CHAPTER 6

BUILDING THE LENS OF THE CUSTOMER: E-SERVICES

6.1 INTRODUCTION

In the previous chapter, Chapter 5, the results of the qualitative study using the critical incident technique were presented. The first conclusion derived from the results presented in Chapter 5 (see Section 5.4) is that the service determinants and service attributes that relate to e-services differ from those relating to the traditional services. This fact has an impact on the way the "lens of the customer" should be built. Because the services offered by SARS consist of both traditional and e-services, a distinction must be made between the traditional service modes and the e-service modes. Chapter 5 presented the results mainly for the **traditional services** (the e-services were added in some cases, but only as a service channel within the traditional services). Chapter 6 therefore focuses on the **e-services**.

SARS provides e-services through its website and the e-filing option (the online filing and assessment service). The e-services, especially the services provided through e-filing, offer many benefits to the state, ranging from faster tax collection (increased efficiency) to a reduction in human error and cost savings. The public sector e-services have, however, not necessarily been developed to suit the various needs and desires of ordinary citizens, as Connolly and Bannister (2008:313) and Lind, Forsgren, Salomonson and Albinsson (2007:13) pointed out in relation to the organisations they studied. The haste with which some of SARS's e-services were introduced and later expanded also did not allow time for a consultative process involving SARS, the taxpayers and tax practitioners. The primary purpose of SARS's e-services is also not, as is the case with most private sector services, to attract more customers. However, it must be acknowledged that greater efficiency in SARS's e-services will contribute to improved taxpayer compliance. It is therefore highly relevant to the present research.

The objective of the present research is to develop a service quality model that can be used to evaluate the services SARS provides. Hence, the quality of both the traditional services and the e-services is relevant. In this chapter, the results of the critical incident technique related to the e-services are presented. These results for the e-services will contribute to the development of a "lens of the customer" built on the results of the

qualitative study. This “lens of the customer” will then assist in the identification of the relevant service dimensions, determinants and attributes. It will also serve as a blueprint for developing an e-service quality model.

6.2 DATA ANALYSIS: BACKGROUND

6.2.1 General

The results of the research for the traditional services offered by SARS were presented in Chapter 5. The traditional services represent the total service offerings of SARS – the e-services were added as one of the service channels. The service quality determinants and attributes identified in Chapter 5 do not, however, include service aspects that are relevant only to e-services. This chapter therefore identifies the specific service determinants and service attributes that are relevant only to e-services. To ensure that the proposed model can be used in isolation to measure the service quality of the full spectrum of e-services and not only the unique aspects of the service channel, all critical incidents relating to the e-services were included in the analysis (including the e-service critical incidents already included in the traditional service quality model proposed in Chapter 5).

In Section 5.4 it was indicated that a total of 1 233 critical incidents applied to the e-services. In that section, it was also indicated that 51 critical incidents that related to the e-services were included with the traditional services. These 51 critical incidents related to service attributes and service aspects that could be regarded as the same, irrespective of whether traditional or e-services are used as the mode of communication. The 51 critical incidents that were included in the results presented in Chapter 5 are again included in the results presented in Chapter 6, because they are relevant to the e-services as well, resulting in a total of 1 284 critical incidents (1 233 plus 51) related to the e-services, for which the results are presented in this chapter. In the final chapter of this research (see Section 7.7), the aspects that should be excluded from the proposed model (if SARS wishes to evaluate not only the e-services, but all its service offerings simultaneously) are identified.

6.2.2 E-services offered by SARS

The communication channel for the e-services is the Internet, either through the general SARS website (http://sars.gov.za) or through the e-filing option (http://sarsefiling.co.za).

In its welcome page on the general website, SARS (2008a) describes the website as a place where different types of taxpayer can

- easily access tax-relevant information;
- read about SARS;
- download different publications and forms; and
- access more information on the different types of tax.

SARS (2008b:s.p.) describes e-filing as follows:

> [A] secure electronic tax return and submission service offered by SARS that removes the risks and hassles of manual tax returns. Not only can you submit your returns via the Internet, but you can also make secure tax payments online. The service offers web-based capture of individual returns as well as facilities for the submission of multiple returns through back-end interfaces. There is also a facility to apply for tax directives, which can be obtained within 24 hours.

For the sake of brevity, SARS's general website is also referred to as "the website". Because e-filing is also available as a website on its own, it is referred to as "e-filing". E-filing includes not only the e-filing website, but also the business processes supporting the e-filing website.

One of the differences between the general website and e-filing is that the general website is predominantly used for information searches, whereas e-filing is more interactive. It may be argued that the differences between these two websites may require separate e-service quality models. However, Christobal, Flavian and Guinaliu (2007:7) found that the proposed e-service quality models currently available (that includes E-S-Qual) do not reveal marked differences when they distinguish between buyers (more interactive users of e-services, in this case, e-filing users) and information searchers (that is, in this case, website users). Their findings therefore suggest that the same measuring scale can be used for both SARS's general website and its e-filing website. It must, however, be

acknowledged that some service determinants or attributes may be relevant only to a particular website. In the present research, an e-service quality model is proposed that clearly distinguishes between service determinants and service attributes relevant only to a particular website.

6.3 BUSINESS PROCESSES WITHIN THE E-SERVICES

No specific business processes can be performed through the website – it is used predominantly for gathering and downloading information and tax forms. However, the following business processes are currently relevant to e-filing:

- tax returns (both making them available and their submission);
- a correction of errors facility;[1]
- tax assessments;
- tax payments;
- a dispute resolution process;
- a tax clearance process;[2] and
- updating of tax-related information.

The respondents mentioned specific service attributes of the e-services, but they did not always specify what business process(es) their comments related to. The analysis of the critical incidents relating to the e-services focused on the layout and workings of the general and e-filing websites and related services. For this purpose, a specific reference to particular business processes (even when the respondents mentioned such a process) was not always regarded as relevant. For example, when a respondent commented that it takes too long to open a tax return using e-filing, this response would be classified as relating to the speed of loading pages within e-filing, which is usually relevant to all pages loaded through e-filing. Therefore, this response would be classified with the other responses that commented only on the speed of loading pages in general. When a particular aspect (for example, tax returns) was repeatedly mentioned for a specific service determinant or attribute within the e-services, however, cognizance was taken of

[1] The correction of errors facility was not available at the time when the research was conducted, but it has since been added.
[2] Currently the tax clearance certificate is only available for e-filing if a certificate of good standing or a tax clearance certificate for a tender is required. The facility to apply for a tax clearance for foreign investment purposes is not yet an option through e-filing.

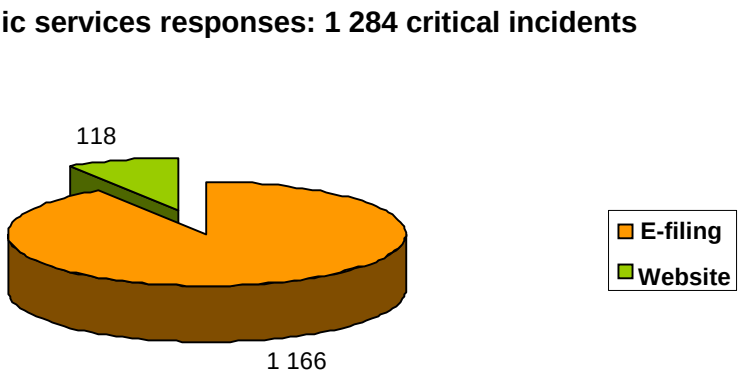
this. Where possible, more detail was then included in the proposed e-service quality model.

Of the total number of 1 284 critical incidents, only 357 (27.80%, n = 1 284) included a reference to a specific business process. The business process approach (an approach that focuses on the different individual departments within SARS) was chosen for the purposes of the present research. Despite the low number of critical incidents that included a specific reference to particular business process(es) within the e-services, the e-services could in themselves be regarded as a business process (as a separate department within SARS) that should be evaluated on its own.

6.4 RESPONSES FOR THE E-SERVICES

Of the total number of critical incidents (1 284) that related to the e-services, 1 166 (90.81%, n = 1 284) related to e-filing and 118 (9.19%, n = 1 284) related to the website. E-filing can therefore be regarded as far more important to the respondents than the general SARS website. Nevertheless, the 118 responses that related to the general website indicate that, although the general website is less important than e-filing to these respondents, the participants still regard the general website as important.

Figure 6.1: Distribution of critical incidents for the e-services

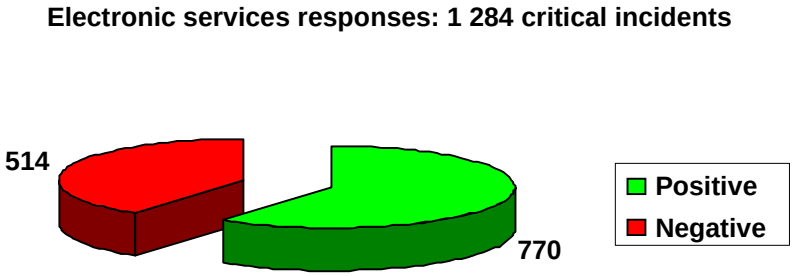


6.5 INCIDENCE OF POSITIVE AND NEGATIVE CRITICAL INCIDENTS FOR THE E-SERVICES

For the e-services, the number of positive responses, namely 770 critical incidents (59.97%, n = 1 284), exceeded the number of negative responses, namely 514 critical

incidents (40.03%, n = 1 284). The results for the e-services was the inverse of the findings in respect of the total responses, where approximately 60% of the critical incidents (3 204 critical incidents, n = 5 416) were negative and approximately 40% of the critical incidents (2 212 critical incidents, n = 5 416) were positive. It is clear that SARS's expansion of its provision of e-services is not only important (as indicated by the number of critical incidents allocated to this communication channel), but is experienced mainly in a positive manner by the tax practitioners. The incidence of negative and positive responses suggests that the full spectrum of critical incidents was identified for the e-services.

Figure 6.2: Incidence of positive and negative critical incidents for the e-services



Johnson and Gustafsson (2000:158) found that the number of negative responses obtained in using the critical incident technique usually exceeds the number of positive responses. The use of the word "usually" by Johnson and Gustafsson (2000:158) may imply that they either foresaw or believed that there might be exceptions to their findings. The fact that the number of positive responses for the e-services exceeded the number of negative responses for the e-services in the present research is therefore an exception in the application of the critical incident technique. This is true for the responses that related to both the general website (60.17% positive, n = 118) and e-filing (59.95% positive, n = 1 166).

The fact that e-filing was a relatively new addition to the services offered by SARS at the time when the present research was undertaken (e-filing was introduced in June 2003) and that this option was extensively expanded during 2007 to include many more options than previously may be a reason for the finding that the number of positive responses exceeded the number of negative responses for the e-filing. The fact that the number of

positive responses exceeded the number of negative responses, not only for e-filing, but also for the general website (which has already been operational for more than ten years), reduces the likelihood that the novelty and expansion of the service channel had a material impact on the representativeness of the responses.

Odekerken-Schröder *et al*. (2000:110) found that positive responses usually relate to some measure of minimum requirement a service has to offer. Therefore, the fact that the e-services received such a high percentage of positive responses may indicate that the minimum requirement expected by the responding tax practitioners with regard to the e-services rendered by SARS was exceeded.

SARS is an institution in the public administration. This may affect the service expectations of tax practitioners. Most South African tax practitioners would encounter other public services *inter alia* when they attempt to obtain a driver's license, identity book or passport, or if they need to make use of police services or the postal service. All of these public services are known for long queues (Brown 2008), long waiting times (Phillips 2008) and ineffective service delivery (Claassen 2008). These services cannot be accessed from the comfort of a citizen's home, but are provided in often overcrowded public service buildings. With its e-services, SARS is providing options that are not very common in the public administration in South Africa.

The fact that SARS is a public institution which uses e-services (which are not even offered by all private institutions) may therefore have contributed to the phenomenon that the number of positive responses exceeded the number of negative responses. From this finding, it may be possible to deduce that the number of positive responses may exceed the number of negative responses in critical incident studies when a service provider exceeds the minimum service delivery standard requirement expected by its customers.

Conclusion 6.1

The number of positive responses may exceed the number of negative responses if a service provider renders services that exceed the minimum standard requirement expected by the customers.

6.6 SERVICE DETERMINANTS FOR THE E-SERVICES

Various studies have been conducted on e-service quality. Some studies, such as those by Madu and Madu (2002) and Santos (2003), have identified specific service determinants for e-service quality in general. By contrast, other studies, such as those by Buckley (2003) and Lind *et al*. (2007), have identified and proposed an alternative model to evaluate e-services in the public sector. Thus far, none of the theoretical frameworks in these studies have been empirically validated.

Some researchers, such as Lee and Lin (2005), Vos (2003) and Zhu *et al*. (2002), have adjusted existing models, specifically SERVQUAL, which was developed by Parasuraman *et al*. (1986, 1988) and Parasuraman *et al*. (1991a) to evaluate e-service quality in the traditional service environment.

