AN EVALUATION OF THE QUALITY OF CUSTOMER SERVICE PROVIDED TO LARGE POWER USERS BY ESKOM IN THE EASTERN CAPE

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by

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Declaration of Original Work

I, Akhona Caza, hereby declare that the research “An evaluation of the quality of Customer Service provided to Large Power Users by Eskom in the Eastern Cape” is my own original work, that it has not been submitted for any degree or examination in any other University and that all sources I have used or quoted have been indicated and acknowledged by complete references.

…….. ….……

AKHONA CAZA DATE

Integrative Summary

The aim of this research is to evaluate the level of service quality provided by Eskom to its Large Power User (LPU) customer segment in the Eastern Cape. The research uses the SERVQUAL model in order to assess the customers' expectations and perceptions of the service provided by Eskom.

This evaluation report comprises three sections. Section one consists of (a) a review of service quality literature that exists and is applied to Eskom where relevant, (b) a summary of the method used to conduct the research, (c) the research findings, and (d) a discussion of the research findings and recommendations. Section two consists of a review of the key concepts identified for this study as follows: (a) defining customer service quality by looking at the concepts of the customer, service, quality and the dimensions of quality, (b) the importance of service quality, (c) the components of service quality in Eskom, (d) models of service quality, and (e) the SERVQUAL model used in this study. Section three consists of the detail of the research methodology used to conduct this study.

The Gap Model of Service Quality (Parasuraman et al., 1985:44) is evaluated in order to understand the gaps between expected and perceived service. The provider gap (Zeithaml et al., 2006: 34) is also reviewed in order to identify the gaps that occur within the organisation. An extensive review of customer service quality models is undertaken before a discussion of the SERVQUAL model, which was used in this evaluation study, is provided.

The researcher adopted the critical realism research paradigm and quantitative data was collected from a sample of 120 Eskom customers within the LPU customer segment in the Eastern Cape. These customers were randomly selected from the Eskom Customer Care and Billing database and comprised customers from Port Elizabeth, Aliwal North, Mthatha and East London Areas within the Eastern Cape. The data was collected online through a questionnaire which was based on SERVQUAL and modified for electricity services. The quantitative data obtained from the study is presented in the form of tables and graphs created from the data obtained from the 45 customers who responded to the questionnaire.

The gaps between LPU customer perceptions and expectations were calculated for the five SERVQUAL dimensions. The research identifies the existing gaps in the service delivered by Eskom; this is based on the perceptions and expectations of the LPU customers in the Eastern

Cape, who participated in the study. The results reveal that gaps exist between LPU customer perceptions and their expectations of the service provided by Eskom in the Eastern Cape. The key findings reveal that the largest gaps are within the reliability and empathy dimensions and the smallest gap is in the tangibles dimension.

The recommendations were made on the basis of the gaps which were identified and these focus on the training of the front line staff responsible for servicing customers. It is recommended that this training should include an overview of the organisation's policies and procedures to enable employees to respond adequately to customer queries. Recommendation is also made on training staff to interact with customers effectively in order to resolve customer queries satisfactorily. Finally, it is recommended that regular assessments of the existing customer service quality levels are conducted in order for the organisation to remain aware of the current customer perceptions and expectations.

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LPU - Large Power User

NERSA - National Energy Regulator of South Africa

MYPD - Multi Year Price Determination

NIST - National Institute for Technology

NMD - Notified Maximum Demand

SPU - Small Power User

PPU - Prepaid Power User

ZOT - Zone of Tolerance

ISO - International Organization for Standardization

ESI - Electricity Supply Industry

NER - National Energy Regulator

1.0 SECTION 1: EVALUATION REPORT

1.1 ABSTRACT

Large Power Users (LPU) in the Eastern Cape are vital, not only because they generate more revenue for Eskom than residential customers, but also because they often complain about various aspects of service delivery. As such, there is an incessant necessity to understand the nature of their expectations of service from Eskom, which this customer segment upholds. This understanding is especially important for Eskom in South Africa so that it can focus its customer service efforts in a cost-effective manner. This quantitative study was conducted in Eskom in the Eastern Cape Province with the aim of analysing the factors that contribute to the customer service expectations and perceptions of the LPU customers in the province, to ultimately provide recommendations for improvements.

A sample of 120 LPU customers throughout the Eastern Cape was randomly selected from Eskom's billing database and emails were sent to the customers containing a link to the online questionnaire which was based on the SERVQUAL model.

Data was analysed by calculating the mean scores for each of the items, the standard deviation, a paired samples t-test, and the standard error mean to estimate how close the sample is to the population. Cronbach's Alpha was used to determine internal consistency in order to determine the reliability.

The key findings of the study indicate that a significant gap exists between the expectations of LPU customers in the Eastern Cape and their perceptions of the service delivered to them by Eskom. In particular, the largest gaps exist within the reliability and empathy dimensions of the SERVQUAL model.

This study adds value to the Eskom customer service staff responsible for the coaching and mentoring of front line staff and formulating staff training modules. The study does this by providing the Eskom service ratings according to the LPU customers in the Eastern Cape, based on the five SERVQUAL dimensions.

Recommendations are made on how Eskom can close the gaps identified within all of the five SERVQUAL dimensions, particularly in those dimensions were the gaps are highest.

1.2 INTRODUCTION

Eskom, the electricity provider in South Africa, is faced with electricity generation supply constraints. This is as a result of the combination of the growing demands for electricity in South Africa, and Eskom's aged generation infrastructure (Khatri, 2010:113). The average age of Eskom's power stations is 30 years, and the lifespan of a coal-fired power station is 40 years (Mantshantsha, 2012). Many South Africans will recall the rolling electricity blackouts which occurred early in 2008 as a result of generation capacity constraints caused by coal shortages, amongst other things (Joffe, 2013:32). The load shedding by Eskom in 2008 brought mining and industry to a halt and affected the daily operations of businesses around the country. Notably, most mines are big and fall into the category of Large Power Users (LPU) (Maoto, 2013).

Electricity supply service will remain constrained until the completion of Medupi and Kusile, Eskom's large new power stations. The completion of the first unit of Medupi has been delayed until the second half of 2014 (Creamer, 2013:1), and the completion of Kusile has now been scheduled for December 2014. Eskom currently generates approximately 43 000 megawatts of electricity per year in order to meet the demand for electricity supply, out of this, 34 000 megawatts are used. The remaining 9 000 megawatts are taken up by power outages and maintenance (Weavind, 2013). Once completed, the two power stations will provide a total of 12 generating units and will add 4 800 megawatts each into the electricity grid. The projected cost for both power stations is R240 billion (Mantshantsha and Manamela, 2013:1). In light of this situation, a media statement was issued on 10 September 2013 by Eskom's Chief Executive, Mr Brian Dames, announcing that Eskom recently adopted a five-year plan aimed at ensuring the sustainable generation of electricity supply (Eskom Media Desk 2013:2). Whilst these constraints on electricity generation are a reality it is fundamental that "the electricity system of the future needs to deliver high levels of customer service through providing reliable, accessible and flexible means to meet the changing demands from our customers" (Khatri, 2010:113).

It is noteworthy that Eskom in South Africa also faces the challenge of high levels of theft of equipment and electricity by members of the public. Theft of electricity can cause exposure to life-threatening and dangerous situations for people and animals, and contributes to frequent power outages (Operation Khanyisa, 2013:1). More importantly, theft increases the cost of providing electricity to customers as replacement and maintenance costs are passed on to end-users (Eskom Integrated Annual Report, 2011:1). It is also highlighted that theft contributes to interruptions of electricity supply services to customers, causing interruptions to customers' business operations which translates into both monetary and non-monetary loss in the form of revenue from customers and productivity as a result of "downtime". The government has estimated that electricity theft costs South Africa approximately R4.4 billion per year and consequently affects the service that customers expect from Eskom. Generally, theft of electricity occurs through illegal connections, tampering and/or bypassing of meters and the selling of illegal prepaid electricity tokens (Operation Khanyisa, 2013:1).

In addition to the problem of theft, Eskom is also faced with the effects of a rejection in 2012 by the National Energy Regulator of South Africa (NERSA) for a 16% price increase as part of the third Multi Year Price Determination (MYPD3), which was to be implemented from 1 April 2013. This price increase was declined by NERSA and instead an increase of an average of 8% was approved (Eskom, 2013a:4). Considering that the initial application to NERSA included the recovery of input costs such as coal, maintenance and human resources, together with the cost of servicing Eskom's debt which was raised to finance the new infrastructure (Eskom Media Statement, 2013); it can be argued that this, among other factors, has the potential to affect the provision of quality customer service provided by Eskom in South Africa.

Parasuraman, Berry and Ziethaml (1991:39) argue that understanding customer expectations is a prerequisite for delivering superior customer service because customers compare their perceptions with expectations when judging a firm's service. Thus the gap between customers' expectations and perceptions of electricity supply service is important in order to understand service quality, not from the provider's perspective, but rather that of the customer.

The areas within the Eastern Cape included in the study comprise the four Eskom customer service areas in the province: Mthatha, Aliwal North, East London and Port Elizabeth. LPUs

are focused on in this quantitative study because they account for over 72% of the total revenue in the Eastern Cape, despite comprising a very small percentage of the customer base (less than 10%) within the province.

It is instructive to note that previous service quality studies conducted on Eskom in South Africa focused on the prepaid customer segment only or on the entire customer base. For example a quantitative study conducted by Myoli in 2006 focused on the quality of customer service within the prepaid residential segment in the Eastern Cape (Myoli, 2006). Another quantitative study was conducted by MacColl in 2004, which focused on the performance analysis of service quality, as a strategic tool for Eskom management in the Eastern Cape (MacColl, 2004). Notably, both of these quantitative studies made use of the SERVQUAL model which was adapted for the electricity industry.

While it is noteworthy that past studies on Eskom in South Africa have also used the SERVQUAL instrument, the current study is distinctive. Firstly, this study differs from previous studies conducted on Eskom as it focuses on a unique segment of customers who are termed Large Power Users (LPUs) within Eskom in South Africa, whereas previous studies on Eskom have mainly focused on the residential customer segment. Thus this study seeks to fill the void of missing perspectives of LPUs within Eskom, regarding their understanding of service expectation and perception. This is vital for Eskom to use in prioritising, targeting and focusing their customer service quality provision in order to satisfy these customers by focusing on what matters most to them.

Cognisant that the SERVQUAL model has been very popular for studies on service quality on Eskom in South Africa, it is necessary to point out that this is not the only model available for studying service quality: there are many models a researcher may use to conduct customer service quality research. For example, the **Kano Model** is a useful tool for classifying product attributes based on how they are perceived by customers and what their effect is on customer satisfaction (Xu et al., 2007 cited in Chen et al., 2010:1191).

In this model, Kano distinguishes between five quality attributes as follows:

1. **Attractive quality attributes,** which relate to those attributes which give the customer satisfaction if they are present, but will not lead to dissatisfaction if the attribute is not present.

2. **One dimensional quality attributes** are those attributes which are positively related to customer satisfaction, i.e. the better the provision of this attribute in the service, the greater the degree of satisfaction for the customer.
3. **Must be quality attributes** relates to those attributes which will lead to dissatisfaction for the customer if they are not present in the service, although the presence of this attribute does not have a significant contribution to customer satisfaction.
4. **Indifferent quality attributes** are those attributes whose presence does not result in any satisfaction or dissatisfaction to customers
5. **Reverse quality attributes** are those which result in customer dissatisfaction if they are present in the service. The absence of the attribute in the service will result in customer satisfaction (Sauerwein et al., 1996:314).

Critics of the Kano model assert that in practice the model may not necessarily yield accurate results as one might be faced with a situation where no quality attribute is found to be attractive or characterised meaningfully by one dimension (Chen et al., 2010:1190). Chen et al. (2010:1190) assert that a situation like this may arise due to an improperly designed questionnaire where questionnaire items may be ambiguous and unclear, or as a result of poorly designed product attributes.

Another model that may be used to understand quality is what Gronroos (1984:151) termed the **Technical-Functional Quality Model**. This model assists firms to understand customers' perceptions of quality and the way service quality is influenced. According to this model, managing perceived service quality implies that the organisation has to match expected service and perceived service in order to ensure that customers are satisfied. Gronroos (1984:151) identified three components of service quality, viz. (1) Technical quality, (2) Functional quality and (3) Image (Seth et al., 2005:916). Using the Technical Functional Quality model in comparison to the SERVQUAL model, Lassar et al. (2000:263) conducted a study on international private banking customers from the United States of America and South America. The study concluded that the private banking industry represents both a high contact and a high level service situation and that the Technical Functional Quality model is better suited to predict customer satisfaction when customers are actively or very interested in service delivery (Lassar et al., 2000:263).

Another model for assessing service quality is **SERVPERF** (Cronin and Taylor, 1992), which was developed as a performance-based alternative in response to the criticisms of SERVQUAL. These criticisms are discussed under the SERVQUAL model in the subsequent paragraphs. One of the objectives for developing the model was to study the relationship between service quality, customer satisfaction and purchase intentions (Cronin and Taylor, 1992:56). The model uses the same five broad dimensions of the SERVQUAL model, namely (1) Tangibles, (2) Reliability, (3) Responsiveness, (4) Assurance, and (5) Empathy; and adds a sixth dimension of (6) Recoverability. It is noteworthy that according to the meta-analysis approach, the SERVPERF scale yields adequate and valid predictors of service quality (Carrillat et al., 2007:485). On the other hand the predictive validity of the SERVPERF may vary when used in different countries where the language and culture is different to that of the United States where this model was originally developed (Carrillat et al., 2007:485).

Alternatively, a researcher may also use the **SERVQUAL model** which was developed in the 1980s by Ziethaml, Parasuraman and Berry as a means of measuring the scale of quality in the service sectors. Fundamentally, the SERVQUAL instrument comprises items (statements) which are used to assess service quality across five dimensions (Tangibles, Reliability, Responsiveness, Assurance and Empathy) where each statement is used twice, once to measure the customers' expectations and once to measure the perceptions (Wisniewski, 2001:382).

According to Buttle (1996) SERVQUAL is founded on the view that the customers' assessment of service quality is paramount. This assessment is conceptualized as a gap between what the customer expects by way of service quality from a class of service providers, and their evaluations of the performance of a particular service provider (Buttle, 1996:9). This resonated with this quantitative study which seeks to analyse the gap between LPU's perceived service and expectations of service delivered to them by Eskom in the Eastern Cape. As this study adopts SERVQUAL, it is sensible to highlight that the SERVQUAL model and not the others, will be discussed again in more detail later.

The SERVQUAL model has been used extensively in a number of different sectors to assess service quality. For example, Babakus and Mangold (1992:767) used SERVQUAL in the health care sector in the United States, while Bose and Gupta (2013:53) used the

SERVQUAL instrument to measure the difference in the service quality of banks in the public sector and those in the private sector in India. Sondhi and Day (2012:174) used SERVQUAL to measure service quality in English male prisons. It is also significant to highlight that the SERVQUAL model (Parasuraman et al., 1985, 1988) is one of the oldest and most frequently used tools, across disciplines and in various studies, to measure service quality perceptions and expectations from the customer's perspective.

More importantly, the SERVQUAL model has the advantage of being used on a regular basis to track the perceptions of customers with respect to service quality. Additionally, the model provides an organisation with the opportunity to assess its service quality performance on the basis of each dimension individually, or according to the overall dimensions. However, the SERVQUAL model has a number of weaknesses. Buttle (1996) identified a number of theoretical and operational criticisms of the model based on the argument that theoretically SERVQUAL is founded on the basis of an "expectation-disconfirmation" model instead of an "attitudinal" model (Buttle, 1996:32). Another criticism relates to the theoretical and empirical aspects of the model and in particular to the use of gap scores, where it is argued that the use of gap scores is an incorrect method due to the lack of support in literature, where customers evaluate service quality based on "perception-minus-expectation" (Ladhari, 2008:68).

Using a gap analysis, this evaluation study focuses on the LPU segment of Eskom customers within the Eastern Cape, South Africa with the primary aim of analysing factors that contribute to the customer service expectations and perceptions upheld by LPU customers in the province; with the view to making recommendations for improvement.

It is envisaged that this study will identify gaps between expectations and perceptions and will point to areas where customer perceptions of service are lower, higher or even equal to the expectations of the service provided by Eskom in the Eastern Cape. In this way, the challenge for Eskom management and staff will be to put interventions in place that will be aimed at bringing the identified gaps between expectations and perceptions closer together, thus improving customer satisfaction which is one of the organisation's values.

This research adds value by providing insights to Eskom customer service staff, in particular those who are responsible for the coaching, mentoring and training of front line staff, to prioritise their efforts to help improve service quality. Included here will be those

responsible for designing the training modules which are used to train front line staff. It is hoped that the practical implementation of the findings of this research will assist in focusing improvement efforts on the aspects of service that are most important to customers.

In pursuit of the research goals, this evaluation report begins by reviewing the existing literature in the field of customer service quality. This is followed by a description of the method which was followed in conducting the study with respect to the research paradigm, the participants involved and the collection and analysis of data. The next part of the report represents the results obtained from the study, which are then discussed. Thereafter recommendations are made and conclusions drawn.

1.3 LITERATURE REVIEW

Literature shows that customer service quality is increasingly becoming more and more important to organisations in order to identify and improve levels of customer satisfaction (Berry et al., 1985:44). This study examines the concepts of service quality within the context of the electricity industry.

1.3.1 Customer Service Quality

As illustrated in Figure 1 below, based on word of mouth communication, the personal needs of customers, and their personal experiences, customers form a level of expected service from a particular service provider. Notably, external communication by the service provider also impacts on the service expected by customers. Simply put, the customers' expectations sometimes do not match their perceptions of service, and this is known as the consumer or customer gap. Another gap exists when customers' views of expected and perceived services

differ with those of the marketer and service provider (Parasuraman et al., 1985:44).

