of the effects of an unsuccessful programme on the overall service quality experience at an ICC.

### **3.2.2.7 People**

Getz (1997:251-252) states that “people” as an integral part of the marketing mix. People at an ICC include the staff and the volunteers working at the facility. “Internal marketing” is essential in the development of teamwork and a customer orientation towards the convention consumers. The convention consumers are part of this element as an event cannot take place without them. “Interactive marketing” is when the staff, volunteers and convention consumers interact with each another during the business tourism event. Service quality dimensions will be interpreted from this perspective; however the SERVQUAL model will only be used in the measurement of the convention consumer’s service experience.

Service is very dependent on people as agents of the service delivery. People are prone to be inconsistent and have different needs all the time. In an attempt to solve the service quality problems, businesses, i.e. the CSIR ICC, are dealing with something far more complex, they are dealing with complexities of the human brain in the form of the staff’s attitude and behaviour as well as the complexities of the convention consumer’s perception (Kolb, 2005b:31).

People also refer to the influence of the human activities on the convention consumer's perceptions of service quality and their own satisfaction. Convention consumers can further influence the outcome of the other consumers' experience of service at an ICC. The behaviour of the convention delegates can enhance or be detracted from how other delegates experience the service at the CSIR ICC (Lamb *et al.*, 2004:441).

People may use their beliefs about the SERVQUAL model as a surrogate in forming beliefs about service quality and other attributes of services and/or people who work in the organisation, i.e. the CSIR ICC.

### **3.2.2.8 Partnerships**

“Joint marketing” initiatives demand the formation of partnerships in the business tourism (Getz, 1997:252). In the CSIR ICC context the sales team has to compile attractive packages to a specific target market, i.e. a government organisation, to host an international conference at the venue. With the promotion of an international conference the CSIR ICC has to be acknowledged as the host venue. This will be a joint marketing initiative because the CSIR ICC management team might decide to form a partnership with the government organisation and give them a special rate for the use of the facilities, based on the promotional value the venue will get from the conference.

### **3.2.3 OTHER SERVICE MARKETING MIXES**

Getz (1997:251), Swarbrooke and Horner (2001:127-131) as well as the WTO (1999: 160-167) have identified 8P's (Figure 3.2) for the marketing of events. The marketing mix theory for services further adds “process” and “physical evidence” as two additional elements to five of the 8P's, namely product, price, place, promotion, people (Lamb *et al.*, 2004:441-442; Swarbrooke & Horner, 2001:127-131). These two additional components will be discussed.

### **3.2.3.1 Process**

Process is all the activities, procedures and mechanisms involved in the producing and the delivering of the convention services at the ICC. Service process can be simple or complex standardised or customised which has to provide the convention consumer some form of evidence to judge the services (Lamb *et al.*, 2004:441-442; Swartbrooke & Horner, 2001:127-131).

### **3.2.3.2 Physical evidence**

Physical evidence includes the physical environment, i.e. the building in which a service is delivered as well as tangible components that facilitate the rendering or communication of the service. This physical environment is called the “servicescape” and will be discussed later (Lamb *et al.*, 2004:442; Swartbrooke & Horner, 2001:127-131).

## **3.2.4 OTHER MARKETING PHILOSOPHIES**

The WTO (1999:160-161) states that marketing philosophies have an influence on the marketing mix elements in tourism. The consumer demands and satisfaction as well as the consumer and society’s well-being in the context of their relevance to the measurement of service quality at the CSIR ICC will now be discussed.

### **3.2.4.1 Consumer demand and satisfaction**

An ICC must strive to respond to the convention consumer’s demands in order to create a competitive position in the convention market through their marketing activities. These efforts will require the ability to create and maintain customer satisfaction and to channel all activities of the CSIR ICC towards the successful delivery of convention goods and services as defined by the convention consumers to attain this at a profit. A successful ICC is one that can determine the wants and the needs of each target market by delivering convention products and services more effectively than its competitors (WTO, 1999:161).

#### **3.2.4.2 Consumer and the society's well-being**

This concept refers to the importance of maintaining the convention consumer's and society's well-being in the marketing equation and product decisions (WTO, 1999:161).

“Green tourism” is an aspect that addresses the society's well-being at a destination. Rogers (2003:24) states that business tourism has fewer negative impacts on the environment than, i.e. mass tourism. It is also easier to inform a group of delegates at an ICC about the local community to ensure an enjoyable stay by the delegate. However, business tourism does have negative impacts on the environment, i.e. business travellers take more business trips in a year and create a greater demand for transport and infrastructure development which can be problematic for the sustainable development at a destination.

This marketing philosophy can further be linked to one of the trends in business tourism where delegates are more socially conscious as explained in paragraph 2.2.5 (Davidson, 2006).

### **3.3. SERVICE**

Services are as old as the transactions and interactions between people and have been studied since the 1890s, when socialists examined service customer and service personnel in department stores through participation and observation (Pieters & Botschen, 1999:1).

### **3.3.1 SERVICE DEFINED**

Astroff and Abbey (1998:156) define a service as the repeat of visits by the convention consumers to the facility, i.e. the CSIR ICC, as the reward for good service. The authors further add that PCOs will mention good service first when they are asked about their requirements for a good meeting site. Kotler (2000:428) and Lamb *et al.* (2004:438) elaborate on the definition and add that services are deeds or performances that one part offers to the other or efforts that can not be physically possessed; therefore service marketing is one of the sub-disciplines of marketing.

Services are produced and consumed simultaneously. The consumer is in the “factory”, which often experiences the total service within the firm’s physical facility. This “factory” has a strong impact on the consumer’s perceptions of the service experience (Bitner, 1992:57).

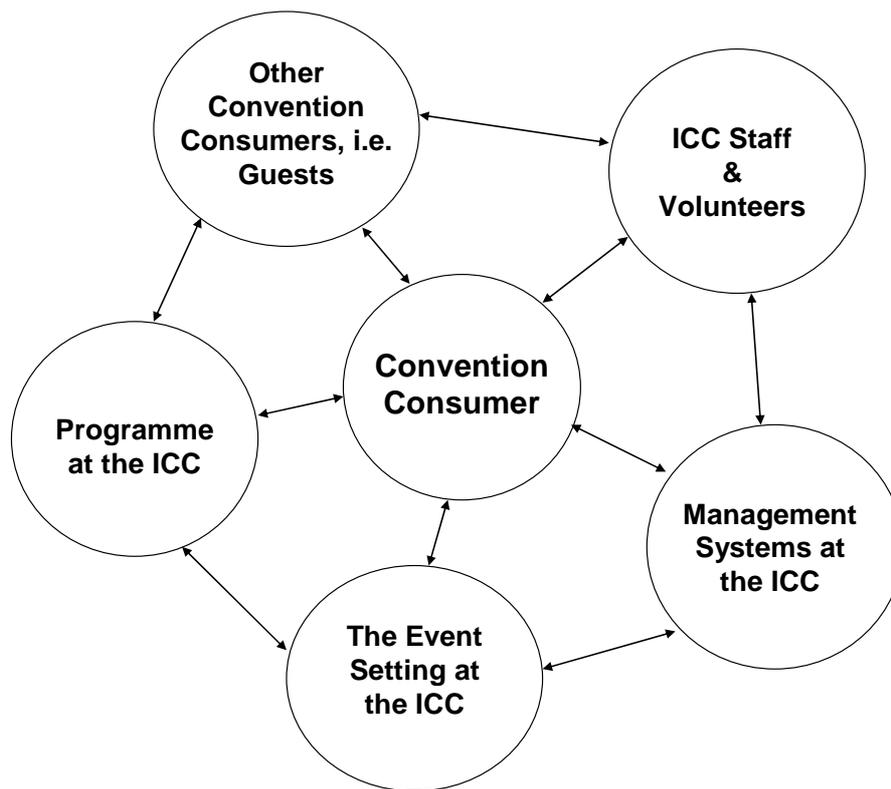
Bateson (1989:6 as cited in Getz, 1997:176) states that service is delivered as a bundle of benefits to the consumer through the experience that is created for that consumer at the ICC. The experience itself is created by a process that facilitates interaction between the consumers, i.e. delegates, and the organisation, i.e. the CSIR ICC, although only certain elements of the CSIR ICC, i.e. the service personnel, makes contact with the delegates. The consumers and their experiences are an integral part of the process.

### **3.3.2 SERVICE MANAGEMENT IN BUSINESS TOURISM**

Getz (1997:175) differentiates between “programme quality” and “service quality” from an event management perspective. The same principle can be applied to business tourism. At an ICC the “services” are produced and consumed simultaneously. Convention consumers are likely to think of a “service” as a tangible reception they receive at the ICC, especially the types of services they receive from the ICC staff, because these exchanges are intimate, personal and important to the entire experience.

“Service” is therefore a result of the interaction between the nature of the event at the ICC, the way it is managed and programmed, the interaction between the convention consumers and the staff, with the individual, i.e. receptionist, at the ICC (Getz, 1997:176). Figure 3.4 illustrates the interaction between the parties in ICC service management.

**Figure 3.4: The interaction in ICC service management**



(Adapted from Getz, 1997:176)

During the management of the services provided at an ICC, interaction takes place with other convention consumers, ICC staff and volunteers, the managements systems, the setting of the event at the ICC and the programme as illustrated by Figure 3.4. The convention consumer is central to all these interactions and will judge the quality of these service interactions.

The Institute of Management Consultancy (IMC) has conducted several perception studies on South Africa. The findings indicated that with regard to the “perceptions on tourism”, the standards of services in South Africa compare well with the rest of the world (10 Year Tourism Review by the TBCSA & DEAT, 2003:14).

The Tourism White Paper was produced by DEAT in 1996 as discussed in paragraph 2.4. This is a policy framework on the sector's development and promotion of tourism in South Africa. Poor services are one of the key constraints that are examined by the White Paper (10 Year Tourism Review by TBCSA & DEAT. 2003:16).

William Lubisi, Mpumalanga Minister of Economic Development and Planning stated that South Africa has a long way to go in perfecting the art of customer satisfaction (Sandras, 2005d). The measurement of service quality in the tourism industry, and specifically at an ICC, will guide tourism managers in the search for better customer satisfaction.

### **3.3.3 THE BUSINESS TOURISM INDUSTRY'S SERVICE CHARACTERISTICS**

The business tourism industry is primarily involved in the selling of convention services, i.e. strategic event planning, rather than a physical product, i.e. a book. It is essential to understand how these convention services are marketed and to understand the characteristics that are associated with it (WTO, 1999:161).

Four service characteristics are differentiated in service marketing, namely intangibility, inseparability, perishability and heterogeneity (Lamb *et al.*, 2004:439-440). However, the WTO (1999:162) has identified customer participation, perishability, convenience, labour and intangibility as service characteristics for the tourism industry. All of the mentioned characteristics will be discussed below. Reference will be made to Figure 3.1 to indicate how these characteristics influence business tourism.

#### **3.3.3.1 Intangibility**

Services cannot be seen, touched, tasted or felt in the same manner in which physical goods can be sensed, it cannot be stored and is difficult to duplicate (Grönroos, 1988:10; Kotler, 2000: 429; Lamb *et al.*, 2004:439).

Due to the intangibility of convention services these services cannot be easily measured to determine if the required standards are met. The service experience is judged by the convention consumer's perception and experience at the facility as indicated as "service" in Figures 3.1 and 3.2, "service element" in Figure 3.3 and "service management" in Figure 3.4. It is indicated that the same services might be evaluated differently by two or more different convention consumers (Parasuraman *et al.*, 1988:23; WTO, 1999:162). Due to the intangible nature of the services rendered at the CSIR ICC, the marketing of its services is more challenging than the physical products. However, this provides major marketing opportunities and challenges in the business tourism market. The researcher will use the SERVQUAL model to test the service quality dimensions amongst the convention consumer attending the same conference, meeting or workshop.

### **3.3.3.2 Inseparability**

Services are sold and produced at the same time and in the same place. Consumption and production are two inseparable activities and the convention consumer has to be present during the production of the services at the CSIR ICC as indicated in Figure 3.1 (Kotler, 2000: 431; Lamb *et al.*, 2004:440). This makes it impossible for the service provider at the facility, i.e. the CSIR ICC, to hide any quality pitfall (Lau, Akbar & Gun Fie, 2005:48).

### **3.3.3.3 Perishability**

Convention service offered at the CSIR ICC cannot be stored, warehoused or inventoried (Kotler, 2000: 432; Lamb *et al.*, 2004:440; WTO, 1999:162). An example is that if a venue, like the Diamond Hall at the CSIR ICC, was not sold on a specific day, the income of that specific venue on that specific day is lost forever.

#### **3.3.3.4 Heterogeneity**

Convention services tend to be less standardised and uniform than goods. Services are labour-intensive and production and consumption is inseparable because consistency and quality control are difficult to achieve (Lamb *et al.* 2004:440; O'Brien & Deans, 1996:33). Standardisation and training at the CSIR ICC help to increase the consistency and reliability of the service delivery in all the units, because the staff understands the requirements of the consumers and reacts in an appropriate manner (Ghobadian, Speller & Jones, 1994:44).

As indicated in Figure 3.1 service will be provided at the CSIR ICC (facility) during the event which can have an implication of different service experiences for each convention consumer group due to the rotation of staff members over different work schedules or days.

#### **3.3.3.5 Customer participation**

In business tourism the convention consumer participates in the “production” of the service. It is perceived that the more interaction between the CSIR ICC and the convention consumer, the more pleasurable the service experience ought to be to the convention consumer (WTO, 1999:162). Customer services are one of the key elements to gain and maintain consumers. From Figure 3.1 the assumption can be made that the more interaction that exists between the staff of the CSIR ICC and the delegates attending the event the more pleasurable the service experience will be.

### **3.3.3.6 Convenience**

Convention services must generally be provided where and when the convention consumer needs them at a specific time and location, i.e. at 10:30 at the CSIR ICC (WTO, 1999:162). Therefore the location is one of the key aspects in the convention centre market and must be a reachable distance from a major airport, accommodation establishments and entertainment facilities (WTO, 1999:131). Figure 3.1 indicates the importance of the destination in the marketing of the facilities to ensure the event will be enjoyed by all consumers.

### **3.3.3.7 Labour**

Because the face-to-face interaction and higher quality requirements of personal services between the CSIR ICC and the convention consumer, convention services tend to be more labour-intensive to render (WTO, 1999:162). This labour-intensiveness translates into higher levels of job creation in the business tourism industry (British Tourist Authority, 2003:5).

## **3.4. SERVICE MARKETING**

In the early 1970's the marketing of service (later referred to as "service marketing") started and was known as a separate area of marketing with concepts and models of its own geared by the typical characteristics of services (Gummerson, 1985:6). Palmer (2005:3) refers to service marketing as the "refining of marketing to allow the principles to be organised more effectively in the service sector". Service quality is a key characteristic of service marketing and will be discussed in the following section.

### **3.5. SERVICE QUALITY**

In the 1940s and 1950s service quality was analysed amongst jazz musicians, taxi drivers and striptease dancers. The pace, scope and focus of development were the only things that have changed in recent years (Pieters & Botschen, 1999:1).

#### **3.5.1 QUALITY**

It is important to define “quality”. The following section will report on the different definitions of “quality”. The ISO 8420 defines quality as “the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs.” Quality professionals simply refer to quality as “everything that makes a customer satisfied” (Harding, 2005:31). While Ryan (1996:148) states that quality is the total characteristics and features of a product or service that has a bearing on its ability to satisfy stated or implied needs.

Getz (1997:176) states that quality has many connotations, i.e. it is a mark of excellence, being the best, reliability or the equalling or exceeding of the expectations. Edosomwam (1993 as cited in Getz, 1997:176) identifies the following characteristics for “quality”:

- an error-free performance;
- the safe performance of activities, services and settings;
- promptness of service and on-time programming;
- efficient and effective performance of all services;
- the correct solution of problems, and
- courteous, reliable, and trustworthy behaviour.

### 3.5.2 SERVICE QUALITY DEFINED

A definition on service quality was presented in chapter 1 (paragraph 1.4.1.1) as the superiority of service delivery (Robinson, 1999:23) in how the customer's expectations are met (Hernon, 2001:1; Palmer, 2005:64; Robinson, 1999:23) through the interactivity between the customer and service provider (Hernon, 2001:1; Kassim & Bojei, 2002:845) in order to create customer satisfaction (Bitner, Booms & Tetreault, 1999 as cited in Kassim & Bojei, 2002:845). This section will discuss the application of the definition in the research.

In 1980 Oliver (as cited in Asubonteng *et al.*, 1996:64) predicts through his service quality theory that consumers will judge quality as "low" if performance does not meet their expectations and that quality will increase as the performance exceeds the expectations. The consumer's expectations serve as the foundation on which service quality will increase consumer satisfaction with the service provider. This behaviour will lead to the intention of the convention consumer to render the service more often.

The NSSM is well-known in Europe for their service management research and is supported by authors such as Berry, Parasuraman and Grönroos (Strandvik & Holmlund, 2000). In Scandinavia and Finland the NSSM did the most research in service marketing during the 1980s (Gummerson, 1985:6). This service research organisation differentiates between the effects of the "technical" and "functional" elements of the service encounter on the customers. Technical elements refer to the "physical good quality", whereas the functional (or process) elements refer to the models that include "service quality" and "servicescape" (Keillor *et al.* 2004:9, Lehtinen & Lehtinen 1982 in Kang & James, 2004:266).

Important criteria for the development of service quality models were already suggested in the early 1980's by Grönroos (1984:38-40), who proposed a multi-dimensional and multi-attribute construct for service quality consisting of three dimensions: (1) technical, (2) functional, and (3) image. "Image" is a filter in the service quality perceptions. For the purpose of this study the researcher will focus on the technical elements of the service encounter and its application to a service firm, such as an ICC. A reason for the choice of the technical element is to determine the "outcome" of the measurement of service quality at the CSIR ICC. There has been critique to the SERVQUAL model by Kang and James (2004:267) who stated that Parasuraman *et al.* (1985) neglected to measure the technical quality in the measurement of the service quality.

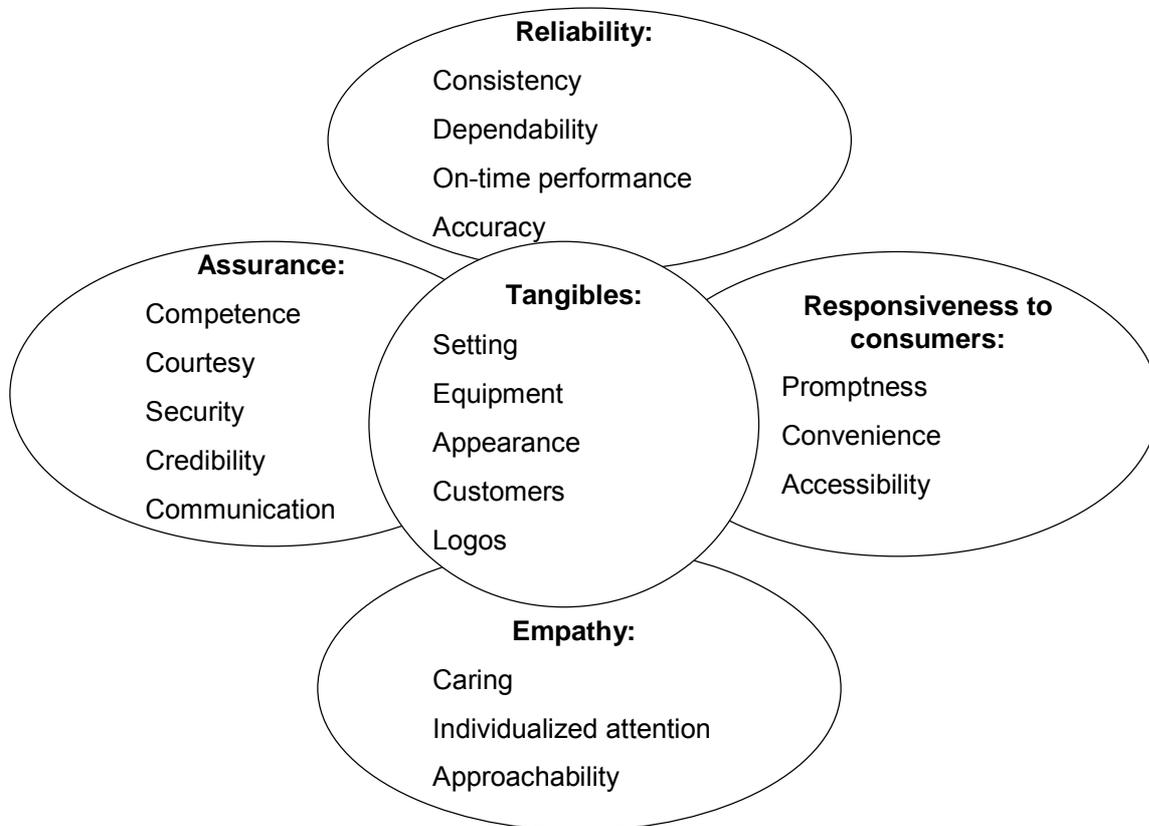
Swarbrooke and Horner (2001:137) state that every convention consumer has different needs and that the service quality and satisfaction will depend on the extent in which all these needs are satisfied. The convention consumer tends to be more demanding, knowledgeable and able to compare the products of competing organisations, i.e. with other ICCs across South Africa and the world.

It is important for the ICC managers to be familiar with the convention consumers and to consider their specific needs before they set the service quality standards. Quality has become a "trade-off" in "what is possible", "what the ICC can afford" and "what the convention consumer is willing to pay" (Getz, 1997:177).

In the 1970s and 1980s the product obsessed "Total Quality Management" (TQM) revolution questioned the necessity of marketing in an organisation. Parasuraman *et al.* (1985; 1988) introduced the SERVQUAL model as a solution for the measurement of service quality. This model measures the gap between the expected and perceived service levels as a solution to the expectations (Kolb, 2005:33).

Getz (1997:177) refers to the SERVQUAL model by Parasuraman *et al.* (1988) as a measurement instrument or service quality in events management. The author has also adapted the five service quality dimensions for event management. Unfortunately, no formal research has been published on Getz's assumptions. The researcher acknowledges that the service quality dimensions will influence how the event customers compare their perceptions of the experience with the expectations and derived satisfaction or dissatisfaction. The application of the service quality dimensions are illustrated in Figure 3.5.

**Figure 3.5: Dimensions of programmes and service quality for events (ICC)**



(Adapted from Parasuraman *et al.*, 1990 as cited in Getz, 1997:177)

Figure 3.5 depicts the five service quality dimensions, namely reliability, assurance, tangibles, responsiveness to consumers and empathy. All these service quality dimensions are represented by questions to test their validity and reliability. The researcher will use the SERVQUAL model to test the different service quality dimensions at an ICC, i.e. the CSIR ICC. All these service quality dimensions are discussed in paragraph 3.5.3.

Getz (1997:177) further identifies the following useful sources for service quality evaluation in event management, namely:

- convention customer reports on satisfaction, complaints, likes and dislikes;
- peer evaluation of staff and peers;
- self-report by staff and volunteers;
- objective measures and conformity to service procedures (by supervisors)
- objective measures of defects and problems and the number resolved effectively;
- subjective measures; and
- deviation from average, minimum, or maximum delivery and response time.

From Getz (1997) it is clear that service quality can be evaluated amongst the convention consumers as well as amongst the staff members and volunteers which justifies a 180° evaluation. In this research the researcher will only use the convention consumers for the measurement of service quality at the CSIR ICC.

Grönroos (1988:13) identifies six criteria for good perceived service quality. These are:

- **Professionalism and skills** are the realisation of the convention consumers that the ICC, its employees, operational systems and physical resources have the knowledge and skills required to solve their problems in a professional way.
- **Attitudes and behaviour** are when the convention consumers feel that the contact personnel, i.e. the sales team is concerned about them and is really interested in the solving of their problems.
- **Accessibility and flexibility** indicate the convention consumer's feeling that the ICC, its location, operating hours, employees and operational systems are designed and operated to easily gain access to the service and that they are flexible to the demands of the consumers.

- **Reliability and trustworthiness** give the convention consumers the peace of mind that whatever takes place or has been agreed upon, they can rely on the ICC, the employees and systems to keep promises and perform with the best interest of the consumers at heart.
- **Recovery** is the consumers' realisation that whenever something goes wrong the ICC will actively take corrective action.
- **Reputation and credibility** indicate the convention consumer's belief that the operations of the ICC can be trusted.

### 3.5.3 THE SERVICE QUALITY DIMENSIONS

The research tradition in service quality suggests that the perceived service experience and expectations can influence the convention consumers in several ways. Therefore the first step in the purposeful design of the SERVQUAL model is to identify the service quality dimensions. Once the service quality dimensions most likely to be influenced by the SERVQUAL model are identified, challenging questions emerge which are discussed in paragraph 3.6.5.

The five service quality dimensions are tangibles, reliability, responsiveness, assurance and empathy as identified in Figure 3.5. The researcher will discuss each of these dimensions in detail in the paragraphs below.

#### 3.5.3.1 Tangibles

Tangibility was already discussed as one of the service marketing characteristics in paragraph 3.3.3.1; however it is also classified as one of the service quality dimensions in the SERVQUAL model at i.e. the CSIR ICC (Kotler, 2000:440; Parasuraman *et al.*, 1988:23).

In the context of this research Getz (1997:178) suggests the following variables in the measurement of this service quality dimension in an event management environment:

- the appearance of all the venues and breakaway rooms, settings, equipment and personnel;
- appearances of logos and other physical representations of the CSIR ICC;
- physical accessibility (convenience, capacity) to the CSIR ICC;
- the hours of operation at the venue; and
- waiting times and conditions in the delivering of the service at the CSIR ICC.

### **3.5.3.2 Reliability**

Reliability is the ability to do what is promised (Kotler, 2000:440; Parasurman *et al.*, 1988:23) and is the dimension that represents the core of the service and is considered as the most important part of the organisation's, i.e. the CSIR ICC's, actions (Parasuraman *et al.*, 1991:424).

Variables to assist in the measurement of the service quality dimensions are as follows:

- absence of problems (getting it right the first time);
- to insist on the making of no mistakes in the records (of information, money handling, food service);
- running of programmes and service are on an agreed time;
- promises are honoured by the CSIR ICC;
- consistent in the treatment of all guests; and
- different standards of services are clear to patrons through the detailed communication (Bigné, Martínez, Miquel & Andreu, 2001:259; Getz, 1997:178).

### **3.5.3.3 Responsiveness to consumers**

The response capacity is measured through the willingness and determination of the CSIR ICC to help the convention consumers and to provide quick services (Alzola & Robaina, 2005:52; Kotler, 2000:440; Parasuraman, *et al.*, 1988:23).

Bigné *et al.* (2001:259) and Getz (1997:178) suggest the following variables in the measurement of these service quality dimensions:

- employees must get fast and efficient services for the CSIR ICC when they need or ask for it;
- employees at the CSIR ICC must return all calls and do follow-ups on all the requests from the convention consumers;
- the readiness of CSIR ICC staff/volunteers to give services and devote enough time to each convention consumer to answer questions;
- accessibility (CSIR ICC staff and assistance are there when the convention consumers need and want them); and
- CSIR ICC staff and volunteers work as a team and in a coordinated manner.

#### **3.5.3.4 Assurance**

Assurance or security is when the CSIR ICC recognises the training and knowledge by the employees and their ability to inspire trust and confidence in the convention consumers (Alzola & Robaina, 2005:52; Kotler, 2000:440; Parasuraman *et al.*, 1988:23).

The following variables assist in the measurement of the service quality dimensions, namely:

- the competence of the employees at the CSIR ICC (training of staff; supervision; display of skills and knowledge; appropriate information and tools are at hand to solve problems);
- CSIR ICC employees are constantly courteous to the convention consumers in the servicing of all;
- security (absence of real and perceived health; safety; and financial problems; confidentiality) at the CSIR ICC;
- credibility (honest and trustworthy staff; reputation of the event and organisers; customers' belief the organisers have the guest's best interest at heart) of the CSIR ICC; and
- communication at the CSIR ICC (listening to customers, accurate, understandable, and timely information; assuring guests that problems and queries will be handled effectively) (Bigné *et al.*, 2001:259; Getz, 1997:178).

### 3.5.3.5 Empathy

This is the individualised attention that the CSIR ICC offers to their clients (Alzola & Robaina, 2005:52; Kotler, 2000:440; Parasuraman, *et al.*, 1988:23).

Bigné *et al.* (2001:259) and Getz (1997:178) suggest the following variables in the measurement of this service quality dimensions:

- caring and personalised attention to the convention consumers (consumers feel cared for);
- individualised attention to the convention consumers (possible to a degree – vital for tour groups); and
- approachability of the CSIR ICC (that employees at the CSIR ICC will understand the specific needs of consumers when they ask for help).

Once these dimensions, as they exist in the convention consumers' minds, have been identified, the next step will be to determine the impact of these dimensions and not just the impact but the extent of it in every market segment of the convention consumer market (Kolb, 2005a:33).

### 3.5.4. THE IMPORTANCE OF SERVICE QUALITY

Kolb (2005c:29) states that the measurement of service quality (both internally and externally) provides the company with a holistic view of business performance. He further states that it is not only beneficial because of the greater amount of actionable management information, but also because of the changes it can inspire in organisational culture of a company like the CSIR ICC.

Business tourism companies are constantly seeking for ways to improve their competitive position and market share. A company can deliver a high service quality which appears to be a prerequisite for success. Figure 3.6 provides an overview of the development process of the SERVQUAL model and will be discussed in the following paragraph.

### **3.6. THE DEVELOPMENT OF THE SERVICE QUALITY THEORY**

Many researchers (Cronin & Taylor: 1992, 1994, Grönroos, 1984; Parasuraman *et al.*, 1985, 1988) have devoted considerable attention to the development and testing of models for the measurement of service quality. The literature addresses several models for service quality for example “SERVQUAL” (Parasuraman *et al.*, 1985, 1988), the “Servicescape” model as developed by Booms and Bitner (1981:39), SERVPERF (Cronin & Taylor: 1992, 1994) and the “Servuction” model (Eiglier & Langeard, 1987 in Palmer, 2005:82). These models will be discussed in the paragraphs below.

#### **3.6.1 SERVQUAL**

##### **3.6.1.1 History of the SERVQUAL model**

Prior to 1980, marketing researchers debated the question to what extent service marketing was different from the marketing of the fast moving consumer goods. Characteristics of services, namely heterogeneous, intangible and the presence of the seller, arise from these debates. The question was then turned in 1985 to the service encounters and more specifically service quality. Oliver (1981:25) gave more insight into this matter by indicating that the gap between consumer expectation and perception appeared to be an important concept in the measurement of the consumer’s satisfaction and service quality (Ryan, 1999:268-269). Parasuraman, Zeithaml and Berry published in 1985 the first statements of a SERVQUAL model and began with their dominance in the research of this field.

The SERVQUAL model was officially introduced in 1988 and encompassed several unexplored dimensions that lately attracted research attention in other disciplines, i.e. a department store, retail banking, public sector service and the telemarketing industry (Alzola & Robaina, 2005; Casadesús *et al.*, 2002; Jiang *et al.*, 2002; Kang *et al.*, 2002; Kassim & Bojei, 2002; Luk & Layton, 2002; Newman, 2001; Robinson, 1999; Wisniewski, 2001; Zhao *et al.*, 2002).

Chang and Yeh (2002); Erto and Vanacore (2002); Lau *et al.* (2005); Lennon and Mercer, (1994); Otto and Ritchie (1996); Sergio and Hudson (2006), Weiermair and Fucks (1999) as well as Witt and Muhlemann (1994) had paid attention to service quality research within the tourism industry, i.e. consumer services at a tourist information centre, domestic airlines and amongst hospitality industry employees to name a few.

Some of these unexplored service dimensions [gaps] in the SERVQUAL model appeared to be important and worthy of investigation in the context of a service firm, for example an ICC. Breiter and Milman (2006) had applied the importance-performance theory at a convention centre during an exhibition, however they did not use the SERVQUAL model as a service quality measurement instrument. They further only focused on the service priorities at the convention centre and to what extent the service elements were delivered by the convention centre and its related constituencies.

A more detailed investigation of these service elements is important for marketing managers at an ICC due to the niche target markets that attend meetings, conferences and exhibitions at the facility (Cadle, 2005b) as well as to the market share threat to an ICC due to the rapid development and expansion of similar facilities (Cadle: 2004:3).

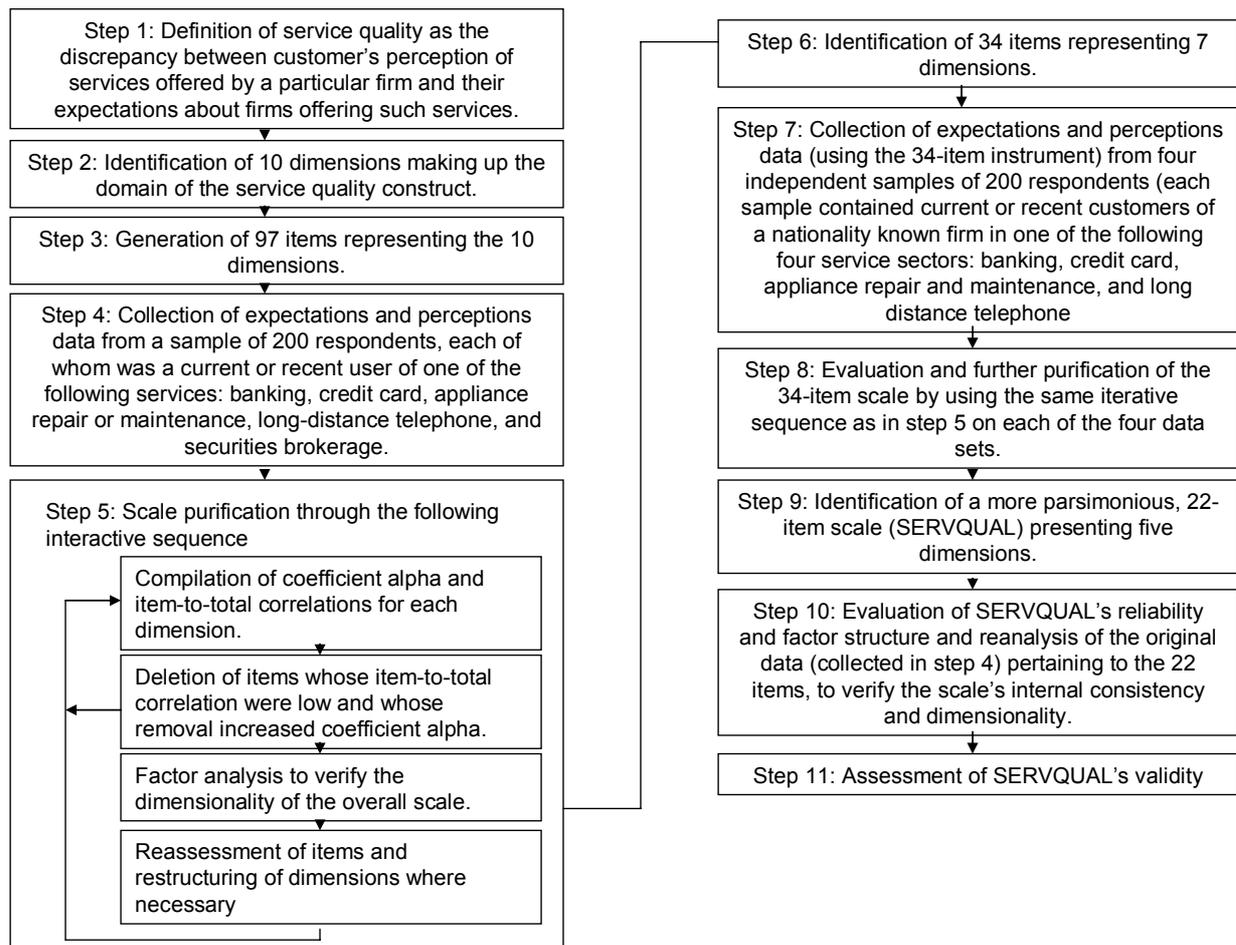
### **3.6.1.2 The SERVQUAL model**

SERVQUAL is a model of 22-item instruments for assessing consumer perceptions of service quality in a service organisation, i.e. the CSIR ICC (Parasuraman *et al.*, 1988). The remainder of this section summarises the development and application of the SERVQUAL model as formulated by Parasuraman *et al.* (1988:13-30).

Figure 3.6 summarises the steps for the development of the service quality scale. Section one delimits the domain of the service quality construct and describes the generation of the items as indicated in steps 1 and 2. Steps 4 to step 9 forms the second section and presents the data collection and scale-purification procedures. Section three (step 10) provides an evaluation of the scale's reliability and factor structure, step 11 deals with the assessment of the scale's validity and finally step 12 addresses the potential applications of the scale.

In this research the SERVQUAL model is used as developed by Parasuraman *et al.* (1988) and is applied to the CSIR ICC. The original 22-statements are adapted in the context of the CSIR ICC. Data analysis are done through a factor analysis for the identification of the different service quality dimensions. The 12 steps in Figure 3.6 are used as a guideline in this research. Chapters 4 and 5 discuss the research methodology and data analyses of this research.

**Figure 3.6: Summary of steps employed in developing the service quality scale**



(Parasuraman *et al.*, 1988:14)

The SERVQUAL model measures the construct of quality as conceptualised in the service literature. Perceived quality is the convention consumer's judgement about an ICC's overall excellence or superiority of the service. Academia further differentiates between service quality and satisfaction. Satisfaction is a "summary of the psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (Oliver, 1981:27), in other words the specific transaction.

Perceived service quality is a global judgement or attitude, relating to the superiority of the service. Therefore it is clear that these two constructs are related with the effect that the "incidents of satisfaction" result in perceptions of service quality over time. Service quality, as perceived by the convention consumers, stems from a comparison of what they feel the ICC should offer, i.e. from their expectations, with their perceptions of the performance of firms providing the services. Perceived service quality is the degree and direction of discrepancy between convention consumers' perceptions and the expectations. Expectations, as viewed from the service quality literature, are viewed as "desires" or "wants" of the convention consumer, i.e. what the delegate feel an ICC provider should offer in contrast to what an ICC would offer.

By isolating the impact of the SERVQUAL model on the service quality expectations and experience, the theoretical framework raises several challenging managerial implications. The overall conclusion is that through careful and creative management of the SERVQUAL model, ICCs may be able to contribute to the achievement of both external and internal organisational goals.