Only a few researchers, namely Christobal *et al*. (2007), Parasuraman *et al*. (2005), Wolfinbarger and Gilly (2003), Yang *et al*. (2004) and Zhang and Prybutok (2005), proposed specific e-service quality models and also developed and tested their proposed scales for measuring e-service quality. Parasuraman *et al*. (2005) have expressed a need for caution regarding the consistency and appropriateness of service determinants used in the scale presented by Wolfinbarger and Gilly (2003).

Of the most recent e-service quality studies, the studies by Buckley (2003), Connolly and Bannister (2008), Yang *et al*. (2004) and Zhu *et al*. (2002) were conducted in service industries. The studies by Buckley (2003) and Connolly and Bannister (2008) were of particular interest to the present research, as they were conducted in the service industry of the public sector. The study by Connolly and Bannister (2008), in particular, was performed in a tax agency environment. Connolly and Bannister (2008) adjusted the multi-item scale for assessing e-service quality developed by Parasuraman *et al*. (2005) slightly.

Parasuraman *et al*.'s (2005) scale is divided into four different dimensions: normal services (E-S-Qual), recovery services (E-RecS-QUAL), perceived value and loyalty intentions. Parasuraman *et al*. (2005) identified four service determinants that are relevant to the E-S-Qual dimension of their scale, namely Efficiency, System Availability, Fulfilment and Privacy. A further three service determinants were identified in the E-RecS-Qual dimension, namely Responsiveness, Compensation and Contact. The perceived value dimension includes four statements. The loyalty intention dimension consists of five

statements. In the literature (and for the purposes of the present research) references to E-S-Qual imply all four the abovementioned dimensions of the scale.

Connolly and Bannister (2008) adjusted the E-S-Qual scale slightly to evaluate the e-service quality of the Irish tax collection agency. To date, however, they have not provided any proof of the actual reliability and validity of the E-S-Qual scale in the tax collection agency environment. Connolly and Bannister (2008) based their choice of a measuring instrument on a literature review they had conducted. They adjusted the E-S-Qual instrument with input from the revenue agency itself. Apart from the fact that E-S-Qual is deemed to evaluate services from the customers' perspective, no research has hitherto been conducted to verify whether this measuring scale fully encapsulates the "lens of the customer" in a tax collection agency environment.

The E-S-Qual measuring scale for e-service quality has also been successfully used by other researchers (Kim, Kim & Lennon 2006; Nomdoe & Pather 2007; Zhao & Peng 2007). Nomdoe and Pather (2007:99) found that the E-S-Qual scale has been extensively cited and has been tested and adopted in various contexts. Mekovec, Bubas and Vrcek (2007:17) agree that the E-S-Qual measure has served as a basis for various adaptations and extensions into other models that have been used to create several other e-service quality and related measures. Kim *et al*. (2006:55,69) found E-S-Qual to be one of the most comprehensive models for e-service quality, because it appears to provide representative information.

Boshoff (2007) carried out a psychometric assessment of the E-S-Qual scale. He found that E-S-Qual is a valid and reliable instrument. It appears to be the most effective scale developed to measure the quality of e-services thus far. However, Boshoff (2007:110) found that the E-S-Qual's four-dimensional configuration is not necessarily valid for all service settings.

In the present research, the various service determinants and service attributes identified in all of the above studies were combined to serve as the basis for the data classification scheme. In the evaluation of the results, a low response rate and the absence of any responses regarding various service determinants and service attributes resulted in a simplification of the data classification scheme. Consequently, the final data classification scheme has very much the same structure as the E-S-Qual scale. Some additional service

attributes were identified for some service determinants, but other service attributes included in E-S-Qual were found not to be relevant to the present research.

For the e-services of SARS, seven different service determinants were identified (see also Table 6.1):

- fulfilment, with 402 critical incidents (31.31%, n = 1 284);
- convenience, with 272 critical incidents (21.18%, n = 1 284);
- general, with 206 critical incidents (16.04%, n = 1 284);
- efficiency, with 160 critical incidents (12.46%, n = 1 284);
- assistance, with 133 critical incidents (10.36%, n = 1 284);
- system availability, with 99 critical incidents (7.71%, n = 1 284); and
- security, with 12 critical incidents (0.94%, n = 1 284).

Table 6.1: Determinants for the e-services

Determinant	Negative responses	Positive responses	Total Responses	Percentage % n = 1 284
Fulfilment	174	228	402	31.31
Convenience	45	227	272	21.18
General	26	180	206	16.04
Efficiency	61	99	160	12.46
Assistance	105	28	133	10.36
System availability	99	0	99	7.71
Security	4	8	12	0.94

6.6.1 Relevance of identified service determinants for the e-service quality model

Several authors (Christobal *et al*. 2007; Lee & Lin 2005; Parasuraman *et al*. 2005; Wolfinbarger & Gilly 2003:196; Yang *et al*. 2004:158) have researched the importance of the various service determinants in predicting overall e-service quality, but the results are highly contradictory. The reason for the conflicting results can be attributed mainly to the fact that e-service quality research is new and to the inconsistency of definitions for the various service determinants.

Wolfinbarger and Gilly (2003:196), for example, found that judgements concerning the quality of e-services are most strongly related to website design and fulfilment factors. By contrast, Lee and Lin (2005:171) concluded that website design had only a minor effect on overall service quality, but they argued that its importance should not be underestimated. Christobal *et al*. (2007:1) are also of the opinion that website design is to be seen as the key factor for the e-services provided. Lee and Lin (2005:171) agree that the fulfilment (reliability) service determinant is a significant predictor of overall service quality. Parasuraman *et al*. (2005:230) found that efficiency and fulfilment are the most critical service determinants of e-service quality and that they are of equal importance. Yang *et al*. (2004:1158) agree that ease of use (part of Parasuraman *et al*.'s 2005 definition of efficiency) and accurate service delivery (part of Parasuraman *et al*.'s 2005 definition of fulfilment) are both very important. The authors all had different definitions for their identified service determinants, but Parasuraman *et al*. (2005:228) claim that Wolfinbarger and Gilly's (2003) website design and fulfilment determinants display some conceptual and content overlap with Parasuraman *et al*.'s (2005) own efficiency and fulfilment service determinants. Parasuraman *et al*. (2005:228) therefore argue that the relative importance of these service determinants (efficiency, website design and fulfilment) is similar. It could thus safely be concluded that, depending of the definitions used, efficiency, website design and fulfilment may be regarded as the most important service determinants in e-service quality. Given that website design as defined by Wolfinbarger and Gilly (2003) is absorbed in the efficiency and fulfilment definitions of E-S-Qual, efficiency and fulfilment can be regarded as the two most important service determinants. System availability was also found to be an important contributor to customer perceptions of service quality, but it is not as important as efficiency and fulfilment (Parasuraman *et al*. 2005:230).

The number of critical incidents allocated to each determinant in the present study already indicates the importance of the various determinants for the e-service quality model. In the present study, the fulfilment service determinant (see Section 6.9) was found to be the most important service determinant, with 31.31% (402 critical incidents) of the total number of critical incidents (n = 1 284) allocated to it. The convenience service determinant (see Section 6.15) received the second highest number of critical incidents of 272 critical incidents (21.18%, n = 1 284). The efficiency service determinant (see Section 6.10) was ranked third, with 12.46% of the responses (160 critical incidents, n = 1 284) allocated to it.

The fact that the fulfilment service determinant was regarded as the most important by the respondents in the present research, with the efficiency service determinant in third place (therefore also regarded as very important), is clearly in line with the findings of Lee and Lin (2005:171), Parasuraman *et al*. (2005), Wolfinbarger and Gilly (2003:196) and Yang *et al*. (2004).

The relevance of the convenience service determinant for measuring service quality was not specifically addressed in the literature. Yang *et al*. (2004:1158) performed a content analysis of critical incidents in the online banking environment. They identified 17 dimensions as relevant in evaluating service quality. Convenience was one of these. In the measuring scale that Yang *et al*. (2004:1159) developed, convenience was, however, not included in the survey instrument. The reasons they gave for excluding selected service determinants (including convenience) were based on the frequencies of the citations and theoretical constructs. Security is another dimension that Yang *et al*. (2004) identified and included in the final survey instrument. As the frequency of the citations relevant to convenience (60 critical incidents) was twice the frequency allocated to security (30 critical incidents), it must be assumed that theoretical constructs underpinned the exclusion of convenience in favour of the service determinant “security”, with its lower frequency. A possible theoretical construct may be the fact that Berry, Seiders and Grewal (2002) identify convenience as a measuring construct by itself, where the perceptions of service convenience directly affect perceptions of a firm’s service quality. Zhang and Prybutok (2005) also measured convenience separately and did not include convenience in their service quality measurement. However, Zhang and Prybutok (2005:463) confirmed that convenience is positively associated with website service quality. Torkzadeh and Dhillon (2002) and Kim, Lee, Han and Lee (2002) specifically developed service convenience measures. Other researchers, such as Childers, Carr, Peck and Carson (2001) and Szymanski and Hise (2000), also used convenience in measuring other service-related constructs, such as attitudes and satisfaction.

Parasuraman *et al*. (2005) concluded that convenience is not a service determinant relevant to measuring e-service quality in the normal service quality dimension of the E-S-Qual multi-item scale they developed. However, aspects relating to convenience are part of the perceived value dimension that also constitutes part of Parasuraman *et al*.’s (2005:231) E-S-Qual multi-item scale. Connolly and Bannister (2008:315) also included

the perceived value dimension in their assessment of the Irish tax collection agency's online services.

It is recommended that convenience should be included in the e-service quality model because convenience

- directly affects perceptions of a firm's service quality (Berry *et al*. 2002);
- was also found to be relevant in other studies (Connolly & Bannister 2008; Parasuraman *et al*. 2005; Yang *et al*. 2004);
- is positively associated with website service quality (Zhang & Prybutok 2005); and
- is included in the most widely used e-service quality model (E-S-Qual), as well as in the only service quality study of e-services in a tax agency environment published thus far (Connolly & Bannister 2008).

Since convenience was either not included in other studies at all, or was included under a separate dimension of perceived value in certain studies, it is recommended that the convenience-related responses should be separated from the other responses and included under a perceived value dimension of the service quality questionnaire.

Conclusion 6.2:

The e-service quality model should include a separate dimension for the perceived value-related items.

Assistance (see Section 6.17) is the only other service determinant that attracted more than 10% of the responses (10.36%, 133 critical incidents, n = 1 284). A respondent usually first has to encounter problems with using a website to require assistance. Parasuraman *et al.* (2005:220) found that approximately one-third to one-half of respondents did not encounter problems and therefore did not require the services offered in a recovery situation. A low number of respondents who actually require assistance results in a situation in which one third to half of the respondents do not respond to questions in questionnaires on service quality relating to service recovery (assistance).

Given that most of the e-filing services offered by SARS are relatively new, it could be assumed that more than the usual half or one third of the responding tax practitioners would require assistance in using e-services, but it also had to be assumed that not all tax

practitioners have as yet made use of e-assistance services. The importance of the assistance determinant as reflected in the number of critical incidents allocated to it should also be evaluated against this background. The results would therefore tend to underestimate the importance of this service determinant, but possibly not to the extent proposed by Parasuraman *et al.* (2005).

In the present research, assistance compares very well with the service aspects that Parasuraman *et al.* (2005:220) classified under what they called the "E-RecS-Qual" dimension, which is relevant only in recovery situations. Parasuraman *et al.* (2005:220) also found that it is advisable to use different dimensions in measuring the service quality of e-services – one dimension for normal operations, another for recovery situations, one for perceived value and another for loyalty intentions. Assistance is therefore not really a service determinant, but rather a higher order service dimension in evaluating e-services.

Conclusion 6.3

Assistance is a separate service dimension in the e-service quality model.

The assistance dimension of the proposed e-service quality model will encompass the service aspects that need to be evaluated in recovery situations. A filter could be used in the e-service quality model to ensure that only those respondents who have encountered problems or required assistance answer the aspects that relate to the assistance service dimension. This could be achieved by a single question filter and only respondents who indicate that they have encountered problems, required or made use of assistance while using e-services are then asked the questions relating to the assistance service dimension. As the questionnaires administered by SARS are web-based questionnaires, it should be very easy to build in a filter question as recommended. It is also recommended that the items in the e-service quality model that deal with the assistance dimension should be presented at the end of the survey instrument just before the global evaluations.

Conclusion 6.4:

The e-service quality model should incorporate a filter to ensure that the questions relating to the assistance service dimension are answered only by those respondents who have actually used these services.

The system availability service determinant (see Section 6.11) attracted the second lowest number of critical incidents of 7.71% (99 critical incidents, n = 1 284). The security service determinant (see Section 6.12) was awarded the lowest number of critical incidents – only 0.94% (12 critical incidents, n = 1 284). The relatively low importance attached to the system availability determinant is in line with the findings of Parasuraman *et al*. (2005:230), who found system availability to be an important contributor to customer perceptions of service quality, but not as important as efficiency and fulfilment.