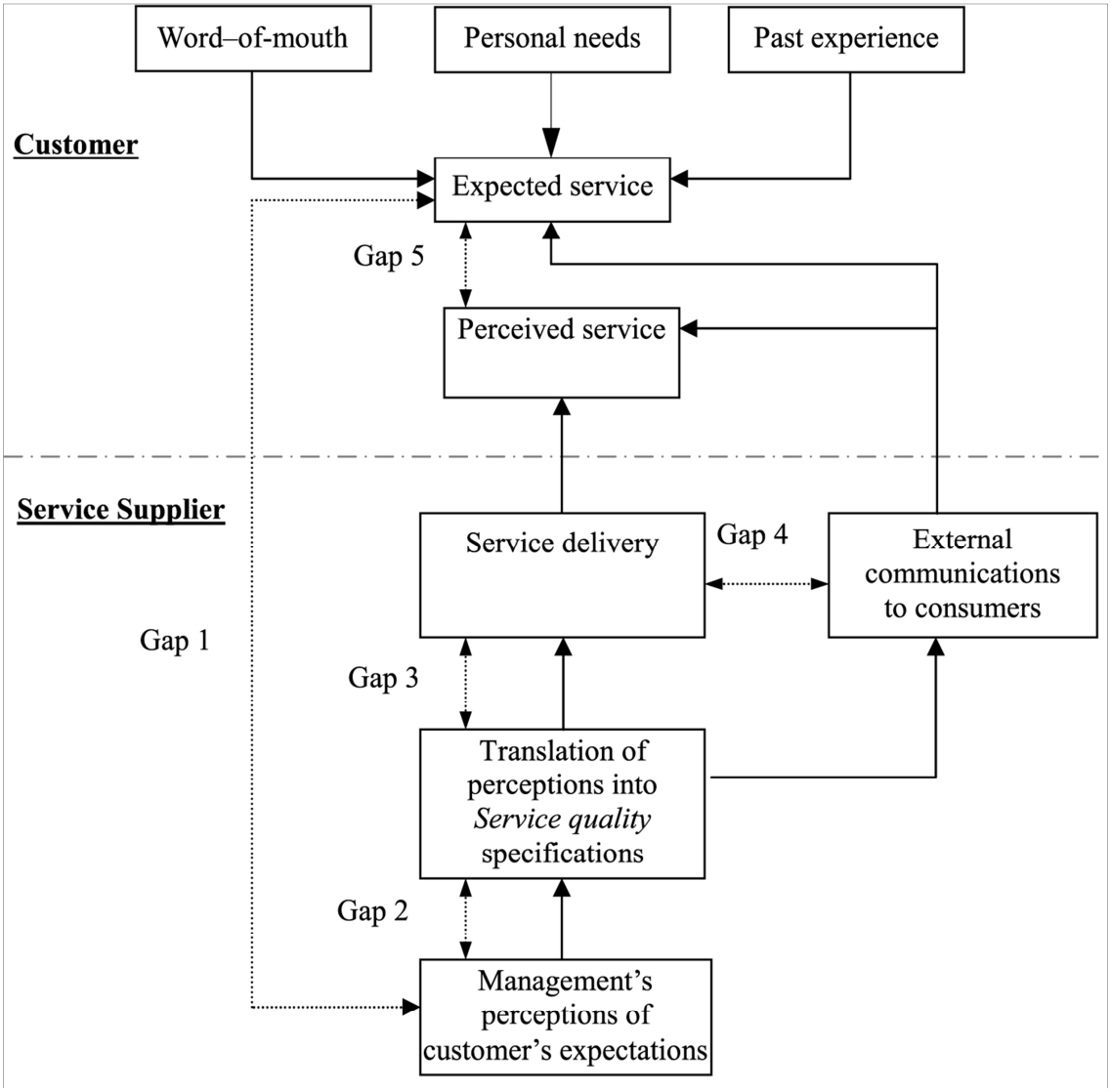

Figure 1: Gap Model of Service Quality [Source: Parasuraman et al. (1985:44)]

A study conducted by Parasuraman et al. (1985) in the United States of America, where executives from four national service firms were interviewed, revealed the following main insight regarding common perceptions about service quality: "A set of key discrepancies or gaps exist regarding executive perceptions of service quality and the tasks associated with service delivery to consumers. These gaps can be major hurdles in attempting to deliver a service which consumers would perceive as being of high quality" (Parasuraman et al., 1985:44). The model depicted above provides a clear and structured way to identify gaps which exist in the provision of service; although it may be unable to identify customers'

service problems in great detail. Mindful that this study focuses on the customer domain, it is sensible to delve more into the concepts of customer and customer gap.

1.3.1.1 Customer Focus

i. Customer Concept

In any study, it is vital to grapple with the variety of meanings of the key concepts. For instance, a customer can be defined as any internal or external stakeholder of the organisation (Wicks and Roethlein, 2009:83). Customers can also be viewed as "the lifeblood of any organisation; without customers, a firm has no revenue, no profit, and no market value" (Yang, 2011:83).

In the case of a public service, beneficiaries or customers of such services comprise many stakeholders (e.g. employees, taxpayers, communities etc.) which need to be taken into consideration (Rhee and Rha, 2009:1491). Rhee and Rha (2009:1491) assert that it is for this reason that attention is paid to the multiplicity and complexity of issues involved in identifying the customers of public services.

The National Institute for Standard and Technology (NIST) explain that the customer refers to the actual and the potential users of organisations' products and services (NIST, 2008:55 cited in Klefsjö et al., 2008:124).

Within the electricity industry, a customer can be described according to their individual energy behaviour, by their dwellings (i.e. buildings), their appliances, their energy consumption patterns (e.g. small power user or large power user) and their production processes (e.g. industrial or agricultural) (Tsekouras et al., 2011:1221).

Eskom in South Africa defines its customers according to the different market segments based on the customers' individual electricity consumption or the contracted Notified Maximum Demand (NMD) of the customer (Eskom, 2013a). In the parlance of Eskom in South Africa, customers are classified as:

- Large Power Users (LPU)
- Small Power Users (SPU)

- Prepaid Power Users (PPU)

ii. Customer Gap

(a) Perceptions Expectations Gap

As alluded to earlier, the customer gap refers to the difference between what customers expect and what they perceive from the service provided (Zeithaml et al., 2006:34). The customer expectations are points of reference which the customer brings into the service experience, while perceptions are assessments which the customer makes of the actual service experience (Zeithaml et al., 2006:34). The customer expectations are formulated in the customer's mind before consumption of the service and can be based on various factors such as previous experiences and price of the service (Zeithaml et al., 2006:34). The customer gap is depicted in Figure 2 below.

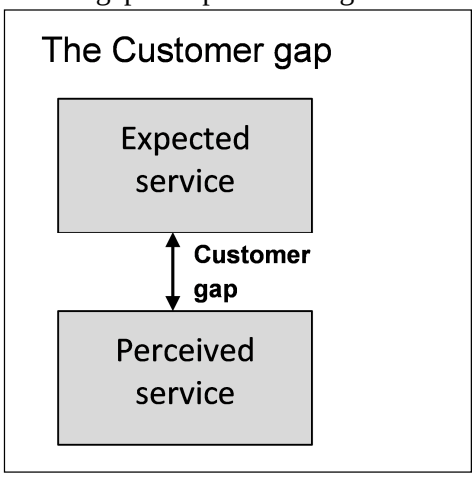

Figure 2: Customer Gap [Source: Zeithaml et al. (2006:34)]

(b) Levels of customer expectation

The levels of expectation of the service held by a customer may differ depending on the reference point that the customer has (Ziethaml et al., 2006:82). Figure 3 below illustrates this point by using the example of a visit to a restaurant where the customers' levels of expectations can either be high or low, based on a range of different expectations. This range of expectations is indicated on the left of the diagram and may lead to the service expectation being either high or low. It is noteworthy that the initial expectation that the customer holds

is important in the final assessment of the performance of the service (Ziethaml et al., 2006:82).

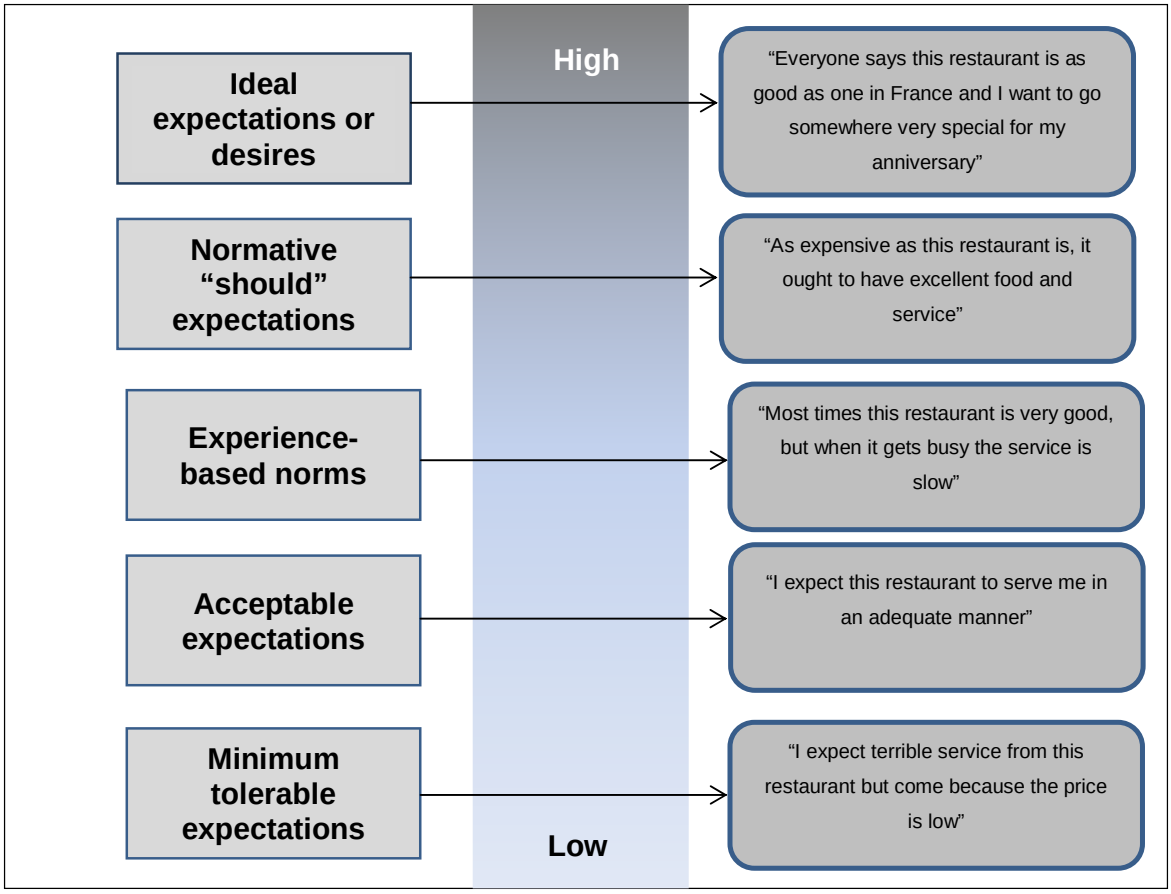

Figure 3: Possible levels of customer expectation [Source: Zeithaml et al. (2006:82)]

(c) Dual customer expectation levels

As indicated in the previous section, customers have different types of expectations of services. As depicted in Figure 4 below, the highest level of expectation is referred to as desired service and refers to the level of service that the customer is hoping to receive from the service and can be termed as the "wished for" level of performance (Ziethaml et al., 2006:83). Desired service is a combination of what the customer believes "can be" and what "should be" (Ziethaml et al., 2006:83).

Customers often realise that at times it is not possible to obtain desired service levels and they may have to accept service which is at a lower level; this level is called adequate service. On the other hand, adequate service indicates the "minimum tolerable expectation" that the customer has (Zeithaml et al., 2006:83).

The area between the desired and adequate service is known as the Zone of Tolerance (ZOT) (Yap and Sweeney, 2007:137). Yap and Sweeney (2007:137) describe the Zone of Tolerance as "a range of service performance associated with a sense of inertia, such that customers are indifferent to small increases or decreases of service quality within the zone."

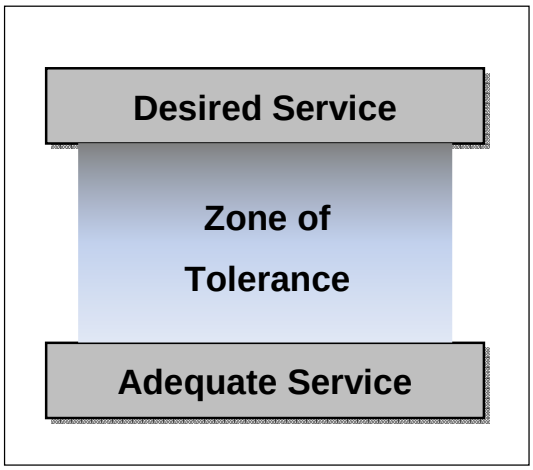

Figure 4: Dual Customer Expectation Levels [Source: Zeithaml et al. (2006:83)]

(d) Factors that influence desired and predicted service

Ziethaml et al. (2006) posit that there are different factors which determine adequate service levels for customers. These factors are generally short term and they tend to fluctuate more than the factors that determine desired service. Figure 5 depicts factors which determine desired service (on the left of the diagram) and also those which affect predicted service, which may either be adequate or desired.

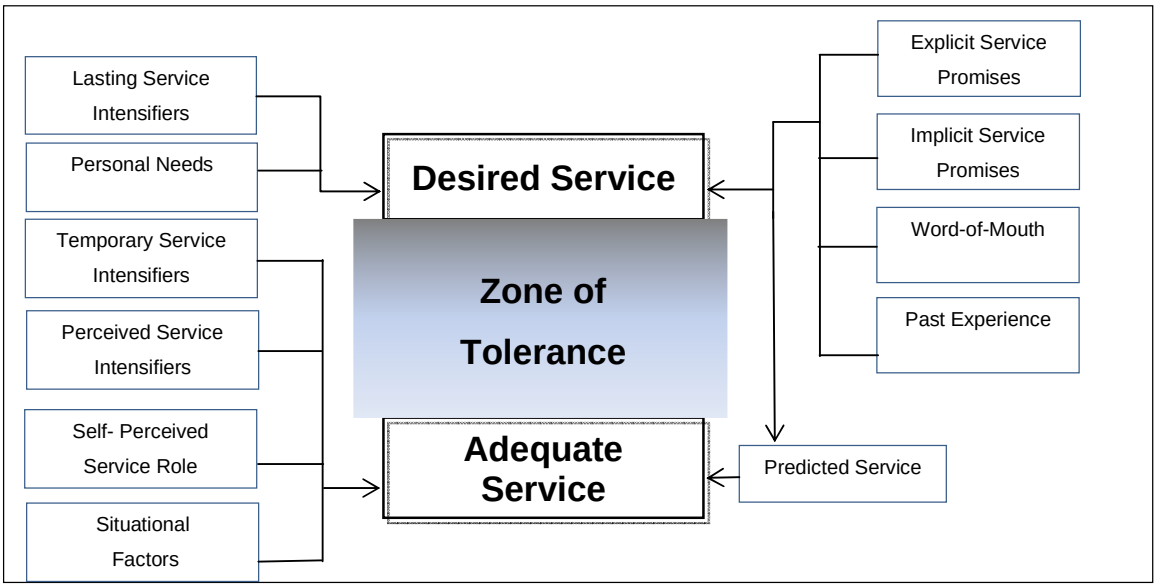

Figure 5: Factors influencing desired and adequate service levels [Source: Zeithaml et al. (2006:93)]

These factors include (1) Lasting service intensifiers, (2) Personal Needs, (3) Temporary Service Intensifiers, (4) Perceived Service Alternatives, (5) Self-Perceived Service Role and (5) Situational Factors (Ziethaml et al., 2006:90). These factors will influence the customers' level of tolerance of the service that is provided. On the other hand, predicted service refers to the level of service which customers believe they will receive and is influenced by a number of factors, namely (1) Explicit Service Promises, (2) Implicit Service Promises, (3) Word-of-Mouth and (4) Past Experience. These factors are illustrated on the right hand side of Figure 5 and relate to individual service experience (Ziethaml et al., 2006:93).

Besides the customer gap, it is also noteworthy that there is a gap which relates to the provider of a service, known as the provider gap and is discussed in the next section.

iii Provider Gap

In order to close the customer gaps referred to above, it is suggested that four other gaps, known as the provider gaps, need to be closed. These gaps happen within the organisation that is providing the service and include the following:

- Gap 1: Not knowing what customers expect
- Gap 2: Not selecting the correct service designs and standards
- Gap 3: Not delivering to service designs and standards
- Gap 4: Not matching performance to promises

(Ziethaml et al., 2006:34).

1.3.1.2 Understanding the nature of service

Three perspectives of understanding the nature of service have been briefly explored in this study. Firstly, it is vital to understand the nature of service through dimensions that make up what is termed as service and is differentiated from product. Kotler and Keller (2007:200) assert that service "is any act or performance that one party can offer to another that is essentially tangible and does not result in ownership of anything".

Focusing on lack of ownership and tangibility, service can be exemplified by military services, banking services or insurance services, just to mention a few. Zeithmal et al. (2006:4) and Morgan and Murgatroyd (1994:10-11) concur that the nature of services reveals that they are intangible and inseparable and that customers have heterogeneous needs. Lamb et al. (2006:206) identified three unique characteristics which distinguish services from products:

1. Intangibility – services are performed and cannot be seen, felt tasted or touched in the same way as products.
2. Heterogeneity – relates to the variability in the performance of services, from producer to producer, customer to customer, and day to day.
3. Inseparability – refers to the simultaneous production and consumption. Products are first produced, then sold and used; services are first sold, then produced and consumed.

While Zeithaml et al. (1985) refer to the same characteristics; they add the notion of perishability to the list of characteristics or dimensions of service. As cited in Ziethaml et al. (1985:34), several authors have documented these four service characteristics, including Berry (1981), Donelly (1976, 1980), Gronroos (1977, 1978, 1979, 1983), Lovelock (1981), Lovelock et al. (1981), Uhl and Upah (1980), Upah and Uhl (1981) and Zeithaml (1981).

Secondly, the nature of service has also been explored by focusing on the service process matrix which is based on the two dimensions of customer involvement and degree of labour intensity (Verma and Boyer, 2010:104-105). With a clear orientation on operations management, this reflects that some services may have low customer contact or customisation and low degree of labour intensity (service factory), while others may have low labour intensity and high customer contact or customisation (service shop). Further mass services reflect low customer contact which is combined with high labour intensity. Notably, professional services are characterised differently by both high customer contact and high degree of labour intensity (Verma and Boyer, 2010:104-105) as shown below in Figure 6.

