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"CUSTOMER SATISFACTION TOWARDS SERVICES OF ELECTRICITY DEPARTMENT – A STUDY OF GOA"

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ABSTRACT

Electricity has become one of the basic necessities of the modern human life. Goa is one of the few states having electrification at 98% in urban and 96% in rural area based on 2011 census. The present study tries to develop a model where in various factors influencing the customers satisfaction towards the service quality of electricity department has been tested using regression analysis in gretl software. The study revealed that the majority of the consumers had complained related to the fluctuations in power supply.

Key words: *customer satisfaction, grievance redressal, regression analysis, service quality.*

1. INTRODUCTION

Electricity plays a vital role in our day-to-day life. Availability of reliable and cost effective power is essential for economic development of the country. The consumption of electricity is an important indicator of the stage of development of agriculture, industry, health sectors and commerce. The absence of a profit motive does not mean that customer satisfaction is unimportant in the public and non-profit world.

Goa is India's smallest state by area and fourth smallest by population. Located on the west coast of India in the region known as the Konkan it is bounded by the state of Maharastra and Karnataka. Goa is one of the richest states with the highest GDP per capita. Goa has no power generating stations of its own in the state. The majority of power comes from coal-based central power generating stations, which contribute to 81% of the total power procured. Apart from higher level of electrification, the state also has one of the highest per capita consumption of electricity. Managing the Electricity Boards itself had become a major problem and Goa is not an exception to it.

"Consumer complaints consist of all oral (telephone and personal visit) and written expressions of dissatisfaction about the purchase of products and services in the marketplace and about government supplied services and benefits".

In today's modern world the public willingness to complain has increased to a great extent as the awareness and expectations of consumers regarding products and services are much higher today than in the past, making it easier for a consumer to come forward to lodge a complaint.

The Electricity Act of 2003 mandates that the Forums for Redressal of Consumer Grievances (CGRF) shall be set up by all distribution utilities. The study focuses on the problems being faced by the consumers of electricity in south Goa and consumer's satisfaction towards the services provided by the electricity department.

2. LITERATURE REVIEW

1.1 Agyapong Gloria K.Q, "The Effect of Service Quality on Customer Satisfaction in the Utility Industry – A Case of Vodafone (Ghana)" This paper aimed at examining the relationship between service quality and customer satisfaction in the telecom industry in Ghana. The results showed that all the service quality items were good indicators of customer satisfaction.

1.2 Johr Govind, (2007), "A critical look at Grievance redressal mechanism in Insurance industry". The researcher has studied the grievance redressal system in the General insurance industry. The researcher has also reviewed the Law Commissions Recommendations.

1.3 Nagabhushanam Manasa, (2013), "A study on customer satisfaction towards service quality of banks in India". The researcher has analyzed the various factors leading to customer satisfaction in the various public private and foreign banks in India, the researcher has also studied Complaint handling being one of the factors leading to customer satisfaction.

3. IDENTIFICATION OF RESEARCH GAP

The above literature review done in the field of service industry did not seem to yield a specific problem or research question in the electricity services industry, this is why it was thought necessary to go to the field and observe the actual situation at close quarters.

4. OBJECTIVES OF THE STUDY

4.1 To understand the concepts related to service quality and customer satisfaction.

4.2 To analyze the various factors affecting customer satisfaction towards the services of electricity department.

5. RESEARCH METHODOLOGY

5.1 Sources of data: The current study is based on primary as well as secondary data.

5.1.1 Primary Data: Primary data is collected through questionnaire method, on the basis of convenience and random sampling and with a sample size of 40 respondents.

5.1.2 Secondary Data: Secondary data required was collected from different sources like books, thesis, and various internet websites.

5.2 Sample Type and Size: 40 respondents have been interviewed based on convenience and random sampling.

5.3 Place or location of the study: The study is conducted in both urban and rural areas. The study is confined to Margao, Colva, Chandor and Quepem only.

5.4 Period of the study: The survey has been conducted during the year 2018 in the month of August and September.

5.5 Hypotheses: The current study is undertaken in order to test and prove the following hypotheses:

H1: Timely And Accurate Bills, Proper Meter Readings, Number Of Days Provided For Payments Of Bills, Grievance Handling, Provision And Maintenance Of Street Lights And Communication Services Have A Significant Impact On Customer Satisfaction Towards Services Provided By The Electricity Department.