The business tourism market framework (Figure 2.5) and this theoretical framework (Figure 3.6) help to direct marketing managers to relevant issues and questions that should be asked in forming a SERVQUAL model strategy around the basic roles. ICCs can gain strategic insights by examining how the SERVQUAL model is designed and managed in other industries that indicate the same share of similar characteristics.

### **3.6.1.3 The generation of the scale items for the SERVQUAL model**

In the creation of the SERVQUAL model Parasuraman *et al.* (1988:17) identified 10 service-quality dimensions, which resulted in the generation of 97 items. These statements were recast into two statements, namely one to measure the expectation and the other to measure the perception about the service category within a specific firm. Nearly half the statements were worded positively and the other half were worded negatively and arranged in a seven-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree". The first half of the instrument grouped the "expectation" statements together and the corresponding "perception" statements formed the second half as applied in this research in Appendix E and F.

### **3.6.1.4 Data collection and scale purification**

Two stages of data collection and refinement were used for the creation of the final SERVQUAL model. The 97-instrument is subject to:

- Only to consider the instrument by retaining those items capable of discrimination across the respondents who had differing quality perceptions in the categories of the firms.
- Stage two involved the confirmation and re-evaluation of the scale's dimensionality and reliability through an analysis of the fresh data from four independent samples. More refinements also occurred during this stage (Parasuraman *et al.*, 1998:18).

These stages are discussed in more detail in the next sub paragraphs.

#### **a) Data collection for the first stage**

A sample of 200 respondents in a shopping mall was recruited for the refinement of the 97-item instrument. Respondents were further spread across five different service categories, namely appliance repair, retail banking, long-distance telephone, securities brokerage and credit cards. Qualified respondents had to complete the 97-statement questionnaire by first completing the perception part followed by the experience part.

**b) Scale purification, the first stage**

The 97-item instrument was refined by the analysed pool of data to produce a scale that is reliable and meaningful for general applicability. During refinement of the SERVQUAL model the 97-item scale were reduced to a 34-item scale which made up seven dimensions.

**c) Data Collection for the second stage**

Data for the 34-item scale was collected from four of the five different categories, excluding the securities brokerage. The four samples were analysed and indicated consistent results, with two main differences from the first stage findings and refined to a 22-item scale spread amongst the five dimensions namely, tangibles, reliability, responsiveness, assurance and empathy as discussed in paragraph 3.5.3.

**3.6.1.5 SERVQUAL model's reliability and factor structure**

The stable psychometric properties were indicated by the reliabilities and factor structure as indicated by the final 22-item scale and its five dimensions. Only the items that were relevant to all four of the service firms were retained. Therefore the SERVQUAL model could be used to present a form to assess and compare service quality across a wide variety of firms or units within a firm. When a single service was investigated an appropriate adaptation of the instrument might be desirable especially when the items under each of the five dimensions could be reworded to make them more germane to the context in which the instrument was used.

### **3.6.1.6 Assessment of the SERVQUAL model's validity**

The SERVQUAL model could be considered possessing content validity as well as the execution of an empirical assessment for the examination of the convergent validity. Lastly, the validity of SERVQUAL was further assessed through an examination of whether the measured construct was empirically associated with measures of other conceptually related variables. All of the above findings supported the SERVQUAL model's validity.

### **3.6.1.7 Applications of the SERVQUAL model**

Parasuraman *et al.* (1988:28-36) suggested the following applications of the SERVQUAL model:

- The SERVQUAL model was developed and aimed at retailer service providers to assist them to understand the service expectations and perceptions of the consumers to improve their services. The SERVQUAL model was a concise multiple-item model, which was reliable and valid and could be applied across a broad spectrum of services. This model could be adapted to meet the characteristics or research needs of a specific service firm, such as the CSIR ICC.
- SERVQUAL model was the most valuable when it was used together with other forms of service quality measurement to track the service quality trends. As no evidence could be found on the application of this model at an ICC it could be a valuable exercise to determine whether this model could be used for the measurement for service quality at an ICC. Should this SERVQUAL model be successful in the measurement of the service quality at an ICC, service quality trends could be identified as a guideline for the future success and marketability of the ICC. Employees, i.e. at the CSIR ICC, would indicate questions concerning the perceived impediments to better the service, i.e. what was the biggest problem they experienced to enhance the delivering of better services?
- Five service dimensions, namely tangible, assurance, reliability, responsiveness and empathy, could be assessed through the SERVQUAL model by arranging the different scores on items that makes up the dimensions.

- The relative importance of the influence of the five service quality dimensions on the consumer's overall quality perceptions could be measured through the SERVQUAL model.
- SERVQUAL model could be used in the categorisation of the service organisation's consumers into several perceived quality segments, i.e. low, medium and high consumers on the basis of their individual SERVQUAL model scores.

#### **3.6.1.8 The service quality gaps**

From the above discussion it is clear that service quality focuses on the interaction between the consumer, i.e. the delegate and the service provider, i.e. the CSIR ICC. It involves the evaluation of specific attributes and views expectations from the perspectives of the SERVQUAL model (Hernon, 2001:1, Zeithaml & Bitner, 2005:135). Five gaps reflect the discrepancy between:

- **Gap 1:** Consumers' expectations and management perceptions of these expectations.
- **Gap 2:** Management's perceptions of consumer's expectations and service quality specifications.
- **Gap 3:** Service quality specifications and the actual service delivery.
- **Gap 4:** Actual service delivery and what is communicated to consumers about it.
- **Gap 5:** Consumers' expected services and perceived service delivery (Hernon, 2001:1, Zeithaml & Bitner, 2005:531-539).

The fifth-gap is the basis of a consumer-orientated definition of service quality that examines the gap between the consumer's expectations for excellent service and the actual perceptions of the actual service delivered (Hernon, 2001:1). Although the SERVQUAL model measures all these gaps the researcher focuses on the measurement of the dimensions of this model.

In the last paragraphs to this chapter the researcher briefly describes other service quality models which are considered for the research. Where necessary these models are compared with the SERVQUAL model as a further motivation for the selection of the SERVQUAL model for this research at the CSIR ICC.

### **3.6.2 SERVUCTION MODEL**

The Servuction model (Eiglier & Langeard, 1987 in Palmer, 2005:82-83) suggests that an organisation provides the consumers with complex bundles of benefits on which their experiential aspects of the service consumption are based. These service features are divided into two parts, namely a visible (physical environment in which the service experience occurs) and an invisible (support infrastructure to support the visible part in the organisation) part. Servuction provides a framework that is generalised across service sectors and recognises explicitly the inseparability of the service production and is regarded as a structural model. Service experiences of customers are determined by content and process elements for a non-routinised service and in setting with many consumers, content and process elements becomes very important (Davies, Baron & Harris, 1999:47). Other consumers are also introduced to the model, with whom the original consumer may interact within the system, i.e. the convention consumers at an ICC, who contribute to the overall encounter. It is suggested to apply the Servuction model on services which involve high levels of input from fellow consumers or third-party producers. The researcher has decided against this model as the consumers have to choose their own bundle of benefits from the ICC which may have too much contradiction in the overall measurement of the service quality.

### 3.6.3 SERVICESCAPE MODEL

The Servicescape model explores the impact of the physical surroundings on the convention consumer's and ICC employees' behaviours and is developed by Booms and Bitner (Palmer, 2005:80). Booms and Bitner (1981:36) define Servicescape as the "environment in which the service is assembled and in which seller and consumer interact, combined with tangible commodities that facilitate performance or communication of the service," Servicescape facilitates the achievements of the organisation, i.e. the CSIR ICC and the marketing goals. Bitner (1992:57) further suggests the creation of an image for service businesses, i.e. a good image at a hotel may have an influence on the employees' satisfaction, productivity and motivation. Customer and employees' level of involvement determines whose needs are consulted in the design of the environment.

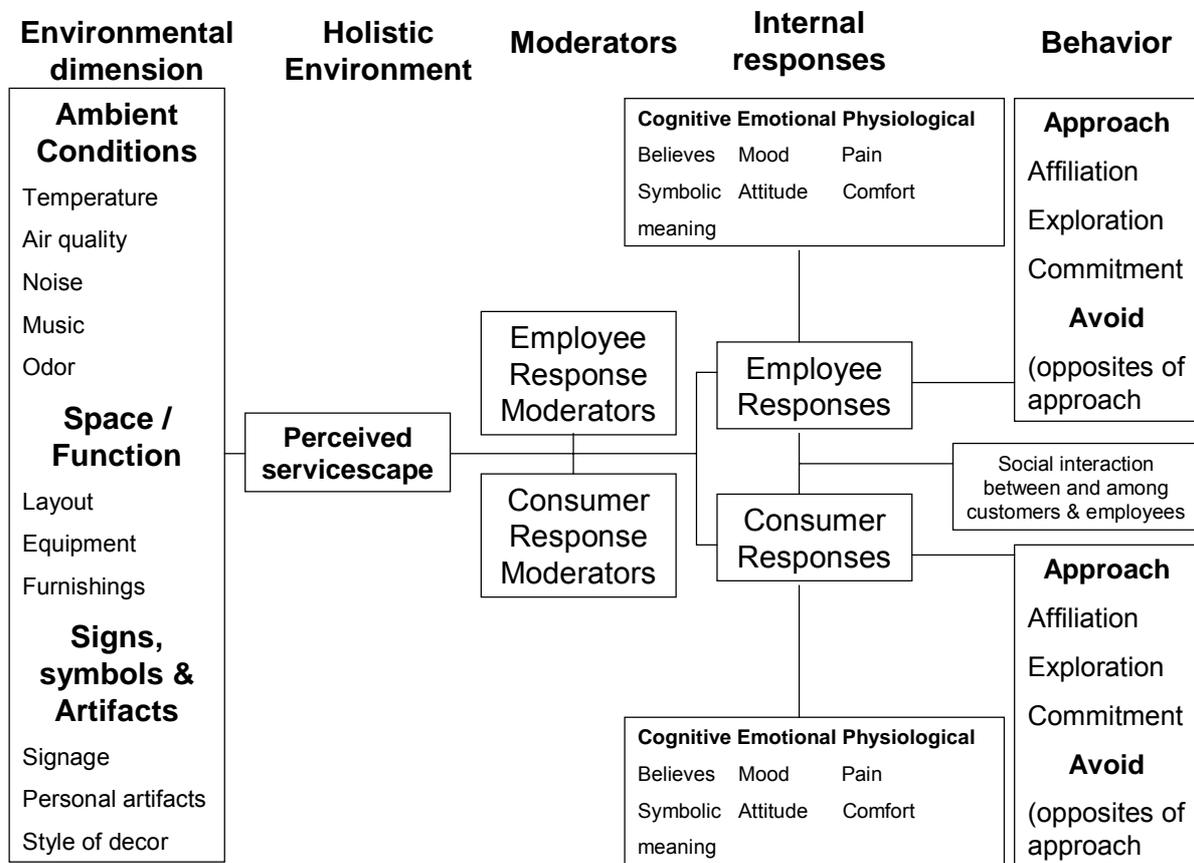
Special considerations are given to the physical environment on the nature and quality of the social interaction between and amongst the consumers and employees in the interpersonal Servicescape. Wakefield and Blodgett (1994:72-73) recommend that the service levels of consumers of leisure services are strongly influenced by perceptions of the Servicescape because so much time is spend at the facility.

The Servicescape typology suggests that a variety of objective environmental factors are perceived by both consumers and employees and that both groups may respond cognitively, emotionally and physiologically to the environment (Bitner, 1992:59).

### **3.6.3.1 The servicescape framework**

Figure 3.7 represents a framework that illustrates the role of the physical and symbolic Servicescapes. It is suggested that consumers and employees perceive a variety of physical and symbolic environmental stimuli. The ethnic identification moderates the relationship between the internal responses and the symbolic Servicescape in the framework. An assumption can be made to the extent to which the individuals identify with a specific ethnicity can affect the intensity of their responses to the symbolic Servicescape. Impacts may occur between the consumers and employees as well as their social interaction among each other as indicated in Figure 3.7. Limitations in the framework include that (1) not all commercial establishments comprises symbolic Servicescapes, (2) individual's response to a symbolic Servicescape is affected by the extent of their ethnic considerations (Bitner 1992:57-71).

**Figure 3.7: Framework for understanding environment-user relationships in service organisations**



(Adapted from Bitner, 1992:60)

Servicescape as a satisfaction model has been used in previous tourism related studies, i.e. the slot satisfaction in a Las Vegas hotel casino (Lucas, 2003:1), the role of the physical environment in service consumption at sporting events (Hightower, Brady & Baker, 2002:697) and the development of a framework for the understanding of a tourism service setting (Abubakar, 2002:17).

Only the study on the role of the physical environment in service consumption at sporting events by Hightower *et al.* (2002:697) indicates that each of the five variables theorised to influence the Servicescape satisfaction is significant under the imposed test parameters.

Consumers expect Servicescape to adhere to certain minimum requirements, i.e. hygiene, neatness, in the evaluation of the service delivery at the ICC. Other services, i.e. advertising do not have Servicescape and therefore this model is not used to measure the service quality at an ICC (Lamb *et al.*, 2004:442).

#### **3.6.4 SERVQUAL VS SERVICESCAPE**

A major point of difference between the “SERVQUAL instrument” and “Servicescape” is that SERVQUAL focuses on the consumer’s perception of service quality (Jiang *et al.*, 2002:145; Kassim & Bojei, 2002:845; Parasuraman *et al.*, 1985:42, 1988:15; Robinson, 1999:23; Wisniewski, 2001:381) where “Servicescape”, or the “facility itself” (Bitner 1992 in Wakefield & Blodgett, 1994:66; Cronin & Taylor, 1992, 1994) is the physical environment in which the service is delivered as discussed in section 3.6.3. (Baker & Cameron 1996 as cited in Keiilor *et al.*, 2004:9). Thus “SERVQUAL” plays a more important role in the measurement of the service quality at a service firm, i.e. an ICC, than “Servicescape” due to the five service quality dimensions: (1) tangible; (2) reliability; (3) responsiveness; (4) assurance and (5) empathy as identified by Parasuraman *et al.* (1988:23). These authors hypothesise that the dimensions are related to the discrepancy between consumers’ perceptions and their expectations. It is considered that perceived service quality, by consumers, stems from “a comparison of what customers feel the service firm, i.e. ICC, should offer with their perceptions of the performance of the firms, i.e. ICC, providing the service” (Kassim & Bojei, 2002:845).

### 3.6.5 CRITICISM ON THE SERVQUAL MODEL

Many scholars argue that SERVQUAL only reflects on the service delivery process (Kang & James, 2004:266) and does not address the service encounter outcomes (Grönroos, 1990 in Kang & James, 2004:268). In the early 1990's Cronin and Taylor (1992:55; 1994:125), Babakus and Boller (1992:253) as well as Carman (1990 as cited in Kang & James, 2004:267) criticised the SERVQUAL instrument due to the use of different scores, dimensionality, applicability and the lack of validity of the model with specific reference to the five dimensions.

Buttle (1994:10-11) elaborates more on the criticism towards the use of the SERVQUAL model by dividing the criticism into "theoretical" and "operational" criticism. In reaction to all the criticism Parasuraman *et al.* (1994:111) acknowledges the lack of consensus in the literature and defend their approach by making changes to the SERVQUAL model and by doing additional empirical research.

Although limitations exist in the measurement of service quality through the SERVQUAL model, it was decided to apply this model as it was originally developed by Parasuraman *et al.* (1985, 1988) at the CSIR ICC. The researcher acknowledges the abovementioned criticisms and will address these limitations, should they occur, in the recommendations and findings in chapter 6.

### **3.6.6 SERFPERF**

Based on the above criticism to the SERVQUAL model, Cronin and Taylor (1994:125) developed another service quality measurement model, namely SERFPERF. This model was the first to offer a theoretical justification for discarding the expectations proposition of the SERVQUAL model in favour of the performance measures included in the scale. “Performance-only measures” were only based on the consumer’s perception of the performance of a service provider, i.e. the CSIR ICC, as opposed to the discrepancy between the consumer’s performance perception and their performance expectations. Empirical evidence was reported that the SERFPERF instrument outperforms the disconfirmation-based SERVQUAL model (Brady *et al.*, 2002:17-18).

### **3.6.7 SERVICE QUALITY MODELS IN SOUTH AFRICA**

The South African Quality Institute (SAQI) is a national body for quality in South Africa, which was established in 1993. This institute believes that quality promotions should be in the hand of the private sector and not in coordinated by the South African Bureau of Standards (SABS) (Jansen, 2005:29; SAQI, 2005). One of the latest initiatives from this body is National Quality Week in November 2005.

According to Martin Jensen, chairperson of SAQI, the purpose of this initiative is “to create awareness of a quality culture and show how it can add value to any enterprise, whether the enterprise is in the public or private sector, a small, medium and micro enterprise (SMME), a school or a community”. Jansen (2005:30) further highlights that “quality” can create jobs and help alleviate poverty at national level and make the South African exports more competitive abroad.

Service quality in South Africa, in general, has made very definite gains since the early years of this decade; however it seems to be reaching its high point (Kolb, 2005b:32).

### **3.6.8 SERVQUAL MODEL APPLICATION IN SOUTH AFRICAN RESEARCH**

As stated earlier the SERVQUAL model is a popular service quality measurement instrument in many industries. In South African research using the SERVQUAL model is limited. Du Plessis (1997), Van der Wal, Pampallis and Bond (2002), Berndt (2006), De Jager and Du Toit (2006) as well as Kgaile and Morris (2006) have used the SERVQUAL model for research in a cellular telecommunications company, a dealership, public health care as well as in education.

### **3.7 CONCLUSION**

Marketing management in the context of business tourism was discussed in this chapter. The literature addressed the characteristics of services and the application thereof in the business tourism environment. The researcher investigated the different service quality measurement models and motivated the choice of the SERVQUAL model for this research. The SERVQUAL model had a variety of applications and assists the marketing managers at organisations, i.e. at an ICC to assess the consumer's expectations about the perceptions and expectations of the service quality. Areas requiring managerial attentions and action can be pinpointed by this model. The chapter concluded with criticisms from academia on the SERVQUAL model which were addressed as well as the different service quality models in South African.

In the next chapter the research methodology will be discussed. A research design (Figure 4.1) illustrates the researcher's understanding of the research process in eight phases. The first seven phases from Figure 4.1 will be discussed in detail.

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

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#### **4.1 INTRODUCTION**

In this chapter the research methodology and research procedures used to conduct the research are discussed. Empirical research in this study analyses the service quality dimensions among the convention consumers at the CSIR ICC. A census among the convention consumers at the CSIR ICC was done through a service quality measurement instrument, namely the SERVQUAL model. This service quality model was selected as it has been used in research for the measurement of service quality in other sectors of the tourism industry (Ryan, 1999:267–281), although not in the business tourism context. The first part of the research was carried out at the CSIR ICC, from 8 September 2005 to 1 November 2005, amongst B2C convention consumers. An example of delegates who attended a meeting for Old Mutual on 15 October 2005 is indicated in Table 4.5. This is an example of a B2C group used in this research at the CSIR ICC. The second part of the survey was conducted amongst the B2B convention consumers i.e., PCOs who organised a conference or meeting at the CSIR ICC, through an e-mailed questionnaire from 8 September to 1 November 2005. These B2B convention consumers have been using the CSIR ICC's service since 2003.

#### **4.2 THEORETICAL EXPLANATION**

Following is a brief explanation of the different components and concepts used in the research process, namely empirical research, concepts and research propositions.

#### **4.2.1 EMPIRICAL RESEARCH**

During an empirical study subjective beliefs are tested against objective reality where research opens the findings to further testing (Cooper & Schindler, 2003:13). Deductive reasoning was used to prove that the SERVQUAL model can be used in the measurement of service quality at an ICC. The research objectives tested are able to explain the use of the SERVQUAL model and to identify the service quality dimensions (Cooper & Schindler, 2003:36-38).

#### **4.2.2 CONCEPTS**

A concept is “a generally accepted collection of meanings or characteristics associated with events, objects, conditions, situation and behaviours” (Cooper & Schindler, 2003:41). The SERVQUAL model developed by Parasuraman *et al.* (1985; 1988) is the main source for the testing of the concept in this research. This model is adapted from service marketing literature and tested within a business tourism context, specifically an ICC. The research dilemma is formulated through the use of the different concepts to be investigated, namely service quality model, B2B convention consumer, B2C convention consumer, the CSIR ICC and the SERVQUAL model. A construct is “an image or an idea specifically invented for a given research and/or theory building purpose” (Cooper & Schindler, 2003:43). The construct used in this research is “service quality”. This construct is clearly identifiable in the title of the thesis.

The researcher used “operational definitions”, as indicated in Table 1.3 and Table 1.4 in chapter 1, to define certain concepts in terms of the proposed study. These definitions are highly abstract as proof of the characteristics as given by business tourism academia and experts i.e., Joe Goldblad and Julia Silvers, and how they should be interpreted in terms of this research (Cooper & Schindler, 2003:45).

### 4.2.3 RESEARCH OBJECTIVES

Research objectives address the purpose for the investigation into the measurement of service quality amongst the convention consumers. These objectives flow directly from the problem statement as defined in chapter 1 (Cooper & Schindler, 2003:101). The research objectives for this research are:

- To apply the SERVQUAL model as developed by Parasuraman *et al.* (1985, 1988) in a South African convention consumer context, specifically by applying the five service dimensions to the CSIR ICC.
- To determine and compare convention consumer's perceptions of the five service dimensions at the CSIR ICC.
- To determine and compare how convention consumer's respondent group's perceptions of the service dimensions correlate with the overall technical quality of the service at the CSIR ICC.
- To identify the dimensions that determine the convention consumer's evaluation of service quality at the CSIR ICC.
- To compare the interrelationships among the convention customers' service quality dimensions amongst four convention consumer market segments, namely association, academic, corporate and government groups, at the CSIR ICC.

### 4.3 RESEARCH DESIGN

The research design is the "blueprint" for the measurement of the collected data. An exploratory study guides a researcher to identify objectives for future research (Cooper & Schindler, 2003:146) as in the case with research by Cronin and Taylor (1992, 1994), Grönroos (1984) and Parasuraman *et al.* (1985, 1988).

Table 1.5 in chapter 1 summarised the research design for this research. The researcher elaborates on the discussion of the descriptors in this table and renames it to Table 4.1 in this chapter.

**Table 4.1: Seven different descriptors in the classification of the research design**

DESCRIPTORS	APPLICATION TO THE STUDY	THEORY
Design classification	Exploratory	The proposed study is a pilot survey to test whether the SERVQUAL model is applicable in the testing of service quality at an ICC and to develop propositions for further research.
Method of data collection	Communication based	Responses will be collected by personal and impersonal means. Self administered questionnaires were left in convenient locations at the CSIR ICC for data collection amongst the B2C respondents or distributed electronically to the B2B consumers.
Purpose of the study	Descriptive	The researcher tries to explain the gaps between the “experiences” and “expectations” of the convention consumers at the CSIR ICC. According to the SERVQUAL model the “gap” between these two relationships will measure the service quality at the CSIR ICC.
Time dimension	Cross-sectional survey	This study will only be done once and will give the perspectives of the findings at one point in time, i.e. the service quality expectations and experiences from 8 September 2005 to 1 November 2005. Although the B2B respondents had exposure of the CSIR ICC’s service quality since 2003 the measurement of these expectations and experiences are only measured during the above-mentioned time period.
Topical scope	Statistical study	The propositions are quantitatively tested. The attempt is to capture the convention consumer’s “experiences” and “expectations” in service quality at the CSIR ICC. Generalisations about findings are presented based on the representation of the four convention consumer sub-groups, namely academia, associations, corporate and government as well as the validity of the SERVQUAL model in the business tourism context.
Research environment	Field setting	The survey is done at the CSIR ICC under actual service delivery conditions amongst the B2C convention consumer respondents. Data are collected through electronic questionnaires for the B2B respondents who were exposed to the service of the CSIR ICC since 2003.

DESCRIPTORS	APPLICATION TO THE STUDY	THEORY
The power of the researcher to produce effects in the variables	Ex post facto	The researcher has no control over the variables or is able to manipulate it. Reports are only on what has happened in the testing of the service quality by the use of the SERVQUAL model. The 22-statements of the questionnaire are adapted to the CSIR ICC but the factors in the statements remain constant.

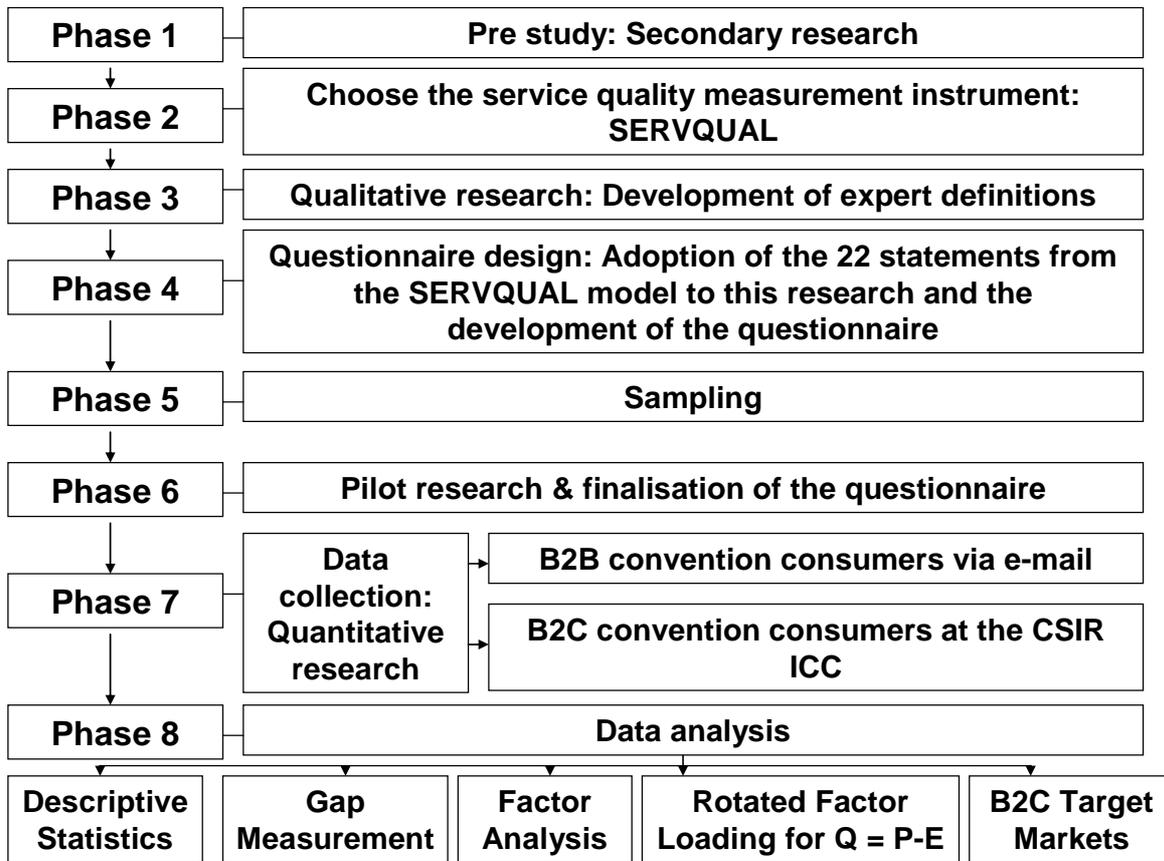
(Adapted from Cant *et al.*, 2003:31–35; Cooper & Schindler, 2003:146-171; Mouton, 2001:152–153)

#### 4.3.1 THE “BLUEPRINT” OF THIS RESEARCH

The researcher has always been interested in the business tourism industry and the level of service quality expectations by this market, whether it was from a B2B or from a B2C perspective. This interest has led to the desire to test service quality expectations and experiences within this market. Desk research guided the researcher in her exploration of two disciplines that are linked to one another: business tourism and service marketing.

This research design or blueprint consists of eight phases and is illustrated in Figure 4.1. Figure 3.6 was used as a guideline for the composition of Figure 4.1 and is in an illustration of the researcher’s understanding of Parasuraman *et al.*’s development and application of the SERVQUAL model.

Figure 4.1: Blueprint for the research on service quality at the CSIR ICC



#### 4.3.1.1 Phase 1 - Pre study: Secondary research

The pre-study consists of the collection of primary and secondary data. Secondary data is data recorded in previous studies and is discussed in the literature review. In the survey method the collection of primary data will be discussed in detail (Cooper & Schindler, 2003:87; Willemse, 2004:9).

In this phase many academic and industry sources were consulted to support the literature discussed in chapter 2 and chapter 3, meeting the requirements as identified by Cooper and Schindler (2003:282), namely:

- Electronic databases included the following: PROQUEST, EMERALD, SCIENCE DIRECT, BUSINESS SOURCE PREMIER, EBSCO ONLINE and GENERAL BUSINESS FILE INTERNATIONAL (Infotrac);
- Tourism and Marketing related textbooks, i.e. Business Travel and Tourism (Swarbrooke & Horner, 2001) and Marketing Travel and Tourism (Middleton & Clarke: 2001) amongst others;
- Tourism magazines and publications, i.e. Conference industry – economic colossus in its own right (King: 2001) in the Southern African Conference, Exhibition & Events Guide; and
- Electronic websites, i.e. [www.travelinfor.co.za](http://www.travelinfor.co.za).

#### **4.3.1.2 Phase 2 - Choose the service quality measurement instrument**

Chapter 3 introduced different service quality measurement instruments, i.e. SERVQUAL, Servicescape, Servuction and SERVPERF. After a thorough investigation and evaluation on all these models and the application in the tourism industry it was decided to use the SERVQUAL model as this model has been used to test service quality in the tourism industry before in other research projects. However no evidence could be found where the SERVQUAL model has been used to measure service quality at an ICC.

#### **4.3.1.3. Phase 3 - Qualitative research: Development of expert definitions**

During the secondary research the researcher was unable to find good formulated definitions for an ICC or convention consumer. Qualitative data is information that is non-numerical (Groebner, Shannon, Fry & Smith, 2005:29; Willemse, 2004:3). The qualitative research was conducted through personal interviews with six business tourism industry experts like Professor Joe Goldblatt, to formulate these definitions.

Interviews were conducted during the EMBOK Conference in July 2005, where each had to give their own definition on the two proposed constructs as indicated in paragraphs 1.4.2 and 1.4.3. Information gathered through these interviews contributed to the formulation of these definitions. The Delphi method was used to contextualise the definitions (Hair, Babin, Money & Samouel, 2003:59).

#### **4.3.1.4. Phase 4 – Questionnaire design: Adoption of the 22 statements from the SERVQUAL model**

Quantitative data measurements are expressed numerically (Groebner *et al.*, 2005:29; Willemse, 2004:3). Questionnaires to convention consumers (national and international in all four generic markets or sub-groups) were used to benchmark and test the service quality dimensions. This phase justifies the use of the questionnaire as a data collection method as well as the precautions taken for non-response errors, the types of questions used and the measurement scale for the questions.

##### **a) Justification for using a questionnaire as method of data collection**

In comparison with personal interviews, questionnaires involve substantially lower costs. Accessibility to all the targeted respondents, especially those researched via e-mail, was another reason for this data collection method. A possible drawback of the e-mailed questionnaires was the possibility of a low response rate amongst the B2B respondents. To counter this drawback, the questionnaires were impersonal and anonymous. The amount of information requested in the questionnaire is reasonable because respondents were only requested to indicate the level of agreement in both columns next to the 22-statements as stated in the SERVQUAL model (Appendix E & F). Additional biographical information was requested for the differentiation between the different target markets. The time for the completion of the questionnaire was not longer than 10 minutes.

**b) Precautions taken for non-response errors**

Two types of data collection methods were used, namely self administered questionnaires handed out to delegates at the CSIR ICC and e-mailed questionnaires to PCOs who have previously organised conferences at the CSIR ICC (Groebner *et al.*, 2004:9–11). The precautions for both these data collection methods are discussed below.

The following precautions were taken to counter the non-response error during the data collection:

- The questionnaire length was limited to 2 pages;
- 2549 personalised e-mails were sent to all the B2B convention consumers;
- A cover letter introduced the researcher to the respondents and provided clear instructions to complete the questionnaire (Appendix E & F);
- The anonymity had no significant effect on the response rate, as respondents could not be identified;
- B2C consumer respondents were requested to complete the questionnaire before the end of the day's proceedings while the B2B respondents had a specific time frame for the completion of the questionnaires. The impact of the deadline in either of these cases did not increase the response rate of the questionnaires.

**c) Types of questions used**

Structured response questions were used to measure the service quality at the CSIR ICC. Respondents had to choose between the alternatives provided in the Likert scale or the multiple choice questions (Cooper & Schindler, 2003:373; Kotler, 2000:110). With service quality studies, Kolb (2005b, 32) suggested to keep the questionnaires short and not to include too many questions in one study. According to him shorter questionnaires are more likely to yield quality data while longer questionnaire are more likely to fatigue respondents and create resistance for future research in service quality.

Although the SERVQUAL model was used to measure the service quality in tourism related industries, it was never formally tested in a business tourism context or at an ICC. It was decided to use the original 22-statements by Parasuraman *et al.* (1988:38-40), but to apply the original statements to the CSIR ICC.

Parasuraman *et al.* (1988:38-40) use two different sets of statements to measure the “perceptions” or “expectations” and the “experiences” or “feelings” in the SERVQUAL model. It was decided to use only the “experience” statements of the SERVQUAL model in the questionnaire, because the respondent could make an easier association with the statements as it refers directly to the CSIR ICC. These “experience” statements were used to test the “experience” and the “expectations” of all the convention consumer delegates at the CSIR ICC. An example for the reformulation of the statements, as used in Appendix E, is illustrated in Table 4.2 below. The reformulated statements as used for the delegates or B2C consumer questionnaire were used as an example in Table 4.2. Appendix F indicates the application of the statements for the B2B market.

**Table 4.2: Comparison between the original SERVQUAL statements and the adapted SERVQUAL statements for this research project**

Statement	The original SERVQUAL statements	The adapted SERVQUAL statements
1	Respondent number	
2.	XYZ has up to date equipment.	The CSIR ICC has up to date equipment.
3.	XYZ’s physical facilities are visually appealing.	The physical facilities at the CSIR ICC are visually appealing.
4.	XYZ’s employees are well dressed and appear neat.	The employees at the CSIR ICC are well dressed and appear neat.
5.	The appearance of the physical facilities of XYZ is in keeping with the type of the service provided.	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.
6.	When XYZ promises to do something by a certain time, it does so.	When the CSIR ICC promises to do something by a certain time, they do so.
7.	When you have problems, XYZ is sympathetic and reassuring.	When delegates have problems, the CSIR ICC is sympathetic and reassuring.
8.	XYZ is dependable.	The CSIR ICC is dependable.
9.	XYZ provides services at the time they promise to do so.	The CSIR ICC provides services at the time they promise to do so.
10.	XYZ keeps their records accurately.	The CSIR ICC keeps their records accurately.

Statement	The original SERVQUAL statements	The adapted SERVQUAL statements
11.	XYZ does not tell customers exactly when the services will be performed.	The CSIR ICC tells their delegates exactly when the services will be performed.
12.	You do not receive prompt service from the XYZ's employees.	Delegates receive prompt service from the CSIR ICC's employees.
13.	Employees of XYZ are not always willing to help customers.	The CSIR ICC's employees should always be willing to help delegates.
14.	Employees of XYZ are not too busy to respond to the customer's requests promptly.	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.
15.	You can trust the employees of XYZ.	Delegates can trust the employees of the CSIR ICC.
16.	You feel safe in your transactions with the XYZ's employees.	Delegates feel safe in their transactions with the CSIR ICC's employees.
17.	The employees of the XYZ are polite.	The employees of the CSIR ICC are polite.
18.	The employees should get adequate support from XYZ to do their job well.	The employees get adequate support from the CSIR ICC to do their job well.
19.	XYZ should not be expected to give customers individual attention.	The CSIR ICC gives delegates individual attention.
20.	Employees of XYZ cannot be expected to give customers personal attention.	The employees of the CSIR ICC give delegates personal attention.
21.	It is unrealistic to expect employees of XYZ to know what the needs of their customers are.	The employees of the CSIR ICC do know what the needs of their delegates are.
22.	It is unrealistic to expect XYZ to have their customers' best interest at heart.	The CSIR ICC has their delegates' best interest at heart.
23.	XYZ shouldn't be expected to have operating hours convenient to all their customers.	The CSIR ICC has operating hours convenient to all their delegates.

The SERVQUAL model demands the measurement of the “perceptions” and “experiences”. To meet the requirements of this measurement instrument provision was made for multidimensional Likert scale tables, which will be discussed in more detail in the “measurement” section of this phase.

In the original SERVQUAL model, Parasuraman *et al.* (1988:38-40) stated certain statements negative for better quality control. This approach resulted in a “reverse scoring” during the data analysis. However the researcher has decided against this method and all the statements were positive on the questionnaires during the data capturing process. Reasons for the reversing of the statements to only positive statements are that respondents had a limited time to complete the questionnaires during sessions and the possibility of not noticing the negative statements were investigated before the data capturing process. Table 4.3 indicates which statements where “reverse scored” by Parasuraman *et al.* and was made positive by the researcher as illustrated in the questionnaires from Appendix E and F before the questionnaires were distributed to the respondents.

