

## **SERVICE QUALITY OF DOMESTIC LPG: AN EMPIRICAL STUDY**

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### **ABSTRACT**

The Indane gas company reforms have deregulated the market to a great extent. It has become necessary to design and execute the best customer oriented practices and to internalize them for providing enhanced satisfaction to the customer through the employees. Customers' service is not merely the compliance with the government's policies or the mechanical adherence to the time frame of services. It is a philosophy and an attitude of professional commitment, which believes in the ultimate satisfaction or each customer 'wants'.

Service marketers have really understood that competition can be well managed by differentiating through quality. Significance of service lies in customer service management. In this the competitive environment, service quality has become the success mantra in all service sector. Keeping this in mind, this study has been conducted at Salem city to identify the service quality of Indane gas. The result indicates that customers are not highly satisfied with the service provided by the Indane gas. So the company took some serious action to improve the service quality.

**KEYWORDS:** LPG, Indane Gas, Service Marketing, Quality of Service.

### **INTRODUCTION**

In this digital era, the service sector has been growing at a lighting speed across the global. Competition and advancement in technology have brought about radical change in customer service. India is no exception to the current global trend. In our country, the service sector contributes largely to the national economy. It is imperative to trigger the growth of industrial sector, particularly manufacturing sector in the medium and long term and it is also equally important to maintain a decent and constant development of agricultural sector, which still depends on the vagaries of nature in the short and even medium term, but the sure indicator for higher growth of the Indian economy is anticipated in giving further fillip to the growth of the services sector, which can be achieved with considerable ease compared to other sectors.

### **HISTORICAL BACKGROUND**

Quality came to the service literature at the beginning of the 1980s. This is quite in contrast to the manufacturing sector where in quality management has a long and rich history. In the twentieth century, especially the second half, increasing global competition has forced many manufacturing

companies to develop and adopt quality management practice aimed at increasing competitiveness by eliminating waste, increasing efficiencies, reducing costs, improving customer satisfaction and involving every member of the organisation in doing so. However, from 1980s the interest in service quality has increased tremendously. One reason why service quality is becoming an important issue is that all the developed countries as well as number of developing countries have become service economies. In India also services sector is the largest contributor to GDP, ahead of agriculture as well as industry sector. Another reason for the rising importance of service quality is that it is proving to be a winning competitive strategy. More and more companies are emphasizing on providing excellent service quality in order to have a distinctive competitive advantage over their competitors in a world where establishing a long term technology based competitive advantage is becoming increasingly difficult.

## **SERVICE QUALITY**

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 evaluation of service itself. If the service provider is able to 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.

## **DEFINITION OF QUALITY**

Quality is a word quite commonly used by all of us. We expect quality in all most everything in our life. It is nothing but a perception of what we are looking for in a product or service. At the same time it varies from person. As beauty is said to lie in the beholder's eyes, the meaning of quality also varies from individual to individual. In the circumstances, it is difficult to define quality in such a way that it is universally accepted

There are many definitions of quality, spelt out by very great gurus and they are found to be widely accepted.

1. W.Edwards Deming defines "Quality is a predictable degree of uniformity, at low cost and suited to the market".
2. Joseph M.Juran attempts to define in simple form as "Quality is fitness for use"
3. Philip B.Corsby gives a definition as "Quality is conformance to requirement"
4. Genechi Taguchi defines as "Quality is the minimum loss imparted by a product is shipped".
5. "Quality is in essence, a way of managing the organisation", By Feigenbaum.
6. "Quality is correcting and preventing loss not living with loss". This is the definition by Hoshin.
7. "Quality is a company-wide issue and must be an all pervasive influence on the way every issue of business is conducted" according to Prof. Kaoru Ishikawa.

Quality can also be quantified as  $Q = P / E$ , where Q = quality; P = performance; E = expectations.

If Q is greater than 1.0, then the customer has a good feeling about the service.

