

**SERVICE QUALITY AS A COMPETITIVE DIFFERENTIATOR FOR  
UTILITY COMPANIES USING CALL CENTRES TO ACHIEVE  
CUSTOMER SATISFACTION: A CASE OF ESKOM EASTERN  
REGION**

**Submitted in partial fulfillment of the requirements for the degree of Master  
of Business Administration in Graduate School of Business, University of  
Natal, Durban**

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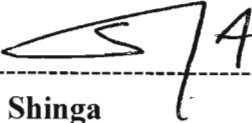
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**July 2002**

## DECLARATION

I would like to put it on record that is the original work of Mr. Sibonelo Shinga. Further this dissertation has not been submitted to any University. It is a representation of my thoughts, and any quotes or references that have been used belonging to others, they have been given due credit in this text.

13/09/2002  
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Date

  
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## **Executive Summary**

ESKOM is the Electricity Supply Commission, a South African utility company that provides electricity to South Africa. The Group's principal activity includes generation, transmission of electricity to industrial, mining, commercial, agricultural and residential customers and distributors.

Eskom services a customer base well in excess of 3 million. In the past years Eskom had a few hundred thousand customers and as such had a customer service model that relied on face-to-face contact with all its customers. Customers enjoyed coming into an Eskom office for a chat when they paid their accounts, and had other electricity related queries. Five years ago their customer base had grown to approximately 3 million and it was obvious that Eskom could not continue with that model. South Africa had come out of the apartheid isolation and Eskom realised that they were very uncompetitive.

Faced with this growth, improving customer satisfaction and ways to deliver service became critical questions. It became clear as well that customer acquisition and retention are important and will even be more so in a future deregulated electricity supply industry. The Group had to come with creative solutions to questions presented by these challenges.

The utilization of call centres to address customer service delivery, customer satisfaction, as well as means to remaining competitive in the new millennium is the route that ESKOM has taken to address these key questions.

Hence the basis for the study is to investigate the effectiveness of call centres as tools to offer service delivery and customer satisfaction. The focus of the study was located at the Shelley Beach Area Office; wherein it was apparent that the customers in this zone were not using the call centre to address their queries rather opted to visit the area office personally. The study then aimed to discover the cause of this, and how it could be curtailed, as the office was not as sufficiently equipped to deal with the vast number of queries that descended on them in this manner.

The findings of the study will chart a way in unraveling the extent of the problem of people not using call centres, also will uncover the underlying factors that sustains this behaviour. It will also help in identifying what needs to be done to discourage this trend.

The effectiveness of call centers has, however been found to differ between rural, urban and semi-urban areas. Call centers appeared to be more effective in urban areas, where supporting infrastructure (telephones) is readily available than in rural areas with limited access to telephones.

It was noted that in rural areas mostly access to the telephone was limited in comparison to semi-urban and urban areas. Now, 7% of rural households have landline phones, up from 6% in 1994.

The level of awareness of the call centre in these areas was also a point of concern. Up to 70% of people in rural areas were not aware of the existence of the call centre. In contrast to 76,8% in urban areas who were aware of its existence.

Another factor, that influenced the use of call centres or lack thereof, was the degree of satisfaction, received from call centre service.

Despite these concerns, the rural infrastructural development will see the increase in telecommunication in rural areas. The heightened awareness of existence of call centres and the service they provide will modify the rampant tendency of customers in Shelley Office area to descend in that office in their numbers.

While the study's recommendations are not prescriptive, however they provide necessary information relevant for decisive intervention by management. It offers guidelines as to what could be done.

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# CHAPTER ONE: INTRODUCTION

## 1.1 Introduction

Electricity Supply Commission (ESKOM) is a South African utility company that provides electricity to South African business and residential customers. As such, the improvement in customer services and lowering the cost of customer care can result in a competitive advantage for a company such as ESKOM. Also, the ability to use call centers by utility companies like ESKOM is a key differentiator as many companies strive to remain competitive in the new millennium (McGibbon H. and Von Berg K. 2000).

Call centre interactions may range from something as simple as discussing recipes to something as complex as servicing industrial machinery (Brendan R. 2000). ESKOM has approximately seven call centres handling more than 230 000 calls per month (ESKOM Annual Report, 2000). A call centre is the most versatile business tool that can be used for nearly every type of person-to-person transaction that does not require physical interaction, including sales and service provision, (McGibbon H. and Von Berg K. 2000)

ESKOM intends to improve customer service levels through call centres as a key differentiator. Preliminary indications, have shown that ESKOM customers from the Shelley Beach Area Office do not use call center (that was established to service them) for their queries, hence they continue to visit the area office, which is not entirely equipped to handle customer queries.

As call centres are known to be effective in developing customer satisfaction (McGibbon H. 2000; Von Berg K. 2000), this type of customer behaviour requires attention in order to understand its root cause and thus develop strategies that will motivate customers to use call centres.

## **1.2 Company background**

The Group's principal activity includes generation, transmission of electricity to industrial, mining, commercial, agricultural and residential customers and distributors. The Group operationally regulated in terms of licenses granted by the National Electricity Regulator (NER) in terms of the Electricity Act of 1987 (www.eskom.co.za, 2002-07-15).

ESKOM has changing fundamentally in response to changing business environment. Its philosophy is to adopt strategies that will strengthen its ability to react to changing requirements, and to be flexible to deal with uncertainty, while pursuing business growth and improving customer service levels.

In understanding the relationship between improved customer service and operating efficient call centres, huge strides have been made by ESKOM in getting all call centres operational. ESKOM has seven call centres in South Africa (ESKOM Annual Report, 2000; www.eskom.co.za, 2002 July 05).

These call centers are located in 7 regions in the country, namely Eastern, Western, Southern, North Eastern, Central, North West and Northern Region.

The focus of the project was on the Eastern Region, which services the following area offices.

- Empangeni
- Newcastle
- Pietermaritzburg
- Shelly Beach

Shelly Beach was the site identified as problematic area, hence the focus of the project.

ESKOM aims to strengthen its relationship with its customers by implementing a Customer Relationship Management strategy. Over the past five years ESKOM has adopted a high technology route to providing customer service. It has introduced multi-service Call Centres, implemented new service processes, increased the payment channels available to customers, and recently its first On-Line service was introduced. The main focus for the present is on improving customer satisfaction, yet recognising that the benefits of improved customer acquisition and retention will be important in a future deregulated Electricity Supply Industry (Von Berg, K. 2001). According to Von Berg (2001), the growth in the customer base to 3 million customers, due mainly to electrification program, has been supported by a fundamental change in the way Customer the Service department operate.

This has meant new processes, new systems, new jobs, and new technology- in short, a transformation of Eskom's Customer Service business.

***Some of the highlights of Eskom service business architecture are:***

- **Seven call centres** that provide the complete spectrum of customer services; from information, new applications, and fault reporting to dealing with account queries and receiving meter readings from customers.

The call centres also provide outbound services such as notifying customers of planned outages, and making follow up calls to newly connected customers. They also get involved in supporting revenue management processes by calling errant customers to warn them of disconnection for non-repayment. Eskom service agents also deal with written correspondence from customers via mail, fax and emails.

- **Staff at Regional and Area level**, which is where ultimate accountability for the customer lies. Every customer is linked to a person who is accountable for service, be it a Service Delivery Controller at an area level for the "mass market" or a Key Customer Executive for large customers.
- An **Executive Action Team (EAT)** at the head office, that deals with complaints (and sometimes compliments) that customers wish to bring to the attention of the senior executives.

- **Standardised value chains and processes** that define how each of the spectrum of service interactions with customers is to be handled by front line staff, and how work is to be routed to responsible specialist departments such as Account Operations, Field services or Construction for execution.

The fundamental underlying principle for all of these processes is that all routine work should be automated and/ or handled centrally. Only exceptions should be routed for expediting by the delivery Controller accountable for that customer.