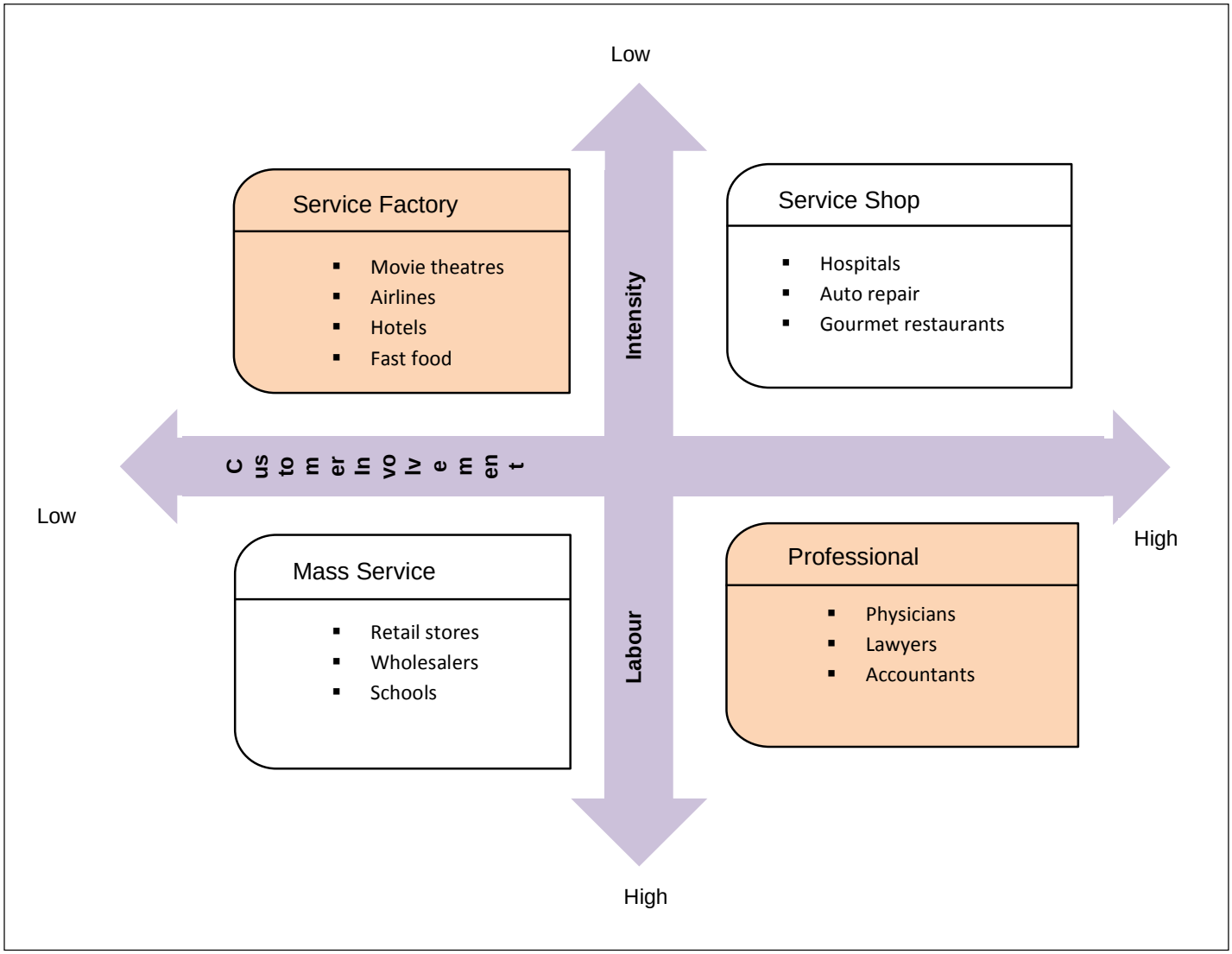

Figure 6: Service Process Matrix [Source: Verma and Boyer (2010:105)]

The notion of customer involvement resonates with Zeithmal et al., (2006:4) who have defined service as a "deed," a "performance" or an "effort." Arguably, this suggests the importance of the customer having an active involvement in the production and completion of the service process itself.

Thirdly, the nature of service can also be characterised by the degree of ease or difficulty experienced by the customer in making pre or post consumption evaluation of service. Kotler and Keller (2007: 201-202) argue that the relative ease or difficulty experienced by customers in evaluating service is also useful in any attempt to understand the nature of service. For example, Kotler and Keller (2007: 201-202) assert that customers have difficulties to judge the "technical quality" of some services even after they have received them. These services which are highly difficult to evaluate by customers even after consumption are characterised by "credence qualities" Examples of these may include medical services. Conversely, most

products are easy for customers to evaluate before consumption such that they are considered to have high search qualities (e.g. clothing, jewellery etc.).

Furthermore, "experience" services or goods are differentiated to those which the consumer can evaluate after consumption (e.g. haircut). These types of services are categorised as "high in search qualities, high in experience qualities and high in credence qualities" (Kotler and Keller, 2007:202) as depicted in Figure 7 below.

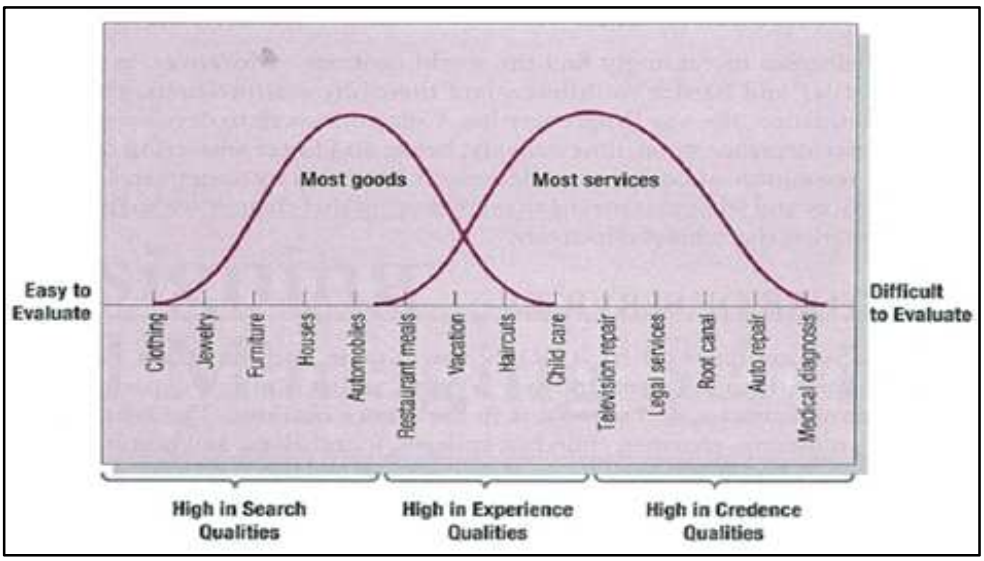

Figure 7: Scale of evaluation for goods and services [Source: Kotler and Keller (2007:202)]

1.3.1.3 Defining the concept of quality

With this brief understanding of customer and the difference between service and product in the preceding part, it is vital to delve into the concept of quality which is also key in this study. One of the first endeavours to measure service quality was based on Gronroos' service quality paradigm. This paradigm distinguished between technical quality, which refers to the outcome of the service delivery, and functional quality, which refers to the subjective perception of how the service is delivered (Gronroos, 1984 cited in Garcia and Caro, 2010:94). Since then, service quality and customer satisfaction have been identified as critical strategic imperatives in order to reinvent the public sector since the 1990s (Rhee and Rha, 2009:1491). Some academics define quality based on the derivation of the word, from the Latin word *qualis* which is defined as "the essential character or nature…an inherent or

distinguishable attribute or property, a character trait" (Merriam Webster, 2000:905 cited in Wicks and Roethlein, 2009:85).

It is important to note that quality in services cannot be manufactured and then delivered directly to the customer as is. With emphasis on the notion of inseparability, Zeithaml et al. (1988:35) assert that "in most services, quality occurs during service delivery, usually in the interaction between the customer and the contact personnel of the service firm".

According to Garcia and Caro (2010:93) measuring service quality has been one of the most frequently studied subjects over the last three decades, this is attributed to the following reasons:

- The need to develop reliable instruments for the systematic evaluation of an organisation's performance, from the point of view of the customer; and
- The association between perceived service quality and other important organisational outcomes.

Generally, it is accepted that organisations need to be more customer-oriented if they want to deliver better service quality to their customers and at the same time enhance customer satisfaction (Hartline et al., 2000, cited in Chen et al., 2004:415). In the words of Siddiqui and Sharma (2010:222), service quality is often defined as the customers' impression of the comparative inferiority or superiority of a service provider and its services. In this way, service quality is often considered to be similar to the customers' overall view of the organisation, service, product or offering. Besides the notion of "wholesome" or overall impression, service quality is alternatively defined as the difference between customer expectations of service and the perceived service. If the customers' expectations are greater than performance, then perceived quality is less than satisfactory and customer dissatisfaction occurs (Parasuraman et al., 1985; Lewis and Mitchell, 1990 cited in Wisniewski, 2001:381).

1.3.2 SERVQUAL Model

A number of models have been developed over the years in order to understand and measure service quality. Some of the of the models most commonly referred to in services quality literature include Kano's model of quality and customer satisfaction (Kano et al., 1984); the Technical Functional Quality Model (Gronroos, 1984); the Satisfaction-Service Quality

Model (Spreng and Mackoy, 1996); the SERVPERF Model (Cronin and Taylor, 1992) and the SERVQUAL model of service quality gaps (Parasuraman et al., 1985, 1988).

The SERVQUAL tool, which was developed by Parasuraman et al. (1985, 1986, 1988, 1991, 1993 and 1994), was used in this study. Parasuraman et al. (1988:6) state that "the SERVQUAL instrument is designed for use in a broad set of service businesses and provides a skeleton through its expectations or perceptions format encompassing items for each of the five service quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics or specific research needs of a particular organisation." The main aim of SERVQUAL is for it to be used as a generic instrument for measuring service quality amongst different sectors. Parasuraman et al. (1991b) proposed that the SERVQUAL instrument must be developed for use in a number of service settings as it provides a skeleton which can be adapted to fit the characteristics of the organisation under study. The five SERVQUAL dimensions, together with a brief description of each dimension, are listed in Table 1 below.

Table 1: Description of the SERVQUAL dimensions **[**Source: Buttle (1996:9)]

CRITERIA / DIMENSION	DESCRIPTION
1. Tangibles	The appearance of physical facilities, equipment, personnel and communication materials
2. Reliability	The ability to perform the promised service dependably and accurately
3. Responsiveness	The willingness to help customers and to provide prompt service
4. Assurance	The knowledge and courtesy of employees and their ability to convey trust and confidence
5. Empathy	The provision of caring, individualised attention to customers

While it is argued that service quality can be decomposed into dimensions, it is the composition of the various dimensions that actually contributes to customer satisfaction and loyalty as shown in Figure 7.

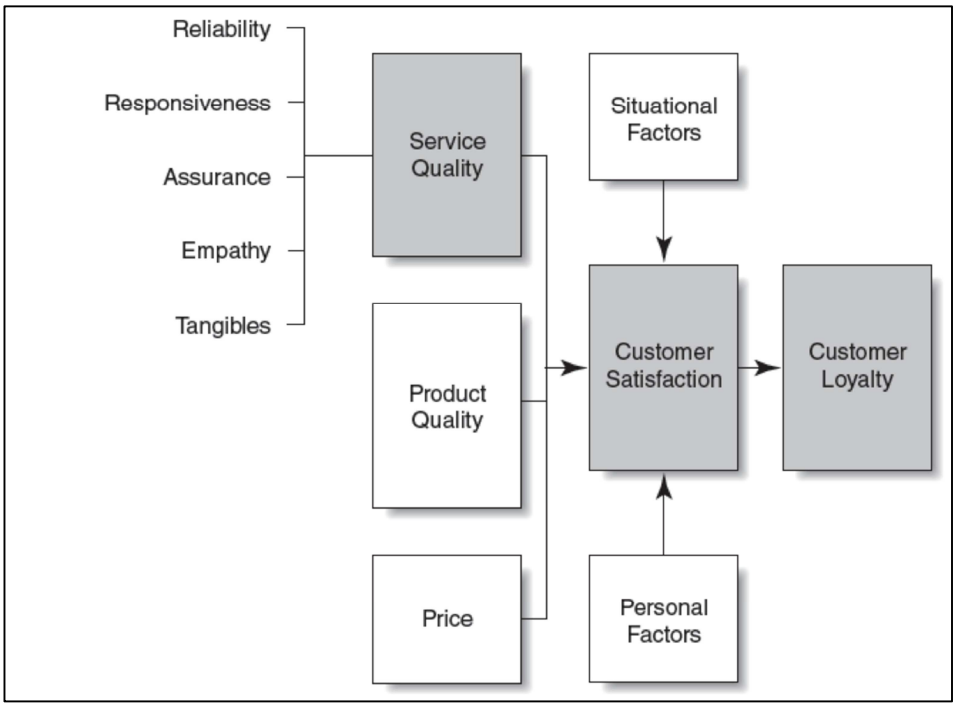

Figure 8: Customer perceptions of quality and customer satisfaction [Source: Zeithaml et al. (2006:107)]

Contextualising service within the electricity industry, one can state that when customers buy electricity, they are buying a service with a number of different attributes, the main attribute being that electricity supply is available on demand for the customer whenever it is required. There are also other attributes, including reliability of electricity supply, timely response to requests and accurate billing. In this view, all of the attributes together make up the level of service quality that the customer receives (Meyrick and Associates, 2002:2).

Parasuraman et al. (1988) identified a number of potential uses for the SERVQUAL model including:

- The model can be used on a regular basis to track the perceptions of customers related to the service quality of an organisation compared to its competitors.
- The model provides the organisation with a chance to assess its service quality performance on the basis of each dimension individually as well as according to the overall dimensions.

- The firm can then use the SERVQUAL scores obtained to classify its customers into different segments.
- The model also allows businesses with various offices or branches to assess the level of service quality offered by individual offices and to group them according to their quality images.

The SERVQUAL model defines customers' evaluation of quality as a function of the gap or difference between expected service and perceived service. Parasuraman et al. (1988) identified five gaps that can lead to failed service delivery, as shown in Table 2.

Table 2: Description of gaps between expected and perceived service and possible factors leading to the gap **[**Sources: Parasuraman et al. (1988) cited in Tan and Pawitra (2001:419) and Zeithaml et al. (2006:35-42)]

GAP	DESCRIPTION	POSSIBLE FACTORS LEADING TO THE GAP
1. Gap between customer expectation and management perception	This may happen as a result of a lack of understanding of what customers expect from a particular service	Not knowing what customers expect, could be due to insufficient or inadequate marketing research, lack of management communication with customers, focus on transactions rather than relationship with customers and inadequate service recovery strategy
2. Gap between management's perception and service quality specifications	This happens when there is a discrepancy between what management perceives to be the customers' expectations and the actual prescribed service quality specifications	Poor service design – could be vague or undefined, absence of customer-driven standards and inappropriate physical evidence and servicescape, i.e. servicescape design does not

		meet customer and employee needs
3. Gap between service quality specifications and service delivery	When guidelines of specifications exist for performing excellent service, delivery may not be up to standard due to poor employee performance	Deficiencies in human resource policies, could be as a result of ineffective recruitment etc., customers who do not fulfil their roles, problems with service intermediaries and failure to match supply and demand
4. Gap between service delivery and external communication	Customer expectations are established by promises made through service providers promotional messages. This gap measures the consistency between the quality image portrayed in the promotional activities and the actual service offered.	Lack of integrated services marketing communications, ineffective management of customer expectations, over promising in advertising or personal selling and inadequate horizontal communications e.g. insufficient communication between sales and operations departments or differences in policies and procedures across branches or units
5. Gap between perceived service and delivered service	This gap will result when one or more of the previous gaps occur.	Could be as a result of a combination of the abovementioned factors

This evaluation study focuses on electricity supply service which is characterised as (1) high in experience qualities, and (2) a mass service which is intangible and delivered to LPU customers in South Africa.

1.4 RESEARCH METHOD

This evaluation study adopted the critical realism research paradigm. Critical realism is a philosophical theory of reality and human knowledge. Critical realism posits that humans are capable of learning objectively about the world, without interference from human psychology or other subjective factors that colour perception. However, critical realists do not think this is a simple thing to do. To see the world as it really is, one must learn and then reflect critically on what was learned and on how it was coloured by the limits of human perception.

According to Guba and Lincoln (1994:105 cited in Krauss, 2005:759) a paradigm can be defined as the "basic belief system or world view that guides the investigation". In a nutshell, paradigm frames the world into a set of interrelated concepts and assumptions that guide understanding about the world and how it works (Greene and Caracelli, 1997:6). The current study adopted a deductive approach which moves from "the general to the particular, applying a theory to a particular case" (Babbie, 2011:25). Notably, this is different from inductive reasoning which "starts from the particular and moves to general principles" (Babbie, 2011:25).

It is vital to highlight that this study sought to identify objective reality rather than subjective and multiple perspectives of reality as perceived by the LPU customers of Eskom in the Eastern Cape regarding the quality of customer service which is provided to them by Eskom. This entailed an effort to maintain distance and avoid interaction between the researcher and the respondents in the study as a way of reducing any potential for bias. It is therefore useful to note that this epistemic stance resonates with the quantitative study paradigm which criticises qualitative research as subjective, value-laden and contextual which militates against generalisation of its findings.

Concisely, this quantitative or deductive study privileged the views of the LPUs in the Eastern Cape to evaluate service from the customer perspective rather than from the perspective of the provider of service. In pursuit of the research goals, the study sought to establish whether there is a difference between the perceived and the expected service of Eskom from the perspective of LPU customers in the Eastern Cape Province. In this light the following hypotheses were formulated:

Null Hypothesis: H0

There is no difference between the services of Eskom in South Africa as perceived by LPU customers in the Eastern Cape, compared to their expectations of service i.e. Eskom is perceived as meeting the service expectations of the LPU customer segment in the Eastern Cape.

Alternative Hypothesis: H1

Eskom in South Africa is perceived as exceeding the service expectations of the LPU customer segment in the Eastern Cape.

Alternative Hypothesis: H2

Eskom in South Africa is perceived as not meeting the service expectations of the LPU customer segment in the Eastern Cape

1.4.1 Sampling

The population comprised 1 008 LPU customers throughout the Eastern Cape. These customers were spread across the province, from the Port Elizabeth area, Aliwal North area, Mthatha area and East London area. The population was separated according to groups of homogeneous strata and a sample was chosen (Babbie, 2011:203). The groups were homogenous in that they were all LPUs based in the Eastern Cape, and Mthatha customers were grouped together, Aliwal North customers were grouped together, Port Elizabeth customers were grouped together and the East London customers were grouped together. These customers were randomly selected from the Eskom Customer Care and Billing database which contains data pertaining to all the Eskom customers in the Eastern Cape. This was done to ensure that customers from each of the towns were selected as part of the sample of customers included in this study.