The low number of responses that related to security aspects implies that its inclusion as a service determinant on its own may need to be rethought. Several researchers (Buckley 2003; Parasuraman *et al*. 2005; Vos 2003; Wolfinbarger & Gilly 2003; Yang *et al*. 2004; Zhang & Prybutok 2005) have commented on the importance of the security service determinant, but they tended either to use the words “security” and “privacy” interchangeably, or to used the term “risk”, which includes both privacy and security. Vos (2003:97) and Zhang and Prybutok (2005:472) argue that security is important. Buckley (2003:460) found that the low overall usage of e-services in public administrations was related to fears about the security of online transactions. Yang *et al*. (2004:1166) found that most online customers are concerned about websites that do not provide clear and prominent statements about security matters.

Although privacy was found to be the least important of the four service determinants identified by Parasuraman *et al*. (2005) in E-S-Qual, they found that it still had a significant influence on customers’ global evaluations of service quality of e-services. Parasuraman *et al*. (2005) conducted their research among frequent users of websites. Wolfinbarger and Gilly (2003:196) found that the role of security is not significant in predicting quality, except among the most frequent users of the website. Wolfinbarger and Gilly (2003:196) also found that the Internet users that are most concerned about privacy issues tend to be the ones least likely to engage in Internet surveys. Hence, the results of Internet surveys might understate the importance of privacy issues in predicting quality for e-service users. Yang *et al*. (2004:1158) concluded that, although the security service determinant received a very low number of responses, security is one of the most frequently cited e-service quality service determinants.

It must be acknowledged that security may have received such a low number of responses in the present survey because tax practitioners only face an indirect risk in using e-filing.

The direct risk of using e-filing is carried by the taxpayer. Nevertheless, it is proposed that the security service determinant should still represent a service determinant on its own for the purposes of the present research, because

- the security service determinant may have a significant influence on customers' global evaluations of service quality of e-services (Parasuraman *et al*. 2005);
- the critical incidents were reported mainly through the website, which may have contributed to an underestimation of the importance of the security determinant, as suggested by Wolfinbarger and Gilly (2003); and
- users of the e-services of SARS could be assumed to be frequent e-service users.

6.6.2 Proposed structure of the e-service quality model

It has now been established (see Conclusions 6.2 and 6.3) that the e-service quality model should have separate dimensions for the perceived value and assistance aspects. It is therefore proposed that all the service aspects that are not part of the perceived value or assistance dimensions should be included as part of a normal operations dimension of the e-service quality model. That dimension can be referred to as TAX-eSQ. The perceived value aspects are then part of a second dimension. The assistance aspects would be part of the third dimension, which can be referred to as ASSIST TAX-eSQ.

The following service determinants will form part of the normal operations dimension (TAX -eSQ) of the e-service quality model:

- fulfilment;
- efficiency;
- system availability; and
- security.

The convenience service determinant will form part of the perceived value dimension of the e-service quality model.

The assistance aspects were originally classified under one dimension relating to assistance, but a closer investigation of the critical incidents allocated to this dimension resulted in the identification of several service determinants within the assistance

dimension. The following service determinants will form part of the assistance dimension (ASSIST TAX-eSQ) of the e-service quality model:

- responsiveness;
- empathy;
- assurance; and
- reliability.

Conclusion 6.5:

The e-service quality model should incorporate the following three different service dimensions:

- *a normal operations dimension;*
- *a perceived value dimension; and*
- *an assistance dimension.*

6.7 RESPONSES PER DIMENSION FOR THE E-SERVICE QUALITY MODEL

In order to determine the relative importance of each separate dimension within the e-service quality model, it is necessary to present the frequencies of the responses per dimension:

- the normal operations dimension, with 879 critical incidents (68.46%, n = 1 284);
- the perceived value dimension, with 272 critical incidents (21.18%, n = 1 284); and
- the assistance dimension, with 133 critical incidents (10.36%, n = 1 284).

Table 6.2: Responses per dimension of the e-service quality model

Dimension	Negative responses	Positive responses	Total Responses	Percentage (%) n = 1 284
Normal operations dimension	364	515	879	68.46%
Perceived value dimension	45	227	272	21.18%
Assistance dimension	105	28	133	10.36%

It appears that the general e-services represented by the normal operations dimension were perceived to be the most important dimension, with 68.46% of the responses allocated to it. This was to be expected, as the bulk of the responses would relate to the

more routine type of service. The perceived value dimension, with 21.18% of the responses, was perceived to be the second most important. The assistance dimension, with 10.36% of the responses, was also regarded as important, but not nearly as important as the normal operations dimension and only about half as important as the perceived value dimension.

The incidence of positive and negative responses on the normal operations dimension is in line with the incidence of positive and negative responses for all the e-services. However, it is clear that the responding tax practitioners answered predominantly positively with regard to the perceived value aspects and predominantly negatively with regard to the assistance aspects of the e-services SARS renders.

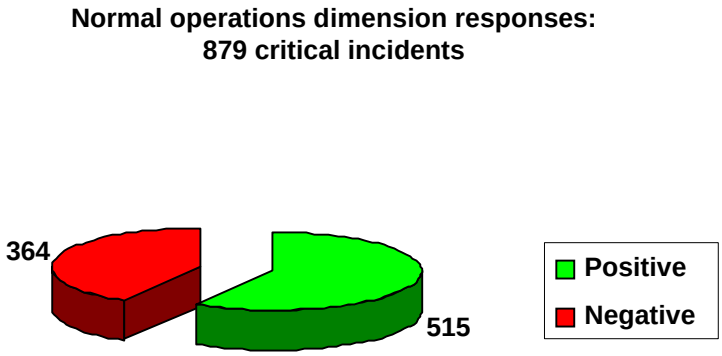
The detailed results for the various dimensions are presented below:

- the normal operations dimension (see Section 6.8);
- the perceived value dimension (see Section 6.14); and
- the assistance dimension (see Section 6.17).

6.8 NORMAL OPERATIONS DIMENSION: GENERAL ASPECTS RELATING TO TAX-ESQ

The normal operations dimension of the e-service quality model incorporates all the services that will not form part of the assistance services or perceived value aspects of SARS's services in the proposed model. The normal operations dimension is regarded as the most important dimension of the e-service quality model, with 879 critical incidents (68.46%, n = 1 284). Of these, 515 (58.59%, n = 879) were positive and 364 (41.41%, n = 879) were negative.

Figure 6.3: Incidence of positive and negative critical incidents for the normal operations dimension



For the normal operations dimension, five different service determinants were identified:

- the fulfilment determinant, with 402 critical incidents (45.73%, n = 879);
- the general determinant, with 206 critical incidents (23.44%, n = 879);
- the efficiency determinant, with 160 critical incidents (18.20%, n = 879);
- the system availability determinant, with 99 critical incidents (11.26%, n = 879); and
- the security determinant, with 12 critical incidents (1.37%, n = 879).

Table 6.3: Determinants for the normal operations dimension

Determinant	Negative responses	Positive responses	Total Responses	Percentage (%) n = 879
Fulfilment	174	228	402	45.73%
General	26	180	206	23.44%
Efficiency	61	99	160	18.20%
System availability	99	0	99	11.26%
Security	4	8	12	1.37%

6.9 NORMAL OPERATIONS DIMENSION: DETAILED ANALYSIS OF THE FULFILMENT SERVICE DETERMINANT

Parasuraman *et al.* (2005:220) define fulfilment as “the extent to which the site’s promises about order delivery and item availability are fulfilled”. In other words, fulfilment refers to the extent to which the entity actually and accurately performs consistently according to

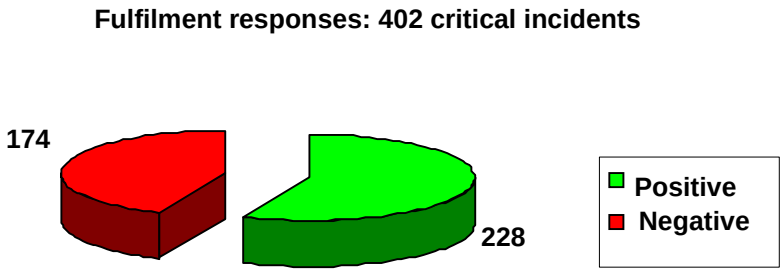
promises made on the site.

For the purposes of the present research, fulfilment relates to

- the outcome of the service (the extent to which the services are performed as promised, including speed and accuracy);
- reliability and trust of service provider (the extent to which promises are fulfilled); and
- item availability (the completeness of the content of the websites, as well as the scope of the services offered).

In respect of all the determinants for the e-services, 402 (31.31%, n = 1 284) of the critical incidents related to the fulfilment service determinants. This is the determinant associated with the highest number of critical incidents. These critical incidents included 228 positive responses (56.72%, n = 402) and 174 negative responses (43.28%, n = 402).

Figure 6.4: Incidence of positive and negative critical incidents for the fulfilment service determinant



The fulfilment service determinant was subdivided into three different service attributes:

- the scope of the e-services offered, with 188 critical incidents (46.77%, n = 402);
- the speed of service performance, with 148 critical incidents (36.82%, n = 402); and
- accurate service delivery, with 66 critical incidents, (16.42%, n = 402).

Table 6.4: Service attributes in the fulfilment service determinant

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Scope of the e-services offered	83	105	188
Speed of service performance	89	59	148
Accurate service delivery	56	10	66

6.9.1 Scope of the e-services offered

The scope of the e-services service attribute includes the scope of services offered through e-filing (see Section 6.9.1.1) and the completeness of the information offered on the website (see Section 6.9.1.2). It was allocated the highest number of critical incidents in the fulfilment service determinant (188 critical incidents, 46.77%, n = 402). This service attribute was also allocated the highest number of critical incidents for all the different service attributes (188 critical incidents, 14.64%, n = 1 284).

6.9.1.1 Scope of services offered through e-filing

The scope of services offered through e-filing service aspect was allocated the highest number of critical incidents in the fulfilment service determinant (157 critical incidents, 39.05%, n = 402). This service aspect was also allocated the highest number of critical incidents for all the different service aspects (157 critical incidents, 12.23%, n = 1 284). As expected, all the responses in this service aspect related to e-filing. No specific reference was made to the website.

During November 2007, when the critical incidents were reported by the respondents, much attention was focused on e-filing, particularly the additional services offered through this channel and perceived system problems. The respondents therefore expressed much appreciation of the fact that this service channel had been expanded (58 positive critical incidents, 36.94%, n = 157). Conversely, however, the then current problems with the system drew attention to additional services that could enhance the process even further (99 negative critical incidents, 63.06%, n = 157). The negative responses (63.06%) may have exceeded the positive responses (36.94%) for this service attribute because of the "teething" problems that the very welcome expansions of e-filing encountered.

The number of responses for this service attribute should thus be evaluated based on the

circumstances prevailing at the time when the critical incidents were reported. Although this service attribute attracted the highest number of critical incidents of all the different service attributes, it should not necessarily be regarded as the most important service attribute used by SARS clients in evaluating the quality of SARS's e-services. It can only be safely concluded that this service attribute can be regarded as very important to tax practitioners.

The scope of the services offered could be subdivided into different detailed service aspects mentioned by the tax practitioners. A total of 74 of the responses referred to the appreciation of (or need for) e-filing that had been (or should be) expanded to include different business processes. Of these responses, only 16 indicated that the respondents required expansion in general. By contrast, six responses commented positively on the expansion of e-filing to include more functions, although they did not specify the particular business process concerned. Of the business processes that were specifically mentioned, the inclusion in the scope of services of the submission of tax returns was mentioned 31 times, tax payments eight times, tax assessments six times, the tax clearance process three times and tax refunds three times.

The following list includes other detailed requirements cited by the tax practitioners.

- Of the responses, 39 indicated that tax practitioners would like to register taxpayers through e-filing, for both income tax and VAT. Included in these responses were two that specifically mentioned that centralised e-filing registrations would reduce the duplication of processes to register and submit information to the various departments or for taxes for which a taxpayer has to register.
- Of the responses, 20 related to the fact that tax practitioners would like to update their client profiles through e-filing themselves and update the taxpayer's information through e-filing themselves, for example, the taxpayer's address and banking information – the option of updating taxpayer profiles and some of the taxpayer information was introduced in the middle of 2008 (SARS Practitioners Unit 2008b:8).
- Of the responses, ten related to a desire to have the ability to access, view, update or print a specific taxpayer's account via e-filing.
- Another four responses related to the fact that the application for the alternative dispute resolution process should also be added to e-filing.
- Three responses specifically related to the ability to do tax calculations through e-filing.

- Three responses referred to the fact that tax practitioners would like to do their IRP 5 reconciliations through e-filing. Again SARS has already been pro-active in its service offerings – the electronic IRP 5 reconciliation process was introduced in the middle of 2008 (SARS Practitioners Unit 2008b:9).
- Two respondents specifically requested the option of using the manual system as an alternative even when a taxpayer has been registered on e-filing and then to indicate on e-filing that the return has been submitted manually (as was always possible for VAT). The SARS Practitioners Unit (2008b:8) indicates that SARS is already investigating the possibility of expanding e-filing to provide for this option.
- Two respondents specifically wanted to be able to save information on e-filing while they are busy completing a tax return. SARS is constantly expanding on the current service offerings. Since the middle of 2008, the "save" facility has been added to the e-filing, allowing tax practitioners to save a partially completed return and submit it later (SARS Practitioners Unit 2008b:7).

