

**A STUDY
OF CONSUMER BEHAVIOR AND LOYALTY
IN THE CHANGING MARKET SCENARIO
OF THE OPEN ACCESS POLICY
WITH SPECIAL REFERENCE
TO MSEDCL CONSUMERS IN THE PUNE REGION**

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Submitted By

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under the Guidance of

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August 2015

CERTIFICATE

This is to certify that the Thesis entitled “**A Study of Consumer Behavior and Loyalty in the Changing Market Scenario of the Open Access Policy with Special Reference to MSEDCL Consumers in the Pune Region**” which is being submitted herewith for the award of the Degree in Philosophy(Ph.D) in Management Department of **Tilak Maharashtra Vidyapeeth, Pune** is the result of original research work completed by Shri. **Patki Sudhanva Yashwant** under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title of this or any other University or examining body upon him.

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DECLARATION

I hereby declare that the Thesis entitled “**A Study of Consumer Behavior and Loyalty in the Changing Market Scenario of the Open Access Policy with Special Reference to MSEDCL Consumers in the Pune Region**”, completed and written by me has not previously formed the basis for the award of any Degree or other similar title upon me of this or any other University or examining body.

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Abstract

The power sector is going through a transformational phase after enactment of Electricity Act 2003. The Regulatory Commissions have started to initiate necessary steps for making the Power Sector competitive. It is emphasized in the research that the Distribution Utilities need to understand the changing environment and devise strategies to retain the Consumer base. The Consumer segment that has been targeted in the study is the eligible Open Access Consumers, as they are high consumption; high revenue earning consumers contributing to the financial viability of the Distribution Companies. The Sustainability and Universal Service Obligation for the Government Owned Distribution Companies like the Maharashtra State Electricity Distribution Company Ltd (MSEDCL) would be possible, only if the described Consumer Segment guarantees Loyalty with them. This quantitative study endeavors to understand in depth and breadth, the Consumer Behavior and Loyalty of the targeted Consumer Segment.

Conceptually, the Research considers Satisfaction, Perceived Value, Brand Image, Role of Switching Barriers and the Consumer Loyalty as the basic variables of the study. The Consumer Culture that envelops the Conceptual Model is also studied during the course. The Data Collection is achieved through Survey Questionnaires. The population includes the Four Hundred Eighteen number of eligible Open Access consumers scattered in and around the Pune City and the Sample includes One Hundred Forty Consumers that represent various Tariff categories and Sectors. The Data Analysis for evaluating present level of Satisfaction, factorizing Perceived Value, determining the strength of correlation along with the causal relationship between the Basic Variables, understanding the moderating role of Switching Barriers and testing of the Consumer Retention Model is done, having used Statistical Software-SPSS and Structural Equation Modeling.

The research tells that the Consumers at present prefer to stay Loyal with the MSEDCL, but if provided with better alternatives in future, then they may switch over to other Service Providers. The findings provide vital inputs to all the Stakeholders and anticipate a healthy competitive environment for the Power Consumers in future.

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Abbreviations

ABBR.	EXPANSION
ABT	Availability Based Tariff
APM	Automated Payment Machines
CD	Contract Demand.
CEA	Central Electricity Authority
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
CSS	Cross Subsidy Surcharge
FMCG	Fast Moving Consumer Goods
HT	High Tension
HUL	Hindustan Unilever Limited
IEX	Indian Energy Exchange
IIM	Indian Institute of Management
IT	Information Technology
KV	Kilo Volt
KVA	Kilo Volt Amps
KWh	Kilo Watt Hour
LIC	Life Insurance Corporation of India
LT	Low Tension
MERC	Maharashtra Electricity Regulatory Commission.
MNC	Multi National Company
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Company Ltd.
MSETCL	Maharashtra State Electricity Transmission Company Limited
MVA	Mega Volt Amps
MW	MW – Mega Watts
NCAER	National Council of Applied and Economic Research
NGO	Non Government Officials
OECD	Organizations for Economic Cooperation and Development
R-Infra D	Reliance Infra-Distribution
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
TPC-D	Tata Power Company-Distribution

Chapter 1

Introduction

Chapter 1

Introduction

1.1 The Background

The power sector is one of the important sectors contributing to the economic development in India. The sector, till the beginning of 21st Century was administered by laws which were framed many decades ago and had less relevance with the existing problems. The enactment of Electricity Act 2003¹ has laid the foundation for the development of power sector in our country. Prior to this act, the sector was mainly governed by the Electricity Supply Act 1948. The economic reforms in India were initiated in 1991, but it took ample time to infuse the reform process in the electricity sector, as it comes under the concurrent list. India's dream of double digit economic growth will come true only if it is fueled by the growth in the power sector. The purpose of the Act 2003 is to rejuvenate the sector by upgrading the existing technology, promoting competition, rationalization of tariff and protecting the interests of the Consumer.

The enactment of the Act has initiated measures to transform the monopolistic environment of the sector into a competitive one. The business environment for Power Sector not only in India, but also across the globe was highly monopolistic and it was characterized by Vertical Integration, that is to say, the three wings in the supply chain, namely Generation, Transmission and Distribution belonged to a single parent Company. After the enactment of the Electricity Act 2003, the power sector environment is undergoing a transformational phase. The purpose of the act is to promote healthy Competition and safeguard the Consumer's Interest. The implementation of the Electricity Act 2003 has forced the State Electricity Boards to unbundle their Operations and create separate entities for Generation, Transmission and Distribution. The formation of separate entities intends to bring forth Accountability, Transparency and Efficiency in the sector. The introduction of competition in this sector will mainly impact Generation and the Distribution wings. Especially, the Distribution wing which is the terminal point of the supply chain thus making it prone to Consumer grievances. The inefficiencies in any wing of the supply chain are finally reflected upon the Distribution side. It may be

presumed that other two wings should coordinate with the Distribution wing as a part of organism in spite of their severance from one another. What is expected is synergies of all three wings in the sector to make 'Open Access', a success. The Distribution wing in the supply chain acts as a 'touch point' in evaluating the performance parameters like Consumer Satisfaction, Consumer Perceived Value, Consumer Loyalty and the Brand Image of the Company. In view of the above it becomes imperative for the Distribution Companies in the Power Sector to design strategies that help to maximize the Consumer Interest at large. Even today, the growth of the sector is handicapped by some of the unique issues like huge gap in Supply-Demand of electricity, inefficient capacity for generation, shortages in coal supplies, deteriorated distribution network, significant commercial losses, lack of finances, unskilled human resource, ageing line staff etc. But despite the problems mentioned above, the provisions in the Electricity Act 2003 envisage that the Power Consumers in near future will have the choice to select their Service Provider amongst the Multiple Service Providers. The growth in the Telecom sector supports the proposition.

1.2 Defining the Problem

Prior to Electricity Act 2003, all the Electricity Consumers were at the mercy of the State Electricity Boards, but the Act has paved in a way for 'OPEN ACCESS', thus enabling some of its Consumers to select their Service Provider. Previously the Consumer categorization in power sector was based on 'Purpose of Supply', whether a consumer is Residential, Commercial, Industrial or Agricultural, but the introduction of Open Access has forced the Distribution Utilities to segment its Consumers on a new criterion of Consumption pattern and Revenue potential. The Maharashtra Electricity Regulatory Commission (MERC), Distribution Open Access Regulations provide Consumers having Contract Demand² of 1 MVA(Mega Volt Amp) or more, with choice to select their Service Provider. The Consumers with Contract Demand (CD) of 1 MVA or more are high consumption, high revenue consumers for the Distribution Utilities.

The table below depicts the potential of Open Access Consumers in the Pune Zone.

Table 1.1: Contribution to Sales by Eligible/Non-eligible Open Access Consumers in the Pune Zone

Category	No of Consumers	Sale in Million Units(MU's)	% of Total Sales
High Tension(HT) Consumers eligible for Open Access ($CD \geq 1$ MVA)	418	310	32 %
High Tension(HT) Consumers not eligible for Open Access ($CD < 1$ MVA)	2,969	192	20 %
Low Tension(LT) Consumers (Not eligible for Open Access)	19,94,000	464	48 %

Source:- MSEDCL IT Centre ,Pune Zone, Pune .

From the above table it is clear that the eligible 418 Nos of Open Access Consumers in Pune Zone contribute almost 32% of the total sales. These Consumers are handful in numbers, but offer immense potential for revenue generation. The aim of the Research is to develop a model to retain these Consumers.

The 10th and 11th five year plans have already promoted the private players in generation. The CEA (Central Electricity Authority) annual reports for the year 2007-08 and 2012-13 reveal that the total Generating Capacity Addition during the 10th five year plan is 21332 MW out of which the Private Sector contribution is 3034 MW and for the 11th five year plan the total Generating Capacity Addition is 54963 MW out of which 23962 MW is added by the Private Sector. Therefore, the eligible Open Access Consumers in near future may switch over to other Service Providers or may directly tie up with Private Generators for better services at affordable prices. In such a situation, the State Owned Companies like MSEDCL (Maharashtra State Electricity Distribution Company Ltd) will be left only with low consumption low revenue consumers. Despite the provisions in the Electricity Act 2003, due to Social and Political reservations , the

present tariff structure is non-uniform and highly subsidized, thus the revenue earned by the state owned companies from the high paying and high consumption consumers help to serve the low consumption and low paying consumers. The social obligation of the state owned companies is at the cost of high revenue generating consumers. If such consumers switch over to private service providers, the state owned companies may not be in a position to offer services to the low consumption , low revenue generating consumers. Hence, the MSEDCL must realize the importance of retaining high revenue generating consumers for their survival in future. In this context, the research aims at evaluating present level of Consumer Satisfaction, understand the meaning of Consumer Perceived Value and find out ways to improve Brand Image of the Company and enhance Consumer Loyalty of eligible Open Access Consumers in the Pune Region. The moderating role of Switching Cost on Consumer Retention will also be studied during the process.

1.3 The Research Objectives

The focus of the research will be on the high revenue generating consumers eligible for Open Access as per the provisions in the Electricity Act 2003 and the study will be restricted to the region of Pune. The Research Objectives are as follows.

1. To determine the present level of Consumer Satisfaction.
2. To understand the concept of 'Value Proposition' for the Consumers and to find out the factors contributing to Consumer Perceived Value.
3. To determine the relationships between Consumer Loyalty, Consumer Perceived Value, Consumer Satisfaction, Brand Image.
4. To study the moderating role of Switching Cost on Consumer Loyalty.
5. To develop a Consumer Retention Model.

1.4 The Research Hypotheses

The Independent variables in the research are Consumer Perceived Value and Consumer Satisfaction, whereas Consumer Loyalty will be the dependent variable. In view of the above discussion, following hypotheses will be tested.

- 1) Consumer Perceived Value and Consumer Satisfaction positively affect the Consumer Loyalty.
- 2) Switching Cost moderates the relationship between Consumer Loyalty and Consumer Perceived Value & Consumer Satisfaction.
- 3) Consumer Perceived Value and Consumer Satisfaction have strong positive relationship.

1.5 Scope and Limitations

The Consumer Satisfaction and Consumer Perceived Value as Independent variables and Consumer Loyalty as the Dependent variable are the basic parameters for the study. The research aims at evaluating the present level of Consumer Satisfaction and Brand Image of the MSEDCL for the eligible Open Access Consumers. The nature and strength of the relationship amongst the selected variables will be ascertained and the role of Switching Cost would also be studied considering the relationship between the Independent and Dependent variables. The overall intention is to develop a Consumer Retention Model by exploring the concepts of Consumer Satisfaction, Consumer Perceived Value for Electricity Consumers. The study would be restricted to the existing MSEDCL Consumers in the Pune Region, eligible for Open Access.

References:

1 - In exercise of powers conferred by clause(k), clause(n), clause(p), clause(q) and clause(zp) of subsection (2) of Section 181 read with subsection(47) of Section 2, sub clause(ii) of clause(d) of subsection(2) of Section 39, sub clause(ii) of clause(c) of Section 40 and subsection(2), subsection(3) and subsection(4) of Section 42 of the Electricity Act 2003(36 of 2003), the MERC has made regulations for introduction of Open Access in the Distribution System of the State.

2 – Contract Demand(CD) means demand in Kilo Volt Amps(KVA) or Mega Volt Amps(MVA) as entered in to in the agreement of supply of electricity or use of Distribution Systems or any other written Communication.

Chapter 2

The Review of Literature

Chapter 2

The Review of Literature

2.1 The Beginnings

The introduction of the 'Open Access' scheme in power sector not only empowers the consumers by providing choice to select their Service Providers but also safeguard their interest. The new act may carve out the future for power sector in India, but the actual implementation of the provisions in the act to make 'Open Access' a reality is a tough goal. Electricity as a commodity is characterized by some unique attributes namely, inconvenience in storage of power; simultaneity in nature of supply and demand, its flow that follows the least resistance path in the network, hence posing challenges to its controllability and transportability. In manufacturing sector the finished goods produced at the plant can be transported to a specific market place by way of Rail, Road or any other mode of transport. For example, finished goods manufactured at Delhi can be transported to an exact market point in Mumbai, but this cannot be accomplished so easily in case of power transmission, as the grid operation is complex and the flow of electricity takes a path in the Grid that offers least resistivity. Therefore, it is very uncertain that the electrical energy injected into the Grid at Delhi would reach the desired point of Consumer usage in Mumbai. Considering the above facts and in order to achieve the benefits of economies of scale, optimal utilization of available resources it is prudent to monitor and synchronize all the activities in the supply chain by a single establishment and hence the Industry under study is believed to be a natural Monopoly¹. Further, the activities associated with Generation, Transmission and Distribution of electricity are highly capital intensive, thus forcing the nature of the business environment to a Monopolistic kind.

Till now, the development of the sector needed enormous funds and hence the sector was administered by the government in order to set huge generation capacities along with pervasive transmission and distribution networks. The State Electricity Boards

were formed with an intention of social obligation to provide electricity for all and commercial interest was considered to be secondary. It must also be noted, that the development in technologies, especially over last three decades led to a meteoric growth of Industrialization followed by Information era. The electricity sector which was supposed to power the economic development suddenly became the ‘Achilles heel’ in the country’s economic growth due to power deficit situation, poor financial condition of State Electricity Boards and the lack of policy reforms to safeguard the interest of Consumers. The enactment of the Electricity Act 2003 has created provisions to initiate competition in this sector, but their implementations see a bumpy road ahead. The turnaround in the sector is possible only with a change in the mindset of Employees and Consumers. In view of the above discussion it would be interesting to review the implementation of competition policy in some foreign countries.

2.2 Competition Policy in the Electricity Sector: A Global Outlook

The subject of ‘Open Access’ in the Indian Power Sector is very recent and further its implementation is challenging as the business environment related to power industry in the country is highly monopolistic. In the Global context, the liberalization of the sector is at the most two decades old. The relevant literature available on this topic is handful; of course the search on Google provides some information. The Electricity Act 2003 mentions the provisions in the Act related to Open Access, but it is important to understand the practical hurdles during the actual execution of these provisions. In the above context the OECD Competition Committee published “*Competition Policy in the Electricity Sector*”(1997)², a document comprising proceedings in original language of a Round table on application of Competition Policy to the Electricity Sector. The OECD Competition Committee debated the application of Competition Policy to the Electricity Sector in 1996. The committee came out with the document that includes written submissions from Australia, Belgium, Canada, the Czech Republic, the European Commission, Finland, Germany, Hungary, Italy, Japan, New Zealand, Norway, Poland, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States. The document talks about the various aspects such as, need for Structural Changes necessary

for liberalization, whether privatization is an important step in competition or whether corporatization is sufficient, whether the tariff has declined due to competition or better regulation, how the issue of Stranded Cost³ be dealt with during the process of liberalization.(*OECD Competition Committee defines Stranded Cost as, “the unamortized costs of prior investments that are scheduled for recovery through regulated monopoly rates but would not be recovered under competition”. For example, if a generation company is assured by the regulator for some fixed profit over cost, but due to implementation of competition in the sector would not help the company earn the desired returns, as the pricing will be competitive instead of cost plus, this scenario would bring the company in financial problem. Hence it is necessary to deal with the issues of Stranded Cost judiciously in view of changing business environment in order to avoid financial bankruptcy of existing firms and preserve the confidence of future investors in the sector.*) All the above mentioned factors are significant in executing the competition policy and need special attention for its success.