A sample of 120 customers out of a population of 1 008 customers were randomly selected, using the limited contact data that is available on the billing system. The sample was selected ensuring that customers from all four of the geographic areas indicated above were included.

1.4.2 Data Collection

A questionnaire comprising 22 items grouped according to the five SERVQUAL dimensions i.e. tangibles, reliability, responsiveness, assurance and empathy, was used to collect data. The questionnaire was divided into two sections which contained the same items. The first section sought to measure the customers' expectations of the service and the second section measured the customers' perceptions of the existing service. A copy of the questionnaire is contained in Appendix B.

The wording of the questionnaire was modified to ensure that the items (statements) related specifically to the electricity industry to avoid confusion for the respondents. Close-ended questionnaires based on SERVQUAL were captured by the researcher onto an online survey tool called Survey Monkey. One hundred and twenty (120) emails containing the link to the site with the questionnaire were sent to the LPU customers included in the sample, this was done from East London in October 2013.

These emails were sent to the registered Eskom accountholder i.e. the individual who is registered on the Eskom Customer Care and Billing database as responsible for the management of the Eskom account and, in most instances; these individuals signed the Electricity Supply contracts with Eskom and formed part of the selected sample. The designations of these individuals differ from customer to customer, in some organisations the Operations Directors are listed as the contact people, in others Regional Managers, in some Clerks or Administrators are listed and in others the Technical Services Managers. These people were identified because they are the ones who have a direct interface with Eskom for all service requirements and would thus be the people in the best position to respond to questions related to the service provided by Eskom.

The email stated that participation in the study was voluntary and that respondents could withdraw from the study at any stage, should they so desire. It was also stated in the email that each respondent would remain anonymous as there was no field in the online questionnaire which requested the respondent to divulge any personal information (such as name, Eskom account number or address). The fact that the study was being undertaken for academic purposes and the results were to be shared with Senior Management was also included in the email.

The responses were completed and uniquely stored on line for each respondent i.e. respondent 1, respondent 2 etc. The customers were given two weeks to complete the questionnaire on line, thereafter it was closed. Responses were received from 45 LPU customers who completed the questionnaire within the specified timeframe. This represented a 38% response rate. Unfortunately, due to the anonymous nature of the survey, it could not be determined which areas the respondents were from.

A Likert rating scale was used to record the customer evaluations of the different dimensions, as recommended by the originators of the SERVQUAL tool, as follows:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1.4.3 Data Analysis

Statistical Analysis Software (SAS) was used to analyse the data. The mean scores were calculated for each statement in order to obtain an overall mean score for all of the respondents, per statement. The mean is a measure of statistical dispersion representing the average of the ratings received for each of the five dimensions. This was done for each of the items in the questionnaire, i.e. for both the expectations and perceptions sections of the questionnaire. This enabled a clear view of the gap that exists between expectations and perceptions of the service, for each of the items in the study.

The Standard Deviation was calculated for each dimension per section i.e. expectations and perceptions. The standard deviation was calculated to show how much variation exists from the average.

A paired sample t-test was used to determine whether there was a significant difference between the average values of a sample of matched pairs of similar units, in this case, each dimension was paired with the same dimension in the other section i.e. the expectations for the tangibles dimension were paired with the perceptions in the tangibles dimension.

The standard error mean was calculated and used to estimate how close to the population mean the sample was. The standard error should decrease with larger sample sizes as the estimate of the population mean improves.

1.4.4 Validity and Reliability

Cronbach's Alpha was used to determine the internal consistency of items in the survey instrument in order to determine its reliability. The survey instrument which was used in this study is the SERVQUAL instrument. Reliability comes to the fore when variables obtained from summated scales are used. In view of the fact that summated scales are an assembly of interrelated items designed to measure underlying constructs, it is important to know that the same set of items would give the same responses if the same respondents were asked the same questions again. The value of the alpha coefficient ranges from 0 to 1: the higher the score, the more reliable the generated scale is. Generally, 0.7 is considered to be an acceptable reliability coefficient and scores greater than 0.8 are considered to be very acceptable.

Table 3: Chronbach's Alpha per dimension – Expectations section

Dimensions (Expectations section)	**Number of Questions**	**Cronbach's Alpha**
Tangibles	4	0.746
Reliability	5	0.840
Responsiveness	4	0.785
Assurance	4	0.779
Empathy	5	0.709

Table 3 above reflects the Chronbach alpha scores for each dimension in the expectations section. The scores for all five dimensions are above 0.7 which is considered to be an acceptable reliability coefficient. The Cronbach alpha score for the reliability dimension is 0.840 which is considered to be a very acceptable reliability coefficient.

Table 4: Chronbach's Alpha per dimension – Perceptions section

Dimensions (Perceptions section)	**Number of Questions**	**Cronbach's Alpha**
Tangibles	4	0.866
Reliability	5	0.862
Responsiveness	4	0.843
Assurance	4	0.843
Empathy	5	0.848

Table 4 above reflects the Chronbach alpha scores for each dimension in the perceptions section. The scores for all five dimensions are above 0.8 which is considered to be a very acceptable reliability coefficient.

Considering the results of the Cronbach's alpha test reflected in Tables 3 and 4, the study is considered to be reliable, because the scores for all of the items in the questionnaire are above 0.7 which is considered acceptable.

1.5 RESULTS

In presenting the results of the study, the goals which were identified will be used as a guideline. In this regard, results of LPU customer expectations and perceptions are presented first, before presenting results relating more specifically to the research hypothesis.

LPU customers expectations are presented focusing at the item level before the aggregated results at the dimensional level. Table 5 indicates the responses of LPU customers regarding their level of expected service from Eskom on each of the 22 items of the data collection instrument. With reference to all of the 22 items of expected service of electricity supply by Eskom in South Africa, Table 5 generally reflects that the average score**s** of the 45 customers who took part in the study were all above 4. This indicates that LPU customers have high expectations of service regarding all of the 22 items used in the study.

Table 5: Expectations mean scores per statement (n=45)

EXPECTATIONS		
ITEM	**STATEMENT**	**MEAN**
TANGIBLES DIMENSION		
1	Modern equipment and technology	4.67
2	Attractive, neat and easily accessible office facilities	4.47
3	Professionally and neatly dressed staff	4.29
4	Visually appealing documentation and signage	4.36
RELIABILITY DIMENSION		
5	Adhere to service delivery timeframes promised	4.56
6	Have an interest in resolving customer queries	4.60
7	Perform services correctly during the first encounter	4.58
8	Provide the same level of service to customers all the time	4.43
9	Maintain accurate customer data / records	4.58
RESPONSIVENESS DIMENSION		
10	Prescribe specific service delivery timeframes	4.73
11	Ensure prompt service is provided to customers	4.71
12	Always be willing to assist customers	4.64
13	Always be available to customers	4.71
ASSURANCE DIMENSION		
14	Have accurate and consistent responses to queries	4.71
15	Ensure confidentiality and security when transacting with customers	4.80
16	Have courteous employees	4.73
17	Have knowledgeable employees	4.78
EMPATHY DIMENSION		
18	Give customers individualised attention	4.56
19	Have convenient operating hours	4.62
20	Be easily accessible	4.71
21	Have customers interests at the core of their business	4.82
22	Understand customers' specific needs	4.80

In particular, LPUs indicated their highest expectations were on “Eskom having customers interests at the core of their business” (4.82). Following this item, LPU customers had the second highest expectation of service on “Eskom understanding [their] specific needs” (4.80). Equally high in terms of LPU service expectation was that “Eskom ensures confidentiality and security when transacting with customers” (4.80).

On the other extreme, LPU customers the reflected lowest expectation of service from Eskom on two items: “Eskom having professionally and neatly dressed staff” (4.2), followed by low expectation on visual appeal of documentation and signage. LPU customer expectations of convenient opening hours (4.62) and willignessnes to always assist customers (4.64) were in between the highest and lowest expectations.

At a dimensional level, the LPUs indicated that the two highest expectations were in the empathy dimension (“have customers interests at the core of their business”) followed by the assurance dimension (“ensure confidentiality and security when transacting with customers”).

The second goal of the study was “to evaluate and understand directly from the LPU customers, what they perceive to be quality customer service”.

Similarly, LPU customers’ perceptions are presented focusing at the item level before the aggregated results at the dimensional level. Table 6 indicates the responses of LPU customers regarding their level of perceived service from Eskom on each of the 22 items of the data collection instrument. With reference to all of the 22 items of perceived service of electricity supply by Eskom in South Africa, Table 6 generally reflects that the average scores of the 45 customers who took part in the study were all below 3. This indicates that, generally, LPU customers have low perceptions of service regarding all of the 22 items used in the study.

Table 6: Perceptions mean scores per statement (n=45)

PERCEPTIONS		
ITEM	**STATEMENT**	**MEAN**
TANGIBLES DIMENSION		
1	Modern equipment and technology	3.69
2	Attractive, neat and easily accessible office facilities	3.67
3	Professionally and neatly dressed staff	3.49
4	Visually appealing documentation and signage	3.76
RELIABILITY DIMENSION		
5	Adhere to service delivery timeframes promised	2.42
6	Have an interest in resolving customer queries	2.62
7	Perform services correctly during the first encounter	2.38
8	Provide the same level of service to customers all the time	2.00
9	Maintain accurate customer data / records	2.64
RESPONSIVENESS DIMENSION		
10	Prescribe specific service delivery timeframes	3.16
11	Ensure prompt service is provided to customers	2.47
12	Always be willing to assist customers	2.38
13	Always be available to customers	2.40
ASSURANCE DIMENSION		
14	Have accurate and consistent responses to queries	2.31
15	Ensure confidentiality and security when transacting with customers	2.96
16	Have courteous employees	2.96
17	Have knowledgeable employees	2.84
EMPATHY DIMENSION		
18	Give customers individualised attention	2.78
19	Have convenient operating hours	2.98
20	Be easily accessible	2.71
21	Have customers' interests at the core of their business	2.16
22	Understand customers' specific needs	2.24

In particular, LPUs indicated their lowest perceptions were on “Eskom providing the same level of service consistently to customers” (2.00). Following this item, LPU customers had the second lowest perception of service on “Eskom having customers’ interests at the core of their business” (2.16). This was followed by LPU customers’ service perception that “Eskom understands customers’ specific needs” (2.24).

On the other extreme, LPU customers reflected the highest perceptions of service for the item which refers to “Eskom having visually appealing documentation and signage” (3.76). LPU customers’ perceptions of “Eskom performing services correctly during the first encounter” (2.38) were in between the highest and the lowest perceptions.

At a dimensional level, the LPUs indicated that their lowest perception was in the reliability dimension (“provide the same level of service to customers all the time”). The next two lowest perceptions of LPU customers were both in the empathy dimension (“have customers’ interests at the core of their business”) and (“understand customers’ specific needs”).

In order to be able to make recommendations to Eskom on areas which require focus, it is necessary to see the gaps which exist between LPU customer perceptions and their expectations.

Table 7 below presents the difference between the expectations and perceptions which were presented in Tables 5 and 6 respectively. A negative gap implies that customers’ expectations of the service attribute are more than their perceptions. A positive gap indicates that the customers’ perceptions exceed their expectations of the service. With reference to all of the 22 items of expected service of electricity supply by Eskom in South Africa, Table 7 generally reflects that the average gap scores of the 45 customers who took part in the study were all negative. This implies that the LPU customer expectations, generally exceed their perceptions of the service they receive from Eskom.

Table 7: Service Quality Gap between perceptions and expectations (n=45)

EXPECTATIONS (E) AND PERCEPTIONS (P)				
ITEM	**STATEMENT**	**E (MEAN)**	**P (MEAN)**	**GAP (P– E)**
TANGIBLES DIMENSION				
1	Modern equipment and technology	4.67	3.69	-0.98
2	Attractive, neat and easily accessible office facilities	4.47	3.67	-0.80
3	Professionally and neatly dressed staff	4.29	3.49	-0.80
4	Visually appealing documentation and signage	4.36	3.76	-0.60
RELIABILITY DIMENSION				
5	Adhere to service delivery timeframes promised	4.56	2.42	-2.14
6	Have an interest in resolving customer queries	4.60	2.62	-1.98
7	Perform services correctly during the first encounter	4.58	2.38	-2.20
8	Provide the same level of service to customers all the time	4.43	2.00	-2.43
9	Maintain accurate customer data / records	4.58	2.64	-1.94
RESPONSIVENESS DIMENSION				
10	Prescribe specific service delivery timeframes	4.73	3.16	-1.57
11	Ensure prompt service is provided to customers	4.71	2.47	-2.24
12	Always be willing to assist customers	4.64	2.38	-2.26
13	Always be available to customers	4.71	2.40	-2.31
ASSURANCE DIMENSION				
14	Have accurate and consistent responses to queries	4.71	2.31	-2.40
15	Ensure confidentiality and security when transacting with customers	4.80	2.96	-1.84
16	Have courteous employees	4.73	2.96	-1.77
17	Have knowledgeable employees	4.78	2.84	-1.94
EMPATHY DIMENSION				
18	Give customers individualised attention	4.56	2.78	-1.78
19	Have convenient operating hours	4.62	2.98	-1.64
20	Be easily accessible	4.71	2.71	-2.00

21	Have customers' interests at the core of their business	4.82	2.16	-2.66
22	Understand customers' specific needs	4.80	2.24	-2.56

The item with the largest gap between perceptions and expectations relates to "Eskom having customers' interests at the core of their business" (-2.66). This is followed by "Eskom understanding customers' specific needs" (-2.56).

On the other extreme, the smallest gap between LPU customer perceptions and expectations relates to "Eskom having visually appealing documentation and signage" (-0.6), followed by "Eskom having professionally and neatly dressed staff" (-0.8) and equally "Eskom having attractive, neat and easily accessible office facilities" (-0.8). This means that it is likely that LPU customers are satisfied with the tangible aspects of Eskom's service and there is not much focus required on these aspects in order to improve service.

At a dimensional level, the largest gaps between LPU customer perceptions and expectaions of service are in the reliability dimension, followed by the empathy dimension. This implies that it is likely that LPU customers are not satisfied with the service aspects covered under the reliability and empathy dimensions and suggests an area of focus for Eskom.

As already mentioned above, the smallest gaps between LPU customer perceptions and expectations of service are in the tangibles dimension.

Figure 9 below provides a summarised graphical representation of the information presented in Table 7. The summary is provided at a dimensional level. The top line indicates the expectations and the bottom line indicates the perceptions, per overall dimension.

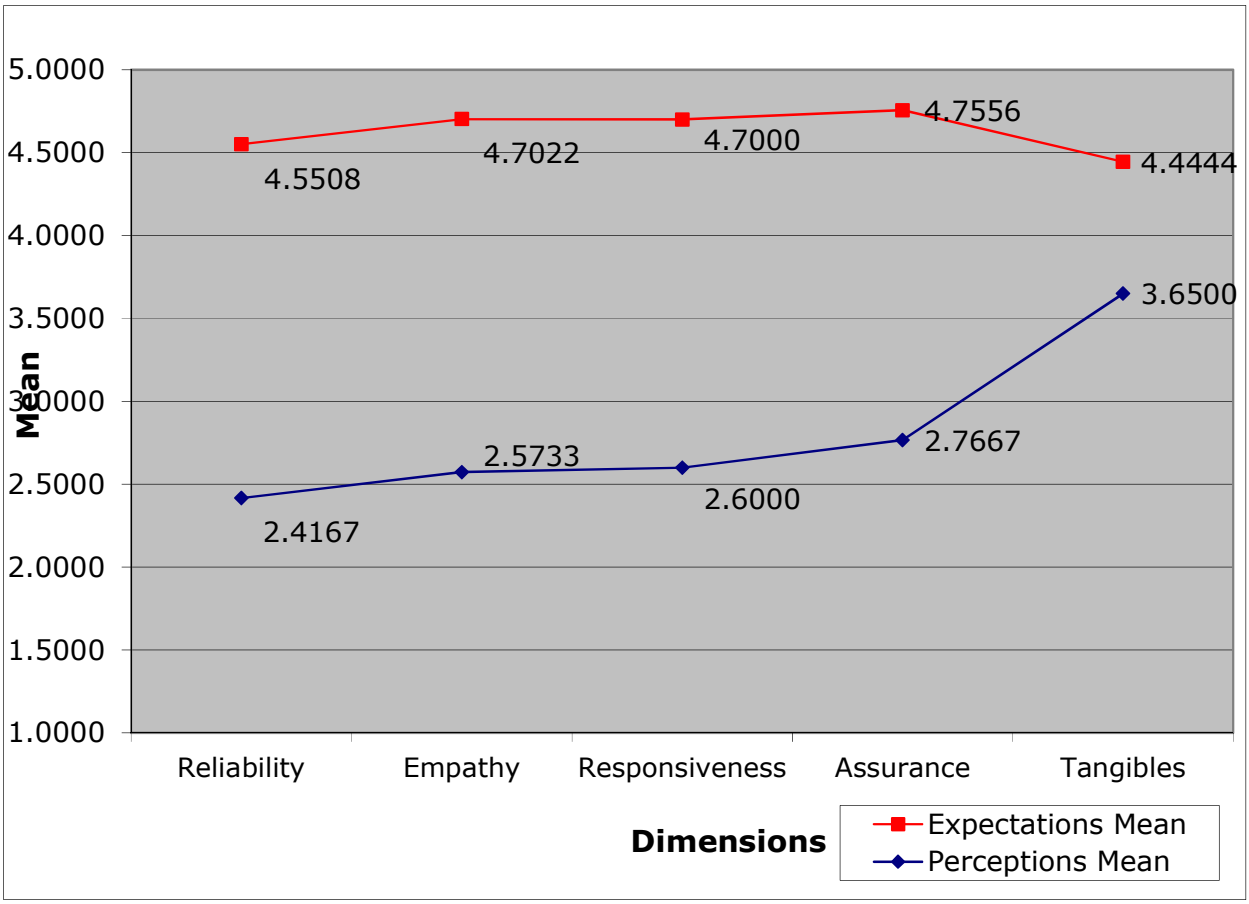

Figure 9: Graphical Representation of gaps between Expectations vs. Perceptions – summary per dimension

1.5.1 Descriptive Statistics

Tables 8 and 9 below reflect the descriptive statistics of the data obtained from the 45 LPU customers who participated in the study. The data is presented for each of the dimensions (Tangibles, Reliability, Responsiveness, Assurance and Empathy) under the two sections of expectations (Table 6) and perceptions (Table 7) in line with the goals of the study.