**Table 4.3: Reverse scoring of the SERVQUAL model statements**

<b>Statements for reverse scoring according to Parasuraman <i>et al.</i> (1988) as they appear on the questionnaires</b>	<b>Variables for reverse scoring</b>
Statement 9	V19 & V20
Statement 10	V21 & V22
Statement 11	V23 & V24
Statement 12	V25 & V26
Statement 19	V39 & V40
Statement 20	V41 & V42
Statement 21	V43 & V44
Statement 22	V45 & V46
Statement 23	V47 & V48

**d) Measurement scales**

A customised measurement scale was used to measure the constructs because the researcher aimed to measure the convention consumer's service quality expectations and experiences at the CSIR ICC. Scaling is defined as a "procedure for the assignment of numbers to a property of objects in order to impart some of the characteristics of numbers to the properties in question" (Cooper & Schindler, 2003:259). Selection of the measurement scale is subject to the following key areas:

- The study objectives for this research are two fold, firstly it is used to judge the respondent's satisfaction with the service quality delivered to them at the CSIR ICC as indicated by the different service quality dimensions, and secondly to measure the characteristics of the respondents who completed the study in terms of the different target markets.
- Likert scales were used to measure the response in the research. Respondents were required to compare their service quality expectations and experiences at the CSIR ICC.
- The three to seven point scale range is one of the most widely used. The researcher utilised the seven point scale range as used by Parasuraman *et al.* (1988) in the original SERVQUAL model, because the Likert scale is a summated scale.
- The degree of preference was indicated by the selection of a specific rating for the level of service satisfaction or dissatisfaction as indicated on the Likert scale. This scale consists of statements that express either a favourable (high expectation) or an unfavourable (low expectation) attitude towards the object of interest. Both these options have to be completed according to the respondent's perception or expectation with regards to a specific statement.
- The Likert scale assisted the researcher to measure the attitudes before and after the attendance of the business tourism activity and to test if the CSIR ICC service quality had a desired effect. This scale produced gaps which will be discussed in chapter 5.

- Multidimensional scaling indicates the respondent’s measurement of the two attributes, namely the service quality expectations at the CSIR ICC and the service quality experience at the CSIR ICC (Cooper & Schindler, 2003:251-253). In the previous subsection of this phase reference was made to the combination of the “expectation” and “experience” statements as one statement with multidimensional scaling; Table 4.4 indicates the contextualisation of this scaling method for the questionnaires illustrated in Appendix E and F.

**Table 4.4: Multidimensional scaling for the SERVQUAL statements in this research**

STATEMENT		My EXPECTATION of the service quality is:							My EXPERIENCE of the CSIR ICC’s service quality is:						
		LOW 1 2 3 4 5 6 7 HIGH							LOW 1 2 3 4 5 6 7 HIGH						
2.	The CSIR ICC has up to date equipment.	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Table 4.4 indicates the “general” statement about the “expectation” of service quality at an ICC and the “experience” of the service quality at the CSIR ICC each with its own 7 point Likert scale. The statement self was according to the adoption of the statements in Table 4.2.

A Likert scale is a summated rating scale which consists of statements that express either an unfavourable or favourable attitude towards the objects investigated (Cooper & Schindler, 2003:253). Respondents were required to choose between a range of “1” to “7” in the multidimensional scale for each statement as illustrated in Table 4.4. Every response was given a numerical score to reflect its degree of agreement. In this research seven levels of agreement indicated the service quality expectations in one column and the service quality experience in the second column (Appendix E & F). The advantage of using the multidimensional Likert scale is that it measures the gaps between the service quality expectations as well as the service quality experience at the CSIR ICC (Cooper & Schindler, 2003:253).

Through this service quality measurement the researcher had aimed to establish whether service quality can be measure through the SERVQUAL instrument and if the CSIR ICC service has met the service quality expectation of the convention consumer respondents.

#### **4.3.1.5. Phase 5 – Sampling**

A sample is a carefully selected representation of the targeted population (Cooper & Schindler, 2003:179; Groebner *et al.*, 2005:13). Non-probability sampling gives every respondent in the targeted population a nonzero chance of selection and will be used in this research (Cooper & Schindler, 2003:183-185; Mouton, 2001:153). Target populations, the target markets, the selection of the target groups and non probability samplings are discussed in this phase.

##### **a) Target population**

A population includes all the respondents about which the researcher wishes to make inferences (Cooper & Schindler, 2003:186; Groebner *et al.*, 2005:13; Kotler, 2000:140-141). The population proportion is an equation to the amount of elements in the convention consumer population belonging to the category of interest (i.e., ICC), which are divided by the total number of elements in the population (Cooper & Schindler, 2003:187). One of the aims of the objectives is to compare the interrelationships among the convention customers' service quality dimensions among four convention consumer market segments, namely association, academic, corporate and government groups. These convention consumer market segments were investigated at the CSIR ICC from a national and international perspective. The convention consumers are the target population in this research.

##### **b) Target market**

A target market consists of various groupings of customers who prefer to require varying products and marketing mixes. In this research project the delegates attending a conference at the CSIR ICC is the targeted market (Du Plessis, Jooste & Strydom, 2001:81; Kotler, 2000:8).

The target markets investigated were generic, whether the research was conducted from a B2B market perspective or from a B2C market perspective. As stated earlier, one of the aims of the objectives for the research was to compare the interrelationships among the convention customers' service quality dimensions among four conventions consumer market segments at the CSIR ICC from a national and international perspective. These four groups together with national and international convention consumers are the most important target markets for the research. Convention consumers are further divided into the B2B convention consumers and the B2C convention consumers.

Firstly, the researcher will focus on the applicability of the SERVQUAL model in the generic convention consumer markets. Secondly, the service quality amongst national and international convention consumers will be investigated. Thirdly, will the outcomes of the SERVQUAL model applications amongst the B2B convention consumers and the B2C convention consumers be compared. Lastly will the application of the SERVQUAL model on the four convention consumer market segments, namely the association market, academic market, corporate market and government markets, be compared in both the convention consumer groups.

Convention consumers who attended or organised meetings or exhibitions at the CSIR ICC from 8 September to 1 November 2005 were the target population for this study. All the delegates in the identified groups were requested to complete the questionnaire and therefore a convenience sample was conducted (Cooper & Schindler, 2003:179; Groebner *et al.*, 2005:14–15; Kotler, 2000:112).

### **c) Selection of the target groups for the data collection**

In selecting of the target population, i.e. convention consumers, for the research the researcher refers to two target markets, namely national and international convention consumers, which were further divided into the target groups, i.e. academic, association, corporate and government. These target markets were discussed under the demand side of the business tourism framework in chapter 3 (Figure 3.5).

The service quality survey included in-house respondents of associations, academia, corporate, government departments as well as independent planners, including PCOs and DMCs, who met the criteria as defined by the definition of a convention consumer in paragraph 1.4.2 (chapter 1).

The CSIR ICC provided the researcher with 13 target markets who used the facilities in a business tourism context. The segmentation of these 13 groups did not meet the criteria for the researcher's propositions and the researcher decided to use the convention consumer groups already defined in previous research by Direct Access and Grant Thornton (Coertze, 2005:6). The convention consumer groups are government, associations, academia and corporate markets. Special provision for this representation of the groups was made on the questionnaire with question<sup>17</sup> 25.

Quantitative research was conducted in all these markets. For data capturing in the B2C market the CSIR ICC provided the researcher with the CSIR ICC Event Summary Sheet, indicating the name of the client, the date, the venue to be used and the expected amount of delegates to attend the function. Convention consumer groups that justified a good representation of the targeted groups to be investigated were selected for the completion of the B2C questionnaires. This CSIR ICC Event Summary Sheet may not be displayed or included in this document, due to confidentiality reasons.

Questionnaires amongst the delegates or B2C convention consumers, as indicated by the first 14 groups of responses in Table 4.5, were completed during the attendance of a conference, meetings, exhibitions or workshops from 8 September 2005 to 1 November 2005. These groups were selected based on the following criteria: (1) on the expected representation of the delegates by the four target groups, (2) the expected number of delegates for the meeting or conference had the possibility of a high response rate and (3) the time schedule of the meetings or conference were during the fieldwork time frame of the researcher. All delegates attending the meeting, conference or workshop were required to complete the questionnaire.

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<sup>17</sup> Can also be referred to as a "statement" in the context of this research.

The convenience sampling data capturing method was used. In this research the researcher did not measure the delegate's influence on the selection of the venue for the hosting of the meetings, conferences or workshops or who the main decision makers were in the selection of the venue.

The B2B convention consumers were represented by group 15 in Table 4.5 and were clients who have done business with the CSIR ICC since 2003. They were only requested to complete the e-mailed questionnaire from September 2005 until the beginning of November 2005, which motivated the use of the census data capturing method. An e-mailed questionnaire was used to research these respondents as most of them did not make use of the CSIR ICC's services during the fieldwork timeframe. The location of these respondents was another motivation for this research method as most of these respondents were not situated in the City of Tshwane (Pretoria) or Gauteng.

**Table 4.5: Convention consumers time schedule and respondent numbers**

Group	Expected delegates to attend	Date of fieldwork
<b>BUSINESS-TO-CONSUMERS (DELEGATES) TARGETED FOR THE FIELDWORK</b>		
1. Transvaalse Landbou Unie (TLU) – pilot group	200	7 September 2005
2. National Research Foundation (NRF)	100	7 September 2005
3. Council for Scientific and Industrial Research (CSIR) – Development of cross sector policy objectives	27	8 September 2005
4. University of Johannesburg (UJ) – Certificate in Marketing and Customer Centricity	30	8 September 2005
5. South African Training Authority (SETA)	12	8 September 2005
6. South African Weather Services (SAWS)	25	12 September 2005
7. Institute of Public Finance and Auditing	200	13 September 2005
8. Helena Burger & Associates	10	14 September 2005
9. Old Mutual	600	15 September 2005
10. University of South Africa (UNISA)	70	16 September 2005
11. Medical University of South Africa (MEDUNSA)	100	17 September 2005
12. All SA – 10th Toy Library Conference	280	22 September 2005
13. South African National Defence Force (SANDF)	120	29 September 2005
14. Geo-Information Society of South Africa (GISSA)	500	1 November 2005
<b>BUSINESS-TO-BUSINESS (INTERMEDIARIES) TARGETED FOR THE FIELDWORK</b>		
15. All clients	2549	October 2005

Table 4.5 indicates all the response groups used during the data collection, indicating the name of the group, the expected number of delegates for the function as well as the date when the fieldwork was conducted. In paragraph 5.2.1 (Table 5.1) the realisation of the questionnaires received will be discussed.

**d) Non-probability sampling method**

The non-probability sampling method was used in the sample selection. This method ensures that all the respondent does not have a known zero chance of being included in the population (Cooper & Schindler, 2003:183; Kotler, 2000:112) and the probability of selecting population elements is unknown. Greater opportunities occur for bias to enter the sample selection procedure and to distort the research findings. Convenient samples were used as it was the easiest and financially most affordable method to conduct this research. The researcher had the freedom to select target groups whose characteristics correspond with the characteristics of the four target markets, namely the academic, corporate, association and government, as discussed in chapter 2. This method is further used to test the views of the convention consumer with regards to service quality and whether the SERVQUAL model can be used service quality at an ICC (Cooper & Schindler, 2003:198-201).

**e) Sampling method**

Two different sampling methods were used because of the diversity of the target markets. Different methods used for the B2B convention consumer as well as for the B2C convention consumer in terms of the sample size are discussed.

The size of the population will affect the size of the probability sample (Cooper & Schindler, 2003:190–191; Kotler, 2000:112). Due to the 22-element, 7-point Likert scale of the SERVQUAL model (Parasuraman *et al.*, 1985, 1988) a census list of 2 549 respondents was drawn from the B2B market segment (i.e. PCOs & DMCs), that provided the estimated precision needed by the researcher. A total of 13 meetings, conferences and workshops were identified to collect the 517 questionnaires for the B2C market as indicated in Table 4.5. As mentioned earlier this convenient sampling method was used due to time constraints and a lack of financial assistance to get enough fieldworkers during the data collection process.

Socio-demographic profiles of the respondents who participated in the study were not measured. The sample was mainly divided into domestic (national) and international respondents in the four generic markets.

The data collection amongst the B2B respondents (intermediaries or “clients”) was a computer generated census list of 2 549 (Cadle, 2005c) convention buyers who have previously used the service from the CSIR ICC since 2003. This list was provided by the Sales and Marketing Manager, Ms Bronwen Cadle, of the CSIR ICC. The list serves as the sampling frame for the research in the B2B market survey. A structured electronic survey questionnaire was e-mailed to all 2 549 respondents on the sample frame. Questions asked in the 22-statement questionnaire were adapted to address the functionality of the relationship of this market with the CSIR ICC (Appendix F).

Meetings, conference and workshops at the CSIR ICC, from 8 September 2005 to 1 November 2005, were identified for the B2C data capturing. Local and international delegates representing associations, academia, corporate companies and government were requested to complete the structured questionnaires. Questionnaires (Appendix E) were distributed to all these delegates attending the meeting, conference or workshop. These delegate responses served as a sample frame for the B2C market survey. The final realised sample for the B2B convention consumers and B2C convention consumer markets in the academic, association, corporate and government target markets were 542 questionnaires.

#### **4.3.1.6. Phase 6 – Pilot research and finalisation of the questionnaire**

The initial questionnaire (Appendix D) was pre-tested through a convenience sample of 62 convention consumers of the TLU on 8 September 2005 (Table 4.5). Only minor changes regarding the wording of the statements were made without losing the context and meaning of the statement. The questionnaire layout was changed to make the questionnaire more user friendly for the respondents and data capturing.

#### **4.3.1.7. Phase 7 - Data collection (Quantitative research)**

##### **a) Time of data collection**

Convention consumers, as defined in paragraph 1.4.2 (chapter 1) and those who attended (B2C) or organised (B2B) a business tourism event at the CSIR ICC during 8 September to 1 November 2005 were requested to complete the questionnaire as indicated according to the criteria in Table 4.5.

The event sampling method was used during the data collection procedure, as specific events were identified during the time period for data collection. These events met the criteria for the B2C convention consumer, namely:

- The respondents were convention consumers.
- Respondents had a high probability to represent one of the four target groups, namely associations, academia, corporate and government.
- The events were hosted during 8 September 2005 to 1 November 2005.
- The delegates were either national or international delegates.

The criteria for the B2B convention consumers included:

- The clients had organised or hosted events, meetings or conferences since 2003 at the CSIR ICC;
- The clients had the probability to represent one of the target groups.
- The clients were either national or international conference organisers or were represented by other business tourism related intermediaries, i.e. the secretary of a national government department who is responsible for organising the meetings.
- The clients had to complete the questionnaires during the time frame of 8 September 2005 to 1 November 2005.

Event sampling was used to record specific behaviours that answered the 22-statements as specified by the SERVQUAL model and demographics of the convention consumers. Time-interval sampling recoded every delegate's service quality expectations and experience in real time at the CSIR ICC but counted the behaviour only once during the interval or attendance of the business tourism event (Cooper & Schindler, 2003:413).

Self administered questionnaires were distributed from 8 September 2005 to 1 November 2005 amongst the B2C respondents (delegates) who attended meetings, conferences or workshops at the CSIR ICC. A questionnaire was left to be completed by the delegate at the desk in one of the venues. The B2B respondents (intermediaries or clients) were requested to complete an e-mailed questionnaire, during the same time period, which was e-mailed back to the marketing and manager, Ms Bronwen Cadle, for data collection.

## **b) Survey method**

Data for the main study was collected from 8 September to 1 November 2005 with an electronic survey (Appendix F) amongst the B2B convention consumers, following an adapted version of the Parasuraman *et al.* (1985; 1988) 22-question/element Likert scale. Follow up e-mail was sent electronically to the B2B convention consumers to remind them to complete the questionnaire. Follow-up surveys were sent to respondents who have not returned the surveys within the one-month period. No incentives were provided to respondents for the completion of the questionnaire.

Data was collected during 8 September to 1 November 2005 via venue intercept surveys (Appendix E) conducted at the CSIR ICC to obtain information directly from the delegates (B2C convention consumers). Before conducting the survey, each consumer's (B2B convention consumer) permission was first obtained. To avoid the potential bias owing to the use of non-probability sampling, intercept surveys were conducted at various times of the day (i.e. during tea or lunch), two days of the week, depending on the venue bookings, at different meeting rooms. Questionnaires were handed out to all the attending delegates with a cover letter of instruction. Delegates who had finished his/her lunch or tea in the exhibition area of the CSIR ICC were requested to complete the structured questionnaire on arrival at the venue. Questionnaires were collected from the venue during the next break or at the end of the day.

#### **4.3.1.8 Phase 8: Data analysis**

All the collected data was analysed to determine the service quality expectations and experience for each respondent group. Data was analysed for the B2C market (delegates) and the B2B market (clients or intermediaries) separately for the different market segments, namely the academia, association, corporate and government.

The researcher provided as much detail as possible but in some cases there were not enough reported responses to provide any reliable conclusions and therefore this data was excluded.

##### **a) Data preparation**

A factor analysis was used to analyse the data; however before this process started the data had to be prepared for the correct interpretation during the factor analysis. Data preparation included editing, coding and data entry (Cooper & Schindler, 2003:454) which will be discussed on page 165.

- **Editing**

“Editing detects errors and omissions, corrects them when possible, and certifies that minimum data quality standards have been achieved” (Cooper & Schindler, 2003:455). Accuracy, consistency, uniform entries, completion and the arrangement of the questionnaires guarantee successful data analysis. Field editing was done by the researcher after each targeted group submitted the questionnaires at the end of a session or at the end of the day (Cooper & Schindler, 2003:455). The researcher made notes and comments on the challenges during each data collection session (Appendix H). Different codes were allocated to every respondent group for better differentiation, which will be discussed in more detail in paragraph 5.2.1 (chapter 5).

- **Coding**

Responses were coded through the allocation of numbers that were grouped into a limited number of categories (Cooper & Schindler, 2003:459). Every questionnaire was coded according to the specific respondent group in a chronological order (to be explained in Table 5.1). Variables were coded according to the number chosen in the 7-point Likert scale.

Statement (question) 25 on the questionnaire (Appendix E & F) gave respondents the option of selecting their own option for the group they represented if other than the academic, association, government or corporate convention consumers. Different codes were allocated to each category for this “v47” variable. A total of 16 additional groups were indicated as indicated in Table 4.6.

**Table 4.6: Additional coding for “other” in question 25 (V50 & V51)**

<b>Additional Coding</b>	<b>New Coding</b>
05 – Science Council	01
06 – Private sector	03
07 – Other	03
08 – Sponsor	03
09 – Parliament	04
10 – Old Mutual	03
11 – Insurance representative	03
12 – Financial Advisor	03
13 – OMPFA	03
14. – PFA	03
15. – UP	02
16. – Self	03
17. – Private practitioner	03
18. – Attend as a refreshers course	03
19. – NGO	04
20. – Pre School forum	01
21. – Exhibitor	01

It was decided to regroup these additional 16 groups in the original four options (academic, association, corporate and government) for a better representation of the different groups. The criteria for the relocation was based on the type of company or profession the respondent represented. A new group name for this regrouped data was given as “vv47”. This data is explained in more detail in chapter 5.

**b) Data entry**

After the coding of all the completed questionnaires (primary data), data typists entered the codes to a medium for viewing and manipulation (Cooper & Schindler, 2003:466). Data was entered in a data file of a statistical software package named SAS. This package enables the entire data file to be edited. Software makes the data accessible and effortless during the analysis. This database programme collects and analyse the data for computerised retrieval. This programme assisted the statistician, Dr Mike van der Linde of the University of Pretoria, to define the data field and link files for simplified data storage, retrieval and updating as requested by the researcher. Descriptive statistics and tables are generated within the database. Spreadsheets organise, tabulate and give simple statistics for easier interpretation (Cooper & Schindler, 2003:466–471; Groebner *et al.*, 2005:2; Kotler, 2000:106). All these statistics are analysed and described in detail in chapter 5.

Purification of the instrument begins with the computation of coefficient alpha. Due to the multidimensionality of the service-quality construct, coefficient alpha must be computed separately for all five factors (or dimensions), namely tangibility, assurance, reliability, responsiveness and empathy. The raw data used in computing coefficient alpha were in the form of different scores. For each item different score  $Q$  (representing perceived quality along that item) is defined as  $Q=P-E$ ; where  $P$  is the ratings on the corresponding “expectation” and  $E$  is the “experience” statement. The rule of thumb is that a factor solution should account for a minimum of 60 percent of the total variance; however the more acceptable range for the SERVQUAL model is above 0.70 percent (Hair *et al.*, 2003:364-365).

**c) Measures of spread**

Alternatively referred to as the “dispersion” or “variability” which is the variance, standard deviation, range, inter quartile range and quartile deviation, all of these terms describe how scores cluster or scatter in a distribution. Variance is the average of the squared deviation scores from the distribution mean. It is a measure of the score dispersion about the mean. If all the scores are identical the mean is “0”.

The greater the dispersion of scores, the greater the variance will be. Both the variance and the standard deviation are used with the interval-ratio data. Standard deviation summarizes how far away from the average the data values typically are. It improves the interpretability by removing the variance's square and expressing the deviations in their original units. It further reveals the amount of variability of individuals within the dataset. Like the mean, standard deviation is influenced by the extreme scores (Cooper & Schindler, 2003:475).

The range is the difference between the largest and smallest scores in the distribution and is only computed from the largest and the smallest scores, thus it is a very rough measure of spread. For a homogeneous distribution, the ratio in the standard deviation should be between 2 and 6. A number above 6 would indicate a high degree of heterogeneity (Cooper & Schindler, 2003:475).

According to Figure 4.1 the last phase consist of five levels namely the descriptive statistics, gap measurement, factor analysis on all the statistics (B2B and B2C), the rotated factor loading for  $Q=P-E$  and the B2C target markets. All these levels will be discussed in detail in chapter 5.

#### **4.4 CONCLUSION**

Chapter 4 addressed the research methodology used for the data analysis. The use of the empirical study was explained as well as the structure and type of questionnaires used to collect the data for the two target groups. Factor analysis was used for the data interpretation. Chapter 4 discussed the literature of this process. Chapter 5 describes the application of the interpretation of the data analysis in this research.

## CHAPTER 5

# THE RESULTS OF THE ANALYSIS AND DATA INTERPRETATION

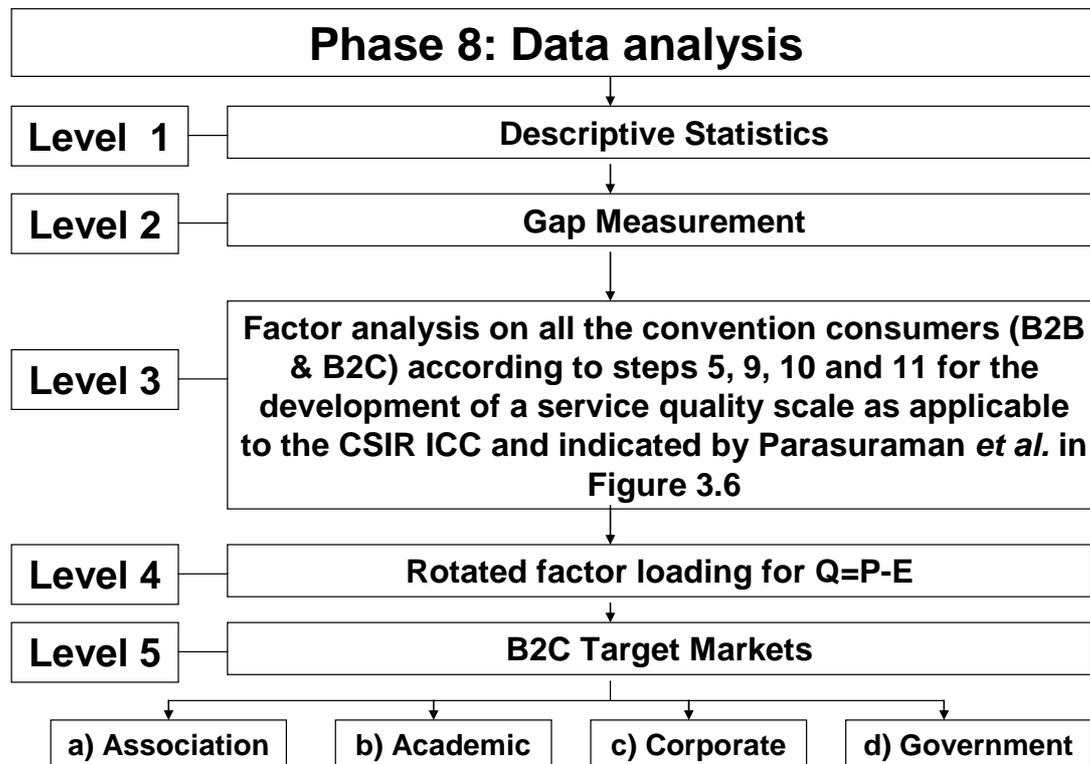
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### 5.1 INTRODUCTION

The research methodology and procedures were discussed in chapter 4 which concluded with an introductory discussion on the data analysis. Chapter 5 focuses on the data interpretation and results of the research. Five stages for the data analysis are identified, namely the descriptive statistics, gap measurement, factor analysis, the rotated factor loading for the Q=P-E variables and a factor analysis on the four target markets of the B2C convention consumer group at the CSIR ICC. All five of these stages are illustrated in phase 5 of the blueprint of this research in Table 4.1. Data is interpreted according to the SERVQUAL model measurement where Q=P-E. This Q variable indicates the gap that exists between the P (expectation/perception) and the E (experience/feelings) variables. Business tourism demand at an ICC was discussed in paragraph 2.8.2 and consists of two main groups namely B2B convention consumers and B2C convention consumers. A data analysis on Q=P-E was run on these two main groups and the results will be discussed in detail. Four target markets in business tourism were already identified in paragraph 2.8.4, namely academic, association, corporate and government markets. Data for the Q, P and E variables were analyzed in all four target markets. Methodology is applied to the results as measured amongst the convention consumers at the CSIR ICC.

Figure 4.1 illustrates the blueprint for this research; however, the five levels in phase 8 need a clearer illustration as those forms the basis of discussion in this chapter. These five levels of data analysis are depicted in Figure 5.1. This figure will guide the discussion of the data.

Figure 5.1: Different levels of the analysis of the data



## 5.2 LEVEL 1: DESCRIPTIVE STATISTICS

Descriptive statistics are defined as “the descriptive tools indicating the characteristics of location, spread and shape which are assistant tools for the cleaning of the data, discovering of the problems and to summarise the distributions” (Cooper & Schindler, 2003:474). Level 1 in Figure 5.1 introduces this discussion on the data interpretation by referring to the descriptive statistics. It further motivates the application of the SERVQUAL model in the measurement of service quality at an ICC. Discussions on the descriptive statistics are elaborated on in the next two subsections, namely the target groups for the research and variables included in the questionnaire.

### **5.2.1 TARGET GROUPS FOR THE RESEARCH**

Data was analyzed on 542 questionnaires in both the B2B and B2C convention consumer markets. The gap was measured on all 542 questionnaires without a separate gap analysis on the 15 groups as identified in Table 4.5.

Table 5.1 is an elaboration on the information indicated in Table 4.5 (paragraph 4.3.1.5). All targeted response groups are indicated according to the two main target groups they represent, namely either the B2C convention consumer group or the B2B convention consumer group. The first 14 groups represent the B2C convention consumer group while only group 15 represents the B2B group. Table 5.1 further indicates the respondent number for the coding for each respondent group. This enables better differentiation of the groups for the data analysis. The number of questionnaires received from each respondent group was also indicated; however, the researcher did not do an analysis on each individual group of respondents. Data collection was conducted on the days indicated in the table over a period of two months.

**Table 5.1: Convention consumers time schedule with the number of respondents of each group**

Group	Respondent no	Expected delegates to attend	No of questionnaires received	Date of fieldwork
<b>BUSINESS-TO-CONSUMER (DELEGATE) RESPONSES</b>				
1. TLU – pilot group	0001-0027	200	27	7 September 2005
2. NRF	0101-0135	100	35	7 September 2005
3. CSIR – Development of cross sector policy objectives	0201-1203	27	3	8 September 2005
4. UJ – Certificate in Marketing and Customer Centricity	0301-0309	30	9	8 September 2005
5. SETA	0401-0404	12	4	8 September 2005
6. SAWS	0501-0514	25	14	12 September 2005
7. Institute of Public Finance and Auditing	0601-0675	200	75	13 September 2005
8. Helena Burger & Associates	0701-0708	10	8	14 September 2005
9. Old Mutual	0801-0852	600	51	15 September 2005
10. UNISA	0901-0917	70	17	16 September 2005
11. MEDUNSA	1001-1036	100	36	17 September 2005
12. All SA – 10th Toy Library Conference	1101-1172	280	72	22 September 2005
13. SANDF	1201-1264	120	64	29 September 2005
14. GISSA	1301-1393	500	93	1 November 2005
<b>BUSINESS-TO-BUSINESS (INTERMEDIARIES) RESPONSES</b>				
15. All clients	2001 - 2027	2549	27	October 2005

Appendix H contains the “observations and challenges” that the researcher experienced during the data collection with each of the 15 groups above. Comments by all the respondents on the questionnaire and the CSIR ICC are summarised in Appendix I.

## 5.2.2 VARIABLES INCLUDED IN THE QUESTIONNAIRE

Table 5.2 contains the different statements with the variables representing the five service quality dimensions as measured by the SERVQUAL model (Parasuraman *et al.*, 1985, 1988). These variables are used in the data analysis where  $Q=P-E$  of the original SERVQUAL model.

**Table 5.2: Dimensions (factors) with the relevant variables as indicated in the questionnaire**

Dimension	Statement <sup>18</sup> on the questionnaire	Variable in the questionnaire
Factor 1 (Tangible)	Statement 2 Statement 3 Statement 4 Statement 5	V5 & V6 V7 & V8 V9 & V10 V11 & V12
Factor 2 (Reliability)	Statement 6 Statement 7 Statement 8 Statement 9 Statement 10	V13 & V14 V15 & V16 V17 & V18 V19 & V20 V21 & V22
Factor 3 (Responsiveness)	Statement 11 Statement 12 Statement 13 Statement 14	V23 & V24 V25 & V26 V27 & V28 V29 & V30
Factor 4 (Assurance)	Statement 15 Statement 16 Statement 17 Statement 18	V31 & V32 V33 & V34 V35 & V36 V37 & V38
Factor 5 (Empathy)	Statement 19 Statement 20 Statement 21 Statement 22 Statement 23	V39 & V40 V41 & V42 V43 & V44 V45 & V46 V47 & V48

<sup>18</sup> Note that “Statement 1” represented the “respondent number” on the questionnaire. In the rest of the document the Q\* (question number) can also represent the statement number as indicated in the table.

### 5.3 LEVEL 2: GAP MEASUREMENT

Collected data information requires a summary of the “typical” values. “Typical” is the average response (mean); the middle value, when the distribution is sorted from lowest to highest (median); or the most frequent occurring value (mode). The common measures of location, also called the central tendency, will include the mean, median and mode (Cooper & Schindler, 2003:474). Table 5.3 illustrates the mean of all the responses indicating the expectations (P), experience (E) and the service quality gap (Q) according to the convention consumers at the CSIR ICC.

**Table 5.3: The PROC MEANS variables measured amongst the convention consumers at the CSIR ICC**

PROC MEANS Variables						
Questions / Statements	Q* =		P* -		E*	
	N	Gap score	N	Mean	N	Mean
The CSIR ICC has up-to-date equipment.	517	-0.2074	532	5.5695	520	5.7769
The physical facilities at the CSIR ICC are visually appealing.	515	-0.0660	530	5.4754	519	5.5414
The employees at the CSIR ICC are well dressed and appear neat.	517	-0.2533	529	5.5822	523	5.8355
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	515	-0.0802	528	5.5378	521	5.6180
When the CSIR ICC promises to do something by a certain time, they do so.	486	0.0520	506	5.6086	494	5.5566
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	482	-0.1410	505	5.4970	489	5.6380
The CSIR ICC is dependable.	463	-0.1513	483	5.5196	471	5.6709
The CSIR ICC provides services at the time they promise to do so.	485	-0.1015	504	5.6805	491	5.7820
The CSIR ICC keeps their records accurately.	439	-0.0308	462	5.5454	446	5.5762
The CSIR ICC tells their delegates exactly when the services will be performed.	474	0.0095	493	5.6977	478	5.6882
Delegates receive prompt service from the CSIR ICC's employees.	499	-0.1292	514	5.6945	505	5.8237
The CSIR ICC's employees should	504	-0.0049	515	5.9106	509	5.9155

<b>PROC MEANS Variables</b>						
<b>Questions / Statements</b>	<b>Q* =</b>		<b>P* -</b>		<b>E*</b>	
	<b>N</b>	<b>Gap score</b>	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>
always be willing to help delegates.						
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	499	<b>-0.1279</b>	512	<b>5.5546</b>	504	<b>5.6825</b>
Delegates can trust the employees of the CSIR ICC.	491	<b>-0.0616</b>	505	<b>5.6693</b>	498	<b>5.7309</b>
Delegates feel safe in their transactions with the CSIR ICC's employees.	487	<b>-0.1527</b>	503	<b>5.7375</b>	492	<b>5.8902</b>
The employees of the CSIR ICC are polite.	470	<b>-0.2394</b>	480	<b>5.7395</b>	476	<b>5.9789</b>
The employees get adequate support from the CSIR ICC to do their job well.	424	<b>-0.0020</b>	441	<b>5.5487</b>	428	<b>5.5467</b>
The CSIR ICC gives delegates individual attention.	445	<b>-0.0248</b>	457	<b>5.4463</b>	450	<b>5.4711</b>
The employees of the CSIR ICC give delegates personal attention.	444	<b>-0.0675</b>	455	<b>5.3582</b>	451	<b>5.4257</b>
The employees of the CSIR ICC do know what the needs of their delegates are.	445	<b>-0.0809</b>	456	<b>5.2938</b>	451	<b>5.3747</b>
The CSIR ICC has their delegates' best interest at heart.	447	<b>-0.0007</b>	459	<b>5.6165</b>	452	<b>5.6172</b>
The CSIR ICC has operating hours convenient to all their delegates.	450	<b>-0.1281</b>	461	<b>5.6767</b>	456	<b>5.8048</b>

(**Q\*** = variables (quality) / **P\*** = variables (expectations / perceptions) / **E\*** = variables (experience / feelings))

Table 5.4 contains the ranking, from the statements with the highest gap (most positive) score to the lowest (most negative) gap score, of the statements according to the original SERVQUAL model. Only the scores as indicated by the Q-variables are used to indicate the gap score.

**Table 5.4: Statements ranked according to the + or - gap scores**

R*	Q*	Statement	Gap Score	Original SERVQUAL Dimension
1.	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	0.0520	Reliability
2.	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	0.0095	Responsiveness
3.	Q22	The CSIR ICC has their delegates' best interest at heart.	-0.0007	Empathy
4.	Q18	The employees get adequate support from the CSIR ICC to do their job well.	-0.0020	Assurance
5.	Q13	The CSIR ICC's employees should always be willing to help delegates.	-0.0049	Responsiveness
6.	Q19	The CSIR ICC gives delegates individual attention.	-0.0248	Empathy
7.	Q10	The CSIR ICC keeps their records accurately.	-0.0308	Reliability
8.	Q15	Delegates can trust the employees of the CSIR ICC.	-0.0616	Assurance
9.	Q3	The physical facilities at the CSIR ICC are visually appealing.	-0.0660	Tangibles
10.	Q20	The employees of the CSIR ICC give delegates personal attention.	-0.0675	Empathy
11.	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	-0.0802	Tangibles
12.	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	-0.0809	Empathy
13.	Q9	The CSIR ICC provides services at the time they promise to do so.	-0.1015	Reliability
14.	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	-0.1279	Assurance
15.	Q23	The CSIR ICC has operating hours convenient to all their delegates.	-0.1281	Empathy
16.	Q12	Delegates receive prompt service from the CSIR ICC's employees.	-0.1292	Responsiveness
17.	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	-0.1410	Reliability
18.	Q8	The CSIR ICC is dependable.	-0.1513	Reliability
19.	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	-0.1527	Assurance
20.	Q2	The CSIR ICC has up to date equipment.	-0.2074	Tangibles
21.	Q17	The employees of the CSIR ICC are polite.	-0.2394	Assurance
22.	Q4	The employees at the CSIR ICC are well dressed and appear neat.	-0.2533	Tangibles

(R\* = ranking of the questions; Q\* = Question number)

Only two statements measured a positive gap ( $\geq 0.00$ ). The one statement was included in the reliability dimension of the original SERVQUAL model, while the second statement was included in the responsiveness dimension of the original SERVQUAL model. Statements with a gap score between 0.00 and -0.04 focuses on the empathy of delegates who uses the facilities of the CSIR ICC as well as the assurance, responsiveness and reliability of the CSIR ICC in the service delivery process. Employees get the assurance from the CSIR ICC to do their job well and the CSIR ICC is reliable in keeping the records accurate.

Two tangible statements and two empathy statements have a negative gap score between -0.05 and -0.09, while one statement measured assurance. Statements measuring the empathy and assurance have an influence on the employees' delivering of service quality at the CSIR ICC, while the statements that measure the tangible dimension focus on the physical facilities at the CSIR ICC.

Three reliability statements, two assurance statements, one responsiveness statement and one empathy statement realised a negative gap score between -0.10 and -0.19. Three of these statements refer to service quality delivery by employees at the CSIR ICC. One empathy statement addresses convenient operating hours of the facility, while the other two statements refer to the promises made by the CSIR ICC.

Lastly, two tangible statements and one assurance statement have the biggest negative gap score of  $\geq -0.20$  referring more to the appearance and politeness of the employees. Chapter 6 will address the findings of this table in more detail.

### **5.3.1 MEASURES OF SPREAD**

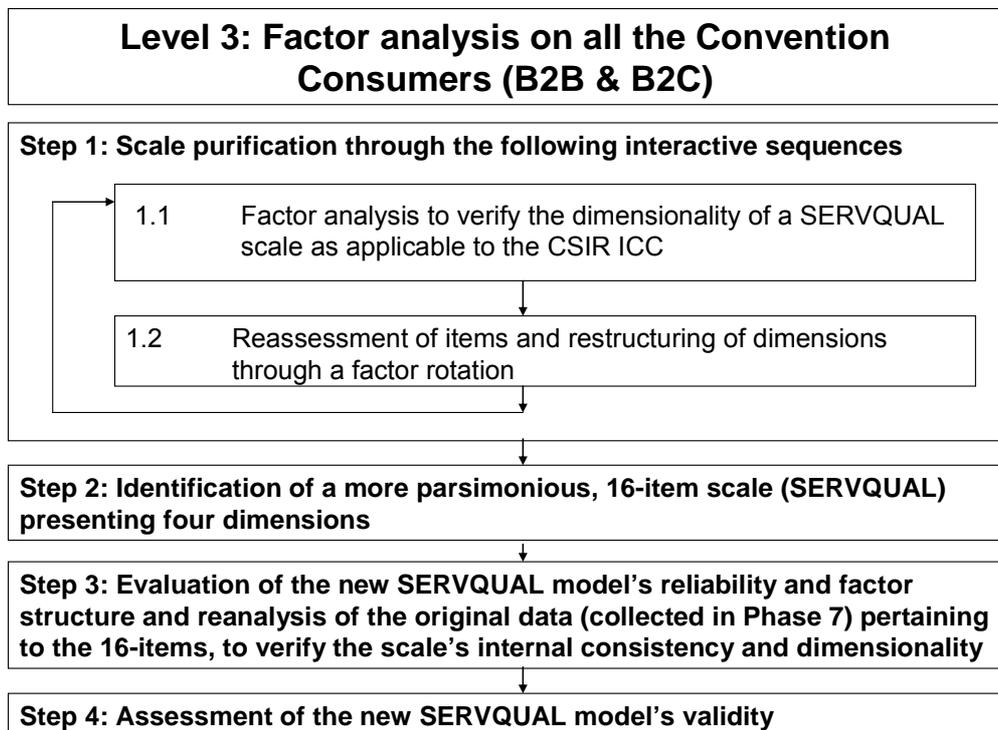
It was observed that the means of the P-variables as well as the E-variables fall between 5 and 6 in Table 5.3. This can be interpreted that the service quality expectations at the CSIR ICC are high, while the service quality experience are equally high and in two cases even higher than the expectations.