The review of the Competition Policy helps understand the common characteristics of power sector across the globe, the hurdles and the key issues while transition from Monopoly to Competition, analyzing the impact of competition policy considering the benefits to the Consumers.

Considering the business environment of power sector in the Indian context and some of the common features across the foreign countries as covered in the document of Competition Policy is mentioned below. These features are prior to execution of Competition Policy.

1. The power sector is dominated by Vertical Integration, which means, all the three wings in the supply chain are monitored by a single business entity.
2. Government owned monopoly utilities.
3. Over all inefficiency in the Industry and the lack of Consumer focus.
4. Political influence⁴ in decision making related to addition of generation capacities, tariff fixation.
5. Subsidized tariff structure.

It becomes apparent from the reviewed literature that the problems common to Indian Power Sector are prevalent even in foreign countries. But, there are some distinguishing points that we need to consider while comparing the Indian Power Sector with respect to foreign countries.

In most of the foreign countries the generation capacity during the implementation of competition policy was in excess⁵ and in few countries like New Zealand, Norway, Canadian British Columbia Utility, the generation of electricity was mainly hydro based⁶. Thus, the issues like energy security, sustainability and affordability become insignificant, as hydro power generation offers a cheapest option for electricity production.

Today, the Indian Power Sector is paralyzed by shortage of supply. Although the generation capacity has been acute, to some extent the capacity addition during the 10th and 11th plans gives some hope for the sector. But the only addition of generation capacity would not serve the purpose. Because the basic problem concerned with generation of electricity is also linked with quality and supply of Coal. A report on, “*Operational Performance of Generating Stations in the Country during the Year 2011-12*”, as published by Central Electricity Authority on its website highlights that the loss of thermal electricity generation was also contributed by poor quality of Coal, shortage of gas and Coal supply. The poor quality of Coal also adds to maintenance problems of the generating stations which increase the operational expenses and as a result the overall cost of supply to Distribution Utilities and in turn to the end users of electricity. Because of these adverse situations, the implementation of competition in Indian Power Sector becomes a challenging task.

In almost all the countries as mentioned in the OECD Competition Policy, the reforms were initiated during the period 1990 to 1996. The major steps taken to bring forth competition are as follows.

1. Operational unbundling⁸ or the idea of disintegration of vertically integrated industry cause to form three separate wings namely Generation, Transmission and

Distribution. It is interesting to note that disintegration of Industry in Spain led to formation of three separate companies, but cross ownership of shares in Generation and Distribution was allowed so as to ensure transparency in the system. The documents also expressed the critical view about joint ownership in companies in Swedish⁹ context. The joint ownership owns a risk of competing companies operating in a way detrimental to the interest of Consumers. Especially this will be interesting, if a single person holds important decision making position in two competing companies. Hence the role of the regulator and issues related to corporate governance in this sector are very sensitive and need special attention.

2. Separation of Wire and Supply Business. The primary intention is to ring fence distribution activities from the retail activities.
3. The OECD document on Competition Policy emphasizes the development of Trading Markets¹⁰ for success of liberalization in the sector and considering the benefits to the end users of electricity in real sense. The development of efficient Trading Market will increase the competition amongst the generators thus providing incentive for efficient operations. The market arrangements will provide multiple options to the Consumers at competitive prices and the efficient Trading Market arrangement will ensure benefits to the consumers by providing improved service through innovative ways like multiple tariff structures, etc. But it is also necessary to have a perfect balance between the short term and the long term contracts signed by the distribution utilities. Because, the spot market trading may benefit the Consumers, but add risk to the generators and block the future investments in the sector. The OECD document mentions that development of efficient Power Trading mechanism is a challenging task.
4. In order to successfully implement Competition Policy, the issue of Cross Subsidization across Consumer categories becomes significant. The experience from the markets such as Telecom, Rail Transport that were deregulated in Sweden¹¹ shows that the cross subsidization issue should be meticulously dealt with for successful transition of a sector from the Monopolistic environment to a Competitive one. The OECD document on Competition Policy, in context with the reform process in Spain¹²,

brings up the removal of subsidies as a challenge for the Regulators, especially because of the strong opposition from the cross subsidized consumers and the utilities. The correct calculation of the Costs and Tariffs require precision and specific relevant information, which is seldom available. The lack of transparency in highly subsidized sector like Electricity becomes the major challenge for the Regulators. In Australia¹³ after making the electricity sector competitive, the Commercial and Industrial tariffs have reduced by 10 % and the Residential tariffs have gone up by 2.1 % in real terms, affecting some removal of cross subsidies. The New Zealand¹⁴ electricity sector has also experienced the decrease in Commercial and Industrial tariffs with increase in tariff for Residential consumers through removal of cross subsidies associated with increase in Fixed Charges for Residential category.

The removal of cross subsidy is very difficult so far as we consider the Power Sector in India. In the year 1993, the National Development Council set up a Committee on Power¹⁵, so as to initiate reforms in electricity sector in the country. The committee was headed by the then Chief Minister of Maharashtra, Shri Sharad Pawar and also included some other Chief Ministers as members. The committee came out with various recommendations on improving performance of power plants; streamlining the process of project clearances, creation of Regional Load Dispatch Centre, providing electricity to all by 2010, measures for energy conservation and demand side management . Along with these recommendations, the committee also recommended that each state should fix '50 paise per unit' as bare minimum tariff for Agriculture consumers and by 1999 the tariff should be increased to at least 50 % of the cost of supply. The implementation of the recommendation remained a far-cry in most of the states. Even today, the implementation of Agriculture tariff hike remains a dream, as we see in most of the states the Agriculture consumers are unmetered.

5. Development of International Grids is also one of the key issues that need special attention especially in case of the Indian sub continent. The resolution of International disputes, co-ordination and co-operation between countries would help to optimally utilize the available resources and boost the economic growth of India and the neighboring countries namely, Pakistan, Bangladesh, Sri Lanka, Nepal etc. It is

interesting to note that the document on Competition Policy published by the OECD has highlighted the importance of International Power Grids. On January 1, 1996, Sweden decided to replicate the electricity reforms in Norway, thus opening borders for a joint Norwegian Swedish¹⁶ electricity markets. The document also cites that the joint market will be further extended to include Finland. Norway and Sweden have cables for power exchange with Denmark and are planning to develop cable networks for power exchange with Netherlands. The benefits of developing an International Electricity Grid are enormous, but with the development of International Grids, the regulatory problems tend to be more complex.

In the context of Indian Power Scenario it is necessary to develop trade relationship with Nepal and Bangladesh¹⁷, keeping in view the Hydro potential in Nepal and gas availability in Bangladesh. The Ministry of Power has initiated necessary steps through the Ministry of External Affairs to ensure healthy ties with these countries. The implementation of competition in our country will be possible only if the power deficit situation is eliminated. At present the supply shortages are not because of insufficient generation capacities, but are mainly due to non availability or poor quality of fuel. In spite of this, it would be interesting to see the developments of TAPI(Turkmenistan-Afghanistan-Pakistan-India) Gas line that offers cheapest source of Gas from Turkmenistan to fuel power stations in India.

2.3 Electricity Act 2003: An Initiative to Transform the Power Sector

The sector prior to the enactment of Electricity Act 2003 was managed by the laws which had little relevance with the burning issues in the Power Sector. The sector was mainly governed by The Electricity Act – 1910, The Indian Electricity Supply Act – 1948 and the latest Electricity Regulatory Committee Act – 1998. The basic problems associated with the sector were financial viability of the State Electricity Boards and higher growth rate in the sector that boosts the overall economic growth of our country. It would be inappropriate to say that the sector did not grow over last few decades. The sector grew from mere 1500 MW¹⁸ installed capacity in 1950 to about hundred thousand MW by the year 2000. The per capita consumption also increased from 15 KWh to 500 KWh during

the corresponding period. The achievements made so far surely deserve appreciation, but considering the global scenario the country had enough scope for growth and improvement. About a Century ago, people were scared of using electricity because of safety concerns and lack of knowledge with the use of commodity. The primary aim was to instill confidence amongst masses to use the commodity without any fear. But with the development of Domestic technologies, the dependency on electricity increased many folds and everyone started using electricity liberally. The fear about the usage of commodity altered in to greed thus encouraging usage of the commodity through unfair means. Theft of electricity was the major concern especially with the Distribution Wings of the State Electricity Boards and the prevailing laws hardly had any provisions to deal with it. The loop holes in the current system failed not only in promoting the sustainable growth of the sector but also in safeguarding the interest of honest Consumers.

The power deficit situation in the country, deteriorated networks, old and inefficient technologies was the problem area in the sector. Hence a need was felt to formulate a comprehensive legislation which could suffice the higher growth rate of the sector as well as could also address the Consumer concerns. In the year 2000, the Government realized the urgency to draft a comprehensive Electricity Bill and entrusted the responsibility to National Council of Applied and Economic Research (NCAER)¹⁹. The National Council of Applied and Economic Research submitted its recommendations to the Ministry of Power which initiated another round of consultation process. The representations and suggestions made by various agencies like Industry Bodies, Consultants, Utilities, State Governments and NGO's were scrutinized and the necessary amendments incorporated in the draft submitted by the NCAER, before the Bill was tabled in the Parliament in August- 2001 for further debate and its approval. The Parliament referred the bill to the Standing Committee of Parliament on Energy. The Committee after having discussions with various stake holders, namely, the State Governments, Public and Private Sector Utilities, Industry Bodies, Federation of Unions and Association of Employees, Academic and Consultants scrutinized the representations and made necessary changes in the original Bill. The committee incorporated almost eighty suggestions and recommendations and forwarded the report to the Parliament in December 2002. The report submitted by the Committee was a comprehensive report of

600 pages that not only picked up the view points of all the stake holders but also analyzed the implications of various suggestions and finally gave its recommendations and suggestions. The Ministry of Power processed all the recommendations and suggestions made by the Committee. The Bill with official amendments proposed was deliberated for several hours in the Lok Sabha . A number of amendments as proposed by the members were considered and finally the bill was passed in the Lok Sabha. The ruling NDA Government did not have the necessary majority in the Rajya Sabha , but there was a common understanding within the political parties to clear the Bill passed by Lok Sabha and even in the Rajya Sabha subsequently. Yet the Rajya Sabha suggested amendments in the provisions of the Bill that related to issues of Multiple licensees in the same area of supply, specific time bound provisions in the Act to implement Open Access, Superintendence and control of Appellate Tribunals over Regulators Commissions and more importantly editorial changes in the sections related to theft of electricity in order to avoid ambiguity. The concern of Members of the Rajya Sabha was to open up the sector to competition and ensure that the related provisions are not too restrictive in promoting competition and should mainly consider the parameters like capital adequacy, credit worthiness and code of conduct of the Company. Finally the bill was unanimously passed even in the Rajya Sabha and the Electricity Act 2003 became effective from June – 2003.

The Electricity Act – 2003 has Consumer at its focal point and the Act mainly focuses on the following points.

1. Development of Electricity Industry
2. Promoting Competition
3. Safeguard the Interest of Consumers
4. Supply of electricity to all areas
5. Transparent policies regarding subsidies
6. Promotion of efficient and environmentally benign policies

In view of the Research topic, the major focus of discussion will be related with sections regarding promotion of competition in Distribution. The Electricity Act – 2003 in real sense empowers the Consumers by transforming the monopolistic environment into a competitive one, thus offering a choice to Consumers through multiple service

providers. The sections that relate to the introduction of competition in power sector are briefed as below.

1) Section (9) , Sub Section (2) :- The section (9),sub section (2) of the electricity act 2003, mentions that the Captive generating plants shall have the right to Open Access, to transmit electricity from captive generating station to the destination of their use. The Open Access will be subject to availability of adequate transmission facility, which would be decided by the Central Transmission Utility or the State Transmission Utility, whatever the case may be. The sub section also tells that the disputes related to availability of transmission facility will be resolved by the Appropriate Commission.

2) Section (38), Sub Section (2)(d) :- The section(38) , sub section (2) (d) makes mandatory for the transmission utilities to provide non discriminatory open access to use the transmission system by any licensee or generating company on payment of transmission charges and by any consumer eligible for Open Access as per the sub section (2) of section (42) of the electricity act 2003 after payment of transmission charges and cross subsidy surcharge. The section (38), sub section (2)(d) relates to the functions of Central Transmission Utility .

3) Section (39), Sub Section (2) (d):- This section is similar to the section (38) sub section (2)(d) as mentioned above . But section (39), sub section (2)(d) relates to the functions of State Transmission Utility.

4) Section 40 (c) :- This section is similar to the section (38), sub section(2)(d) and section (39), sub section (2)(d) , but the provisions relate to the duties of transmission licensee .

5) Section (42), sub section (2):- The section (42), subsection (2) of the electricity act 2003 is the most important one as this section is about the duties of Distribution licensees related to Open Access. The section mentions that the State Commission will be responsible for introduction of open access in phased manner. The issues related to Wheeling Charges, Cross subsidy surcharge and other operational constraints should be handled by the State Commission. The cross subsidy surcharge is the surcharge paid by the Open Access consumer to meet the current levels of cross subsidy within the area of the distribution licensee. The onus of progressively reducing the cross subsidy lies with the State Commission and the cross subsidy surcharge will be recovered from the

eligible Consumers opting for Open Access , unless the cross subsidies are totally eliminated .But the sections 38,39,40,42,61,178 & 181 of the Electricity Act 2003 mention the reduction and elimination of cross subsidies. Much concern has been expressed regarding the feasibility to eliminate cross subsidies in present scenario. Hence, it is proposed to amend the said sections and keep aside elimination of cross subsidy and continue with reduction of subsidy. The Cross Subsidy Surcharge is applicable to eligible Open Access Consumers sourcing power from alternate Service Providers or directly from Generating Stations or through Open Market Power Trading. However the Captive generating stations will not have to pay the cross subsidy surcharge and will be granted open access after having considered the adequacy of network and payment of transmission and wheeling charges.

The above discussed sections in the Electricity Act 2003 are very specific to the Open Access in Power Sector. But the section 49 of the electricity act 2003 mentions that the Consumer who have been granted Open Access vide section (42), subsection (2) and notwithstanding the provisions of clause(d) of subsection(1) of section(62) may enter an agreement with any person for purchase or sale of electricity on terms and conditions (including tariff) as may be agreed by the interested parties.

The subsection(1) of section(62) is related to determination of tariff regarding supply of electricity by a generating company to a distribution licensee along with transmission charges, wheeling charges and retail sale of electricity. But it is interesting to note that the distribution of electricity within an area, if served by two or more distribution licensees then the Appropriate Commission may fix maximum ceiling on tariff for retail sale of electricity in order to promote competition. In this context it must be noted that in near future we may see two or more distribution licensees offering services to Consumers in a common area.

The Maharashtra State Electricity Regulatory Commission (MERC), with assistance from CRISIL Infrastructure Advisory has already initiated necessary steps by publishing a Final Discussion Paper on Operating Parallel Distribution Licensees in the State of Maharashtra on dated 04 May 2010. The main point of discussion is about development of an efficient mechanism that promotes competition to serve power

consumers located in a common area. It is essential to separate the supply and wire business to ensure multiple service providers working in a common area. The role of technology especially in the Metering Technology will be significant for success of parallel licensing. The distribution licensees have the option to develop their own infrastructure in order to serve the consumers but doing this will replicate the distribution network and the added cost of new infrastructure may neither help the licensees nor the consumers. In view of the problem, the MERC issued an interim order dated October 15, 2009 in Case No 50 of 2009 under section 94(2) of the electricity act 2003, enabling common consumers of TPC-D(Tata Power Company-Distribution) and R Infra-D(Reliance Infra-Distribution) to changeover from one Distribution licensee to another using the distribution infrastructure of the existing or old distribution licensee. The intention of the MERC to facilitate such smooth changeover of Consumers is to promote long term objective of introducing competition and ensure cheaper supply of electricity to consumers situated in licensee area common to TPC-D and R Infra-D.