## **ELEMENTS OF CUSTOMER SERVICE**

Customer service is the set of activities an organisation uses to win and retain customer's satisfaction. It can be provided before, during and after the sale of the product. The following are termed as elements of customer service:

### **1. Organisation**

- i) Identify each market segment
- ii) Write down the requirements
- iii) Communicate the requirements
- iv) Organize processes
- v) Organize physical spaces

### **2. Customer Care**

- i) Meet the customer's expectations
- ii) Get the customer's point of view
- iii) Deliver what is promised
- iv) Make the customer feel valued
- v) Respond to all complaints
- vi) Over-respond to the customer
- vii) Provide a clean and comfortable customer reception area

### **3. Communication**

- i) Optimize the trade-off between time and personal attention
- ii) Minimize the number of contact points
- iii) Provide pleasant, knowledgeable and enthusiastic employees
- iv) Write document in custom-friendly language

### **4. Front-line People**

- i) Hire people who like people
- ii) Challenge them to develop better methods
- iii) Give them the authority to solve the problems
- iv) Serve them as internal customers
- v) Be sure they are adequately trained
- vi) Recognize and reward performance

### **5. Leadership**

- i) Lead by example
- ii) Listen to the front-line people
- iii) Strive for continuous process improvement

The organisation must record and then communicate to its employees the direction for all tasks. A service quality hand book should be created with description of each service quality standards.

Communication of each service quality standard for each task can be resorted to through videos, personal coaching and meetings. Website can also serve as an effective medium of communication between the organisation and its customers for asking questions and getting replies.

Customer satisfaction does occur after the sale of the product. The various characteristics and expectation of the customers are quite to read. Let us look into it.

**a) Delivery**

Delivered on schedule in undamaged condition.

**b) Installation**

Proper instruction on set up, or technicians supplied for complicated products.

**c) Use**

Clearly-written training manuals or instruction provided on proper use.

**d) Field Repair**

Properly trained technicians to promptly make quality repairs.

**e) Customer Services**

Friendly service representatives to answer questions.

**f) Warranty**

Clearly stated with prompt service on claims.

## **SERVICE QUALITY IN INDIA**

The service sector is also assuming increasing importance in Indian economy. The share of agriculture sector, which constituted over 50 percent of GDP in 1960s has now come down to around 28 percent. There has been substantial increase in the manufacturing sector but the bulk of transformation has been in the service sector. The weightage of service sector has been increasing in the overall GDP. This growing share of service sector is an indication that in future, India's GDP will be influenced considerably by the service sector.

According to a report of the International Monetary Fund (IMF), the service sector in India has consistently outperformed the rest of the economy in recent years, and by a wide margin the in the 1980s in response to the reform programmes undertaken since 1991. The report entitled India : 'Economic Reform and Growth' looks at reform programmes in India since 1991 and the response of the economy to the various liberalization and stabilization measures. The report indicates that within the overall growth picture since the 1991-92 crisis, sectoral performance has diverged markedly with industrial growth falling below long term trends till 1993-94 after which it recovered broadly, with output having increased by 9% in 1994-95. Against this, agriculture and services grew more steadily. In fact, the response to liberalization has probably been more in service sector, partly because of lower fixed investment requirements. Moreover technological advances have made it possible for India to compete on a global basis in the areas such as software development and information services. Reduced restrictions on private sector involvement have also played an important role in the growth of this sector.

## COMPONENTS OF SERVICE QUALITY

There are two components of service quality:

1. External Service Quality
2. Internal Service Quality

### EXTERNAL SERVICE QUALITY

External Service Quality, which refers to the quality of service delivered to the customers, has gained much promise in the context of increasing customers' expectations and changing customer preference. External service quality offered to customers is generally referred to as service quality. Providing high quality services enhances customer retention rates, helps to attract new customers through positive word of mouth advertising, increases productivity, leads to higher market share, financial performance and profitability.

Different researchers have identified different dimensions to measure external service quality. Garnin (1984) measured the ESQ with the help of performance, features, reliability, conformance, durability, serviceability, aesthetics and prestige. Driver and Johnson (2001) estimated the ESQ with different dimensions namely alternativeness, care, courtesy, flexibility, reliability, competence, integrity, access, availability and functionality.