- **Systems and databases** that support the processes, and which are used by staff to carry out the work. While Eskom has purchased some branded system, many of the core systems in the customer service business are home grown. Systems that have been purchased include the work scheduling and plant maintenance tool, MAXIMO, which interfaces with PIC to route work orders arising from fault reports by customers to Engineering field staff for action. SAP is used for financial, commercial, material and assets management. Call Centres run on the Spescom DataFusion DVX2000 platform and Data Voice recorders.
- **Niche Technologies** provides innovative solutions to parts of operations that face particular and unique challenges in the South African environment. These include Geographic Positioning Systems; Geographic Information Systems; meter reading via remote access or hand held data loggers; prepayment metering technology; bill payment via switching agents; and Mobile Data Terminals in vehicles.

A good customer relationship management system can help the company win new customers and keep existing ones, as well as reduce operating costs by increasing operating efficiency. So why isn't everyone rushing to build or buy one? Uncertainty and fear are the two biggest reasons (Hoggard 2001).

### **1.3 Problem statement**

Preliminary indications have shown that ESKOM customers from the Shelley Beach area do not make use of the Westville-based call center; hence the majority of these customers still visit the area office with queries that can be easily handled by a call centre. As a result this requires attention so as to understand the underlying problems that informs and promotes such behaviour.

### **1.4 Motivation**

This research aims at assisting ESKOM to obtain an in-depth understanding of underlying causes of this behaviour and thus develop strategies that will influence customer behaviour to increase the usage of ESKOM call centres. This change in customer behaviour will result in improved customer service and possibly customer satisfaction.

## 1.5. Aims of the study

The main objectives of the study are:-

- to determine the factors hindering the usage of the ESKOM call centre by Shelley Beach customers.
- to determine customer levels of knowledge of existence and the usage of ESKOM call centre, as well as their satisfaction levels with the call centre.
- to develop ESKOM's customer profile with the aim of understanding and subsequently changing customer behavior.

## 1.6 Hypotheses

A hypothesis is a tool that is used in scientific inquiry. It presents a statement of the researcher's expectation relative to the relationship between variables within the problem (Ary, Jacobs and Razavieh, 1990: 94).

A hypothesis thus serves as a suggested solution to a research problem, which may either be accepted or rejected. The research problem can be regarded as the heart of the research, which guides an investigation (Mouton and Marais, 1990: 178).

Literature distinguishes between two types of hypothesis viz. (De Wet, Monteith, Steyn and Venter, 1981: 80)

- research hypothesis ( $H_1$ ) and,
- null hypothesis ( $H_0$ ).

The research hypothesis ( $H_1$ ) is a statement about the relationship that one expects to find as a result of the research. It reveals the expected relationship or expected difference between the variables in the research.

Since the research hypothesis cannot be tested directly it must be translated into another type of hypothesis known as the null hypothesis ( $H_0$ ). The null hypothesis states that there is no effect or no difference from what the researcher expects to find.

To achieve aims of the research, both research and null hypotheses need to be stated. For the purpose of this study, three main research hypotheses were formulated. These were:-

(i) *Research Hypothesis ( $H_1$ )*

Call centers are effective tool for increasing service quality and customer satisfaction.

*Null hypothesis ( $H_0$ )*

Call centers are not effective tools for increasing service quality and customer satisfaction.

(ii) *Research Hypothesis ( $H_1$ )*

Lack of awareness is a critical factor on customers not using call centres.

*Null hypothesis ( $H_0$ )*

Lack of awareness is not a critical factor on customers not using call centres.

(iii) *Research Hypothesis (H<sub>1</sub>)*

Limited access to a telephone experienced by customers at Shelley area is the reason why customers pay actual visit to an ESKOM's area office for their electricity queries.

*Null hypothesis (H<sub>0</sub>)*

Limited access to a telephone experienced by customers at Shelley area is not the reason why customers pay actual visit to an ESKOM's area office for their electricity queries.

## **1.7 Limitations**

The study was affected by the interaction between low levels of literacy and Hawthorne effect during data collection. A number of people in previously under-serviced areas were mostly illiterate and thus were unable to provide reliable answers. They however were assisted by an interviewer during data collection so as to give socially acceptable responses.

## **1.8 Definition of concepts**

### ***1.8.1 Call centre***

A call centre refers to a physical location where telephone calls, internet or mail queries relating to sales, customer service, help desk and technical support are made and received (Technology Solutions, April, 2001).

### ***1.8.2 Service quality***

A service quality is a measure of how well the service level delivered matches customer expectations.

Delivering quality service means conforming to customer expectations on a consistent basis (Lewis & Booms 1983).

### ***1.8.3 Customer service***

Customer services refer to processes for handling and addressing customer complaints, customer financial queries, etc personally or telephonically (BMI-Tech Knowledge, SA Call Centre Report, 1998)

### ***1.8.4 Competitive differentiator***

Competitive differentiators refer to activities, processes and procedures when combined result in business performance that is different to those of competitors and directly result in improved customer service and satisfaction (BMI-TechKnowledge, SA Call Centre Report, 1998).

### ***1.8.5 Utility Company***

A utility company is a publicly owned, profit-oriented company providing a 'useful' service such as electricity to the public (ESKOM Annual Report, 2000; [www.eskom.co.za](http://www.eskom.co.za))[2001-07-01]

## **1.9 Organisation of the study**

The chapters in this study are as follows:

### ***Chapter one***

Chapter one is the introductory chapter that presents the problem to be investigated. It also outlines the aims of the study and the hypotheses that will guide this study

### ***Chapter two***

Chapter two is the chapter that deals with relevant literature and previous studies on quality service as a competitive differentiator for utility companies using call centres to achieve customer satisfaction: a case of ESKOM eastern region

### ***Chapter three***

Chapter three deals with research methods used in this study and the research design, research instruments and their administration as well as their analysis.

### ***Chapter four***

Chapter four presents the results as well as their analysis. The results are presented in the form of tables.

### ***Chapter five***

Chapter five discusses the findings of this study as well as the conclusion and recommendations.

## CHAPTER 2 LITERATURE REVIEW

### 2.1 Introduction

Organisations such as ESKOM have realised that call centres are an expensive venture if not created and managed properly (Kinder. T 2001). Through a call centre one can receive feedback about a marketing campaign (Rapert M.I. and Wren B. I 1998). Information gathered can be used to assess the impact of the campaign and to what extent it meets the objectives of the company. If large numbers of customers call with a particular complaint the company should view this as a sign of a certain problem in service delivery (ESKOM Annual Report 2000; [www.eskom.co.za](http://www.eskom.co.za)).

Service delivery touch lives of every person in every country every day. Intense global competition and increasing customer expectations have transformed the nature of business practice such that companies put much emphasis on service quality. Organisations have adopted a wide range of approaches to remain competent (Chen, 1998:113) and call centers are one of them.

For instance, manufacturing firms have implemented quality programmes such as quality control circle, statistical quality control, and total quality management to enhance productivity and competitiveness. Although these efforts may have different focuses and priorities, a common goal is to improve customer satisfaction. The results of these efforts in improving quality have been impressive in manufacturing industries (*Reibstein et al, 1992*).

Businesses that want to get closer to their customers are pursuing goals that seem to be at odds, improving customer service while also reducing call-centre volumes and costs.

To accomplish both, many businesses are transforming their conventional call centres into multichannel contact centre that support telephone, E-mail, the Web, and wireless. This provides customers with more services options while reducing the number of calls that customer-service representatives handle by phone (Chambers, 2002:72).

The improvement of service quality in general seems to be less significant. In contrast to the manufacturing sector, the service industry has long been criticised for lagging behind in both quality concepts and quality practices (Shetty and Ross, 1985). Recently, Sheridan suggested that the service industry should be concerned with other factors in addition to sales promotion and cost reduction (Sheridan, 1993 in Chambers, 2002:72).

Businesses that have implemented multichannel customer service are also looking to their contact centre to help generate revenue. The contact centre is a logical place to capture relevant customer data, and businesses that can effectively obtain this data can use it to drive cross-selling, up-selling and promotional initiatives through contact centre itself rather than by direct mail or bulk e-mail campaigns (Chambers, 2002:72).

## **2.2 Service quality and customer satisfaction**

A common explanation of the difference between the consumer satisfaction and service quality is that service quality is a form of attitude, whereas satisfaction is a transaction-specific measure (Bitner, 1990; Bolton and Drew 1991a; Parasuraman, Zeithaml, Berry 1988).