In this context it is important to refer to the MERC press note on the Order dated 22.08.2012 in Case 151 of 2011. The note puts forth the disputes between R Infra- D and TPC-D where the R Infra-D has filed a petition before the Commission alleging that TPC-D is cherry picking the consumers by selectively developing its network to offer services to high end subsidizing consumers and not complying with its Universal Supply Obligation. The commission after reviewing the matter has clarified that TPC-D has to set up its own infrastructure to serve the consumers in the Common area as present usage of existing distribution network of R Infra-D is only an interim solution. The commission has given directives to the TPC-D, not to develop infrastructure on selective basis but to ensure that TPC-D fulfils the Universal Supply Obligation.

The above discussion clearly illustrates that the distribution sector in power sector will be highly competitive and the Consumers will have the choice of Multiple Service Providers. We would see a cut throat competition amongst the Service Providers to capture the market share and offer quality services to consumers at an affordable cost. The role of regulator in maintaining a balance between profitability of Licensees and safeguarding the interest of consumers will be critical to watch in near future. The

regulator will have to develop necessary benchmarking standards, mechanism to speedily resolve disputes and performance evaluation of Licensees for sustainability of the competitive environment in the power sector.

2.4 Maharashtra State Electricity Regulatory Commission: Steps taken to promote Open Access in Power Distribution

The Maharashtra State Electricity Regulatory Commission (MERC), in accordance with the provisions in the Electricity Act 2003 has published and amended time to time its Draft Regulations, since 2005 for providing necessary guidelines to promote Open Access in Power Distribution. The latest copy of Draft Regulations²⁰ published in 2013 on the MERC's official website comes in a handy way and provides relevant information to all the interested parties. The draft mainly focuses on the eligibility criteria, procedures and processing of applications, grant of connectivity to Open Access Consumers, Open Access charges, general and specific provisions related to Open Access in power distribution in the state of Maharashtra. The Standards of Performance are clearly mentioned in the draft regulation, it provides not only the application formats that are necessarily to be filled in by the eligible Consumers opting for Open Access, but also endeavors to explore all the questions related to it. It helps an eligible Open Access consumer understand the advantages, disadvantages and risk associated in switching from one service provider to another. In view of the above discussion, the main risks associated in switching over from one service provider to another are briefly discussed below.

The main risk for a consumer, while switching over from the existing service provider to a new one, is primarily concerned with availability of power. The availability of uninterrupted power depends on various factors like ample transmission and/or wheeling capacity of the transmission and distribution lines respectively, healthiness/congestion of the transmission and distribution networks, reliability and quality of the power being provided by the New Service Provider, Generator or Power Exchange. The regulations clearly point out that in case of shortage of power or

constraints due to network congestion, the top priority for allocation of available power will be set for distribution licensees followed by long term, medium term and finally the short term open access Consumers. Needless to say, the open access Consumers have to be very flexible in adjusting with such adverse situations. If the demand projected by an open access consumer is more than the availability and the said consumer is not able to restrict his requirement as per the actual availability then the consumer with next lower priority will be considered for allotment. The above point emphasizes the importance of precise demand forecasting for the eligible consumers choosing for Open Access. The consumer must also plan for alternate sources to power its requirement, especially during the exigent times.

Apart from availability of power, affordability is also one of the major factors that influence the decision of a Consumer, while switching over from one service provider to another. The draft regulations published by the MERC provide information regarding the cost associated in switching. The basic requisite for the Open Access Consumers opting for new service providers is the installation of Special Energy Meters. These meters must have the facility to record the energy utilized in fifteen minutes time block, data storage capacity of not less than 45 days and should have communication facility online and/or real time. The meters should be fixed at the Injection and Withdrawal points as agreed upon by the Consumer, Generator/New Service Provider and the Network Distribution Company. Here the network distribution company means the distribution company to whose network the Consumer is connected. As per the regulations, the fifteen minutes time block readings captured at the Injection and Withdrawal point will be tallied to ensure that the demand of Open Access Consumer is being met by the new generator. If the data is not made available then the Consumer will be charged as per the tariff of Network Distribution Utility. The cost of providing Special Energy Meters should be borne by the Consumer willing to switch over from the existing service provider to a new one.

The Special Energy Meters will measure the electricity utilized by the Consumer. The Supplier will raise electricity bill as per the energy consumed and the rate decided as per mutual understanding between the Supplier and the Open Access Consumer. Apart

from the energy consumption charges the Consumer will also have to bear charges for Transmission and Wheeling of electricity, Cross Subsidy Surcharge, Additional Surcharge and Standby Charges.

Transmission charges are the charges for utilization of Transmission Networks for transmitting the electricity utilized by the Consumer. Where the transmission charges are included in the billing, it is obvious that the Consumer or Supplier is connected to Transmission network at a voltage level higher than 66KV (66,000 Volts). It may also happen that both the Supplier and Consumer are connected to the Transmission Network. Similarly, when a Supplier or a Consumer are connected to the Distribution Network at a voltage level below 33 KV (33,000 Volts) then the Wheeling charges are the part of Consumer billing as the Distribution Network is being utilized in transmitting the electricity utilized by the Consumer. Hence it is apparent that the Transmission and Wheeling charges may be the part of Consumer bill, if applicable. The applicability of these charges depends upon the actual connectivity of the Supplier and the Consumer to the Transmission or Distribution Network.

Cross Subsidy Surcharge (CSS) is applicable to all the Consumers who have been granted Open Access, in accordance with the MERC regulations. The surcharge is payable to the Distribution licensee to whose system the Consumer is connected. The Cross Subsidy Surcharge is the charge to be paid by the Open Access Consumer in order to make up for the Cross Subsidy that the Distribution Licensee would have earned, if the Consumer had stayed with it. The formula for determination of CSS as per the Regulation 17 in Distribution Open Access Regulations 2013 is as below.

$$S = T - [C (1 + L/100) + D]$$

Where S = Surcharge for Cross Subsidy to be paid by Open Access Consumer.

T = Tariff payable by the relevant category of Consumer.

C = Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power.

D = Wheeling charge in KWh basis

L = Loss in %, of the Distribution System as per the applicable voltage level and as specified by the State Commission.

If the above formula gives a negative value then the surcharge payable is Zero. From the above formula it is interesting to note that the Distribution Licensee can ensure that the Consumers will pay more surcharges, if the weighted cost of power purchase, system losses and wheeling charges are kept low by efficient operation of the network and meticulous decisions in purchase of power. The Distribution Licensees need to emphasize more on decisions related to power purchase as the measure per unit cost component in delivering services to Consumers is contributed by power purchase cost.

The Open Access Consumer may also need to bear the additional surcharge on the wheeling charges, if the Network Distribution Licensee has to bear fixed cost arising due to its obligations to supply electricity as per sub section (4) of section 42 of the Electricity Act 2003. However, it must be noted that the fixed cost related to network assets will be recovered through wheeling charges only. These additional surcharges would be mainly associated with the power purchase contracts of the Distribution Licensee keeping in view that the demand of the Consumer is to be met in future and the Consumer prefers to stay with the Distribution Licensee.

The basic risk or the fear in the minds of Consumers opting to switch over from one Service Provider to another is about availability of uninterrupted power supply from the selected Supplier. It may be possible that the Supplier would terminate the contract with the Open Access Consumer to supply power because of various reasons like non availability of resources, shut down of the generating stations or any other reason. In such a situation the Consumer may need to procure power from the Network Distribution Licensee by paying Standby charges. The Consumer may avail the standby supply with day ahead request to the Distribution Licensee. The favor made by the Distribution Licensee to meet the Open Access Consumer's load demand comes at an extra premium called Standby charges. These charges are either due to unscheduled Interchange or because of the System Marginal Charge under the Interstate ABT mechanism or the temporary charge of the Network Distribution Licensee, whichever is higher. The ABT is

the Availability Based Tariff, and its tariff value remains volatile, with respect to time, based on the economics of Supply and Demand of the power in the grid.

Apart from all the above charges discussed which are the part of billing, the Open Access Consumer is also supposed to pay Security Deposit which is an amount equal to the one month bill that covers transmission & wheeling charges, cross subsidy surcharge and additional surcharge. In case of the Short term Open Access, the Consumer has to pay Security Deposit adequate or matching with the duration of open access instead of one month billing as per the provisions of regulation no. 20, in the Distribution Open Access Regulations – 2013.

The main aspect to note about the Open Access is monitoring of energy flow at Injection and Withdrawal points, in real time, by installing the special purpose meters. The monitoring of energy flow in real time forms the basis of billing for Open Access Consumers/Suppliers. The Imbalance of energy injected and energy withdrawn also becomes clear through the real time monitoring of energy flow in the network. It is interesting to learn from the Distribution Open Access Regulations that the Consumer/Supplier is penalized for not following the declared schedule. For example, if an Open Access Consumer withdraws more energy in comparison with the injected energy, the Consumer has to pay by higher applicable tariff as per the regulations for the extra quantum of energy withdrawn, but if the Consumer withdraws less quantum of energy in comparison with the injected energy, the extra quantum of energy in the network which is not withdrawn will be treated as lapsed energy and the Consumer will not be paid for it, but on the other hand, if the under drawl of energy by the Consumer causes any disturbance to the Grid, the Consumer would be penalized as per the Grid Code. Similarly for under or over Injection of energy, the Supplier or the Generator is liable for penalties in case of any violation of Grid Norms, but they may not get the returns of injecting more energy in to the Grid. So, it must be noted that the coordination between the Supplier and the Consumer must be precise. The margin for error is going to be thin, so the Consumers will have to observe the declared schedule strictly and hence, they would need advance tools to predict their future load demand.

The connectivity of the Supplier and the Consumer to the network also needs a special attention while discussing the risks associated with the Open Access. The generating stations willing to inject power in the grid will need to pay a non refundable fee of Rupees Two Lakhs with its application. The Renewable energy based generating stations are supposed to pay a non refundable fee of Rupees One Lac. The cost of connection with the existing network will be borne by the Generating Station. The regulation no. 5 of the distribution open access 2013 mentions all the details related to connectivity of generating stations to the network/grid.

Hence, it is imperative that the Electricity Act 2003 provides options to the certain segment of consumers to choose their Service Providers amongst Multiple Service Providers, but this benefit comes at a cost of some uncertainties and risks, which have been discussed so far. To be specific in this regard, the various charges like Transmission & Wheeling, Cross Subsidy Surcharge, Additional Surcharge, Standby Charges, cost associated with Installation of Special Purpose Meters and Cost related to Connectivity; act as major barriers to switch from existing Service Provider to a new one. Therefore, it would be necessary to investigate what impact the Switching Cost has on the relationship of Consumer Loyalty and Consumer Satisfaction. It may happen that the Consumers of the existing service provider may be dissatisfied with the services offered, but may still prefer to maintain their loyalty with them considering the various costs, risk and uncertainty in availing of the option of Open Access. The role of the regulator will be crucial in the success of Open Access, because finally the viability and growth of the sector depends on the judicious decisions taken by the regulators that are conducive to the long term growth of the sector.

As per the guidelines from the MERC, the MSEDCL has come out with its Circulars for implementation of Open Access as per the provisions in the Electricity Act 2003. The Circulars are made available to all the interested parties on its official website, www.mahadiscom.in. The Commercial Circular Nos 147,154,155,169,174,185,190,194,198 are all related to Open Access in Power Distribution. The discussion points mentioned above in the MERC Draft Regulation are briefed in the Circulars mentioned above. The procedures, responsibilities of the

concerned staff, various charges like processing fee, administrative charges, transmission & wheeling charges , cross subsidy surcharge etc are mentioned in these circulars. The commercial circular no. 194 supersedes the circular no 147 and 155.

2.5 Fortune for Power Distribution Companies in the Competitive Environment

It is obvious that the enactment of Electricity Act 2003 and the implementation of various provisions made in the act have transformed the business environment of the power distribution sector from monopolistic to a competitive one. The distribution utilities will be forced to segment their existing consumer base in order to make the operations sustainable. At present, the Consumers are categorized based on the tariff i.e the purpose of supply. But the Utilities need to think beyond this differentiation. They need to segment Consumers as High Revenue earning eligible Open Access Consumers and Low Revenue earning Non Open Access Consumers. The radical change in the tariff structure and elimination of subsidies appears to be a rare possibility in near future in the power sector; however the Utilities also have to fulfill the obligation of Universal Service Provider. The law does not give the liberty to the Power Distribution Companies to cherry pick the lucrative Consumers. Hence, it becomes essential for the Distribution Companies to introspect the Consumer base, understand the potential of each segment of the consumers and realize which segment of Consumers would help them sustain the business operations over a longer run.

The business idea put forth by the Visionary Management Scientist, late Dr. C K Pralhad was praised across the globe. The idea emphasized on improving profitability of the Companies by serving the poor class of Consumers which is generally ignored by the MNC's. The idea was projected with an intention to alleviate poverty of the poor and also make the business profitable. It is really appreciable that the idea projected by the Visionary Management Scientist, abounded in benefits for Companies like HUL. The poor who were deprived of many quality products, because of the cost, were able to consume them as the Companies came out with small packages at an affordable price.

The idea not only benefitted the Consumers, but also helped the Companies increase their sales volumes and thus the overall revenues. The working paper²¹ on “*Fortune at the Bottom of the Pyramid: An Alternate Prospective*”, as published by IIM, Ahmedabad and authored by Anand Kumar Jaiswal also needs special attention, in connection with the above discussion. The critical analysis of the business idea portrayed by Dr. C.K.Pralhad throws some light on the aspects that need to consider, while implementing strategies to achieve the desired objectives set by the Companies. The paper mentions the contrary aspect i.e “Small Isn’t Always Beautiful”. The view point of the author is to illustrate that the strategy associated with a particular product may not work out with some other product. The strategy to sell Shampoo or Razor blades in small sachets may be successful, but it would not work out with products like Biscuits, Jam, Washing Powder, Milk Powder, Sanitary Napkins etc as for these products the smallest available packages are not the largest contributors to the total Sales Volumes.

In assessing the above discussion, the contrary view point to the theory set by Dr C K Pralhad also holds true with the Power Distribution Business. Of course Dr. C K Pralhad’s theory changed the marketing concepts all over the globe. It also suggests that the Small Consumers should not be ignored by the Companies, because it may happen that the contribution made by the Small Consumers to the overall Sales Volume may be significant. The revolutionary theory prompted Companies to concentrate on Small Consumers and Companies came out with small packages at affordable prices to serve their products to the poor. But, in case of power distribution business the theory of ‘Bottom of Pyramid’ may not hold equally true. Electricity as a commodity has some unique features such as generation and consumption occur simultaneously, for electricity cannot be inventoried. The gap between supply and demand is widening, huge resource constraints, the issues of sustainability and environment are of prime importance. Further, the political patronage of the thefts, cross subsidies and lack of modern technologies add to the problems in power distribution sector. Hence, in view of above mentioned points it becomes imperative for distribution companies to retain high consumption , high revenue earning consumers in order to fulfill the Universal Service Obligation to serve the low consumption , low revenue earning consumers. Considering the above discussion and the data summarized in the Table 1.1 of Chapter. 1, it is clear that almost 52 % of the

sales are contributed by Three Thousand Three Hundred Eighty Seven number of High Tension Consumers and the 48 % of the sales being contributed by Nineteen Lacs Ninety Four Thousand of Low Tension Consumers in Pune Zone. The comparison of revenue earned by both the segments and the quantum of efforts needed to offer services; make it obvious that the fortune for power distribution companies is in offering services to consumers at the top of the pyramid. But it would be wise to say that the fortune for Distribution Companies is in understanding the needs specific to the segment. The point of interest in the above discussion is about devising new strategies by power distribution companies in order to serve the poor consumers too. Due to scarcity of resources the power sector is compelled to use de-marketing strategies. The technological developments will help to convert the primitive grids into Smart Grids. Sustainability and Cost Competitiveness will be the future for power distribution sector in India.