### INTERNAL SERVICE QUALITY

In service organisations, the employees come in to contact with the customer in the process of production and consumption of services. The inseparable nature of services stresses the point that the human factor forms a key element in service sector in service businesses, the service personnel reflect the organizational realities. It is through the interaction with the staff that the customers form an opinion about the organisation. Therefore it becomes essential for the service marketers to motivate the employees to serve the customers better. The main prerequisite for motivating employees to deliver quality service to customers is delivering quality service to internal customers.

Internal service quality is defined as the feeling that employees have towards their job, colleagues and company. It refers to the quality of work life among the employees. Internal service quality has been measured by the employees attitude on pay, benefits, opportunities, job security pride in the work, openness, fairness and friendliness in the organisation.

### LPG - Liquefied Petroleum Gas

LPG is the abbreviation or short form for liquefied petroleum gas. Like all fossil fuels, it is a non-renewable source of energy. It is extracted from crude oil and natural gas. The main composition of LPG are hydrocarbons containing three or four carbon atoms. The normal components of LPG thus, are propane ( $C_3H_8$ ) and butane ( $C_4H_{10}$ ). Small concentrations of other hydrocarbons may also be present.

Depending on the source of the LPG and how it has been produced, components other than hydrocarbons may also be present.

LPG is a gas at atmospheric pressure and normal ambient temperatures, but it can be liquefied when moderate pressure is applied or when the temperature is sufficiently reduced. It can be easily condensed, packaged, stored and utilized, which makes it an ideal energy source for a wide range of applications.

Normally, the gas is stored in liquid form under pressure in a steel container, cylinder or tank. The pressure inside the container will depend on the type of LPG (commercial butane or commercial propane) and the outside temperature.

When you start using LPG, some of the pressure in the container is released. Some of the liquid LPG then boils to produce vapour. Heat is needed to convert the liquid to vapour (known as the latent heat of vaporization). As the liquid boils, it draws the heat energy from its surroundings. This explains why containers feel cold to touch and why, if there is a heavy off-take, water or ice may appear on the container. When you stop using LPG, the pressure will return to the equilibrium value for the surrounding temperature. The pressure of the LPG in the container varies with the surrounding temperature. It is also much higher than is needed by the appliances that use it; it needs to be controlled to ensure a steady supply at constant pressure. This is done by a regulator, which limits the pressure to suit the appliance that is being fuelled. It is a colourless and odourless gas to which foul-smelling mercaptan is added so that leak can be easily detected.

LPG is highly inflammable and must therefore be stored away from sources of ignition and in a well-ventilated area, so that any leak can disperse safely. Another reason why care should be taken during storage is that LPG vapour is heavier than air, so any leakage will sink to the ground and accumulate in low lying areas and may be difficult to disperse. LPG expands rapidly when its temperature rises. So whenever a container is filled, sufficient space is left to allow for such expansion. LPG will cause natural rubber and some plastics to deteriorate. This is why only hoses and other equipment specifically designed for LPG should be used.

Although LPG is non-toxic, its abuse – (like that of solvents) – is highly dangerous. LPG should always be treated with respect and kept away from children whenever possible.

## **HISTORY OF LPG**

Liquid petroleum gases were discovered in 1912 when Dr. Walter Snelling, an American scientist, realized that these gases could be changed into liquids and stored under moderate pressure. From 1912 and 1920, LP-gas uses were developed. The first LPG cook stove was made in 1912, and the first LPG -fueled car was developed in 1913. The LPG industry began sometime shortly before World War I. At that time, a problem in the natural gas distribution process popped up. Gradually facilities were built to cool and compress natural gas, and to separate the gases that could be turned into liquids (including propane and butane). LPG was sold commercially by 1920.