### **5.4 LEVEL 3: FACTOR ANALYSIS ON ALL THE CONVENTION CONSUMERS (B2B & B2C)**

Factor analysis summarises or reduces the information from a large number of variables into a much smaller number of variables or factors and has the objective of reducing variables to a measurable number of variables that belong together or that have overlapping measurable characteristics. This is a specific computational technique where the latent relationships of all analysed variables are combined and replaced by a matrix of inter correlations among several variables in the dependence situation (Cooper & Schindler, 2003:635; Hair *et al.*, 2003:358).

The steps developed by Parasuraman *et al.* (1998:14), as explained in Figure 3.6 for the development of a service quality scale, will be adapted for the contextualisation of the steps on this level. Only steps 5, 9, 10 and 11 of the Parasuraman *et al.* (1988) service quality scale will be adapted for this level and are illustrated in Figure 5.2 below.

**Figure 5.2: Steps employed in Level 3 for the development of the service quality scale<sup>19</sup>**



#### 5.4.1 STEP 1: SCALE PURIFICATION THROUGH THE FOLLOWING INTERACTIVE SEQUENCE

Purification of the instrument begins with the computation of coefficient alpha. Due to the multidimensionality of the service-quality construct, coefficient alpha must be computed separately for all five factors in the original SERVQUAL model, namely (1) tangibility, (2) assurance, (3) reliability, (4) responsiveness and (5) empathy. The raw data used in computing coefficient alpha was in the form of different scores. For each item (or statement) different Q scores (representing perceived quality along that item) are defined as  $Q=P-E$ ; where P is the ratings on the corresponding expectation and E is the rating on the corresponding experience (Cooper & Schindler, 2003:635-637).

<sup>19</sup> Important to note is that step 1 in Figure 5.2 represents step 5 of Figure 3.6, step 2 in Figure 5.3 represents step 9 of Figure 3.6, step 3 in Figure 5.2 represents step 10 of Figure 3.6 and step 4 in Figure 5.2 represents step 11 of Figure 3.6.

#### 5.4.1.1 **Step 1.1: Factor analysis to verify the dimensionality of the overall scale**

In this step a factor analysis is used as a tool for the data analysis as it provides a means of determining which variables<sup>20</sup> are loaded in different factors, i.e. variables loading in factor number one, variables loading in factor number two and so on, as well as which variables do not distinguish between dimensions and the number of dimensions in the data. Variables that are not clearly rated at a dimension are discarded.

A key issue is to decide how many factors are needed to effectively represent the variables of this research. The latent root is “a measure of the amount of variance a particular factor represents”. This first criterion states that with principle components analysis factors that have a latent root (also known as an eigenvalue which is “the sum of the squared factor loadings and indicates the relative importance of each factor in accounting for the variance in the set of variables being analysed”) of one or higher are retained. Factors with a latent root of less than one are considered insignificant and not retained for this SERVQUAL research at the CSIR ICC. Each original variable has a variance of one (Hair *et al.*, 2003:364-365).

The latent root criterion (eigenvalue) is a default option in most statistical software programmes and is calculated based on the unrotated solutions. The second criterion in this research is to decide how many factors to retain as a percentage of the variance in the original data that is explained by all factors considered together. The factor analysis software package SAS indicates the percentage of variation explained by each factor, as well as the total variance explained by all factors (Hair *et al.*, 2003:364). Thirdly, only factors that meet the minimum latent root criterion of one are retained, but the total variance accounted for by all the factors should be more than 60 percent and a logical name should be assigned to the rotated factors.

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<sup>20</sup> The variables as referred to in the factor analysis are the items that are loaded under each factor or the statements as they are indicated on the questionnaire in Appendix E and F.

Therefore the data is investigated to find some pattern in which factor I will be heavily loaded on some variables and factor II on others. Such a condition suggests “pure” constructs underlying each factor. The researcher attempts to secure this less ambiguous condition between factors and variables by rotation.

Communalities are “the sum of squared factor loadings and indicate how much of the variance in a particular variable is accounted for by the factor solution”. Large communalities indicate a large amount of the original variance in a particular variable has been accounted for by the factor solution (Hair *et al.*,2003:365).

Statements with a loading of  $>0.50$  are accepted. A subsequent factor matrix is a 16-item statement scale for the Q-variable (Table 5.5) measuring four basic dimensions, namely (1) tangible, (2) reliability and (3) empathy, while (4) responsiveness and assurance collapse into a fourth dimension. Thirteen (13) statements collapse into four dimensions for the P-variables while 15 statements also collapse into four dimensions for the E-variables (Asubonteng *et al.* 1996:64-65).

Since both expectations and experiences are measured using the 16 statements of the Q-variables, and performance are rated using 16 parallel statements, 32 statements in total are used. The 16 statements of the Q-variables are used as an example for the explanation of the factor analysis methodology for the rest of paragraph 5.4.1.1 The convention consumer rating at the CSIR ICC indicates his or her extent of agreement or disagreement with each statement with 7 indicating “highly agree” and 1 indicating “low agreement”, with 6,5,4,3,2 for the rating between the “highly agree” to “low agreement” (on the 7-point Likert scale). Quality is measured as performance-expectations for each of these pair of statements and the summary score across all 16 statements is the measure of the quality. An example is that if the performance score is a 6.00 and the expectations score is also a 6.00, the CSIR ICC have met the service quality expectations, with for a quality score = 0.00 (Asubonteng *et al.*, 1996:65).

However, before the examination of the 16-items can be done, it is important to know which variables on the questionnaire represent those items. Table 5.5 indicates which statements are loaded under each factor in the new SERVQUAL model as it is applicable to the measurement of service quality at the CSIR ICC.

Table 5.5 illustrates the statements together with the dimensions as represented by the new SERVQUAL model for the CSIR ICC. Six of the original 22-statements of SERVQUAL are applicable for the measurement of service quality at the CSIR ICC as it has not been loaded under any of the four new factors as identified in this research. Those statements are illustrated in Table 5.6 on page 183.

**Table 5.5: The 16-statements applicable in the measurement of service quality at the CSIR ICC**

<b>Q*</b>	<b>Statement</b>	<b>New SERVQUAL model dimension</b>
<b>Q2</b>	The CSIR ICC has up-to-date equipment.	Tangibles
<b>Q3</b>	The physical facilities at the CSIR ICC are visually appealing.	Tangibles
<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangibles
<b>Q5</b>	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangibles
<b>Q8</b>	The CSIR ICC is dependable.	Reliability
<b>Q9</b>	The CSIR ICC provides services at the time they promise to do so.	Reliability
<b>Q10</b>	The CSIR ICC keeps their records accurately.	Reliability
<b>Q12</b>	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness & Assurance
<b>Q13</b>	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness & Assurance
<b>Q14</b>	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness & Assurance
<b>Q15</b>	Delegates can trust the employees of the CSIR ICC.	Responsiveness & Assurance
<b>Q16</b>	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness & Assurance
<b>Q17</b>	The employees of the CSIR ICC are polite.	Responsiveness & Assurance
<b>Q19</b>	The CSIR ICC gives delegates individual attention.	Empathy
<b>Q20</b>	The employees of the CSIR ICC give delegates personal attention.	Empathy
<b>Q21</b>	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy

(Q\* = Question number)

A more detailed discussion follows in paragraph 5.4.1.2 on the new dimensions and the 16-statements as identified in Table 5.5. Table 5.6 indicates the statements eliminated by the factor analysis for the measurement of service quality at the CSIR ICC.

**Table 5.6: The 6-statements eliminated by the factor analysis for the measurement of service quality at the CSIR ICC**

Q*	Statement	New SERVQUAL model dimension
Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy
Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(Q\* = Question number)

#### 5.4.1.2 Step 1.2: Reassessment of items and restructuring of dimensions through a factor rotation

The initial solution for the principle component analysis is un-rotated. Un-rotated solutions produce dimensions that are independent (uncorrelated) but are often difficult to interpret. Therefore the factors are rotated to get another view of their structure during the reassessment of the items. Two options are available for the factor rotation namely, an orthogonal rotation or an oblique rotation. An *oblique solution* is chosen for this research as it permits the derived factors to be correlated with each other. This factor rotation provides different “views” of the same data. The term “simple structure” describes the factor analysis results in which each original variable has a high loading on only one factor and relatively low loadings on the other derived factors. A factor loading represents the correlation between the original variable and a derived factor. There is no guarantee that a given data set can produce a simple structure. However from a measurement perspective, results consistent with simple structure provide some evidence of convergent and discriminant validity. A simple structure makes it clear that an original variable is highly related to only one latent factor (Hair *et al.*, 2003:362-363).

One of the key reasons for factor rotation is to examine whether or not a simple structure can be obtained. Another reason for choosing the oblique rotation is that the researcher only wants to represent the factor structure that most closely portrays the relationship between the variables (Hair *et al.*, 2003:362-363).

Factor loadings are the correlations between each of the original variables and newly extracted factors. Each factor loading is a measure of the relative importance of a particular variable in representing that factor. The SAS software executes the statistical analysis and calculates factor loadings between each newly created factor and each original variable. Only the variables with a high factor loading ( $> 0.50$ ) in each dimension are included in each dimension. The patterns of loadings are used to name each of the dimensions as originally identified by Parasuraman *et al.* (1988). Before the patterns of these variables are interpreted, the factor solution is run again for a two-factor solution. The larger the absolute size of a factor loading, the more important it is in interpreting and naming a dimension. In the assignment of a name to the resulting factors the variables with the highest loading on each factor determine the name. Other variables loading on a factor that are not related to the other variables with high loadings are also considered.

In some cases variables will have comparable loadings on more than one dimension but that does not mean that the factor solution is wrong or that it cannot be used in the SERVQUAL model. Although the naming of the factors are subjective, the researcher has decided to use the original dimensions (responsiveness, assurance, tangible, reliability and empathy) as identified in the SERVQUAL model. Where the same variable loads in different factors a combination of names from the original SERVQUAL dimensions are used to name the factor (Hair *et al.*, 2003:366).

#### 5.4.2 STEP 2: IDENTIFICATION OF A MORE PARSIMONIOUS, 16-ITEM SCALE (“NEW” SERVQUAL) PRESENTING FOUR DIMENSIONS

A new set of variables (Table 5.5) are constructed of the relationships in the correlation matrix. This method where the most frequently used variable is selected is called the *principle components analysis* which uses all the variance in the data set. Variance describes the variability in the distribution of the data (Cooper & Schindler, 2003: 635; Hair et al., 2003:360). Principle component analysis utilises the entire variation in the set of variables (error, unique & common variance) being analysed. This method transforms a set of variables into a new set of composite variables of principal components that do not correlate with each other. Linear combinations of variables, called factors, account for the variance data as a whole. The best combination makes up the first principal component of the first factor. The second principle is defined as the best linear combination of variables for explaining the variance not accounted for by the first factor. In return, there is a third and fourth component, each being the best linear combination not accounted for by the previous factors. The process continues until all the variances are accounted for, but as a practical matter it is stopped after a small number of factors have been extracted. The objective of the *principle component analysis* is to explain as much of the original variance in the database set as possible by a few principle components. These variables are more stable and are mostly made up of common variance and are a much smaller portion of the unique and error variance (Cooper & Schindler, 2003: 635-636; Hair et al., 2003:360; 362).

SERVQUAL realises a five factor solution where all the factors have a latent root of one or higher. In this research a four factor solution is chosen instead of five-factor solution after the application of the three criteria in paragraph 5.4.1.1. This four-factor solution must account for a minimum of 60 percent of the total variance and the logical naming of the factors must be more easily supportable than the original five factors. These four factors are theoretically meaningful, relatively easy to interpret and account for as much of the original variance as possible.

To summarise, the five original factors represent by 22 statements are reduced to only 16 statements across the four new factors.

### **5.4.3 STEP 3: EVALUATION OF THE NEW SERVQUAL MODEL'S RELIABILITY AND FACTOR STRUCTURE AND REANALYSIS OF THE ORIGINAL DATA**

The SERVQUAL model must be tested for reliability. The major test of reliability is the Cronbach Coefficient Alpha, a measure to determine the extent of internal consistency between, or correlation among, the set of questions making up each of the four dimensions, such as the four tangible questions. Cronbach Coefficient Alpha is the “numerical index that reflects the linear relationship between two variables. In the descriptive statistics the value can be a -1 or a +1” (Cooper & Schindler, 2003:578). The minimum reliability that is acceptable is difficult to specify. If the reliability is low, such as below 0.6, the researcher is faced with the choice of investing time and money in additional research in an attempt to develop a revised measure with greater reliability. Higher reliabilities, such as 0,90 or above are desirable (Asubonteng *et al.* 1996:65). Chapter 6 describes the effect of the collapsing of the five factors into the four factors with the Cronbach Coefficient Alpha for each of the variables in each of the target markets.

Paragraph 5.5 focuses on the Cronbach Coefficient Alpha for each of the four identified factors, namely responsiveness and assurance, tangible, empathy and reliability, where  $Q=P-E$  for both the B2B convention consumers as well as the B2C convention consumers.

### **5.4.4 STEP 4: ASSESSMENT OF THE NEW SERVQUAL MODEL'S VALIDITY**

After all the above steps are considered the new SERVQUAL model can be regarded as a guideline for service quality measurement model at the CSIR ICC.

## 5.5 LEVEL 4: ROTATED FACTOR LOADING FOR Q=P-E FOR ALL THE RESPONDENTS

This level covers the Q, P and E variables for all the collected data from the service quality research at the CSIR ICC. Factors are loaded in each of the variables according to the coding and their representation as indicated by the variable representation in Table 5.1.

Patterns are detected from the data set and variances are reduced to establish the loadings. Tables 5.7, 5.11 and 5.15 explain all the different factor loadings for the Q-variables, P-variables and E-variables.

### 5.5.1 THE Q- VARIABLES

Eigenvalues consist of a number of variables to estimate the amount of the total variance explained by the factor. In Table 5.7 the column headed “cumulative” declares a 61.86 percent variance of the Q-variables with the respective eigenvalues of Factors I, II, III and IV. The cumulative variance declares a factor solution that explains a minimum of 60% of the variance with an eigenvalue > 1.00 for each of the factors.

**Table 5.7: The eigenvalues of the correlation matrix for the Q-variables**

Factor	Eigenvalues	Cumulative
1	6.57307563	0.4108
2	1.25339519	0.4892
3	1.06525113	0.5557
<b>4</b>	<b>1.00575301</b>	<b>0.6186</b>

Table 5.8 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number of 496 questionnaires, indicated by an “N”, from the B2B and B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.8 on page 187.

**Table 5.8: Rotated factor loading for all the Q-variables.**

Rotated factor pattern				
N=496				
Questions	Factors			
	n=425	n=401	n=429	n=496
	Factor 1 (Res* & A*)	Factor 2 (E*)	Factor 3 (Rel*)	Factor 4 (T*)
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.72251			
The CSIR ICC's employees should always be willing to help delegates.	0.70988			
Delegates can trust the employees of the CSIR ICC.	0.70009			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.65289			
The employees of the CSIR ICC are polite.	0.63413			
Delegates receive prompt service from the CSIR ICC's employees.	0.62969			
The employees of the CSIR ICC give delegates personal attention.		0.81377		
The CSIR ICC gives delegates individual attention.		0.81054		
The employees of the CSIR ICC do know what the needs of their delegates are.		0.58182		
The CSIR ICC keeps their records accurately.			0.81956	
The CSIR ICC is dependable.			0.68646	
The CSIR ICC provides services at the time they promise to do so.			0.60916	
The CSIR ICC has up to date equipment.				0.75263
The employees at the CSIR ICC are well dressed and appear neat.				0.65212
The physical facilities at the CSIR ICC are visually appealing.				0.62476
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.				0.54412
<b>Cronbach Coefficient Alpha</b>	<b>0.853367</b>	<b>0.734045</b>	<b>0.828081</b>	<b>0.725085</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the four factors in Table 5.8 varies from 0.72 to 0.85, which is an indication of a very good reliability of the factors.

Table 5.9 contains the 16-statements that can be applied in the measurement of service quality at the CSIR ICC for the Q-variables or gaps analysis.

**Table 5.9: Statements that can be applied in the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	New Dimensions
1	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness & Assurance
2	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness & Assurance
3	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness & Assurance
4	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness & Assurance
5	Q17	The employees of the CSIR ICC are polite.	Responsiveness & Assurance
6	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness & Assurance
7	Q2	The CSIR ICC has up to date equipment.	Tangibles
8	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangibles
9	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangibles
10	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangibles
11	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy
12	Q19	The CSIR ICC gives delegates individual attention.	Empathy
13	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
14	Q10	The CSIR ICC keeps their records accurately.	Reliability
15	Q8	The CSIR ICC is dependable.	Reliability
16	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability

(R\* = Ranking, Q\* = Question)

New dimensions for the Q-variables are indicated in Table 5.9. As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). However, two dimensions are loaded as one factor, namely responsiveness and assurance. Table 5.10 contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

**Table 5.10: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
2	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
3	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
4	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
5	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy
6	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

The same procedures for the Q-variables will be applied for the P as well as the E-variables as it is explained in this section.

### 5.5.2 THE P-VARIABLES

The column headed "cumulative" indicates a 61.18 percent variance for the P-variables (Table 5.11) as explained in terms of the respective eigenvalues for Factors I and II. The second factor has already met the criteria as specified by the rule of thumb where the cumulative variance declares a factor solution that explains a minimum of 60% of the total variance.

It is evident that only the first two factors can be applied in the measurement of service quality for the P variable as the eigenvalue for the third and fourth factors are < 1.00 for each of the factors. However, four factors are reported as it is measured by the gap score in the previous paragraph. The fourth factor is also disregarded as it does not meet the criteria of more than two statements in the factor.

**Table 5.11: The eigenvalues of the correlation matrix for the P-variables**

Factor	Eigenvalues	Cumulative
1	6.8020860	0.5232
<b>2</b>	<b>1.15175302</b>	<b>0.6118</b>
3	0.91870664	0.6825
4	0.76379612	0.7413

P values are represented by the odd / uneven “v” variables in the questionnaire (Appendix E & F). According to the correlation matrix done on the data only four factors/dimensions have measured according to the NFACTOR criterion. More than two dimensions are displayed in the correlation matrix table (Cooper & Schindler, 2003:577).

Table 5.12 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 506 questionnaires from the B2B and B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.12 on page 192.

**Table 5.12: Rotated factor loading for all the P-variables**

Rotated factor pattern				
N=506				
Question	Factors			
	n=430	n=432	n=506	n=498
	Factor 1 (E*)	Factor 2 (Rel*)	Factor 3 (T*)	Factor 4 (Res* & A*)
The employees of the CSIR ICC give delegates personal attention.	0.86581			
The employees of the CSIR ICC do know what the needs of their delegates are.	0.78721			
The CSIR ICC gives delegates individual attention.	0.77105			
The CSIR ICC has their delegates' best interest at heart.	0.66963			
The CSIR ICC is dependable.		0.77096		
When the CSIR ICC promises to do something by a certain time, they do so.		0.77013		
The CSIR ICC provides services at the time they promise to do so.		0.76569		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.		0.63046		
The physical facilities at the CSIR ICC are visually appealing.			0.77995	
The CSIR ICC has up to date equipment.			0.73202	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.			0.72796	
The CSIR ICC's employees should always be willing to help delegates.				0.79359
Delegates receive prompt service from the CSIR ICC's employees.				0.74453
<b>Cronbach Coefficient Alpha</b>	<b>0.757897</b>	<b>0.779614</b>	<b>0.894966</b>	<b>0.858306</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the two factors in Table 5.12 varies from 0.75 to 0.77, which is an indication of a very good reliability of the factors.

Table 5.13 contains the 11-statements that are applied in the measurement of service quality at the CSIR ICC for the P-variables.

**Table 5.13: Statements applicable in the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
1	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangibles
2	Q2	The CSIR ICC has up to date equipment.	Tangibles
3	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangibles
4	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy
5	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
6	Q19	The CSIR ICC gives delegates individual attention.	Empathy
7	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy
8	Q8	The CSIR ICC is dependable.	Reliability
9	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
10	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability
11	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability

(R\* = Ranking, Q\* = Question)

New dimensions for the P-variables are indicated in Table 5.13. As explained in paragraph 5.4, the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Three of the four dimensions are the same as for the Q-variables, namely (1) tangible, (2) empathy and (3) reliability. The responsiveness and assurance dimension do not meet the criteria for more than two statements per factor and are disregarded.

Table 5.14 contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they are not loaded when a factor analysis is done on the data.

**Table 5.14: Statements eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangibles
2	Q10	The CSIR ICC keeps their records accurately.	Reliability
3	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
4	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness
5	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness
6	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness
7	Q15	Delegates can trust the employees of the CSIR ICC.	Assurance
8	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance
9	Q17	The employees of the CSIR ICC are polite.	Assurance
10	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
11	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

### 5.5.3 THE E-VARIABLES

In Table 5.15 the column headed "cumulative" explains a 61.34 percent variance of the E-variables with the respective eigenvalues of Factors I and II. The second factor has already met the criteria as specified by the rule of thumb where the cumulative variance declares a factor solution that explains a minimum of 60% of the total variance. It is evident that only the first two factors can be applied in the measurement of service quality for the E variable as the eigenvalue for the third and fourth factors are < 1.00 for each of the factors. However, four factors are reported as they are measured by the gap score in paragraph 5.5.1.

**Table 5.15: The eigenvalues of the correlation matrix for the E-variables**

Factor	Eigenvalues	Cumulative
1	8.561	0.5351
<b>2</b>	<b>1.253</b>	<b>0.6134</b>
3	0.881	0.6686
4	0.8186	0.7197

Table 5.16 (on page 196) indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number of 516 (N) questionnaires from the B2B and B2C convention consumer groups are analysed. The E-values are all the even “v” variables on the questionnaire (Appendix E & F). The amount of responses per factor is indicated in Table 5.16 with an “n”.

**Table 5.16: Rotated factor loading for all the E-variables**

Rotated factor pattern				
N=516				
Question	n=416	n=453	n=516	n=442
	Factor 4 (Rel*)	Factor 1 (Res* & A*)	Factor 2 (T*)	Factor 3 (E*)
The CSIR ICC provides services at the time they promise to do so.	0.76308			
The CSIR ICC is dependable.	0.72622			
When the CSIR ICC promises to do something by a certain time, they do so.	0.71637			
The CSIR ICC keeps their records accurately.	0.66636			
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	0.64364			
Delegates can trust the employees of the CSIR ICC.		0.77055		
Delegates feel safe in their transactions with the CSIR ICC's employees.		0.74025		
The CSIR ICC's employees should always be willing to help delegates.		0.73938		
The employees of the CSIR ICC are polite.		0.64967		
The physical facilities at the CSIR ICC are visually appealing.			0.80194	
The CSIR ICC has up to date equipment.			0.72149	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.			0.66980	
The employees of the CSIR ICC give delegates personal attention.				0.83557
The CSIR ICC gives delegates individual attention.				0.82757
The employees of the CSIR ICC do know what the needs of their delegates are.				0.69394
<b>Cronbach Coefficient Alpha</b>	<b>0.891901</b>	<b>0.794138</b>	<b>0.884851</b>	<b>0.865406</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the two factors in Table 5.16 varies from 0.79 to 0.89, which is an indication of a very good reliability of the factors.

Table 5.17 contains the 15-statements that are applicable in the testing of service quality at the CSIR ICC for the E-variables.

**Table 5.17: Statements applicable in the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
1	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness & Assurance
2	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness & Assurance
3	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness & Assurance
4	Q17	The employees of the CSIR ICC are polite.	Responsiveness & Assurance
5	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangibles
6	Q2	The CSIR ICC has up to date equipment.	Tangibles
7	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangibles
8	V20	The employees of the CSIR ICC give delegates personal attention.	Empathy
9	V19	The CSIR ICC gives delegates individual attention.	Empathy
10	V21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
11	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability
12	Q8	The CSIR ICC is dependable.	Reliability
13	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
14	Q10	The CSIR ICC keeps their records accurately.	Reliability
15	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability

(R\* = Ranking, Q\* = Question)

New dimensions for the E-variables are indicated in Table 5.17. As explained in paragraph 5.4 the naming for the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). However, two dimensions are loaded as one factor namely responsiveness and assurance. These dimensions are the same as for the Q-variables.

Table 5.18 contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

**Table 5.18: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangibles
2	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
3	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness
4	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness
5	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
6	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy
7	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

## **5.6 LEVEL 5: BUSINESS-TO-CONVENTION CONSUMER (B2C) TARGET MARKETS**

One of the objectives of the research is to compare the interrelationships among the convention customers' service quality dimensions amongst four conventions consumer market segments, namely association, academic, corporate and academic groups, at the CSIR ICC (Figure 5.1). Paragraph 2.8.4 defines the different convention consumer target markets.

However, data is collected from the B2B convention consumers as well as the B2C convention consumers as described in paragraph 2.8.2. Due to a very low response rate of the B2B convention consumer market, the application of the four target markets as identified in the previous paragraph are discussed on the B2C convention consumer market.

Firstly, the Q=P-E variables are discussed for all the markets in the B2C convention consumer market. Paragraph 5.6.1 discusses these variables where all the responses of the B2C delegates are analysed. From paragraph 5.6.2 the four target markets, namely academic, association, corporate and government are discussed where Q=P-E are analysed.

### 5.6.1 THE BUSINESS-TO-CONSUMER (B2C) CONVENTION GROUP

The results for the Q=P-E variables are discussed in the next three paragraphs.

#### 5.6.1.1 Q- Variables

Table 5.19 with the column headed “cumulative” declares a 58.34 percent variance of the Q-variables with the respective eigenvalues of Factors I, II, III and IV. This variance is below the acceptable variance (as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance) for the SERVQUAL model, which is an indication that these results are not very reliable.

**Table 5.19: Eigenvalues of the correlation matrix for the B2C convention consumer delegates**

Factor	Eigenvalues	Cumulative
1	9.28455002	0.4220
2	1.36075970	0.4839
3	1.14904835	0.5361
<b>4</b>	<b>1.04038887</b>	<b>0.5834</b>

Table 5.20 indicates how the different factors are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 440, questionnaires from the B2C consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.20.

**Table 5.20: Rotated factor loadings for all the B2C convention consumers (delegates) for the Q-variables**

Rotated Factor Pattern				
N=440				
Question	Factors			
	N=371 Factor 1 (A* / Res* / E*)	N=363 Factor 2 (Rel* / Res*)	N=397 Factor 3 (E*)	n=440 Factor 4 (T* / Rel*)
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.72037			
The CSIR ICC's employees should always be willing to help delegates.	0.70312			
The employees of the CSIR ICC are polite.	0.69796			
Delegates can trust the employees of the CSIR ICC.	0.64376			
Delegates receive prompt service from the CSIR ICC's employees.	0.61889			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.57599			
The CSIR ICC has their delegates' best interest at heart.	0.55790			
The employees get adequate support from the CSIR ICC to do their job well.	0.48597			
The CSIR ICC keeps their records accurately.		0.78637		
The CSIR ICC is dependable.		0.56834		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.		0.56323		
The CSIR ICC provides services at the time they promise to do so.		0.56199		
The CSIR ICC tells their delegates exactly when the services will be performed.		0.53625		
The employees of the CSIR ICC give delegates personal attention.			0.80316	
The CSIR ICC gives delegates individual attention.			0.79321	
The employees of the CSIR ICC do know what the needs of their delegates are.			0.60976	
The CSIR ICC has operating hours convenient to all their delegates.			0.40614	

Rotated Factor Pattern				
N=440				
Question	Factors			
	N=371 Factor 1 (A* / Res* / E*)	N=363 Factor 2 (Rel* / Res*)	N=397 Factor 3 (E*)	n=440 Factor 4 (T* / Rel*)
The CSIR ICC has up to date equipment.				0.74129
The employees at the CSIR ICC are well dressed and appear neat.				0.63148
The physical facilities at the CSIR ICC are visually appealing.				0.59584
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.				0.50348
When the CSIR ICC promises to do something by a certain time, they do so.				0.45834
<b>Cronbach Coefficient Alpha</b>	<b>0.884478</b>	<b>0.789821</b>	<b>0.836462</b>	<b>0.758865</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the four factors in Table 5.20 varies from 0.75 to 0.88, which is an indication of a very good reliability of the factors. However, the factor solution can not account for more than 60% of the total variance which questions the reliability of these four factor's Cronbach Coefficient Alpha.

Table 5.20 indicates that all 22-statements are applicable for the measurement of service quality at the CSIR ICC for the Q-variables or gap analysis.

New dimensions for the Q-variables are indicated in Table 5.20 and Table 1 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only the "empathy" dimension is loaded as one factor, the other three factors load as different dimensions with a combination of the original Parasuraman *et al.* dimensions.

In comparison with Table 5.8 where a factor analysis is done on all the responses of the research, the B2C convention consumer market has 440 responses while the total number of responses in this research is 496 responses. Appendix G explains the observations and challenges of the researcher during the data collection, while Appendix H is a summary of all the comments by all the respondents during the research.

### 5.6.1.2 P-Variables

Table 5.21 indicates that 60.63 percent variance for the P-variables with the respective eigenvalues of Factors I and II being  $\geq 1.00$ . The second factor has already met the criteria as specified by the rule of thumb where the factor solution accounts for a minimum of 60% of the total variance. It is evident that only the first two factors can be applied in the measurement of service quality for the P variable as the eigenvalue for the third and fourth factors are  $< 1.00$  for each of the factors. However, four factors are reported as they are measured by the gap score in paragraph 5.5.1.

**Table 5.21: The eigenvalues of the Correlation Matrix for the business-to-convention consumer delegates**

Factor	Eigenvalue	Cumulative
1	11.3561353	0.5385
<b>2</b>	<b>1.4913905</b>	<b>0.6063</b>
3	0.9717795	0.6505
4	0.8674512	0.6899

Table 5.22 indicates how the different factors are loaded in each dimension after the rotation of the variables after a factor analysis is done. A total number (N) of 484, questionnaires from the B2C consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.22.

**Table 5.22: Rotated factor loading for all the B2C convention consumers (delegates) for the P-variables**

Rotated Factor Pattern				
N=484				
Question	Factors			
	N=385	n=389	N=484	n=415
	Factor 1 (A* / Res* / E*)	Factor 2 (Rel*)	Factor 3 (T*)	Factor 4 (E*)
Delegates can trust the employees of the CSIR ICC.	0.76106			
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.74428			
The CSIR ICC's employees should always be willing to help delegates.	0.72910			
The employees of the CSIR ICC are polite.	0.66663			
The CSIR ICC has their delegates' best interest at heart.	0.62087			
The CSIR ICC has operating hours convenient to all their delegates.	0.60739			
The employees get adequate support from the CSIR ICC to do their job well.	0.60725			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.58811			
Delegates receive prompt service from the CSIR ICC's employees.	0.55241			
The CSIR ICC tells their delegates exactly when the services will be performed.	0.53181			
The CSIR ICC provides services at the time they promise to do so.		0.73300		
The CSIR ICC keeps their records accurately.		0.68665		
When the CSIR ICC promises to do something by a certain time, they do so.		0.67541		
The CSIR ICC is dependable.		0.65910		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.		0.62498		
The physical facilities at the CSIR ICC are visually appealing.			0.77353	
The CSIR ICC has up to date equipment.			0.69335	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.			0.67894	
The employees at the CSIR ICC are well dressed and appear neat.			0.65298	
The employees of the CSIR ICC give delegates personal attention.				0.81621

Rotated Factor Pattern				
N=484				
Question	Factors			
	N=385	n=389	N=484	n=415
	Factor 1 (A* / Res* / E*)	Factor 2 (Rel*)	Factor 3 (T*)	Factor 4 (E*)
The CSIR ICC gives delegates individual attention.				0.79789
The employees of the CSIR ICC do know what the needs of their delegates are.				0.69933
<b>Cronbach Coefficient Alpha</b>	<b>0.944277</b>	<b>0.857937</b>	<b>0.830410</b>	<b>0.881638</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the two factors in Table 5.22 varies from 0.85 to 0.94, which is an indication of a very good reliability of the factors.

Table 5.22 indicates that only the 15-statements loaded in factors I and II are applicable for the measurement of service quality at the CSIR ICC for the P-variables in the B2C convention consumer market.

New dimensions for the P-variables are indicated in Table 5.22 and Table 2 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Three dimensions are loaded as one factor namely (1) assurance, responsiveness and empathy; the other three factors are loaded as separate dimensions namely (2) reliability, (3) tangible and (4) empathy again a separate dimension. Only factor I and II are applicable for service quality measure at the CSIR ICC using the P –variable. Factor III and IV are not applicable for the measurement of the service quality and are indicated in Table 3 (Appendix J) with the corresponding statements.

In comparison with Table 5.12 where a factor analysis is done on all the responses of the research, the B2C convention consumer market has 484 responses while the total number of responses is 506. Three of the four factors load the same dimensions, namely tangible, empathy and reliability. The fourth factor loads one variable each from the original SERVQUAL-dimensions, responsiveness, assurance and empathy. Appendix G explains the observations and challenges of the researcher during the data collection, while Appendix H is a summary of all the comments by all the respondents during the research.

### 5.6.1.3 E-Variables

In Table 5.23 the column headed “cumulative” declares a 61.46 percent variance of the Q-variables with the respective eigenvalues of Factors I, II and III. The third factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that only the first three factors can be applied in the measurement of service quality for the E variable as the eigenvalue for the fourth factor is < 1.00 for each of the factors. However, four factors are reported as it is measured by the gap score in paragraph 5.5.1.

**Table 5.23: The eigenvalues of the correlation matrix for the B2C convention consumer delegates**

Factor	Eigenvalues	Cumulative
1	11.0782261	0.5036
2	1.3860966	0.5666
<b>3</b>	<b>1.0565191</b>	<b>0.6146</b>
4	0.9561073	0.6580

Table 5.24 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 405, questionnaires from the B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.24.

Cronbach Coefficient Alpha for the three factors in Table 5.24 varies from 0.81 to 0.89, which is an indication of a very good reliability of the factors.

**Table 5.24: Rotated factor loadings for all the B2C convention consumers (delegates) for the E-variables**

Rotated Factor Pattern				
N=405				
Questions	Factors			
	N=382	n=396	N=400	N=405
	Factor 1 (A* / E*)	Factor 2 (A* / Res*)	Factor 3 (T* / Rel*)	Factor 4 (Rel*)
The employees of the CSIR ICC give delegates personal attention.	0.84219			
The employees of the CSIR ICC do know what the needs of their delegates are.	0.75746			
The CSIR ICC gives delegates individual attention.	0.75024			
The CSIR ICC has their delegates' best interest at heart.	0.64302			
Delegates can trust the employees of the CSIR ICC.	0.50828			
The employees get adequate support from the CSIR ICC to do their job well.	0.49257			
The CSIR ICC's employees should always be willing to help delegates.		0.76514		
Delegates receive prompt service from the CSIR ICC's employees.		0.70454		
The employees of the CSIR ICC are polite.		0.59903		
Delegates feel safe in their transactions with the CSIR ICC's employees.		0.57976		
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.		0.51745		
The CSIR ICC tells their delegates exactly when the services will be performed.		0.48537		
The CSIR ICC has up to date equipment.			0.73459	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.			0.71453	
The physical facilities at the CSIR ICC are visually appealing.			0.69364	
The CSIR ICC keeps their records accurately.			0.57518	
The employees at the CSIR ICC are well dressed and appear neat.			0.53216	
When the CSIR ICC promises to do something by a certain time, they do so.				0.76194
The CSIR ICC provides services at the time they promise to do so.				0.75888
The CSIR ICC is dependable.				0.70055

Rotated Factor Pattern				
N=405				
Questions	Factors			
	N=382	n=396	N=400	N=405
	Factor 1 (A* / E*)	Factor 2 (A* / Res*)	Factor 3 (T* / Rel*)	Factor 4 (Rel*)
When delegates have problems, the CSIR ICC is sympathetic and reassuring.				0.64291
<b>Cronbach Coefficient Alpha</b>	<b>0.898444</b>	<b>0.885642</b>	<b>0.819251</b>	<b>0.855093</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Table 5.24 contains the 21-statements that can be applied in the measurement of service quality at the CSIR ICC for the E-variables for the B2C convention consumer market.

New dimensions for the E-variables are indicated in Table 5.24 and Table 4 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Two dimensions are loaded the same as the P-variables in Table 5.16 namely responsiveness and assurance as well as reliability. Table 5 (Appendix J) contains the statement that is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as it does not load when a factor analysis is done on the B2C convention consumer market data.

In comparison with Table 5.16 where a factor analysis is done on all the responses of the research the B2C convention consumer market has 405 responses while all the responses in this research have a total number of 516 responses. Appendix G explains the observations and challenges of the researcher during the data collection, while Appendix H is a summary of all the comments by all the respondents during the research.