These statistics include the sample size, minimum values, maximum values, mean and standard deviation values per dimension.

Table 8: Descriptive Statistics per dimension – Expectations

Dimensions (Expectations)	N	Minimum	Maximum	Mean	Std. Deviation
Tangibles	45	3.00	5.00	4.4444	.49108
Reliability	45	3.00	5.00	4.5508	.47917
Responsiveness	45	3.75	5.00	4.7000	.37914
Assurance	45	3.75	5.00	4.7556	.35551
Empathy	45	4.00	5.00	4.7022	.30636

Table 9: Descriptive Statistics per dimension – Perceptions

Dimensions (Perceptions)	N	Minimum	Maximum	Mean	Std. Deviation
Tangibles	45	1.50	5.00	3.6500	.76202
Reliability	45	1.00	5.00	2.5167	.94958
Responsiveness	45	1.50	5.00	2.6000	.91453
Assurance	45	1.25	5.00	2.7667	.92072
Empathy	45	1.00	5.00	2.5733	.90313

1.5.2 T-Test Paired Samples

The results in this section are first presented and thereafter used to answer the following research hypotheses:

Hypothesis 0: There is no difference between the services of Eskom in South Africa as perceived by LPU customers in the Eastern Cape, compared to their expectations of service i.e. Eskom is perceived as meeting the service expectations of the LPU customer segment in the Eastern Cape.

Hypothesis 1: Eskom in South Africa is perceived as exceeding the service expectations of the LPU customer segment in the Eastern Cape.

Hypothesis 2: Eskom in South Africa is perceived as not meeting the service expectations of the LPU customer segment in the Eastern Cape

Table 10 below indicates the results of the paired sample t-test which was conducted to determine whether there is a significant difference between the average values of a sample of matched pairs of similar units. Each overall expectations dimensions score was matched with the corresponding overall perceptions score.

Table 10: Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean	Gap
Pair 1	Expectations – Tangibles	4.4444	45	.49108	.07321	-0.7944
	Perceptions – Tangibles	3.6500	45	.76202	.11360	
Pair 2	Expectations – Reliability	4.5508	45	.47917	.07143	-2.1341
	Perceptions – Reliability	2.4167	45	.94958	.14156	
Pair 3	Expectations – Responsiveness	4.7000	45	.37914	.05652	-2.1000
	Perceptions – Responsiveness	2.6000	45	.91453	.13633	
Pair 4	Expectations – Assurance	4.7556	45	.35551	.05300	-1.9889
	Perceptions – Assurance	2.7667	45	.92072	.13725	
Pair 5	Expectations – Empathy	4.7022	45	.30636	.04567	-2.1289
	Perceptions – Empathy	2.5733	45	.90313	.13463	

It can be seen from Table 10 that the difference between the paired dimensions is calculated to establish the gap which exists, e.g. for Pair 1 the gap is -0.7944 (perceptions tangibles – expectations tangibles). This information is then carried over to the next table for further analysis.

A paired samples test is shown in Table 11 below; the statement of most value in the table is contained in the last column. This is the Sig. (2-tailed) value, which indicates if the two means are statistically different. In other words the value tells us if there is a statistical difference between pair 1 i.e. expectations tangibles and perceptions tangibles. This value is sometimes referred to as the p-value. In the table above, the Sig. (2-tailed) value for all the pairs is 0.000.

If the Sig. (2-tailed) value is greater than 0.05 it can be concluded that there is no statistically significant difference between the two conditions. If the Sig. (2-tailed) value is less than or equal to 0.05 it can be concluded that there is a statistically significant difference between the two conditions.

Table 11: Summary of Paired Samples Test (Paired per dimension)

DIMENSION	**GAP (P – E)**	**T - VALUE**	**Sig. (2-tailed)**
Tangibles	-0.79	6.603	.000
Reliability	-2.13	13.823	.000
Responsiveness	-2.10	15.404	.000
Assurance	-1.99	12.997	.000
Empathy	-2.13	14.567	.000

***significant at 95% (P=0.05)**

The following information can be deduced from Table 11 above:

Pair 1 – Tangibles Dimension

$|t| > 2$ or p-value < 0.05

This means that a significant difference exists between the dimension means for LPU customer expectations and perceptions for the tangibles dimension at a 95% confidence interval.

Overall, LPU customers rate their expectations significantly higher than their perceptions in the tangibles dimension. Considering this, the following is true of the research hypotheses for the tangibles dimension at a 95% confidence level:

- Reject H0
- Reject H1
- Accept H2

Pair 2 – Reliability Dimension

$|t| > 2$ or p-value < 0.05

This means that a significant difference exists between the dimension means for LPU customer expectations and perceptions for the reliability dimension at a 95% confidence interval. Overall, LPU customers rate their expectations significantly higher than their perceptions in the reliability dimension. Considering this, the following is true of the research hypotheses for the reliability dimension at a 95% confidence level:

- Reject H0
- Reject H1
- Accept H2

Pair 3 – Responsiveness Dimension

$|t| > 2$ or p-value < 0.05

This means that a significant difference exists between the dimension means for LPU customer expectations and perceptions for the responsiveness dimension at a 95% confidence interval. Overall, LPU customers rate their expectations significantly higher than their perceptions in the responsiveness dimension. Considering this, the following is true of the research hypotheses for the responsiveness dimension at a 95% confidence level:

- Reject H0
- Reject H1
- Accept H2

Pair 4 – Assurance Dimension

$|t| > 2$ or p-value < 0.05

This means that a significant difference exists between the dimension means for LPU customer expectations and perceptions for the assurance dimension at a 95% confidence interval. Overall, LPU customers rate their expectations significantly higher than their perceptions in the assurance dimension. Considering this, the following is true of the research hypotheses for the assurance dimension at a 95% confidence level:

- Reject H0
- Reject H1
- Accept H2

Pair 5 – Empathy Dimension

$|t| > 2$ or p-value < 0.05

This means that a significant difference exists between the dimension means for LPU customer expectations and perceptions for the empathy dimension at a 95% confidence interval. Overall, LPU customers rate their expectations significantly higher than their perceptions in the empathy dimension. Considering this, the following is true of the research hypotheses for the empathy dimension at a 95% confidence level:

- Reject H0
- Reject H1
- Accept H2

1.6 DISCUSSION OF RESEARCH FINDINGS

The aim of this research was to evaluate the level of the quality of customer service that is provided to Eskom's Large Power User (LPU) customer market segment in the Eastern Cape. The purpose of this section is to discuss the findings from the data collected, as presented in the preceding section under results. The findings will be discussed taking into consideration

the existing literature on service quality. The following objectives of the study will also be taken into consideration:

1. To analyse the factors that contribute to the customer service which is expected by LPU customers in the province – from the perspective of the customer.
2. To evaluate and understand directly from the Eskom customers, what they (the LPU segment) perceive to be quality customer service.
3. To recommend areas where Eskom needs to focus in order to improve the quality of customer service delivered to this customer segment.

The five dimensions of SERVQUAL, namely: (1) Tangibles, (2) Reliability, (3) Responsiveness, (4) Assurance and (5) Empathy will be used as the structure for this discussion.

1.6.1 Tangibles dimension

According to the findings, the tangibles dimension is the only dimension where the overall mean scores for the LPU customer perceptions are above 3 for all of the service items within the dimension. The tangibles dimension refers to the appearance of physical facilities, equipment, personnel and communication materials (Buttle, 1996:9). The overall mean perceptions score is 3.65 and that of expectations is 4.44; this gives a gap score of -0.79: although the gap is negative, which means that the customers' expectations have not been met, this is the smallest gap out of all five dimensions. For the LPU customers, this implies that they are almost satisfied with the tangible service aspects of Eskom service or possibly they do not attribute much value to the aspects related to the "look and feel" of the organisation and may be more concerned about the actual electricity service itself. This was the case in a study by Brysland and Curry in 2001, where service was evaluated in a catering company using SERVQUAL, a very small negative gap was found between customer perceptions and expectations. The researcher attributed this to customers attaching more importance to the delivery aspects of the service, rather than to aesthetics (Brysland and Curry, 2001:392). On the other hand, in a study conducted by Rhee and Rha in Korea in 2009, where the service quality in public service was explored using SERVQUAL, a number of unsatisfactory incidents within the tangibles dimension were found. The survey obtained feedback from the beneficiaries of public services who made very frequent use of social welfare facilities and centres and the tangible aspects were important to these beneficiaries

(Rhee and Rha, 2009:1499). These results for Eskom mean that the organisation does not need to place much emphasis or focus on the tangible aspects of service delivery in order to satisfy LPU customers, considering the small size of the gap compared to the other gaps identified in the study. The gap between LPU customer expectations and their perceptions of the tangible aspects of service can be closed by Eskom with minimal effort.

1.6.2 Reliability dimension

Lonial et al. (2010:817), in a study where the SERVQUAL instrument was used to measure service quality, describe reliability as the ability to perform the promised services dependably and accurately. This dimension is especially important in the context of electricity services, particularly to the LPU customer market segment, because they operate businesses in order to make a profit and thus require a reliable electricity supply. The findings revealed that the LPU customers in the study rated their expectations within the reliability dimension at 4.55 and their perceptions at 2.42; this gives a gap score of -2.13 between the LPU customers' expectations and their perceptions. This means that LPU customers have high expectations of Eskom when it comes to the reliability of the service provided and these expectations are not being met as expected by the customers. In support of this, findings obtained in a study conducted by Parasuraman et al. (1991a), the authors of SERVQUAL, established that customers have always chosen reliability as the most important of the five dimensions (Parasuraman et al., 1991a:41).

This gap between LPU customer expectations of the reliability aspects of the service provided by Eskom and their perceptions is the largest gap in this study. Similarly, in a study conducted by Kumar et al. (2010), where the aim was to establish differences in service quality between two types of banks, the findings revealed that the SERVQUAL gap for the reliability dimension was significantly higher in Islamic banks (Kumar et al., 2010:372).

According to Fenrick and Getachew (2012:44), it is complicated to calculate the optimal levels of reliability for electricity services because the benefits of reducing electricity outages are felt by the customers, but the cost of this reduction is borne by the electricity utility or service provider. This means that the level of reliability for electricity services is at an optimum when the marginal cost of improving service equals its marginal benefit (Fenrick and Getachew, 2012:44). This implies that it is important for an electricity service provider to find a balance between providing customers with reliable electricity supply and having

outages for planned maintenance work, which is also important in ensuring that a reliable electricity supply is provided. The fact that this dimension has the biggest gap for those LPU customers who participated in the study indicates that Eskom needs to look into the number of outages which affect customers in order to change the existing perception. This perception can also be a result of Eskom not notifying customers about outages which are planned as part of routine maintenance, which may leave customers to assume that the outages are unplanned, leading to a poor perception being created by the customer on the service provided. This may be one of the aspects which will lead to the customer rating the quality of the overall service provided by Eskom in the Eastern Cape as poor. This is as indicated in the literature by Siddiqui and Sharma (2010:222) who referred to service quality often being considered to be similar to the customers' overall view of the organisation, service, product or offering.

1.6.3 Responsiveness dimension

The findings revealed that the LPU customers in the study rated their expectations within the responsiveness dimension at 4.7 and their perceptions at 2.6; the gap between the two scores is 2.1. This implies that the LPU customers in the Eastern Cape have very high expectations of Eskom for the items within the responsiveness dimension i.e. prescription of service delivery timeframes, ensuring the provision of prompt service, willingness to assist customers and being available to customers. Considering that this dimension refers to an area which could be viewed as a basic in the servicing of customers, it is concerning that such a wide gap exists between what customers expect from Eskom and what they perceive they are getting. If the customers' assessments are based on Eskom's willingness to assist customers and provide a prompt service, it implies that this is an area where Eskom can address the gap with ease, just by focusing on the manner in which the customer is served by the staff within the organisation. According to Rhee and Rha, bureaucracy strongly affects the attitudes of public servants. Bureaucracy can also have a negative effect on the cooperation and coordination required amongst stakeholders internal to the organisation and can affect the responsiveness and effectiveness of a public service (Rhee and Rha, 2009:1505). In order for LPU customers in the Eastern Cape to perceive Eskom positively in this regard, it is imperative that Eskom attends to each of the aspects within this dimension.

1.6.4 Assurance dimension

For similar reasons to those quoted in the responsiveness section, it is concerning to find that such a large gap exists between LPU customer expectations (4.75) and their perceptions (2.76) within the assurance dimension. The gap between perceptions and expectations is 1.99. Assurance is associated with the efficiency with which a service is provided and involves the functional interaction between employees and customers (Sánchez-Hernández et al., 2009:1175). In order to improve service delivery to the LPU customers it is important that they are assisted by employees within Eskom who are knowledgeable and have the ability to ensure that service will be delivered in a manner where customers will gain trust and confidence in the organisation.

For Eskom, this gap possibly means a failure to provide basic service requirements to the LPU customers in the Eastern Cape. The requirements of this dimension resonate with the provisions of Eskom's Customer Service Charter which states that customers will be dealt with promptly and efficiently (Eskom, 2012). Considering this, Eskom needs to look at the provider gap, in particular, gap 4 which relates to not matching performance to promises (Zeithaml et al., 2006:34).

1.6.5 Empathy dimension

Empathy refers to "the caring, individualised attention the firm provides its customers" (Daniel and Berinyuy, 2010:41). The findings of the study revealed that these LPU customers rated their expectations within the empathy dimension at 4.70 and their perceptions at 2.57; the gap between the perceptions and expectations is 2.13. Within Eskom, many LPU customers, depending on the size of supply, have their needs looked after by a dedicated human resource, known as a Customer Executive. This is consistent with research conducted by Parasuraman et al. (1991a:41) which revealed that whilst reliability is viewed as the most important dimension in meeting customer expectations, the process dimensions (especially assurance, responsiveness and empathy) are most important in exceeding customer expectations.

This large gap in service delivery implies that the LPU customers' needs are not being met in the manner which they expect and this implies that customers are dissatisfied with the service provided by Eskom.

The intention of having Customer Executives is for them to assist customers with services ranging from resolving complex account queries to assistance with upgrades of existing accounts. The gap that has been highlighted in this study may be as a result of those areas within the Province where there are no Customer Executives due to resource constraints. Contrary to the LPU customer evaluations in this study, a study conducted by Pansiri and Mmereki in Botswana, where SERVQUAL was used to evaluate the impact of public service reforms in the primary health care sector in Botswana in 2010, the empathy dimension was perceived as the least important dimension by the respondents who took part in the study (Pansiri and Mmereki, 2010:230). It is possible for the expectations of customers within the public services sector to be met and Eskom can do this by placing focus on the elements in this study where the gaps are high.

1.6.6 Recommendations

It can be deduced very clearly from the results obtained in the study that the overall LPU customer expectations of the service provided by Eskom in the Eastern Cape have not been met, for the dimensions measured under SERVQUAL. It is also clear that customer perceptions of the service that Eskom is currently providing are low as large gaps exist between customer expectations and perceptions, as is evident from the average mean scores calculated per dimension. The fact that all of the respondents have such high expectations of the service provided by Eskom may be linked to customers increasingly wanting to realise better value for their money. This may be particularly relevant considering the increases in the cost of electricity in recent years.

The only dimension with an overall mean score above 3 for perceptions was the tangibles dimension, despite this a small gap still exists and could be closed with little effort through interventions that focus on physical features, equipment, personnel and communication materials of Eskom.

The perceptions score for the reliability dimension was the lowest of all the dimensions, and it is recommended that Eskom management and senior management within the Eastern Cape

look at the elements of this dimension closely with the aim of establishing improvement plans to improve customer perceptions.

It is recommended that in order to improve LPU customer perception for the elements within the responsiveness and empathy dimensions, Eskom needs to focus on ensuring that all frontline staff are adequately trained to understand and respond to customer requests. This understanding will ensure that each employee is aware of where the request should be channelled, in the event that they are unable to attend to the customer immediately. Employees also need to be trained on the organisation's policies and procedures and be given the required authorisations to perform basic tasks. The staff training must include guidelines on how to talk and interact effectively with customers and convey empathy during service encounters.

Finally, it is further recommended that Eskom conducts regular assessments of customer service quality, for all the customer market segments, to ensure that management has an ongoing understanding of customer views and needs. These assessments can be done through research surveys at the different points of contact with customers on a daily basis. In this way, gaps that exist can be addressed and closed proactively.

1.7 CONCLUSION

The main reason for conducting this study was to evaluate the levels of customer service that Eskom provides to customers in the LPU customer market segment. This was assessed using the SERVQUAL tool and it was established that gaps exist between customer expectations and perceptions of the service provided to the LPU customer segment in the Eastern Cape.

Further study on Eskom can be initiated with LPU customers to look at the areas where the gaps are highest in this study, with the aim of improving the service provided to LPU customers. A study similar to this one can also be conducted in all of the other provinces to establish of the results are similar across the province. This will assist in providing solutions from a national perspective, should similar results be obtained in the other provinces.

An opportunity for future research also exists for a similar evaluation study to be conducted within the residential customer segment.

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SECTION 2: LITERATURE REVIEW

2.0 INTRODUCTION

This section presents the theoretical perspective of customer service quality. In most organisations, delivering superior service quality appears to be a prerequisite for success, if not for the survival of the organisation.

In order to improve service delivery and satisfy customers, there is a need for an appropriate approach for evaluating the quality of the service provided to customers. In this regard, this section presents different perspectives on customer service quality, and the different models of service quality. Initially, the section focuses on defining the concept of customer service quality, its importance as well as the components of service quality within Eskom in South Africa. Thereafter, the section discusses various models of service quality before concluding with a review of the SERVQUAL model that is adopted in this study.

2.1 DEFINING CUSTOMER SERVICE QUALITY

One of the first endeavours to measure service quality was based on Gronroos' (1984) service quality paradigm, where he distinguished between technical quality, which refers to the outcome of the service delivery, and functional quality, which relates to the subjective perception of how the service is delivered (Gronroos, 1984, cited in García and Caro, 2010:94).

According to Rhee and Rha (2009), the view since the 1990s has been that Service quality and customer satisfaction were identified as a critical strategic imperative in order to reinvent the public sector (Rhee and Rha, 2009:1491). Garcia and Caro (2010:93) suggest that measuring service quality has been one of the most frequently studied subjects over the last three decades for two reasons: (1) the need to develop reliable instruments for the systematic evaluation of the performance of organisations from the customer point of view; and (2) the association between perceived service quality and other important organisational outcomes.