Parasuraman, Zeithaml, and Berry (1988) suggest that the difference lies in the way disconfirmation is operationalised. However, such differentiation appears to be inconsistent with Woodruff, Cadotte, and Jenkins' (1983) suggestion, that expectations should be based on experience norms i.e. what consumers should expect from a given service provider. This distinction is important to managers because service providers need to know whether their objective need to have consumers who are 'satisfied' with their performance or to deliver the maximum level of perceived service quality.

Service quality is main differentiator for customer to buy from a company instead of a competitor. Excellent service starts at the top. The owner or manager must make service policies that are outstanding and then see that they are carried out from the top office to the retail floor. (Successful Salesmanship, Nov 1997: Vol. 31; no. 11).

Quality, organisational structure and recovery are more important than a cheerful demeanour. Many organisations have the mistaken notion that customer service is achieved by making employees smile broadly when they interface with customers. Worse yet, many times the "smile technique" is not utilised unless under pressure, that is when the customer complains about the service in question. Actually, good customer service is the outcome of a larger design, a customer focused organisation. It evolves around a logical strategy that pays close attention to the following components.

- **The quality of the product or service provided.** Is it adequate, and is it consistent?
- **The structure and the infrastructure of the organisation.** This need to be supported by upper management to uphold the philosophy that the external customer must be put first.

These factors are critical, as they influence the level of service quality that is provided by an organisation (Rapert M.I. and Wren B. I 1998).

Customer satisfaction is a key part of Total Quality Management or programmes, both in the application of satisfying the customer, as well as using surveys to determine the customer's perception of quality. This is an area where the internal customers must work very closely with each other to ensure prompt delivery, quality product, accurate billing, and the like. If one or more areas are not in synchronised, the external customer will be affected in a negative manner. The organisation itself runs the risk of losing the customer, in addition to the internal expense of 'rework' which entails not only correcting the order, but: -

- finding out what initially caused the error,
- pulling someone off another project to get the error corrected quickly,
- repair and/ or replace a unit that will only be paid for once.

What all this suggests is that customer complaint, or its absence, should not be the only indicator for an organisation to determine its level of service quality. There should be ongoing tests at all levels of operation, both internally and externally, to constantly gauge what the customer's perception of a service quality.

Excellent customer service cannot be achieved overnight. It results from paying meticulous attention to details every day, every month, every year (Waldron A. A: 1995). Golden moments, or moments of magic, are created if there is (Monger J. E, Perkins D. S, Anton J: 1995):-

- always a follow up on promises,
- an under-promise and over-deliverance,
- a willingness to go the extra mile,
- an offer of enough options to the customer,
- empathy with customer and understanding of the problem,
- best treatment of customer,
- equal treatment of customers,
- a submission of name when answering the telephone.

It has been suggested that an organisation that cuts down its annual customer defection rate from, say 15% to 10%, can come close to doubling its profits (M.D. Richard and A.D. Allaway: 1993). Furthermore observations have been made that there's no direct link between satisfied customers and loyal customers (J.M Carman: 1990). Customer satisfaction and loyalty also shows that customer satisfaction is a poor predictor of loyalty. The fundamental problem is that customer satisfaction is only one aspect of what creates really committed customers. And it's only when customers are really committed, that they are truly loyal.

A consideration of the relationships between overall service quality, consumer satisfaction, and purchase intentions was undertaken to emphasise the importance of the measurement issues relative to service quality (Cronin and Taylor, 1992).

A properly implemented call centre can provide valuable information such as who is calling, peak call times and measure customer satisfaction. Another reason why call centres are gaining in popularity is the fact that the telephone used for voice is the most dependable means of communication in South Africa (Poulton:2001).

### ***2.2.1 Inadequate management commitment to service quality***

The absence of total management commitment to service quality virtually guarantees a wide gap. Emphasis on other company performance objectives, such as cost reduction and short-term profit, is easier to measure and track; therefore it may supersede emphasis on service quality.

The tendency on the part of executives to focus on other objectives is illustrated in the observation that most US firms suffer significantly from the use of short-term accounting-driven measures of performance to establish the reward mechanisms for high-level managers, who are mainly responsible for implementing strategic action ( Hax A and Majluf N: 1995). Companies that create possibilities actively look for ways to provide better service to customers.

### **2.2.2 *Management commitment to service quality***

This is the extent to which management views service quality as a key strategic goal. The following issues must be kept in mind (M. H. Rapert and B.M. Wren: 1998)

- Are resources committed to departments to improve service quality?
- Do internal programs exist for improving the quality of service to customers?
- Are managers who improve the quality of service to customers more likely to be rewarded than other managers?
- Does the company emphasise its sales goals as much as or more than it emphasises serving customers?

Are upper and middle managers committed to providing quality service to their customers?

### **2.2.3 *Perception of feasibility***

This is the extent to which managers believe that customer expectations can be met. The following must be considered (M. H. Rapert and B.M. Wren: 1998),

- Does the company have the necessary capabilities to meet customer requirements for service?
- Can customer's expectations be met without hindering financial performance?

- Do existing operation systems enable customer expectations to be met?
- Are resources and personnel available to deliver the level of service that customers demand?
- Does management change existing policies and procedures to meet the needs of customers?

#### **2.2.4 Task standardisation**

This is the extent to which hard and soft technology are used to standardize service tasks. The following must be taken into consideration.

- Is automation used to achieve consistency in serving customers?
- Are programmes in place to improve operating procedures so that consistent service is provided?

#### **2.2.5 Goal setting**

It is the extent to which service quality goals are based on customer standards and expectations rather than company standards. The issues that must be observed are (M. H. Rapert and B.M. Wren: 1998),

- Is there a formal process for setting quality of service goals for employees?
- Does the company have clear goals about what it wants to accomplish?

- Does the company measure its performance in meeting its service quality goals?
- Are service quality goals based on customer-oriented standards rather than company-oriented standards?

### **2.3 Previous studies on service quality for utility companies using call centres.**

A study of utility companies in the United States of America found that increasing investments in electric utility call centre operations have a much greater impact on residential customer satisfaction than the same amount of money spent on system reliability (PRIMEN, 2001).

The Thomas International Personality Profile Analysis, and Human Job Analysis, are used in the analysis of a candidate's personality and the behavioural requirements of a position. The ideal call centre operator should fit one of two profiles depending on the type of call centre he or she will be working in.

This is part of the challenge of a call centre in recruiting appropriate people, but it does not mean that profiling call centre operators alone will ensure efficient service delivery.

Utility companies such as ESKOM are under pressure from rising expectations from customers. Customer care management solutions are being deployed everyday throughout the world. New service and sales delivery channels such as the Internet are making corporations embrace new ways of doing business. New technologies and strategies are being deployed that increase customer loyalty and retention.

The ability to use call centres and other services and sales delivery channels continues to be a key differentiator as companies strive to remain competitive in the new millennium (Technology Solutions, 2001).

The application of operations research modeling to the call centre industry has been receiving significant attention recently, for example, Mehrotra (1997). Many firms seek to differentiate themselves from their respective competition by providing superior customer service. The focus is on large-scale call centre operation that provides a service function in a corporation. Such a call centre, typically, handles customer calls regarding, for example, billing inquiries or information about new products or services. A small percentage of calls result in actual sales (Barney J.B 1991).

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 Introduction**

Chapter two provides background literature and studies on service quality as a competitive differentiator for companies using call centres to achieve customer satisfaction. In this chapter various terminologies used in the study have been explained.

This chapter provides a description of the research design and methodology used to collect data for the study. Data collected was subjected to descriptive and interpretative statistical analyses. This was done so as to provide inferences on hypotheses formulated for the study.

### **3.2 Study rationale**

The rationale behind this study was to confirm indications that ESKOM customers from the Shelley Beach Area Office do not use the call centre for their queries, hence continue to visit the area office which is no longer equipped to handle their queries. It also aimed at describing quantitatively this type of customer behavior towards the ESKOM's call centres.

The results of the study are intended to assist ESKOM to develop an effective strategy that will influence customer behaviour and improve the use of call centers by its customers.