## REVIEW OF LITERATURE

In order to find a research gap, earlier studies relating to the service quality of domestic LPG have been thoroughly studied. The study has been identified with personal preferences on LPG gas which are available in the study area and various research studies are also taken in to account. The views expressed by various authors have been reviewed in a broad sense so as to confine itself for reference.

According to **Othman and Owen (2001)** SERVQUAL has proven to be the most popular instrument for measuring service quality because it affords technology techniques for measure g and managing service quality. However, since the Islamic banking industry operates under different principles and cultures as compared to other service industries, they argued that an additional dimension should be added to the SERVQUAL method. The authors developed an instrument called CARTER to measure service quality in Islamic banking. In addition to the existing five dimensions in SERVQUAL, CARTER incorporates an extra dimension which is "Compliance with Islamic Law".

In the 2001 study tour of **Taiwan, Yu (2001)** indicated that it might be possible to create service quality evaluations that are more accurate instruments for measuring the quality of service in the various service sectors, as Crompton et al.,(1991) suggested. For the best indicators of service quality in the tourism sector, the tourist,s experience might be the key indicator for evaluating tourism quality because the tourism industry is essential people serving people. Therefore, Otto and Ritchie (1996) stated that future studies of tourism quality should evaluate the tourist,s experience, instead of the five dimensions used in previous evaluation tools.

**Charoenpong, P. (2003)** Studied International tourist, satisfaction with the quality of service in accommodation in Thailand and the factors related to satisfaction, problems and the requirements of international tourists. The research revealed the satisfaction of international tourists towards quality of service was at a high level. However, the most common problems were lack of employee,s knowledge and English skill, therefore, tourists suggested language and convenient facility improvement. Therefore, Government Policy suggests that the TAT and related organizations should create and develop a curriculum and training. Accordingly, they also have to focus on language skills.

**Markovic (2004)** Studied service quality measurement in the Croatian Hotel Industry. She showed that a SERVQUAL instrument is a useful and reliable method to measure service quality of Croations hotels, for managers to identify differences in terms of expectations and perceptions. This method will lead to a better allocation of resources and a more effective design of marketing strategies, such as communications mix and pricing components, to ensure a proper level of service quality in hotels.

Service quality has been viewed as a significant issue in the banking industry by **Stafford (2004)** Since financial services are generally undifferentiated products, it becomes imperative for banks to strive for improved service quality if they want to distinguish themselves from the competition. Positive relationship between high levels of service quality and improved financial performance has been

established by Roth and van der Velde (1991) and Bennet (1992). Similarly, Bowen and Hedges (1993) documented that improvement in quality of service is related to expansion of market share.

**M. A. Al-Fawzan (2005)** Service quality is defined as the degree of alignment between customers' expectations and their perceptions of the service received. In this paper, we have used SERVQUAL as a technique to measure service quality in a Saudi bank (SB), a typical service provider in Saudi Arabia. The aim is to explore the most important strength and weaknesses of SB. The analysis of this study showed that there are service quality gaps between customers' expectations and their perceptions in six dimensions. Hence, SB has to take improvement actions in these dimensions.

Approaches to the measurement of service quality have typically been either a simple comparison of mean scores, extensive and detailed statistical model or more recently market research questionnaire. The current measurement of perceived service quality using the latter approach can be traced to the research of **Parasuraman, A (2005)**.

In a study conducted on Kuwait Finance House (KFH), **Othman and Owen (2006)** applied this model to measure the importance of service quality in the Islamic banking industry. They found a positive link between quality, satisfaction and service encounter. The finding proved the validity of this model for measuring quality of services in Islamic banks. Furthermore, all of CARTER's six dimensions were rated highly by KFH customers.

**Nalini Prava Tripathy (2006)** in her study on "A Service Quality Model for Customers in Public Sector Banks" has remarked that the banks have shifted from "Product-centric Model" to a "Customer Centric model" because customer satisfaction has been considered as the key determinant of business growth. In this context, she has made an attempt to analyze the factors that are necessary in influencing the investment decision of the customers of the public sector bank and also suggested suitable marketing strategies to attract customers.