## 5.6.2 THE FOUR TARGETED GROUPS

The “v47” variable on the questionnaire (Appendix E & F) measures how many respondents represent the different target groups attending business tourism related activities at the CSIR ICC. Four options are given to the respondents, namely association member, academic delegate, corporate delegate or government delegate / representative. The last option for the target groups is “other”. Here the respondent has to indicate if he/she does not fall in one of the abovementioned categories. The results of this exercise indicate an additional 16 respondent groups as indicated in Table 5.25. The frequency of these respondents is very small and therefore it is decided to evaluate each “other” group and to regroup these groups amongst the original options of the “v47” variables. The regrouping result the renaming of this variable to “vv47”.

**Table 5.25: Additional coding for “other” in question 25 (V50 & V51)**

<b>Additional Coding</b>	<b>New Coding</b>
05 – Science Council	01
06 – Private sector	03
07 – Other	03
08 – Sponsor	03
09 – Parliament	04
10 – Old Mutual	03
11 – Insurance representative	03
12 – Financial Advisor	03
13 – OMPFA	03
14. – PFA	03
15. – UP	02
16. – Self	03
17. – Private practitioner	03
18. – Attend as a refreshers course	03
19. – NGO	04
20. – Pre School forum	01
21. – Exhibitor	01

It is important to note that of the 496 valid B2C convention consumer market questionnaires 77 respondents did not select a group. These questionnaires are disregarded for this exercise.

In order to justify the results of every respondent group as indicated by the “vv47” variable, a minimum sample size of five times the number of variables analysed (22 variables × 5 = 110 respondents) has to be present (Hair et al., 2003:360). “Corporate delegates” and “government delegates” in the B2C convention consumer markets are the only two groups that indicated a sufficient amount of respondents for this measurement. However, all four of the groups are discussed for a better comparison between the different target groups.

#### 5.6.2.1 Association delegates of the B2C convention consumer market

This target market represents a variety of different groups of people, including social, military, educational, religious and fraternal organizations that are joined together for a common purpose as discussed in paragraph 2.8.4.1.

##### a) Q-variables

In Table 5.26 the column headed “cumulative” explains a 66.86 percent variance of the Q-variables with the respective eigenvalues of Factors I, II, III and IV. The fourth factor has met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance; however the eigenvalue is > 1.00. The number of factors loaded is only three instead of four as explained in paragraph 5.5.1. The fourth factor only loads one variable under the responsiveness dimension and does not justify its inclusion in this factor structure.

Subsequently the reliability of this four factor structure might be questioned for the measurement of service quality using the gap score for the B2C association market. If a three factor structure were accepted the total variance explained would be < 60% which also could be considered as being unreliable.

**Table 5.26: The eigenvalues of the Correlation Matrix for the association delegates of the B2C convention consumer market for the Q-variables**

Factor	Eigenvalue	Cumulative
1	5.53267182	0.3458
2	1.97192623	0.4690
3	1.91325527	0.5886
<b>4</b>	<b>1.27975782</b>	<b>0.6686</b>

Table 5.27 indicates how the different variables load in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 60 questionnaires from the association B2C convention consumer market are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.27. The number of respondents is less than 110 (22-statements × 5) as the prescribed sample size which indicate that the results from this factor analysis can be questionable and unreliable.

**Table 5.27: Rotated factor loading for the association delegates of the B2C convention consumer market for the Q-variables**

Rotated factor pattern			
N=60			
Questions	Factors		
	N=49	N=60	N=60
	Factor 1 (Rel* & E*)	Factor 2 (T* & E*)	Factor 3 (T* & A*)
The CSIR ICC keeps their records accurately.	0.79428		
The CSIR ICC provides services at the time they promise to do so.	0.77697		
The employees of the CSIR ICC do know what the needs of their delegates are.	0.75014		
The CSIR ICC is dependable.	0.71238		
The CSIR ICC gives delegates individual attention.		0.86953	
The employees of the CSIR ICC give delegates personal attention.		0.76158	
The physical facilities at the CSIR ICC are visually appealing.		0.74888	
The CSIR ICC has up to date equipment.			0.72750
The employees of the CSIR ICC are polite.			0.64009
Delegates feel safe in their transactions with the CSIR ICC's employees.			0.63986
The employees at the CSIR ICC are well dressed and appear neat.			0.60503
Delegates can trust the employees of the CSIR ICC.			0.55345
<b>Cronbach Coefficient Alpha</b>	<b>0.791173</b>	<b>0.767705</b>	<b>0.751747</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Although the Cronbach Coefficient Alpha for the three variables in Table 5.27 is high and can indicate a good reliability of the factors, the number of respondents is less than the required 110 (Rule of Thumb: 22 statements x 5 = 110).

Table 5.27 and Table 6 (Appendix J) contain the 12-statements that are applicable for the measurement of service quality at the CSIR ICC for the Q-variables or gaps analysis amongst the association B2C convention consumers.

New dimensions for the Q-variables are indicated in Table 5.27. As explained in paragraph 5.4.2.4 the naming for the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors are loaded for the Q-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) reliability and empathy, (2) tangible and empathy as well as (3) tangible and assurance. Table 7 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

#### b) P- Variables

In Table 5.28 the column headed “cumulative” explains a 76.19 percent variance of the P-variables with the respective eigenvalues of Factors I, II, III and IV. The fourth factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than four factors can be applied in the measurement of service quality for the P variable as the eigenvalue for the fourth factor is > 1.00. However, four factors are reported as it was measured by the gap score in paragraph 5.5.1 and therefore only four factors are indicated.

**Table 5.28: The eigenvalues of the correlation matrix for the association delegates of the B2C convention consumer market for the P-variables**

Factor	Eigenvalue	Cumulative
1	12.0405006	0.5473
2	2.1412294	0.6446
3	1.4053327	0.7085
<b>4</b>	<b>1.174752</b>	<b>0.7619</b>

Table 5.29 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 63, questionnaires from the association B2C convention consumer groups are analyzed. The number of respondents at each factor is indicated by an “n” in Table 5.23.

The number of respondents is less than 110 (22-statements  $\times$  5 = 110) as the prescribed sample size, which indicates that the results from this factor analysis can be questionable and unreliable.

**Table 5.29: Rotated factor pattern for the association delegates of the B2C convention consumer market for the P-variables**

Rotated factor pattern				
N=63				
Question	Factors			
	n=55	n=63	N=57	N=51
	Factor 1 (Res*, A* & E*)	Factor 2 (T* & Rel*)	Factor 3 (Rel* & Res*)	Factor 4 (Rel* & E*)
The employees of the CSIR ICC are polite.	0.82588			
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.78399			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.77814			
The CSIR ICC's employees should always be willing to help delegates.	0.76017			
The CSIR ICC has their delegates' best interest at heart.	0.72876			
Delegates can trust the employees of the CSIR ICC.	0.68568			
The employees get adequate support from the CSIR ICC to do their job well.	0.68533			
The CSIR ICC has up to date equipment.		0.84824		
The employees at the CSIR ICC are well dressed and appear neat. The employees at the CSIR ICC are well dressed and appear neat.		0.81909		
The physical facilities at the CSIR ICC are visually appealing.		0.80176		
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.73075		
When the CSIR ICC promises to do something by a certain time, they do so.		0.58772		
The CSIR ICC provides services at the time they promise to do so.			0.79467	
The CSIR ICC keeps their records accurately.			0.75534	
The CSIR ICC tells their delegates exactly when the services will be performed.			0.61844	

Rotated factor pattern				
N=63				
Question	Factors			
	n=55	n=63	N=57	N=51
	Factor 1 (Res*, A* & E*)	Factor 2 (T* & Rel*)	Factor 3 (Rel* & Res*)	Factor 4 (Rel* & E*)
When delegates have problems, the CSIR ICC is sympathetic and reassuring.			0.57054	
Delegates receive prompt service from the CSIR ICC's employees.			0.55851	
The CSIR ICC gives delegates individual attention.				0.84004
The employees of the CSIR ICC give delegates personal attention.				0.82633
The CSIR ICC has operating hours convenient to all their delegates.				0.64662
The employees of the CSIR ICC do know what the needs of their delegates are.				0.63188
The CSIR ICC is dependable.				0.56480
<b>Cronbach Coefficient Alpha</b>	<b>0.941416</b>	<b>0.893392</b>	<b>0.898231</b>	<b>0.855982</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Although the Cronbach Coefficient Alpha for the four variables in factors 5.29 are high and can indicate a good reliability of the factors, the number of respondents is less than 110, which is in conflict with the reliability of the factors.

Table 5.29 and Table 8 (Appendix J) indicate that all 22-statements of the original SERVQUAL model are applicable for the measurement of service quality at the CSIR ICC for the P-variables amongst the association B2C convention consumer market. New dimensions for the P-variables are indicated in Table 5.29 and Table 8 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Four factors load for the P-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance and empathy, (2) tangible and reliability, (3) reliability and responsiveness as well as (4) reliability and empathy.

### c) E-Variables

In Table 5.30 the column headed “cumulative” declares a 69.09 percent variance of the E-variables with the respective eigenvalues of Factors I, II and III. The third factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than three factors will be applied in the measurement of service quality for the E variable as the eigenvalue for the third factor is  $> 1.00$  for each of the factors.

Four factors are reported as it is measured by the gap score in paragraph 5.5.1, but only three factors are applicable to the measurement of service quality amongst the association convention consumers. The fourth factor only loads one variable under the tangible dimension and has not had enough variable to justify a fourth factor.

**Table 5.30: The eigenvalues of the correlation matrix for the association delegates of the B2C convention consumer market for the E-variables**

Factor	Eigenvalues	Cumulative
1	12.4848843	0.5675
2	1.4304985	0.6325
<b>3</b>	<b>1.2849586</b>	<b>0.6909</b>

Table 5.31 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 58, questionnaires from the association B2C convention consumer market are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.31.

The number of respondents was less than 110 as the prescribed sample size, which indicated that the results from this factor analysis can be questionable and unreliable.

**Table 5.31: Rotated factor pattern for the association B2C convention consumers according to the E-variables**

Rotated factor pattern			
N=58			
Questions	Factors		
	n=46	n=58	N=58
	Factor 1 (Res*, A*, Rel* & T*)	Factor 2 (T*, Res* & E*)	Factor 3 (E* & A*)
The CSIR ICC is dependable.	0.84117		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	0.83235		
The employees get adequate support from the CSIR ICC to do their job well.	0.73276		
When the CSIR ICC promises to do something by a certain time, they do so.	0.73082		
The CSIR ICC tells their delegates exactly when the services will be performed.	0.67519		
The employees at the CSIR ICC are well dressed and appear neat.	0.65378		
Delegates can trust the employees of the CSIR ICC.	0.62326		
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.58256		
The CSIR ICC keeps their records accurately.	0.53675		
The CSIR ICC provides services at the time they promise to do so.	0.53668		
The CSIR ICC's employees should always be willing to help delegates.		0.79586	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.73821	
The physical facilities at the CSIR ICC are visually appealing.		0.73538	
The CSIR ICC has operating hours convenient to all their delegates.		0.66480	
Delegates receive prompt service from the CSIR ICC's employees.		0.64843	
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.		0.61762	
The employees of the CSIR ICC give delegates personal attention.			0.88458
The employees of the CSIR ICC do know what the needs of their delegates are.			0.73484
The CSIR ICC gives delegates individual attention.			0.72031
The CSIR ICC has their delegates' best interest at heart.			0.62209

Rotated factor pattern			
N=58			
Questions	Factors		
	n=46	n=58	N=58
	Factor 1 (Res*, A*, Rel* & T*)	Factor 2 (T*, Res* & E*)	Factor 3 (E* & A*)
The employees of the CSIR ICC are polite.			0.58252
<b>Cronbach Coefficient Alpha</b>	<b>0.940011</b>	<b>0.873544</b>	<b>0.890684</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Although the Cronbach Coefficient Alpha for the three factors variables in Table 5.31 is high and can indicate a good reliability of the factors, the number of respondents is less than 110 (Rule of Thumb: 22 statements x 5 = 110).

Table 5.31 and Table 9 (Appendix J) contain the 21-statements that are applicable for the measurement of service quality at the CSIR ICC for the E-variables amongst the association B2C convention consumer market.

New dimensions for the E-variables are indicated in Table 5.31 and Table 9 (Appendix J). As explained in paragraph 5.4 the naming for the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors load for the E-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance, reliability and tangible, (2) tangible, responsiveness and empathy as well as (3) empathy and assurance. Table 10 (Appendix J) contains the statement that is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as it does not load when a factor analysis is done on the data.

### 5.6.2.2 Academic delegates for the B2C convention consumer market

Academic delegates are people who are affiliated to an educational institution and who are attending a meeting, conference or workshop for education and training purposes as explained in paragraph 2.8.4.3

### a) Q-Variables

In Table 5.32 the column headed “cumulative” declares a 64.00 percent variance of the Q-variables with the respective eigenvalues of Factors I, II, III and IV. The third factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than three factors are applied in the measurement of service quality for the Q variable as the eigenvalue for the third factor is  $> 1.00$  for each factor. However, the fourth factor is more reliable with a 71.89 percent variance but is disregarded in the representation of the factors in Table 5.33. The fourth factor only loads two variables, which are close to be acceptable, under the tangible dimension and has not had enough factors to justify a fourth factor as stated as a requirement earlier in the research.

**Table 5.32: The eigenvalues of the correlation matrix for the academic delegates of the B2C convention consumer market for the Q-variables**

Factor	Eigenvalue	Cumulative
1	6.86853985	0.4293
2	1.89611805	0.5478
3	1.47522030	0.6400
<b>4</b>	<b>1.26191820</b>	<b>0.7189</b>

Subsequently the reliability of this four factor structure might be questioned for the measurement of service quality using the gap score for the B2C academic market. If a three factor structure were accepted the total variance explained would be  $> 60\%$  which also could be considered as being reliable.

Table 5.33 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 46, questionnaires from the academic B2C convention consumer market are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.33.

The number of respondents was less than 110 as the prescribed sample size, which indicated that the results from this factor analysis can be significant questionable and unreliable.

**Table 5.33: Rotated factor for the academic delegates of the B2C convention consumer market for the Q-variables**

Rotated factor pattern			
N=46			
Questions	Factors		
	n=38	n=42	N=46
	Factor 1 (Res*, A* & Rel*)	Factor 2 (A* & E*)	Factor 3 (T*, Rel* & Res*)
The CSIR ICC's employees should always be willing to help delegates.	0.79036		
Delegates can trust the employees of the CSIR ICC.	0.71769		
The CSIR ICC keeps their records accurately.	0.70758		
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.69402		
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.65901		
The CSIR ICC is dependable.	0.57918		
The employees of the CSIR ICC do know what the needs of their delegates are.		0.79975	
The employees of the CSIR ICC are polite.		0.77098	
The employees of the CSIR ICC give delegates personal attention.		0.76364	
The CSIR ICC gives delegates individual attention.		0.64533	
The CSIR ICC provides services at the time they promise to do so.			0.81976
The physical facilities at the CSIR ICC are visually appealing.			0.77057
Delegates receive prompt service from the CSIR ICC's employees.			0.70479
The CSIR ICC has up to date equipment.			0.58381
<b>Cronbach Coefficient Alpha</b>	<b>0.895229</b>	<b>0.858530</b>	<b>0.772864</b>

(Res\* = Responsiveness, A = Assurance, T = Tangibles, E = Empathy, Rel = Reliability)

Although the Cronbach Coefficient Alpha for the three factors in Table 5.33 is high and can indicate a good reliability of the factors, the number of respondents is less than 110.

Table 5.33 and Table 11 (Appendix J) contain the 14-statements that are applicable for the measurement of service quality at the CSIR ICC for the Q-variables amongst the academic B2C convention consumer market.

New dimensions for the Q-variables are indicated in Table 5.33 and Table 11 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors load for the Q-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance and reliability, (2) assurance and empathy as well as (3) tangibility, reliability and responsiveness. Table 12 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

#### b) P- Variables

In Table 5.34 the column headed “cumulative” declares a 75.98 percent variance of the P-variables with the respective eigenvalues of Factors I, II, III and IV. The fourth factor only loads two variables under the assurance dimension and has not had enough variables to justify a fourth factor. The third factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than three factors are applied in the measurement of service quality for the P variable as the eigenvalue for the third factor is > 1.00 for each factor. Therefore, the cumulative variance of 71.38 percent over the first three factors is more appropriate for the interpretation of the results.

**Table 5.34: The eigenvalues of the correlation matrix for the academic delegates of the B2C convention consumer market for the P-variables**

Factor	Eigenvalue	Cumulative
1	12.0039394	0.5456
2	2.4561531	0.6573
3	1.2445695	0.7138
<b>4</b>	<b>1.0111064</b>	<b>0.7598</b>

Subsequently the reliability of this four factor structure might be questioned for the measurement of service quality using the expectation score for the B2C academic market. If a three factor structure were accepted the total variance explained would be > 60% which also could be considered as being reliable.

Table 5.35 indicates how the different variables load in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 42, questionnaires from the academic B2C convention consumer market are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.35.

The number of respondents is less than 110 (Rule of Thumb: 22-statements  $\times$  5 = 110) as the prescribed sample size, which indicated that the results from this factor analysis can be questioned.

**Table 5.35: Rotated factor for the academic delegates of the B2C convention consumer market for the P-variables**

Rotated factor pattern			
N=42			
Questions	Factors		
	n=41	n=42	N=41
	Factor 1 (Res*, A* & E*)	Factor 2 (T* & Rel*)	Factor 3 (T* & Rel*)
Delegates can trust the employees of the CSIR ICC.	0.90551		
The CSIR ICC has operating hours convenient to all their delegates.	0.89589		
The CSIR ICC's employees should always be willing to help delegates.	0.83807		
The CSIR ICC has their delegates' best interest at heart.	0.83639		
The employees of the CSIR ICC do know what the needs of their delegates are.	0.82697		
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.81147		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	0.78345		
The CSIR ICC gives delegates individual attention.	0.75026		
The employees of the CSIR ICC are polite.	0.72736		
The employees of the CSIR ICC give delegates personal attention.	0.69948		
The CSIR ICC tells their delegates exactly when the services will be performed.	0.62757		
Delegates receive prompt service from the CSIR ICC's employees.	0.58654		
The CSIR ICC is dependable.		0.72991	
The CSIR ICC provides services at the time they promise to do so.		0.68615	
When the CSIR ICC promises to do something by a certain time, they do so.		0.67912	

Rotated factor pattern			
N=42			
Questions	Factors		
	n=41	n=42	N=41
	Factor 1 (Res*, A* & E*)	Factor 2 (T* & Rel*)	Factor 3 (T* & Rel*)
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.59679	
The employees at the CSIR ICC are well dressed and appear neat.		0.57015	
The physical facilities at the CSIR ICC are visually appealing.			0.81797
The CSIR ICC has up to date equipment.			0.75827
The CSIR ICC keeps their records accurately.			0.69140
<b>Cronbach Coefficient Alpha</b>	<b>0.958968</b>	<b>0.867308</b>	<b>0.785572</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Although the Cronbach Coefficient Alpha for the three factors in Table 5.35 is high and can indicate a good reliability of the factors, the number of respondents is less than 110.

Table 5.35 and Table 13 (Appendix J) contain the 20-statements that are applicable for the measurement of service quality at the CSIR ICC for the P-variables amongst the academic B2C convention consumer market.

New dimensions for the P-variables are indicated in Table 5.35 and Table 13 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors load for the P-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance and empathy, the second and third dimensions have the same name, namely tangible and reliability, although different factors have loaded under each dimensions. Table 14 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

### c) E-Variables

In Table 5.36 the column headed “cumulative” declares a 71.76 percent variance of the E-variables with the respective eigenvalues of Factors I, II and III. The third factor has already met the criteria as specified by the rule of thumb where the factor solution accounts for a minimum of 60% of the total variance. It is evident that more than four factors are applied in the measurement of service quality for the E-variable as the eigenvalue for the third factor is  $> 1.00$ . The fourth factor’s eigenvalue is smaller than the third factor’s eigenvalue but will not have a significant impact on the research as the fourth factor only loads one variable under the assurance dimension and has not had enough factors to justify a fourth factor.

**Table 5.36: The eigenvalues of the correlation matrix for the academic delegates of the business-to-convention consumer market for the E-variables**

Factor	Eigenvalues	Cumulative
1	10.9394701	0.4972
2	3.0944401	0.6379
<b>3</b>	<b>1.7526548</b>	<b>0.7176</b>
4	1.1065561	0.7679

Table 5.36 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 40, questionnaires from the academic B2C consumer market are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.37.

The number of respondents is less than 110 (Rule of Thumb: 22-statements  $\times$  5 = 110) as the prescribed sample size, which indicated that the results from this factor analysis can be questionable and unreliable.

**Table 5.37: Rotated factor for the academic delegates of the B2C convention consumer market for the E-variables**

Rotated factor pattern			
N=40			
Questions	Factors		
	n=40	N=36	n=39
	Factor 1 (Res*, A*, Rel* & E*)	Factor 2 (T*, Res* & Rel*)	Factor 3 (T*, E* & Rel*)
The CSIR ICC has their delegates' best interest at heart.	0.85472		
The employees of the CSIR ICC do know what the needs of their delegates are.	0.82393		
Delegates can trust the employees of the CSIR ICC.	0.81944		
The CSIR ICC gives delegates individual attention.	0.81547		
The employees of the CSIR ICC give delegates personal attention.	0.79803		
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.78917		
The CSIR ICC has operating hours convenient to all their delegates.	0.78253		
The CSIR ICC's employees should always be willing to help delegates.	0.75348		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	0.69023		
The employees of the CSIR ICC are polite.	0.62978		
CSIR ICC is in keeping with the type of the service provided.		0.79874	
The CSIR ICC has up to date equipment.		0.78611	
The CSIR ICC keeps their records accurately.		0.75372	
The employees at the CSIR ICC are well dressed and appear neat.		0.73251	
The CSIR ICC tells their delegates exactly when the services will be performed.		0.73063	
The CSIR ICC is dependable.		0.64336	
Delegates receive prompt service from the CSIR ICC's employees.		0.56882	
The CSIR ICC provides services at the time they promise to do so.			0.87340
The employees get adequate support from the CSIR ICC to do their job well.			0.84158
When the CSIR ICC promises to do something by a certain time, they do so.			0.71568
The physical facilities at the CSIR ICC are visually appealing.			0.68121
<b>Cronbach Coefficient Alpha</b>	<b>0.945350</b>	<b>0.898442</b>	<b>0.878496</b>

(Res\*= Responsiveness, A\*= Assurance, T\*= Tangibles, E\*= Empathy, Rel\*= Reliability)

Although the Cronbach Coefficient Alpha for the three factors in Table 5.37 is high and can indicate a good reliability of the factors, the number of respondents is less than 110, which is in conflict with the reliability of the factors.

Table 5.37 and Table 15 (Appendix J) contain the 21-statements that are applicable for the measurement of service quality at the CSIR ICC for the E-variables amongst the academic B2C convention consumer market.

New dimensions for the E-variables are indicated in Table 5.37 and Table 15 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors load for the E-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance, reliability and empathy, (2) tangible, responsiveness and reliability as well as (3) tangibility, empathy and reliability. Table 16 (Appendix J) contains the statement that is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as it does not load when a factor analysis is done on the data.

### **5.6.2.3 Corporate delegates of the B2C convention consumer market**

Corporate delegates are people who attend business-related events, i.e. annual general meetings; exhibitions; product launches and team building events, at purpose build event buildings, such as an ICC according to the explanation in paragraph 2.8.4.2

#### **a) Q-Variables**

In Table 5.38 the column headed “cumulative” explains a 52.62 percent variance of the Q-variables with the respective eigenvalues of Factors I, II and III. The third factor does not meet the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than four factors are applied in the measurement of service quality for the Q variable as the eigenvalue for the fourth factor is  $> 1.00$  for each of the factors.

The fourth factor only loads two variables, which is close to being acceptable, under the reliability dimension and has not had enough factors to justify a fourth factor.

**Table 5.38: The eigenvalues of the correlation matrix for the corporate delegates of the B2C convention consumer market for the Q-variables**

Factor	Eigenvalues	Cumulative
1	5.58256762	0.3489
2	1.62397485	0.4504
<b>3</b>	<b>1.21192807</b>	<b>0.5262</b>
4	1.05798781	0.5923

Table 5.39 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 118, questionnaires from the corporate B2C convention consumer market are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.39.

The number of respondents is more than 110 (118 responses) as the prescribed sample size, which indicate that the results from this factor analysis can be used to make a meaningful interpretation of the data and that the results are reliable. However the cumulative variance is very close to < 60 and can be accepted.

**Table 5.39: Rotated factor loadings for the corporate delegates of the B2C convention consumer market for the Q-variables**

Rotated factor pattern			
N=118			
Questions	Factors		
	n=112 Factor 1 (Res* & A*)	n=118 Factor 2 (T*)	N=113 Factor 3 (E*, A* & Rel*)
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.83379		
Delegates can trust the employees of the CSIR ICC.	0.76015		
Delegates receive prompt service from the CSIR ICC's employees.	0.69766		
The CSIR ICC's employees should always be willing to help delegates.	0.55951		
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.52634		
The employees at the CSIR ICC are well dressed and appear neat.		0.77925	
The physical facilities at the CSIR ICC are visually appealing.		0.63514	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.60769	
The CSIR ICC has up to date equipment.		0.48290	
The CSIR ICC gives delegates individual attention.			0.71450
The employees of the CSIR ICC give delegates personal attention.			0.68034
The employees of the CSIR ICC are polite.			0.63796
The CSIR ICC provides services at the time they promise to do so.			0.51981
<b>Cronbach Coefficient Alpha</b>	<b>0.829219</b>	<b>0.613520</b>	<b>0.737415</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the three factors in Table 5.39 varies from 0.61 to 0.82, which is an indication of a good reliability for the factors.

Table 5.39 and Table 17 (Appendix J) contains the 13-statements that are applicable for the measurement of service quality at the CSIR ICC for the Q-variables amongst the corporate B2C convention consumers.

New dimensions for the Q-variables are indicated in Table 5.39 and Table 16 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors load for the Q-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness and assurance, (2) tangible as well as (3) empathy, assurance and reliability. Table 18 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

## b) P- Variables

In Table 5.40 the column headed “cumulative” declares a 69.22 percent variance of the P-variables with the respective eigenvalues of Factors I, II, III and IV. The fourth factor has met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than four factors can be applied in the measurement of service quality for the P variable as the eigenvalue for the fourth factor is > 1.00. However four factors are reported as it was measured by the gap score in paragraph 5.5.1.

**Table 5.40: The eigenvalues of the correlation matrix for the corporate delegates of the B2C convention consumer market for the P-variables**

Factor	Eigenvalues	Cumulative
1	11.1055795	0.5048
2	1.5625332	0.5858
3	1.3993490	0.6494
<b>4</b>	<b>1.1610329</b>	<b>0.6922</b>

Table 5.41 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 114, questionnaires from the corporate B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.41.

The number of respondents is more than 110 (114 respondents) as the prescribed sample size, which indicated that the results from this factor analysis can be used to make a meaningful interpretation of the data.

**Table 5.41: Rotated factor loadings for the corporate delegates of the B2C convention consumer market for the P-variables**

Rotated factor pattern				
N=114				
Questions	Factors			
	n=112	n=113	N=106	n=114
	Factor 1 (Res*, A* & E*)	Factor 2 (T*, Res* & Rel*)	Factor 3 (Rel*)	Factor 4 (E*)
Delegates can trust the employees of the CSIR ICC.	0.76888			
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.76472			
The CSIR ICC's employees should always be willing to help delegates.	0.73753			
The employees of the CSIR ICC are polite.	0.68231			
The CSIR ICC has operating hours convenient to all their delegates.	0.65901			
The employees get adequate support from the CSIR ICC to do their job well.	0.31369			
The CSIR ICC tells their delegates exactly when the services will be performed.	0.55721			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.50265			
The CSIR ICC has up to date equipment.		0.78242		
The physical facilities at the CSIR ICC are visually appealing.		0.74582		
Delegates receive prompt service from the CSIR ICC's employees.		0.61251		
When delegates have problems, the CSIR ICC is sympathetic and reassuring.		0.54033		
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.45141		
The employees at the CSIR ICC are well dressed and appear neat.		0.44432		
The CSIR ICC is dependable.			0.78582	
The CSIR ICC provides services at the time they promise to do so.			0.72087	
The CSIR ICC keeps their records accurately.			0.67148	
When the CSIR ICC promises to do something by a certain time, they do so.			0.58578	
The employees of the CSIR ICC give delegates personal attention.				0.85733
The employees of the CSIR ICC do				0.74154

Rotated factor pattern				
N=114				
Questions	Factors			
	n=112	n=113	N=106	n=114
	Factor 1 (Res*, A* & E*)	Factor 2 (T*, Res* & Rel*)	Factor 3 (Rel*)	Factor 4 (E*)
know what the needs of their delegates are.				
The CSIR ICC gives delegates individual attention.				0.66694
The CSIR ICC has their delegates' best interest at heart.				0.57824
<b>Cronbach Coefficient Alpha</b>	<b>0.913655</b>	<b>0.883533</b>	<b>0.840425</b>	<b>0.892087</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the four factors in Table 5.41 varies from 0.84 to 0.91, which is an indication of a very good reliability for the factors.

Table 5.41 and Table 19 (Appendix J) indicate that all 22-statements are applicable for the measurement of service quality at the CSIR ICC for the P-variables amongst the corporate B2C convention consumers.

New dimensions for the P-variables are indicated in Table 5.41 and Table 19 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Four factors load for the P-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance and empathy, (2) tangible, responsiveness and reliability, (3) reliability as well as (4) empathy.

### c) E-variables

In Table 5.42 the column headed “cumulative” explains a 63.80 percent variance of the E-variables with the respective eigenvalues of Factors I, II, III and IV. The fourth factor has met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than four factors can be applied in the measurement of service quality for the E-variable as the eigenvalue for the fourth factor is  $> 1.00$ . However, four factors are reported as it is measured by the gap score in paragraph 5.5.1.

**Table 5.42: The eigenvalues of the correlation matrix for the corporate delegates of the B2C convention consumer market for the E-variables**

Factor	Eigenvalues	Cumulative
1	9.75464118	0.4434
2	1.62121882	0.5171
3	1.50778745	0.5856
<b>4</b>	<b>1.15206404</b>	<b>0.6380</b>

Table 5.43 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 113, questionnaires from the corporate B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.43.

The number of respondents is more than 110 (113 respondents) as the prescribed sample size, which indicate that the results from this factor analysis can be used to make a meaningful interpretation of the data.

**Table 5.43: Rotated factor loadings for the corporate delegates of the B2C convention consumer market for the E-variables**

Rotated factor pattern				
N=113				
Questions	Factors			
	n=108 Factor 1 (Res*, A* & E*)	N=101 Factor 2 (T*, Res*, Rel* & E*)	n=113 Factor 3 (Res* & A*)	n=105 Factor 4 (Rel*)
The employees of the CSIR ICC give delegates personal attention.	0.91591			
The employees of the CSIR ICC do know what the needs of their delegates are.	0.74077			
The CSIR ICC has their delegates' best interest at heart.	0.72216			
The CSIR ICC gives delegates individual attention.	0.63325			
The employees get adequate support from the CSIR ICC to do their job well.	0.62965			
Delegates can trust the employees of the CSIR ICC.	0.47536			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.43359			
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.73860		
The CSIR ICC has operating hours convenient to all their delegates.		0.67688		
The CSIR ICC tells their delegates exactly when the services will be performed.		0.61495		
The CSIR ICC has up to date equipment.		0.60716		
The physical facilities at the CSIR ICC are visually appealing.		0.58795		
The CSIR ICC keeps their records accurately.		0.51861		
The employees at the CSIR ICC are well dressed and appear neat.		0.51123		
The CSIR ICC's employees should always be willing to help delegates.			0.79404	
Delegates receive prompt service from the CSIR ICC's employees.			0.72597	
The employees of the CSIR ICC are polite.			0.64665	
Delegates feel safe in their transactions with the CSIR ICC's employees.			0.63056	
When the CSIR ICC promises to do something by a certain time, they do so.				0.87895

Rotated factor pattern				
N=113				
Questions	Factors			
	n=108 Factor 1 (Res*, A* & E*)	N=101 Factor 2 (T*, Res*, Rel* & E*)	n=113 Factor 3 (Res* & A*)	n=105 Factor 4 (Rel*)
The CSIR ICC provides services at the time they promise to do so.				0.80090
The CSIR ICC is dependable.				0.62770
When delegates have problems, the CSIR ICC is sympathetic and reassuring.				0.50612
<b>Cronbach Coefficient Alpha</b>	<b>0.907297</b>	<b>0.853640</b>	<b>0.840479</b>	<b>0.837813</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the four factors in Table 5.43 varies from 0.83 to 0.90, which is an indication of a very good reliability for the factors.

Table 5.43 and Table 20 (Appendix J) indicate that all 22-statements are applicable for the measurement of service quality at the CSIR ICC for the E-variables amongst the corporate B2C convention consumers.

New dimensions for the E-variables are indicated in Table 5.43 and Table 20 (Appendix J). As explained in paragraph 5.4 the naming for the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Four factors load for the E-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance and empathy, (2) tangible, responsiveness, reliability and empathy, (3) responsiveness and assurance as well as (4) reliability.

#### 5.6.2.4 Government delegates / representatives of the B2C convention consumer market

Government delegates are people who represent the local authorities, central government departments and agencies, educational bodies and health services who are attending government events as explained in paragraph 2.8.4.4

### a) Q-Variables

In Table 5.44 the column headed “cumulative” declares a 62.11 percent variance of the Q-variables with the respective eigenvalues of Factors I, II and III. The third factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that more than three factors will be applied in the measurement of service quality for the Q variable as the eigenvalue for the third factors is  $> 1.00$  for all the factors.

The fourth factor only loads two variables under the tangible dimension and has not had enough factors to justify a fourth factor.

**Table 5.44: The eigenvalues of the correlation matrix for the government delegates of the B2C convention consumer market for the Q-variables**

Factors	Eigenvalues	Cumulative
1	7.61312273	0.4758
2	1.31884822	0.5582
<b>3</b>	<b>1.00494509</b>	<b>0.6211</b>
4	0.88323132	0.6763

Table 5.45 indicates how the different variables are loaded in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 191, questionnaires from the government B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.44.

The number of respondents is more than 110 (191 respondents) as the prescribed sample size, which indicate that the results from this factor analysis can be used to make a meaningful interpretation of the data.

**Table 5.45: Rotated factor loadings for the government delegates of the B2C convention consumer market for the Q-variables**

<b>Rotated factor pattern</b>			
<b>N=191</b>			
<b>Questions</b>	<b>Factors</b>		
	<b>n=191</b>	<b>N=186</b>	<b>n=165</b>
	<b>Factor 1 (Res* &amp; A*)</b>	<b>Factor 2 (T* &amp; E*)</b>	<b>Factor 3 (Rel*)</b>
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.83406		
Delegates can trust the employees of the CSIR ICC.	0.77688		
The employees of the CSIR ICC are polite.	0.74203		
Delegates receive prompt service from the CSIR ICC's employees.	0.63641		
The CSIR ICC's employees should always be willing to help delegates.	0.61632		
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.60116		
The physical facilities at the CSIR ICC are visually appealing.		0.78315	
The employees of the CSIR ICC give delegates personal attention.		0.72805	
The CSIR ICC gives delegates individual attention.		0.67946	
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.62197	
The employees of the CSIR ICC do know what the needs of their delegates are.		0.59898	
The CSIR ICC keeps their records accurately.			0.80640
The CSIR ICC provides services at the time they promise to do so.			0.71789
The CSIR ICC is dependable.			0.61061
<b>Cronbach Coefficient Alpha</b>	<b>0.897453</b>	<b>0.870015</b>	<b>0.778454</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the three factors in Table 5.45 varies from 0.77 to 0.89, which is an indication of a very good reliability for the factors.

Table 5.45 and Table 21 (Appendix J) contain the 14-statements that are applicable for the measurement of service quality at the CSIR ICC for the Q-variables amongst the government B2C convention consumer market.

New dimensions for the Q-variables are indicated in Table 5.45 and Table 21 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Only three factors load for the Q-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness and assurance, (2) tangible and empathy as well as (3) reliability. Table 22 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

#### b) P- Variables

In Table 5.46 the column headed “cumulative” declares a 64.96 percent variance of the Q-variables with the respective eigenvalues of Factors I and II. The second factor has already met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that only the first two factors can be applied in the measurement of service quality for the E-variable as the eigenvalue for the third and fourth factors are < 1.00 for each of the factors. However four factors are reported as it is measured by the gap score in paragraph 5.5.1.

**Table 5.46: The eigenvalues of the correlation matrix for the government delegates of the B2C convention consumer market for the P-variables**

Factor	Eigenvalues	Cumulative
1	12.9564282	0.5889
<b>2</b>	<b>1.3341370</b>	<b>0.6496</b>
3	0.9315131	0.6919
4	0.8337897	0.7298

Table 5.47 indicates how the different variables load in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 209, questionnaires from the government B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.47.

The number of respondents is more than 110 (209 respondents) as the prescribed sample size, which indicate that the results from this factor analysis can be used to make a meaningful interpretation of the data.

**Table 5.47: Rotated factor loadings for the government delegates of the B2C convention consumer market for the P-variables**

Rotated factor pattern				
N=209				
Questions	Factors			
	N=168	n=187	n=195	N=209
	Factor 1 (Rel* & Res*)	Factor 2 (Res*, E* & A*)	Factor 3 (E*)	Factor 4 (T*)
When the CSIR ICC promises to do something by a certain time, they do so.	0.79268			
The CSIR ICC provides services at the time they promise to do so.	0.72873			
The CSIR ICC keeps their records accurately.	0.72822			
The CSIR ICC is dependable.	0.69881			
The CSIR ICC tells their delegates exactly when the services will be performed.	0.67610			
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	0.67156			
Delegates receive prompt service from the CSIR ICC's employees.	0.56396			
Delegates can trust the employees of the CSIR ICC.		0.78046		
Delegates feel safe in their transactions with the CSIR ICC's employees.		0.73039		
The CSIR ICC's employees should always be willing to help delegates.		0.66245		
The employees of the CSIR ICC are polite.		0.61301		
The CSIR ICC has their delegates' best interest at heart.		0.56078		
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.		0.56944		
The CSIR ICC has operating hours convenient to all their delegates.		0.54962		
The employees get adequate support from the CSIR ICC to do their job well.		0.52816		
The CSIR ICC gives delegates individual attention.			0.84548	
The employees of the CSIR ICC give delegates personal attention.			0.82837	
The employees of the CSIR ICC do know what the needs of their delegates are.			0.62597	
The physical facilities at the CSIR ICC are visually appealing.				0.78114
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.				0.71872

Rotated factor pattern				
N=209				
Questions	Factors			
	N=168	n=187	n=195	N=209
	Factor 1 (Rel* & Res*)	Factor 2 (Res*, E* & A*)	Factor 3 (E*)	Factor 4 (T*)
The employees at the CSIR ICC are well dressed and appear neat.				0.61741
The CSIR ICC has up to date equipment.				0.48919
<b>Cronbach Coefficient Alpha</b>	<b>0.918858</b>	<b>0.948908</b>	<b>0.909384</b>	<b>0.862788</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the two factors in Table 5.47 varies from 0.91 to 0.94, which is an indication of a very good reliability for the factors.