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Chapter 3

The Conceptual Framework

Chapter 3

The Conceptual Framework

3.1 Overview

A conceptual framework is the necessary part in conducting a research study, because it helps not only to develop a visual model that is empirical, but also makes the research process comprehensible. A conceptual framework is like a runway that helps to take off or land a plane smoothly.

The research study emphasizes on the learning of Consumer Behavior and Loyalty. The power distribution sector was highly monopolistic prior to enactment of Electricity Act – 2003. The Electricity Act has provisions to promote competition and protect consumer interest, but even after a decade after its enactment, the power / electricity consumers have hardly any choice. The problems associated with power sector are unique, like shortage of electricity, limited availability of natural resources, the capital intensive nature of the power industry, etc. These unique problems create barriers to the new entrants and promotion of competition gets tougher. Moreover, the decisions related to tariff fixation are not market driven. Further, the political interference and patronage of theft of electricity add to the challenges in the sector. Nevertheless, these barriers cannot hold back the competition for a longer period. The development of metro rail in Mumbai with entire contribution from a private company like Reliance gives some ray of hope for the future of power sector in India.

The services being characterized by simultaneity, perishability, intangibility and heterogeneity and when we deal a service industry which has a commodity like electricity the challenges become even worst, because electricity is a commodity which cannot be inventoried, as the generation and consumption happen simultaneously. Because of all the above mentioned factors, the research in service industry like power distribution becomes interesting. Hence, the conceptualization of framework keeping in view the Research Objectives is an important step in conducting a Research study.

The societal marketing concept¹ suggests that consumers may on occasion; respond to their immediate needs or wants, while overlooking what is in effect on their own or family or national interest, over a longer run. However, it is interesting to see that these concepts, which may hold true for other services, may not hold true for power sector services. Just because Supply – Demand gap still prevails and again for the same reasons of political interference in tariff fixation, availability of few options, etc.

The consumer behavior is the behavior of a consumer in Searching, Purchasing, Using, Evaluating and Disposing the products and services, while fulfilling their needs. Although, considering the existing situation in the power sector and the unique feature of electricity as a commodity, the power consumers hardly have any options available at hand. Therefore, the point to emphasize in this regard is that the aspect of ‘Searching’ is totally inapplicable in the context of Indian Power Sector. The Act has made provisions to promote competition and provide with a number of alternatives to power users, but we are still in premature stages when we think of competition in the Power Sector.

Another important aspect in consumer behavior is ‘Purchasing’. Generally in products from FMCG Sector, the consumers have numerous options. Just think of FMCG products like Soaps, Deodorants, Shampoos, Electronic goods, etc. The consumers/customers get confused as the options available are numerous, we may say it is a buyer’s market and discount, special offers are always given by the manufacturers to attract more customers. In this regard, it may be specifically mentioned that the recent decision made by the MERC, not to give permission to the eligible Open Access Consumer to switch to Indian Energy Exchange from existing service provider, that is the MSEDCL. The commission fears that the switching of eligible Open Access consumers to the energy exchange would disturb the financial stability of the MSEDCL, thus jeopardizing the Company’s Universal Service Obligation to provide power to all. The commission rejected the request of twenty nine industries, applying for sourcing power directly from Indian Energy Exchange (IEX). The commission mentioned that it needs to verify, does the Act have any provisions for eligible Open Access consumer to source power directly from exchanges. So, these hurdles hamper the consumers bargaining power. It is supposed that at least for eligible open access consumers the tariff should be

market driven, so the second aspect in consumer behavior i.e. 'Purchasing' also does not find space in the study of Consumer Behavior as specific to the power sector.

The concept of Consumer Behavior is very complex, because the elements that contribute to this concept are very volatile. It would be wise to say that study of Consumer Behavior basically envelops the study of Consumer Satisfaction, Consumer Perceived Value, Consumer Loyalty and also the Brand Image at the back of the mind of the Consumer. The Consumer Satisfaction and Perceived Value form the intrinsic factors whereas the Consumer Loyalty and Brand Image are the extrinsic factors of the study. To be more specific, the Consumer Satisfaction and Perceived Value are factors in Consumer's mind which are not easy to evaluate, understand or interpret. These intrinsic factors are highly volatile because they not only depend upon consumer need, but are highly susceptible to a particular situation faced by the consumer. To elaborate this, an example is quoted in which the consumer is offered the best service for last 6 months by a Power Utility. The consumer has experienced uninterrupted power supply for a considerable period, but say at some particular time very important to the consumer; the supply interruption just for few minutes irritates the Consumer and takes away the whole credit from the Power Utility for maintaining uninterrupted power supply in the past. Hence, chance and situation play a major role and adversely affect the perception of the Consumers. Generally we see that many industries complaint against the higher tariff rate for electricity unit. So, while evaluating Consumer Perceived Value, the dominant factor is not the benefits, being received by consumers, conversely it is the Cost of Supply incurred by him. On the other hand, suppose a manufacturing industry receives an overseas consignment in which the quality of the product is of prime importance to the client of the industry then the same company would change its perception about 'Value'. The industry would agree to pay higher tariff, but would not compromise with the benefits or the quality of power supply. Therefore, we envisage that situation plays a major role in defining the Perceived Value.

However, Consumer Loyalty and Brand Image of the company are extrinsic factors, because they are visible while studying the concept of Consumer Behavior. The Consumer Loyalty factor needs to be defined precisely when we learn Consumer

Behavior in Power Distribution Sector. For the reason, 'Consumer Loyalty' is generally misinterpreted as 'Loyal Consumer'. Loyal Consumers in power distribution are those Consumers who abide by the rules and regulations of the Distribution Company and have affinity with it, pay their electricity bills within time and never indulge in the activities of misuse or pilferage of electricity. Because, we know the power utilities financial position is cramped by theft of electricity and non-payment of electricity dues by their Consumers. Consequently, 'Consumer Loyalty' in our study related to Consumer Behavior is associated with the Consumers' intention to maintain relationship with the distribution company. As the study of Consumer Behavior in this research is for the eligible Open Access Consumer in the Pune Region, the aim of the study is not only to evaluate Consumer Satisfaction level or understand the Perceived Value from the Consumers view point but it also aims at predicting whether the Consumers of the MSEDCL are willing to maintain relationship with it even in future. The 'Consumer Loyalty', an extrinsic factor is considered the most important one, because it finally impacts the profitability and the revenue of the Company. It is presumed that the Brand Image of the company depends on the Consumer Satisfaction and the Consumer Perceived Value. Even if, the present environment in the Power Distribution Sector is not competitive, but in near future, as the environment turns out more competitive, the Brand Image of the company will have greater significance and would finally decide the Consumer Loyalty.

3.2 Consumer Satisfaction

Consumer Satisfaction is the perception of the consumer about a product or a service, as against the expectations. Earlier, consumer's had few expectations about the services offered by the Power Distribution Companies. The economic reforms in the 1991, which liberalized many Sectors and made the doors open to foreign companies to the Indian market.

Electricity which is a significant input in most of the processes, manufacturing or service industry became important, keeping in view, the quality of products/services and it's Cost. The Indian companies were forced to compete with Global Companies, thus making it mandatory for them to observe Global Quality Standards, in order to capture or retain the market share. Today, Companies keep a close watch on the 'Interruptions and

Quality' of the power supply provided by the Distribution Companies as the information is available to the Consumers at a mouse click. Consumer Satisfaction in power distribution sector depends on several factors like, quality of power supply, number of interruptions, cost of service, billing system of the distribution company and the Employee/Staff behavior with the Consumers. As a result of these factors, evaluation of Consumer Satisfaction becomes a difficult task. Moreover, a single adverse instance may make a Consumer unhappy. Besides, the geographical area covered by the Distribution Utilities is generally vast and so keeping the Consumers always satisfied is a tough task. In addition, Power Distribution is a service industry, in which the quality of supply is sometimes beyond the control of distribution companies, as in many cases, power interruptions are not due to faults of a distribution company, but due the faults at Generation/Transmission. In urban areas or metro cities, the distribution of power is mainly through underground cable system and because of lack of proper co-ordination between various Agencies, Local Bodies, many problems emerge. For example, excavation of roads carried out by Municipal Corporations or Telecom departments are the main reason for damage of underground cables of the MSEDCL, thus interrupting the power supply to its consumers for prolonged hours. Even these problems are acknowledged by the Consumers, they finally blame the power distribution companies for all the interruptions. So, creating a delighted Consumer is a difficult aspect for Power Distribution Companies.

All the above discussion shows the significance of Consumer Satisfaction while studying Consumer Behavior. Further, when we link Consumer Satisfaction with Consumer Behavior, then the Consumers may be classified into three levels, namely, Positive Consumers, Neutral Consumers and Negative Consumers. The positive consumers may be called 'Favorable Consumers' who are satisfied with the service quality of the company and are willing to continue business with the Distribution company. Whereas, Negative consumers may be termed 'Adverse Consumers', who are dissatisfied with the quality of service offered by the Distribution Company. They generally share negative experiences encountered with the Distribution utilities and compare their existing service provider with its competitors. And Neutral consumers are those who don't fall in any of the above mentioned categories. These consumers may also

not express their true perception about their service provider. Hence, considering the three levels or categories of consumers, the distribution companies may design strategies to focus only on negative consumers. Nevertheless, distribution companies should not fail to understand the expectations of the Neutral consumers. The Neutral consumers may have higher probability of turning into Negative consumers. No doubt, focusing on Negative consumer is of prime importance, but being deaf to the Voice of Neutral Consumers may increase the number of Negative consumers exponentially. Hence, the strategy of the Distribution Company should ensure that maximum consumers should fall under the category of 'Favorable or Positive' Consumers.

The Consumer Satisfaction is the important aspect in this research study. The evaluation of Satisfaction is difficult; nonetheless, the expectations and perception about the service offered by the MSEDCL would be understood by framing a questionnaire based on various parameters of 'Service Quality' viz. Tangibles, Responsiveness, Reliability, Assurance and Empathy. The evaluation and the details about measuring Consumer Satisfaction are elaborately discussed in Chapter. 4.

3.3 Consumer Perceived Value

Consumers experience Satisfaction only when they feel that the Service Provider has honestly delivered Value for whatever Cost is paid. So, it is necessary to understand the relationship between the Consumer Perceived Value and the Consumer Satisfaction. The Service Provider must have a clear understanding of the Value proposition to its Consumers. The concept of Consumer Perceived Value is two dimensional and the two dimensions are 'Cost' and 'Value'. Cost represents the input, whereas, Value stands for the output. Generally the Cost factor is considered only in monetary terms; however, it would not be wise to consider only the tangible aspect, because the intangible aspect of Cost such as psychological cost is equally important. Similarly, the benefits received by the Consumer should not be restricted only to the Quality of Service or Monetary benefits received, but along with it, the Social and Special benefits equally play a vital role. It is necessary to understand that the situation too plays an important role, while evaluating Consumer Perceived Value. Because, during certain situations the Perceived Value may be derived by a consumer not on benefits received, but mainly on the Cost incurred. Thus

it would be wise to say that the Perceived Value depends on the consumer focus on a particular situation. The detailed questions on measuring 'Consumer Perceived Value' are discussed in Chapter.4.

3.4 Brand Image

“Brand Image² is the perception and beliefs held by Consumer, as reflected in the associations held in Consumer memory”.

Therefore, it is very clear that Brand Image is of the character that is intangible in form and psychological in nature. The intangible form is made physical through offerings made by the company. An offering includes product, services, experiences made by a consumer during his encounter. As per the definition, Brand Image is about the perception and belief. Consequently, in Service industries like Power Distribution, it is very essential that the perception of consumers should be good. Perception can be good, only if the service offering is of high quality. In Power Distribution Sector, perception will be positive, only when the psychological benefits delivered by the Company are recognized by the Consumer.

Companies that can provide service assurance to the consumers will definitely ensure positive perceptions about the offered services, it is also important to understand that the Beliefs developed by Consumers depend on the past experience and these beliefs finally create a Brand Value in the minds of Consumer. Generally, branding is difficult for companies associated with services as against products, because the amount of efforts needed to make each service encounter favorable are significant. It should be noted that generally unfavorable incidences find a permanent place in Consumer's mind as compared to favorable ones, thus creating challenges for branding in Service Sector.

When we specifically speak of the Brand Image of the MSEDCL, it is very difficult to envisage what Consumers think about a Government Owned Company. Is it the behavior of the employees, social obligations towards the company or something else that gets associated with the Company? Recently, the concept of Brand Image has gained importance even in the Power Sector, as the environment is changing from Monopolistic to a Competitive one. The best Brand Image a company may hold is to make the Business

synonymous to the Company name. For e.g. 'Photo Copy' is called 'Xerox', Life Insurance Policies are generally recognized as LIC(Life Insurance Corporation of India). Xerox or LIC are the names of companies that offer service to the consumer, but these services have taken the Company name because of the efficient performance they offer to the Clientele. Companies that convert business transaction into a long term relationship, develop trust with the Consumers, ultimately creating a favorable Brand Image that helps them to survive even in a Competitive environment. The Life Insurance Corporation of India is the greatest example in Indian context when it comes to Branding.

Brand Image of a Company plays a vital role, because it is how a Company is recognized by its Consumers. In Power Distribution sector, after enactment of the Electricity Act 2003, almost all the State Electricity Boards are converted into independent Companies, namely, Transmission, Distribution and Generation. Even in the State of Maharashtra, the then MSEB (Maharashtra State Electricity Board) is trifurcated into three separate companies, namely, Mahagenco, Mahatransco, and Mahadiscom / Mahavitaran. But even today, we see that the distribution wing of the MSEB i.e. Mahadiscom is being recognized by the old name MSEB. After trifurcation of MSEB, the MSEDCL Company has given emphasis even on the tangible aspects like, renovating and maintaining Offices, providing facilities to consumers, etc. thus endeavoring to change its Image from a State Electricity Board to a Socio-Commercial Distribution Company. Even the objectives have changed, since its inception in the year 2006. Earlier the main objective of distribution wing of the State Electricity Board was to electrify villages and maintain uninterrupted power supply to them. The target setting was also on the basis of extending distribution network to the smallest and the farthest place. But at present, it is not only mandatory to provide uninterrupted power supply to the Consumers, but also to recover outstanding dues from them. The target setting is based on parameters like Billing and Collection efficiency, so as to reduce distribution losses and maximize revenues. The company has set APM (Automated Payment Machines), modernized its distribution system and designed a website to provide information/online bill payment facility, etc, in order to offer better services to its Consumers. Of course, these activities are being implemented, because of the provisions in the Electricity Act 2003 that was forced into practice by the State Electricity Regulator (MERC). Finally, all

these activities will help the distribution company to create an Image which has 'Consumer Centric' attitude.

3.5 Consumer Culture

“Culture³ is the complex whole that includes knowledge, beliefs, art, law, morals, customs and any other capabilities and habits acquired by humans as members of society”.

So in general we may say that Culture is acquired from the Society which influences an Individual's thought process. Even in advertisements, we see the influence of Culture. The advertisement of 'Diary Milk' chocolates featuring Amitabh Bachan as its ambassador and delivering the punch 'line' 'Kuch Metha Hojaye'. Generally, in Indian culture, 'Metha' or sweet is symbolic to some auspicious occasion. Traditional sweets are laddu, pedha, Barfi, etc, but in the advertisement 'Dairy Milk' is treated synonymous to all these sweets and the Company endeavors to replace the traditional sweets by its chocolate products. Years ago, 'Paan Parag' was one of a Tobacco product which also used the Indian Culture to its benefit. The advertisement starred 'Shammi Kapoor' and his dialogue in the advertisement, “Bus hame aur khuch nahi chahiye, Hum sirf itna chahate hai, baratiyoon ka swagat paan parag se hona chahiye”. In Indian wedding ceremonies, the bridegroom and his relatives/friends have special respect and they are to be treated with dignity. The Paan Parag Company made an attempt to penetrate its sales to such ceremonial functions. India is a country having many festivals; therefore, these companies target their prospective Consumers, especially during festive occasions like Diwali, Dasherra, and Eid. Hence, we may say that Culture plays a major role and influences the thought process of Individual & Groups in selecting or purchasing a product. Culture does not mean rules of the society; however, it means norms or a way of things accepted easily and followed by the members of the Society.