### **3.3 Research Method**

A non-experimental, quantitative, descriptive and inferential method was employed for the study. Data was collected using written and self-report questionnaires. This method, commonly referred to as a survey method was chosen based on consideration that it enables the researcher to gather data faster and efficiently. As such, none of the questions in the questionnaire were sensitive, so respondents were able to give their honest responses. The presence of the researcher when the questionnaires were completed ensured that possible language barrier was reduced, since some of the respondents had lower levels of education (ranging from Grade I to Grade 3).

### **3.4 Participants**

A systematic sampling was used in the study. Systematic sampling is a sampling method, which operates in a way that participants are selected randomly. In this study, a total of 150 participants were randomly selected and interviewed as they either leave or enter the Shelley Beach Area Office.

### **3.5 The questionnaire as a measuring instrument**

Questionnaires based on information regarding the use of ESKOM's Call Centres by customers for queries on electricity accounts were used as a measuring instrument for the study.

Questionnaires are generally used in business research and can be regarded as the simplest and most widely used technique for obtaining information from subjects (McMillan and Schmacher, 1993: 238). The questionnaire is a self-reported instrument, which provides the researcher with personal information from the respondent (Wolf, 1988: 478).

### **3.5.1 Advantages of a questionnaire**

As a measuring instrument a questionnaire has the following advantages:- (Landman, 1980: 108: McMillan and Schmacher, 1993: 238).

- It is time effective;
- It is relatively economical;
- It is easily answerable and can be given to a large number of respondents;
- Respondents are allowed to think about answers before making their choice;
- Confidentiality is assured, if needed, as all questionnaires can be made to assure anonymity.

### **3.5.2 Disadvantages of a questionnaire**

- Certain disadvantages regarding questionnaires have been identified (De Wet, et al., 1981: 163):
- In the absence of clear cut criteria the validity of a questionnaire may be questioned;
- The willingness of the respondent to disclose personal information may significantly influence the validity of the instrument;

- Respondents may interpret questions differently;
- The problem may not interest the respondent who in turn may answer blindly;
- Lengthy questionnaires may be very time consuming.

### **3.5.3 Reasons for the choice of a questionnaire**

Despite the negative connotations attached to the use of a questionnaire, the questionnaire was chosen as the measuring instrument. The fact that there was no need for any respondent to give confidential answers allowed the respondents to provide honest answers. The questionnaire is furthermore very economical in terms of time and cost and was therefore chosen as the measuring instrument in this empirical research.

### **3.5.4 Criteria for validity and reliability**

Since research is always dependent upon measurement it is essential that every measuring instrument should be valid and reliable (Ary, et al., 1990: 2256). “Validity” refers to the extent to which an instrument measurement measures what it is intended to measure. “Reliability” is the extent to which a measuring device is consistent in measuring whatever it measures (Mulder, 1989: 209; Ary, et al., 1990: 256). Reliability refers to the repeatability of a test’s score on the same test on different occasions, or in different tests with equivalent items, or under different examination conditions (Mulder, 1989: 209). It refers to the degree of correspondence between two sets of scores (Mulder, 1989: 209) so that certain deductions may be derived from the results (McMillan, et al., 1993: 167).

The researcher tried to ensure that the questionnaire that was used in this research was valid and met this criteria. The goal of developing a reliable measure is to minimize the influence of chance or variables that are unrelated. An unreliable measuring instrument may reveal information that is ambiguous, inconsistent and useless (MacMillan & Schumacher, 1993: 168).

To determine the reliability of the questionnaire (Part 2 and Part 3) used in this study, the Cronbach Coefficient Alpha test was computed. An alpha = 0.8545 was obtained. This indicates responses to the variables are reliable.

### **3.6 The compilation of the questionnaire**

#### ***Motivation for the content of the questionnaire***

The questionnaire was developed after a thorough comparison of similar questionnaires used in previous studies. Specific themes relevant to this study were concentrated on in order to fulfill the aims of the research.

The questionnaire was divided into three parts. Part I dealt with biography of the respondents. Part II dealt with awareness and the usage of ESKOM's call centers and Part III was about the functions of the call centres and requested answers on questions customer satisfaction about service he gets from the call centre.

### **3.7 Reliability of measuring instrument**

“Reliability refers to the repeatability of a testee’s score on the same test on different occasions, or in different tests with equivalent items, or under different examination conditions” (*Mulder, 1989: 209*). “Reliability” refers to the degree of correspondence between two sets of scores (*Mulder, 1989: 209*) so that certain deductions may be derived from the results (*McMillan, et al., 1993: 167*).

“Reliability” refers to the consistency and accuracy of measurement (*Borg, 1981: 97; Ary, et al., 1990: 268; MacMillan & Schumacher, 1993: 168*). The goal of development of a reliable measure is to minimize the influence of chance or variables that are unrelated. An unreliable measuring instrument may reveal information that is ambiguous, inconsistent and useless (*MacMillan & Schumacher, 1993: 168*).

To determine the reliability of the full questionnaire that was used in this study, the Cronbach Coefficient Alpha test was computed. An alpha = 0.8545 was obtained. This indicates responses to the variables are reliable.

### **3.8 Description of respondents**

150 ESKOM customers from the Shelley Beach Area were interviewed. The sample was chosen in such a way that at least 40 customers come from one of the three areas, namely city, rural and semi-urban.

### **3.9 Procedure for the collection of data**

Written permission was sought from the ESKOM head office to use the Shelley Beach Area office as the site for this study.

The participants were people coming to that office and meeting the criteria of being an ESKOM's customer. Those who met the criteria were asked to complete the survey.

### **3.10 Data Analysis**

#### **Statistical Technique**

The data was analysed by means of the SPSS statistical software package.

#### **Initial analysis of data**

Some descriptive statistics for the different variables were determined by means of the SPSS package. The program produced frequency distributions, pie and bar charts for the responses of each variable.

#### **Pearson's Chi-Square ( $\chi^2$ ) -test**

The Chi-Square ( $\chi^2$ ) is a non-parametric statistical test and is usually used to determine whether a significant difference exists or there is an independence of association between two variables that are divided into discrete categories or class intervals. In the Chi-Square ( $\chi^2$ ) test, two sets of frequencies namely observed and expected. are compared.

The statistic chi-square ( $\chi^2$ ) is calculated by the formula

$$\chi^2 = \sum \left( \frac{(f_o - f_e)^2}{f_e} \right)$$

where

$\chi^2$	=	Chi-Square
$f_e$	=	expected frequencies
$f_o$	=	observed frequencies

According to Ary, *et al*, (1972: 153) the use of the Chi-Square test is not limited to situations where there are only two categories or characteristics, but can also be used to test the null hypothesis, namely that there are no significant difference between the two variables that exist.

In the present research, variables of interest to this study are compared by means of cross tabulations between pairs. This enables the Chi-Square ( $\chi^2$ ) value to be calculated and hence the hypothesis of independence of association tested.

### **3.11 Summary**

Bearing in mind the main objectives of the study, this chapter outlined the research methodology of the current study. The broader and specific aims of the study, the research design, the sample, the measures utilised, the procedure employed to recruit participants and the methods of data analysis were outlined.

In Chapter four the research results will be interpreted both quantitatively and qualitatively.

## CHAPTER 4: RESULTS AND DISCUSSION

### 4.1 Introduction

Data collected using the questionnaire described in Chapter three were subjected to a variety of quantitative analysis. In this chapter the results obtained will be outlined. Firstly, the data regarding the response rate will be presented followed by the demographic data. The descriptions of the various responses to the questions used will be outlined. Secondly, results of the analysis of the relationships between some of the variables will be examined according to the specific aims outlined in the previous chapter.

### 4.2 Biographical Information

This part of the questionnaire was intended to gather information such as name of respondent, suburb (whether city, rural or semi-urban) and the type of customer (ESKOM's customer or not). Spaces were provided for the respondents to write their answers. The table below shows how this was designed.

#### *Respondent's Contact Details*

Name of respondent	
Suburb	
Town/City	
Telephone No	
Type of customer	

*The response here was coded into a variable as: AREA.*

### 4.3 Awareness and usage of ESKOM's call centres.

In this part of the questionnaire, questions like "Do you visit ESKOM's Shelley Beach office when there is a problem with your electricity account?" and "Are you aware of ESKOM's Call Centre?" were asked. Alternative answers were given and respondents were asked to cross the number corresponding to the answer they favour. Some of the tables used in this part are shown below.

