SERVICE QUALITY OF INDANE AND BARAT GAS COMPANIES IN KANYAKUMARI DISTRICT

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ABSTRACT:

The main aim of conducting this research study is to know about the service quality of Indane and Bharat Gas Companies in Kanyakumari district. To conduct this study and to achieve the objectives, the primary data has been collected by using structured questionnaires. For collecting the primary data judgmental sampling method is used. To undertake this study, the sample sizes of 384 respondents were taken. One sample t-test was applied for analyzing the degree of service quality of Indane and Bharat Gas Companies. The result concluded that the Indane and Bharat Gas Companies in Kanyakumari district have offered amazing services to their customers in the dimensions of Reliability, Assurance, Empathy, and Tangibility. The study also proved that the Indane and Bharat Gas Companies in Kanyakumari district have not offered better services to their customers in the dimension of Responsiveness. The study suggested that the Indane and Bharat Gas Companies that the agency, distributors, and retailers of gas companies need to understand the importance of the responsiveness as the significant factor contributing to customer satisfaction.

KEYWORDS: Indane Gas Company, Bharat Gas Company, Kanyakumari District, Service Quality.

INTRODUCTION

The service quality has become the success mantra in all sectors ranging from health care to retailing. The need for understanding the service dimension of each sector is extremely essential as it forms the basis of the evaluation of service itself. If the service provider can comprehend customer's evaluation criteria and design its service strategy accordingly and executes it, then the efficiency level is enhanced, resulting in customer's satisfaction. This is the ultimate objective of all the service providers as it is proved by earlier researchers that getting new customers is time-consuming and involves higher costs then retaining the existing customer **(**Vinayaga moorthy, Sankar and Sangeetha, 2014**)**. Satisfying customers by providing a better quality product or a service is the ultimate objective of any organization. There are different types of ways and means of satisfying customers and providing quality service that meets customer's perception. The different indicators of service quality of Liquid petroleum gases (LPG) sector of Indane and Bharat gas services in India are not always understood and identified. Determining the most effective means of predicting customer satisfaction are mainly based on the use of customer's expectations or perceptions of the performance of various service quality attributes or both. Customer

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satisfaction of manufacturing and service industries mainly based on both product quality and service quality wherein the LPG sector of Indane and Bharat gas as a service-oriented sector overall quality mostly depends on service quality to achieve the objective of customer satisfaction (Prabath Perera and Dilini Aruppala, 2013).

OBJECTIVES OF THE STUDY
The following objective has been framed for the present study:
➢ To find out the degree of service quality in Indane and Bharat gas companies in Kanyakumari district.

The study throws light on achieving the objective of the study i.e. to determine the degree of service quality in Indane and Bharat gas companies in Kanyakumari district. To achieve this objective, various dimensions of service quality in Indane and Bharat gas companies are explored with the help of SERVQUAL-model. The method is used for 21 features to measure customer perceptions towards the services of Indane and Bharat gas companies. The analyzing and interpreting is performed with the five dimension variables of service quality such as tangibles, reliability, assurance, responsiveness, and empathy.

RESEARCH METHODOLOGY
The descriptive type of research was adopted in the present study. To achieve the purpose of the study, the total of 384 customers representing 6 Talukas of Kanyakumari district from each of 32 sample units for each Indane and Bharat Gas Companies were selected. The data were collected for the study by judgmental sampling method. In the light of the specific objective set, all information and data were collected from the sampled respondents through direct personal interviews employing structured interview schedule. One sample t-test was applied for analyzing the degree of service quality of Indane and Bharat Gas Companies. The primary data collected were analyzed by using Statistical Package for Social Sciences (SPSS 21).

ANALYSIS AND RESEARCH FINDINGS
The study exhibits the opinion on customers' perceptions under five dimensions of service quality provided by the Indane and Bharat gas companies. An attempt is made to know whether the Indane and Bharat gas companies in Kanyakumari district have provided a better quality of service or not. The following null hypothesis (H_0) is framed to test the service quality of Indane and Bharat gas companies in Kanyakumari district.

H_0 :   There is no significant optimistic service quality in Indane and Bharat gas companies in Kanyakumari district.

One sample t-test was used to test the null hypothesis (H_0) of this study. In this one-sample t-test, the computed mean value of various dimensions of service quality is compared with hypothesized mean value 3 to obtain the significance or insignificance value. Further, to calculate an effect size, called d or Cohen's d is used. Cohen's d above 0.7 is very strong, a value between 0.5 and 0.69 is strong, a value between 0.2 and 0.49 is moderate, and a value below 0.2 is low (Baguley, 2009). The result of the one-sample t-test is explained in table 1.