The role of Culture is not only associated with Products, but also with Services. For example, in food industry we see many restaurants making use of Culture to their benefits. In Maharashtra we see restaurants that offer Rajasthani, Gujrathi, Punjabi or South Indian food. The location of such hotels is generally associated with the Culture of

the people staying in the area. To make the point clear, a Panjabi restaurant may have to shut down its business in loss, if it is opened in a Jain or Gujarati community. Because, Punjabi cuisine is a mix of Veg / Non Veg and the food preparation is mainly spicy with use of garlic. We know Jain's do not use garlic in their food. So, we have many Fast-Food restaurants that offer 'Jain Pav Bhaji'. Even the restaurant names are dominated by the culture, for example Peshwai, Mughlai, Maharaja, etc. In many restaurants we see waiters and the serving staff dressed in traditional dresses like wearing Rajastani Pagdi, Gandhi topi, Mavale topi or Dhoti - Kurta. Therefore, the role of culture is significant, when it comes to marketing a Service or a Product. Except, the perception of the Culture changes, when it is about Power Distribution Services. The culture to be studied in this regard is mainly about the aspects viz. Values, Awareness and Knowledge of the members in the Society. In metro cities, we see very few people get indulged in the activities of mis-using electricity or pilferage of electricity. But, the situation is almost reverse, when we go to rural areas; we envisage Industrial or Commercial establishments in urban areas are very honest and ethical whereas, most of the Agriculture Consumers directly hook to the distribution lines and pilferage electricity. Across the state of Maharashtra, we observe adversities in the Consumer Culture especially while comparing different regions, namely, the Marathwada , the Vidharbha and the Western Maharashtra. Of course, it must be noted that the resource availability, economics, political will, growth potential dominate in carving the Culture of a region. The loss levels in the Marathwada or the Vidharbha are high and the revenue collection efficiency is low, as compared to the Western Maharashtra. It is interesting to note that Western Maharashtra is gifted by ample water, huge local markets and hence the Agriculture Consumers prefer to adhere by the laws, rules and regulations. However, in this regard it must be also noted that the Agriculture in the regions of the Marathwada or the Vidharbha is mainly dependent on the rainfall, whereas the Agriculture land in the Western part of the Maharashtra is much irrigated. In short, all the factors mentioned above define the Socio-Economic scenario and finally the Culture of a Region.

Another aspect of the Consumer Culture that needs to be understood is the alertness and awareness of the Consumers in understanding their rights and duties. In metro cities, Consumers are ready to pay for better services, but they are highly

demanding and are also aware about their rights. Consumers in metro cities may also demand compensation, if the services are not delivered as per the standards applicable to the services, delivered by a Distribution Company. The mega townships in developing cities offer many amenities to the residents like Swimming pools, Elevators, etc making the life dependent on electricity and hence, a Consumer staying in such sophisticated area may be ready to pay a higher electricity tariff, but would demand better quality of service.

Technology is also one of the most important aspects, when we study Consumer Culture associated with Power distribution. Power Distribution companies can deliver quality services, only if the services are technology assisted. The Urban consumers may welcome and adopt new technologies to their advantage, on the contrary, the rural consumers may offer resistance to it or may not appreciate or use the latest technological advances offered by their Service Provider. In such cases, the investment made in new technologies by the Distribution companies may go waste. The inaccessibility of Telecommunications infrastructure in remote or rural areas may also provide limitations in providing with technologically assisted services to the Consumers.

The research targets the Consumers with Contract Demand more than 1000 KVA. These consumers are mainly Industrial or Commercial ones and acceptance of latest technologies or their adaptability to it may not be a hurdle to such Consumers. Although, the interesting aspect of the Culture to be studied is, “Are the target Consumers willing to pay more for better services?”. The answer to this question is difficult and deriving an equilibrium point for ‘least Cost of Service’ and utmost ‘Consumer Satisfaction’ which is going to be a challenging task for the Distribution companies in near future.

In recent times, we observe Consumers fulfilling their needs on their own. Many Industries instead of relying on other external sources for the input material prefer to manufacture the Input material requirement by backward or vertical integration of the business. In many Processes, Steel Industries the requirements of electricity as well as heat energy in the form of Steam are equal. Such Plants or Industries have to generate steam for their process requirements. The low pressure steam is then used for running the alternators to generate electricity. Therefore, in many Sugar Plants we have co-generation

systems installed. Hence, during the study of Consumer Culture it would be interesting to see whether Consumers are 'Prosumers'. PROSUMER is a blended form of Producer and Consumer of a Service or a Product. The various hurdles in the power sector may force consumers to be Prosumers.

Culture is an important external factor that guides the behavior of a Consumer. It is one of major influencing factors and hence, the study of Consumer Culture is a must for any Organization. Understanding the Consumer Culture would help companies' device strategies that would really address the basic problems of the Consumers effectively and efficiently.

3.6 Role of Switching Barriers

In the discussion so far on various aspects of Consumer Behavior the basic variable that is at focal point is to understand Consumer needs and device strategies that please them with greater Satisfaction, generate Value for every penny being paid and ensure a long term association with them.

The association of a consumer may not depend totally on the quality of services offered by its Service Provider. But, external factors also play an important role in influencing the Consumers relationship with his Service Provider. If a consumer maintains his alliance with a Service Provider, then it does not mean that the Consumer is happy with the services offered by his Service Provider as the consumer may maintain his association, for various reasons like, less number of choices available, time and effort needed to search and get acquainted with the New Service Provider, risk in switching to another Service Provider, cost while switching from one service provider to another, etc. The consumer may also perceive that the competitors may not have desired infrastructure and above all the switching from existing service provider to the new one should not worsen the situation.

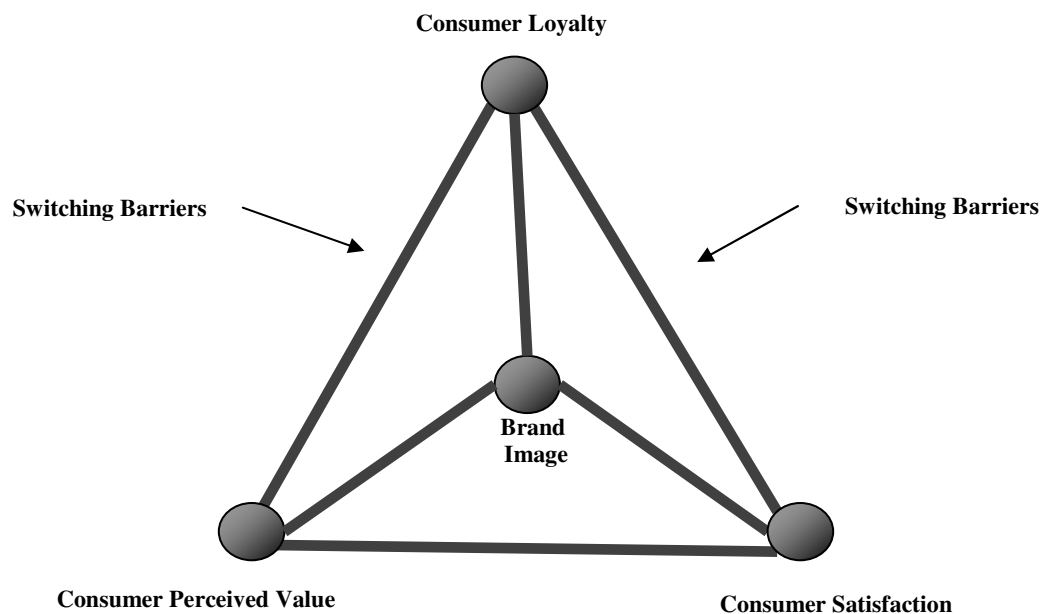
Hence the point to be emphasized is that even if the consumers are dissatisfied or do not find any Value with the service being availed, the consumer would stay with the existing Service Provider just because, the cost of switching to another service provider

may be significant. Generally the consumers may not be bothered of the financial cost; on the other hand psychological cost associated with the switching cannot be overlooked.

As per the Open Access Draft Regulations, specified by the MERC, the switching cost associated are Cross Subsidy Surcharge, Transmission charges, Wheeling charges, Metering cost and Additional surcharge. These costs are already discussed in details in Chapter. 2. Therefore, it would be interesting to study the Impact of Switching Barriers on the relationships Consumer Satisfaction / Consumer Perceived Value – Consumer Loyalty.

Hence, considering the above discussion on basic variables of the study, namely, Consumer Satisfaction, Consumer Perceived Value, Consumer Loyalty, Brand Image and role of Switching Cost, the conceptual model of the research may be graphically represented as below.

Figure 3.1: The Conceptual Framework of the Research Study



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Chapter 4

The Research Blueprint

Chapter 4

The Research Blueprint

4.1 Significance of Methodology

The Consumer Research has gained enough significance over last couple of decades. Consumers a few decades ago had less option and were forced to choose the available option despite of their specific needs. In early 1980's, they used to book Bajaj Scooter and wait for at least a year for the product to be delivered to them. The environment that time was less competitive and the manufacturing technology had limitations, but with the advent of improved technology in manufacturing and better management techniques, the companies in almost all the sectors have taken advantage of economies of scale, thus changing the supply shortage scenario to supply surplus. Today, the Customers have numerous choices and the products are available for immediate delivery in Showrooms or Go-downs. The Customers have become demanding and expect value for every penny being paid by them. The environment in the power sector is not that competitive, but still the consumers are very much aware of their rights and expect better services from the distribution utilities. Hence, like other sectors the consumer research has also gained significance in power distribution. The enactment of Electricity Act 2003 and the provisions in it will force the Power Distribution Companies to take instant steps in conducting consumer research. The transition of existing consumers to other service providers will definitely impact the financial status and may endanger the future of distribution companies into dark, if immediate attention is not paid to the Consumer needs and demand.

The Consumer research will yield necessary benefits only if the methodology and research design are appropriate. The research objectives are clearly set in Chapter. 1, which will help in selecting appropriate methodology and research design, so as to attain the desired goals of the study. The research problem, purpose of the study, the target consumers and geographical area being covered during the study are made clear in Chapter. 1 of the thesis, thus making it simple in identifying exact methodology, deriving

the sample size, selecting the appropriate sample, proper instrument to collect the data from the respondents and finally analyzing the data collected with the help of statistical software. In short, this chapter may give a clear road map in reaching the destination point, effectively and efficiently.

4.2 The Nature of the Study

The research objectives are to evaluate the present level of consumer satisfaction, to find out factors contributing to the 'value proposition', determine the relationship between Consumer Loyalty, Consumer Perceived Value, Consumer Satisfaction, Brand Image and to study the moderating role of Switching Cost on Consumer Loyalty of the eligible open access consumers of the MSEDCL in the Pune region. Therefore, considering the above objectives, the study is descriptive as well as analytical in nature. The descriptive nature is concerned with the evaluation of the present level of consumer satisfaction, brand image of the MSEDCL as perceived by the Consumers and the factorization of the concept of Consumer Perceived Value, whereas the analytical nature of the study is about understanding the nature of relationship between the Consumer Loyalty, Consumer Satisfaction and Consumer Perceived Value and also the moderating role of the Switching Cost on the relationship mentioned above.

The nature of the study points out that the character of the data collected should be quantitative one. It is known that the qualitative data helps to explore and find out several variables that contribute in understanding a concept. But considering the objectives of the research the qualitative data would not help to attain the desired goals. This does not mean that the qualitative data is of no use in a research study, but in the underlying research the quantitative data would help to retrieve specific information from the consumers and the analysis of the data collected would help to ascertain the relationships and test the research hypothesis. In context of the above study, as a researcher, it is necessary to disclose that I have experience of 17 years in power distribution, so the variables that need to be considered for the study are well acknowledged. The exploration would not help much in discovering new variables but the collection of the data specific to the variables considered would help to attain the

desired goals. My work experience in the power sector is mainly connected in delivering services to the Consumers and Complaint solicitation. The academic qualifications in management gained over last couple of years and practical experience on the field will definitely help to seek bias free information to study the problem in depth and perhaps leave any of the areas undiscovered.

4.3 The Research Design

The Research Design is the key part in the overall research process. The research design is the blue print that helps a researcher to attain the objectives effectively and efficiently. The design is mainly concerned about Data Collection, Sampling and the Instruments to be used to collect accurate and bias free information specific to the research study. The parameters that need to be considered while tailoring a research design are the type and purpose, time frame, environment and scope of the research study. With specific mention to the underlying research, the type of the research is going to be descriptive and analytical as held earlier and the purpose of the study is to develop a Consumer Retention Model. The scope of the research is restricted to the eligible open access consumers of the MSEDCL in the Pune Region and the purpose to restrict the study to eligible open access consumers is mentioned in the Chapter.1 of the thesis. The time frame in the study is cross-sectional as the data will be collected once during the study. The instrument used for collection of data is survey questionnaires. As mentioned in the above section the research type is descriptive in nature so the data to be collected will be quantitative in nature. The reasons for the collection of the quantitative data are also elaborated in the section above. The decision to collect quantitative data sets the platform for Sampling Design and the Development of proper Instrument for pertinent Data collection. The Sampling Design and Development of the Instrument for Data collection are discussed below in detail.

4.3.1 The Sampling Design

The relevant data collection from the desired respondents will yield accurate results. If the sample chosen is wrong then the data collection would not yield the true results and it would be waste of time, efforts and money. To select appropriate sample it is necessary to understand the population. The idea about ‘characteristics of the population’ would help in selecting the appropriate sample, because we have number of

techniques that may be selected to collected data, but collecting data using a particular technique will only help to attain the objectives of the research. Therefore, it is essential to use appropriate sampling technique so that the sample collected truly represents the population and also helps to collect accurate and pertinent information with greater speed at minimal cost.

The population in the study comprises all the eligible open access MSEDCL consumers (i.e. Contract Demand > 1000 KVA) in the Pune Region and includes MSEDCL Consumers Four Hundred and Eighteen in number as on June 2012. The list of all such consumers is enclosed in Annexure 1 which forms the sample frame of the research study. The Pune Region geographically covers almost the Pune District which has three Circles namely Rastapeth Urban, Ganeshkhind Urban and Pune Rural Circle. The Circle Offices are instrumental in monitoring all the activities related to HT Consumers. Before referring to the population of the research study it is necessary to understand the organizational structure of the MSEDCL. The Organizational Structure of MSEDCL is Divisional; the Hierarchical form of the Structure is diagrammatically depicted below.

Figure 4.1: Hierarchical form of Organization Structure in the MSEDCL



In the underlying study whenever it is mentioned the consumers of the Pune Region, it means the Consumers under the Pune Zone. As mentioned above, the Pune

Zone includes Three Circle Offices which further cover Twelve Divisions and Forty Three Sub Divisions. In MSEDCL, the Sub Divisions are the important Unit in the Organizational Structure because these Offices look after the billing activities of Low Tension (LT) consumers and are responsible for field billing activities related to High Tension(HT) Consumers like Meter Readings , Assessment of Bills to HT Consumers in case of Metering problems etc. The Section Offices that work under the Sub Divisions are mainly concerned with providing uninterrupted power supply to the Consumers, maintenance of distribution network and disconnection of Consumers for non-payment of electricity charges and prevent use of electricity through unfair means. This indicates that the Section and Sub Division Offices are the touch points for the Consumers. It is necessary to note that unlike the LT Consumers the billing of the HT Consumers is carried out by the Circle Offices in co-ordination with the Information Technology (IT) Department of the MSEDCL.