*Do you visit ESKOM's Shelley Beach office when there is a problem with your electricity account?* Please provide reason for your answer.

	CIRCLE	REASON
Always	1	
Sometimes	2	
Never	3	

*The response here was coded into a variable as: VISESKOM*

*Do you ever telephone ESKOM's Shelley Beach office, when there is a problem with your electricity account?* Please provide reason for your answer.

	CIRCLE	REASON
Always	1	
Sometimes	2	
Seldom	3	
Never	4	

*The response here was coded into a variable as: TELESKOM*

*Are you aware of ESKOM's Call Centre?*

	CIRCLE
Yes	1
No	2

*The response here was coded into a variable as: **AWESKOM***

#### **4.4 Structure of the questionnaire**

In this part, respondents were informed about the locations and functions of the ESKOM's call centres. Respondents were thereafter asked to respond to some of the questions. Some of the questions asked were open ended and others closed. Examples of the questions asked here are given below.

- (i) Now that I have told you about ESKOM's call centre, what do you think of the idea of a call centre?*
- (ii) Would you like to obtain additional information on ESKOM's call centre?*

Yes	1
No	2

*The response here was coded into a variable as: **ADDINFO***

For those who responded, "Yes" to (ii) above, they were further asked to answer the question:

What additional information would you like to get from ESKOM call centre?

-----  
-----

In the same way those who responded “No” to (ii) above, they were further asked to answer the question:

Why don't you want additional information on ESKOM's Call Centre?

-----  
-----

The last of the questions in Part III was:

*Now that you have some information about ESKOM's call centre, how likely are you to use the call centre for all your electricity related queries?* Please use the scale defined below.

Not at all likely	Not likely	Likely	Very likely	Extremely likely
1	2	3	4	5

## 4.5 Responses

A total of 150 customers were interviewed with responses varying from one question to another. The effect of this is reflected in the results, as some values appear missing.

Forty-six (30.7%) of the interviewed customers were from the urban area, 64 (42.6%) from the rural area and 40 (26.7%) from the semi-urban area (Table 1).

**Table 1** *Distribution of respondents according to areas*

Urban	46	30.7
Rural	64	42.6
Semi-Urban	40	26.7
Total	150	100.0

Of the interviewed customers a comparatively higher proportion (50 %) of rural customers indicated that they visit ESKOM office (Table 2).

**Table 2** *Customers visiting ESKOM's office (n = 145).*

Response		Frequency	Percent
Always	Rural	40	50.0
	Urban	26	32.5
	Semi-Urban	14	17.5
Total		80	100
Sometimes	Rural	15	27.8
	Urban	22	40.7
	Semi-Urban	17	31.5
Total		54	100
Never	Rural	6	54.5
	Urban	3	27.2
	Semi-Urban	2	18.3
Total		11	100

#### 4.6 Use of Call centers

While the highest number (140) of respondents indicated that they had direct access to telephone (Table 3), the largest proportion of this number was from urban (45.2 %) area, with highest proportion (70 %) of rural customers having little or no access to telephones (Table 3).

**Table 3**      *Respondents' access to telephone (n = 83 )*

Telephone	Rural	15	20.6
	Urban	33	45.2
	Semi-Urban	25	34.2
No Telephone	Rural	7	70.0
	Urban	1	10.0
	Semi-Urban	2	20.0

As such, the highest proportion (71.4 %) of urban customers were the one that emerged as always phoning call centers for their queries (Table 4 and 5).

**Table .4** *Distribution of calls to ESKOM's call center (n = 146)*

Always	Rural	0	0
	Urban	5	71.4
	Semi-Urban	2	28.6
Sometimes	Rural	7	38.9
	Urban	9	50.0
	Semi-Urban	2	11.1
Seldom	Rural	25	69.4
	Urban	6	16.7
	Semi-Urban	5	13.9
Never	Rural	55	64.7
	Urban	25	29.4
	Semi-Urban	5	5.9

As it can expected the highest proportion of urban customers indicated that they once called the ESKOM's call center (Table 5) and these customers (71.4 %) were also aware of ESKOM call centers (Table 6).

**Table 5** *Distribution of customer who call or not call the call center (n = 86).*

Response		Frequency	Percent
Yes	Rural	8	12.7
	Urban	45	71.4
	Semi-Urban	10	15.9
Total		93	100
No	Rural	3	13.0
	Urban	12	52.2
	Semi-Urban	8	34.8
Total		23	100

**Table 6 Awareness of ESKOM's call center (n = 116)**

Yes	Rural	6	10.7
	Urban	43	76.8
	Semi-Urban	7	12.5
No	Rural	42	70
	Urban	9	15
	Semi-Urban	9	15

#### **4.7 Customer satisfaction about services they receive from call centres**

Urban (51.5 %) and semi-Urban (39.4 %) respondents who frequently use or once have used ESKOM call center indicated that their calls were answered promptly (Table 7) and that call center staff was helpful and willing to answer queries (Table 8).

**Table 7** *Calls are answered promptly (n = 143)*

Disagree	Rural	3	9.1
	Urban	17	51.5
	Semi-Urban	13	39.4
Total		33	100
Neutral	Rural	9	23.7
	Urban	16	42.1
	Semi-Urban	13	34.2
Total		38	100
Agree	Rural	5	6.9
	Urban	40	55.5
	Semi-Urban	27	37.6
Total		72	100

**Table 8** *Call centre staff is helpful and willing to resolve problems (n = 140).*

Response		Frequency	Percent
Disagree	Rural	6	25
	Urban	10	42
	Semi-Urban	8	33
Total		24	100
Neutral	Rural	11	31.4
	Urban	15	42.8
	Semi-Urban	9	25.8
Total		35	100
Agree	Rural	22	31.9
	Urban	33	47.8
	Semi-Urban	14	20.3
Total		69	100

They also indicated that ESKOM staff was quite knowledgeable about ESKOM's business and other helpful information (Table 9).

**Table 9**      *Call Centre staff is knowledgeable about ESKOM's business (n = 138).*

Call Centre staff is knowledgeable about ESKOM's business (n = 138)			
Disagree	Rural	10	28.6
	Urban	13	37.1
	Semi-Urban	12	34.3
Total		35	100
Neutral	Rural	12	29.3
	Urban	16	39.0
	Semi-Urban	13	31.7
Total		41	100
Agree	Rural	20	32.3
	Urban	23	37.0
	Semi-Urban	19	30.7
Total		62	100

38.2 % of urban respondents, 41.2 % of Semi-Urban respondents and 20.6 % of rural felt that ESKOM call center staff understand the nature of customers' problems (Table 10).

**Table 10** *Call centre staff clearly understands the nature of customers' problems (n = 139).*

Disagree	Rural	7	20.6
	Urban	13	38.2
	Semi-Urban	14	41.2
Neutral	Rural	3	8.3
	Urban	18	50.0
	Semi-Urban	15	41.7
Agree	Rural	9	13.0
	Urban	26	37.7
	Semi-Urban	34	49.3

Almost respondents from three study areas agree that call center staff clearly explained the procedure to follow to resolve their problems (Table 11).

**Table 11** *The call centre staff clearly explained the procedure that will be followed to resolve my problem (n = 141).*

Response		Frequency	Percent
Disagree	Rural	6	16.2
	Urban	18	48.6
	Semi-Urban	13	35.2
Total		37	100
Neutral	Rural	9	19.6
	Urban	15	32.6
	Semi-Urban	22	47.8
Total		46	100
Agree	Rural	27	46.5
	Urban	13	22.4
	Semi-Urban	18	31.1
Total		58	100

#### 4.8 Customers' perceptions on call centers and their function

53.8 % (of Urban respondents) and 46.2 % (of semi Urban respondents) received the follow up calls as promised by the staff of the call center (Table 12).

**Table 12** *I received the follow-up call as promised by the call centre staff (n = 126).*

Disagree	Rural	0	0.0
	Urban	12	46.2
	Semi-Urban	14	53.8
Total		26	100
Neutral	Rural	23	52.3
	Urban	8	18.2
	Semi-Urban	13	29.5
Total		44	100
Agree	Rural	1	1.8
	Urban	37	66.0
	Semi-Urban	18	32.2
Total		56	100

As a result most respondents agree that the follow-up call demonstrated commitment of call centre to fulfilling its promises (Table 13).