Table 1
One sample t-test: Service Quality of LPG Companies

Dimensions of	LPG	Test Value = 3	Effect Size

Service Quality	Companies	N	Mean	Mean Difference	SD	t Value	df	p Value	Cohen's d
Reliability	Indane	192	3.24	.24	.79	4.29	191	.000**	.30
	Bharat	192	3.22	.22	.79	3.89	191	.000**	.28
Responsiveness	Indane	192	2.95	-.05	.77	-.93	191	.350	.06
	Bharat	192	2.89	-.11	.79	-1.91	191	.058	.14
Assurance	Indane	192	3.73	.73	.82	16.88	191	.000**	.89
	Bharat	192	3.67	.67	.79	14.92	191	.000**	.85
Empathy	Indane	192	3.26	.26	.49	7.17	191	.000**	.53
	Bharat	192	3.29	.29	.53	7.62	191	.000**	.55
Tangibility	Indane	192	3.17	.17	.55	4.17	191	.000**	.31
	Bharat	192	3.14	.14	.53	3.69	191	.000**	.26

Source: Primary Data
**Significant at .05 level of confidence

Concerning 'Reliability', the results in table 1 reveals that the mean values of Indane (3.24 ± 0.79) and Bharat (3.22 ± 0.79) are higher than the hypothesized mean value of 3 (Test value). It is found that the t value of Indane (t (191) = 4.29, p < .05, d = 0.30) and Bharat (t (191) = 3.89, p < .05, d = 0.28) are statistically significant at 0.05 significant level. Since the p-values are less than 0.05, the null hypothesis (H_0) is rejected regarding the variable of 'Reliability'. There is enough evidence to conclude that there is a statistically significant optimistic service quality in the dimension of reliability of Indane and Bharat gas companies at the 0.05 significance level. Based on Cohen's d of Indane (0.30) and Bharat (0.28), it is found that the Indane and Bharat gas companies in the study area have provided the moderate optimistic service in the dimension of reliability. This is because Indane and Bharat gas companies have provided better services through executing the promise, problem-solving, perform the service at the right time, prompt service and error-free records.

In case of 'Responsiveness', the results depict that mean values of Indane (2.95 ± 0.77) and Bharat (2.89 ± 0.79) are lower than the hypothesized mean value of 3 (Test value). It is found that the t value of Indane (t (191) = -.93, p = .350 > .05, d = 0.06) and Bharat (t (191) = -1.91, p = .058 > .05, d = 0.14) are statistically no significant at 0.05 significant level. Since the p-values are higher than 0.05, the null hypothesis (H_0) is accepted regarding the variable of 'Responsiveness'. There is enough evidence to conclude that there is a statistically no significant optimistic service quality in the dimension of responsiveness of Indane and Bharat gas companies at the 0.05 significance level. Cohen's d of Indane (0.06) and Bharat (0.14) are not considered due to the insignificant result. This is because Indane and Bharat gas companies have not provided better services or lack in providing correct information, prompt service, willing to help customers and absolute consideration.

As regards 'Assurance' dimension it is noticed that the mean values of Indane (3.73 ± 0.82) and Bharat (3.67 ± 0.79) are higher than the hypothesized mean value of 3 (Test value). It is found that the t value of Indane (t (191) = 16.88, p < .05, d = 0.89) and Bharat (t (191) = 14.92, p < .05, d = 0.85) are statistically significant at 0.05 significant level. Since the p-values are less than 0.05, the null hypothesis (H_0) is rejected regarding the variable of 'Assurance'. There is enough evidence to conclude that there is a statistically significant optimistic service quality in the dimension of assurance of Indane and Bharat gas companies at the 0.05 significance level. Based on Cohen's d of Indane (0.89) and Bharat (0.85), it is found that the Indane and Bharat gas companies in the study area have provided the very strong optimistic service in the dimension of assurance. This is because Indane and Bharat gas companies have provided fantastic services through confidentiality, safe in transactions, consistently courteous and knowledge of the employees.