A clear understanding of the population characteristics will help in selecting appropriate sample. So the important characteristic associated with the population is the billing tariff applicable to a consumer. Tariff is the Rate at which the Consumer is billed for the Consumption of Energy and its unit is in Rs per Unit (Rs/KWh). Every consumer is assigned a particular tariff based on the purpose for which the supply is being consumed. The tariff categories based on the purpose of supply are namely HT I – Industrial, HT II – Commercial , HT III – Railway Traction , HT IV – Public Water Works and Sewage Treatment Plants , HT V – Agriculture , HT VI – Bulk Power (Group Housing Society and Commercial Complex) , HT VIII – Temporary Connection, HT IX – Public Services and the newly introduced HT X – Ports. The LT Consumer tariff is different from that of the HT tariff and has an additional category for Residential usage which is a dominant category. The various HT tariff categories are only mentioned above because the Sample frame of this research includes four hundred and eighteen eligible Open Access Consumers in Pune which are billed under HT category. The sample frame is covered by the consumers under the three Circles and forty three Sub Divisions. It may please be noted that the Sample Frame in our case is equal to the population as the population is finite. The tariff wise count of consumers is tabulated below.

Table 4.1: Tariff wise Count of Consumers Included in the Sample Frame

Sr No.	HT Tariff Category	No. of Consumers in the Sample Frame	% of the total consumers in Sample Frame.
1	HT I – Industrial	299	71.53 %
2	HT II – Commercial	98	23.44 %
3	HT IV – Public Water Works and Sewage Treatment Plants	14	3.35 %
4	HT V – Agriculture	1	0.24 %
5	HT VI – Bulk Power (Group Housing Society and Commercial Complex)	2	0.48 %
6	HT VIII – Temporary Connection	1	0.24 %
7	SP – I	3	0.72 %
	Total for all the Categories	418	100.00 %

The table above clearly reveals that the consumers in the sample frame fall under various Tariff categories¹ and these consumers are geographically distributed across the area of Pune Zone. It should also be noted that a particular tariff category covers industries falling in various sectors. To make the point clear, consider the HT I Industrial tariff, which is applicable to various industries like IT & IT enabled services, Engineering workshop, Sewage treatment plants, Garment Manufacturing Units, etc. So the above representation makes it clear that the consumers in the sample are distributed across the geographical area of the Pune Zone and based on their location these consumers are linked to a particular Section/Sub Division/Division/Circle Office situated in the vicinity of the Consumer location. If a particular Sub Division, Division or Circle is selected for sampling, it may be assumed that these groups are heterogeneous in nature as the consumers that would fall under each of them would be from different sectors and tariff categories. The selection of samples based on the location of Offices may not truly represent the population, but the tabulation of consumers in the sample frame as done in the table above, divides the population into sub populations which are more

homogeneous in character. In short, the population is divided into strata based on the tariff applicable to the consumer, which specifies 'Stratified Sampling' as the natural choice for sampling in the research study. The stratified sampling would help to collect reliable and detailed information. The various Industries in and around Pune are concentrated at particular areas sector-wise. For example, the IT & IT enabled services are concentrated in Hinjewadi, Magarpatta Industrial areas, the Auto/Manufacturing Industries in the outskirts of the City at Chakan Industrial Area whereas the Hospitality Industry is mainly concentrated in the Pune City Area. The various Sub Divisions while sampling will be selected randomly with due consideration to the various industries concentrated in the specific areas mentioned above, so that the selected samples truly represent the population. Therefore, it may be justified that the most appropriate sampling technique to be used in the research is 'Stratified Random Sampling'.

After deciding the sampling technique the next important question to be answered is the sample size to be selected for the research study. The population includes Four Hundred and Eighteen eligible Open Access Consumers. The survey of all the consumers is difficult and would demand contribution of more resources in collecting the data. It would be not smart to survey all the consumers when the branch of statistics offers us optimal solutions in arriving at the exact sample size that will yield almost the same results as by conducting census survey. The formula for selecting sample size from a finite population is as below.

$$n = \frac{Z^2 \times S^2}{e^2}$$

Where n = Sample Size, e = acceptable error, Z = Standard score associated with chosen level of confidence (95 % in case of this Study, therefore Z= 1.96).

The above formula for determining the Sample Size is based on Mean Method as most of the variables are measured using Interval scale. The interval scale used is a five point likert scale with response options 1 to 5. ('1'= Strongly Disagree. '2'= Disagree, '3'= Neutral, '4'= Agree and '5'= Strongly Agree).

In the above formula 'S' is the variability in the data set. 'S' is computed as ratio of 'Range' to 'Six Standard Deviations (6σ)'

Therefore $S = \text{Range} / \text{Six Std. Deviations} = (5-1)/6 = 4/6 = 0.66$.

The formula as per the Mean Method for sample size determination is

$$n = \frac{Z^2 \times S^2}{e^2}$$

Now considering the tolerable error $e = 11\%$, $Z = 1.96$ and $S = 0.66$, the sample size is calculated below.

$$n = \frac{(1.96)^2 \times (0.66)^2}{(11/100)^2} = 142.$$

Two hundred Survey Questionnaires were distributed but the total forms responded and received are One Hundred and Forty.

4.3.2 Instrument Development

The sample size determination is one of the major tasks under Sampling Design. Once the exercise of arriving at sample size and the sampling procedure is complete, then the next step in the research study is to collect data from the respondents. The collection of data is about measurement of population parameters through specific samples. Measurement² in research consists of assigning numbers to empirical events, objects or properties, or activities in compliance with a set of rules. So to collect data or measure the desired population parameters it is necessary to develop appropriate Instrument. The type of instrument to be used, various parameters to be measured for the study and measurement scale should be justified. The data analysis work depends on the Instrument being used for measurement of population parameters, therefore a proper instrument will only help to seek desired information with greater validity and the analysis of the collected data would yield the desired results.

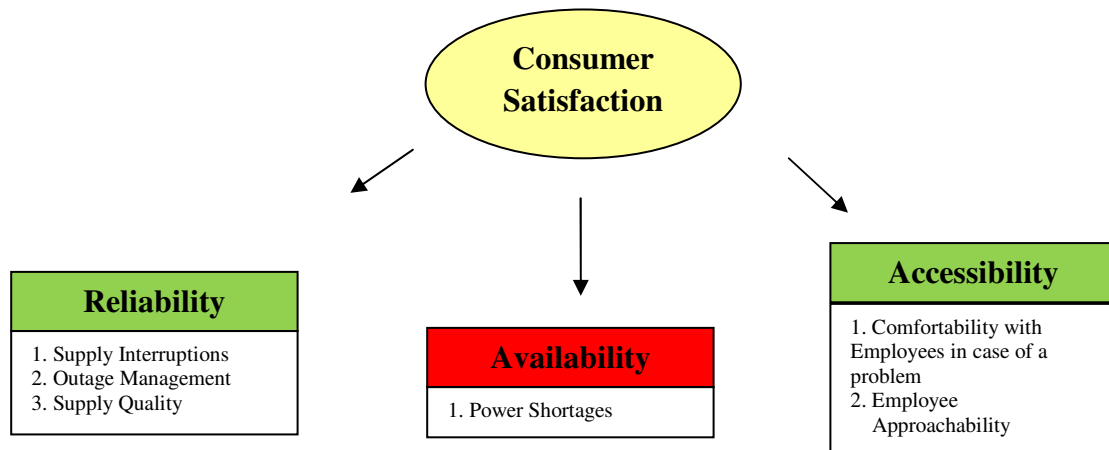
The data for research can be collected via personal interviews, focused group interviews, surveys or through observations. But the specific way of collecting data should be chosen keeping in mind the type of research, research objectives, nature of population, available resources and the time constraints. In this study, keeping in mind the type of research and research objectives, survey questionnaires will be the instrument for data collection. The instrument used will help to collect data at a greater speed and accuracy with maximum reliability and validity.

In Chapter.3 of the thesis, the conceptual framework is discussed in details and the necessary model is also put in place for its empirical testing. The main concepts discussed are Consumer Satisfaction, Consumer Perceived Value, Brand Image, Consumer Loyalty, Consumer Culture and the Role of Switching Barriers, while switching from one particular service provider to another. The discussion on these concepts makes it easy to develop research questions that are to be included in the survey questionnaires. Cracking the ‘concept’, into ‘constructs’ and identifying suitable ‘variables’ contributing each construct will help to frame correct research questions. The formulation of the research questions for each concept is discussed below in details. Identification of exact variables to formulate investigative questions is very vital, but use of appropriate language, accurate wording and proper syntax will be the key in framing the research questions. Each question will be followed by a measurement scale, so that the respondents can easily and conveniently record their bias free response. The research study is descriptive in nature so the survey questionnaire method is the most appropriate technique for collecting the desired quantitative data. The questions included in the survey will be structured or closed ended thus offering less flexibility in responding and therefore increasing the reliability of the data collected. All the questions to be asked in the questionnaire are huddled together like playing cards in a set and they lay muffled up in such a way that conceals their intention or purpose. Each question will be followed by a likert scale which will generate ordinal data. The scale of measurement is of prime importance because it decides the statistical treatment to be applied to the data collected. The type of scale and the statistical treatment applied will be discussed in details during the data analysis part.

Measuring Consumer Satisfaction:

The survey questions for measurement of various population parameters are discussed below. The concept of ‘Consumer Satisfaction’ is considered first. The constructs that contribute to Consumer Satisfaction are Reliability and Availability of Supply, Accessibility to Staff and Comfortability in dealing with them in case of emergency or a problem. Considering the above constructs the variables contributing each construct should be identified so as to formulate survey questions that will help us measure the concept of Consumer Satisfaction. The diagrammatic representation below gives idea about the variables that have been considered in formulating the survey questions.

Figure 4.2: Constructs and Variables Contributing the Concept of Consumer Satisfaction



So considering the variables mentioned above the survey questions are prepared for evaluating the present satisfaction level of the eligible open access MSEDCL consumers in Pune Region. The Availability of power is an external factor to the distribution utilities and therefore is beyond their control, so in the above figure the Availability is coded with red color whereas the other constructs are coded in green. The detailed questionnaire is attached in Annexure 2 but the tabulation of the survey questions in accordance with the figure above is given so as to get a snap shot of the idea behind development of the survey questionnaire considering the constructs and the variables contributing it.

Table 4.2: Survey Questions to Measure the Concept of Consumer Satisfaction

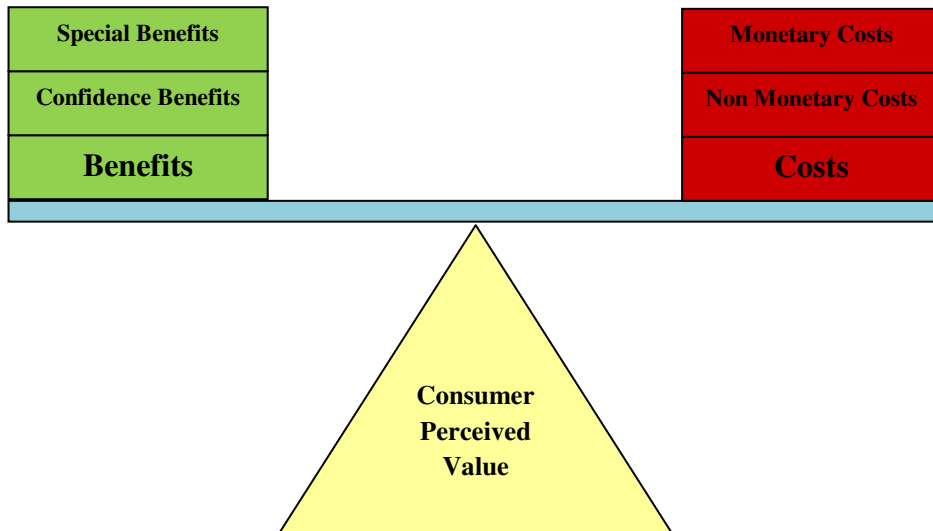
Construct	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Reliability	1	I am happy with the 'Supply Quality' offered by the MSEDCL.	1
	2	The Supply Provided by MSEDCL is with minimum interruptions.	2
	3	The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.	3
Availability	4	'Load Shedding', is not a problem associated with MSEDCL Services.	5
Accessibility	5	It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.	11
	6	I feel comfortable in approaching the MSEDCL staff in case of any problem.	44

The tabulation of the survey question will also help during the data analysis. Because it would be interesting see the summated results for each construct and the concept as a whole instead of viewing the scores marked by the respondents for individual questions.

Measuring Consumer Perceived Value:

The concept of Consumer Perceived Value is also significant along with the Consumer Satisfaction. Consumer Perceived Value³ is mainly represented by two dimensions, one is the 'Cost' and another is 'Value'. The cost includes Monetary as well as Non Monetary Cost, whereas the benefits cover Special and Confidence Benefits. It may be noted here that the Non Monetary Cost are generally related to the psychological cost, i.e. delay in solving the complaint or time and effort spent by the Consumer in solving the grievances, etc. The concept of Consumer Perceived Value is already discussed in details in Chapter.3, so in this part the focus will be on developing survey questions that help to measure the underlying concept. The Value is said to be positive if the benefits exceed the Cost or else it will be considered negative or adverse. The pictorial representation of the concept of Consumer Perceived Value is given below.

Figure 4.3:- The Dimensions of Consumer Perceived Value



The two dimensions and the sub dimensions as displayed in the figure above will be used to develop Survey Questions on the Concept. The survey questions considering the above aspects are tabulated below. The detailed questionnaire is attached in Annexure 2.

Table 4.3: Survey Questions to Measure the Concept of Consumer Perceived Value

Dimension		No.	Survey Question considering the associate Variable	Q. No in the Questionnaire
C O S T	Monetary Cost	1	The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.	6

Dimension		No.	Survey Question considering the associate Variable	Q. No in the Questionnaire
	Non-Monetary Cost	2	The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.	45
	Non-Monetary Cost	3	Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.	46
B E N E F I T S	Confidence Benefits	4	The quality of services offered by MSEDCL has improved significantly over last few years.	58
	Confidence Benefits	5	The present service provider(MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.	54
	Confidence Benefits	6	The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.	55
	Confidence Benefits	7	The risk associated in transactions with MSEDCL is least.	42
	Special Benefits	8	Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.	41
	Special Benefits	9	The working hours of MSEDCL Company are as per the Consumer convenience.	31
	Special Benefits	10	The MSEDCL Offices and Fuse Call Centres are located at convenient places and are easily accessible	10

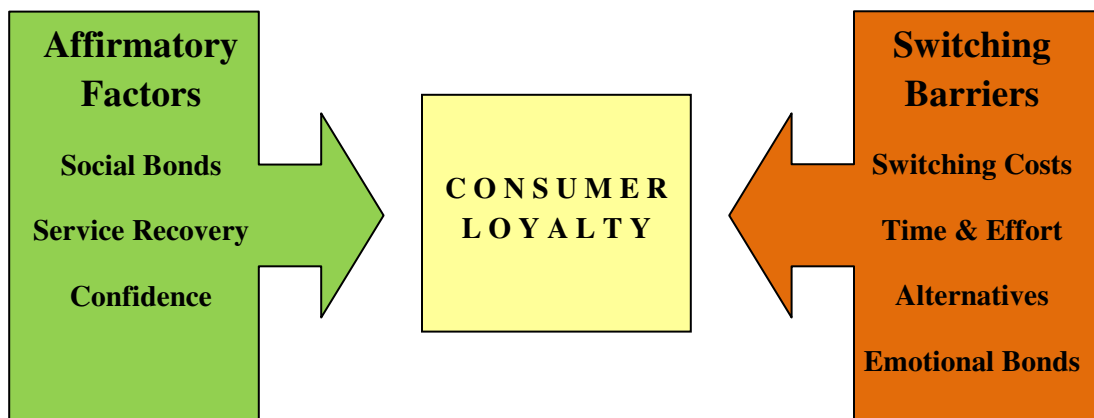
The above survey questions on Consumer Perceived Value will help to measure the two basic dimensions i.e Cost and Benefits to Consumers. The Consumer value the services favorable only if the benefits received are considerable as compared to the cost.

Measuring Consumer Loyalty:

The intention of this study is to retain the existing eligible Open Access Consumers of the MSEDCL. So measurement of Consumer Loyalty is of prime importance in the study, but actually identifying the factors that retain the existing

consumers is a difficult task. While designing the survey questions on Consumer Loyalty along with the affirmatory factors an emphasis has to be given on those factors that are associated with the Switching Barriers⁴. The Affirmatory factors are Confidence and Social Bond with the present service provider, whereas Switching Costs, Time & Effort in searching a New Service Provider, Availability of Alternatives and Emotional Bonds are the main Switching Barriers. The two factors mentioned above are the primary reasons behind the Consumer Loyalty. In most of the cases, the consumer loyalty is less due to the affirmatory factors and more due to the barriers in switching from one service provider to another. The time & effort needed to search and develop relationship with the new service provider, emotional bonding with the existing service provider, less alternatives offering the desired service and the cost of switching are the main hurdle for the Consumer to transit from existing service provider to a new one. The diagrammatic representation of the concept considering the above discussion is as below.