Table 5.47 and Table 23 (Appendix J) indicate that 15-statements are applicable for the measurement of service quality at the CSIR ICC for the P-variables amongst the government B2C convention consumer market.

New dimensions for the P-variables are indicated in Table 5.47 and Table 23 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Two factors load for the P-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness and reliability, (2) responsiveness. Table 24 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of the service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

### c) E-variables

In Table 5.48 the column headed “cumulative” explains a 66.42 percent variance of the E-variables with the respective eigenvalues of Factors I, II and III. The third factor has met the criteria as specified by the rule of thumb where the factor solution should account for a minimum of 60% of the total variance. It is evident that only the first three factors can be applied in the measurement of service quality for the E-variable as the eigenvalue for the third factor is  $> 1.00$  as well as for the fourth factor. However four factors are reported as it was measured by the gap score in paragraph 5.5.1.

**Table 5.48: The eigenvalues of the correlation matrix for the government delegates of the B2C convention consumer market for the E-variables**

<b>Factors</b>	<b>Eigenvalues</b>	<b>Cumulative</b>
1	12.1630799	0.5529
2	1.3202876	0.6129
<b>3</b>	<b>1.1293470</b>	<b>0.6642</b>
4	0.7893934	0.7001

Table 5.49 indicates how the different variables load in each dimension after the rotation of the variables via a factor analysis. A total number (N) of 200, questionnaires from the government B2C convention consumer groups are analysed. The number of respondents at each factor is indicated by an “n” in Table 5.49.

The number of respondents is more than 110 (200 respondents) as the prescribed sample size, which indicate that the results from this factor analysis can be used to make a meaningful interpretation of the data.

**Table 5.49: Rotated factor loadings for the government delegates of the B2C convention consumer market for the E-variables**

Rotated factor pattern				
N=200				
Questions	Factors			
	n=183	n=170	n=200	N=180
	Factor 1 (Res*, A* & Rel*)	Factor 2 (T*, Res* & Rel*)	Factor 3 (T*, Rel*, Res* & E*)	Factor 4 (E*)
Delegates can trust the employees of the CSIR ICC.	0.75420			
The CSIR ICC's employees should always be willing to help delegates.	0.73511			
Delegates feel safe in their transactions with the CSIR ICC's employees.	0.72175			
Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	0.66614			
The employees of the CSIR ICC are polite.	0.57068			
When delegates have problems, the CSIR ICC is sympathetic and reassuring.	0.51406			
The employees get adequate support from the CSIR ICC to do their job well.	0.41901			
The CSIR ICC keeps their records accurately.		0.75315		
The physical facilities at the CSIR ICC are visually appealing.		0.68486		
The CSIR ICC has up to date equipment.		0.66669		
The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.		0.66470		
When the CSIR ICC promises to do something by a certain time, they do so.		0.65349		
The CSIR ICC provides services at the time they promise to do so.		0.64247		
The CSIR ICC tells their delegates exactly when the services will be performed.		0.49779		
The CSIR ICC has operating hours convenient to all their delegates.			0.72889	
Delegates receive prompt service from the CSIR ICC's employees.			0.64940	
The CSIR ICC is dependable.			0.56245	

Rotated factor pattern				
N=200				
Questions	Factors			
	n=183	n=170	n=200	N=180
	Factor 1 (Res*, A* & Rel*)	Factor 2 (T*, Res* & Rel*)	Factor 3 (T*, Rel*, Res* & E*)	Factor 4 (E*)
The employees at the CSIR ICC are well dressed and appear neat.			0.53713	
The CSIR ICC gives delegates individual attention.				0.75707
The employees of the CSIR ICC give delegates personal attention.				0.72311
The employees of the CSIR ICC do know what the needs of their delegates are.				0.68441
The CSIR ICC has their delegates' best interest at heart.				0.48404
<b>Cronbach Coefficient Alpha</b>	<b>0.913204</b>	<b>0.894169</b>	<b>0.873969</b>	<b>0.885035</b>

(Res\* = Responsiveness, A\* = Assurance, T\* = Tangibles, E\* = Empathy, Rel\* = Reliability)

Cronbach Coefficient Alpha for the three factors in Table 5.49 varies from 0.87 to 0.91, which is an indication of a very good reliability for the factors.

Table 5.49 and Table 23 (Appendix J) indicate that 18-statements are applicable for the measurement of service quality at the CSIR ICC for the E-variables amongst the government B2C convention consumer market.

New dimensions for the E-variables are indicated in Table 5.49 and Table 25 (Appendix J). As explained in paragraph 5.4 the naming of the dimensions are according to the five dimensions of service quality as identified by Parasuraman *et al.* (1985; 1988). Three factors load for the E-variables in this group with the result that the naming of the factors is a combination of the different dimensions, namely (1) responsiveness, assurance and reliability, (2) tangible, responsiveness and reliability, as well as (3) tangible, reliability, responsiveness. Table 26 (Appendix J) contains the statements that are eliminated by the factor analysis for the measurement of the service quality at the CSIR ICC, as they do not load when a factor analysis is done on the data.

ANOVA is not considered in this research as the factor structures between the association, academic, corporate and government differ too much.

## 5.7 CONCLUSION

Chapter 5 explains the application of the Parasuraman *et al.* (1985, 1988) SERVQUAL model in a business tourism environment and specifically at the CSIR ICC. Data is reported after a factor analysis is run on all 22-statements of the original SERVQUAL model as explained in Figure 4.1. Service quality gaps are measured across all 22-statements and ranked from the most positive to the most negative gaps in Table 5.3. During the scale purification a factor analysis is run on all the convention consumer groups to verify the dimensionality of the overall scale. Items are reassessed and restructured through a factor rotation. This resulted in the identification of new item scales across the Q, P and E variables, presenting four “new” service quality dimensions instead of five service quality dimensions. These dimensions, supported by statements, determine the convention consumer’s evaluation of service quality at the CSIR ICC. The “new” SERVQUAL model is evaluated. The re-evaluation is done to verify the scale’s internal consistency and dimensionality.

The interrelationships among the convention consumers’ service quality dimensions amongst four conventions consumer market segments, namely association, academic, corporate and academic groups, at the CSIR ICC are compared across the Q, P and E variables. It can be concluded that all the research propositions for the dissertation have been met.

Chapter 6 will explain the realisation of the research propositions in more detail. Findings across all the convention consumer groups are reported, followed by the limitations in the research and the management implications. The research is concluded by recommendations for follow-up studies.

## CHAPTER 6

# RECOMMENDATIONS AND FINDINGS

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### 6.1 INTRODUCTION

The chapter summarises the main findings from this research project on the measurement of service quality at the CSIR ICC. The service quality expectations and experiences of convention consumers at the CSIR ICC are revealed as tested by the SERVQUAL model. Statements<sup>21</sup> that loaded the most under the four “new” factors<sup>22</sup> are observed and used as a recommendation for a follow-up study. The scope and limitations of the research are addressed as well as the management implications. A follow-up study for a “new” service quality model at an ICC is recommended.

### 6.2 FINDINGS

The findings will be discussed according to the five levels of the data analysis in Figure 5.1 in the paragraphs on the next page.

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<sup>21</sup> In the context of the research findings “statements”, “questions” and “items” are synonymous. The application of these terminologies will be different according to the context in which results are reported.

<sup>22</sup> Different statements load under different factors. In this research only a maximum of four factors for each variable will be reported. The five service quality dimensions, namely reliability, responsiveness, assurance, empathy and tangibles, will be used as guidelines for the naming of each of these factors. Therefore a factor and a dimension can be regarded as the same concept.

## **6.2.1 DATA ANALYSIS: DESCRIPTIVE STATISTICS**

### **6.2.1.1 Targeted groups for the research**

The 542 completed questionnaires appear to be reliable for the testing of the SERVQUAL model in the business tourism industry and specifically at the CSIR ICC. It is evident from Table 5.1 that not enough questionnaires (responses) could be collected for the measurement of service quality at the CSIR ICC in the B2B convention consumer group. This has the result that research objectives have to be adapted by focusing on the service quality in the B2C convention consumer group and amongst this group's four target market segments, namely the association, academic, corporate and government groups.

Responses from the international convention consumers are also not enough to justify a sound service quality measurement through the SERVQUAL model. This is an important market segment for South Africa's business tourism market as it contributes to the GDP and stimulates job creation in this segment. It is suggested that this market should be researched in more detail in future with a more aggressive data collection approach.

During the data collection process the researcher was faced with several challenges. Appendix H gives a summary of these challenges and should be used as a guideline during data capturing in follow-up research.

Statements (Table 4.3) where reverse scoring is applicable should be left as it is according the original SERVQUAL model and not be made positive on the questionnaire. This will result in testing whether the respondents have read the questions and interpreted them correctly.

### **6.2.2 LEVEL 2: GAP MEASUREMENT**

Table 5.3 reports the gaps over the 22 statements of the original SERVQUAL model, while Table 5.4 indicates the ranking of all the statements from the most positive gaps to the statements where the biggest gap (most negative gap) occur.

The majority of the responses on the Likert scale are between 5 and 6 which is an indication of a higher than average service expectation from the convention consumers when services are delivered (experienced) at the CSIR ICC.

Table 5.4 shows the gap scores for the original SERVQUAL statements at the CSIR ICC. Table 5.5 illustrates all the statements that loaded in the revised SERVQUAL factor structure for the measurement of service quality at the CSIR ICC. Table 5.6 includes the six original SERVQUAL variables that were eliminated during the factor analysis. It is interesting to note that the statements which measured the most positive gap scores for all the convention consumer groups did not load in the revised SERVQUAL factor structure for the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest gap occurs at the CSIR ICC, which has an influence on the service quality experience of the convention consumers. It is further evident that statements addressing the delivering of “promises” by the CSIR ICC exceeds the service delivering experience, but are not relevant to the measurement of service quality at the CSIR ICC.

### **6.2.3 LEVEL 3: FACTOR ANALYSIS ON ALL THE CONVENTION CONSUMERS**

Chapter 1 indicated the propositions for this research. After the data capturing and data analysis these propositions are re-assessed to determine whether the outcomes are met. In the discussion below the realisation and adoption of all four propositions are indicated.

The researcher aims to investigate the following propositions in the paragraphs below.

**6.2.3.1 P<sub>1</sub>: The application of the SERVQUAL model for the measurement of service quality in a business tourism environment and specifically at an ICC, namely the CSIR ICC**

Service quality is measured through the application of the original SERVQUAL model at the CSIR ICC. The 22 original statements are adapted for this research. After a factor analysis is run on all data a gap score is measured. Statements addressing the promises made by the CSIR ICC indicate a positive gap score, which is an indication that the expected promises regarding service quality made by the CSIR ICC exceed the experience. Statements measuring the highest gap scores relate to the employees' service delivery as well as the tangible aspects at the CSIR ICC. These statements can be used as guidelines to improve the service quality delivery at the CSIR ICC.

From the gap score on a combination of B2B and B2C convention consumer responses a 16-item scale present four dimensions. Statements concerning employees at the CSIR ICC are the most present in all four of the "new" dimensions. This is an indication that employees' service quality is very important for the measurement of service quality at the CSIR ICC. In contrast to the employee statements are the statements addressing the "promises" made by the CSIR ICC. These statements are eliminated during the factor analysis and factor rotation. It can be concluded that although statements which address the "promises" made by the CSIR ICC have a positive gap, these statements are irrelevant for the measurement of service quality at the CSIR ICC.

Statements from the Q, P and E variables are eliminated for the measurement of service quality at the CSIR ICC resulting in item scales with less than 22-statements. It is suggested that these eliminated statements should be replaced by statements measuring service quality delivery by employees at the CSIR ICC.

It can be concluded that the SERVQUAL model can be applied for the measurement of service quality at the CSIR ICC, however the original 22-statements can not give a satisfactory measurement of the services rendered. With the adoption of the SERVQUAL statements and the inclusion of employee related statements a “new” service quality measurement model for an ICC can be developed.

#### **6.2.3.2 P<sub>2</sub>: The assessment of the overall service quality at the CSIR ICC from the perspectives of the convention consumer**

Level 3 of phase 8 in chapter 5 discussed the assessment of service quality at the CSIR ICC from the perspectives of the B2B and B2C convention consumers. In the B2B convention consumer market 2549 questionnaires were distributed. Only 25 questionnaires were returned for data capturing. It can be concluded that the electronic distribution of questionnaires is not the best data collection method for the measurement of the overall service quality at the CSIR ICC in the B2B convention consumer market.

Due to the insufficient responses from the B2B convention consumers this group is disregarded. Paragraph 5.6 outlines the results from the Q, P and E variables in the B2C convention consumer group.

The Q-variable indicates that all 22 original SERVQUAL statements / items result in a four factor loading, which can be applied in the measurement of service quality at the CSIR ICC. Only two factors result from the 15-item scale for the P-variables. Seventeen items result in a three factor loading for the E-variables in the B2C convention consumer group.

The majority of the statements which result in the factors / new dimensions address the importance of service quality delivery by the employees at the CSIR ICC. It is suggested that these statements should be used as a guideline for the formulation of additional statements to address the service quality delivery of employees at an ICC amongst B2C convention consumers. These statements can replace the eliminated statements that are not applicable in the measurement of service quality at the CSIR ICC for the formulation of a “new” service quality model at an ICC.

**6.2.3.3 P<sub>3</sub>: The assessment of service quality from the perspective of each of the different respondent user groups, namely association, academic, corporate and government group**

Paragraph 5.6.2 indicated the results from the four different respondent groups from a B2C convention consumer perspective. SERVQUAL seems to be unstable with the results of the different item scales across the realisation of the factors. Table 6.1 shows the number of items that result in the different factors for the Q, P and E variables for the four B2C convention consumer target markets.

**Table 6.1: Summary of the Q, P and E variables for the four B2C convention consumer target market groups**

Target B2C group	Variable	Number of Items resulted	Number of factors resulted
<b>Association B2C convention consumers</b>	Q-variable	12-item scale	<b>Three factors:</b> F1: Reliability and empathy F2: Tangible and empathy F3: Tangible and assurance
	P-variables	22-item scale	<b>Four factors:</b> F1: Responsiveness, assurance and empathy F2: Tangible and reliability F3: Reliability and responsiveness F4: Reliability and empathy
	E-variables	21-item scale	<b>Three factors:</b> F1: Responsiveness, assurance, reliable F2: Tangible, responsiveness and empathy F3: Empathy and assurance
<b>Academic B2C convention consumers</b>	Q-variable	14-item scale	<b>Three factors:</b> F1: Responsiveness, assurance and reliability F2: Assurance and empathy F3: Tangible, reliability and Responsiveness
	P-variables	20-item scale	<b>Three factors:</b> F1: Responsiveness, assurance and empathy F2: Tangible and reliability F3: Tangible and reliability

	E-variables	21-item scale	<b>Three factors:</b> F1: Responsiveness, assurance, reliability and empathy F2: Tangible, responsiveness and reliability F3: Tangible, empathy and reliability
<b>Corporate B2C convention consumers</b>	Q-variable	13-item scale	<b>Three factors:</b> F1: Responsiveness and assurance F2: Tangible F3: Empathy, assurance and reliability
	P-variables	22-item scale	<b>Four factors:</b> F1: Responsiveness, assurance and empathy F2: Tangible, responsiveness and reliability F3: Reliability F4: Empathy
	E-variables	22-item scale	<b>Four factors:</b> F1: Responsiveness, assurance and empathy F2: Tangible, responsiveness, reliability and empathy F3: Responsiveness and assurance F4: Reliability
<b>Government B2C convention consumers</b>	Q-variable	14-item scale	<b>Three factors:</b> F1: Responsiveness and assurance F2: Tangible and empathy F3: Reliability
	P-variables	15-item scale	<b>Two factors:</b> F1: Reliability and responsiveness F2: Responsiveness, empathy and Assurance
	E-variables	22-item scale	<b>Three factors:</b> F1: Responsiveness, assurance and reliability F2: Tangible, responsiveness and reliability F3: Tangible, reliability, responsiveness and empathy

According to the requirements of the factor analysis that is run on the data, the cumulative variance must declare a factor solution that explains a minimum of 60% of variance to be reliable. Another requirement is that for every respondent group a minimum sample size of five times the variables analysed has to be present. In this research a minimum of 110 respondents are required. In the analyses of the Q-variable for the corporate B2C convention group more than 110 respondents are recorded, however the minimum requirements of a 60% variance could not be met. This resulted in a question if the sample size had an influence on reliability of the data. It is suggested that the influence of the sample size on the reliability of data in the measurement of service quality at an ICC should be investigated in a follow-up study.

**6.2.3.4 P<sub>4</sub>: The identification of the dimensions of the SERVQUAL model as applicable to the CSIR ICC, to determine the convention consumer's evaluation of the service quality at an ICC (i.e. the CSIR ICC)**

After a factor analysis and factor rotation are done to restructure the dimensions, four of the original five dimensions presented different item scales for all the Q-variables for all the convention consumers. The P-variable indicate an 11-item scale across two factors as well as the E-variable across 7-items.

Table 6.1 summarises the results of the different factor loading for the Q, P and E variables across the four B2C convention consumer target markets. Different service quality dimensions rotate across the factors, indicating the instability of the SERVQUAL model. Proposition two addresses the number of factors that resulted for all the B2C convention consumers, while proposition one discusses the relation of factors for all the convention consumers.

It is suggested that the rotation of these four factors should be tested for the development of a “new” service quality model at an ICC where the factors are more consistent and reliable.

#### **6.2.4 LEVEL 4: ROTATED FACTOR LOADINGS FOR Q=P-E**

In this section the rotated factor loading for Q, P and E of all the convention consumers will be discussed respectively. Differentiation will be made on the application of the SERVQUAL model over all three of these variables.

Important to note is that the eigenvalues for the gap score (Table 5.7) indicate a four factor dimension for this study, however the P-variables (Table 5.11) as well as the E-variables (Table 5.15) only indicate a two factor dimension for the measurement of service quality at the CSIR ICC amongst the convention consumers. Possible reasons for this variance will be investigated below.

##### **6.2.4.1 The Q-variables**

Table 5.8 reports the four new factors over the 16 statements of the “new” SERVQUAL model, namely (1) responsiveness and assurance, (2) tangibles, (3) empathy and (4) reliability, as applicable to the CSIR ICC. All statements that load under factor I address the importance of the employees in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8533. Factor II focuses on the tangible aspects of service quality delivery at the CSIR ICC with only one statement indicating the importance of employees with a lower Cronbach Coefficient Alpha value of 0.7340. Empathy is factor III with two statements referring to employees with a high Cronbach Coefficient Alpha value of 0.8280, while factor IV (reliability) does not refer to the employee statements at all and indicates the lowest Cronbach Coefficient Alpha value of 0.7250. It is evident that factors I and III have the highest reliability of the four factors. In both these factors statements addressing the importance of employees are present.

Table 5.10 indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. An assumption can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other employee related statements to have a better indication of what the required employee service is, i.e. statements can refer specifically to the sales employees, employees at the reception and those who are providing the catering services at the CSIR ICC. These adapted statements, together with the 16-statements from the original SERVQUAL model, can be tested as a new service quality measurement model at an ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest gap occurs at the CSIR ICC, which have an influence of the service quality experience of the convention consumers. It is further evident that statements addressing the delivery of promises by the CSIR ICC are not relevant to the measurement of service quality at the CSIR ICC.

#### **6.2.4.2 The P-variables**

Table 5.12 reports the two new factors over the 11 statements for the “expectation” variable of the SERVQUAL model, namely (1) responsiveness and assurance as well as (2) tangibles. Although the empathy and reliability factors are acknowledged they fell beyond of the scope of the results and will therefore not be discussed. Both statements that load under factor I address the importance of the employees in the delivering of service quality at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.7578. Factor II focuses on the tangible aspects of service quality delivery at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.7796. Only factor I addresses statements to indicate the importance of employees for the measurement of service quality at the CSIR ICC.

Table 5.13 contains all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements can be replaced by other “employee” and “physical feature” (or Servicescape) related statements to have a better indication of what the required employee and physical feature services are, i.e. statements can refer specifically to the sales employees, employees at the reception and the venues at the CSIR ICC.

It can be concluded that statements addressing the “employees” and the “physical features” (or Servicescape) appear to be the statements where the biggest expectation occurs at the CSIR ICC, which have an influence on the service quality experience of the convention consumers. It is further evident that statements addressing the empathy and reliability at the CSIR ICC are not relevant to the measurement of service quality expectation at the CSIR ICC. This conclusion can assist with the formulation of a “new” service quality model at an ICC.

#### **6.2.4.3 The E-variables**

Table 5.16 reports the two new factors over the 7 statements for the “experience” variable of the SERVQUAL model, namely (1) responsiveness and assurance as well as (2) tangibles. Although the empathy and reliability factors are acknowledged they fall beyond the scope of the results and will therefore not be discussed. All the statements that load under factor I address the importance of the employees in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8919. Factor II focuses on the tangible aspects of service quality delivery at the CSIR ICC with a lower Cronbach Coefficient Alpha value of 0.7941. It can be concluded that factor I is more reliable than factor II for the measurement of the service quality experience at the CSIR ICC. Only factor I addresses statements to indicate the importance of employees for the measurement of service quality at the CSIR ICC.

Table 5.17 indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. An assumption can be made that these statements may not be important to manage service quality experience at the CSIR ICC. It is suggested that these statements can be replaced by other “employee” and “physical feature” (or Servicescape) related statements to have a better indication of what the required “employee” and “physical feature” services are, i.e. statements can refer specifically to the sales employees, employees at the reception and the venues at the CSIR ICC.

It can also be concluded that statements addressing the “employees” and the “physical features” (or Servicescape) appear to be the statements where the most experience, regarding service quality, occurs at the CSIR ICC, which have an influence on the service quality experience of the convention consumers. It is further evident that statements addressing the empathy and reliability at the CSIR ICC are not relevant to the measurement of service quality expectation at the CSIR ICC. These conclusions will assist in further research for the development of a “new” service quality model at an ICC.

To summarise, it is evident from Table 5.8, where the Q-variable is explained, that only 16-statements of the original 22-statements in the SERVQUAL model measured the service quality dimensions which are spread amongst four dimensions in stead of five dimensions. From Table 5.12, where the P variables is explained, it is evident that the only 7-statements of the original 22-statements in the SERVQUAL model measured the service quality dimensions which are spread amongst two dimensions in stead of five dimensions. In Table 5.16 only 7-statements (for the E-variables) of the original 22-statements in the SERVQUAL model measures the service quality dimensions which are spread amongst two dimensions in stead of five dimensions. It is further evident that across all three variables the same two factors / dimensions, namely (1) responsiveness and assurance as well as (2) tangibles measured the service quality through SERVQUAL at the CSIR ICC. Statements addressing employee service quality are strongly represented in the responsiveness and assurance factor.

## **6.2.5 LEVEL 5: BUSINESS-TO-CONSUMER (B2C) CONVENTION CONSUMER TARGET MARKETS**

All the findings for the B2C convention consumers regarding the Q, P and E variables are discussed, followed by a more detailed discussion on each of the four target markets namely association, academic, corporate and government convention consumers.

### **6.2.5.1 The B2C convention consumer market**

#### **a) Q- Variables**

Table 5.20 reports the four new factors over the original 22 statements of the SERVQUAL model, namely (1) assurance, responsiveness and empathy, (2) reliability and responsiveness, (3) empathy (4) tangibles and reliability. Seven out of the eight statements that load under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8844. Factor II focuses on the how responsible and reliable the CSIR ICC is in their delivery of quality services with a lower Cronbach Coefficient Alpha value of 0.7898. Empathy is factor III with two statements referring to “employees” with the second highest Cronbach Coefficient Alpha value of 0.8364, while factor IV (tangible and reliability) only refers to one “employee” statement and further to the promises the CSIR ICC makes, indicating the lowest Cronbach Coefficient Alpha value of 0.7588. It can be concluded that factors I and III have the highest reliability of the four factors. In both these factors statements addressing the importance of “employees” are present.

No statements are eliminated through the factor analyses and therefore no recommendation can be made regarding the replacement of any statement.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest gap occurs at the CSIR ICC, which have an influence on the service quality experience of the B2C convention consumers. This conclusion will be used to assist with the development of a “new” service quality model at an ICC.

**b) P-variables**

Table 5.22 reports the two new factors over the 15 statements for the “expectation” variable of the SERVQUAL model, namely (1) assurance, responsiveness and empathy as well as (2) reliability. Although the tangible and empathy factors are acknowledged they fall beyond the scope of the results and will therefore not be discussed. Six of the ten statements that load under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9442. Factor II focuses on the reliability aspects of service quality delivery at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.8579. It can be concluded that the statements that load under factors I and II are reliable for the measurement of service quality expectations amongst all B2C convention consumers at the CSIR ICC.

Although a separate table does not indicate the statements that are not applicable to the measurement of the service quality expectation at the CSIR ICC, it can be assumed that the seven statements loaded under factor III and IV in Table 5.22 indicate the statements that are eliminated for the measurement of service quality through the SERVQUAL model. An assumption can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” and “reliability” related statements to have a better indication of what the required employee and reliable services are, i.e. statements can refer specifically to the sales employees, employees at the reception and the promises of the CSIR ICC to the convention consumers. These suggestions can be incorporated for the development of a “new” service quality model at an ICC.

It can be concluded that statements addressing the “employees” and the “reliability” appear to be the statements where the biggest expectation occurs at the CSIR ICC, which have an influence of the service quality experience of the B2C convention consumers. It is further evident that statements addressing the tangibility and empathy at the CSIR ICC are not relevant to the measurement of service quality expectation at the CSIR ICC.

### c) E- Variables

Table 5.24 reports the three new factors over the 17 statements for the “experience” variable of the SERVQUAL model amongst the B2C convention consumers, namely (1) assurance and empathy, (2) assurance and responsiveness as well as (3) tangible and reliability. Although the reliability factor is acknowledged it fell beyond the scope of the results and will therefore not be discussed. Four of the six statements that loaded under factor I address the importance of the employees in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8984. Factor II focuses mainly on the employee’s service quality delivery at the CSIR ICC with another high Cronbach Coefficient Alpha value of 0.8856. Factor III focuses on the tangibility and reliability of the service quality at the CSIR ICC, acknowledging only one statement regarding “employees”, with a Cronbach Coefficient Alpha of 0.8192. An assumption can be made that the statements that loaded under factors I, II and III are very reliable for the measurement of service quality experience amongst all B2C convention consumers at the CSIR ICC.

Although a separate table does not indicate the statements that are not applicable to the measurement of the service quality expectation at the CSIR ICC, it can be assumed that the four statements loaded under factor IV in Table 5.24 indicates the statements that are eliminated for the measurement of service quality through the SERVQUAL model. A further assumption can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements can be replaced by other “employee” related statements to have a better indication of what the required employee services are, i.e. statements can refer specifically to the sales employees and the employees at the CSIR ICC.

It can be concluded that statements addressing the “employees” and the “reliability” appear to be the statements where the biggest expectation occurs at the CSIR ICC, which have an influence on the service quality experience of the B2C convention consumers. It is further evident that statements addressing the tangibility and empathy at the CSIR ICC are not relevant to the measurement of service quality expectation at the CSIR ICC.

Statements addressing the “employees” and the “reliability” can be incorporated in the development of a “new” service quality for an ICC.

### 6.2.5.2 Association delegates of the B2C convention consumer market

#### a) Q-Variables

Table 5.27 reports the five new factors of the SERVQUAL model. It is important to note that only the first three factors will be discussed as only these three factors loaded more than two statements under each factor, containing 12 statements. These factors are (1) reliability and empathy, (2) tangibles and empathy as well as (3) tangibles and assurance. Only one statement that loaded under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.7911. The remainder of the statements refer to the promises that the CSIR ICC makes to these convention consumers. Factor II focuses more on the tangible aspects of service quality delivery at the CSIR ICC with only one statement indicating the importance of employees with a Cronbach Coefficient Alpha value of 0.7677. Tangibles and assurance is factor III with three statements referring to “employees” with a Cronbach Coefficient Alpha value of 0.7517. It can be concluded that factors I, II and III have a relatively high reliability of the three factors. In all of these factors statements addressing the importance of employees are present.

Table 6 (Appendix J) indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” related statements to have a better indication of what the required employee service are, i.e. statements can refer specifically to the sales employees, employees at the reception and those who are providing the catering services at the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest gap (most discrepancy) occurs at the CSIR ICC amongst association B2C convention consumers. It is further evident that statements addressing the delivering of “promises” by the CSIR ICC are also relevant to the measurement of service quality at the CSIR ICC. These suggestions can be incorporated in the development of a “new” service quality model for an ICC.

#### **b) P-Variables**

Table 5.29 reports the four new factors over all 22 statements of the original SERVQUAL model, namely (1) responsiveness, assurance and empathy, (2) tangibles and reliability, (3) reliability and responsiveness as well as (4) reliability and empathy. Six of the seven statements that loaded under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9414. Factor II focuses more on the tangible aspects of service quality delivery at the CSIR ICC with only one statement indicating the importance of “employees” with a Cronbach Coefficient Alpha value of 0.8933. Reliability and responsiveness are factor III with statements referring to the “promises” that the CSIR ICC makes, with a high Cronbach Coefficient Alpha value of 0.8982, while factor IV (reliability and empathy) refers to two employee related statements, with a Cronbach Coefficient Alpha value of 0.8559. All the mentioned factors have very high reliability, which indicates that all 22 statements can successfully be applied in the measurement of the expected service quality amongst association B2C convention consumers. Only in three of these factors statements addressing the importance of “employees” are present.

It can be concluded that statements addressing the “employees” appear to be the statements where the most discrepancy occurs at the CSIR ICC, which have an influence of the service quality expectations of the convention consumers.

### c) E-Variables

Table 5.31 reports the three new factors over 21 statements for the “experience” variable of the SERVQUAL model, namely (1) responsiveness, assurance, reliability and tangibles, (2) tangibles, responsiveness and empathy as well as (3) empathy and assurance. Only two of the ten statements that load under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC. The remainder of the statements refer more to the “promises” that the CSIR ICC makes, with a high Cronbach Coefficient Alpha value of 0.9400. Factor II focuses more on the tangible aspects of service quality delivery at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8735. Empathy and assurance (factor III) focuses the most on the statements addressing the “employees”, with a Cronbach Coefficient Alpha of 0.8906. It can be concluded that all 21 statements across all three factors are very reliable for the measurement of the service quality experience at the CSIR ICC amongst the association B2C convention consumers. All three factors address statements to indicate the importance of “employees” for the measurement of service quality at the CSIR ICC, however the “promises” that CSIR ICC makes are also acknowledged in factor II.

Table 10 (Appendix J) indicates the statement that is eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that this statement may not be important to manage service quality experience at the CSIR ICC. It is suggested that this statement be replaced by other “employee” related statement to have a better indication of what the required “employee” services are, i.e. statements can refer specifically to the sales employees, employees at the reception and those attending to delegates’ requests by the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest experience, regarding service quality, occurs at the CSIR ICC, which have an influence on the service quality experience of the association convention consumers. These statements can be incorporated as a guideline for the development of a “new” service quality model at an ICC.

To summarise; it is evident that the factor structures across all three variables are different from one another. This is proof of the instability of the SERVQUAL model in the measurement of service quality in more defined business tourism groups. Statements addressing “employee” service quality is strongly represented in the majority of the factors. Although the majority of the factors had very high reliability according to the Cronbach Coefficient Alphas the number of respondents is less than 110 as the prescribed sample size which will have an influence on the reliability in terms of the representation of this target market.

### **6.2.5.3 Academic delegates for the B2C consumer market**

#### **a) Q-Variables**

Table 5.33 reports the four new factors of the SERVQUAL model. Important to note that only the first three factors are discussed as only those three met the requirements of more than two statements per factor, namely (1) responsiveness, assurance and reliability, (2) assurance and empathy and (3) tangibles, reliability and responsiveness. Three statements that loaded under factor I address the importance of the “employees” in the delivery, of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8952. Factor II focuses also on the “employees” in the delivery of service quality at the CSIR ICC with only one statement indicating the importance of individual attention to delegates, with a lower Cronbach Coefficient Alpha value of 0.8585. Tangibles, reliability and responsiveness is factor III with only one statement referring to “employees” with a much lower Cronbach Coefficient Alpha value of 0.7728. It can be concluded that factors I and II have the highest reliability of the three factors. In both these factors statements addressing the importance of “employees” are present.

Table 12 (Appendix J) indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” related statements to have a better indication of what the required “employee” service are, i.e. statements can refer specifically to the sales employees, employees at the reception and those who are providing the catering services at the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest gap occurs at the CSIR ICC amongst the academic B2C convention consumers, which have an influence on the service quality experience. These “employee” related statements can be applied for the development of a “new” service quality model at an ICC.

#### **b) P-Variables**

Table 5.35 reports the three new factors for the “expectation” variable of the SERVQUAL model. These three factors are discussed as they are the only three that loaded more than two statements in one factor, namely (1) responsiveness, assurance and empathy, (2) tangibles and reliability as well as (3) tangibles and reliability again. It is important to note that two for the factors has the same factor name (tangibles and reliability), however different statements of the original SERVQUAL model loaded under each of these factors and therefore justifies the two factors. Six of the twelve statements that load under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9589. Factor II focuses on the “promising” aspects of service quality delivery at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8673. It can be concluded that factors I and II reliability are not as high as for the gap score (Q-variable). Factor III focuses more on the “tangible” aspects in terms of service delivery at the CSIR ICC.

Table 14 (Appendix J) indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC amongst the academic B2C convention consumers. An assumption can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” related statements to offer a better indication of what the required employee and promising services are, i.e. statements can refer specifically to the sales employees, employees at the reception and the on time serving of refreshments at the venues of the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the highest expectation occurs at the CSIR ICC, which have an influence on the service quality experience of the convention consumers. These statements can be applied for the development of a “new” service quality model to measure service quality at an ICC.

### **c) E-Variables**

Table 5.37 reports the three new factors for the “experience” variable of the SERVQUAL model. These three factors are discussed as they are the only three that loaded more than two statements in one factor, namely (1) responsiveness, assurance, reliability and empathy, (2) tangibles, reliability and responsiveness as well as (3) tangibles, empathy and reliability. Six of the ten statements that load under factor I address the importance of the employees in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9453. Factor II focuses the most on the tangible aspects of service quality delivery at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.8984; however two statements acknowledge the importance of employees as well. Factor III acknowledges one “employee” statement, while the other statements refer more to the “promises” of the CSIR ICC. A Cronbach Coefficient Alpha value of 0.8784 is indicated for factor III. It can be concluded that statements loaded under factors I, II and III are very reliable for the measurement of the service quality experience at the CSIR ICC amongst academic B2C convention consumers.

However, the number of respondents is less than the recommended 110 delegates for the research, which has an influence on the reliability of the results. It is suggested to conduct follow-up research to determine whether the number of respondents has an influence on the reliability of the results.

Table 16 (Appendix J) indicates the statement that is eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that this statement may not be important to manage service quality experience at the CSIR ICC. It is suggested that this statement be replaced by another “employee” related statement to have a better indication of what the required “employee” services are, i.e. statements can refer specifically to the sales employees as well as the employees at the reception.

It can be concluded that statements addressing the “employees” appear to be the statements where the most experience, regarding service quality, occurs at the CSIR ICC, which have an influence on the service quality experience of the academic convention consumers.

To summarise; it is evident that the factor structures across all three variables are different from one another. This is proof of the instability of the SERVQUAL model in the measurement of service quality in more defined business tourism groups. Statements addressing “employee” service quality are strongly represented in the majority of the factors. Although the majority of the factors have very high reliability according to the Cronbach Coefficient Alphas, the number of respondents is less than 110 as the prescribed sample size which will have an influence on the reliability in terms of the representation of this target market. The influence of the number of respondents together with the statements related to “employees” can be used as a guideline for the development of a “new” service quality model at an ICC.

#### 6.2.5.4 Corporate delegates of the B2C convention consumer market

##### a) Q-Variables

Table 5.39 reports the three new factors for the gaps variable of the SERVQUAL model. These three factors, represented by 13-statements, are discussed as they are the only three that load more than two statements in one factor, namely (1) responsiveness and assurance, (2) tangibles as well as (3) empathy, assurance and reliability.

All statements that loaded under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8292. Factor II focuses on the tangible aspects of service quality delivery at the CSIR ICC with only one statement indicating the importance of “employee” with a very low Cronbach Coefficient Alpha value of 0.6135. Empathy, assurance and reliability are factor III with two statements referring to “employees” with a Cronbach Coefficient Alpha value of 0.7374. It can be concluded that factors I and III have the highest reliability of the three factors. In both these factors statements addressing the importance of “employees” are present.

Table 18 (Appendix J) indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” related statements to have a better indication of what the required “employee” service are, i.e. statements can refer specifically to the sales employees, employees at the reception and those who are providing the catering services at the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the highest discrepancy occurs at the CSIR ICC, which have an influence on the service quality experience of the corporate convention consumers. This conclusion can be used a guideline for the development of a “new” service quality model at an ICC.

**b) P-Variables**

Table 5.41 reports the four new factors over all 22 statements for the “experience” variable of the original SERVQUAL model, namely (1) responsiveness, assurance and empathy, (2) tangibles, responsiveness and reliability, (3) reliability as well as (4) empathy. Six of the eight statements that loaded under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9136. Factor II focuses on the tangible aspects of service quality delivery at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8835. Factor III only refers to the reliability statements with a high Cronbach Coefficient Alpha of 0.8404. Lastly, factor IV focuses only on the tangible aspects of the service quality with a high Cronbach Coefficient Alpha value of 0.8920. It can be concluded that all four factors with its 22 statements are reliable in the measurement of the service quality expectation amongst the corporate convention consumers.