In recent years the scope of service quality management has evolved from focusing purely on customer satisfaction into something broader. This may be as a result of an increasing focus

on the multiple bottom lines of organisations. What has become more important now is how organisations define their customers, other stakeholders and interested parties (Klefsjö et al., 2008:124).

In general, it is accepted that organisations should be more customer-oriented if they want to deliver better service quality to their customers and at the same time enhance customer satisfaction (Hartline et al., 2000, cited in Chen et al., 2004:415).

A worldwide study conducted by Gupta and Lehman (2005), cited in Yang (2011a:83) with 148 financial institutions in 2000, established that 72% of the companies indicated that customer-related performance was a very important driver of long-term success. In the same study, only 31% of the companies selected short-term financial performance as the most important driver of long-term success (Gupta and Lehmann, 2005, cited in Yang, 2011a:83).

According to Siddiqui and Sharma (2010) service quality is commonly defined as the customers' impression of the comparative inferiority or superiority of a service provider and its services. It is often considered to be similar to the customers' overall view of the organisation (Siddiqui and Sharma, 2010: 222). As such it is instructive to firstly understand what the term customer actually means.

2.1.1 Customer

In the words of Yang (2011a:83) "customers are the lifeblood of any organisation. Without customers, a firm has no revenue, no profit, and no market value". Some definitions of a customer, such as the one above, focus on the customer as a source of revenue where the definition of a customer includes mostly the requirement of a monetary exchange; in other words the customer would only be the buyer of a product (Kleftsjö et al., 2008:124).

Some scholars define a customer as any internal or external stakeholder of the organisation (Wicks and Roethlein, 2009:83).

Besides being beneficiaries, the customers of public services comprise many stakeholders (e.g. employees, taxpayers, communities etc.) which need to be taken into consideration (Rhee and Rha, 2009:1491). Rhee and Rha (2009:1491) assert that it is for this reason that attention is paid to the multiplicity and complexity of issues involved in identifying the customers of public services.

The National Institute for Standard and Technology (NIST) explain that the customer refers to the actual and the potential users of organisations' products and services (NIST, 2008:55 in Klefsjö et al., 2008:124). A similar view of the customer is provided by the International Organization for Standardization, in ISO9001:2000 (cited in South African Bureau of Standards, 2013); where the customer, whether internal or external to the organisation, is described as being an organisation that or a person who receives a product. According to this definition a buyer is sometimes not a customer, as in some instances the buyer and the receiver may be different people. ISO9001 is based on eight principles and one of these principles is customer focus, which states that "organisations depend on their customers and therefore should understand current and future customer needs; should meet customer requirements and strive to exceed customer expectations" (South African Bureau of Standards, 2013).

Within the electricity sector, a customer can be described according to their individual energy behaviour, by their dwellings (i.e. buildings), their appliances, their energy consumption patterns and their production processes (Tsekouras et al., 2011:1221).

Eskom in South Africa defines its customers according to the different market segments, which are based on the individual electricity consumption or the contracted Notified Maximum Demand (NMD) of the customer as follows (Eskom, 2012):

- Large Power Users (LPU)
- Small Power Users (SPU)
- Prepaid Power Users (PPU)

This study focuses only on the customers who fall within the Large Power User (LPU) segment due to the fact that this segment generates 80% of the revenue for Eskom despite accounting for a small number (less than 10%) of the customer base. As such, it is important to ensure that customers' expectations with respect to service quality are understood by the organisation. The types of customers who fall within this category are mostly businesses which fall into the industrial and agricultural sectors of the economy. Thus, Eskom provides a service in the form of energy to this customer group.

2.1.2 Service

The literature reviewed on services marketing consistently cites several characteristics of services, which are distinctive and differ from those of products. Lamb et al. (2006:206) identify three unique characteristics of services: intangibility, heterogeneity and inseparability. While Zeithaml et al. (1985) refer to the same characteristics. It is notable that they add the notion of perishability to the list of characteristics. As cited in Zeithaml et al. (1985:34) several authors have documented these service characteristics, for example, Berry (1981), Donnelly (1976, 1980), Gronroos (1977, 1978, 1979, 1983), Lovelock (1981), Lovelock et al. (1981), Uhl and Upah (1980), Upah (1980), Upah and Uhl (1981) and Zeithaml (1981). Table 12 below illustrates the service characteristics in further detail.

Table 12: Summary of service characteristics [Source: Zeithaml et al., 1985:33-34]

CHARACTERISTIC	SUMMARY
Intangible	Services are performed and are not objects which can be seen, felt, tasted or touched in the same way as other goods.
Inseparable	Refers to the simultaneous production and consumption which typifies most services. Whereas goods are first produced and then sold and used, services are first sold, then produced and consumed at the same time. The customer must be present during the production process of most services.
Heterogeneous	This relates to the potential for high variability in the performance of services. The quality and essence of a service can vary from producer to producer, from customer to customer and from day to day. This can also apply when different employees are in contact with the same customer, thereby raising a problem of consistency of behaviour. The performance of people also fluctuates up and down on a daily basis.
Perishable	Services cannot be stored, for example hotel rooms which are not occupied, aeroplane seats which are not bought and telephone line

	capacity which is not used, cannot be reclaimed later.

Due to the nature of services being intangible and inseparable and customers having heterogeneous needs, some scholars have defined service as a "deed", a "performance" or an "effort" which indicates the importance of the customer having an active involvement in the production or completion of the service process itself (Morgan and Murgatroyd, 1994:10-11).

Parasuraman et al. (1991a) assert that the service process is key to exceeding customer expectations and categorised customer service expectations into five overall dimensions as follows: reliability, tangibles, responsiveness, assurance and empathy (Parasuraman et al., 1991:41).

Contextualising service within the electricity industry, one can state that when customers buy electricity, they are buying a service with a number of different attributes, the main attribute being that electricity supply is available on demand for the customer, whenever it is required. There are also other dimensions, including reliability of the supply, timely response to requests, and accurate billing. In this view, the attributes of the product together make up the level of service quality that the customer receives (Meyrick & Associates, 2002:2).

2.1.3 Quality

Different people define quality in different ways. Consequently, definitions vary not only between sectors (e.g. services and manufacturing) but also between practitioners and academics. For example, as cited in Wicks and Roethleim (2009:85) some practitioners define quality in terms of value and degree of excellence in relation to price (Feigenbaum, 1991), or focus more on conformance to specifications and defect avoidance (Crosby, 1979 and 1984). While some academics define quality based on the derivation of the word, from the Latin word *qualis* which is defined as "essential character or nature…an inherent or distinguishable attribute or property, a character trait" (Merriam-Webster's, 2000:905 cited in Wicks and Roethlein, 2009:85). These differences may partly be due to the intangible but also multi-dimensional nature of what quality is (Wicks and Roethlein, 2009:82).

Mastenbroek (1991) is of the view that the final (or external) customer plays a key role in defining quality. Thus, when determining the quality standard of a service; the supplier must

ensure that the service meets the customers' needs perfectly. The customer makes the final decision about the quality of a service (Mastenbroek, 1991:51).

In particular, it is vital to underscore that quality in services cannot be manufactured and then delivered directly to the customer as is. "In most services, quality occurs during service delivery, usually in an interaction between the customer and contact personnel of the service firm. For this reason, service quality is highly dependent on the performance of employees, an organizational resource that cannot be controlled to the degree that components of tangible goods can be engineered" (Zeithaml et al., 1988:35).

Parasuraman, Ziethaml and Berry in Yang (2011b) proposed a model of service quality that has become known as the "Gap Model". This model describes five potential gaps in the provision of a service: Understanding Gap, Design Gap, Service Delivery Gap, Communication Gap and the Expectation Gap. In summary, this model stated that the existence of these gaps will lead to a negative evaluation by customers of the service quality provided by the organization. This means that all gaps identified through this model, and improved, should improve service quality (Yang, 2011b:529).

It can be noted that the notion of quality is not a simple concept to define as different views and ambiguities have evolved and emerged over the past 30 years. Furthermore, others argue that objective quality may not be in existence as quality is perceived by people differently (e.g. price, perceived quality, customer expectation, customer satisfaction) (Parasuraman et al., 1991; Zultner, 2006).

For instance, Pycraft et al. (2010), with a focus on operations, assert that "quality is consistent conformance to customers' expectations." With this focus on the customer's view, expectations may reflect what the customer believes is likely.

From the domain of marketing, Golder et al. (2012:2) assert that quality is "a set of three distinct states of an offering's attributes' relative performance generated while producing, experiencing and evaluating the offering." The three stages are:

a) Quality production process,
b) Quality experience process, and
c) Quality evaluation process

(Golder et al., 2012:2).

With their expectations, customers experience and evaluate quality of services during any of these phases. This definition builds on Parasuraman et al.'s (1985) explanation of "quality not simply being about performance but instead an assessment of its performance relative to another reference standard" (Parasuraman et al., 1985:9). For the purposes of this study the most relevant definition is the one provided by Golder et al. (2012:2). This definition is considered as suitable because it is more of an integrative definition of quality which relates to the experience and evaluation of service by customers. This view has been adopted to understand and gain insights into the factors that influence the quality of service that customers perceive is delivered to them by Eskom, in the process of meeting the organisation's mandate of providing electricity in the country.

Theron (2002:2) posits that a number of factors influence quality. One of these is the increased customer expectations of the service delivery process itself, where it is observed that customers today expect much more in terms of service delivery than was the case in the past. According to Abdyrasulova et al. (2011:2), complaints and petitions from consumers are received on a number of issues and problems in the electricity sector. However, the major issues are related to poor quality of electricity power supply and poor quality of customer service. The poor quality of customer service may relate to incorrect billing for consumption, unexplained disconnection of electricity supply and other actions taken by the employees of the electricity supply distributor.

It is noteworthy that in a study by Wicks and Roethlein (2009:83), the definition of quality as "the summation of the affective evaluations by each customer of each attitude object that creates customer satisfaction" was used to understand quality. Previous research evaluating service quality in Eskom, South Africa was conducted by MacColl in 2004. The focus of the research was on the importance of service quality. However, this study did not look at service quality from the customers' perspective. The research looked at the importance of service quality when assessing performance as a strategic tool for management. The focus of this research will be different in that it will seek to obtain and understand service quality from the view of customers in the LPU segment.

It is clear from the all the definitions and literature examined that the quality of service provided can be measured by each recipient or customer receiving the service in a number of different ways. Furthermore, the customer's assessment of the quality of service depends on

which aspects of the service are most important to the individual customer. This is confirmed by Lewis and Booms (1983) cited in Parasuraman et al. (1985:42) who assert that "Service quality is a measure of how well the service delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis" (Lewis and Booms, 1983 cited in Parasuraman et al., 1985:42).

It is also true that the concept of quality which is conceptualised in services literature involves perceived quality which is described as the customer's judgement of an organisation's overall excellence or superiority (Zeithaml, 1987, cited in Parasuraman et al., 1988:15).

The difference between objective and perceived service quality has been emphasised by several researchers (Garvin, 1983; Dodds and Monroe, 1984; Holbrook and Corfman, 1985; Jacoby and Olson, 1985; Zeithaml, 1987: all cited in Parasuraman et al., 1988:15).

2.1.4 Dimensions of Quality

Research conducted by Parasuraman et al. (1991a), where focus group interviews were conducted with customers in six service sectors, revealed that customers expect service basics, in other words they expect to receive exactly what they pay for. "They expect fundamentals, not fanciness; performance, not empty promises" (Parasuraman et al., 1991a:40).

In order to meet and exceed customer expectations, it is important for organisations to focus on the quality of the service provided. In general, the quality of services is different from the quality of manufactured goods due to the special characteristics of services which include intangibility, inseparability, heterogeneity and perishability (Parasuraman et al., 1985:33).

This is also true for the electricity industry since electricity cannot be seen, felt or touched. Although the quality dimensions of a product may seem different from those of a service, however, they all echo the notion that quality has dimensions which are still appropriate in providing an understanding towards servicing customers better.

Garvin (1988), cited in Owlia (2010:1219), proposed eight dimensions for quality which he thought could define both product and service quality, despite the fact that they seemed to be more product oriented (Owlia, 2010:1219).

Table 13: Garvin's 8 dimensions of quality [Source: Owlia (2010:1220)]

Dimensions	Definition
1. Performance	Performance of the primary functions of the organisation e.g. in Eskom provision of energy services
2. Features	Secondary or supplementary functions of the organisation and could refer to the more advanced technologies used within the systems in the organisation
3. Reliability	This is defined as the likelihood of the product working fault-free within a specified time period. The accuracy of the data, information and knowledge and the use thereof is important. In the case of Eskom, the number of power outages within a particular period could indicate the reliability.
4. Conformance	The degree to which the organisation meets the established industry standards or specifications.
5. Durability	This is the measure of the lifecycle of a product
6. Serviceability	This is concerned with fault finding and field related services and in the case of Eskom can related to how well the organisation handles customers' enquiries
7. Aesthetics	The attractiveness of the interface areas for customers i.e. the consumers perceptions of the general appearance of Eskom offices
8. Perceived Quality	The reputation of the organisation based on past performance and interactions

In a similar vein, Watson (2012:39) argues that comprehensive quality motivates an organisation to compete effectively by taking advantage of eight dimensions of attractive quality with respect to its products and services. Watson (2012:39) proposes eight dimensions, which are very similar to those indicated in Table 13 above, as follows:

- Utility – refers to usefulness or suitability of the design functions for the user's application
- Capability – refers to the range of performance available for the design functions
- Aesthetics – refers to the style and form of marketing features
- Innovation – refers to the practical or technical originality of the design
- Accessibility – refers to the ease of use of a product and the human interface with the organisation
- Portability – refers to the ability to make use of a number of applications

- Esteem – refers to the worth of the organisation as implied by the recognition of the brand
- Reliability – refers to the durability of performance

These dimensions provide insight into the different aspects of quality and what is covered when assessments of the quality of services are conducted by customers.

2.2 THE IMPORTANCE OF SERVICE QUALITY

There are numerous possible benefits which service organisations can realise when they improve service quality. Lewis et al. (1994) have identified some of these benefits. Most service organisations are competing to obtain a sustainable competitive advantage by providing high quality service to customers in an environment which is extremely competitive. This has resulted in a continued focus on service quality. Organisations have realised that there are many potential benefits which can be realised by implementing programmes which focus on service quality improvements. These benefits include customer satisfaction, customer retention, customer loyalty, positive word of mouth, employee benefits and improved corporate image and financial performance (Lewis et al., 1994:4).

In addition to this, the ongoing delivery of high quality service means that an organisation must have a detailed strategy and also perform a number of business activities which include people, technology and processes. The end result of doing this will be customers that are satisfied with the services provided and improved profits for the organisation (Steele, 2007:45).

George and Jones (2012) propose that different customers want different levels of service from the same organisation and want to at least meet their desires, if not exceed them. For this reason, service quality is determined by the difference between the levels of service customers' receive compared to the level of service which they desire (George and Jones, 2012: 223).

In order to continually improve service delivery and improve the level of customer satisfaction in Eskom, it is important to measure the perceptions of customers and to understand what their expectations are of the service provided by Eskom.

Eskom's Customer Service Charter, which was developed as an internal measure or guide, provides a guideline on how customers should be serviced by providing a list of the customers' rights as indicated below.

Our customers have the right to:

- Accurate measurement of consumption
- Error-free bills
- Be treated with respect
- Experience excellent treatment on Eskom's electricity supply contract
- Be dealt with promptly and efficiently
- Be treated fairly
- Have their property treated with respect
- Confidentiality of their information
- One Contact Resolution
- Quality of supply in terms of negotiated agreement
- Be involved in issues affecting them

(Eskom, 2012)

2.3 COMPONENTS OF SERVICE QUALITY IN ESKOM

The preparation of NRS047 on the quality of service in the Electricity Supply Industry (ESI) was driven by the National Electricity Regulator (NER), now known as the National Energy Regulator of South Africa (NERSA). This was done in 1999 to facilitate liaison between customers and the licensed suppliers of electricity (licensees). The acronym NRS derives from the initial descriptor for South African specifications for the ESI (National Energy Regulator of South Africa, 2013).

NRS047 summarises the services which are to be provided to customers by electricity supply authorities as follows:

- Processing of requests for electricity supply – the management of which will include the following:
  - Applications for electricity supply

- Feasibility studies
- Quotations and estimates
- Acceptance of quotation and payment
- Design
- Construction
- Commissioning and decommissioning
- The supply contract between the licensee and the customer
- Meeting of agreed deadlines

- Credit Metering – which includes the management of the items which affect the quality of service in dealing with credit meter customers as follows:
  - Frequency of meter reading
  - Format of billing, including the information provided on the bill and the method utilised
  - Resolution of account queries
  - Acceptable payment methods
  - Payment venues
  - Special meter readings
  - Check-meter readings
  - Disconnections
  - Reconnections
  - Penalties for non-payment and theft
  - Auditing of meters for accuracy
  - Calibration of meters

- Prepayment Metering – which includes the management of the following service activities which have an influence on the quality of the service provided to customers using prepayment meters:
  - Information that is to be provided to the customers
  - Location of the vending stations where electricity tokens can be purchased including the business hours
  - Auditing of meters for accuracy
  - The frequency of meter inspections conducted

- Disconnections and reconnections

- Planned and unplanned electricity network interruptions – which includes the management of the activities listed below which have an influence on the quality of the service with respect to network interruptions:
  - Availability and location of fault reporting centres
  - Hours during which interruptions may be reported
  - Fault reporting procedures
  - Telephone answering response times
  - Response times to queries
  - Time to restore supply
  - Number and duration of interruptions
  - Notification of planned interruptions

The service activities for measuring and reporting of electricity network interruptions are indicated in Table 14 below.