H2 : Solution Provided , System Of Complaint Handling, Friendly Attitude Of Officials, Level Of Support And Information Provided, Phone Call Services And Number of Visits to the Electricity Department Have A Significant Impact On The Customer Satisfaction Towards The Grievance Redressal Mechanism Of Electricity Departments.

5.6 Statistical Tools Used: Regression analysis using gretl software.

6. DATA ANALYSIS

Customer satisfaction towards service quality of electricity department

Model 1: OLS, using observations 1-40

Dependent variable: Customer Satisfaction towards services of Electricity Department

variables	Coefficient	Std. Error	T-ratio	P-value	
Const	−0.165742	0.618511	−0.2680	0.7904	
Timely and accurate bills	−0.234895	0.102106	−2.3005	0.0279	**
Proper meter readings	0.315866	0.0916451	3.4466	0.0016	***
No. Of days for payment	0.218325	0.0961348	2.2710	0.0298	**
Grievance handling	0.271502	0.108321	2.5065	0.0173	**
Street lights	0.204989	0.0982714	2.0860	0.0448	**
Communication	0.291123	0.115825	2.5135	0.0170	**

Mean dependent variable	3.225000		S.D. dependent variable	0.800240
Sum squared residual	6.235124		S.E. of regression	0.434676
R-squared	0.750345		Adjusted R-squared	0.704954
F(6, 33)	16.53044		P-value(F)	0.00000000108
Log-likelihood	−19.58392		Akaike criterion	53.16784
Schwarz criterion	64.99000		Hannan-Quinn	57.44236

As per the OLS model designed the P.value obtained is 0.00000000108 which is very well within the range of 0.05 and it means that the alternate hypothesis is accepted. As far as the Adjusted R squared which measures the "Goodness of fit" is concerned it explains with 70percent confidence level that changes in customer satisfaction towards service provided by the electricity department will be explained by the selected independent variables to the extent of 70percent and the unexplained part being 30percent.

The variable 'timely and accurate bill' has a direct relation with the customer satisfaction towards service quality and if the regularity in timely bills decreases by 100percent the customer satisfaction reduces by 23percent.

As far as the variable 'proper meter readings' is concerned, it is found to be having a direct relation with customer satisfaction towards service quality, which means that if the accuracy of the meter readings increases by 100 percent , customer satisfaction will increase by 31percent.

To talk about the variable 'number of days provided for payments of bills' it has a direct relation with the customer satisfaction towards service quality, that is if the number of days provided for payments of bills increases by one day ,customers satisfaction will increase by 21percent.

'Efficiency Grievance Handling Mechanism' has a direct relation with the customer satisfaction, that is if the efficiency in handling customers complaints increases by 100percent the customer satisfaction towards service quality increases by 27percent.It is found to be significant at 95percent.

'Provision And Maintenance of Street Lights', as it increases by 100percent the customer satisfaction increases by 20percent

Moving to the next variable 'communication of power cut off' is concerned it has a direct relation with customer satisfaction towards service quality. If the communication services improve by 100percent the customer satisfaction towards service quality will improve by 29percent.

With the help of the OLS model framed the following regression equation can be obtained:

(1) $Y= \beta_0+\beta_1x_1+\beta_2x_2+\ldots.\beta_{nXn}+\mu$

Substituted as under:

Customer Satisfaction towards service quality=(-0.16) + (−0.23)Timely And Accurate Bills+(0.31)Proper Meter Readings++(0.21)Number Of Days Provided For Payments Of Bills +(0.27) Grievance Handling + (20)Provision And Maintenance Of Street Lights +(0.29) Communication Services + μ

In the above equation '**μ**' that is the error term implies the scope for other factors which may impact the customer satisfaction towards the service quality of the electricity department, it can be the details provided in the bills, frequent inspection of the meters and so on.

7. CONCLUSIONS

- From the study it is observed that most of the respondents had complained related to the fluctuations in power supply and power cut off.
- The accuracy of the meter readings are found to be having a significant impact on the customer satisfaction towards service quality of the electricity department.
- The telephone and communication services provided by the electricity department are found to have the least impact on customer satisfaction towards service quality.
- From the study it is observed that most of the respondents had complained related to the fluctuations in power supply and power cut off.
- Grievance redressal is one of the most important area which leads to the enhancement overall satisfaction of the customers.
- Customer satisfaction towards grievance redressal mechanism of the electricity department depends upon a number of factors.
- The number of visits the customer has to make to the electricity department to get his complaint resolved is found to have the maximum impact on the customer satisfaction towards grievance redressal mechanism of the electricity department.

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