It was therefore determined that several tax practitioners would like to see more business processes accessible through e-filing. The expansion of the e-filing facility may indeed have triggered the possibility and expectation of further expansion. Because SARS could internally determine the level of use of the current business processes on e-filing and because SARS is continuously improving and expanding the processes available on e-filing, it is recommended that the e-service quality model should include a question to determine what additional functionalities the tax practitioners regard as important. The format of the question could be a list of all the functions not currently available on e-filing – the tax practitioner could be requested to list items that he or she would also like to have on e-filing. The inclusion of an additional open-ended question to identify additional service aspects required by the tax practitioners may be considered.

Conclusion 6.6:

The e-service quality model should include a question to determine the need for the expansion of the scope of the services SARS offers through e-filing.

6.9.1.2 Completeness of the website

The fulfilment service determinant contributes to the service outcome, so the completeness service aspect is also classified under the fulfilment service determinant. The completeness of the content on the website will affect the success of the service outcome: that is, whether or not the tax practitioners could get what they were looking for on the website.

The completeness service aspect was allocated 31 critical incidents (2.41%, n = 1 284), of which an overwhelming 25 critical incidents (80.65%, n = 31) were positive and only six critical incidents (19.35%, n = 31) were negative.

This service aspect relates to the completeness of the content of the website. The focus is therefore not on the ability to find things because of the efficiency of the layout or structure, but on the ability to find most things, even if it takes a long time or is difficult to find. It is, however, acknowledged that the positive responses would definitely communicate a positive response towards the completeness of the website, but that the negative responses could also reflect a lack of efficiency of the site. Overall, the total number of responses indicates the importance of this service aspect and its inclusion in the e-service quality model. The format of the question could be a closed-ended question that reads as follows: “All information and forms required are always available on the SARS website.” This closed-ended question could be accompanied by an open-ended question to determine what is not available on the website. The answers to the open-ended question would either indicate a real need for additional information or would indicate a problem with the efficiency of the search function, structure and layout of the site.

Conclusion 6.7:

The e-service quality model should include a question to evaluate the completeness of the content of the website.

6.9.2 Speed of service performance

The speed of service performance includes the turnaround time of the services offered through e-filing (see Section 6.9.2.1) and the timeliness of the updates of the information on the website and on e-filing (see Section 6.9.2.2). This item was allocated the second

highest number of critical incidents in the fulfilment service determinant (148 critical incidents, 36.82%, n = 402). This service attribute was also allocated the second highest number of critical incidents among all the different service attributes (148 critical incidents, 11.53%, n = 1 284).

6.9.2.1 Turnaround time

E-S-Qual in Parasuraman *et al*. (2005:231 – FUL3) includes a statement to determine whether or not a business "quickly delivers what I (a person) ordered". Another statement, namely "this site makes items available for delivery within a suitable time frame", is also included in E-S-Qual (Parasuraman *et al*. 2005:231 – FUL2). It therefore implies that fulfilment includes the speed of the completion of the required process – in this case, the delivery of the items ordered. For the purposes of the present research, the turnaround time refers to the speed of the different business processes of e-filing. If the return is, for example, completed through e-filing, the turnaround time refers to the time from the submission of the tax return until the date of the issue of the assessment.

The turnaround time of the services as defined for the fulfilment service determinant should be distinguished from the speed of using the e-services that are part of the service determinant of efficiency (see Section 6.10.3). In the service determinant of efficiency, the speed refers to the speed from the perspective of the user of the site. For the fulfilment service determinant, the speed refers to the speed of the service provider and not the productive time of the user invested while using the site.

As the expansion of the use of e-filing only commenced in August 2007 and the critical incidents were reported in November 2007, the service attribute of turnaround time (in the context of e-services) may not have been fully experienced by the tax practitioners. This may have contributed to the fact that a low number of responses were related to it. This conclusion is confirmed by a response from one tax practitioner who commented: "E-filing does promise to be 'better' as far as response and assessments returned – it is too early to respond on that yet – we have hardly had any assessments back from e-filing returns that we sent in August even."

Although the service aspect of turnaround time attracted the second highest number of responses (113 critical incidents, 28.11%, n = 402) in the fulfilment service determinant

and the third highest number of responses (8.8%, n = 1 284) for all the e-services, the fact that the turnaround time (responsiveness, see Section 5.8.1) was regarded as the most important service attribute for the traditional services (together with the reasons already mentioned above) could indicate that the results relating to this service attribute may have been underestimated and that its importance may be even higher than indicated here.

Of the 113 critical incidents, an overwhelming 84 (74.34%, n = 113) were positive. Only 29 (25.66%, n = 113) were negative. All the responses related only to e-filing. No critical incidents related to the website. Apart from the 75 critical incidents that referred to the turnaround time in general for e-services, 27 critical incidents referred specifically to the transaction speed for the tax assessment. Nine referred to turnaround time for tax refunds. Two critical incidents referred to the dispute resolution process. It is therefore recommended, first, that the e-service quality model should include a question to evaluate the turnaround time for all the abovementioned business processes. Second, it is recommended that the model should be adjusted continuously for new business processes as they become available on e-filing.

As both the legal requirements and the service delivery promises for the business process have already been discussed in Chapter 5, this discussion is not repeated here. The following business processes have already been included in the evaluation of the traditional services, but they were also relevant to e-filing:

- tax assessments (see Section 5.8.1.4 and Conclusion 5.9) – discussed in more detail in this chapter under Conclusion 6.8;
- tax refunds (see Section 5.8.1.5 and Conclusion 5.10) – see Conclusion 6.9; and
- the dispute resolution process (see Section 5.8.1.3 and Conclusion 5.8) – see Conclusion 6.10.

Conclusion 6.8:

The e-service quality model should include a question that evaluates the speed of the tax assessment process.

Separate evaluations should be included for the

- *VAT and PAYE returns; and*
- *income tax returns.*

For income tax returns, separate evaluations should be available for the

- *peak periods (July to February); and*
- *off-peak periods (March to June).*

Conclusion 6.9:

The e-service quality model should include a question that evaluates separately the speed (in working days) of processing and of paying refunds to clients relating to

- *income tax refunds; and*
- *VAT refunds.*

Conclusion 6.10:

It is recommended that the following question relating to the speed of the services for the dispute resolution process be included in the e-service quality model: "In the case of a dispute on a tax assessment that does not arise because of a processing error by SARS, it should be determined how long it takes from the date of the assessment up the date that the letter of rejection or acceptance of the objection is received."

6.9.2.2 Timeliness of updates

For the purposes of the present research, the timeliness of updates of the services refers to how frequently the e-services are updated to ensure that only the most up-to-date information is available at any given time.

This service aspect was allocated 35 critical incidents (2.73%, n = 1 284), of which only five (14.29%, n = 35) were positive and 30 (85.71%, n = 35) were negative. Included in these critical incidents, there were 28 critical incidents that related to the updating of e-filing and seven incidents that related to the timeliness of updates on the website.

Among the processes that were specifically mentioned as relating to e-filing updates, 21 critical incidents were related to the speed with which taxpayers were removed from or added to a tax practitioner's profile on e-filing. The timeliness with which SARS can update

the profiles of tax practitioners has already been addressed by SARS since the web-based questionnaire that collected the critical incidents for the purposes of the present research was circulated (SARS Practitioners Unit 2008a). The matter has been addressed by making it possible for tax practitioners to update their own profiles (self-service), with little or no involvement by SARS. It is therefore recommended that this service aspect should not be included in the e-service quality model.

Four critical incidents relating to the updates on e-filing referred specifically to the timeliness of making returns available to be completed. They were related to income tax returns for individuals, companies and trusts (see Section 5.1.8.6 and Conclusion 5.11).

Conclusion 6.11:

The e-service quality model should include a question that evaluates the timeliness of the availability of income tax returns through the e-filing service channel

- *for natural persons;*
- *companies; and*
- *trusts.*

Of the seven critical incidents that related to the timeliness of updates on the website, only one (14.29%, n = 7) was positive. Six (85.71%, n = 7) were negative. It is recommended that the e-service quality model should include a question to determine whether there is a perception that the website always provides the most up-to-date information.

Conclusion 6.12:

The e-service quality model should include a question that evaluates whether the website always provides up-to-date information.

6.9.3 Accurate service delivery

E-S-Qual, as set out by Parasuraman *et al.* (2005:231 – FUL4), includes a statement to determine whether an entity "sends out the items ordered". This reflects on the accuracy of the services and the fact that the service is delivered. In the present research, for the accurate service delivery service attribute, 66 critical incidents (5.14%, n = 1 284) were received, of which an overwhelming 56 (84.85%, n = 66) were positive and ten (15.15%, n = 66) were negative. All the critical incidents were relevant only to e-filing and not to the general website, as the website involved no actual active service delivery from SARS.

The positive incidents relating to accurate service delivery predominantly compared these incidents to experiences with the traditional services in the past. A perceived reason for the increase in accurate first-time service delivery is the fact that the number of capturing errors has been reduced.

E-filing has been available since 2003. The types of service available up to 2007 included self-assessment tax systems (VAT and PAYE), as well as tax payments. These services required very little involvement from SARS. The expansion of e-filing to include more interactive services only commenced during 2007 (again, most business processes were not fully completed at the time when the critical incidents were reported during November 2007, which may have contributed to an underestimation of the importance of the service attribute of accurate service delivery).

The service attribute of accurate service delivery was mainly commented on in general, but was specifically mentioned with regard to making the correct tax returns available, the tax assessment and tax payment business processes (see Section 5.11.1.1 – Conclusion 5.49).

Conclusion 6.13:

The e-service quality model should include a question that evaluates SARS's ability to deliver accurate first-time service solutions in

- *issuing tax returns;*
- *processing and issuing tax assessments; and*
- *processing tax payments.*

6.9.4 Other

Three statements in E-S-Qual (Parasuraman *et al.* 2005:231), namely the ability of the service provider to "have in stock the items the company claims to have" (FUL 5), to be "truthful about its offerings" (FUL 6) and to "make accurate promises about delivery of products" (FUL 7), relate to the ability of the customer to rely on the promises of the service provided and to trust the service provider to perform the services as promised.

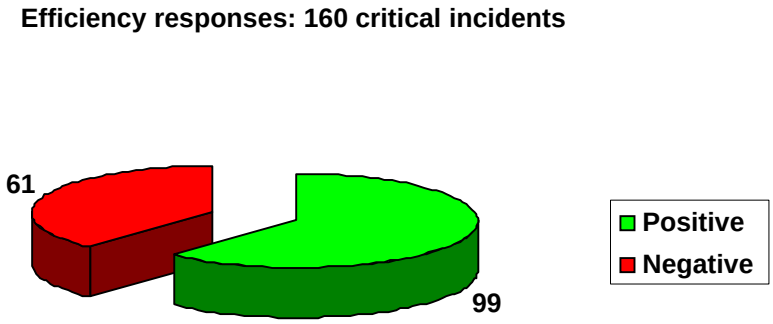
As nothing in the SARS Service Charter relates specifically to e-services and to promises in general, the relevant critical incidents are likely to have been allocated to the traditional services, as the tax practitioners would not have commented in detail for e-filing, but for

SARS as a whole. No specific items should therefore be included in the e-service quality model to evaluate the reliability of promises made by SARS relating to e-services.

6.10 NORMAL OPERATIONS DIMENSION: DETAILED ANALYSIS OF THE EFFICIENCY SERVICE DETERMINANT

Parasuraman *et al*. (2005:220) define efficiency as "the ease and speed of accessing and using the site". This includes the simplicity of the structure and layout of the website. In the e-service section, the efficiency determinant was allocated the third highest number of critical incidents. A total of 160 critical incidents (12.46%, n = 1 284) were allocated to this service determinant, of which 99 (61.88%, n = 160) were positive and 61 (38.12%, n = 160) were negative.

Figure 6.5: Incidence of positive and negative critical incidents for the efficiency service determinant



The efficiency service determinant was subdivided into four different service attributes:

- ease of use, with 87 critical incidents (54.38%, n = 160);
- organisation, with 45 critical incidents (28.13%, n = 160);
- speed of accessing the site and pages, with 15 critical incidents (9.37%, n = 160); and
- ease of finding information, with 13 critical incidents (8.12%, n = 160).