Table 14: Electricity service activities and standard measures [Source: NRS047-1 (2005:14)]

Service Activity	**Measure of service standard**
Fault-reporting centres	Location and hours of business for all the fault-reporting centres
Fault-reporting process	Prescribed procedures to be followed and appropriate information to be requested from the customer
Unplanned interruptions	The time to restore the electricity supply after an unplanned interruption
Planned interruptions	The number and duration of planned interruptions
Notice of planned interruptions	The notice of planned interruptions which is to be given to the customers who are affected at least 48hours in advance

- Customer complaints, enquiries and requests – which covers the following activities which are deemed to influence the quality of service provided in the management of customer complaints, enquiries and requests:
  - Availability and location of service centres
  - Telephone services
  - Response times

- The time taken to resolve problems raised by customers

- Telephone services – the management of activities which have an impact on the quality of service in dealing with telephone services as follows:
  - The provision of telephone services
  - Business hours during which telephone calls can be taken
  - The response time in answering telephones
  - Measurement of the duration of the telephone calls
  - Management of telephone answering centres

- Service activities with respect to individual customer queries regarding the levels of the quality of the electricity supply levels. The service activities listed below, which are related to NRS048-2 power quality parameters, need to be managed:
  - The time taken to respond to a complaint received from a customer
  - The negotiation of the timeframes to resolve the problem
  - Adherence to the agreed timeframes in resolving the problem

- The provision of customer education and customer forums – the customer education programme must include the following:
  - Safety issues related to the safe use of electricity, the dangers of illegal connections and tampering, and the dangers of incompetent or unqualified persons who do illegal connections and unsafe connections and other unsafe conditions with respect to electricity supply power lines.
  - The reasons why electricity should be paid for, including the payment culture.
  - The quality of the electricity supply including the required protection against overvoltage (NRS047-1, 2005:14).

The relations between the electricity service provider and the customer who consumes electricity in the area of quality of the service and the quality of the power supply are regulated by the electricity supply contract which will define the basic rights and will stipulate that the electricity supply authority will provide customers with uninterrupted, reliable, safe electricity supply of an acceptable quality (Abdyrasulova et al., 2011:1).

2.4 MODELS OF SERVICE QUALITY

There are a number of models which have been developed by researchers and scholars throughout the world in order to better understand the concept of service quality. Some examples of models which are commonly referred to include Kano's model of quality and customer satisfaction (Kano et al., 1984); Technical-Functional Quality Model (Gronroos, 1984); Satisfaction-Service Quality Model (Spreng and Mackoy, 1996); SERVPERF model (Cronin and Taylor, 1992) and the SERVQUAL model of service quality gaps (Parasuraman et al., 1985, 1988).

2.4.1 Kano's Model

According to Kano (1984) cited in Sauerwein et al. (1996) the type of requirement which the customer has will define the perceived product quality and lead to customer satisfaction (Sauerwein et al., 1996:313).

In the model, Kano distinguished between three types of product requirements which have an influence on customer satisfaction, in different ways, when met. These requirements are:

1. **Must-be requirements** – This refers to the requirements where the customer will be extremely dissatisfied if they are not fulfilled. They can be viewed as the basic requirements or criteria that the customer will expect from a product / service.
2. **One-dimensional requirements** – These requirements are usually explicitly requested by the customer and the customer's satisfaction is proportional to the level of fulfilment i.e. the higher the level of fulfilment of these requirements, the higher the level of the customer's satisfaction and vice versa.
3. **Attractive requirements** – These requirements are described as the criteria which will have the greatest influence on how satisfied a customer will be with the product or service i.e. fulfilling these requirements will lead to more than proportional satisfaction.
   (Sauerwein et al., 1996:314).

According to Xu et al. (2007), cited in Chen et al. (2010:1191), the Kano model is a useful tool for classifying product attributes based on how they are perceived by customers and what their effect is on customer satisfaction.

Sauerwein et al. (1996:315) provide a number of advantages for utilising the Kano model when classifying customer requirements; some of these advantages are that priorities for product development are easy to identify, product requirements are better understood, and the model provides assistance in trade-off situations in the product development stage.

On the other hand, using the Kano model in practice may not necessarily yield accurate results as one might be faced with a situation where no quality attribute is found to be attractive or one-dimensional. This may be as a result of an improperly designed questionnaire where questionnaire items may be ambiguous and unclear, or it could be as a result of poorly designed product attributes (Chen et al., 2010:1190).

2.4.2. Technical Functional Quality Model

Gronroos (1984) developed a model which was aimed at assisting firms to understand customers' perceptions of quality and the way service quality is influenced. According to the model, managing perceived service quality implies that the organisation has to match expected service and perceived service in order to ensure that customers are satisfied. Gronroos identified three components of service quality, viz. technical quality, functional quality and image; these three elements are illustrated in Figure 10 below.

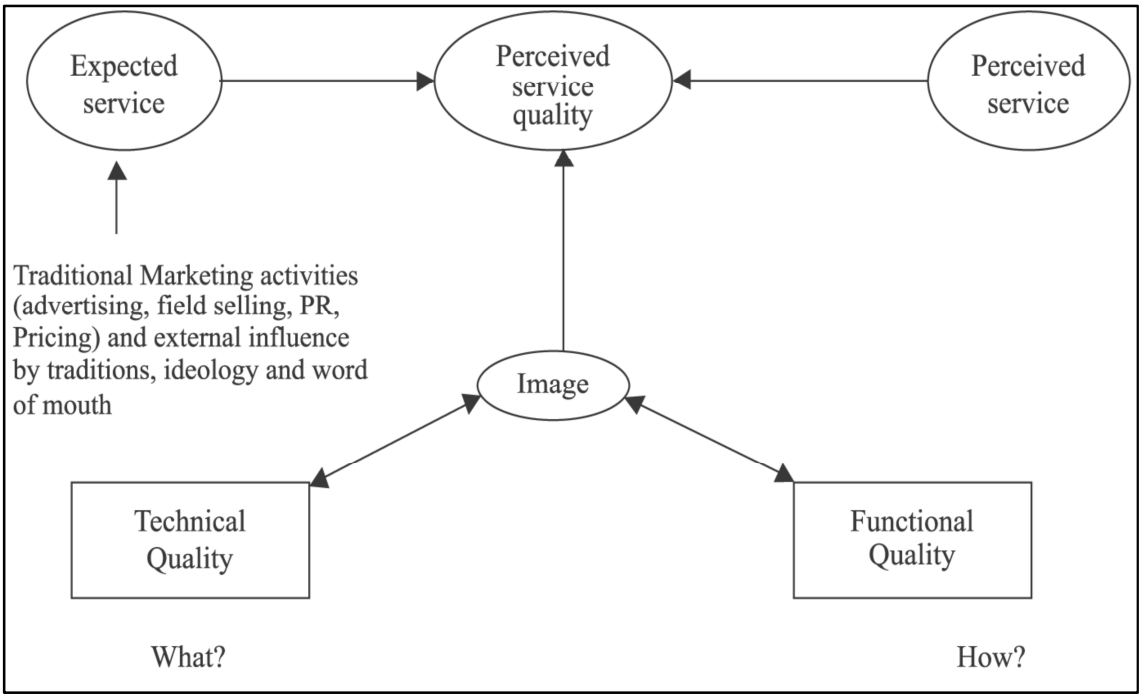

Figure 10: Service Quality Model [Source: Gronroos (1984), cited in Seth et al. (2005:916)]

Figure 10 illustrates the three components of service quality described by Gronroos as follows:

1. Technical quality is described as the quality of what the customer actually receives as a result of the interaction with the organisation and is considered to be important by the customer.
2. Functional quality is how the customer receives the technical outcome of the service or service delivery and this is also based on the aspects which the customer considers to be important.
3. Finally, image is considered to be very important to service firms and this can be made up mainly by technical and functional quality of service including other factors such as tradition, ideology, word of mouth, pricing and public relations.

(Seth et al., 2005:916)

According to a study conducted by Lassar et al. in 2000 on a sample of international private banking customers, the private banking industry is considered to represent both a high contact and a high level service situation. It was concluded that the Technical Functional Quality based model is better suited to predict customer satisfaction when customers are actively or very interested in service delivery (Lassar et al., 2000:263). On the other hand, it is likely that there are numerous moderators and mediators of the quality/satisfaction relationship. In this study conducted by Lassar et al. (2000) in a high level service setting, the occurrence of service failure and existence of account executives moderated the causal relationship. It is not clear what other moderators of the quality/satisfaction relationship exist (Lassar et al., 2000:264).

2.4.3 Gap Service Quality Model

In 1985 Parasuraman et al. conducted an exploratory qualitative study on service quality where focus group and in-depth interviews with executives from four nationally recognised service firms in the United States of America were conducted in order to develop a conceptual model of service quality. The study revealed some common perceptions about service quality with the main insight identified as follows: “A set of key discrepancies or gaps exist (as illustrated in Figure 11) regarding executive perceptions of service quality and

the tasks associated with service delivery to consumers. These gaps can be major hurdles in attempting to deliver a service which consumers would perceive as being of high quality" (Parasuraman et al., 1985:44).

One of the biggest challenges with the Gap Service Quality Model is the inability to identify customers' service problems in sufficient detail. On the other hand, the model provides a clear and structured way to identify gaps which exist in the provision of services.

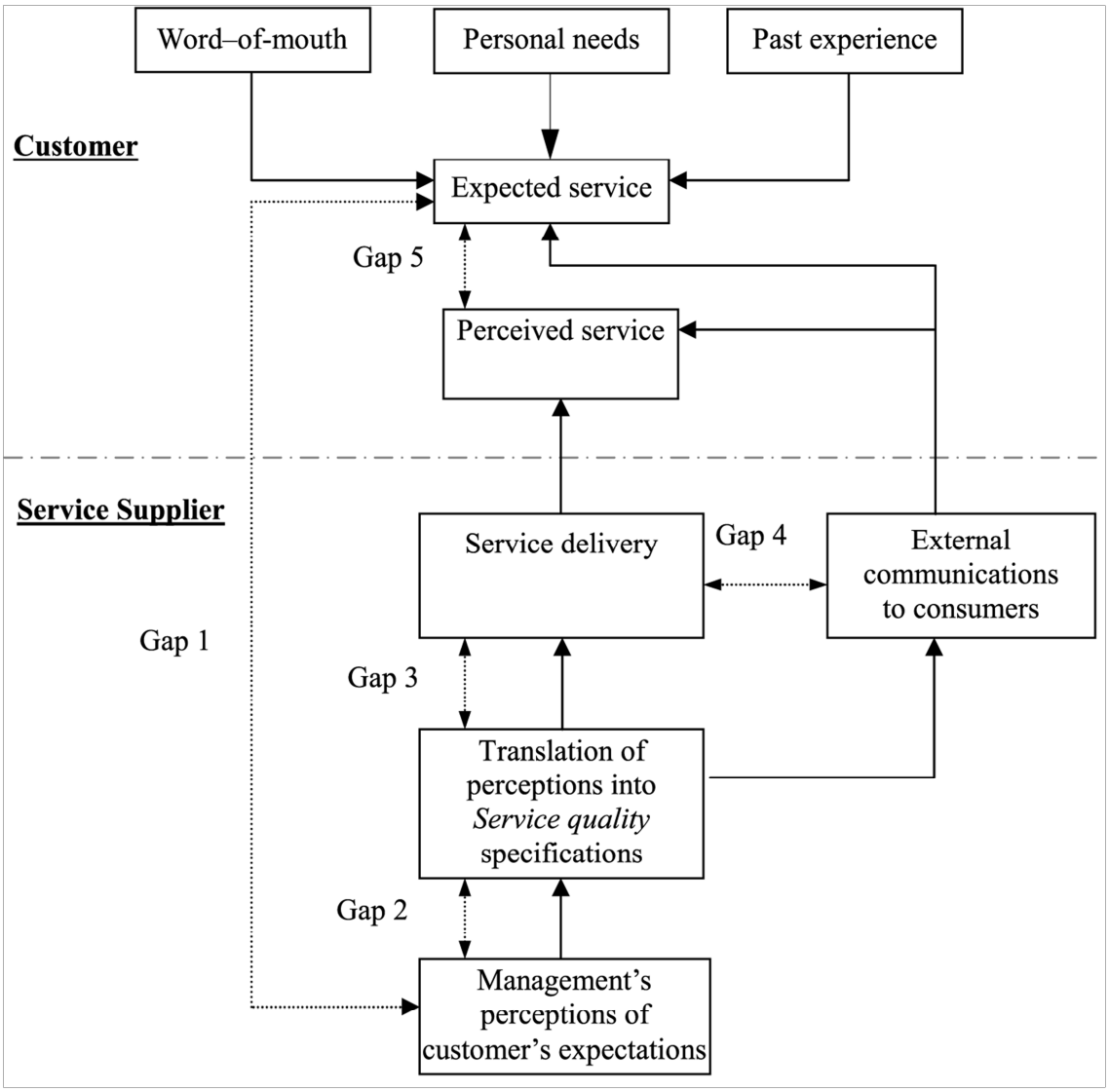

Figure 11: Gap Service Quality Model [Source: Parasuraman et al. (1985)]

2.4.4 SERVPERF

The SERVPERF model was developed as a performance-based alternative in response to the criticisms of SERVQUAL. The model used the same five broad dimensions of the SERVQUAL model and added a sixth dimension of recoverability. One of the objectives for developing the model was to study the relationship between service quality, customer satisfaction and purchase intentions. This would assist in establishing whether customers buy from organisations that have the highest level of perceived service quality or from those who provide them with the highest level of satisfaction (Cronin and Taylor, 1992:56).

It is noteworthy that according to the meta-analysis approach used, the SERVPERF scale yields adequate and valid predictors of service quality. On the other hand the predictive validity of the SERVPERF may vary when used in different countries where the language and culture is different to that of the United States where this model was originally developed (Carrillat et al., 2007:485).

2.4.5 Model for the Public Sector

Jiang and Chen (2002) in Chen et al. (2004:417) proposed a customer-oriented service model for the public sector which involved a five stage sequence of system design and management as follows:

1. Customer identification
2. Customer-needs survey
3. Service-system design
4. Service delivery
5. Service recovery

This five-stage model can also be used to explore organisational strategic planning, system design and operational management in order to promote customer-oriented services.

Figure 12 illustrates this model and presents a comprehensive two-dimensional model which takes into consideration system design and management and fostering organisational culture.

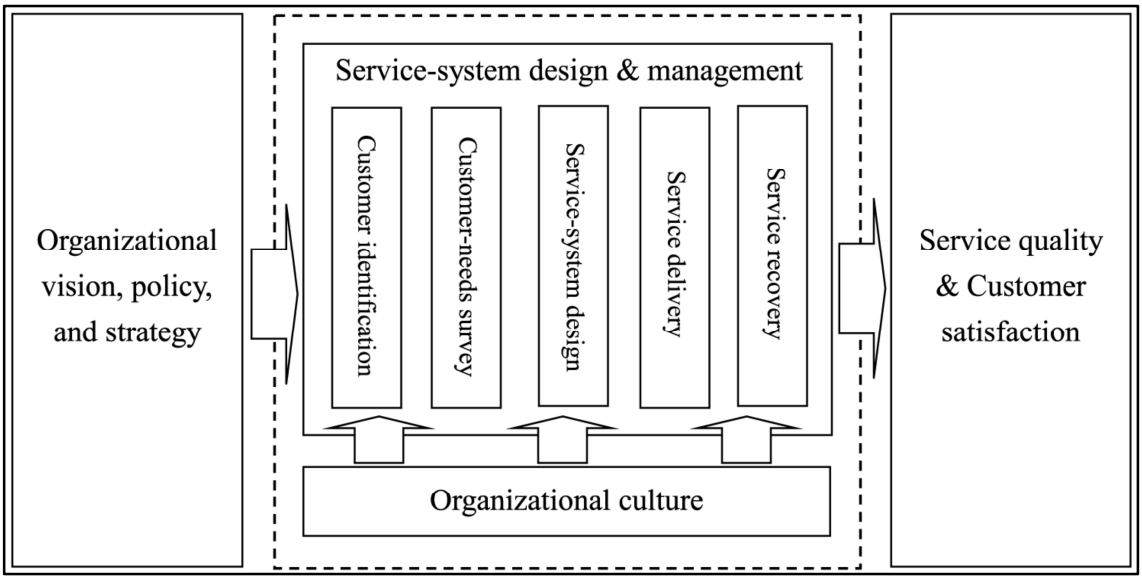

Figure 12: A customer oriented public service model [Source: Chen et al. (2004:417)]

Figure 12 presents a model for best practice in relation to customer-oriented activities specifically in the public sector. On the left, the framework depicts the organisational vision, policy and strategy. This represents the spearhead needed if an organisation is to develop and manage a customer-oriented service system. The model incorporates a five-stage process of service-system design and management as follows: (1) Customer identification, where the public entity identifies its customers; (2) Customer-needs survey, where the public entity focuses on the needs of the customer by hearing their views; (3) Service-system design, where the public entity develops a service system and process that will respond to the needs of the customers; (4) Service delivery, where the employees of the public entity deliver the required services to customers; and (5) Service recovery, where the public entity implements an effective mechanism to deal with customer complaints.

Service quality and customer satisfaction are found on the right hand side of the model as they are the outcomes of the service delivered by the public entity (Chen et al., 2004:417).

This model, which is specific to the public sector, illustrates clearly that service quality starts from the organisational policy and should be included in the strategy and vision of the organisation. Proper implementation of the organisational policies will then ensure that customers are satisfied.

The merits of this model, if implemented successfully, include improvement in leadership and teamwork, particularly cross-functional cooperation, which is critical in public service organisations. On the other hand, a large scale survey is required to verify the validity and reliability of the model. Also, a holistic procedure is needed to assist practitioners in the public sector to develop and assess a customer-oriented service system (Chen et al., 2004:424)

2.5 THE SERVQUAL MODEL

The SERVQUAL tool was developed in the 1980s by Ziethaml, Parasuraman and Berry as a means to measure the scale of quality in the service sectors.

Exploratory research by Parasuraman et al. (1985) cited in Parasuraman et al. (1988:17) initially revealed that the criteria which is used by customers when they assess service quality fits ten potentially overlapping dimensions which are listed in Table 15.

Table 15: SERVQUAL dimensions [Source: Parasuraman et al., 1985:47]

CRITERIA / DIMENSION	
1. Tangibles	The physical evidence of the service including appearance of staff and the tools and equipment used to provide the service.
2. Reliability	Refers to the consistency of performance i.e. the organisation carries out the service correctly the first time.
3. Responsiveness	Refers to the willingness to provide the service and involves the timeliness with which the service is provided.
4. Communication	Keeping customers informed in a manner which they understand, includes listening to customers. Includes explanation of the service itself including the costs.
5. Credibility	Refers to trustworthiness, believability and having the best interests of the customer at heart. Contributing factors are the company name and reputation.
6. Security	Refers to the aspects related to the customers' safety and also includes confidentiality.