**Table 13** *Promptness of follow-up call demonstrated commitment of call centre to fulfilling its promises (n = 115).*

Disagree	Rural	2	6.2
	Urban	14	43.8
	Semi-Urban	16	50.0
Total		32	100
Neutral	Rural	13	39.4
	Urban	6	18.2
	Semi-Urban	14	42.4
Total		33	100
Agree	Rural	10	20.0
	Urban	22	44.0
	Semi-Urban	18	36.0
Total		50	100

Thus, the highest percentage (Table 14) of Urban respondents who always use call centers for their queries had a positive perception about the call centers (Table 14) as they feel that their problems were addressed adequately (Table 15).

**Table 14** Follow-up call offered sufficient information that is relevant to my problem (n = 127).

Response		Percentage	
Disagree	Rural	11	33.3
	Urban	3	9.1
	Semi-Urban	19	57.6
<b>Total</b>		<b>33</b>	<b>100</b>
Neutral	Rural	13	35.2
	Urban	12	32.4
	Semi-Urban	12	32.4
<b>Total</b>		<b>37</b>	<b>100</b>
Agree	Rural	7	12.3
	Urban	32	56.1
	Semi-Urban	18	31.6
<b>Total</b>		<b>57</b>	<b>100</b>

**Table 15** *My problem was resolved quickly by a follow-up call from ESKOM (n = 101).*

Response		Count	Percentage
Disagree	Rural	6	24.0
	Urban	12	48.0
	Semi-Urban	7	28.0
Total		25	100
Neutral	Rural	7	27.0
	Urban	13	50.0
	Semi-Urban	6	23.0
Total		26	100
Agree	Rural	9	18.0
	Urban	32	64.0
	Semi-Urban	9	18.0
Total		50	100

As such 44.2 % of urban respondents and 36.6 % of semi-urban respondents feel that call centers can be relied upon to deliver what it promises (Table 16).

**Table 16**      *The call centre can be relied upon to deliver what it promised (n = 106).*

Response		Frequency	Percentage
Disagree	Rural	5	21.0
	Urban	10	42.0
	Semi-Urban	9	37.0
Total		24	100
Neutral	Rural	14	50.0
	Urban	9	30.0
	Semi-Urban	6	20.0
Total		30	100
Agree	Rural	10	19.2
	Urban	23	44.2
	Semi-Urban	17	36.6
Total		52	100

This being strengthened by the highest perception (Table 17) that exist among the rural (47.3 %) and Semi-Urban (41.7 %) respondents that call centers effectively deals with and resolve their problems (Table 17).

**Table 17**      *The call centre effectively deals with and resolves problems (n = 133).*

Response	Area	Frequency	Percentage
Disagree	Rural	0	0.0
	Urban	12	38.7
	Semi-Urban	19	61.3
<b>Total</b>		<b>31</b>	<b>100</b>
Neutral	Rural	27	57.4
	Urban	8	17.0
	Semi-Urban	12	25.6
<b>Total</b>		<b>47</b>	<b>100</b>
Agree	Rural	26	47.3
	Urban	6	11.0
	Semi-Urban	23	41.7
<b>Total</b>		<b>55</b>	<b>100</b>

Thus users of call ESKOM call centers feel that call centers provide the service of high quality (Table 18).

**Table 18**      *The overall service of the call centre is of good quality (n = 144).*

Response	Area	Frequency	Percentage
Disagree	Rural	0	0.0
	Urban	9	60.0
	Semi-Urban	6	40.0
<b>Total</b>		<b>15</b>	<b>100</b>
Neutral	Rural	24	54.5
	Urban	8	18.2
	Semi-Urban	12	27.3
<b>Total</b>		<b>44</b>	<b>100</b>
Agree	Rural	15	17.6
	Urban	38	44.7
	Semi-Urban	32	37.7
<b>Total</b>		<b>85</b>	<b>100</b>

Although the above condition and satisfaction about call centers existed, the highest percentage (74 %) of rural respondents prefer to visit the area office for their queries, with most (54.6 %) urban respondents preferring to use call centres.

**Table 19 Preferred approach to handle queries ( n = 119).**

Visit office	Rural	23	74.0
	Urban	4	12.9
	Semi-Urban	4	13.1
Total		31	100
Call office	Rural	10	13.0
	Urban	42	54.6
	Semi-Urban	25	32.4
Total		77	100

#### 4.9 Customers' information need about call centers

As far as customer needs of information about call centers indications are such that a comparatively higher (41.9 %) proportion of semi-urban and rural (34.9 %) require more information about call centers.

**Table 20 Would you like to obtain additional information on ESKOM's Call Centre? ( n = 138).**

Response		Frequency	Percent
Yes	Rural	15	34.9
	Urban	10	23.2
	Semi-Urban	18	41.9
Total		43	100
No	Rural	30	31.6
	Urban	32	33.7
	Semi-Urban	33	65.3
Total		95	100

Providing information on these customers will be of great value, particularly to rural customers since high percentage of rural respondents (75 %) indicated that they will still be not likely to use call centers (Table 21).

**Tables 21** *How likely are you to use the call centre for all your electricity related queries?*

Response		Frequency	Valid Percent
Not at all likely	Rural	3	75.0
	Urban	0	0.0
	Semi-Urban	1	25.0
Total		4	100
Not likely	Rural	8	34.9
	Urban	3	37.2
	Semi-Urban	4	27.9
Total		15	100
Likely	Rural	15	34.9
	Urban	16	37.2
	Semi-Urban	12	27.9
Total		43	100
Very likely	Rural	8	17.4
	Urban	21	45.7
	Semi-Urban	17	36.9
Total		46	100
Extremely likely	Rural	1	14.3
	Urban	4	57.1
	Semi-Urban	2	28.6
Total		7	100

## 4.10 STATISTICAL ANALYSIS

### Introduction

The descriptive statistics of data was done through an SPSS statistical software package. Differences in responses for each question were further compared statistically (to determine whether there was any statistically significant difference among the three studied communities) using a Pearson's Chi-square. The Chi-Square ( $\chi^2$ ) is a non-parametric statistical test used to determine whether a significant difference exists or there is an independence of association between two variables that are divided into discrete categories or class intervals. In the Chi-Square ( $\chi^2$ ) test, two sets of frequencies i.e. observed and expected frequencies are compared. For this study a 5% level of significance was used in all hypothesis testing.

The statistic  $\chi^2$  is calculated using the formula:-

$$\chi^2 = \sum \left( \frac{(f_o - f_e)^2}{f_e} \right)$$

where

$\chi^2$  = Chi-Square  
 $f_e$  = expected frequencies  
 $f_o$  = observed frequencies

## 4.11 Results

### 4.11.1 Statistical comparison of responses

Statistical comparison of responses using Chi -square reflected: -

- (i) Chi-square ( $\chi^2$ ) test as significant at 3% for ANPROMPT (i.e. the call was answered promptly) and BERELIED (the call centre can be relied upon to deliver what it promised) (Table 22).
- (ii) As significant at 10% for the variables ANPROMPT and SERGOOD (the overall service of the call centre is of good quality) (Table 23).
- (iii) However, it showed no significance between ANPROMPT and other variables. Thus there were no associations between these variables.

**Table 22** *Using the call centre; my call was answered promptly (ANPROMPT) as an indicator.*

Variables		Chi-square value	Degrees of freedom	Significance
ANPROMPT By	REFOLLUP	4.161	4	0.385
ANPROMPT By	DEMOC OM	2.916	4	0.572
ANPROMPT By	SUFFINF O	1.223	4	0.874
ANPROMPT By	REQUIC K	0.328	4	0.988
ANPROMPT By	BERELI ED	10.421	4	0.034**
ANPROMPT By	EFFECTI VE	2.975	4	0.562
ANPROMPT By	SERGOO D	7.863	4	0.097*

\* significance

\*\* highly significant

**Table 23** *Call centre staff is helpful and willing to resolve my problem (STAFHELP) as an indicator.*

Variables		Chi-square value	Degrees of freedom	Significance
STAFHELP By	REFOLLOW	0.921	4	0.922
STAFHELP By	DEMOCOM	6.676	4	0.154
STAFHELP By	SUFFINFO	4.657	4	0.324
STAFHELP By	REQUIRE	4.500	4	0.343
STAFHELP By	BERELIED	26.781	4	0.000**
STAFHELP By	EFFECTIVE	3.341	4	0.502
STAFHELP By	SERGOOD	9.336	4	0.053**

(iv) As significant at 0.000% for STAFHELP and BERELIED (Table 24).