Table 6.5: Service attributes in the efficiency service determinant

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Ease of use	79	8	87
Organisation	16	29	45
Speed of accessing the site and pages	2	13	15
Ease of finding information	2	11	13

6.10.1 Ease of use

Ease of use appears to be relevant because Internet-based transactions are complex and intimidating to many customers (Parasuraman *et al.* 2005:217). E-S-Qual also includes a specific question to determine whether the site is simple to use (EFF6 in Parasuraman *et al.* 2005:230). In the present research, statements such as "very easy to use" were included in the ease of use service attribute. The ease of use (as opposed to burdensomeness) should be distinguished from the user-friendliness of the website. Although these two items are related and both contribute to the overall simplicity of using the website, the user-friendliness of the website is more closely related to the organisation of the website (see Section 6.10.2, below).

A total of 87 critical incidents (6.78%, n = 1 284) were allocated to the ease of use service attribute, of which 79 (90.80%, n = 87) were positive and eight (9.20%, n = 87) were negative.

The ease of use service attribute was mainly relevant to e-filing (81 critical incidents), but six respondents also referred to the website.

Conclusion 6.14:

The e-service quality model should include a question that evaluates the ease of using the

- *website; and*
- *e-filing.*

6.10.2 Organisation

Madu and Madu (2002:253) argue that the users of e-services do not have the patience and the time to deal with poorly designed websites. E-S-Qual also includes two statements

that relate to the organisation of e-services. The first statement relates to whether or not the **information** on the website is well organised (EFF4 in Parasuraman *et al.* 2005:230). The second statement relates to whether or not the **site** is well organised (EFF8 in Parasuraman *et al.* 2005:230).

In the present research, no critical incident specifically referred to the organisation of the information on the site. Instead, the critical incidents focused on the structure and user-friendliness of the site. In the present research, the organisation of the information was either not relevant to the respondents, or the responses of the tax practitioners that referred to the website included some reference to the information, as well as to the design of the site. To ensure completeness for the purposes of the present research, the organisation service attribute refers to the design and user-friendliness of the structure and layout of the website and the organisation of information on the website. It is therefore recommended that the two statements in E-S-Qual be combined in the e-service quality model proposed in the present research. The organisation service attribute in the present research includes the user-friendliness of the structure and information on the website.

The organisation of the information service attribute attracted comments containing 45 critical incidents (3.5%, n = 1 284), of which 16 (35.56%, n = 45) were positive and 29 (64.44%, n = 45) were negative. This service attribute is relevant to both the website (19 critical incidents) and e-filing (26 critical incidents).

Conclusion 6.15:

The e-service quality model should include a question to evaluate the user-friendliness of the structure and the layout and the organisation of the information on the

- *website; and*
- *e-filing.*

6.10.3 Speed of accessing the site and pages

E-S-Qual includes four different statements that probe the perceptions of tax practitioners with regard to how quickly the site can be accessed. The first is the statement that the site "loads its pages fast" (EFF5 in Parasuraman *et al.* 2005:230). The second is that "the site enables me to get onto it quickly" (EFF7 in Parasuraman *et al.* 2005:230). The third is that "the site launches and runs right away" (SYS2 in Parasuraman *et al.* 2005:231). The fourth is that "the site is always available for business" (SYS1 in Parasuraman *et al.* 2005:231).

The first two statements are included under the efficiency service determinant of E-S-Qual, whereas the last two are included in E-S-Qual as part of the system availability service attribute. For the purposes of the present research, both aspects of system availability and the speed with which the site can be accessed were combined into the speed of accessing the site service attribute.

The reason for the combination of the above E-S-Qual service attributes into this one service attribute is that there were not necessarily always messages to indicate when e-filing was available. At only one stage – on 31 January 2008 – after the critical incidents had already been gathered, was a message available on the e-filing site, indicating that there was a system overload and that the site was unavailable. Another factor that contributed to the combination of the different aspects into one service attribute was that the respondents indicated that, at some stages, e-filing was very slow because of system overloads and they therefore had to try to get into the system numerous times. For example, one tax practitioner might try three times and then stop – he or she would perceive the system to be unavailable. Another person might try four times and would eventually get in – he or she would comment on the burdensomeness (taking up too much time) of getting access to the system.

The number of attempts they needed to get into the system is not the only aspect that the respondents commented on. The respondents also referred to the time aspect – for example, that it takes too long to get into the system. One tax practitioner might have attempted once to get into the system, waited for ten minutes without success and then cancelled the request, rebooted the computer and so on. Another tax practitioner, by contrast, might also have attempted once to get into the system, waited for 25 minutes while his or her computer was attempting to log on to the system, but eventually got access to the system. The first tax practitioner would perceive the system as unavailable, whereas the second tax practitioner would perceive it to have taken too long to get access to the system.

It must be acknowledged that the speed at which one can use the Internet is influenced by the number of Internet browsers using the Internet at the time, the Internet service provider, as well as whether, for example, a dial-up or broadband connection is used, but it can be assumed that the users would compare the speed of what is provided on the SARS website with other sites visited by the same users under the same operational conditions.

It should also be considered that the data for the present research was gathered during November 2007. At the start of 2008, South Africa suffered major electricity shortages which resulted in enforced power-sharing. The fact that e-filing and the website are accessed mainly through communication devices that depend on electricity may increase the relevance of this service attribute in future. Although it is acknowledged SARS has no control over non-accessibility because of power failures, it would definitely indirectly affect the importance of this service attribute, as well as the efficiency with which the e-services can be used as a service channel.

A total of 15 critical incidents (1.17%, n = 1 284) related to the speed with which the site and its pages could be launched. Two (13.33%, n = 15) were positive and 13 (86.67%, n = 15) were negative. This service attribute is relevant to both the website (two critical incidents) and e-filing (13 critical incidents).

The system availability service attribute could become more relevant in future e-service quality models of SARS if tax practitioners become accustomed to messages on the Internet or on e-mail which indicate to them when the system is not available. Even in the absence of such messages, it is recommended that the e-service quality model include both the service attributes “system availability” and “speed of accessing the site”. The reason for this is the current inability of the tax practitioners to distinguish between these two service attributes.

SARS (SARS Practitioners Unit 2008b:4) has indicated that it would engage in a first round of testing text messages to inform practitioners about system downtimes in the middle of August 2008. However, until the planned downtime system notification system is fully operational, the results of both the attributes should continue to be combined when the results of the data are analysed.

Conclusion 6.16:

The e-service quality model should include a question to determine the efficiency of the speed of the website and e-filing in loading pages.

Conclusion 6.17:

The e-service quality model should include a question to evaluate the system availability of the website and e-filing.

6.10.4 Ease of finding information

Yang *et al.* (2004:1166) argue that Internet-based services should be concise and easy to understand and to navigate. It should be easy to locate information or content. E-S-Qual includes two statements that relate to the ease of finding information service attribute. The first refers to the ease of finding what is required on a site (EFF1 in Parasuraman *et al.* 2005:230). The second statement refers to the ease of navigating a site (EFF2 in Parasuraman *et al.* 2005:230). It appears that the second statement refers to the ease of getting to where a person wants to be on a site when the person knows where the information is. In the present research, statements such as "[the] search facility is good" and "difficult to find information" were included in this service attribute. For the purposes of the present research, the ease of finding information service attribute therefore refers to the ease of finding information whether the tax practitioner knows where to find the information or not.

The ease of finding information service attribute attracted 13 critical incidents (1.01%, n = 1 284), of which two (15.38%, n = 13) were positive and 11 (84.62%, n = 13) were negative. This service attribute was relevant to both the website (11 critical incidents) and e-filing (two critical incidents).

Apart from the general responses, tax practitioners specifically mentioned the difficulty of finding the tax assessments on e-filing (one critical incident) and the fact that the taxpayers are not in any kind of order on e-filing (for example, alphabetical). The difficulty of finding the tax assessment was also mentioned by several tax practitioners during a meeting between SARS and tax practitioners in Pretoria. SARS has subsequently addressed this issue, so that the tax assessment is now much more visible on the website.

Conclusion 6.18:

The e-service quality model should include a question to evaluate the ease of finding information on the

- *website; and*
- *e-filing.*

6.11 NORMAL OPERATIONS DIMENSION: DETAILED ANALYSIS OF THE SYSTEM AVAILABILITY DETERMINANT

Parasuraman *et al.* (2005:220) define system availability as "the correct technical functioning of the site". The system availability service determinant attracted the second lowest number of critical incidents for e-services. A total of 99 critical incidents (7.71%, n = 1 284) were allocated to this service determinant. All 99 were negative.

The system availability service determinant consisted of two different service attributes:

- pre-testing, with 52 critical incidents (52.53%, n = 1 284); and
- crash and freeze problems, with 47 critical incidents (47.47%, n = 1 284).

Table 6.6: Service attributes in the system availability service determinant

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Pre-testing	-	52	52
Crash and freeze problems	-	47	47

6.11.1 Pre-testing

System testing is defined as "testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements" (IEEE 1990). Several critical incidents specifically referred to pre-testing of the e-filing system, as well as the planning of user volumes. It was therefore decided to have pre-testing as a service attribute on its own.

Pre-testing, for the purposes of the present research, is defined as proper testing of the e-filing system before running the system live to evaluate the system's compliance, as well as prior planning and market research on estimated user volumes to ensure that the

system is able to accommodate all the anticipated users. Pre-testing attracted critical incidents relating to the fact that the tax return on e-filing requires information for specific fields which respondents perceived as not relevant to all taxpayers – for example, bank account information is a required field, but many taxpayers do not have bank accounts. The fax number on the return is another example.

It is acknowledged that pre-testing may have contributed to greater ease of use, greater ease of finding information and possibly the speed of accessing the site and its pages (and therefore it may have had an impact on the efficiency of the site). It may also have had an impact on various other aspects (for example, pre-testing might have reduced the number of times the site freezes). Pre-testing could therefore have contributed directly to the technical functioning of the site. As the system availability service determinant is defined as the correct technical functioning of the site, pre-testing should be regarded as a service attribute within this service determinant.

The message from the tax practitioners was that they felt that SARS simply went live without adequate pre-testing and is simply trying to solve problems as the process evolves. In the private sector, pre-testing would usually be of great importance, as clients could be lost if a system is not working properly. In the tax agency environment, clients (the taxpayers) are not voluntary. Hence, perceptions about the pre-testing service quality should be elicited to assess the total service quality of the e-services, and should be regarded as a service attribute.

Pre-testing is not specifically mentioned in the E-S-Qual model – nor has it been mentioned to date in any other e-service quality model. However, while Santos (2003) does not specifically refer to pre-testing, her proposed e-service quality model divided e-service quality into two dimensions, namely, an incubative and active dimension – before and after a website is launched – as a criterion for separating the dimensions. She defines the incubative dimension as “the proper design of a Web site, how technology is used to provide consumers with easy access, understanding and attractions of a Web site” (Santos 2003:238). Santos (2003) therefore acknowledged that aspects that are addressed before the website is launched may also be relevant in evaluating e-service quality. Pre-testing would definitely contribute to the quality of the incubative dimension. It would therefore be theoretically sound to include it in an e-service quality model.

The pre-testing service attribute attracted 52 critical incidents (4.05%, n = 1 284). As expected, it was only relevant to the e-filing.

Conclusion 6.19:

The e-service quality model should include a question that evaluates the tax practitioners' perception(s) relating to (un)successful pre-testing of e-filing or any additional processes introduced on e-filing before it was launched.

6.11.2 Crash and freeze problems service attribute

A system crash is defined as the breakdown of the operating system, resulting in the system's halting, often very abruptly, and throwing its users off (Anon 2008). The crashing service attribute is also included in E-S-Qual, with one statement, namely that "this site does not crash" (SYS3 in Parasuraman *et al.* 2005:231).

The *South African Concise Oxford Dictionary* (2005:459) defines a freeze as "a computer screen that becomes suddenly locked". E-S-Qual includes a statement that indicates that "pages at this site do not freeze after I enter my order information" (SYS4 in Parasuraman *et al.* 2005:231).

The effect of both a website that crashes and a website that freezes is that the tax practitioner logs out (involuntarily with a system crash or voluntarily from frustration when a page freezes) and has to start all over again to get access to the site. For this reason, it is advised that the results of both the crashing and the freezing service attributes be combined into only one question. It might have diagnostic value for SARS if there are two separate questions, but in terms of a "lens of the customer", both aspects result in the same frustration and are likely to carry the same weight and importance.

The following comment on a critical incident illustrates how closely related the freezing and the crashing of the website were perceived to be by a responding tax practitioner: "[The] system clogs up and just hangs and eventually aborts".

The crashing and freezing of a site service attribute directly affects the system availability. For the purposes of the present research, this attribute includes unreliability of the e-filing. Responses relating to the reliability of the site were mainly given in the context of the fact that a tax practitioner could not rely on e-filing to work properly, as the tax practitioners

noted that the system crashed or froze while they were using it.

The crash and freeze problems service attribute attracted 47 negative critical incidents (3.66%, n = 1 284) and related only to e-filing. This service attribute was not relevant to the general website.

Conclusion 6.20:

The e-service quality model should include a question to determine whether e-filing crashes or freezes while it is being used.