Figure 4.4: Basis for Consumer Loyalty



The affirmatory factors in the above figure are placed in green box, whereas the Switching Barriers are placed in the red box, as these factors may hold a Consumer to the

existing service provider despite the poor services. To determine the Consumer Loyalty the survey questions can be prepared considering the Affirmatory Factors and Switching Barriers. The questions related to Switching Barriers can also be used to study the role of switching cost on the relationship between Consumer Loyalty – Consumer Satisfaction and Consumer Loyalty – Consumer Perceived Value. The survey questions with respect to Consumer Loyalty are tabulated below.

Table 4.4: Formulation of Survey Questions for Consumer Loyalty

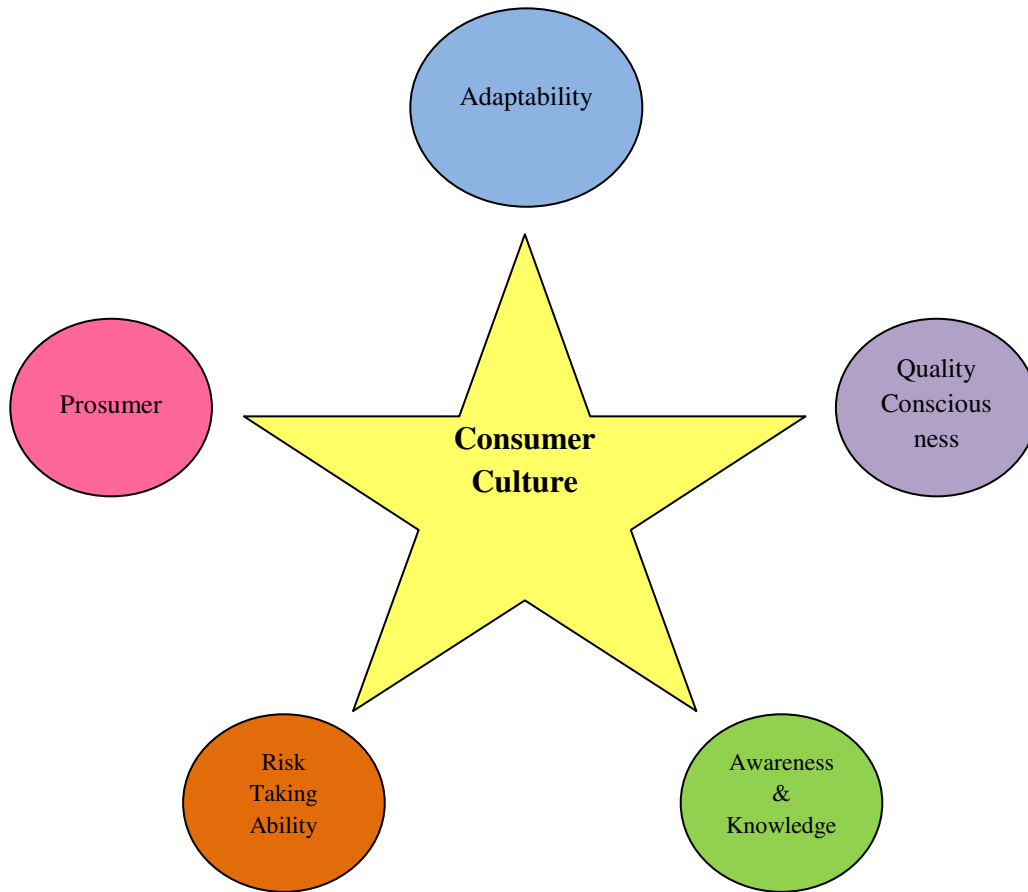
Factor		No	Survey Question considering the associate Variable	Q. No in the Questionnaire
A F F I R M A T O R Y	Social Bonds	1	We feel proud in being associated with MSEDCL as their Consumer	33
	Social Bonds	2	Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL.	57
	Emotional Bonds	3	We have a genuine relationship with MSEDCL as a Consumer	35
	Confidence	4	I convey positive 'word of mouth' publicity about my present Service Provider (MSEDCL).	59
	Confidence	5	I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion.	60
B A R R I E R S	Switching Costs	6	The financial cost associated with the Switching is considerable(CSS, Transmission Charges, Wheeling Charges , Metering Cost, Additional Surcharge, etc.)	53
	Time and Effort	7	The effort involved in searching for a New Service Provider is high and time consuming.	47
	Time and Effort	8	It will also take much time in learning about or understanding the New Service Provider or develop new relationship.	48
	Alternatives	9	There are few alternatives to provide for Services in Power Distribution Sector.	49
	Alternatives	10	We don't find a better alternative that can provide Services to us.	50

Factor		No	Survey Question considering the associate Variable	Q. No in the Questionnaire
B A R R I E R S	Emotional Bonds	11	We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.	51
	Emotional Bonds	12	I have a sense of loyalty with my existing service provider that is MSEDCL.	52

Measuring Consumer Culture:

The Satisfaction, Perceived Value and Loyalty are being studied for the eligible open access consumers in the Pune Region, but during the study it is also essential to understand the associated culture. The various variables considered are Quality consciousness, Awareness & Knowledge, Adaptability to new technologies, Risk Taking Ability and Prosumeristic Attitude i.e fulfilling their needs on own. Today the power shortage is acute, so some industries especially Sugar, Steel, Cement which require ‘Steam’ as well as ‘Electricity’ may think of cogeneration and thus satisfy their needs on their own. The pictorial representation is shown on the next page.

Figure 4.5: Attributes for Measuring Consumer Culture



The tabulation of the Survey Questions for understanding Consumer Culture considering the variables in the figure is as below.

Table 4.5: Survey Questions for Measuring Consumer Culture

Attributes	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Quality Consciousness	1	The Electricity Consumers would not really mind paying more for Reliable and Quality Services.	61
Awareness & Knowledge	2	We keep ourselves updated regarding the latest tariff applicable and other relevant information.	62

Attributes	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Adaptability	3	With the latest developments in the power sector technologies like Smart Grids, Smart Metering, etc the Consumers will be able to cope well with it.	63
Risk Taking Ability	4	The Open Access policy offers choice to the Electricity Consumers to select their Service Provider. So, I /We would definitely avail of this facility and plan to switch over to a New Service Provider.	64
Prosumer	5	Instead of Sourcing power from Distribution Utilities, Our Company would prefer to generate electricity on our own.	65

The above survey questions will help to understand the Consumer Culture. Understanding the Consumer Culture will bring the Distribution Utilities closer to the consumer expectation and thus making the perception favorable.

Measuring the Brand Image:

The concept of Brand Image is already discussed in Chapter III. This concept like all the above concepts is also difficult to measure due to its intangible form and psychological nature. Branding is more about personification, hence the traits like Social Image, Progressiveness, Capability and Trustworthiness can be used to measure the concept effectively. The study of Consumer Behavior remains incomplete without considering the concept of Brand Image. The pictorial representation and the tabulation of survey questions are as below.

Figure 4.6: Traits for Measuring Brand Image

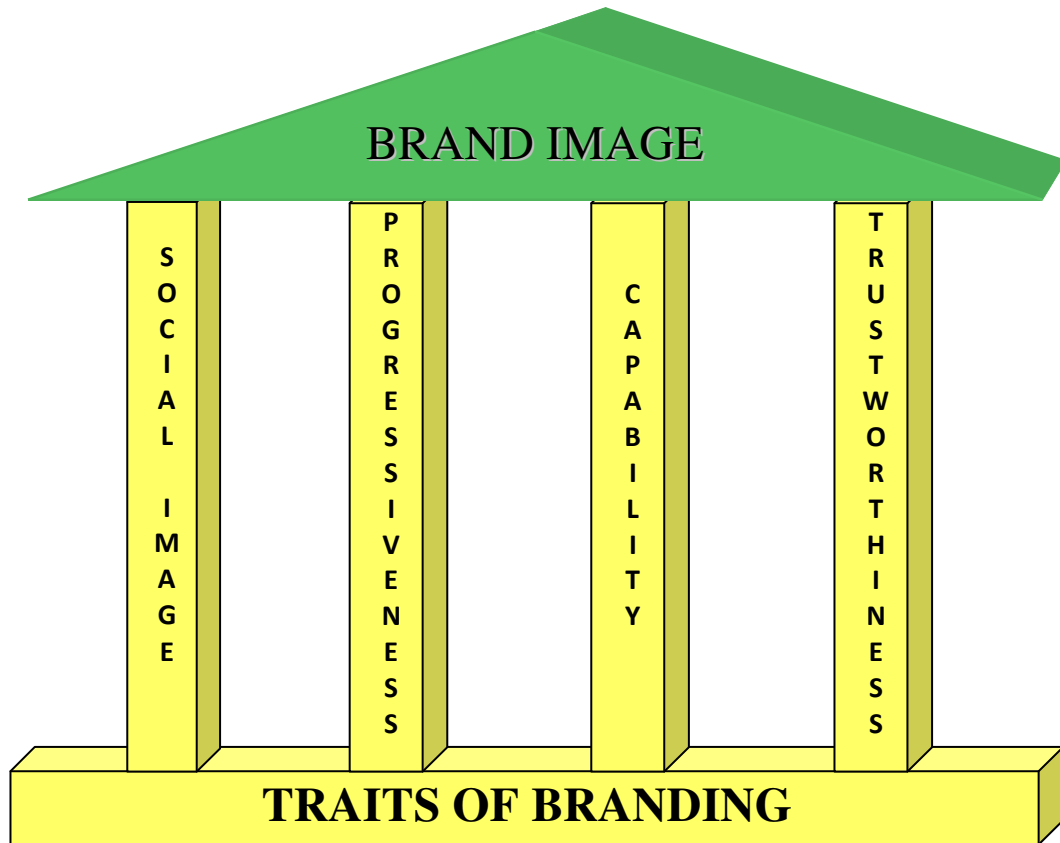


Table 4.6: Formulation of Survey Questions for Brand Image

Trait	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Social Image	1	MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.	66
Progressiveness	2	The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.	67
Capability	3	Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.	68

Trait	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Trustworthiness	4	The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.	69
	5	The Business Practices of MSEDCL are Ethical and Transparent.	17

Measuring the Consumer Concern:

The survey questionnaire intends to measure Satisfaction, Value, Brand Image, Loyalty and Consumer Culture. Along with all the above constructs it is important to measure the MSEDCL's Concern for its Consumer, because the research aims at retaining the existing consumer base. Measuring consumer concern may help MSEDCL understand the dark areas in the Service Delivery and provide them an opportunity to improve and be sensible to the Consumers. The survey questions for measuring consumer concern are tabulated below.

Table 4.7: Formulation of Survey Questions for Consumer Concern

Sr No	Survey Question	Q. No in the Questionnaire
1	The MSEDCL Company understands our specific needs and the MSEDCL staff pay attention to it.	36
2	In case of payment default, the MSEDCL company is more likely to understand our problem and would agree to give grace period for clearance of dues without disconnecting our supply.	37
3	In case of any Supply problem associated with the Consumer side , the MSEDCL Employees would be flexible (generous) in extending necessary support and help to solve the problem.	38
4	The MSEDCL Company is always ready and prompt in passing on the Incentives/Benefits to the Consumers.	39
5	The MSEDCL is never harsh or unjust in imposing penalties/charges to the Consumers.	40

Measuring Service Quality:

The study of Consumer Behavior is partial unless the determinants of Service Quality are not explored. The Basic Determinants of Service Quality⁵ like Tangibles, Responsiveness, Reliability, Empathy and Assurance need to be accessed so as to get the exact idea about the service delivery. The questionnaire used to measure these variables is tabulated below.

Table 4.8: Formulation of Survey Questions Considering the Constructs and Variables Contributing to the Concept of Service Quality

Construct	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Tangibles	1	The MSEDCL Offices are Well Furnished, Clean and Well Maintained.	12
	2	The MSEDCL Electricity Bills are well structured and the Consumers understand it easily.	14
	3	The MSEDCL website is well designed and user friendly.	21
	4	The MSEDCL Employees are Well Dressed and appear neat.	30
Reliability	5	The Consumers are informed of the supply interruptions in advance.	4
	6	The Consumers are made aware by the MSEDCL, regarding the changes in Policies through its Circulars.	13
	7	The MSEDCL Electricity Bills are delivered in time and give ample duration for the Consumers to clear the outstanding amounts before due dates as mentioned in the bill.	15
	8	The Electricity Bills provided by the MSEDCL are accurate and free from errors.	16
	9	The problem communicated to the MSEDCL is solved at the first time and generally does not repeat in future.	20
	10	The MSEDCL website provides with relevant and accurate information to its Consumers.	22
	11	The MSEDCL website offers a safe and secured option for payment of electricity bills for its Consumers.	23

Construct	No	Survey Question considering the associate Variable	Q. No in the Questionnaire
Responsiveness	12	The MSEDCL employees are quick in attending the Consumer Complaints.	7
	13	The MSEDCL employees listen carefully to the grievances raised by the Consumer and understand the Consumer problems.	8
	14	The MSEDCL Employees show keen interest and take up the responsibility in solving the Consumer Complaints.	24
	15	The MSEDCL Employees are never too busy to respond to the Consumer requests.	27
Empathy	16	The MSEDCL Employees have caring attitude towards their Consumers.	9
	17	The MSEDCL understands the needs of its Consumer .	18
	18	The MSEDCL Company believes in keeping the 'Consumer Interest' as its top priority.	29
Assurance	19	The MSEDCL agrees to provide compensation to its Consumers if the services are not delivered as per the 'Standards of Performance ', stipulated by the MERC.	19
	20	The MSEDCL Employees are adequately trained to solve the Consumer's Complaint.	25
	21	The MSEDCL Employees / Staff are well behaved and well mannered.	28
	22	The MSEDCL Company keeps its promise of fulfilling the Consumer demand in time.	26

The success of the research study depends solely on how well the research questions are translated into the survey questions. The research objectives will be achieved only if the survey collects the data that is valid and reliable. In the research, the instrument development is conducted systematically with due consideration of all the variables and keeping focus on the conceptual framework of the study, the survey questionnaire has sixty nine questions followed by Likert scale to measure all the concepts discussed above. Prior to these questions, four multiple choice questions are also included in the questionnaire. These questions help to seek information related to Mode of Payment opted by the Consumers, by what name do the Consumers recognize

the service provider (i.e MSEB, Maha-Vitaran or MSEDCL), Awareness and Knowledge of various Switching Costs in Open Access, Perception in the Consumer Minds related to Importance of the five basic service parameters viz. Tangibles, Promptness, Employee Behavior, Accuracy and Cost of Service. The answer related to mode of payments tells whether the consumer opt traditional ways of bill payment or is 'Tech Savvy' in choosing to pay through internet. The question on rating the switching cost will help to understand if the consumers are really aware about the policies and subtleties in Open Access. The recognition of the Consumers as MSEB or MSEDCL or Maha-Vitaran will help to judge the brand perception. The above four multiple choice questions are numbered A, B, C & D in the questionnaire and these questions precede the sixty nine survey questions based on likert scale. The said sequencing is intended to consider the convenience of respondents, while answering the questionnaire. The mixing up of these questions may disturb the rhythm of the respondents, while answering the questionnaire. The likert scale based survey questions are framed in affirmative language so as to seek bias free information from the respondents; the necessary care is taken in sequencing these questions so that the respondents reveal true responses. The deliberation behind sequencing the questions is to make consumer think while responding the survey and stimulate them to disclose true responses. The double barreling of questions is avoided, specific words are appropriately used and the sentence length is kept to minimum as possible as to avoid any confusion in understanding a question. The necessary instructions and the disclaimer related to the privacy of data are also mentioned in the survey questionnaire. The survey questionnaire includes ten pages in all; the first page starts with the Researcher's disclaimer about the purpose of the data collection and assurance about the data privacy. It includes fields about basic information related to the respondents like Name & Location of the Company, Designation of the respondents, Sector to which the Company of the respondent belongs, number of working shifts, employee strength, contract demand in KVA, tariff applicable to the Consumer, approximate monthly electricity bill in Rs. Lacs, approximate electricity expenditure as percentage of total expenditure and annual revenue turnover of the Company. The last field i.e. annual revenue turnover was not mandatory because of the unwillingness of the respondents in sharing the particular information being anticipated.