**Kitisuda (2006)** studied a survey of customer satisfaction with spa services at Sivalai Spa. Both first-time and repeated customers were satisfied with the spa services on a high level. They were satisfied with the following service dimensions: responsiveness, empathy, reliability, assurance, and tangibility of the service quality at Sivalai Spa. Most customers agreed that the location of the spa was the most important factor for the spa. They suggested that the food and beverage facilities should be improved. Moreover, the study showed that there were four demographic factors that influenced the service quality at Sivalai Spa which were gender, age, nationality, and income.

**Gronroos (2007)** in the current marketing literature, much attention on the issue of service quality as related to customers' attitudes towards services has focused on the relationship between customer expectations of a service and their perceptions of the quality of provision. This relationship known as perceived service quality.

**Sultan Singh (2008)** in her study has found out that the level of customer service and satisfaction is influenced by the factors such as location of the branch and lay out, differentiated services,



system and procedures, delegation and decentralization, mechanization and computerization, complaint redressal; and skills, attitudes and responses of the employees.

**Nana Owusu- Frimpong (2008)** conducted an empirical study to ascertain customers' utilization level and perception about the image of rural community banks (RCBs) in Ghana. This research also probes whether women and men differ in their levels of satisfaction and expectation about the banks' services. Men and women are slowly imbibing the banking culture. Both sexes perceive the quality of financial advice, communication and service delivery as areas that require a lot of improvement. There are no significant differences between both genders with regard to perceptions and expectation of the banks' services.

Thus, the key to managing perceived service quality is to minimize this gap. **Zeithaml (2008)** Defined perceived service quality as the customers' assessment of the overall excellence of the service. Bolton and Drew (1991) described service quality as a form of attitude that results from the comparison of expectations with performance. Berry et. al (1990) pointed out that since customers are the "Sole judge of service quality", an organisation can build strong reputation for quality service when it can constantly meet customer service expectations.

In developing SERVQUAL, **Parasuraman, A (2009)** recast the 10 determinants into five principal dimensions: tangibles, reliability, responsiveness, assurance and empathy. Following their works, other researchers have adopted this model for measuring service quality in various service industries. Amongst them is Blanchard (1994), Donnelly et. Al (1995), Angur (1999), Lassar (2000), Brysland and Curry (2001), Wisniewski (2001) and Kang et. Al (2002). Application of this model to measure the quality of service in the banking industry was conducted by Newman (2001).

**Thomas Ogoro Ombati, Peterson Obara Magutu, Stephen Onserio Nyamwange, Richard Bitange Nyaoga. (2010)** Technology-based self-service has greatly changed the way that service firms and consumers interact, and are raising a host of research and practice issues relating to the delivery of E-service which has become increasingly important not only in determining the success or failure of electronic commerce, but also in providing consumers with a superior experience with respect to the interactive flow of information. The purpose of this research paper was to establish the relationship between technology and service quality in the banking industry in Kenya. The research was carried through across-sectional survey design which questioned respondents on E-banking services. The population of study mainly constituted of customers of banks within the Central Business District (CBD), Nairobi. The respondents of the study were customers of banks using E-banking services (internet banking, mobile banking and ATM). The sample in this study consisted of 120 respondents who are users of the E-banking services. The data collected was analyzed by use of frequency, percentage, means and correlation analysis. The findings revealed that, secure services as the most important dimension, followed by convenient location of ATM, efficiency (not need to wait), ability to set up accounts so that the customer can perform transactions immediately, accuracy of records, user friendly, ease of use, complaint satisfaction, accurate transactions and operation in 24 hours.

**J. Vimal Priyan and V. Karthihaiselvi (2010)** this study has been undertaken for identifying the customers' opinion towards Indane gas dealers' trade practices. Most of the customers are of the opinion that there is a delay in providing cylinder. It is suggested that there should be one more dealer in Sivakasi so as to distribute gas cylinder quickly. Majority of the customers prefer indane gas for the reasons like economy, convenience, time saving and cleanliness. As LPG has been moved towards buyers market, the dealer should provide better customers service than his competitors in order to have repeated sales, increased clientele and eventually sustainable development.