6.12 NORMAL OPERATIONS DIMENSION: DETAILED ANALYSIS OF THE SECURITY SERVICE DETERMINANT

Madu and Madu (2002:252) maintain that the quality of a website is intertwined with the site's ability to safeguard and protect information that is provided to it. Parasuraman *et al*. (2005:220) argue that the security determinant usually includes the degree to which the site is safe and protects the taxpayer's (tax practitioner's) information. The security determinant would usually also include the site's ability to protect tax practitioners from risk in general (Santos 2003:238).

E-S-Qual includes three statements that specifically relate to the security service determinant. The first relates to the fact that the service provider "protects information about my (the client's) shopping behaviour" (PRI1 in Parasuraman *et al*. 2005:231). In the tax agency context, the first statement would probably relate to confidentiality about amounts owed and returns not submitted – thus protection of the information about the taxpayer's fulfilment of his or her tax obligations. For the purposes of the present research, this statement relates to the fulfilment of the tax practitioner's obligations. Such information includes details such as how many of a tax practitioner's clients' tax returns are always submitted on time, and so on.

No responses relating to this specific aspect were relevant to the e-services. As the information on taxpayers that is submitted through the traditional services is also mainly captured on an electronic system at SARS, it could be assumed that the users of SARS's e-services would not be likely to experience any unique security concerns with regard to the protection of taxpayers' information. It is possible that the e-services may even have

reduced the security risk to people with electronic access. The traditional services also carry a risk that unauthorised individuals could access the hard copy of the information that has been submitted.

The second statement refers to the fact that "personal information is not shared with other sites" (PRI2 in Parasuraman *et al*. 2005:231). In the tax agency environment, this would refer to safeguarding the taxpayer and the tax practitioners' database. No responses were relevant to this aspect of the E-S-Qual model.

The third statement reads that the "site protects information about my credit card" (PRI3 in Parasuraman *et al*. 2005:231). In the tax agency context, this would probably refer to safeguarding banking information, as tax is not paid by credit card. Although the respondents were tax practitioners, they did refer to the safeguarding of the banking details of their clients. This matter may be relevant because the tax practitioners' clients trust practitioners with their banking information, and any unauthorized use of the information by SARS could implicate the tax practitioner.

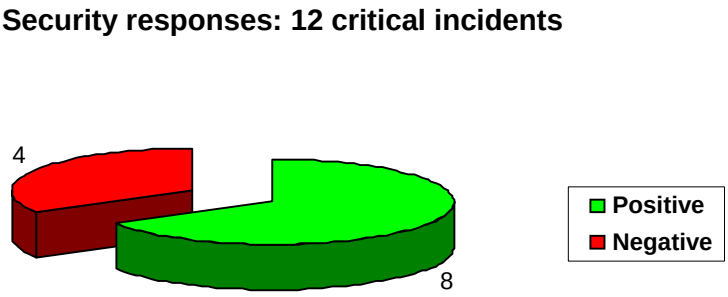
Some responses allocated under the security service determinant include statements that refer to concerns about the personal liability of tax practitioners when they use e-filing.

For the purposes of the present research, security is defined as the protection of

- personal information relating to the taxpayer and the tax practitioner; and
- the tax practitioner from personal liability.

The security determinant attracted 12 critical incidents (0.93%, n = 1 284), of which eight (66.67%, n = 12) were positive and four (33.33%, n = 12) were negative.

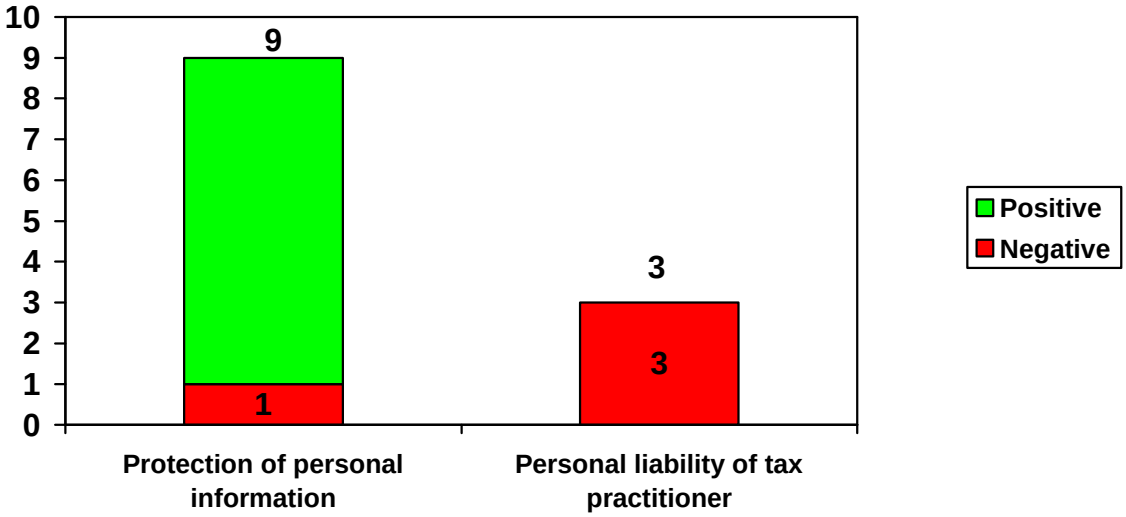
Figure 6.6: Incidence of positive and negative critical incidents for the security service determinant



The security service determinant was subdivided into two service attributes:

- protection of personal information, with nine critical incidents (75%, n = 12); and
- protection against personal liability of the tax practitioner, with three critical incidents (25%, n = 12).

Figure 6.7: Service attributes within the security service determinant



6.12.1 Protection of personal information

Nine of the responses (0.70%, n = 1 284) related to the safety aspect of using e-filing. It appears to be relevant, as the e-filing electronic information is not restricted only to SARS's in-house system but is also available on the Internet. It therefore carries the general risk attached to Internet usage. The responses were also not only limited to the protection of clients' banking details, but included most personal information. Eight

(88.89%, n = 9) of the responses were positive. Only one (11.11%, n = 9) was negative. The negative critical incident was related to concern about Internet security in general.

Conclusion 6.21:

The e-service quality model should include a question to determine whether e-filing is perceived to protect the personal information of the taxpayer and tax practitioner.

6.12.2 Personal liability of tax practitioner

Three of the responses (0.23%, n = 1 284) related to the personal liability of the tax practitioner when using e-filing. All three of these responses were negative – this indicates that tax practitioners are concerned about their personal liability when using e-filing. When tax returns were submitted manually (through the traditional service channels), the taxpayers were usually obliged to sign their tax return. Only in very limited cases could the tax practitioner sign on behalf of the taxpayer client. With e-filing, the visible involvement (signature) of the taxpayer is removed. Hence, tax practitioners are concerned that they carry a greater personal liability. The extent to which the tax practitioner is exposed to this risk in its dealings with SARS is something that should be discussed between SARS and the tax practitioners. Although the tax practitioners perceive their personal liability to be a matter that influences the e-service quality of SARS, this aspect does not *per se* relate to the service quality of the services provided by SARS. The personal liability of the tax practitioner is more a business risk or procedural consequence and not a consequence of service quality. Although this aspect could still be included in the e-service quality model as part of the "lens of the tax practitioner", no specific question relating to this should be included in the service quality measuring instrument.

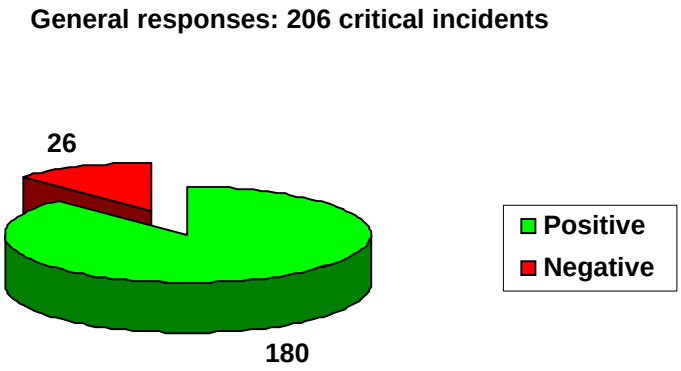
6.13 NORMAL OPERATIONS DIMENSION: DETAILED ANALYSIS OF THE GENERAL SERVICE DETERMINANT

No specific service attribute was identified for the critical incidents that were classified under the general service determinant. They were classified as a general statement about the service quality of either the website or e-filing.

A total of 206 critical incidents (16.04%, n = 1 284) were allocated to the general service attribute, of which 180 (87.38%, n = 206) were positive and 26 (12.62%, n = 206) were

negative. Most of the critical incidents allocated to the general service attribute (184 critical incidents) related to e-filing – only 22 related to the website. These critical incidents clearly related to the efficiency of the e-filing and of the website, but there was not enough information to allocate them to a specific service attribute.

Figure 6.8: Incidence of positive and negative critical incidents for the general service determinant



It is interesting to note that, as with the traditional services (see Section 5.13), there were proportionally more positive responses than negative responses under the general service determinant. This finding supports the argument that the respondents commented more generally when they were happy with the quality of services, but were more specific in their comments when they experienced service quality problems. The results underline the importance of measuring not only detailed service aspects but also including an additional global assessment of service quality in the e-service quality model. It is recommended that this global assessment should be measured not for the e-services overall, but for each of the two e-service channels (e-filing and the website). The respondents could, for example, be requested to use a scale to evaluate the overall service quality of using

- e-filing; and
- the website.

Conclusion 6.22:

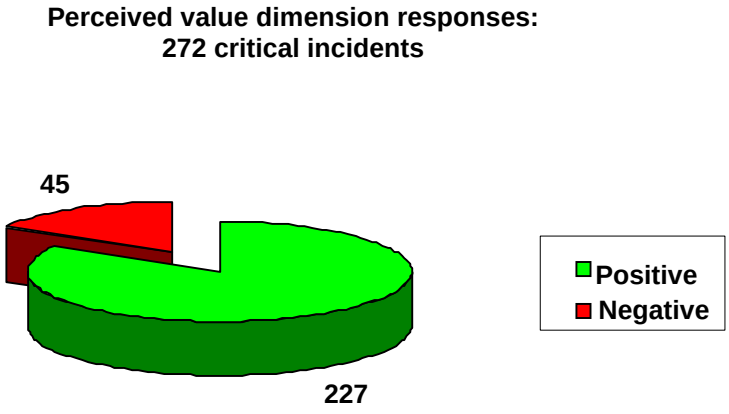
Apart from the detailed aspects recommended for inclusion in the e-service quality model, an additional global judgement should also be incorporated to evaluate the service quality of

- *e-filing; and*
- *the website*

6.14 PERCEIVED VALUE DIMENSION: GENERAL ASPECTS RELATING TO PERCEIVED VALUE

In Section 2.4.1.4, the value-based approach for quality was discussed and it was concluded that the cost-benefit value measure is likely to be whether the efficiency of the service provider (that is SARS) would enable the practitioner to recover the cost of his or her time from the taxpayer client in full. Zeithaml (1988:14) defines customer value as a trade-off between benefits and cost (salient give-and-take components). The convenience of using e-services is directly related to the benefits of the e-services, and therefore to the perceived value of the services. Incentives to use e-services could also relate either to the benefits of using the service or to the (lower) cost of using the service. For the purposes of the present research, the perceived value dimension is defined as the convenience and incentive benefits of using e-filing. A total of 272 critical incidents (21.18%, n = 2 184) were allocated to the perceived value dimension, of which 227 (83.46%, n = 272) were positive and 45 (16.54%, n = 272) were negative.

Figure 6.9: Incidence of positive and negative critical incidents for the perceived value dimension



For the purposes of the present research, the perceived value dimension consists of two service determinants:

- convenience, with 267 critical incidents (98.16%, n = 272); and
- incentive, with five critical incidents (1.84%, n = 272).

Table 6.7: Service determinants within the perceived value service dimension

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Convenience	224	43	267
Incentive	3	2	5

6.15 PERCEIVED VALUE DIMENSION: DETAILED ANALYSIS OF THE CONVENIENCE SERVICE DETERMINANT

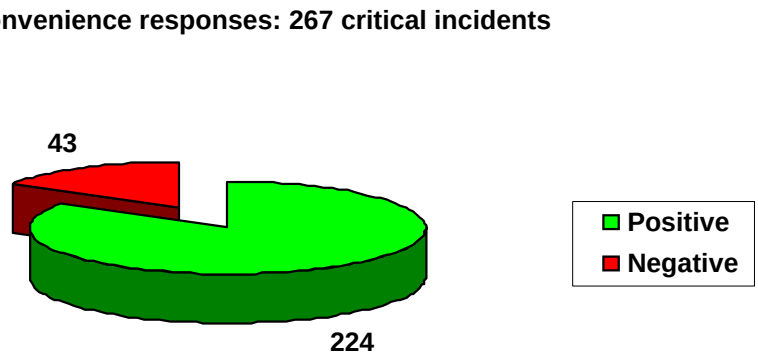
Service convenience is defined by Berry *et al*. (2002:12) as consumers' time and effort perceptions related to buying or using a service. Berry *et al*. (2002:13) propose that service convenience has two dimensions, namely time and effort. They argue that it is more important to consumers in some situations than in others. Yang *et al*. (2004:1158) do not specifically define convenience, but they identified the following service attributes as relevant to the convenience determinant within the tax agency environment:

- the service saves time;
- the service is available when the client wants to use it;
- the client can access the service wherever the client wants to use it; and
- the client can avoid service personnel.