It can be concluded that statements addressing the “employees”, “tangibles” and the “reliability” appear to be the statements where the highest expectation occurs at the CSIR ICC, which have an influence on the service quality experience of the corporate convention consumers.

**c) E-Variables**

Table 5.43 reports the four new factors over the 22 statements for the “experience” variable of the SERVQUAL model, namely (1) responsiveness, assurance and empathy, (2) tangibles, responsiveness, reliability and empathy, (3) responsiveness and assurance as well as (4) reliability. Five of the six statements that load under factor I address the importance of the “employees” in the delivering of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9072. Factor II focuses on the tangible aspects of service quality delivery at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.8536. Three of the four statements in factor III refer to the “employees” with a Cronbach Coefficient Alpha of 0.8404. Factor IV addresses statements relating to the reliability of service quality at the CSIR ICC, with a Cronbach Coefficient Alpha of 0.8378.

It can be concluded that all four the factors with its 22 statements are reliable for the measurement of the service quality experience at the CSIR ICC amongst the B2C convention consumers.

It can be concluded that statements addressing the “employees” and the “physical features” (or Servicescape) appear to be the statements where the most experience, regarding service quality, occurs at the CSIR ICC, which have an influence of the service quality experience of the corporate convention consumers.

To summarise; it is evident that the factor structures across all three variables are different from one another. This is proof of the instability of the SERVQUAL model in the measurement of service quality in more defined business tourism groups. Statements addressing “employee” service quality are strongly represented in the majority of the factors. The majority of the factors have very high reliability according to the Cronbach Coefficient Alphas supported by the number of respondents which are more than 110 as the prescribed sample size. This sample size has an influence on the reliability in terms of the representation of this target market. All 22-statements of the original SERVQUAL model can be successfully applied for the measurement of service quality amongst the corporate convention consumers with specific reference to the service quality “experience” as well as the “expectation”. This summary can assist researchers for further research in the development of a “new” service quality model at an ICC.

#### **6.2.5.5 Government delegates / representatives of the B2C convention consumer market**

##### **a) Q-Variables**

Table 5.45 reports the three new factors over the 14-statements for the gaps in the SERVQUAL model, namely (1) responsiveness and assurance, (2) tangibles and empathy as well as (3) reliability. All statements that loaded under factor I address the importance of the “employees” in the delivery of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.8974. Factor II focuses on the “tangible” aspects of service quality delivery at the CSIR ICC with only one statement indicating the importance of “employees” with a high Cronbach Coefficient Alpha value of 0.8700. Reliability is factor III with three statements referring to how dependable the CSIR ICC is with a Cronbach Coefficient Alpha value of 0.7784. It can be concluded that factors I and II have the highest reliability of the three factors. In both these factors statements addressing the importance of “employees” are present.

Table 21 (Appendix J) indicates all the statements that are eliminated for the measurement of service quality through the SERVQUAL model at the CSIR ICC. A conclusion can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” related statements to have a better indication of what the required “employee” service is, i.e. statements can refer specifically to the sales employees, employees at the reception and those who are providing the catering services at the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the most discrepancy occurs at the CSIR ICC, which have an influence on the service quality experience of the government convention consumers. This conclusion support statements for the further development of a “new” service quality model at an ICC.

#### **b) P-Variables**

Table 5.47 reports the two new factors over the 15 statements for the “expectation” variable of the SERVQUAL model, namely (1) reliability and responsiveness as well as (2) responsiveness, empathy and assurance. Although the empathy and tangible factors are acknowledged they fell beyond the scope of the results and will therefore not be discussed. Only one statement loads under factor one address the importance of the “employees” in the delivering of service quality at the CSIR ICC, while the other six statements refer to the “promises” that the CSIR ICC makes, with a high Cronbach Coefficient Alpha value of 0.9188. Factor II focuses more on the “employee” aspects of service quality delivery at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9489. It can be concluded that all 15-statements loaded under factors I and II are very reliable in the measurement of service quality expectations amongst the government B2C convention consumers.

Table 24 indicates the statements that can be eliminated for the measurement of service quality expectations, it can be concluded that the remaining seven statements under factors III and IV through the SERVQUAL model at the CSIR ICC. An assumption can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements be replaced by other “employee” related statements to have a better indication of what the required “employee” services are, i.e. statements can refer specifically to the sales employees, employees at the reception and the delivering of audio visual service at the CSIR ICC according to the contract.

It can be concluded that statements addressing the “employees” appear to be the statements where the highest expectation occurs at the CSIR ICC, which have an influence on the service quality experience of the government convention consumers. It is further evident that statements addressing the empathy and tangibility at the CSIR ICC are not relevant to the measurement of service quality expectation at the CSIR ICC.

### **c) E-Variables**

Table 5.49 reports the three new factors over the 18-statements for the “experience” variable of the SERVQUAL model, namely (1) responsiveness, assurance and reliability, (2) tangibles, responsiveness and reliability as well as (3) tangibles, reliability, responsiveness and empathy. Although the empathy factor is acknowledged, it falls beyond the scope of the results and will therefore not be discussed. Six of the seven statements that loaded under factor I address the importance of the “employees” in the delivery of service quality at the CSIR ICC with a high Cronbach Coefficient Alpha value of 0.9132. Factor II focuses on the “promise” aspects of service quality delivery at the CSIR ICC with a Cronbach Coefficient Alpha value of 0.8941. Two of the three statements in factor III refer to the employees at the CSIR ICC with a Cronbach Coefficient Alpha of 0.8739. It can be concluded that all three factors with the 18-statements are reliable for the measurement of the service quality experience at the CSIR ICC amongst the government convention consumers.

Table 26 indicates the statements that are eliminated for the measurement of service quality expectations through the SERVQUAL model at the CSIR ICC. An assumption can be made that these statements may not be important to manage service quality at the CSIR ICC. It is suggested that these statements can be replaced by other “employee” related statements to have a better indication of what the required “employee” services are, i.e. statements can refer specifically to the sales employees, employees at the reception and the staff operating the audio visual service at the CSIR ICC.

It can be concluded that statements addressing the “employees” appear to be the statements where the biggest experience, regarding service quality, occurs at the CSIR ICC, which have an influence on the service quality experience of the government convention consumers. It is further evident that statements addressing the empathy at the CSIR ICC are not relevant to the measurement of service quality expectation at the CSIR ICC.

To summarise; it is evident that the factor structures across all three variables are different from one another. This is proof of the instability of the SERVQUAL model in the measurement of service quality in more defined business tourism groups. Statements addressing “employee” service quality are strongly represented in the majority of the factors. The majority of the factors have a very high reliability according to the Cronbach Coefficient Alphas which are supported by the number of respondents that are more than 110 according to the prescribed sample size. This sample size has an influence on the reliability in terms of the representation of this target market. These statements can be used as a reference for the development of a “new” service quality model at an ICC.

The P-variables measured the highest eigenvalue across all the variables and can be an indication that service quality can only be measured through the P-variables at the CSIR ICC.

### 6.3 MANAGEMENT IMPLICATIONS

This study is conducted to assess an ICCs' service quality with the objective to assist the marketing managers in understanding institutional and user differences and similarities of the SERVQUAL model. The data collected should not be seen as a value judgment or as indicators of "good" or "bad" service. Data are observed and used as a guideline to improve the level of service quality at an ICC and specifically at the CSIR ICC.

The subjects in this study include 542 convention consumers. These findings cannot be generalised beyond the CSIR ICC, but is an indication of possible applications of the SERVQUAL model in other business tourism markets and specifically at other ICCs is possible.

Table 6.1 summarises the number of factors that loads for each of the Q, P and E variables across the four B2C convention consumer target markets groups. Table 6.2 indicates the possible management implications that can be derived for the results for each of the target markets.

**Table 6.2: Management implications of the Q, P and E variables for the four B2C convention consumer target market groups at the CSIR ICC**

Target B2C group	Variable	Number of factors resulted	Management implication
<b>Association B2C convention consumers</b>	Q-variable	<b>Three factors:</b> F1: Reliability and empathy F2: Tangible and empathy F3: Tangible and assurance	In the measurement of the gap for the association B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.

	P-variables	<p><b>Four factors:</b>  F1: Responsiveness, assurance and empathy  F2: Tangible and reliability  F3: Reliability and responsiveness  F4: Reliability and empathy</p>	<p>In the measurement of the P-variables for the association B2C convention consumer market four factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, empathy, tangible, responsiveness and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
	E-variables	<p><b>Three factors:</b>  F1: Responsiveness, assurance, reliable and tangible  F2: Tangible, responsiveness and empathy  F3: Empathy and assurance</p>	<p>In the measurement of the E-variables for the association B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Responsiveness, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
<p><b>Academic B2C convention consumers</b></p>	Q-variable	<p><b>Three factors:</b>  F1: Responsiveness, assurance and reliability  F2: Assurance and empathy  F3: Tangible, reliability and Responsiveness</p>	<p>In the measurement of the gap for the academic B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>

	<p>P-variables</p>	<p><b>Three factors:</b>            F1: Responsiveness, assurance and empathy            F2: Tangible and reliability            F3: Tangible and reliability</p>	<p>In the measurement of the P-variables for the academic B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
	<p>E-variables</p>	<p><b>Three factors:</b>            F1: Responsiveness, assurance, reliability and empathy            F2: Tangible, responsiveness and reliability            F3: Tangible, empathy and reliability</p>	<p>In the measurement of the E-variables for the academic B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
<p><b>Corporate B2C convention consumers</b></p>	<p>Q-variable</p>	<p><b>Three factors:</b>            F1: Responsiveness and assurance            F2: Tangible            F3: Empathy, assurance and reliability</p>	<p>In the measurement of the gap for the corporate B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>

	P-variables	<p><b>Four factors:</b>  F1: Responsiveness, assurance and empathy  F2: Tangible, responsiveness and reliability  F3: Reliability  F4: Empathy</p>	<p>In the measurement of the P-variables for the corporate B2C convention consumer market four factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
	E-variables	<p><b>Four factors:</b>  F1: Responsiveness, assurance and empathy  F2: Tangible, responsiveness, reliability and empathy  F3: Responsiveness and assurance  F4: Reliability</p>	<p>In the measurement of the E-variables for the corporate B2C convention consumer market four factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
<p><b>Government B2C convention consumers</b></p>	Q-variable	<p><b>Three factors:</b>  F1: Responsiveness and assurance  F2: Tangible and empathy  F3: Reliability</p>	<p>In the measurement of the gap for the government B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy, tangible and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>

	P-variables	<p><b>Two factors:</b>  F1: Reliability and responsiveness  F2: Responsiveness, empathy and assurance</p>	<p>In the measurement of the P-variables for the government B2C convention consumer market two factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy and assurance are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>
	E-variables	<p><b>Three factors:</b>  F1: Responsiveness, assurance and reliability  F2: Tangible, responsiveness and reliability  F3: Tangible, reliability, responsiveness and empathy</p>	<p>In the measurement of the E-variables for the government B2C convention consumer market three factors loaded. These factors with their factor loading can be used as a guideline in the measurement of service quality at the CSIR ICC. Reliability, responsiveness, empathy and tangible are important service quality dimensions for this market segment in the development of an ICCQUAL model.</p>

### **6.3.1 The ICCQUAL MODEL**

It is evident that four factors, represented by different statements, measure service quality at the CSIR ICC. Statements referring to “employees” and “servicescape” / “physical features” measure the most frequently with the highest Cronbach Coefficient Alpha values. This is an indication that these statements are reliable in the measurement of service quality at the CSIR ICC. It is further suggested that statements that are eliminated during the factor analysis procedure must be replaced by statements that will address the service quality delivery of “employees” as well as the ‘servicescape” at an ICC amongst convention consumers. These statements have an influence on the service quality expectation and experience of the convention consumers. It is further evident that statements addressing the delivery of “promises” by the CSIR ICC exceed the service delivery experience, but are not relevant to the measurement of service quality at the CSIR ICC. These statements are discarded in the development of the “new” service quality model at an ICC, namely an ICCQUAL.

The ICCQUAL will consist of the statements that present the 16-item scale across the four dimensions. Eliminated statements can be replaced by the proposed statements in the previous paragraphs. These “new” statements must be tested at different ICCs for reliability.

The following guidelines are suggested for the development and interpretation of the ICCQUAL:

- According to the requirements of the factor analysis, the cumulative variance must declare a factor solution that explains a minimum of 60% of variance to be reliable.
- For every respondent group a minimum sample size of five times the variables analysed has to be present.
- If the cumulative variance cannot declare the minimum requirement of 60% for the factor solution and the required minimum sample size is present, the reliability of the results must be questioned. The same argument can be applied that if the cumulative variance can declare the minimum requirement of 60% for the factor solution and the required minimum sample size is not present, the reliability of the results must be questioned.
- Results from the previous requirement justify a question if the sample size has an influence on reliability of the data. The influence of the sample size on the reliability of data in the measurement of service quality at an ICC should be investigated.
- It is suggested that the rotation of these factors should be tested for the development of new factors that are more consistent and reliable.
- Statements where reverse scoring is applicable should be reformatted according to the original SERVQUAL model statements and not be made positive on the questionnaire. This will result in testing whether the respondents have read the questions and interpreted them correctly.
- The factor structure for the P-variables explained high total variance throughout. Employee, and in some instances tangible, variables loaded in the factor structures for P. Therefore these variables should definitely be included in the proposed ICCQUAL model. This model needs further testing and analysis at various ICC's.

## 6.4 SCOPE OF THE LIMITATIONS IN THIS RESEARCH

The following limitations to this research can be reported:

- Due to the nature of the limited data collected from the international delegates who had used the facilities of the CSIR ICC, these data cannot be reported.
- Due to a lack of sufficient response from the B2B consumers investigated at the CSIR ICC the researcher could not report the influence of different service quality dimensions in this market. This can be an indication that e-mailed questionnaires are not the most reliable data collection method in this market.
- There were insufficient international responses from the B2B as well as from the B2C consumer markets. Future research needs to focus more on the needs for this market to ensure that sufficient responses are collected.
- A 360° employee evaluation was not done during the research where management and staff were requested to complete the questionnaires. It is proposed to develop additional statements to address employee service quality delivery. These statements can be aimed at more specific employee group from top management to the part-time front line staff.
- The factor analysis can be a rigorous tool to use in this research; however results must be interpreted with great care. SERVQUAL model seems to be unstable in the measurement of service quality across the Q, P and E variables. The factor rotation for each variable is different, therefore a concern exists about the reliable interpretation of the results.
- Only two months were allocated for fieldwork, which may have had an impact on the research results. It is suggested that more time should be made available for data capturing. A convenience sample was used which may have an influence on the data. It is suggested that groups attending conferences, meetings or workshops for the same duration over a longer period of time should be used and that data capturing should take place on a specific day of the week.

## 6.5 RECOMMENDATIONS

The conceptual framework and the SERVQUAL typology suggest a wide range of research possibilities. Given the scarcity of research reported in tourism and marketing literature, there is a tremendous opportunity for theory building, empirical testing, development of better measures and methods, and application / replication of findings from other fields. Figure 2.5 (business tourism model) and the preceding specific objectives provide numerous starting positions for research. The objectives are purposefully general. Each one could be explored and expanded through empirical research.

In addition to the basic research suggested by the framework (Figure 2.5) and objectives, there is a need for research that will illuminate the differential importance and different effects of the service quality dimensions across types of tourism service industries, i.e. an ICC as identified in Figure 2.5.

As the SERVQUAL model was tested in other tourism markets, the fact that there is relatively little empirical work in the business tourism market, allows the opportunity for true pioneering research to be done in this market.

The typology, framework and propositions in this research provide direction for research on a topic that is incredibly rich, and invite application of different service quality models to the full range of convention consumers. This can assist in the development of more organizational methods and theories to gain a better understanding of service quality impacts amongst convention consumers in the business tourism market, like the ICCQUAL as motivated in the previous paragraph.

Service quality performance at other ICCs and business tourism organisations, in South African and internationally, can be assessed through this new ICCQUAL model.

## **6.6 CONCLUSION**

Chapter 6 concludes with detailed findings on all the data reported in chapter 5. It is suggested that statements addressing employees are the most reliable in the measurement of service quality amongst convention consumers. Limitations are discussed referring to the insufficient responses from the international convention consumers as well as the B2B convention consumers. Management implications explored the opportunity of the development of a new service quality model, namely an ICCQUAL, for the measurement of service quality amongst convention consumers at an ICC. The chapter concludes with the recommendations for further research where the development of the ICCQUAL model is strongly recommended.

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<sup>31</sup> Dimitri Tassiopoulos is an Associate Director at the Walter Sisulu University in East London (South Africa) and editor of "Event management a professional and developmental approach".

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<sup>32</sup> Professor Ulrich Wünsch is from the Institute for Communication Analysis in Germany. He is member of the Board of International Festival and Event Association (IFEA) Europe and Director Marketing of the International Special Event Society (ISES) Europe Chapter (Wünsch, U. 2005b).

**APPENDIX A**  
**AN OVERVIEW OF THE CSIR ICC**

## **A. THE CSIR ICC – AN OVERVIEW**

The Gauteng Province is South Africa's "egoli" (place of gold), the economic powerhouse of Southern Africa (Gauteng - South Africa's Golden Province, 2003:12-13, South African Tourism, 2001b:15), the smallest of all nine provinces in the country (Gauteng: SA's "Big Marula", 2005:24) and the leading event destination in South Africa (Direct Access & Grant Thornton, 2005:1). It is in this province of South Africa where the CSIR International Convention centre is situated. The Gauteng province is the most visited province in the country and remains a popular province to host conferences (Conference Crazy: 2003). The most meeting planners (56%) in South Africa can also be found in this province. Meeting planners across the county indicated that they organise 61% of all events organised in Gauteng (Coertze, 2005:21).

The CSIR ICC is located in the eastern suburbs of the Tshwane Metropolitan area (Cadle, 2004:2). Areas included in the Tshwane Metropolitan council with its surroundings includes Pretoria, Centurion, Acacia, Mabopane, Hammanskraal, Ga-Rankuwa, Temba, Pienaarsrivier, Olievenhoutbosch, Mamelodi, Atteridgeville, Eersterust, Laudium, Soshanguve and Winterveld (City of Tshwane – administrative capital of South Africa, n.d: 8; Tshwane Visitors CC, 2004: 39). Gauteng is host to the headquarters of the national government departments, embassies prestigious institutions of learning and international organisations, which contribute towards the classification of the city as the administrative capital of South Africa. Furthermore Pretoria is a "treasure trove of cultural and historical experiences" (Gauteng: SA's "Big Marula": 2005:24) Due to the presence of all the above-mentioned organisations in the Tshwane Metropolitan area, national and international delegations, Pretoria hosts many conferences and conventions in the city, which justifies the presence of an International Convention Centre here (South African Tourism, 2001b:15; South African Federation of Convention Cities, n.d:8).

It is easily accessible from all the major highways and roads without too much traffic problems. Sufficient and secure parking ensure piece of mind for any delegated attending a conference or function at this International Convention Centre (Cadle 2004:2).

The CSIR ICC site has the potential for further development. Proposals were submitted for the building of a new hotel, a large function area (able to accommodate 10 to 1000 people) and a CONFEX (conference with parallel exhibition facilities). The last part in the upgrade of the ICC's audio-visual and lighting facilities was completed during 2004/5. The purpose of the upgrade was to invest in technologically innovative equipment, which should have had a positive impact on the ICC's market perceptions as well as image and capabilities (Cadle, 2004:2).

“The CSIR ICC is a business unit within the CSIR that provides venues, catering, equipment, services and support to event organisers, delegates and guests for all types of events for groups of 10 to 700 persons” (Cadle, 2004:1).

The vision of the CSIR ICC is “to be the leading venue in South Africa for hosting local, national and international events with standards of the highest quality” (Cadle, 2004:1).

In the mission statement the following objectives are highlighted:

- to understand and support the customers in the objectives and needs;
- to provide a multi-purpose venue in a secure environment;
- to provide professional, competent, experienced and dedicated staff in order to provide the highest quality of services;
- for the management team to strive toward the provision of equipment, facilities and venues that will surpass the market's requirements;
- to strive towards competitive pricing and value for money;
- to be flexible to accommodate the customer's requirements;
- to maintain high standards of hygiene as part of the service offering;
- to benchmark the business practices against international standards and to implement it in the management of the CSIR ICC;
- to comply with environmental and social responsible requirements;
- to provide peace of mind to the customers and;
- to create a corporate culture that compliments the above statements (Cadle, 2004:1).

The CSIR ICC's Marketing and Sales Manager, Ms Bronwen Cadle, has identified the following gaps / short comings regarding primary data in the writing of the CSIR ICC' s Sales and Marketing Plan 2004/5:

- The market size and share are currently unknown (Cadle, 2004:2). This is due to the unsophisticated market analysis of the meetings industry in South Africa
- There is a threat to the CSIR ICC's market share due to the development and expansion of similar facilities in the local, for example the proposed Tshwane International Exhibition Centre, and nationally, for example the CTICC (Cadle, 2004:3)
- Insufficient definition of the 13 target markets. The markets are referred to as “users of conference and event venues and services” (Cadle, 2004:3). For the purpose of this study the various targets markets will be investigated and demographically divided.

During the 2005 Tshwane Tourism Awards, a partnership between the City of Tshwane, TTA and the Moshito wa Tshwane Community Tourism Association, awarded the CSIR ICC with the winning trophy in the conference venue category. The award is determined on the feedback received from the centre's customers to acknowledge the quality and the improvement in standards at the ICC (CSIR ICC Tshwane Tourism Awards, 2005:44).

In the context of the background outlined, it was decided to conduct research into the service quality dimensions as perceived by consumers attending a conference, meeting or exhibition at an ICC.

## **APPENDIX B**

### **FIRST 20 GRADED CONFERENCE VENUES IN SOUTH AFRICA**

(First 20 Conference Venues are Graded. 2004: 27)

## **B. THE FIRST 20 VENUES TO BE STAR GRADED BY THE GRADING COUNCIL OF SOUTH AFRICA**

The following list includes first 20 venues in South Africa that received grading certificates from the Minister of Environmental Affairs and Tourism<sup>33</sup>:

1. Amazingwe Conference Centre (Gauteng)
2. Cabanga Conference Centre (Gauteng)
3. Caesars Gauteng Hotel Casino & Convention Centre (Gauteng)
4. CSIR International Convention Centre (Gauteng)
5. Kwa-Phokeng Conference Venue (Gauteng)
6. Sandton Convention Centre (Gauteng)
7. Sun City Resort (Gauteng)
8. Forever Resorts Aventura Tshipise Mese (Limpopo)
9. Mountain View Conference Centre (Limpopo)
10. Forever Resorts Aventura Gariep Dam Conference Centre (Limpopo)
11. Impala Inn Forever Resorts Mese (Limpopo)
12. Tusk Venda Casino Hotel Meeting Venues (Limpopo)
13. Hotel Numbi Meetings (Mpumalanga)
14. Forever Resorts Aventura Blydepoort Conference Centre (Mpumalanga)
15. Jock Sabie Lodge Conference Centre (Mpumalanga)
16. Forever resorts Aventura Loskop Meetings (Mpumalanga)
17. ATKV Buffelspoort Conference Centre (North West)
18. Omaramba Holiday Resort & Conference Centre (North West)
19. Ivory Heights Conference Centre (Western Cape)
20. Kolping Conference Centre (Western Cape)

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<sup>33</sup> Please note that the venues are listed in alphabetical order per province and do not imply the order of star grading.

**APPENDIX C**  
**QUESTIONNAIRES TO INDUSTRY EXPERTS FOR THE**  
**DEFINITION SURVEY**

## C. EXPERT DEFINITIONS

28 July 2005

To whom it may concern

I, Nellie Swart, am busy with my MCom in Tourism Management at the University of Pretoria (South Africa). The study is a survey amongst delegates and intermediaries (convention consumers) on the five dimensions of service quality at an International Convention Centre (ICC). The CSIR ICC, in the City of Tshwane, is used as a case study. During the secondary research I could not find satisfactory definitions for an “International Convention Centre” (ICC) or “convention consumer”.

As you are an expert in the events industry I was advised by my promoter, Prof Neels van Heerden, to approach you to assist me in formulating sufficient definitions for an ICC and a “convention consumer”. This will assist me in making a contribution to this field of study.

Please complete the definitions below and return it to Dr Rone Pawson. I will formulate a definition based on your response and e-mail it back to you for your approval.

Should you have any questions please contact me at [nellswar@twr.ac.za](mailto:nellswar@twr.ac.za) or +27 (0) 82 7710 270.

Your assistance is appreciated.

Kind Regards

**Nellie Swart**

Lecturer: Department of Tourism Management  
School of Tourism and Hospitality  
University of Johannesburg  
South Africa.

**PLEASE FORMULATE A DEFINITION FOR:**

**1. “Convention Consumer”:**

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**2. “International Convention Centre”:**

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**PLEASE INDICATE YOUR CONTACT DETAILS FOR FEEDBACK:**

**Name and Surname:** \_\_\_\_\_

**Institution:** \_\_\_\_\_

**Job Title:** \_\_\_\_\_

**E-mail Address:** \_\_\_\_\_

**Telephone number:** \_\_\_\_\_

**THANK YOU**

**APPENDIX D**

**PILOT BUSINESS-TO-BUSINESS & BUSINESS-TO-CONSUMER  
QUESTIONNAIRE WITH THE LETTER OF INSTRUCTION**

## D. PILOT QUESTIONNAIRE

Dear Delegate

I am Nellie Swart, a MCom student in Tourism Management at the University of Pretoria. My research aims to measure the quality of services at an International Convention Centre (ICC). The CSIR ICC has kindly allowed me to use them as a case study. Will you please assist me in completing the questionnaire and return it to the fieldworker after completion.

Please note that every questionnaire is treated as confidential.

Your assistance is appreciated.

Kind regards  
Nellie Swart  
Mobile: 0827710270

Please read the following guidelines and answer the questions below.

The questionnaire requires you to evaluate service quality at the **CSIR ICC**. A list of statements on the quality of service at the CSIR ICC is provided. Please indicate your perception on the quality of service delivery related to your expectations of the level of quality that should have been delivered. There are no correct or incorrect answers – the researcher is interested in **your** opinion.

Please think about the next two levels for evaluating service quality:

EXPECTATION LEVEL – the quality of service you expect from the personnel of an organization (**see second column**). Please consider the level of service quality you would expect for each of the statements below. If you think a feature requires a very high level of service quality, circle number 7 in the **second column**. If you think a feature requires a very low level of service quality circle number 1 in the **second column**. If your requirements are less extreme, **circle** an appropriate number in between.

EXPERIENCE LEVEL – is your perception of the service quality that CSIR ICC provides (see **third column**). Please use the same 7-point scale to evaluate the level of quality service you experienced.

	My EXPECTATION of the service quality is:	My EXPERIENCE of the CSIR ICC's service level is:
With regard to ...	LOW 1 2 3 4 5 6 7 High	LOW 1 2 3 4 5 6 7 High
1. The CSIR ICC has up-to-date equipment.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
2. Physical facilities at the CSIR ICC should be visually appealing.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3. Employees at the CSIR ICC should be well dressed and appear neat.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
4. The appearance of the physical facilities of the CSIR	1 2 3 4 5 6 7	1 2 3 4 5 6 7

	<b>My EXPECTATION of the service quality is:</b>	<b>My EXPERIENCE of the CSIR ICC's service level is:</b>
<b>With regard to ...</b>	<b>LOW 1 2 3 4 5 6 7 High</b>	<b>LOW 1 2 3 4 5 6 7 High</b>
ICC should be in keeping with the type of service provided.		
5. When the CSIR ICC promises to do something by a certain time, they should do so.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
6. When delegates have problems, the CSIR ICC should be sympathetic and reassuring.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7. The CSIR ICC should be dependable.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8. The CSIR ICC should provide their services at the time they promise to do so.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
9. The CSIR ICC should keep their records accurately.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10. The CSIR ICC should be expected to tell delegates exactly when the services will be performed.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
11. It is realistic for delegates to expect prompt service from employees of the CSIR ICC.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
12. The CSIR ICC's personnel should always be willing to help delegates.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
13. It is acceptable if the CSIR ICC responds to delegate's requests promptly.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
14. Delegates should be able to trust employees of the CSIR ICC.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
15. Delegates should be able to feel safe in their transactions with the CSIR ICC's employees.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
16. The employees should be polite.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
17. The employees should get adequate support from the CSIR ICC to do their job well.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
18. It can be expected of employees of the CSIR ICC to give personal attention to delegates.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
19. It can be expected of employees of the CSIR ICC to give personal attention to	1 2 3 4 5 6 7	1 2 3 4 5 6 7

	<b>My EXPECTATION of the service quality is:</b>	<b>My EXPERIENCE of the CSIR ICC's service level is:</b>
<b>With regard to ...</b>	<b>LOW 1 2 3 4 5 6 7 High</b>	<b>LOW 1 2 3 4 5 6 7 High</b>
delegates.		
20. It is realistic to expect employees of the CSIR ICC to know what the needs of the delegates are.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
21. It is realistic to expect the CSIR ICC to have their delegate's best interest at heart.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
22. The CSIR ICC should expect to have operating hours convenient to their delegates.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Please indicate with a ✕ the capacity in which you attend the conference / function / meeting on the behalf of your association / academic institution / corporate company or government.	YES	NO
23. International delegate		
24. South African Delegate		
25. Association member		
26. Academic representative		
27. Corporate delegate		
28. Government official		

**YOUR PARTICIPATION IS SINCERELY APPRECIATED**

**APPENDIX E**

**FINAL BUSINESS-TO-CONSUMER QUESTIONNAIRE WITH THE  
LETTER OF INSTRUCTION**

## E. RESEARCH STUDY: SERVICE QUALITY AT THE CSIR ICC

Dear Delegate

I am Nellie Swart, a MCom student in Tourism Management at the University of Pretoria. My research aims to measure the quality of services at an International Convention Centre (ICC). The CSIR ICC has kindly allowed me to use them as a case study. Will you please assist me in completing the questionnaire and leave it at your seat for collection during the next break.

Please note that every questionnaire is treated as confidential.

Your assistance is appreciated.

Kind regards

**Nellie Swart**

Mobile: 0827710270

### QUESTIONNAIRE INSTRUCTIONS

Please read the following guidelines and answer **ALL** the questions below.

The questionnaire requires you to evaluate service quality at the **CSIR ICC**. A list of statements about the quality of service of the CSIR ICC is provided. Please indicate your perception on the quality of service delivery related to your expectations of the level of quality that should have been delivered. There are no correct or incorrect answers – the researcher is interested in **your** opinion.

Please think about the next two levels for evaluating service quality:

**EXPECTATION LEVEL** – the quality of service you expect from the personnel of the organization (**see second column**). Please consider the level of service quality you would expect for each of the statements below. If you think a feature requires a very high level of service quality, circle number 7 in the **second column**. If you think a feature requires a very low level of service quality circle number 1 in the **second column**. If your requirements are less extreme, **circle** an appropriate number in between.

**EXPERIENCE LEVEL** – is your perception of the service quality that CSIR ICC provides (see **third column**). Please use the same 7-point scale to evaluate the level of quality service you experienced by **circling** the appropriate number in the **third column**.

Please see the following example:

STATEMENT	My <b>EXPECTATION</b> of the service quality is:							My <b>EXPERIENCE</b> of the CSIR ICC's service quality is:										
	LOW	1	2	3	4	5	6	7	HIGH	LOW	1	2	3	4	5	6	7	HIGH
1   The CSIR ICC has up to date equipment.	1	2	3	4	5	6	7			1	2	3	4	5	6	7		

Your expectation of the equipment was a 4 and your experience was a 6.

**Please turn the page to answer ALL the questions. This questionnaire consists out of two (2) pages. Please complete both sides of the questionnaire.**

Print page separately 19 Sept

Print page separately – 19 Sept

**APPENDIX F**

**FINAL BUSINESS-TO-BUSINESS QUESTIONNAIRE WITH THE  
LETTER OF INSTRUCTION**

## F. RESEARCH STUDY: SERVICE QUALITY AT THE CSIR ICC

Dear Client

I am Nellie Swart, a MCom student in Tourism Management at the University of Pretoria. My research aims to measure the quality of services at an International Convention Centre (ICC). The CSIR ICC has kindly allowed me to use them as a case study. Will you please assist me in completing the questionnaire and leave it at your seat for collection during the next break.

Please note that every questionnaire is treated as confidential.

Your assistance is appreciated.

Kind regards

**Nellie Swart**

Mobile: 0827710270

### INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Please read the following guidelines and answer **ALL** the questions below.

- Open the questionnaire document and **save it on your desk top**.
- When you open the questionnaire insure that the toolbars have a **shading colour** icon. (If you do not have this toolbar opened on your document please follows the following instructions to get the toolbar: Select “Tools”, select “Customise”, and then select “Commands”, select “Categories” on the right-hand side of the box and select “All commands”. On the left-hand side in the “Commands” block scrawl down and select the “Shading colour” icon and close.)
- Select the **bright red colour** of the “shading colour” icon.
- The questionnaire consists out of **two grey shaded columns**, namely an EXPECTATION part and an EXPERIENCE part.
- Please **complete both columns of each** question by “pointing with the computer mouse” on the appropriate number in the 7-point scale. Click then on the “shading colour” icon to colour the whole box in red.
- If you think a feature requires a very low level of service quality **colour** number 1 in the **shaded column**. If your requirements are less extreme, **colour** an appropriate number in between.
- Use the same techniques to **complete all 25 Questions**.
- After you have completed the questionnaire, **save all your answers** again.
- Please e-mail the questionnaire to [Bcadle@csir.co.za](mailto:Bcadle@csir.co.za)
- If you choose to print the document, please complete and fax it for attention to B Cadle at **fax number: (012) 841 2051**

Please see the following example:

STATEMENT	My EXPECTATION of the service quality is:							My EXPERIENCE of the CSIR ICC’s service quality is:													
	LOW	1	2	3	4	5	6	7	HIGH	LOW	1	2	3	4	5	6	7	HIGH			
1. The CSIR ICC has up to date equipment.	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Your expectation of the equipment was a 4 and your experience was a 6.

**This questionnaire consists out of two (2) pages. Please complete both pages of the questionnaire.**





**APPENDIX G**

**LEADING CITIES AND DESTINATIONS IN BUSINESS TOURISM**

## G ICCA VS UIA STATISTICS

Statistics for 2005 published by ICCA and the UIA will be discussed and compared in this appendix.

### G.1 THE 2004 ICCA STATISTICS

ICCA annually publishes the previous year's business tourism statistics. These statistics consist of the leading [business tourism] city as well as the leading [business tourism] country in the world. ICCA (2005a) criteria for the rankings include that an international meeting or conference must be organised on a regular basis, which has to rotate between at least three different countries and attract a minimum of 50 participants. Tables, G.2 and G.3, indicate the leading countries and cities in the business tourism world.

**Table G.2: The leading tourism cities in 2004**

Rank	City	Number of business tourism events in 2004
1	Barcelona	105
2	Vienna	101
3	Singapore	99
4	Berlin	90
5	Hong Kong	86
6	Copenhagen	76
7	Paris	75
8	Lisbon	67
9	Stockholm	64
	Budapest	64

(Adapted from ICCA, 2005a)

**Table G.3: The leading business tourism countries in 2004**

Rank	Country	Number of business tourism events in 2004
1	USA	288
2	Germany	272
3	Spain	267
4	France	204
5	United Kingdom	196
6	Netherlands	181
7	Italy	170
8	Australia	145
9	Japan	132
10	Austria	129

(Adapted from ICCA, 2005a)

The above Tables (G.2 & G.3) indicate that Barcelona and the USA are the top city and country respectively. ICCA data reveal that Hong Kong have improved its position as a leading country from number 18 to number 5 and Paris from number 12 to number 7. Both the Netherlands and Australia has improved their positions in the country ranking from number 11 to number 9 and from number 12 to number 10 respectively.

## **G.2 UIA 2005 statistics**

Statistics are collected from international organisations brought to attention of UIA's, (UIA, 2005:1) meeting the following criteria:

- Minimum number of participants: 300 delegates
- Minimum number of foreign participants: 40% of the delegates
- Minimum number of nationalities: 5 nations
- Minimum duration: 3 days

The UIA press statement has further revealed the information on the market share per continent as well as the top ten countries (Table G:4) and cities (Table G.5) (UIA, 2005:2). The market share by continent is as follows: Europe is the leading continent with a 56.8% market share, followed by Asia (14.9% market share), North America (13.9% market share), South America (6.4%). Africa (4,8%) and lastly Australasia/Pacific with a 3.2% market share.

**Table G.4: Top ten international meeting countries in 2004 with a minimum of 45 international meetings**

Rank	Country	Number of meetings	Percentage of all meetings
1.	USA	1080	11.79%
2.	France	552	6.03%
3.	Germany	491	5.36%
4.	UK	377	4.12%
5.	Spain	361	3.94%
6.	Italy	336	3.67%
7.	Switzerland	302	3.30%
8.	Belgium	282	3.08%
9.	Austria	279	3.05%
10.	China, Hong Kong & Macau	231	2.52%

(UIA, 2005:3)

**Table G.5: Top ten international meeting cities in 2004 with a minimum of 20 international meetings**

Rank	City	Number of meetings	Percentage of all meetings
1.	Paris	221	2.41%
2.	Wien (Vienna)	219	2.39%
3.	Brussels	190	2.07%
4.	Geneva	188	2.05%
5.	Singapore	156	1.70%
6.	Copenhagen	137	1.50%
7.	Barcelona	133	1.45%
8.	London	131	1.43%
9.	Berlin	110	1.20%
10.	Seoul	109	1.19%

(Union International Association, 2005:3)

In contrast to the British Tourist Authority (2005:2) and the UIA (2005:2) statistics on 2004 indicate a world-wide decline of -2.4% for the past five year period. Forward projects do not look that promising either. Meetings scheduled for 2005 are -22% lower world-wide with only Asia showing an increase of 14.9% and Africa a decline of -11%.