Regarding 'Empathy', the analysis visualizes that the mean values of Indane (3.26 ± 0.49) and Bharat (3.29 ± 0.53) are higher than the hypothesized mean value of 3 (Test value). It is found that the t value of Indane (t (191) = 7.17, p < .05, d = 0.53) and Bharat (t (191) = 3.29, p < .05, d = 0.55) are

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statistically significant at 0.05 significant level. Since the *p*-values are less than 0.05, the null hypothesis (H_0) is rejected regarding the variable of 'Empathy'. There is enough evidence to conclude that there is a statistically significant optimistic service quality in the dimension of empathy of Indane and Bharat gas companies at the 0.05 significance level. Based on Cohen's *d* of Indane (0.53) and Bharat (0.55), it is found that the Indane and Bharat gas companies in the study area have provided the strong optimistic service in the dimension of empathy. This is because Indane and Bharat gas companies have provided wonderful services through individualized attention, recognizing the customers, understand the specific needs and convenient operating hours.

Concerning 'Tangibility', the results reveal that the mean values of Indane (3.17 ± 0.55) and Bharat (3.14 ± 0.53) are higher than the hypothesized mean value of 3 (Test value). It is found that the *t* value of Indane (*t* (191) = 4.17, *p* < .05, *d* = 0.31) and Bharat (*t* (191) = 3.69, *p* < .05, *d* = 0.26) are statistically significant at 0.05 significant level. Since the *p*-values are less than 0.05, the null hypothesis (H_0) is rejected regarding the variable of 'Tangibility'. There is enough evidence to conclude that there is a statistically significant optimistic service quality in the dimension of the tangibility of Indane and Bharat gas companies at the 0.05 significance level. Based on Cohen's *d* of Indane (0.31) and Bharat (0.26), it is found that the Indane and Bharat gas companies in the study area have provided the moderate optimistic service in the dimension of tangibility. This is due to fact that Indane and Bharat gas companies have provided better services through modern transport facilities and modern equipment, physical facilities (seating, ventilation and drinking water), neat employees' appearance and materials (pamphlets, statements, bills, and invoices).

From a theoretical point of view, it is concluded that the Indane and Bharat Gas Companies in Kanyakumari district have amazing service quality in their services in the dimensions of Reliability (execute the promise, problem solving, perform the service at right time, prompt service and error-free records), Assurance (confidentiality, safe in transactions, consistently courteous and knowledge of the employees), Empathy (individualized attention, recognizing the customers, understand the specific needs and convenient operating hours) and Tangibility (modern transport facilities and modern equipments, physical facilities (seating, ventilation and drinking water), neat employees' appearance and materials (pamphlets, statements, bills and invoices). Whereas, the Indane and Bharat gas companies have not provided better services or lack in Responsiveness (providing correct information, prompt service, willing to help customers and absolute consideration).

The proposed null hypothesis (H_0) was tested by one-sample *t*-test. The significant level of confidence was fixed at .05. Using this significance level, it is possible to decide whether to reject or retain the proposed null hypothesis. The decision made, based on this *p*-value, is presented in table 2.

Table 2
Null Hypothesis (H_0) Test Summary

Null Hypothesis	Test	Dimension	LPG Companies	*p*-value	Decision
There is no significant optimistic service quality in Indane and Bharat gas companies in Kanyakumari district.	One-Sample *t*-test	Reliability	Indane	.000**	Rejected
			Bharat	.000**	Rejected
		Responsiveness	Indane	.350	Accepted
			Bharat	.058	Accepted
		Assurance	Indane	.000**	Rejected
			Bharat	.000**	Rejected
		Empathy	Indane	.000**	Rejected

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		Bharat	.000**	Rejected
	Tangibility	Indane	.000**	Rejected
		Bharat	.000**	Rejected

**Significant at 0.05 level

Table 2 reveals that the null hypothesis (H_0) is rejected at the 5 percent level of significance about the dimensions of Reliability, Assurance, Empathy, and Tangibility of Indane and Bharat gas companies due to the *p*-value are less than 0.05. The null hypothesis (H_0) is accepted at the 5 percent level of significance about the dimension of Responsiveness of Indane and Bharat gas companies due to the *p*-value is higher than 0.05.

CONCLUSION

The study proved that the Indane and Bharat Gas Companies in Kanyakumari district have offered amazing services to their customers in the dimensions of Reliability, Assurance, Empathy, and Tangibility. The study also proved that the Indane and Bharat Gas Companies in Kanyakumari district have not offered better services to their customers in the dimension of Responsiveness. The study suggested that the Indane and Bharat Gas Companies that the agency, distributors, and retailers of gas companies need to understand the importance of the responsiveness as the significant factor contributing to customer satisfaction. Though the services rendered by Indane and Bharat Gas Companies are good, they must focus on Reliability, Assurance, Empathy and Tangibility services to further enhance the satisfaction level of customers.

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