In the present research, the critical incidents relating to the convenience service determinant included statements such as "e-filing is convenient as it is not necessary to wait in long queues at SARS", "e-filing is convenient especially for clients staying far away", "it is available 24/7", "one can submit returns while on holiday", "it saves a lot of administration effort", "it saves us photocopying documents" and "it is convenient to have an electronic filing system".

According to the South African Concise Oxford Dictionary (2005:251), convenience could mean “freedom from effort or difficulty”. For the purposes of the present research, convenience therefore refers to the overall freedom from effort or difficulty of using e-filing. The convenience service determinant attracted 267 critical incidents (20.79%, n = 1 284), of which 224 (83.90%, n = 267) were positive and 43 (16.10%, n = 267) were negative. Of these responses, 251 related to the e-filing and 16 related to the general SARS website.

Figure 6.10: Incidence of positive and negative critical incidents for the convenience service determinant



The convenience service determinant was divided into the following service attributes:

- time-saving, with 139 critical incidents (52.06%, n = 267);
- e-filing system, with 38 critical incidents (14.23%, n = 267);
- reduction of effort, with 29 critical incidents (10.86%, n = 267);
- when I want it, with 23 critical incidents (8.61%, n = 267);
- general, with 21 critical incidents (7.87%, n = 267);
- expenses, with 11 critical incidents (4.12%, n = 267); and
- where I want it, with six critical incidents (2.25%, n = 267);

Table 6.8: Service attributes in the convenience service determinant

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Time-saving	110	29	139
Electronic filing system	32	6	38
Reduction of effort	26	3	29
When I want it	20	3	23
General	21	0	21
Expenses	9	2	11
Where I want it	6	0	6

6.15.1 Time-saving

The time-saving service attribute usually focuses on the transaction speed of e-filing. E-S-Qual includes a statement on the ability of the website to complete a transaction quickly (EFF3 in Parasuraman *et al*. 2005:230). As the incorporation of individual taxpayers (the majority of taxpayers) on e-filing only commenced in 2007, it could be assumed that the tax practitioners would rather focus on the time-saving aspects (which were classified as part of the convenience service determinant) and would not really be able to judge the actual transaction speed of e-filing. In order for a tax practitioner to judge whether a transaction is completed quickly, he or she has to have some measure or benchmark by which to judge the speed. Such a benchmark might be the time usually invested in the same transaction using the traditional service channel. A transaction might thus only be perceived to have been completed quickly if the time for a specific transaction was faster through the e-filing service channel than it would be through the traditional service channel.

The answers that related to the speed or time attribute did indeed reflect the above suggestion, as the respondents focused mainly on time-saving aspects. When they did refer to speed, it was mainly in comparison with the traditional channels. In the SARS context, remarks such as “e-filing is more productive”, “e-filing is quicker” and “e-filing saves a lot of time” were classified under this service attribute. This service attribute therefore focused on the productive time of the tax practitioner required to complete a particular transaction. It includes the time it takes to download forms, as this aspect only replaces the traditional receiving of the form through the post and filing it.

Using the submission of a tax return process as an example, the traditional process is compared to the electronic process in Table 6.8 to assist in understanding what the time-saving service attribute entails (this table assumes that e-filing is already in use and would therefore not include the initial registration process).

Table 6.9: Comparison of different communication media for the submission of a tax return

Submission of tax return business process	**Traditional system**	**E-filing**
Receiving the tax return	- Collect post - Open post - File tax return in correct file	- Automatically received on e-filing system with no involvement by the tax practitioner
Completing the tax return	- Find correct client file - Complete tax return - Attach relevant original documentation - Make a copy of the tax return and documentation - File the copy of tax return and supporting documentation	- Find correct client file - Log into e-filing - Find client's tax return - Download the return on hard drive - Complete the tax return electronically - File all the original supporting documentation
Submitting the tax return	- Hand deliver to SARS or post to SARS	- Submit electronically by pressing the submit button

From Table 6.9 it is clear that the tax return business process would usually entail three different sub-processes (receiving the tax return, completing the tax return and submitting the tax return). The tax practitioners commented either only on the time-saving of the total process or on details of the three different sub-processes.

The burdensomeness of the various processes described in Table 6.9 above also has a direct impact on the speed of a specific process and therefore on the time saved or additional time required when using a particular service channel, but the burdensomeness aspects are included in the ease of use service attribute (see Section 6.10.1 above), which was classified under the efficiency service determinant.

The time-saving convenience aspects would be directly affected by the actual transaction time of a business process, as well as the effective working of the e-filing system. System availability should not influence transaction speed, but this is only true if the tax practitioner knows about system availability in advance. If the tax practitioner is prompted about the

unavailability only when he or she is trying to log on to the system, it would affect the time-saving service attribute, as it reduces the convenience of using e-filing. However, these responses were not included in this service attribute, as this aspect is more closely related to the speed of accessing the site (see Section 6.10.3 above).

A total of 139 critical incidents (10.83%, n = 1 284) were allocated to the time-saving service attribute, of which 110 (79.14%, n = 139) were positive and only 29 (20.86%, n = 139) were negative. The negative responses either referred to wasting time on e-filing services or to the initial process of registering (which takes a lot of time) or to wasting time because the e-filing system was perceived not to be fully operative.

Because the bulk of the e-filing services were still new when the critical incidents were gathered, and because e-filing did have some “teething” problems when it was expanded during 2007, it can be assumed that the low negative response rate would be even lower in future.

Ten of the responses specifically referred to time-saving aspects related to the website. This service attribute is therefore applicable to both e-filing and the website.

6.15.2 Electronic filing system

The respondents found it convenient to have an electronic filing system. Statements such as “records are kept”, “we have access to previous returns”, “there is less paper work”, “there is less photocopying” and “it reduces the risk of forms going missing” were classified under this service attribute. Although the reference to the reduced risk of forms going missing may not relate directly to convenience, it does indicate that e-filing reduces the inconvenience of having to resubmit more than once when forms actually do go missing and will thus indirectly contribute to the convenience of using e-filing.

One critical incident referred to the fact that tax returns that are submitted through e-filing are lost by SARS. Although this response is included in the results, it is not clear how this incident occurred. It is possible that the respondent in fact experienced problems with the submission process and that the submission was perhaps unsuccessful, rather than that information was lost on the electronic system.

A total of 38 critical incidents (2.96%, n = 1 284) were allocated to the electronic filing system service attribute, of which 32 (84.21%, n = 38) were positive and six (15.79%,

n = 38) were negative. The electronic filing service attribute was only relevant to the e-filing.

6.15.3 Reduction of effort

Convenience refers to the overall freedom from effort and difficulty of using e-filing. It therefore includes any reduction in effort. According to the *South African Concise Oxford Dictionary* (2005:379), effort can be defined as strenuous physical or mental exertion. Some respondents referred to the fact that it is convenient not to have direct contact with employees at SARS. For them it is an effort (mental exertion) to deal with the contact employees and it is convenient to avoid such contact, even if it requires additional time from the practitioners. Statements such as “I do not have to stand in long queues to complete a transaction” and “I do not have to drive to the branch” relates to a reduction of perceived strenuous physical activities and were also included in this service attribute. The reduction of effort service attribute, for the purposes of the present research, therefore consists of aspects (both physical and mental) that a tax practitioner did not like when using the traditional services and that e-filing provides an opportunity to avoid.

A total of 29 critical incidents (2.26%, n = 1 284) were allocated to the reduction of effort service attribute, of which 26 (89.66%, n = 29) were positive and three (10.34%, n = 29) were negative. The e-filing service attribute was also relevant to the website.

Of the responses, 20 specifically referred to the convenience of not having to visit a branch when e-filing services are used instead of the traditional route. Included in these responses was one response which mentioned that it was no longer necessary to appoint a messenger to go to the SARS branch office. Four respondents mentioned that by not visiting the branch, they could avoid long queues. Nine respondents referred to contact with SARS employees. Of these nine, seven experienced it as convenient not to have any contact with the employees, whereas two found it problematic not to have direct contact with the employees any longer.

6.15.4 When I want it

The “when I want it” service attribute refers to the convenience of the “operating hours” of e-filing and the website. The system availability service attribute (see Section 6.11 above) will have a direct effect on the when I want it service attribute – a reduction in system

availability will possibly reduce the convenience of the “operating hours”, particularly as SARS does not currently have a proper notification system in place relating to system availability.

A total of 23 critical incidents (1.79%, n = 1 284) were allocated to the when I want it service attribute, of which 20 (86.96%, n = 23) were positive and three (13.04%, n = 23) were negative. The when I want it service attribute was also relevant to the website.

6.15.5 Expenses

Although the cost implications of using e-services are not specifically addressed in the current e-service quality models, the saving of time actually contributes to a lowering of opportunity cost, as a tax practitioner can use any time he or she saves for some other purpose. Similarly, the actual expenses saved (or additional expenses incurred) would also contribute to the (in)convenience of using e-services. Statements such as “e-filing saves on the costs of photocopying”, “e-filing saves postage costs”, “e-filing is cheap” and “the bank charges on e-filing payments are very expensive” were allocated to this service attribute.

A total of 11 critical incidents (0.86%, n = 1 284) were allocated to the expenses service attribute, of which nine (81.82%, n = 11) were positive and two (18.18%, n = 11) were negative. The expenses service attribute was relevant only to e-filing.

6.15.6 Where I want it

The “where I want it” service attribute refers to the convenience of having the luxury of performing transactions at different locations. Statements such as “I can go on holiday in December and still submit returns to SARS”, “I can complete functions while still with the client” and “it is easy to access from all over the world” were allocated to this service attribute.

Six critical incidents (0.47%, n = 1 284) were allocated to the where I want it service attribute, all of which were positive. This service attribute was relevant only to e-filing.

6.15.7 General

The general service attribute under the convenience service determinant refers to statements such as “e-filing is convenient” or “e-filing is more convenient”.

A total of 21 critical incidents (1.64%, n = 1 284) were allocated to the general service attribute, all of which were positive.

6.15.8 Conclusion on convenience aspects

The convenience service determinant attracted 267 critical incidents (20.79%, n = 1 284). The high frequency of these responses indicates that tax practitioners regard convenience as very important.

Zeithaml (1988:13) found that convenience has divergent meanings for different individuals. The results of the present research confirm that convenience is a very personal thing – what one person would find convenient would be a matter of indifference to another person, for example, the aspects classified under the reduction of effort service attribute. When this was specifically included and tax practitioners were requested to evaluate such an aspect, some respondents felt neutral about the matter, as they do not mind contact with employees of SARS. Others preferred contact. Yet others indicated that they would prefer to avoid contact.

The convenience-related aspects are part of the Perceived Value scale in Parasuraman *et al*'s. (2005:231) E-S-Qual multi-item scale for measuring service quality. E-S-Qual includes one question relating to convenience, in which respondents are requested to rate a website on a scale from 1 (poor) to 10 (excellent) on the overall convenience of using the website. Connolly and Bannister (2008:315) also included the Perceived Value scale in their assessment of the Irish tax collection agency's online services. There is no reason to believe that they did not include it in much the same way as it is included in E-S-Qual. The overall measurement of convenience is therefore also recommended for the present research.

Conclusion 6.23:

The e-service quality model should include a question relating to convenience in which respondents are requested to use a scale to rate the overall convenience of using

- *the e-filing; and*
- *the website.*

6.16 PERCEIVED VALUE DIMENSION: DETAILED ANALYSIS OF THE INCENTIVE SERVICE DETERMINANT

Compensation as a service determinant in the electronic environment is defined by Parasurman *et al*. (2005:220) as the degree to which the website compensates customers for problems. In the present research, an e-service quality model is being developed for SARS, which is an entity in the public administration of South Africa. It is not the practice of SARS to "compensate" taxpayers, as it neither sells a commodity that could either be provided more cheaply, nor provides a service at a price.

Santos (2003:242) refers to an incentive as the encouragement given by a web provider to consumers to use the e-service. For the purposes of the present research, the incentive determinant relates to the encouragement SARS provides as a motivation to use the e-services, namely by indirectly assisting tax practitioners to overcome technological readiness barriers. The encouragement could, for example, include the cash flow advantage provided for VAT payments, as a later required payment date applies when a tax practitioner uses e-filing, as opposed to the deadline when he or she uses the traditional services. Another aspect that relates to the incentive service determinant is the fact that longer extensions are granted for the submission of tax returns if they are submitted through e-filing.

The incentive determinant attracted five critical incidents (0.39%, n = 1 284), of which three (60%, n = 5) were positive and two (40%, n = 5) were negative. All the critical incidents related to the e-filing. As incentives provided by SARS contribute directly to the value a tax practitioner perceives when using the e-services, a question determining the value of the e-service encouragement incentives should also be included in the e-service quality model.