## **APPENDIX H**

**THE RESEARCHER'S OBSERVATIONS AND CHALLENGES  
DURING THE BUSINESS-TO-CONSUMER AND BUSINESS- TO  
BUSINESS CONVENTION CONSUMERS DATA COLLECTION**

## **H. RESEARCH CHALLENGES DURING THE DATA COLLECTION:**

### **H.1 GENERAL**

- The events were selected from the “Function summary sheet” of the CSIR ICC. Due to confidentiality reasons this sheet may not be revealed.
- The respondent used a highly convenient sampling method.
- Fourteen events were selected whose profile indicated the respondents will be selected from a broad field and to avoid repetition of one delegate completing the same questionnaire at different events.
- The response rate of workshop was very low – the researcher made the conclusion that the delegates did not had enough time during a session to complete the questionnaire.

### **H.2. BUSINESS-TO-CONSUMER GROUPS**

#### **H.2.1 TLU group**

- TLU respondents requested questionnaires in Afrikaans.
- Respondent number 0018 – 0027 was not copied on the second page of the question paper.
- Distributed during 10:00 and collected at the end of the day.
- Distributed on day two of a three day conference.

#### **H.2.2 NRF group**

- Questionnaires were distributed during lunch – all the delegates didn’t go to lunch.
- Distributed on day three of a three day workshop.
- Respondent 0133 – 0134 did not answer the questionnaire from Question 17 (V35–51).

### **H.2.3 CSIR – Development of Cross Sector Policy Objectives group**

- Conducted during the second day of the two day workshop.
- Respondent no 0203 did not complete the questionnaire from Questions 17 (V35-51).
- Distributed during the 10:00 tea break and collected at the end of the day.

### **H.2.4 University of Johannesburg – Certificate in Marketing and Customer Centricity group**

- Distributed on the first day of a two day workshop.
- Distributed during the 10:00 tea break and collected at the end of the day.

### **H.2.5 SETA group**

- Distributed on the first day of a two day workshop.
- Distributed during the 10:00 tea break and collected at the end of the day.

### **H.2.6 SAWS group**

- Distributed in first day of a one day conference.
- Distributed during the 10:00 tea break and collected at the end of the day.
- Respondent no 0512 – 0514 did not complete the questionnaire from Questions 17 (V35-51).

### **H.2.7 Institute of Public Finance and Auditing group**

- Distributed in second day of a three day conference.
- Distributed during the 10:00 tea break and collected at the end of the day.
- Respondent no 0668 – 0675 did not complete the questionnaire from Questions 17 (V35-51).

### **H.2.8 Helena Burger & Associates group**

- Distributed on day three of a five day workshop.
- Distributed during the 10:00 tea break and collected at the end of the day.
- Respondent no 0707 – 0709 did not complete the questionnaire from Questions 17 (V35-51).

### **H.2.9 Old Mutual group**

- Questionnaires were distribute the previous evening for the next morning's meeting
- Morning meeting.
- Questionnaires were collected at the end of the meeting at 11:00 that morning.
- Respondent no 0512 – 0514 did not complete the questionnaire from Questions 17 (V35-51).

### **H.2.10 UNISA group**

- Distributed in first day of a one day conference.
- Distributed during the 10:00 tea break and collected at the end of the day.
- Respondent no 0913 & 0917 did not complete the questionnaire from Questions 17 (V35-51).

### **H.2.11 MEDUNSA group**

- Distributed on second day of a three day conference.
- Distributed before the start of the sessions of the day and collected at the end of the day.
- Respondent no 1034 did not complete the questionnaire from Questions 17 (V35-51).

#### **H.2.12 All SA – 10<sup>th</sup> Toy Library Conference group**

- Distributed on fourth day of a five day conference.
- International conference.
- International delegates did not understand the English questions as some of them were from West Africa and could only speak French.
- Distributed during the 10:00 tea break and collected at the end of the day.
- Respondent no 1168 – 1170 did not complete the questionnaire from Questions 17 (V35-51).

#### **H.2.13 SANDF group**

- Distributed on the second day of a two day budget meeting.
- Distributed during the 10:00 tea break and collected at the end of the day.
- Respondent no 1264 did not complete the questionnaire from Questions 17 (V35-51).

#### **H.2.14 GISSA group**

- Distributed on the second day of a three day conference.
- Distributed before the start of the session the morning and collected at the end of the day.
- Respondent no 1386 - 1393 did not completed the questionnaire from Questions 17 (V35-51).
- International conference by the Department of Agriculture.

### **H.3. BUSINESS-TO-BUSINESS CONSUMERS**

- Only 27 delegates of the 2549 respondents completed the questionnaires.
- Questionnaires were distributed via e-mail.
- Questionnaires were distributed in October 2005.
- A reminder was send to all clients again at 31 October 2005.

**APPENDIX I**

**COMMENTS BY BUSINESS-TO-CONSUMER AND BUSINESS-  
TO BUSINESS CONSUMERS DURING THE DATA COLLECTION**

<b>Respondent no</b>	<b>Comments</b>
<b>BUSINESS-TO-CONSUMER</b>	
<b>TLU</b>	
0001	V38 -?
0004	Thanks – good luck with the research
<b>NRF</b>	
0126	The questionnaire will benefit from a “N/A” or a “not sure” column as an optional answer, i.e. question 18 is hard to answer knowledgeably and you don’t experience problems It is difficult to answer questions 20 (V41 & 42), 22 (V45 & 46), 13 (V27 & 28 Question 10 (V21 & 22) is difficult to quantify Some of the questions is repetitive
0128	Question 10 (V21 & 22)
0129	Question 6 (V14) – internet is very slow)
<b>CSIR – Development of cross sector policy objectives</b>	
No comments	
<b>University of Johannesburg – Certificate in Marketing and Customer Centricity</b>	
0303	Question 10 (V21 & V22) – no clue Question 11 (V23 & V25) – no clue Question 18 (V37 & 38) - no clue
0304	Couldn’t answer Questions 6 – 11 (V13 – 24) – no experience Didn’t answer questions 13 – 25 (V27 – 51) – no experience
0306	Wasn’t involved with the arrangements therefore couldn’t answer questions 9 – 11 (V19-24), Questions 14 & 15 (V29-32) and questions 18-23 (V37-48)
0308	Questions 10 & 11 (V21-24) – not tested Questions 15 & 16 (V31-34) – not sure Questions 21 & 22 (V43-46) – not sure
<b>SETA</b>	
0402	Question 6 (V13& 14) – not sure
0403	Question 10 (V21-22) – not sure Question 18 19 (V37 & 38) – don’t know Question 23 (47 & 48) – don’t know
<b>SAWS</b>	
0501	Question 6 (V13) - ?
0508	Most of the questions didn’t apply to people come for one day for a meeting of their own. For our meeting we are not dealing directly with CSIR ICC employees and so it is hard to determine if they have our interest at heart.
0512	Questions 6 & 7 (V13-18) - ? Questions 14 – 16 (V29-34) - ? Questions 19-23 (V39-48) - ?
<b>Institute of Public Finance and Auditing</b>	
0608	Question 6 & 9 (V13 & 14) (V19 & 20) – repetition Question 18 (V37 &38) - ? Questions 19 &20 (V39-42) – repetitive: individual attention = personal attention
0663	The questions posed in this questionnaire related to the level of

Respondent no	Comments
<b>BUSINESS-TO-CONSUMER</b>	
	interaction a delegate often has little knowledge of (eg question 10 – V21-22). The normal delegates do not often access the full range of service and ICC offers and I will find it difficult to comment on. Please bear this in mind when analyzing data. Gert Steyn (082 889 8964)
<b>Helena Burger &amp; Associates</b>	
No response	
<b>Old Mutual</b>	
0822	Questions 6 (V13& 14), 7 (V15-16) & 10 (V21-22) -?
0823	082 457 9672
0831	Question 10 (V21 – 22) -?
0834	Questions 6 (V 13&14) – NB (empty) Questions 9 – 11 (V19-24) – NB (empty)
0837	Question 7 (V15) – N/A Question 9 (V19) – N/A Question 10 (21) – N/A Question 11 (V23) – N/A Question 12 (V26) – N/A Question 15 (V31) – N/A Question 20 (V41) – N/A Questions 21& 22 (V43-46) – N/A
0838	Questions 6 & 7 (V13-16) - ?
<b>UNISA</b>	
0906	Questions 9 & 10 (V19-22) - ? (But have completed the questions)
0915	Questions 5 – 23 (V11-48) - ? = “geen basis van oordeel” “Ek sou graag wou help, maar die aard van die stellings is so spesifiek sodat die gewone afgevaardigde wat 'n dag seminar bywoon, glad nie op die meeste daarvan kan reageer nie. Mens kom, jy registreer, drink tee / koffie en eet, en woon jou sessie by. Tensy iets snaaks gebeur, het jy geen benul van die kwaliteit diens gelewer benewins die kos en die fasiliteite nie”
<b>MEDUNSA</b>	
1001	I know the CSIR What I input is what I get
1012	Questions 6 (V13&14) and Question 9 (V19-20) – Same
1021	Uniforms to be of say 2 colors – not all black
1035	Some questions need time of interaction with the employees
<b>All SA – 10<sup>th</sup> Toy Library Conference</b>	
1139	I am an exhibitor and not a delegate so feel that I cannot answer some of the questions.
1140	I am an exhibitor and not a delegate so feel that I cannot answer some of the questions. Question 7 (V15 & V16) - ? Question 10 & 11 (V21 - V24) - ? Question 14 (V29 - V30) - ? – have completed the question Question 18 - 20 (V37 - V42) - ? Question 23 (V47 & V48) - ?
1164	Difficult to answer many questions – little or no contact with staff on a

Respondent no	Comments
<b>BUSINESS-TO-CONSUMER</b>	
	management level (working on a close relation).
1165	Questions 6 – 11 (V13 – V24) – don't know Questions 14 – 16 (V29 – V34) – don't know Questions 18 – 19 (V37 – V40) – don't know Questions 21 – 22 (V43 – 46) – don't know
1169	The hotels are too far from the centre The light could be better in some of the rooms (it's dark) and the scene [schene].
<b>SANDF</b>	
1202	Question 10 (V22) – N/A
1206	Question 6 (V13 & V14) – don't know Question 19 (V21 & V22) – don't know Question 14 (V29 & V30) – Silly question
1230	Questions 6 (V13 & V14), 7 (V15 & V16), 10 (V21 & V22) and 11 (V23 & V24) – I feel that delegates, not involved in organizing a conference, cannot answer these questions
1238	Be careful not to repeat questions of the same nature
1244	I cannot comment of the questions I have left blank: V14, V16, V20, V22, V24, V26, V28, V30, V32, V34, V38, V40, V42, V44, V46, V48
1257	Not a very objective assessment. Interaction with delegates / CSIR very limited. Cannot answer questions objectively.
1259	Please give attention to smelly toilets
<b>GISSA - International Conference presented by the Department of Agriculture</b>	
1304	Questions 19 (V39 –V40) & 20 (V41 &V42) – the same
1310	Question 18 (V37 & V38) - ? Question 22 (V47- V48) - ?
1329	Question 4 (V9 & V10) – don't know who they are, not easy distinguishable Question 6 – 8 (V13 – V18) – don't have experience of this service Question 9 (V19 & V20) – See Question 6 Question 10 (V21 – V22) – don't know Question 15 (V31 & V32) – don't know Question 18 (V37 & V38) – don't know Question 22 (V45 & V46) – I guess so? The venue is environmentally very unfriendly: lots of waste generate, could be better, eg. Don't use small bottled water – rather use dispensers with paper cups The smaller conference rooms are difficult to access, eg. The Amethyst Auditorium's one door was closed by stands & the smaller rooms were too small for all the amount of people attending. The lunch tent was immensely warm and uncomfortable.
1344	Question 10 (V21 & V22) – don't know Question 16 (V33 & V34) – don't know Question 18 (V37 & V38) – don't know Have not dealt directly with the CSIR ICC employees
1353	Question 6 (V13 & V14) - ?

Respondent no	Comments
<b>BUSINESS-TO-CONSUMER</b>	
	Question 10 (V21 & V22) - ? Question 18 (V37 & V38) - ?
<b>BUSINESS-TO-BUSINESS (INTERMEDIARIES)</b>	
5	I only made use of the conference centre once and was satisfied with the service - I cannot comment on how the delegates experienced it. I had no complains though.
8	When does this questionnaire have to be completed because I have not yet had an event just booked an event
11	I'm sure it's the Nellie Swart I know! How are you - good to hear that you are doing well. Attached, please find herewith complete research questionnaire form as requested.  I trust all is in order and should you have any queries please do not hesitate to contact me.
18	The CSIR is a great venue
22	I attach the completed questionnaire.  I have dealt with the CSIR ICC for many years. I find them to be absolutely the most professional conference venue I have ever dealt with, and they are always my conference venue of choice. Not too large, not too small, very professional and not intimidating. They have long track record. The food is not always up to scratch, though!  However, I do not understand your second-last question, opposite which I have left a question mark. I am neither a local nor an international delegate, and I plan conferences for both local and international clients. Please complete as you see fit.

**APPENDIX J**

**SUMMARY OF STATEMENTS TO BE USED OR NOT TO BE  
USED FOR THE FOUR CONVENTION CONSUMER SUB-  
GROUPS**

## J.1. BUSINESS-TO-CONSUMER CONVENTION CONSUMERS

### J.1.2 Q-Variables

**Table 1: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	New Dimensions
1	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance / Responsiveness & Empathy
2	Q13	The CSIR ICC's employees should always be willing to help delegates.	Assurance / Responsiveness & Empathy
3	Q17	The employees of the CSIR ICC are polite.	Assurance / Responsiveness & Empathy
4	Q15	Delegates can trust the employees of the CSIR ICC.	Assurance / Responsiveness & Empathy
5	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Assurance / Responsiveness & Empathy
6	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Assurance / Responsiveness & Empathy
7	Q22	The CSIR ICC has their delegates' best interest at heart.	Assurance / Responsiveness & Empathy
8	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance / Responsiveness & Empathy
9	Q10	The CSIR ICC keeps their records accurately.	Reliability & Responsiveness
10	Q8	The CSIR ICC is dependable.	Reliability & Responsiveness
11	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability & Responsiveness
12	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability & Responsiveness
13	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Reliability & Responsiveness
14	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy
15	Q19	The CSIR ICC gives delegates individual attention.	Empathy
16	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy

17	<b>Q23</b>	The CSIR ICC has operating hours convenient to all their delegates.	Empathy
18	<b>Q2</b>	The CSIR ICC has up to date equipment.	Tangible & Reliability
19	<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangible & Reliability
20	<b>Q3</b>	The physical facilities at the CSIR ICC are visually appealing.	Tangible & Reliability
21	<b>Q5</b>	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible & Reliability
22	<b>Q6</b>	When the CSIR ICC promises to do something by a certain time, they do so.	Tangible & Reliability

(R\* = Ranking, Q\* = Question)

### J.1.2 P- Variables

**Table 2: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
1	<b>Q15</b>	Delegates can trust the employees of the CSIR ICC.	Assurance / Responsiveness & Empathy
2	<b>Q16</b>	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance / Responsiveness & Empathy
3	<b>Q13</b>	The CSIR ICC's employees should always be willing to help delegates.	Assurance / Responsiveness & Empathy
4	<b>Q17</b>	The employees of the CSIR ICC are polite.	Assurance / Responsiveness & Empathy
5	<b>Q22</b>	The CSIR ICC has their delegates' best interest at heart.	Assurance / Responsiveness & Empathy
6	<b>Q23</b>	The CSIR ICC has operating hours convenient to all their delegates.	Assurance / Responsiveness & Empathy
7	<b>Q18</b>	The employees get adequate support from the CSIR ICC to do their job well.	Assurance / Responsiveness & Empathy
8	<b>Q14</b>	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Assurance / Responsiveness & Empathy
9	<b>Q12</b>	Delegates receive prompt service from the CSIR ICC's employees.	Assurance / Responsiveness & Empathy

10	<b>Q11</b>	The CSIR ICC tells their delegates exactly when the services will be performed.	Assurance / Responsiveness & Empathy
11	<b>Q9</b>	The CSIR ICC provides services at the time they promise to do so.	Reliability
12	<b>Q10</b>	The CSIR ICC keeps their records accurately.	Reliability
13	<b>Q6</b>	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
14	<b>Q8</b>	The CSIR ICC is dependable.	Reliability
15	<b>Q7</b>	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.22 & Table 2) on the P-variables the following questions (Table 3) are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC for the B2C convention consumer market.

**Table 3: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
16	<b>Q3</b>	The physical facilities at the CSIR ICC are visually appealing.	Tangible
17	<b>Q2</b>	The CSIR ICC has up to date equipment.	Tangible
18	<b>Q5</b>	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible
19	<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangible
20	<b>Q20</b>	The employees of the CSIR ICC give delegates personal attention.	Empathy
21	<b>Q19</b>	The CSIR ICC gives delegates individual attention.	Empathy
22	<b>Q21</b>	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy

(R\* = Ranking, Q\* = Question)

### J.1.3 E-Variables

**Table 4: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
1	Q20	The employees of the CSIR ICC give delegates personal attention.	Assurance / Empathy
2	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Assurance / Empathy

3	Q19	The CSIR ICC gives delegates individual attention.	Assurance Empathy	/
4	Q22	The CSIR ICC has their delegates' best interest at heart.	Assurance Empathy	/
5	Q15	Delegates can trust the employees of the CSIR ICC.	Assurance Empathy	/
6	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance Empathy	/
7	Q13	The CSIR ICC's employees should always be willing to help delegates.	Assurance Responsiveness	/
8	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Assurance Responsiveness	/
9	Q17	The employees of the CSIR ICC are polite.	Assurance Responsiveness	/
10	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance Responsiveness	/
11	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Assurance Responsiveness	/
12	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Assurance Responsiveness	/
13	Q2	The CSIR ICC has up to date equipment.	Tangible Reliability	/
14	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible Reliability	/
15	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible Reliability	/
16	Q10	The CSIR ICC keeps their records accurately.	Tangible Reliability	/
17	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible Reliability	/
18	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability	
19	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability	
20	Q8	The CSIR ICC is dependable.	Reliability	
21	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability	

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.24 & Table 4) on the E-variables the following question (Table 5) is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC for the B2C convention consumer market.

**Table 5: Statement that is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

**J.2. ASSOCIATION BUSINESS-TO-CONVENTION CONSUMER MARKET****J.2.1 Q-Variables****Table 6: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	New Dimensions
1	Q10	The CSIR ICC keeps their records accurately.	Reliability & Empathy
2	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability & Empathy
3	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Reliability & Empathy
4	Q8	The CSIR ICC is dependable.	Reliability & Empathy
5	Q19	The CSIR ICC gives delegates individual attention.	Tangible & Empathy
6	Q20	The employees of the CSIR ICC give delegates personal attention.	Tangible & Empathy
7	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible & Empathy
8	Q2	The CSIR ICC has up to date equipment.	Tangible & Assurance
9	Q17	The employees of the CSIR ICC are polite.	Tangible & Assurance
10	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Tangible & Assurance
11	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible & Assurance
12	Q15	Delegates can trust the employees of the CSIR ICC.	Tangible & Assurance

(R\* = Ranking, Q\* = Question)

According to the factor analysis (Table 5.27 & Table 6) on the Q-variables the following questions (Table 7) are eliminated by the factor analysis for the measurement of service quality amongst B2C convention consumers at the CSIR ICC.

**Table 7: Statements that are applicable in the measurement of service quality the CSIR ICC according to the Q-variables**

<b>R*</b>	<b>Q*</b>	<b>Statement</b>	<b>Original SERVQUAL Dimension</b>
1	<b>Q5</b>	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible
2	<b>Q6</b>	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
3	<b>Q7</b>	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
4	<b>Q11</b>	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
5	<b>Q12</b>	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness
6	<b>Q13</b>	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness
7	<b>Q14</b>	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness
8	<b>Q18</b>	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
9	<b>Q22</b>	The CSIR ICC has their delegates' best interest at heart.	Empathy
10	<b>Q23</b>	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

## J.2.2 P- Variables

**Table 8: Statements that are applicable in the measurement of service quality at an ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
1	Q17	The employees of the CSIR ICC are polite.	Responsiveness, Assurance & Empathy
2	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness, Assurance & Empathy
3	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Assurance & Empathy
4	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness, Assurance & Empathy
5	Q22	The CSIR ICC has their delegates' best interest at heart.	Responsiveness, Assurance & Empathy
6	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance & Empathy
7	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Responsiveness, Assurance & Empathy
8	Q2	The CSIR ICC has up to date equipment.	Tangible & Reliability
9	Q4	The employees at the CSIR ICC are well dressed and appear neat. The employees at the CSIR ICC are well dressed and appear neat.	Tangible & Reliability
10	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible & Reliability
11	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible & Reliability
12	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Tangible & Reliability
13	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability & Responsiveness
14	Q10	The CSIR ICC keeps their records accurately.	Reliability & Responsiveness
15	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Reliability & Responsiveness
16	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability & Responsiveness
17	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Reliability & Responsiveness
18	Q19	The CSIR ICC gives delegates individual attention.	Reliability & Empathy
19	Q20	The employees of the CSIR ICC give delegates personal attention.	Reliability & Empathy
20	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Reliability & Empathy

21	<b>Q21</b>	The employees of the CSIR ICC do know what the needs of their delegates are.	Reliability & Empathy
22	<b>Q8</b>	The CSIR ICC is dependable.	Reliability & Empathy

(R\* = Ranking, Q\* = Question)

### J.2.3 E-Variables

**Table 9: Statements that are applicable in the measurement of service quality at an ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
1	Q8	The CSIR ICC is dependable.	Responsiveness, Assurance, Reliability & Tangible
2	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Responsiveness, Assurance, Reliability & Tangible
3	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Responsiveness, Assurance, Reliability & Tangible
4	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Responsiveness, Assurance, Reliability & Tangible
5	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness, Assurance, Reliability & Tangible
6	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Responsiveness, Assurance, Reliability & Tangible
7	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance, Reliability & Tangible
8	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness, Assurance, Reliability & Tangible
9	Q10	The CSIR ICC keeps their records accurately.	Responsiveness, Assurance, Reliability & Tangible
10	Q9	The CSIR ICC provides services at the time they promise to do so.	Responsiveness, Assurance, Reliability & Tangible
11	Q13	The CSIR ICC's employees should always be willing to help delegates.	Tangible, Responsiveness & Empathy
12	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible, Responsiveness & Empathy
13	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible, Responsiveness & Empathy
14	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Tangible, Responsiveness & Empathy
15	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Tangible, Responsiveness & Empathy
16	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Tangible, Responsiveness & Empathy
17	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy & Assurance
18	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy & Assurance

19	Q19	The CSIR ICC gives delegates individual attention.	Empathy & Assurance
20	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy & Assurance
21	Q17	The employees of the CSIR ICC are polite.	Empathy & Assurance

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.31 & Table 9) on the E-variables the following question (Table 10) is eliminated by the factor analysis for the measurement of service quality amongst the association B2C market at the CSIR ICC.

**Table 10: Statement that is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q2	The CSIR ICC has up to date equipment.	Tangible

(R\* = Ranking, Q\* = Question)

### J.3. ACADEMIC BUSINESS-TO-CONVENTION CONSUMER MARKET

#### J.3.1 Q-Variables

**Table 11: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	New Dimensions
1	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness, Assurance & Reliability
2	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance & Reliability
3	Q10	The CSIR ICC keeps their records accurately.	Responsiveness, Assurance & Reliability
4	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Assurance & Reliability
5	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness, Assurance & Reliability
6	Q8	The CSIR ICC is dependable.	Responsiveness, Assurance & Reliability
7	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Assurance & Empathy
8	Q17	The employees of the CSIR ICC are polite.	Assurance & Empathy

9	<b>Q20</b>	The employees of the CSIR ICC give delegates personal attention.	Assurance & Empathy
10	<b>Q19</b>	The CSIR ICC gives delegates individual attention.	Assurance & Empathy
11	<b>Q9</b>	The CSIR ICC provides services at the time they promise to do so.	Tangible, Reliability & Responsiveness
12	<b>Q3</b>	The physical facilities at the CSIR ICC are visually appealing.	Tangible, Reliability & Responsiveness
13	<b>Q12</b>	Delegates receive prompt service from the CSIR ICC's employees.	Tangible, Reliability & Responsiveness
14	<b>Q2</b>	The CSIR ICC has up to date equipment.	Tangible, Reliability & Responsiveness

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.33 & Table 11) on the Q-variables the following questions (Table 12) are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC amongst the academic B2C convention consumers.

**Table 12: Statements that are eliminated by the factor analysis for the measurement of service quality at an ICC according to the Q-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangible
2	<b>Q5</b>	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible
3	<b>Q6</b>	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
4	<b>Q7</b>	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
5	<b>Q11</b>	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
6	<b>Q14</b>	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness
7	<b>Q18</b>	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
8	<b>Q22</b>	The CSIR ICC has their delegates' best interest at heart.	Empathy
9	<b>Q23</b>	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

## J.3.2 P- VARIABLES

**Table 13: Statements that are applicable for the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
1	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance & Empathy
2	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Responsiveness, Assurance & Empathy
3	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness, Assurance & Empathy
4	Q22	The CSIR ICC has their delegates' best interest at heart.	Responsiveness, Assurance & Empathy
5	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Responsiveness, Assurance & Empathy
6	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Assurance & Empathy
7	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Responsiveness, Assurance & Empathy
8	Q19	The CSIR ICC gives delegates individual attention.	Responsiveness, Assurance & Empathy
9	Q17	The employees of the CSIR ICC are polite.	Responsiveness, Assurance & Empathy
10	Q20	The employees of the CSIR ICC give delegates personal attention.	Responsiveness, Assurance & Empathy
11	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness, Assurance & Empathy
12	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness, Assurance & Empathy
13	Q8	The CSIR ICC is dependable.	Tangible & Reliability
14	Q9	The CSIR ICC provides services at the time they promise to do so.	Tangible & Reliability
15	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Tangible & Reliability
16	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible & Reliability
17	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible & Reliability
18	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible & Reliability
19	Q2	The CSIR ICC has up to date equipment.	Tangible & Reliability
20	Q10	The CSIR ICC keeps their records accurately.	Tangible & Reliability

(R\* = Ranking, Q\* = Question)

According to a factor analysis (Table 5.35 & Table 13) on the P-variables the following questions (Table 14) are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC.

**Table 14: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance
2	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance

(R\* = Ranking, Q\* = Question)

### J.3.3 E-Variables

**Table 15: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
1	Q22	The CSIR ICC has their delegates' best interest at heart.	Responsiveness, Assurance, Reliability & Empathy
2	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Responsiveness, Assurance, Reliability & Empathy
3	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance, Reliability & Empathy
4	Q19	The CSIR ICC gives delegates individual attention.	Responsiveness, Assurance, Reliability & Empathy
5	Q20	The employees of the CSIR ICC give delegates personal attention.	Responsiveness, Assurance, Reliability & Empathy
6	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Assurance, Reliability & Empathy
7	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Responsiveness, Assurance, Reliability & Empathy
8	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness, Assurance, Reliability & Empathy
9	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Responsiveness, Assurance, Reliability & Empathy
10	Q17	The employees of the CSIR ICC are polite.	Responsiveness, Assurance, Reliability & Empathy
11	Q5	CSIR ICC is in keeping with the type of the service provided.	Tangible, Responsiveness & Reliability
12	Q2	The CSIR ICC has up to date equipment.	Tangible, Responsiveness & Reliability

13	<b>Q10</b>	The CSIR ICC keeps their records accurately.	Tangible, Responsiveness & Reliability
14	<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangible, Responsiveness & Reliability
15	<b>Q11</b>	The CSIR ICC tells their delegates exactly when the services will be performed.	Tangible, Responsiveness & Reliability
16	<b>Q8</b>	The CSIR ICC is dependable.	Tangible, Responsiveness & Reliability
17	<b>Q12</b>	Delegates receive prompt service from the CSIR ICC's employees.	Tangible, Responsiveness & Reliability
18	<b>Q9</b>	The CSIR ICC provides services at the time they promise to do so.	Tangible, Empathy & Reliability
19	<b>Q18</b>	The employees get adequate support from the CSIR ICC to do their job well.	Tangible, Empathy & Reliability
20	<b>Q6</b>	When the CSIR ICC promises to do something by a certain time, they do so.	Tangible, Empathy & Reliability
21	<b>Q3</b>	The physical facilities at the CSIR ICC are visually appealing.	Tangible, Empathy & Reliability

(R\* = Ranking, Q\* = Question)

According to the factor analysis (Table 5.37 & Table 15) on the E-variables the following question (Table 16) is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC amongst the academic B2C convention consumer market.

**Table 16: Statement that is eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	<b>Q16</b>	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance

(R\* = Ranking, Q\* = Question)

## J.4. CORPORATE BUSINESS-TO-CONVENTION CONSUMER MARKET

### J.4.1 Q-Variables

**Table 17: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	New Dimensions
1	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness & Assurance
2	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness & Assurance
3	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness & Assurance
4	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness & Assurance
5	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness & Assurance
6	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible
7	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible
8	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible
9	Q2	The CSIR ICC has up to date equipment.	Tangible
10	Q19	The CSIR ICC gives delegates individual attention.	Empathy, Assurance & Reliability
11	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy, Assurance & Reliability
12	Q17	The employees of the CSIR ICC are polite.	Empathy, Assurance & Reliability
13	Q9	The CSIR ICC provides services at the time they promise to do so.	Empathy, Assurance & Reliability

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.39 & Table 17) on the Q-variables the following questions (Table 18) are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC amongst the corporate B2C convention consumer delegates.

**Table 18: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
2	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
3	Q8	The CSIR ICC is dependable.	Reliability
4	Q10	The CSIR ICC keeps their records accurately.	Reliability
5	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
6	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
7	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
8	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy
9	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

**J.4.2 P- Variables****Table 19: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
1	Q15	Delegates can trust the employees of the CSIR ICC.	Assurance
2	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Assurance
3	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness
4	Q17	The employees of the CSIR ICC are polite.	Assurance
5	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy
6	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
7	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
8	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness
9	Q2	The CSIR ICC has up to date equipment.	Tangible
10	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible
11	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness

R*	Q*	Statement	New Dimensions
12	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
13	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible
14	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible
15	Q8	The CSIR ICC is dependable.	Reliability
16	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability
17	Q10	The CSIR ICC keeps their records accurately.	Reliability
18	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
19	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy
20	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
21	Q19	The CSIR ICC gives delegates individual attention.	Empathy
22	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy

(R\* = Ranking, Q\* = Question)

#### J.4.3 E-Variables

**Table 20: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
1	Q20	The employees of the CSIR ICC give delegates personal attention.	Responsiveness, Assurance & Empathy
2	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Responsiveness, Assurance & Empathy
3	Q22	The CSIR ICC has their delegates' best interest at heart.	Responsiveness, Assurance & Empathy
4	Q19	The CSIR ICC gives delegates individual attention.	Responsiveness, Assurance & Empathy
5	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Responsiveness, Assurance & Empathy
6	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance & Empathy
7	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Assurance & Empathy
8	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible, Responsiveness, Reliability & Empathy
9	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Tangible, Responsiveness, Reliability & Empathy

10	<b>Q11</b>	The CSIR ICC tells their delegates exactly when the services will be performed.	Tangible, Responsiveness, Reliability & Empathy
11	<b>Q2</b>	The CSIR ICC has up to date equipment.	Tangible, Responsiveness, Reliability & Empathy
12	<b>Q3</b>	The physical facilities at the CSIR ICC are visually appealing.	Tangible, Responsiveness, Reliability & Empathy
13	<b>Q10</b>	The CSIR ICC keeps their records accurately.	Tangible, Responsiveness, Reliability & Empathy
14	<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangible, Responsiveness, Reliability & Empathy
15	<b>Q13</b>	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness & Assurance
16	<b>Q12</b>	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness & Assurance
17	<b>Q17</b>	The employees of the CSIR ICC are polite.	Responsiveness & Assurance
18	<b>Q16</b>	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness & Assurance
19	<b>Q6</b>	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
20	<b>Q9</b>	The CSIR ICC provides services at the time they promise to do so.	Reliability
21	<b>Q8</b>	The CSIR ICC is dependable.	Reliability
22	<b>Q7</b>	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability

(R\* = Ranking, Q\* = Question)

**J.5. GOVERNMENT BUSINESS-TO-CONVENTION CONSUMER MARKET****J.5.1 Q-Variables****Table 21: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the Q-variables**

<b>R*</b>	<b>Q*</b>	<b>Statement</b>	<b>New Dimensions</b>
1	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness& Assurance
2	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness& Assurance
3	Q17	The employees of the CSIR ICC are polite.	Responsiveness& Assurance
4	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness& Assurance
5	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness& Assurance
6	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness& Assurance
7	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible & Empathy
8	Q20	The employees of the CSIR ICC give delegates personal attention.	Tangible & Empathy
9	Q19	The CSIR ICC gives delegates individual attention.	Tangible & Empathy
10	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible & Empathy
11	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Tangible & Empathy
12	Q10	The CSIR ICC keeps their records accurately.	Reliability
13	Q9	The CSIR ICC provides services at the time they promise to do so.	Reliability
14	Q8	The CSIR ICC is dependable.	Reliability

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.45 & Table 21) on the Q-variables the following questions (Table 22) are eliminated by the factor analysis for the measurement of the service quality at the CSIR ICC amongst the government B2C convention consumer delegates.

**Table 22: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the Q-variables**

R*	Q*	Statement	Original SERVQUAL Dimension
1	Q2	The CSIR ICC has up to date equipment.	Tangible
2	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible
3	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Reliability
4	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Reliability
5	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness
6	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Assurance
7	Q22	The CSIR ICC has their delegates' best interest at heart.	Empathy
8	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Empathy

(R\* = Ranking, Q\* = Question)

### J.5.2 P- Variables

**Table 23: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
1	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Responsiveness & Reliability
2	Q9	The CSIR ICC provides services at the time they promise to do so.	Responsiveness & Reliability
3	Q10	The CSIR ICC keeps their records accurately.	Responsiveness & Reliability
4	Q8	The CSIR ICC is dependable.	Responsiveness & Reliability
5	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Responsiveness & Reliability
6	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Responsiveness & Reliability
7	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Responsiveness & Reliability
8	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Empathy & Assurance
9	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness, Empathy & Assurance

R*	Q*	Statement	New Dimensions
10	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness, Empathy & Assurance
11	Q17	The employees of the CSIR ICC are polite.	Responsiveness, Empathy & Assurance
12	Q22	The CSIR ICC has their delegates' best interest at heart.	Responsiveness, Empathy & Assurance
13	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Empathy & Assurance
14	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Responsiveness, Empathy & Assurance
15	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Responsiveness, Empathy & Assurance

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.47 & Table 23) on the P-variables the following questions (Table 24) are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC for the B2C convention consumer market.

**Table 24: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the P-variables**

R*	Q*	Statement	New Dimensions
16	Q19	The CSIR ICC gives delegates individual attention.	Empathy
17	Q20	The employees of the CSIR ICC give delegates personal attention.	Empathy
18	Q21	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
19	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible
20	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible
21	Q4	The employees at the CSIR ICC are well dressed and appear neat.	Tangible
22	Q2	The CSIR ICC has up to date equipment.	Tangible

(R\* = Ranking, Q\* = Question)

## J.5.3 E-Variables

**Table 25: Statements that are applicable in the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
1	Q15	Delegates can trust the employees of the CSIR ICC.	Responsiveness, Assurance & Reliability
2	Q13	The CSIR ICC's employees should always be willing to help delegates.	Responsiveness, Assurance & Reliability
3	Q16	Delegates feel safe in their transactions with the CSIR ICC's employees.	Responsiveness, Assurance & Reliability
4	Q14	Employees of the CSIR ICC are not too busy to respond to the customer's requests promptly.	Responsiveness, Assurance & Reliability
5	Q17	The employees of the CSIR ICC are polite.	Responsiveness, Assurance & Reliability
6	Q7	When delegates have problems, the CSIR ICC is sympathetic and reassuring.	Responsiveness, Assurance & Reliability
7	Q18	The employees get adequate support from the CSIR ICC to do their job well.	Responsiveness, Assurance & Reliability
8	Q10	The CSIR ICC keeps their records accurately.	Tangible, Responsiveness & Reliability
9	Q3	The physical facilities at the CSIR ICC are visually appealing.	Tangible, Responsiveness & Reliability
10	Q2	The CSIR ICC has up to date equipment.	Tangible, Responsiveness & Reliability
11	Q5	The appearance of the physical facilities of the CSIR ICC is in keeping with the type of the service provided.	Tangible, Responsiveness & Reliability
12	Q6	When the CSIR ICC promises to do something by a certain time, they do so.	Tangible, Responsiveness & Reliability
13	Q9	The CSIR ICC provides services at the time they promise to do so.	Tangible, Responsiveness & Reliability
14	Q11	The CSIR ICC tells their delegates exactly when the services will be performed.	Tangible, Responsiveness & Reliability
15	Q23	The CSIR ICC has operating hours convenient to all their delegates.	Tangible, Responsiveness, Reliability & Empathy
16	Q12	Delegates receive prompt service from the CSIR ICC's employees.	Tangible, Responsiveness, Reliability & Empathy

17	<b>Q8</b>	The CSIR ICC is dependable.	Tangible, Responsiveness, Reliability & Empathy
18	<b>Q4</b>	The employees at the CSIR ICC are well dressed and appear neat.	Tangible, Responsiveness, Reliability & Empathy

(R\* = Ranking, Q\* = Question)

According to factor analysis (Table 5.49 & Table 25) on the E-variables the following questions (Table 26) are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC for the B2C convention consumer market.

**Table 26: Statements that are eliminated by the factor analysis for the measurement of service quality at the CSIR ICC according to the E-variables**

R*	Q*	Statement	New Dimensions
19	<b>Q19</b>	The CSIR ICC gives delegates individual attention.	Empathy
20	<b>Q20</b>	The employees of the CSIR ICC give delegates personal attention.	Empathy
21	<b>Q21</b>	The employees of the CSIR ICC do know what the needs of their delegates are.	Empathy
22	<b>Q22</b>	The CSIR ICC has their delegates' best interest at heart.	Empathy

(R\* = Ranking, Q\* = Question)