**Dr. H. S. Sandhu, Ms. Neetu Bala (2011)** The service quality has become a highly instrumental co-efficient in the aggressive competitive marketing. For success and survival in today's competitive environment, delivering quality service is of paramount importance for any economic enterprise. Life Insurance Corporation of India, the leading insurance company has set up 'benchmarks' in enervating the whole concept of service quality. The present study aims to measure customers' perception towards life insurance service quality by applying a framework developed by Sureshchandar et al. (2001). An advocated procedure has been used to develop, refine and validate a scale. Data has been collected from 337 customers from the three cities of Punjab (a progressive State of India). The findings of the study demonstrate that five-factor structure as proposed by Sureshchandar et al. (2001) has been refined to seven-factor construct (consisting of 34 items) representing Proficiency; Media and presentations; Physical and ethical excellence; Service delivery process and purpose; Security and dynamic operations; Credibility; and Functionality. Besides, the study also investigates the relationship between each of the generated service quality dimensions and customers overall evaluation of life insurance service quality. It reveals that among these seven factors, three viz., Proficiency; Physical and ethical excellence; and Functionality have significant impact on the overall service quality of Life Insurance Corporation of India. Managerial implications and directions for further research have also been discussed.

## **SCOPE AND IMPORTANCE OF THE STUDY**

Previous research studies have focused on customers' perception and expectation of service quality dimensions in different sector and no research study has focused on Indane gas. And the problems of the customers services provided by the employee of the company. Hence the current study explores service quality of domestic LPG from customer point of view in Salem city.

## **STATEMENT OF THE PROBLEM**

In the competitive era, the Indane gas company reforms have deregulated the market to a great extent. It has become necessary to design and execute the best customer oriented practices and to internalize them for providing enhanced satisfaction to the customer through the employees. Customers' service is not merely the compliance with the government's policies or the mechanical adherence to the time frame of services. It is a philosophy and an attitude of professional commitment, which believes in the ultimate satisfaction of each customer 'wants'.

Service marketers have really understood that competition can be well managed by differentiating through quality. Significance of service lies in customer service management.

### **OBJECTIVES OF THE STUDY**

The objectives of the study are as follows

1. To identify the service quality of Indane LPG's in Salem city.
2. To enumerate level of satisfaction of customers in LPG's service.
3. To analysis the respondents opinion about the Indane gas company.
4. To examine the quality of service provided by the Indane gas company.
5. To offer suggestions for improvement of service quality in domestic LPG.

### **RESEARCH METHODOLOGY**

The validity of research mainly depends on the proper method of data collection and suitable techniques analysis.

In the present study, both primary and secondary data have been used to conduct the study. Questionnaire have been prepared, and tested for their validity and reliability by a pilot study and finally the structured questionnaire have been used for collecting data. The questionnaires are distributed to the customer directly and filled in questionnaires are collected. Convenient sampling method is used for selection of sample customers. The sample size of the customer is 100.

### **LIMITATIONS OF THE STUDY**

The present study has the following limitations.

1. The study has focused on service quality of domestic LPG of in Indane Gas Company only.
2. The study was conducted in Salem city only.

### **DATA ANALYSIS AND INTERPRETATION**

When three or more group is too compared in ANOVA techniques is the appropriate one. By analysis of variance it is meant segregation of the interest is to compare the awareness of respondents.

#### **Residential Area and Know About IOC (Indane)**

Residential area is an important factor to determined new information. Urban area people are more aware than rural and semi urban people. In this study the respondents are classified in to three groups as, Friends, relatives, family members and Advertisement.

#### **Hypotheses**

There is no significant difference residential area of respondents has same know about the IOC (Indane).