Conclusion 6.24:

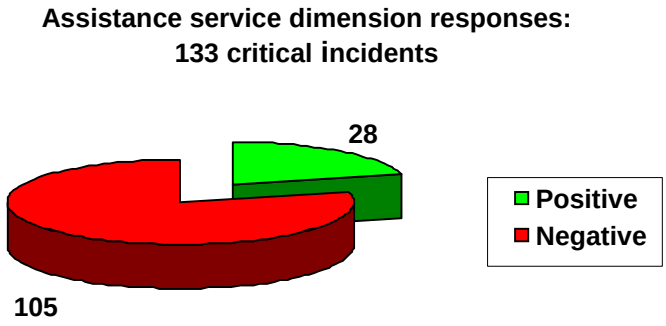
The e-service quality model should include a question relating to incentives in which respondents are requested to rate e-filing on a scale on the overall value of the e-services encouragement incentives offered for using the service.

6.17 ASSISTANCE DIMENSION: GENERAL ASPECTS RELATING TO ASSISTANCE

Santos (2003:238) defines assistance as including technical help, user guidelines and personal advice. Parasuraman *et al.* 2005:220 define what they refer to as "contact" to be the "availability of assistance through telephone or online representatives". For the purposes of the present research, assistance refers to the availability and efficiency of assistance with e-services through the telephone, online representatives and electronic aids.

Assistance attracted the fourth highest number of responses of 133 critical incidents (10.36%, n = 1 284), of which 28 (21.05%, n = 133) were positive and 105 (78.95%, n = 133) were negative. This dimension was relevant only to e-filing.

Figure 6.11: Incidence of positive and negative critical incidents for the assistance service dimension



The assistance dimension could be defined with regard to the following three service aspects:

- personal assistance, with 77 critical incidents (57.89%, n = 133);
- e-mail assistance, with 30 critical incidents (22.56%, n = 133); and
- the user guide, with 26 critical incidents (19.55%, n = 133).

Table 6.10: Service aspects in the assistance service dimension

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Personal assistance	17	60	77
E-mail assistance	6	24	30
User guide	5	21	26

6.17.1 Personal assistance

For the purposes of the present research, personal assistance refers to assistance provided over the telephone and any other direct contact with SARS employees who assist tax practitioners in overcoming problems in using the e-services, for example, any training and workshops presented.

The personal assistance service aspects attracted the highest number of responses in the assistance dimension, with 77 critical incidents (6%, n = 1 284), of which 17 (22.08%, n = 77) were positive and 60 (77.92%, n = 77) were negative. This service aspect was only relevant to e-filing.

E-S-RecS-QUAL in Parasuraman *et al.* (2005:231 – CON1 and CON3) includes two statements in the contact service determinant that attempt to establish whether the "site provides a telephone number to reach the company" and the site "offers the ability to speak to a live person if there is a problem". These statements only determine whether the user is informed about the ability to contact the service provider, either over the telephone, or in another direct manner. In the present research, the descriptions of critical incidents relating to personal assistance were very detailed – 21 specifically referred to the knowledge of the staff who assisted them. Of the responses, 16 related to the waiting time before assistance was provided. Ten critical incidents specifically mentioned that it is a waste of time to use the call centre, but six respondents referred positively to the willingness of the call centre attendants to assist them with their problem.

6.17.2 E-mail assistance

E-S-RecS-QUAL in Parasuraman *et al.* (2005:231 – CON2) includes a statement in the contact service determinant to establish whether the "site has a customer service representative available online". The e-mail assistance service aspect refers to the

availability of a SARS employee to assist with questions or problems through e-mail. This service attribute received 30 responses, all of which were related to e-filing. This service attribute therefore does not appear to be relevant to the website. Of the responses, 22 specifically referred to the accurate service delivery of the e-filing e-mail service or to service failures of e-filing e-mail assistance. Six critical incidents related to the turnaround times of e-filing e-mails. Although nearly 80% of the incidents allocated to the assistance dimension were negative, three (60%, n = 5) of the incidents that referred to the e-filing turnaround time of e-mails were positive. Two critical incidents related specifically to the knowledge of the employees answering e-mails relating to e-filing.

6.17.3 User guide

The user guide service aspects include the help functions provided by the e-service and user guides to train tax practitioners in using new service initiatives, or other online assistance when problems are encountered. Pop-up messages to ensure completeness, validation and so on, are also included in this service attribute. SARS (SARS Practitioners Unit 2008b:7) plans to make interactive training DVDs available which will also form part of this service aspect.

The user guide service aspect related mainly to the e-filing (23 critical incidents), with three critical incidents that referred to the website. The responses relating to the user guide service aspect referred to the success or failure of the user guide in assisting users when they encountered problems.

6.17.4 Service determinants for the assistance dimension

It appears that the responses for the assistance dimension of the e-service quality model intersected with several other service determinants. The following service determinants could be identified:

- reliability, with 56 critical incidents (42.11%, n = 133);
- assurance, with 49 critical incidents (36.84%, n = 133);
- empathy, with 16 critical incidents (12.03%, n = 133); and
- responsiveness, with 12 critical incidents (9.02%, n = 133).

Table 6.11: Service determinants within the assistance service dimension

Description	Positive critical incidents	Negative critical incidents	Total number of critical incidents
Reliability	11	45	56
Assurance	15	34	49
Empathy	2	14	16
Responsiveness	6	6	12

6.18 ASSISTANCE DIMENSION: DETAILED ANALYSIS OF THE RELIABILITY SERVICE DETERMINANT

For the purposes of the present research, the reliability determinant includes the ability of SARS employees and systems to perform services accurately (see Section 5.11). Accurate service delivery is therefore a service attribute within the reliability service determinant (see Section 5.11.1 and Conclusions 5.50 and 5.52).

A total of 22 responses specifically referred to the accurate service delivery of the e-filing e-mail service or to service failures in e-filing e-mail assistance. As many as 34 critical incidents specifically mentioned that it is a waste of time to make use of the e-filing call centre. Of the responses, 11 (19.64%, n = 56) were positive and 45 (80.36%, n = 56) were negative.

Conclusion 6.25:

The e-service quality model should include a question that evaluates SARS's ability to perform a service correctly the first time. This should be tested for the following service channels:

- *the e-filing e-mail facilities; and*
- *the e-filing call centre.*

The question should provide for different scales in the measuring instrument. One end of the scale should reflect accurate first-time service delivery and the other end of the scale should reflect total service failure.

6.19 ASSISTANCE DIMENSION: DETAILED ANALYSIS OF THE ASSURANCE SERVICE DETERMINANT

Assurance is defined for the purposes of the present research (see Section 5.9) as including the knowledge and skills of employees (see Section 5.9.1 and Conclusion 5.16).

Yang *et al*. (2004:158) found the knowledge and skills of employees (what the latter researchers referred to as competence) to be one of the most important service attributes.

In addition to the knowledge and skills of employees, the definition of assurance for the traditional services also includes the ability of the operational systems and physical resources to inspire trust. In the context of the e-services, some of the respondents commented on the trust they had or did not have in the content of the e-service user-guides provided by SARS.

For the purposes of the e-service quality model, assurance is therefore more narrowly defined as the knowledge and courtesy of employees and the ability of the content of the e-service user-guide to inspire trust.

Of the total responses allocated to the knowledge and skills of the employees service attribute (49 critical incidents), 15 responses (30.61%, n = 49) were positive and 34 responses (69.39%, n = 49) were negative.

The critical incidents allocated to the knowledge and skills service attribute included comments relating to the

- knowledge and skills of the employees providing personal assistance (23 critical incidents); and
- content of the user-guide of e-filing (26 critical incidents).

6.19.1 Knowledge and skills of the employees

The critical incidents for the personal assistance service attribute attracted 23 critical incidents, which referred to the knowledge of the staff who assisted the respondents and specifically related to the employees answering e-mails on e-filing and the employees providing assistance through the call centre.

Conclusion 6.26:

The e-service quality model should include a question that tests whether the tax practitioners perceive the knowledge and skills of the employees who provide services to the tax practitioners

- *through the e-filing call centre; and*
- *through an e-filing e-mail*

adequate to provide sufficiently clear, accurate and helpful responses.

6.19.2 Content of the user-guide

The 26 critical incidents relating to the user-guide service aspect referred to the success or failure of the user-guide to assist practitioners when they encountered problems. Just as the knowledge of the SARS employees contributes to the assurance service determinant for the traditional services (see Section 5.9.1), the content of the user guide affects the ability of the user-guide to successfully solve problems encountered by the tax practitioners and therefore contributes to the assurance service determinant for the e-services.

Conclusion 6.27:

The e-service quality model should include a question that evaluates whether the tax practitioners perceive the content of the user-guide and help function as providing sufficiently clear, accurate and helpful assistance.

6.20 ASSISTANCE DIMENSION: DETAILED ANALYSIS OF THE EMPATHY SERVICE DETERMINANT

Empathy has already been defined in Section 5.10. It focuses on the caring and individualized attention SARS provides to tax practitioners. It includes tax practitioners' sense that SARS operates in such a manner that it is easy to gain access to the service. Only responses relating to the waiting times for the call centre for the e-services were received that could be allocated under the empathy service determinant. For the purposes of the e-service quality model, empathy is thus more narrowly defined as the tax practitioners' sense that SARS's call centre is designed and operates so that it is easy to gain access to the service.

The service attribute of waiting time was included under the empathy service determinant (see Section 5.10.1 and Conclusion 5.26). A total of 16 responses, of which two (12.50%, n = 16) were positive and 14 (87.50%, n = 16) were negative, related to the waiting time before assistance was provided by the e-filing call centre.

Conclusion 6.28:

The e-service quality model should include a question to determine the perceptions of tax practitioners with regard to waiting time before they are served at the e-filing call centre.

6.21 ASSISTANCE DIMENSION: DETAILED ANALYSIS OF THE RESPONSIVENESS SERVICE DETERMINANT

E-RecS-Qual includes a question under the responsiveness service determinant that evaluates whether "the site tells me what to do if my transaction is not processed". For the purposes of the present research, responsiveness was defined (also see Section 5.8) as the willingness (including the attentiveness) of employees, as well as the actual timeliness or speed of the services performed. A total of 12 critical incidents related to the responsiveness of the assistance provided for the e-services.

The critical incidents in the responsiveness determinant were allocated to the different service attributes in this determinant as follows:

- speed of performing the service, with six critical incidents (50%, n = 12); and
- willingness of employees, with six critical incidents (50%, n = 12).

6.21.1 Speed of performing the service

The speed of performing the service was also identified as a service attribute in the traditional services (see Section 5.8.1.1 and Conclusion 5.6). Six critical incidents related to the turnaround times of e-filing e-mails. Although nearly 80% of the responses in the assistance dimension were negative, three (50%, n = 6) of the responses that referred to the e-filing turnaround time for e-mails were positive.

Conclusion 6.29:

The e-service quality model should include a question that measures the turnaround time (the number of working days) for receiving assistance when corresponding with SARS through the e-filing e-mail.

6.21.2 Willingness of employees

The willingness of employees to perform a service is a service attribute that was also identified for the traditional services (see Section 5.8.1.2 and Conclusion 5.15). Six respondents commenting on personal assistance referred to the willingness of the call centre attendants to assist them with their problem. Three of the comments were positive (50%, n = 6) and three were negative (50%, n = 6).

Conclusion 6.30:

The e-service quality model should include a question addressing the degree of willingness of SARS employees to assist the tax practitioners through the e-filing call centre.

6.22 CONCLUSION

In this chapter, the results of the data gathered by means of a questionnaire and analysed using the critical incident technique were set out for the e-services rendered by SARS. The results indicated that the e-service quality model should be divided into three different dimensions, namely the general, perceived value and assistance dimensions. All the service aspects that were not part of the perceived value or assistance aspects were included in the normal operations (general) dimension of the proposed e-service quality model. This dimension is referred to as TAX-eSQ. The perceived value aspects constitute the perceived value dimension. The assistance aspects are included in the assistance dimension and are referred to as ASSIST TAX-eSQ.

A comprehensive range of service determinants and service attributes relevant to the e-service quality model were identified. Fulfilment, efficiency, system availability and security service determinants were identified for the TAX-eSQ dimension (normal operations dimension) of the proposed e-service quality model. The convenience and incentive service determinants will form part of the perceived value dimension of the e-service

quality model. The assistance aspects were originally classified in one dimension relating to assistance, but closer investigation of the critical incidents in this dimension resulted in the identification of various service determinants within the assistance dimension. The service determinants of responsiveness, empathy, assurance and reliability have been identified for the ASSIST TAX-eSQ dimension (assistance dimension) of the e-service quality model.

The next chapter in the thesis is the final chapter. It summarises the findings of the research. The proposed e-service quality model is also presented. The chapter concludes by indicating possible future research necessary to exploit the proposed e-service quality model to the full.