

## A study on the relationship between Service Quality and Customer Satisfaction at Arine Solar Solution

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### ABSTRACT:

*The study has been conducted at “Arine Solar Solution” for finding out the relationship between service quality and customer satisfaction of customers. The scope of the study consists of all the customers in Kerala. Research data was analysed using percentage analysis and regression analysis by using SPSS software. Convenient sampling was used in selecting the respondents for the study while questionnaire served as the data collection instrument. The research findings show that there is a significant relationship between service quality and customer satisfaction.*

*Keywords: Service quality, Customer satisfaction.*

### INTRODUCTION

Customer satisfaction is often the effect of sufficient service quality, where service quality is defined as the customer's perception of businesses long term service performance. In the minds of customers, service quality often includes the quality of the product and services itself, the demeanor and the behaviour of the employee, how willing the business is to be flexible and responsive. Customer satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product perceived performance in motion to his or her expectation. If the perceived performance not exceed, the expectation of the buyer or the customer is dissatisfied. If the performance exceeds the expectation, the customer is satisfied or delighted. Satisfied customers make a repeat purchase, and they tell others about their good experiences and the quality. Brand loyalty is a complex concept since there are several interpretations to what the idea consists of describes the various researchers depict brand loyalty in contrasting manners in terms of what factors are incorporated. Depending on what elements are included in the research, new theories regarding brand loyalty and its meaning can be constructed.

### NEED OF THE STUDY

Service quality is a changing aspect of service management within businesses. Consumers are changing and so their expectations regarding their purchasing experiences also changing. In order to continuously be successful, companies need to adapt accordingly to the current markets. There are many studies that have been conducted to answer the questions whether demographic factors, for example age, gender, occupation etc.... could be a contributing factor to the changing phenomenon

argues that there is a clear difference between various generations, values, preference and attitudes, which in turn, directly influence their general purchase pattern. The purpose of the study is to identify if there is a relation between service quality and customer satisfaction and that importance perceived by them affects the customer loyalty. This study aims to measure the impact that service quality has in the customer satisfaction as well as if service quality has any significant effects on brand loyalty. This study helps to identify the factors that affect the customer satisfaction and expectation towards solar services among the customers.

## RESEARCH METHODOLOGY

The methodology section outlines the plan and methods that how the study is conducted. This includes the population of the study, sample of the study, source of data, study's variables and analytical framework. The details are as follows;

### Population and Sample

Arine Solar Solution is one of the fastest on-grid solar companies in India. The population was collected from the entire customer in Kerala. Convenient sampling was used to collect data from 50 respondents.

### Data and Source of data

For this study, both primary and secondary data were collected. Primary data was collected from the customers of Arine solar solution through questionnaire and direct interview. Secondary data were collected from company profile, website and other reports.

### Theoretical Framework

Variables of the study contain dependent and independent variables. The study used service quality as the independent variable. The factors used for measuring relationship between dependent variable customer satisfaction and independent variable service quality were customer expectation, perceived quality and customer feedback system.

A review of study by Mattson (1992) found that a formal value approach to service quality should be a satisfaction process that incorporates and matches value-based constructs of the ideal standard and the experienced outcome while excluding negative cognitive bias. Sinha & Ghoshal (1999) found that all businesses to be service-oriented and focused on meeting expanding customer needs. By adopting cutting-edge technology and minimising imports of cheap materials, the majority of businesses are expanding their capacity. Kuei and Lu's (1997) in their research study states that cover duties, advancements, and metrics for service quality. It has argued for the fusion of the service quality improvement tool and the service quality evaluation that is., stated that the organisation's goal in achieving service quality will be the synergy and integration of systems tools and concepts.

### Statistical tools

This section elaborates the proper statistical tools which are being used to forward the study from data towards inference. The detail of methodology is given as follows;

• **Descriptive Statistics**

Descriptive statistics is a branch of statistics that involves summarizing and describing the main characteristics of a dataset. It provides numerical and graphical measures to understand and interpret data, allowing researchers and analysts to gain insights and draw conclusions. Here percentage analysis was used to analyse data sets. Percentage refers to a special of ratio percentage are used in the making comparison between two or more data. Percentage is used to describe relationship. Since the percentage reduce everything to a common base thereby allow meaningful comparison to be made.

• **Regression Analysis**

Regression analysis is a quantitative research method which is used when the study involves modelling and analysing several variables, where the relationship includes a dependent variable and one or more independent variables. In simple terms, regression analysis is a quantitative method used to test the nature of relationships between a dependent variable and one or more independent variables. Here, the regression analysis was done to determine if there is any relationship existing between dependent variable customer satisfaction and independent variable service quality. The factors used for measuring relationship between dependent variable customer satisfaction and independent variable service quality were customer expectation, perceived quality and customer feedback system.

**RESULT AND DISCUSSION**

**1. Regression analysis**

	Unstandardised coefficients		t	Sig. (p)	Sig. (p)	R <sup>2</sup>	Adjusted R <sup>2</sup>
	β	Std. Error					
(constant)	8.426	3.156	2.670	.010		.064	.044
Service quality	.121	.067	1.806	.077	.077 <sup>b</sup>		

Dependent variable: Customer expectation

The above table shows the result of regression analysis. From the table it is clear that R<sup>2</sup> is 0.064, which means that 6.40 per cent of variation in customer expectation can be explained by improvement in service quality. The ANOVA for regression analysis depicts that it is significant (P > 0.05). The interpretation of beta coefficient is that, every one unit increase in service quality will lead to 0.121-unit improvement in customer expectation.

	Unstandardised coefficients		t	Sig. (p)	Sig. (p)	R <sup>2</sup>	Adjusted R <sup>2</sup>
	β	Std. Error					
(constant)	41.692	2.166	19.25	.000	.006 <sup>b</sup>	.146	.128
Service quality	.448	.156	2.867	.006			

Dependent variable: perceived quality

The above table shows the result of regression analysis. From the table it is clear that R<sup>2</sup> is 0.146, which means that 14.60 per cent of variation in the perceived quality can be explained by improvement in service quality. The ANOVA for regression analysis depicts that it is significant (P > 0.05). The interpretation of beta coefficient is that, every one unit increase in service quality will lead to 0.448-unit improvement in perceived quality. Greater service quality given, higher will be the inclination towards customer satisfaction.

	Unstandardised coefficients		t	Sig. (p)	Sig. (p)	R <sup>2</sup>	Adjusted R <sup>2</sup>
	β	Std. Error					
(constant)	41.236	2.459	16.769	.000	.009 <sup>b</sup>	.133	.115
Service quality	.476	.176	2.709	.009			

Dependent variable: customer feedback system

The above table shows the result of regression analysis. From the table it is clear that R<sup>2</sup> is 0.133, which means that 13.30 per cent of variation in customer feedback system can be explained by the improvement in service quality. The ANOVA for regression analysis, depicts that it is significant (P > 0.05). The interpretation of beta coefficient is that, every one unit increase in service quality will lead to 0.476 unit improvement in customer feedback. This result statistically proves that there is a positive relation between service quality and customer feedback.

## CONCLUSION

This study underscores the importance of service quality in driving customer satisfaction. It emphasizes the need for effective communication, expertise, professionalism, reliability, and

responsiveness to enhance customer experiences. By recognizing and addressing these factors all the business can cultivate higher levels of customer satisfaction, leading to increased customer loyalty, positive word-of-mouth, and overall business success. From this study we can understand that maintaining a high level of reliability and responsiveness is crucial in meeting customer expectations and fostering satisfaction.

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