ANOVA Table : 1

Residential area and Know about the IOC (Indane)				
Know the Company	Mean	SD	F	Sig.
Rural	2.42	0.957	7.799	0.001
Semi urban	2.46	0.744		
Urban	3.21	0.902		

Source: Primary data

### INTERPRETATION

It is derived from the above table 1 indicated that the P value is less than 0.01 the null Hypotheses is rejected at 5% level of significance. Hence, it is concluded there is significant difference residential area of respondents has same know about the IOC (Indane).

### INCOME AND PREFERENCE INDANE GAS

Income is an important factor to determined preference of Indane. The preference gives by the respondents, Price, quality, service and others. In this study the respondents are classified in to four Income groups as, Below 10000, 10001-20000, 20001-30000 and above 30001.

### Hypotheses

There is no significant difference Income group of respondents has same preference Indane gas.

ANOVA Table: 2

Income and Preference Indane Gas				
Preference of the Company	Mean	SD	F	Sig.
Below 10000	2.32	0.894	0.896	0.446
10001-20000	2.38	0.609		
20001-30000	2.45	1.036		
30001 and above	3	0		

Source: Primary data

### INTERPRETATION

It is derived from the above table 2 indicated that the P value is more than 0.446 the null Hypotheses is accepted at 5% level of significance. Hence, it is concluded there is no significant difference Income group of respondents has same preference Indane gas.

## AGE AND RESPONSE TO RESPONDENT'S QUERIES

Age is an important factor to determined responsiveness of Indane Gas Company. The opinion about queries is measures five point scale, highly satisfied, satisfied, moderate, dissatisfied and highly dissatisfied. In this study the respondents are classified in to four age groups as, Below 20 years, 21-40 years, 41-60 years and above 61 years.

### Hypotheses

There is no significant difference age group of respondents has same response to respondent's queries.

**ANOVA Table: 3**

Age and Response to Respondent's Queries				
Preference of the Company	Mean	SD	F	Sig.
Below 20 years	1.5	0.577	2.224	0.09
21-40 years	2.26	0.798		
41-60 years	1.92	717		
61 above years	2	0		

Source: Primary data

### INTERPRETATION

It is derived from the above table 3 indicated that the P value is more than 0.090 the null Hypotheses is accepted at 5% level of significance. Hence, it is concluded there is no significant difference age group of respondents has same response to respondent's queries.

### RESULTS AND FINDINGS

1. It clearly denotes that majority of respondents are females. Because most of the female is buying domestic gas.
2. It clearly denotes that Majority 69% of the respondents are between in the age group of 21- 40 years.
3. It clearly denotes that Majority 41% of the respondents are completed school level education.
4. It clearly denotes that Majority 43% of the respondents are belongs to rural area.
5. It clearly denotes that Majority 46% of the respondents are other occupations.
6. It clearly denotes that Majority 53% of the respondents are earned monthly income of below Rs.10,000.
7. A maximum of 39 of the customers are satisfied in this aspect followed by 15 who are moderate in this aspect of satisfaction.

8. It is concluded that there is no association between the age level of the respondents and Level of satisfaction.
9. The level of safety given by the company opinion among the customers belonging to all five groups of Indane gas is 'satisfied'.
10. It is concluded that there is no association between the education level of the respondents and Level of opinion about safety measures given by the company.
11. The most important level of occupation among the customers belonging to all five groups of Indane Gas Company is 'satisfied'.
12. It is concluded that there is no association between the occupation of the respondents and Level of Satisfaction of maintenance of record.
13. The significantly influencing the factor influencing to determine the service quality.
14. It is concluded that there is no significant difference between mean scores of opinion about the complaint and sex of respondents.
15. It is concluded that there is no significant difference between mean scores of opinion about the Changes of the Company and Marital status of respondents.
16. It is concluded there is no significant difference residential area of respondents has same know about the IOC (Indane).
17. It is concluded there is no significant difference Income group of respondents has same preference Indane gas.
18. It is concluded there is no significant difference age group of respondents has same response to respondent's queries.

## SUGGESTIONS

The following suggestions were given on the basis of the findings of the study.