(v) As significant at 5% for STAFHELP and SERGOOD.

(vi) hence there was no significance for STAFHELP and the other variables suggesting that there was no associations between these variables.

**Table 24. The call centre staff is knowledgeable about ESKOM's business (KNOWLEDG) as an indicator.**

Variables		Chi-square value	Degrees of freedom	Significance
KNOWLEDG By	REFOLLUP	3.291	4	0.510
KNOWLEDG By	DEMOCOM	8.786	4	0.067*
KNOWLEDG By	SUFFINFO	1.988	4	0.738
KNOWLEDG By	REQUICK	10.459	4	0.033**
KNOWLEDG By	BERELIED	10.607	4	0.031**
KNOWLEDG By	EFFECTIVE	7.676	4	0.104*
KNOWLEDG By	SERGOOD	5.933	4	0.204

- (vi) As significant at 7% for: KNOWLEDG and DEMOCOM (promptness of follow-up call demonstrated commitment of call centre to fulfilling its promises).
- (vii) As significant at 3% for KNOWLEDG and REQUICK (my problem was resolved quickly by a follow-up call from ESKOM).
- (viii) As significant at 3% for KNOWLEDG and BERELIED.
- (ix) As significant at 10% KNOWLEDG and EFFECTIVE (the call centre effectively deals with and resolves problems).
- (x) As significant at 3% for STAFHELP and SERGOOD.
- (xi) and showed no significance for STAFHELP and the other variables suggesting that there were no associations between these variables (Table 25).

**Table 25** *The call centre staff clearly understands the nature of my problem (UNDERST) as an indicator.*

Variables		Chi-square value	Degrees of freedom	Significance
UNDERST By	REFOLLOW UP	0.678	4	0.954
UNDERST By	DEMOCOM	3.318	4	0.506
UNDERST By	SUFFINFO	2.514	4	0.642
UNDERST By	REQUICK	2.523	4	0.640
UNDERST By	BERELIED	3.261	4	0.515
UNDERST By	EFFECTIVE	3.964	4	0.411
UNDERST By	SERGOOD	2.899	4	0.575

- (xii) There was no significance difference between UNDERST and the other variables (Table 26)

**Table 26** *The call centre staff clearly explained the procedure that will be followed to resolve my problem (EXPLAIN) as an indicator.*

Variables		Chi-square value	Degrees of freedom	Significance
EXPLAIN By	REFOLLOW UP	19.513	4	0.001**
EXPLAIN By	DEMOCOM	27.499	4	0.000**
EXPLAIN By	SUFFINFO	6.168	4	0.187
EXPLAIN By	REQUICK	14.968	4	0.005**
EXPLAIN By	BERELIED	25.822	4	0.000**
EXPLAIN By	EFFECTIVE	12.727	4	0.013**
EXPLAIN By	SERGOOD	11.789	4	0.019**

- (xii) As significant at 3 % for the variables EXPLAIN and REFOLLUP.
- (xiii) As significant at 3 % for the variables EXPLAIN and DEMOCOM.
- (xiv) As significant at 5 % for the variables EXPLAIN and REQUICK.
- (xv) As significant at 3 % for the variables EXPLAIN and BERELIED.
- (xvi) As significant at 1% for the variables EXPLAIN and EFFECTIVE.
- (xvii) As significant at 2% for the variables EXPLAIN and SERGOOD.
- (vii) and no significance between UNDERST and SUFFINFO (i.e. follow-up call offered sufficient information that is relevant to problem).

#### **4.11.2 Hypotheses testing**

- (i) The null hypothesis was rejected for ANPROMPT by BERELIED and ANPROMPT by SERGOOD, indicating that the prompt answering of customers calls makes them feel that call centres can be trusted to deliver what they promised and that the overall service of the call centres is of good quality.
- (ii) The null hypothesis was rejected for STAFHELP by BERELIED and STAFHELP by SERGOOD, indicating that staff of call centres were helpful and willing to resolve problems.
- (iii) The null hypothesis was rejected for KNOWLEDG by DEMOCOM, KNOWLEDG by REQUICK, KNOWLEDG by BERELIED and KNOWLEDG by EFFECTIVE, indicating that call centre staffs were knowledgeable about ESKOM's business.
- (iv) The null hypothesis was not rejected for UNDERST by all the other variables, indicating that the fact that the call centre staffs clearly understand the nature of their problems does not necessarily means

that call centres are effective tools for increasing service quality and customer satisfaction.

- (v) The null hypothesis was rejected for EXPLAIN by all the other variables with the exception of SUFFINFO, indicating that the fact that call centre staffs clearly explain the procedure to be followed to resolve customer problems does not necessarily makes customers feel that call centres are effective tools for increasing service quality and customer satisfaction.
- (vi) The null hypothesis was rejected for AWESKOM by VISESKOM, indicating that there is dependence between a customer being aware of the call center and the customer visiting the ESKOM's Shelley Beach office.
- (vii) The null hypothesis was not rejected for AWESKOM by the other variables, indicating that there is no dependence between a customer being aware of the call centres (AWESKOM) and calling ESKOM call center (CALESKOM, TELESKOM, PREFAPRO, LIKEUSE or TELACCESS) as well as access to telephone.
- (viii) The null hypothesis was rejected for TELACCESS by CALESKOM, indicating that there is dependence between customers having access to a telephone and customer calling the call centre.

# CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

## 5.1 Research conclusions

Maintaining better relationships with customers is an obvious advantage of quality assurance, and call centers have been here proved to be an effective tool that can be used to generate customer satisfaction through high quality service delivery.

The effectiveness of call centers has, however been found to differ between rural, urban and semi-urban areas. Call centers appeared to be more effective in urban areas, where supporting infrastructure (telephones) is readily available than in rural areas with limited access to telephones.

More South Africans are in touch with their world telephonically – 21% now own, rent or have access to a cellphone, compared to only 4%. Telkom has been succeeding in its mandate to connect more rural households but at a decreasing rate. Now, 7%of rural households have land- line phones, up from 6%in 1994([www.saarf.co.za](http://www.saarf.co.za) – 02/07/2002).

With this rate of telephone connection in rural areas, call centre usage is and will still be problematic area. The state of telephone connection in rural areas is a concern, considering the population growth rate of 21% ([www.statistics SA.co.za](http://www.statistics SA.co.za) - 05/4/20002). There is no correlation between the rate of population growth and telephone connection in rural areas, the demand is more than the supply, hence the problem.

Thus, this brought to our attention that communities that still visit Shelly Beach area office for problems may mostly be rural communities, who cannot phone the call centres due to limited access to telephone. A basic commodity that is required for call centres to function effectively.

This is more critical for developing countries like South Africa, where the availability of telephones is still largely limited to urban areas. This also raises a question of whether call centers can be used effectively in developing countries where economic disparities are vastly wide.

Despite these areas of concern, this study has highlighted that the customer awareness of call center is not the sole determinant of whether the customer will decide to call or visit a call center. Suggesting that visit to the area office may be motivated by other factors than the availability of telephones. Indeed, this may be true for rural communities.

Since area office is based in town, visiting area office renders rural communities an opportunity to visit town for various reasons including but not limited to:

- Local authority services
- Shopping, medical and other domestic, recreational and social support services.([www.callcentrecity.com](http://www.callcentrecity.com) – 10/01/2002)

There is a perception that customers still enjoy personal contact with service agents, Graham Williams in Journal of Marketing Vol.8 no.4 –p39 who argues that “At the end of the day, the simple profound fact is that people are genetically hardwired to need people evidence. This should overarch any customer service communication channel strategy.”