7. Competence	Means possession of the skills and knowledge required to perform the service by front line employees and other support employees.
8. Courtesy	Refers to the manner in which the customer is treated and includes politeness, respect and friendliness. This also relates to the treatment of customers' property and the neat appearance of front line personnel.
9. Understanding / knowing the customers	Means taking the time and effort to understand the customers' needs including taking time to learn the customers' requirements; providing individualised attention.
10. Access	The ease for the customer to make contact with the organisation. Easy accessibility by telephone, convenient operating hours and location of service facilities.

These ten dimensions served as the basic structure of the service quality sphere where items were derived for the SERVQUAL scale.

According to Buttle (1996) SERVQUAL is founded on the view that the customers' assessment of service quality is paramount. This assessment is conceptualised as a gap between what the customer expects by way of service quality from a class of service providers, and their evaluations of the performance of a particular service provider (Buttle, 1996:8-32).

The SERVQUAL model was later refined to examine the following five dimensions of service quality:

1. Reliability
2. Responsiveness
3. Assurance
4. Empathy and
5. Tangibility

Parasuraman et al. (1988) identified a number of potential uses for the SERVQUAL model and these include the following:

- The model can be used on a regular basis to track the perceptions of customers related to the service quality of an organisation compared to its competitors.
- The model provides the organisation a chance to assess its service quality performance on the basis of each dimension individually as well as according to the overall dimensions.
- The firm can then use the SERVQUAL scores obtained to classify its customers into different segments.
- The model also allows businesses with various offices or branches to assess the level of service quality offered by individual offices and to group them according to their quality images.

It is to be noted, however, that the main aim of the SERVQUAL model is for it to be utilised as a generic instrument for measuring service quality across the different service sectors. Parasuraman et al. (1991b) proposed that the SERVQUAL instrument be developed and used in various service settings with the intention that it will provide a basic skeleton which can be adapted to fit the attributes of any organisation.

The use of the SERVQUAL model resonates with this study which seeks to analyse the gap between the service perceptions of Large Power Users and their expectations of the service to be delivered by Eskom in the Eastern Cape.

The SERVQUAL model has been used before to conduct similar research within Eskom: in 2010, Myoli conducted an evaluation of the quality of customer service delivered by Eskom in South Africa to rural household customers in the Eastern Cape Province. The data for the evaluation was obtained from a perceptions and expectations survey conducted in 2006 on a sample of customers who fall within the prepaid residential segment (Myoli, 2010).

This research focuses on the Large Power User segment of customers which is comprised of various business sectors; it will be interesting to see the results of the research conducted on this segment in comparison to the results obtained by Myoli in 2010.

The SERVQUAL model has been used extensively in a number of different sectors to assess service quality. Babakus and Mangold (1992:767) used SERVQUAL in the health care sector where the model was adapted to the services provided in a hospital. Jiang et al. (2002:145) made use of the SERVQUAL instrument to measure Information Systems Service

Quality. Bojanic and Rosen (1994:3) used SERVQUAL to assess the service quality in restaurants.

2.5.1 Challenges and Limitations of the SERVQUAL Model

There are varying criticisms of the SERVQUAL model, for example, Cronin and Taylor (1992) argue that SERVQUAL confuses satisfaction and attitude. They state that service quality can be seen as similar to an attitude, and in particular they are of the view that performance instead of performance expectation determines service quality (Cronin and Taylor, 1992:55).

Buttle (1996:20) identified a number of theoretical and operational criticisms of SERVQUAL based on an argument that theoretically SERVQUAL is founded on the basis of an 'expectation-disconfirmation' model instead of an 'attitudinal' model. He continued by saying that the model is not based on a well-established economic, statistical and psychological theory or basis (Buttle, 1996:8-32).

In 2008 Ladhari reviewed a number of criticisms based on the theoretical and empirical aspects of the model. He began by arguing that the use of gap scores is not the correct method due to the lack of support in literature where consumers evaluate service quality based on 'perception-minus-expectation'. He also discussed the fact that the concept of expectation is not well defined and as a result can be interpreted from different perspectives. This could result in different interpretations of the outcomes produced when using the SERVQUAL model (Ladhari, 2008:68).

Lastly, Ladhari (2008) highlighted that previous research studies criticised the SERVQUAL model as a result of its focus on the process of service delivery instead of the result and outcome of the service encounters (Ladhari, 2008:80).

2.6 SUMMARY

This section evaluated and reviewed the concept of customer service quality. The various tools which are used to measure and model service quality were discussed. The limitations and challenges of these models have also been included. The focus of the review was on

service quality provision in the public sector, and in particular in the South African context of an electricity utility.

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3.0 SECTION 3 DESCRIPTION AND METHODOLOGY

3.1. INTRODUCTION

This section presents and describes the process which was followed by the researcher in order to obtain an understanding of customers' expectations and perceptions of the customer service quality provided by Eskom in the Eastern Cape Province. The section provides an overview of the research goals in order to display the importance of the study and indicate its distinctiveness from previous research conducted on customer service quality within the electricity industry in South Africa. The section provides a framework of the data collection procedures which were followed as part of the research and also describes the method of analysis of the data which was utilised.

3.2 RESEARCH PARADIGM

This quantitative study is an evaluation that seeks to understand the perceptions of customers regarding customer service quality provided by an organisation. The study aimed at understanding the elements of customer service quality that lead to customer satisfaction.

This quantitative study adopts the critical realism research paradigm. Critical realism is a philosophical theory of reality and human knowledge which posits that humans are capable of learning objectively about the world, without interference from human psychology or other subjective factors that colour perception. However, critical realists do not think this is a simple thing to do: to see the world as it really is, one must learn and then reflect critically on what was learned and on how it was coloured by the limits of human perception.

According to Guba and Lincoln (1994:105 cited in Krauss, 2005:759) a paradigm can be defined as the "basic belief system or world view that guides the investigation". In a nutshell, paradigm frames the world into a set of interrelated concepts and assumptions that guide understanding about the world and how it works (Greene and Caracelli, 1997:6). In particular, Filstead (1979:34 cited in Deshpande, 1983:102) identified that a paradigm accomplishes four objectives as follows:

1. Serves as a guide to the professionals in a discipline – indicating the important problems and issues confronting the discipline;
2. Develops an explanatory scheme which places issues and problems in a framework which will allow practitioners to try and solve them;
3. Establishes criteria for the appropriate methods to be used in order to solve these problems; and
4. Provides an epistemology where the preceding tasks can be viewed for carrying out work of the discipline.

Three logical questions which help researchers to understand the paradigm are: what is the form and nature of reality or what is the form of the "knowable" (*ontology*); what is the nature of the relationship between the researcher; and what can be known about reality (epistemology) (Babbie 2001, cited in Fouche and Delport, 2011:267). How the inquirer goes about finding out knowledge is termed *methodology*.

In summary, paradigms not only allow the researcher to make sense of different phenomena but provide a framework in which these phenomena can be identified as existing in the first place. Drawing from the above, this quantitative study was based on the deductive approach to reasoning, whereby one begins by looking at the general view and then applying this view to a particular case (Babbie, 2008:25). The study focused on objective reality as the researcher did not interact with the respondents.

3.3 RESEARCH AIM AND GOALS

The aim of this study was to evaluate the quality of customer service which is provided by Eskom to its existing customers which fall within the Large Power User segment (LPU) in the Eastern Cape. More importantly, the study privileges the views of the LPUs in the Eastern Cape to evaluate service from the customer perspective rather than the perspective of the provider of service. The goals which have been identified in order to achieve this are as follows:

1. To analyse the factors that contribute to the customer service which is expected by LPU customers in the province – from the perspective of the customer.

2. To evaluate and understand directly from the Eskom customers, what they (LPU segment) perceive to be quality customer service.
3. To recommend areas where Eskom needs to focus in order to improve the quality of customer service delivered to this customer segment.

In this regard, the study sought to establish whether there is a difference between the perceived and the expected service of Eskom from the perspective of LPU customers in the Eastern Cape Province.

Null Hypothesis: H0:

There is no difference between the services of Eskom as perceived by LPU customers compared to their expectations of service i.e. Eskom is perceived as meeting the service expectations of the LPU customer segment.

Alternative Hypothesis: H1

Eskom is perceived as exceeding the service expectations of the LPU customer segment in the Eastern Cape.

Alternative Hypothesis: H2

Eskom is perceived as not meeting the service expectations of the LPU customer segment in the Eastern Cape

3.4 SAMPLING

The population comprises 1 008 LPU customers throughout the Eastern Cape. These customers are spread across the province, from Port Elizabeth area, Aliwal North area, Mthatha area and East London area. The population was separated according to groups of homogeneous strata and a sample was chosen (Babbie, 2011:203).

A sample of 120 customers out of a population of 1 008 customers was randomly selected, using the limited contact data that is available on the billing system but ensuring that customers from all four of the geographic areas indicated above were included. These

customers were selected from the Eskom Customer Care and Billing database which contains data pertaining to all Eskom customers.

3.5 DATA COLLECTION

Modified, close-ended questionnaires based on SERVQUAL were captured by the researcher onto an online survey tool called Survey Monkey. An email containing the link to the site with the questionnaire was sent to the LPU customers included in the sample, this was done from East London in October 2013. The customers were given two weeks to complete the questionnaire online, thereafter it was closed.

The responses were used to collect data on customer service quality, specifically measuring the expectations and perceptions of customers with respect to electricity services provided by Eskom. A Likert rating scale was used to record the customer evaluations of the different dimensions, as recommended by the originators of the SERVQUAL tool, as follows:

Table 16: Likert Scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Email and the online survey tool were chosen as the method to send the questionnaire and receive feedback as it was the simplest to administer and consideration was given to the fact that the LPU market segment generally has access to these mediums.

The email addresses of all the customers were obtained from the Eskom Customer Care and Billing database. A total of 45 respondents completed the questionnaire within the specified timeframe of two weeks.

The purpose of the study was stated clearly in the correspondence and an indication of the time required to complete the questionnaire was provided (i.e. approximately 15 minutes). It was indicated clearly on the email that each customer's identity would be kept confidential and that the main purpose of the study was for academic reasons. The questionnaire was based on SERVQUAL and the five dimensions of service quality as per the model, modified

and adapted to the electricity industry. A covering letter (see Appendix A) was attached to the email.

A copy of the questionnaire is contained in Appendix B. The questionnaire was divided into two sections which contain the same questions. The first section seeks to measure the customers' expectations of the service and the second section measures the customers' perceptions of the existing service.

Each section comprised 22 questions which were grouped according to the SERVQUAL dimensions as follows:

Table 17: SERVQUAL Questionnaire dimensions

QUESTIONS	DIMENSION MEASURED
1 – 4	Tangibles
5 – 9	Reliability
10 – 13	Responsiveness
14– 17	Assurance
18 – 22	Empathy

3.6 DATA ANALYSIS

Statistical Analysis Software (SAS) was used to analyse the data. The mean scores were calculated for each statement in order to obtain an overall mean score for all of the respondents. The mean is a measure of statistical dispersion representing the average of the ratings received for each of the dimensions. This was done for each of the sections in the questionnaire, i.e. expectations and perceptions, and the two sections were compared in order to see the gap that exists, if any, for each of the items in the study.

The Standard Deviation was calculated for each dimension per section i.e. expectations and perceptions. The standard deviation was calculated to show how much variation there was from the average.

A paired sample t-test was used to determine whether there was a significant difference between the average values of a sample of matched pairs of similar units, or one group of units that has been tested twice.

3.7 VALIDITY AND RELIABILITY

Cronbach's Alpha was used to determine the internal consistency of items in the survey instrument in order to determine its reliability. The survey instrument which was used in this study is the SERVQUAL instrument.

Reliability comes to the fore when variables obtained from summated scales are used. In view of the fact that summated scales are an assembly of interrelated items designed to measure underlying constructs, it is important to know that the same set of items would give the same responses if the same questions were asked again to the same respondents. The value of the alpha coefficient ranges from 0 to 1; the higher the score, the more reliable the generated scale is. Generally, 0.7 is considered to be an acceptable reliability coefficient.

3.8 ETHICAL CONSIDERATIONS FOR RESEARCH

The researcher is an Eskom employee, employed in East London as a Customer Relations Area Manager. As such, the researcher ensured that sufficient information was communicated to the participants, highlighting that the study is mainly for academic purposes and was not initiated by Eskom directly. The research sought "informed consent" from each customer (Creswell, 2009:89). The confidentiality of each of the customers was maintained and customers were advised that they could withdraw from the study at any stage (e.g. pre- or post-data collection) should they wish to do so. The customers were treated with respect during the entire process. The researcher ensured that the questions were clear for easy understanding, the key terms were explained and the reasons for the research were made clear.

3.9 LIMITATIONS OF THE STUDY

No customers who use electricity for residential purposes were included as part of the study. The study focused only on the perspective of the customer and not on the perspective of Eskom in providing a view of what customer service quality is.

The final recommendations and views are based entirely on the feedback obtained from the customers categorised by Eskom as Large Power Users – all other customer segments were excluded in the study.

3.10 REFERENCES

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APPENDICES

Appendix A: Covering Letter to Participants

Customer Service Department
Oakwood House (Ground Floor)
Palm Square Business Park
Private Bag X1 Beacon Bay East London 5205

Date:
October 2013

Enquiries:
Akhona Caza
Tel +27 43 703 5330

Dear Research Study Participant

The attached questionnaire is being sent to you in your capacity as an Eskom customer falling into the customer market segment under study.

The aim of the research is to assess the quality of service which is currently provided to Eskom customers in relation to what is expected by customers. The information obtained will assist in understanding the areas which Eskom needs to focus on in order to improve service to customers.

The study is being undertaken in the Eastern Cape Province and makes use of attributes which look at the customers' point of view. It is therefore very important that you provide honest feedback regarding your experience(s) with Eskom.

Your responses will be kept confidential, no names, or Eskom account numbers need to be provided when sending the response.

Please complete all of the questions in full in order to ensure that we capture a holistic view of your service requirements. Your participation in this study is voluntary and you may withdraw from the study at any time, should you wish to do so for any reason.

Thank you for the time you have taken to be a part of this study; your feedback is appreciated.

Yours Sincerely

Akhona Caza

Appendix B: Questionnaire

CUSTOMER SERVICE QUALITY MASTERS RESEARCH QUESTIONNAIRE

http://www.surveymonkey.com/s/KPNH2P3

Welcome

I am currently enrolled as a Masters student in Business Administration at Rhodes University, Grahamstown. I am required to conduct research on a value-adding topic in order to fulfil the requirements to obtain the Masters in Business Administration (MBA) and have chosen customer service quality in the South African electricity utility sector. You have been chosen to participate in this study in your capacity as an Eskom Large Power User (LPU) customer. The study is intended to evaluate the service provided to the LPU market segment in the Eastern Cape.

How I would like you to complete the questionnaire:

- Please give your first and natural answer, try not to dwell too long on each question.

- Please base your answers on your most recent service experiences (e.g. last 6 months), unless the question asks otherwise.

The questionnaire comprises of two sections, Section 1 asks questions related to customer expectations and Section 2 relates to Perceptions. Both sections have 5 statements with 22 questions each, making a total of 44 questions and it will take you approximately 15 minutes to complete.

ALL information will be treated confidentially and your anonymity will be guaranteed. I am the only person who will have direct access to the online feedback provided. This feedback will be used only for the purpose of this study and it will be shared with Eskom Senior Management in the Eastern Cape. Please be honest with your responses, as there is no risk involved and this will also help ensure the success of this study.

Please note that your participation in this study is voluntary and that the information provided here should help you to understand and consent to be part of this study. A copy of the final report can be made available to you on request via email, should it be required.

Enquiries: Akhona Caza

Telephone: 043 703 5323 / 0829271314

Email: akhona.caza@eskom.co.za

Supervisor: Dr MacDonald Kanyangale

Telephone: 046 603 7476

SECTION 1: EXPECTATIONS

When responding to these statements, please consider the type of electricity utility that would deliver excellent quality of electricity services that would meet your expectations. Please note that there is no correct or incorrect response. Depending on the extent which you feel that a statement describes a feature which is essential for an electricity utility, in order to provide quality customer service; you may choose to either Strongly Agree, Agree, remain Neutral, Disagree or Strongly Disagree with the statement.

TANGIBLES DIMENSION

1. Electricity supply utilities should have:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Modern equipment and technology					
Attractive, neat and easily accessible office facilities					
Professionally and neatly dressed staff					
Visually appealing documentation and signage					

RELIABILITY DIMENSION

2. Electricity supply utilities should:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Adhere to service delivery timeframes promised					
Have an interest in resolving customer queries					
Perform services accurately during the first encounter					
Maintain accurate customer data /records					

RESPONSIVENESS DIMENSION

3. Electricity supply utilities should:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Prescribe specific service delivery timeframes					
Ensure prompt service is provided to customers					
Always be willing to assist customers					
Always be available to customers					

ASSURANCE DIMENSION

4. Electricity supply utilities should:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Have accurate and consistent responses to queries					
Ensure confidentiality & security when transacting with customers					
Have courteous employees					
Have knowledgeable employees					

EMPATHY DIMENSION

5. Electricity supply utilities should:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Give customers individualised attention					
Have convenient operating hours					
Be easily accessible					
Have customers' interests at the core of their business					
Understand customers' specific needs					

Section 2 – PERCEPTIONS

The following statements relate to your perceptions about Eskom's current service levels. For each statement, please indicate the extent to which you believe that Eskom has the feature that is being described. Depending on the extent which you feel that a statement describes a feature which Eskom currently has, you may choose to either Strongly Agree, Agree, be Neutral, Disagree or Strongly Disagree with the statement.

TANGIBLES DIMENSION

6. Eskom has:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Modern equipment and technology					
Attractive, neat and easily accessible office facilities					
Professionally and neatly dressed staff					
Visually appealing documentation and signage					

RELIABILITY DIMENSION

7. Eskom:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Adheres to service delivery timeframes promised					
Has an interest in resolving customer queries					
Performs services during the first encounter					
Maintains accurate customer data / records					

RESPONSIVENESS DIMENSION

8. Eskom:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Prescribes specific service delivery timeframes					
Ensures prompt service is provided to customers					
Is always willing to assist customers					
Is always available to respond to customers					

ASSURANCE DIMENSION

9. Eskom:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Has accurate and consistent responses to queries					
Ensures confidentiality and security when transacting with customers					
Has courteous employees					
Has knowledgeable employees					

EMPATHY

10. Eskom:

	Strongly Agree	Agree	Neutral	Agree	Strongly Agree
Gives customers individualised attention					
Has convenient operating hours					
Is easily accessible					
Has customers' interests at the core of their business					
Understands customers' specific needs					

Other Comments:

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THANK YOU FOR PARTICIPATING IN THIS STUDY