1. There should be one more dealer in Salem so as to distribute gas cylinder quickly.
2. Gas cylinder godowns may be installed in few more places as the study area is vast.
3. There should be a periodical checking up of the cylinder. If any defect is found in any place, the dealer should send immediately a mechanic to rectify the defect in the gas cylinder.
4. Most of the customers are of the opinion that there is a delay in providing cylinder, so reduce the time delay providing gas.
5. Avoid the irregularity of increasing price of the gas.
6. Bring awareness among the consumers and make use less consumption limit.

## CONCLUSIONS

In this the competitive environment, service quality has become the success mantra in all service sector. Keeping this in mind, this study has been conducted at Salem city to identify the service quality of Indane gas. The result indicates that customers are not highly satisfied with the service provided by the Indane gas. So the company took some serious action to improve the service quality.

## REFERENCES

1. Heskett.J.L., (2004), "Service Break Through", The New York Free Press, New
2. Garnin David,A., (2007), "What does quality really mean?" Sloan Management Review, fall, pp. 45-54.
3. Oliver,R.L., (2008), "A Conceptual Model of Service Quality and service Satisfaction: Compatiable Goals, Different Concepts". In T.A.Swartz, D.E.Bowen and S.W.Brown (eds), Advances in Service Marketing Management: Research and Practice, Greenwich, CT:JAI, vol.2.
4. Lovelock Christopher,H. (2009), "Service Marketing People, Technology, Strategy", Pearson Education, pp.252-322.
5. Yogeswari Phatak and Naseem Abidi (2009), "Client's Perception on Quality in Banking Services: An Empirical Study", Delivering Service Quality: MRagavachari and K.V.Ramani, pp.141-152.
6. Aravindan, P. and Punniyamoorthy, (2010), "Service Quality Model to Measure Customer Satisfaction, Delivering Service Quality", M.Raghavachari and K.Ramani, McMillan India Ltd.
7. Berry.L.L., and Parasuraman.A., (2011), "Marketing Service: Competing Through Quality", New York : Max Well MacMillan International.
8. Abdul Qawi Othman and Lynn Owen (2001), "Adopting and Measuring Customer Service Quality (SQ) in Islamic Banks: A Case Study in Kuwait Finance House". International Journal of Islamic Financial Services, Vol. 3. No. 1.
9. Abdul Qawi Othman and Lynn Owen (2006), "The Multi Dimensionality of Carter Model to Measure Customer Service Quality (SQ) in Islamic Banking Industry", International Journal of Islamic Financial Service, Vol. 3, No. 4.
10. Charoenpong, P. (2003), "International Tourists: Satisfaction with the Quality of Service in Accommodation in Thailand". Dissertation (Population Education). Bangkok: Graduate School, Mahidol University.
11. Driver Carole and Johnson Robert (2006), "Understanding Service Customers- The value of hard and Soft Attributes", Journal of Services Research, vol. 4, no.2, pp. 130-139.
12. Dr. H. S. Sandhu, Ms. Neetu Bala (2011), "Customers' Perception towards Service Quality of Life Insurance Corporation of India: A Factor Analytic Approach" International Journal of Business and Social Science, Vol. 2 No. 18; October 2011 Pp 219-231
13. Parnkul, Kitisuda. (2006), "Customer's Satisfaction with Spa Services at Sivalai Spa". Research Paper (English for Careers). Bangkok: Language Institute, Thammasat University.

14. [http://en.wikipedia.org/wiki/Indian\\_Oil\\_Corporation](http://en.wikipedia.org/wiki/Indian_Oil_Corporation)
15. <http://info.shine.com/company/Indian-Oil-Corporation-Limited/915.aspx>
16. <http://hero-bussiness.blogspot.com/2009/12/definition-of-service-quality.html>
17. <http://www.emeraldinsight.com/journals.htm?articleid=1509186&show=abstract>
18. <http://www.emeraldinsight.com/search.htm?ct=jnl&st1=Service+quality&fd1=kwd&mm1=all#>