Brian Joss talking about voice response systems (in Off My Trolley also supports the argument, Table Talk 15/2/2001): “It’s time that businesses started thinking about their customers who are people too and how frustrating it is when you can’t get hold of people you’re meant to. If business really cared they wouldn’t employ machines to talk to you.”

Niels Kjellerup is quoted in ([www.callcentres.com.au](http://www.callcentres.com.au) – Value Creation in Call Centres) stating, “over the last 12 months customer satisfaction has been dropping in all industry categories – the message is very clear.” We don’t like to be talking to machines, and we hate the long waits on the phone.”

## **5.2 Recommendations**

The current study was not without limitations. The first limitation of the study relates to the way the sample was selected. The sample was collected at one point on a particular day and it was also conducted on a single service industry, which provides only electricity. While the environment of this industry may be considered representative of issues faced by the general population of service industries, care should be taken in applying the findings of this study to other industries.

It is recommended that a study of this nature should be conducted using multiple industries in order to eliminate idiosyncrasies of a single industry, ensuring the observed relationships are generalisable to a broader population.

With the advent of the new millennium, modern South Africa has rapidly become one of the world's key growth points for the location of call centres, contact centres and customer relationship management support centres serving the international business community. This is due to the following key factors:

- Cost savings
- Favourable rate of exchange
- Labour
- Language skills
- Connectivity
- Carrier Tarriffs
- Time Zone
- Attractive incentives

([www.callcentrecity.com/Why\\_South\\_Africa.htm](http://www.callcentrecity.com/Why_South_Africa.htm) – 09/06/2002)

However these benefits are limited to urban and to a certain extent semi-urban areas. It would be recommended that consideration for proper infrastructure development have to be made in rural areas. A problem has been encountered, wherein the customers in rural areas could not enjoy the full use of the call centres, due to the limited access to the means of communication, namely the telephone.

There must be a concerted effort to make customers aware of the existence of call centres and their use thereof. Education and awareness campaigns should be run to make call centre work visible and understood by the customers. These must be targeted towards rural and semi urban communities. Considering the high illiteracy rate particularly in the rural, it will be recommended that vernacular languages be used, using existing communication channels like community radio stations, local newspapers, churches, schools, local authorities, pension points etc.

Eskom will also need to re-consider the issue of personal contact, Graham Williams: 2002 indicate that, “Don’t mindlessly impose communication channels on your customers if you truly value them. Instead re-evaluate and recalibrate your call blending strategy for both incoming and outbound communications – in order to achieve the best ‘reach’ and the best combination of balance, aligned and integrated avenues to provide your customers with maximum choice - including direct, competent and motivated human contact whenever needed. You can’t beat “closeness”, trust and warmth as the best way of ensuring the success of your customer interactions and thus your CRM aims. Winners don’t try and control their customers. Winners are driven by their service motive, not pseudo cost savings and econometric productivity gains.”

In support of Graham Williams’ theory, the general communities in the rural areas (predominantly illiterate) still believe on one on one human contact, there is a general perception that for my problem to be effectively resolved, there is a need for personal interaction. Therefore it will be recommended that Eskom becomes flexible and accommodative of this Market segment.

This can be achieved by providing service agents /support centres in rural areas in order to increase service quality and thus customer satisfaction.

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ESKOM area office, November 2001.
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Eastern Region, November 2001.
35. Siphon Tjabadi, Customer Service Regional Manager, ESKOM  
Eastern Region, November 2001.

# APPENDIX A

## ESKOM Call Centre Survey

### Research Questionnaire

Good-day, my name is **Sibonelo Shinga** a student from University of Natal, I'm doing a research on ESKOM Call center as part of my partial fulfillment of my MBA studies. I would like to ask you a few questions regarding ESKOM's service to you. Your input is greatly appreciated and your responses will not be linked to you individually. Only aggregates will be presented in the research report.

### Respondent's Contact Details

Name of respondent	
Suburb	
Town/City	
Telephone No.	
TYPE OF CUSTOMER	

MESSAGING PROFILE

1. Do you visit ESKOM's Shelley Beach office when there is a problem with your electricity account? Please provide reason for your answer.

	<b>CIRCLE</b>	<b>REASON</b>
Always	1	
Sometimes	2	
Never	3	

2. Do you ever telephone ESKOM's Shelley Beach office, when there is a problem with your electricity account? Please provide reason for your answer.

	<b>CIRCLE</b>	<b>REASON</b>
Always	1	
Sometimes	2	
Seldom	3	
Never	4	

3. Are you aware of ESKOM's Call Centre?

	<b>CIRCLE</b>
Yes	1
No	2

**CONTINUE**

**SKIP TO Q18**

4. How did you become aware of ESKOM's Call Centre?

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5. What do you think is the purpose of ESKOM's call centre?

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6. Have you called ESKOM's call centre?

	<b>CIRCLE</b>
Yes	1
No	2

**IF YES SKIP**

**TO Q12**

7. Why have you never called ESKOM's Call Centre ?

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8. What would persuade you to make use of ESKOM's call centre?

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9. **ASK ONLY IF YES TO Q9 ABOVE.** What was the reason for your call?

	<b>CIRCLE</b>
Account payments	1
Account query	2
Applications	4
Claims	5
Complaints & compliments	6
Emergency reports	7

Information request	8
Meter reading	9
New service request	10
Power loss report	11
Sales/product advice requests	12
Other	13

**\* These are ESKOM defined interaction types**

**10.** Thinking of your experience with the Call Centre, can you please tell me what was positive and what was negative about the entire experience?

<b>POSITIVE EXPERIENCE</b>	<b>NEGATIVE EXPERIENCE</b>

11. Thinking of all the positive and negative experiences we have just discussed can you please indicate the extent of your agreement or disagreement by choosing relevant response

SERVICE CATEGORY	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The call was answered promptly					
The Call Centre staff are helpful & willing to resolve my problems					
The CC staff are knowledgeable about ESKOM's business					
The CC staff clearly understand the nature of my problems					
The CC staff clearly explain the procedure that will be followed to resolve my problem					
I receive the follow-up call as promised by CC staff					
Promptness of follow-up call demonstrated commitment of CC to fulfilling its promises					
Follow-up call offered sufficient information that is relevant to my problem					
My problem was resolved quickly by a follow-up call from ESKOM					
The CC can be relied upon to deliver what it promised					
The CC effectively deals with & resolves problems					
The overall service of the CC is of good quality					

12. If you had a choice and given your experience with both the Shelley Beach Area office and ESKOM's call centre, which approach do you prefer to handle queries?

	CIRCLE
Visiting the Shelley Beach Area office	1

Calling Eskom's Call Centre	2
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13. Please provide a reason for your preference in Q15 above.

SHELLEY BEACH AREA OFFICE	ESKOM CALL CENTRE

14. Overall is there anything that Eskom can do and/or change to improve the service delivery of its Call Centre?

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**15.** I wish to provide you a brief explanation of what ESKOM's Call Centre is all about and then I will ask you a few questions.

**Introducing ESKOM's Call Centre**

ESKOM has an office (usually referred to as the Call Centre) which you can call for any electricity related problems from applying for electricity, to any problems you may have with your electricity account, to power failures, etc. To help the customers ESKOM has a system called "Share call", whereby the customer pay part of the cost, to their local exchange only and ESKOM carry the cost from their exchange to where we are located.

Now that I have told you about ESKOM's Call Centre, what do you think of the idea of a call centre?

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**16.** Would you like to obtain additional information on ESKOM's Call Centre?

Yes	1	<b>CONTINUE</b>
No	2	<b>SKIP TO Q21</b>

**17. ASK ONLY IF YES TO Q16 ABOVE.** What additional information would you like to get from ESKOM Call Centre?

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**18. ASK ONLY IF NO TO Q16 ABOVE.** Why don't you want additional information on Eskom's Call Centre?

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**19. ASK ALL.** Now that you have some information about Eskom's Call Centre, how likely are you to use the Call Centre for all your electricity related queries? Please use the scale defined below

Not at all likely	Not likely	Likely	Very likely	Extremely likely
1	2	3	4	5

**20.** Where do you have access to a telephone?

	CIRCLE
Home only	1
Work only	2
Work and at home	3
I have a cellular phone	4
I use my friends/family phone	5

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I use a public payphone	6
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**Thank you for your time**