4.3.3 Method of Data Collection

The Sampling Design and the Instrument Development sets the road map for data collection. It will be appropriate to presume that, if sampling design and instrument development are science in research, then actual collection of data using the designed tool is an art of research. The sampling design and instrument development are technical in nature and require thorough understanding of research methodology, whereas collection of data requires planning, perseverance, constructive approach and hard work.

Annexure -1 includes the list of all such consumers in the Pune Zone who are eligible for Open Access as per the provisions in the electricity act 2003. So considering the research topic and the scope of the study the count of Four Hundred and Eighteen number of Consumers in Annexure-1 is the population, which being finite is also the sample frame for the study. The respondents selected will be the Head of the Electrical Departments of the Client Company's and it will be ensured that the respondent is aware about the provisions in Electricity Act 2003 related to the implementation of Open Access policy in Power Distribution. The consumers will be randomly selected as per the sampling design and the data has been collected through the survey questionnaires. Today, technology has shrunk the world the world by offering various ways of communication like emails etc. So the distribution of survey forms will also be done via emails by telephonically contacting the respondents. The survey form will also be uploaded on the Google drive thus providing making it convenient for the respondents to mouse-click, the preferred option. The responses will be simultaneously gathered in numerical form in the excel response sheet which will be further used for data analysis. But in the present age of 'e-world', consumers are bombarded by many such survey questionnaires by various companies which the consumers do not take seriously. So, it will be interesting to see whether consumers respond to the survey on email and provide factual data. The emphasis will be given on data collection by visiting the consumer premises, meeting the respondents, briefing out the survey form and disclosing the purpose of study. The respondents in our study will be the owner of the company or an employee of the company, whoever holds a responsible position and co-ordinates with the MSEDCL on behalf of the Company. The significance of honest response will be

convinced to the respondents and adequate time will be given for responding the questionnaires. The follow up will be maintained with the respondents for collection of the responded survey forms. It is anticipated that a period of 6-8 months will be needed to collect the data considering the sample size as derived in the sampling design.

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Chapter 5

Exploring and Investigating the Data

Chapter 5

Exploring and Investigating the Data

5.1 Experience on Field While Data Collection

The research design provides the necessary blueprint for conducting the study. The experience of data collection was laborious and involved continual follow-up with the respondents. The data collection method is already discussed in details in Chapter. 4, but the actual experience while data collection needs to be revealed prior to exploration and investigation of the data. The data collection work was started in October 2013 and continued till June 2014. The sampling is done having considered the random stratified technique, but the coverage of samples truly representing the population was the main goal. The various consumers with different HT Billing tariff are scattered heterogeneously in various sub divisions and the stratified random sampling in the study is also based on tariff applicable to the consumer, but along with consideration of tariff, it was decided that almost all the sectors in Industry are also covered within the sample. For the achievement of above objective it was mandatory to cover some industrial pockets in and around Pune like Magarpatta, Hinjewadi, Chakan, Pune City etc (Please refer Annexure 5), because the IT and IT enabled service industries are mostly located in Hinjewadi and Magarpatta, where as the Auto/Manufacturing and Hospitality Industry are concentrated in Chakan and Pune City areas respectively. Therefore, to gather maximum quality sample within minimum time, the focus was initially on the areas mentioned above and hence, Sub Divisions like Sanghvi, Chakan and Hadapsar were selected. The Magarpatta area is at present allotted to a franchisee, but previously it was fraction of the Hadapsar I Sub Division. The franchisee is also a part of the MSEDCL, as it runs the business on behalf of it. Hence, the collection of data from the franchisee area will give a holistic approach to sampling and thus, hardly leaving any of the aspect unexplored. Apart from this, the remaining Sub Divisions in the Pune Zone were selected randomly for collecting the required sample. Annexure 4, includes the list of Consumers surveyed.

The Survey Forms were also loaded on Google, so that the respondents may respond the survey conveniently by mouse clicking the preferred options. The Sample Frame list as per the MSEDCL IT Department is attached in Annexure-1, for some consumers the contact details are also available in the database. So using this information the Companies were contacted and after necessary dialogue with the concerned company person, the Google survey forms were emailed to the respondents (Company Representatives). But it was unfortunate that on most of the company email websites the Google forms failed to open, thus making it difficult for the respondents to answer the survey. The Survey Forms in MS Word format were sent to such respondents and it was suggested to mark the preferred option with red color. The data collection Certificates were also sent along with the Survey Forms and it was requested to send a scan copy of the signed Certificate along with the Responded Questionnaire. The use of emails was made for data collection, but the emphasis for data collection was by actually visiting the company premises by taking prior appointments of the concern company representative. I am also grateful to all the field staff that cooperated with me for conducting the survey work. The Staff at the Sub Division and the Section Offices is in direct touch with the Consumers and their catalytic role during the vital phase of the research needs a special declaration. The support from the Field Staff made it convenient to approach the concern Company Employee, thus saving time and making the survey work easy. Except a few exceptions, the response from the Companies throughout the survey was very positive. During the interaction, in most of the cases the consumers were surprised that the MSEDCL has shown interest in hearing the 'Voice of Consumers'. After responding the questionnaire, most of the respondents expressed satisfaction about the questions being inquired and also pointed out that they never expected receiving such a survey form from the MSEDCL.

5.2 Selecting the Appropriate Sample

The sample size determination and the exact sampling method to be used are already discussed in details in Chapter. 4. From Table 4.1 in Chapter. 4, it is clear that Ninety Five percent of the respondents in the sample frame have contributed by HT-I (Industrial) and HT-II (Commercial) category. The HT-I (Industrial) Consumers is the dominant tariff category contributing 71.53% of the sample frame followed by HT-II (Commercial)

category with a share of 23.44%. The Public Water Works and Sewage Treatment tariff i.e. HT-IV tariff category finds third position representing 3.35% of the respondents in the sample frame. Therefore, it is imperative that the sample selected should cover these dominant categories so as to truly represent the population. The table below shows the tariff wise break up of respondents selected as sample and their representation in the population. The basic aim is to reduce the sampling error and ensure accurate results at the expense of minimum resources.

Table No.5.1: Tariff wise Count of Consumers Included in the Sample and their Representation in the Population

Sr No.	HT Tariff Category	Consumers/Respondents in the Sample Frame		Consumers/Respondents in the Selected Sample	
		No	%	No	%
1	HT I – Industrial	299	71.53 %	100	71.43 %
2	HT II – Commercial	98	23.44 %	33	23.57 %
3	HT IV – Public Water Works and Sewage Treatment Plants	14	3.35 %	5	3.57 %
4	HT V – Agriculture	1	0.24 %	0	0%
5	HT VI – Bulk Power (Group Housing Society and Commercial Complex)	2	0.48 %	0	0%
6	HT VIII – Temporary Connection	1	0.24 %	1	0.7%
7	SP – I	3	0.72 %	1	0.7%
	Total for all the Categories	418	100.00 %	140	100.00 %

Hence, it may be concluded that the sample selected truly represents the Population and would ensure better accuracy in the results after conducting data analysis. The Population

is finite hence the Sample Frame includes the complete Population of 418 No. of eligible Open Access Consumers.

5.3 Measurement Scale and Statistical Treatment

The formulation of survey questions have been discussed in details in Chapter. 4 under the sub topic ‘Instrument Development’. The questions have been prepared to measure the various constructs like Consumer Satisfaction, Value, Brand Image, Consumer Concern, Consumer Culture, Loyalty and Service Quality. These questions are followed by five point Likert scale with options Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. Likert Scale always invites debate whether the Scale type is ‘Ordinal’ or ‘Interval’. But it is very common to use five point Likert scales and give statistical treatment considering the scale type as ‘Interval’. Likert Scales are ordinal data, but are commonly used for Interval procedures, provided the scale items have at least ‘5’ or preferably ‘7’ categories. In this regard, Jaccard and Wan¹(1996, p.4) concluded, “for many statistical tests, rather severe departures(*from Intervalness*) do not seem to affect Type I and Type II errors dramatically, especially if a ‘5’ or ‘7’ point scale is used”.

Therefore, considering the Likert scale as Interval type and keeping in mind the Research Objectives following statistical treatment will be given to the data collected. The statistical treatment chosen and the purpose are tabulated below.

Table 5.2: Objective and the Statistical Treatment Chosen

Sr No.	Statistical Treatment	Objective
1	Descriptive Statistics	To analyze individual questions in the survey and to check for any violation of assumptions underlying the statistical technique.
2	Friedman Chi square Test	To determine the factors contributing to ‘Consumer Perceived Value’
3	Bi-variate Correlation	To ascertain strength of relationship between variables viz; Consumer Satisfaction, Consumer Perceived Value, Brand Image and Consumer Loyalty.

Sr No.	Statistical Treatment	Objective
4	Regression Analysis	To study moderating role of 'Switching Cost' on relationship between 'Satisfaction' / 'Value' and 'Loyalty'.
5	One Way ANOVA / Kruskal Wallis Test	Circle wise and Sector wise analysis of Satisfaction, Value, Brand Image, Loyalty, Quality Consciousness and Risk Taking Ability of Consumers.
6	Structural Equation Modeling	To test the Consumer Retention Model.

5.4 The Data Preparation

The data analysis is being done using SPSS Software. The data collected through survey questionnaires needs to be converted into numeric codes so that the data analysis may be performed using the software. The survey questionnaire along with the survey questions has some preliminary information about the respondent which is required while analyzing the data. The general information includes the Type of Industry, Name of the Circle under which the Consumer is billed, No. of Shifts in the Industry, Tariff category etc. The above information needs to be coded in numeric to enable the software conduct data analysis. The Likert scale used in the questionnaire has five response options, namely, Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. These response options are also converted into numeric values. The data sheet accepted in the SPSS Software is excel sheet. The details of codes used for various variables and responses are mentioned in the Annexure 3. The Reliability Test, Normality Test and other statistical treatments given to the data are discussed in details in the proceeding sub topics of this Chapter.

5.5 The Reliability Test

The Reliability Test refers to the accuracy of measurement and the repeatability of results, if the same measurements are taken again and again. In our case, the

questionnaire is used to measure various concepts like Consumer Satisfaction, Consumer Perceived Value, Brand Image, Consumer Loyalty, Switching Barriers, Consumer Concern, Service Quality and Consumer Culture. The reliability test helps us ensure the usefulness of the questionnaire in measuring the desired items. The Cronbach's Alpha test of reliability is a model for verifying internal consistency and the model is based on average inter-item correlation. The reliability test helps to ascertain the extent to which the items in the questionnaire are interrelated. The test gives overall index for the repeatability of the scale as a whole and also identifies the problem items that should be excluded from the scale. The basic intention of conducting this test is to ensure that the experimental error is minimal and the data collected is bias free. The items for which the reliability test is conducted are tabulated below with associated remarks based on the Cronbach Alpha value. A value of 0.7 and above for Cronbach Alpha means the reliability is good, a value between 0.6 and 0.7 means the reliability is marginally met and value below 0.5 indicates poor reliability.

Table 5.3: Reliability Statistics

Sr. No	Reliability Variable	No. of Items	Cronbach's Alpha	Result
1	Satisfaction	7	0.745	Reliability Met
2	Value	9	0.795	Reliability Met
3	Brand Image	6	0.811	Reliability Met
4	Loyalty	5	0.785	Reliability Met
5	Consumer Concern	5	0.726	Reliability Met
6	Tangibles	4	0.501	Poor Reliability
7	Reliability	7	0.615	Reliability Marginally Met
8	Responsiveness	4	0.763	Reliability Met
9	Empathy	3	0.774	Reliability Met
10	Assurance	4	0.789	Reliability Met

Sr. No	Reliability Variable	No. of Items	Cronbach's Alpha	Result
11	Culture	5	0.272	Poor Reliability
12	Barriers	7	0.648	Reliability Marginally Met

From the table above, except for 'Culture' and 'Tangibles' the Scale Reliability is found to be satisfactory. The variables like 'Satisfaction', 'Value', 'Brand Image', 'Loyalty' and 'Barriers' have met the reliability and these variables are major, as they are the part of conceptual framework in the Research study.

5.6 The Test of Normality

The criterion of 'Normality', as suggested by George and Mallery(2003) tells that a Variable with Skewness & Kurtosis value between -1 to +1 indicates Normality. If the values fall outside the band, then the assumption of Normality for that variable is violated. The Statistics for all the variables along with the remarks are tabulated below.

Table 5.4: The Statistics for Normality

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
Variables for 'Satisfaction'				
1	I am happy with the 'Supply Quality' offered by the MSEDCL.	-1.331	1.168	No
2	The Supply Provided by MSEDCL is with minimum interruptions.	-.690	-.738	Yes
3	The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.	-.477	-.935	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
4	'Load Shedding', is not a problem associated with MSEDCL Services.	-.204	-1.163	No
5	It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.	-1.026	.166	No
6	I feel comfortable in approaching the MSEDCL staff in case of any problem.	-1.002	.622	Yes
Variables for 'Value'				
7	The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.	.182	-1.208	No
8	The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.	-.716	-.322	Yes
9	The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.	-.777	-.807	Yes
10	Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.	-1.663	1.569	No
11	The working hours of MSEDCL Company are as per the Consumer convenience.	-.819	-.547	Yes
12	Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.	-.701	-.417	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
13	The risk associated in transactions with MSEDCL is least.	-.781	1.434	No
14	The quality of services offered by MSEDCL has improved significantly over last few years.	-1.419	3.740	No
15	The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.	-.853	.621	Yes
16	The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.	-.251	-.547	Yes
Variables for 'Brand Image'				
17	The Business Practices of MSEDCL are Ethical and Transparent.	-.615	-.161	Yes
18	MSEDCL is the most trusted Service provider as compared to its Competitors.	-.400	.267	Yes
19	MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.	-.874	.506	Yes
20	The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.	-.914	.527	Yes
21	Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.	-.460	-.172	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
22	The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.	-0.866	1.715	No
Variables for 'Loyalty'				
23	We feel proud in being associated with MSEDCL as their Consumer.	-1.109	1.692	No
24	WE have a genuine relationship with MSEDCL as a Consumer.	-1.134	1.685	No
25	Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL.	-0.230	.920	Yes
26	I convey positive 'word of mouth' publicity about my present Service Provider (MSEDCL).	-1.386	3.828	No
27	I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion.	-1.172	2.203	No
Variables for 'Barriers'				
28	The financial cost associated with the Switching is considerable(CSS, Transmission Charges, Wheeling Charges, Metering Cost, Additional Surcharge etc)	-0.215	.395	Yes
29	The effort involved in searching for a New Service Provider is high and time consuming.	-0.421	-.094	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
30	It will also take much time in learning about or understanding the New Service Provider or develop new relationship.	-.473	.180	Yes
31	There are few alternatives to provide for Services in Power Distribution Sector.	-.691	.675	Yes
32	We don't find a better alternative that can provide Services to us.	-.149	-.890	Yes
33	We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.	-.164	-.616	Yes
34	I have a sense of loyalty with my existing service provider that is MSEDCL.	-1.011	1.364	No
Variables for 'Consumer Concern'				
35	The MSEDCL Company understands our specific needs and the MSEDCL staff pay attention to it.	-.631	-.285	Yes
36	In case of payment default , the MSEDCL company is more likely to understand our problem and would agree to give grace period for clearance of dues without disconnecting our supply.	-.415	-.578	Yes
37	In case of any Supply problem associated with the Consumer side, the MSEDCL Employees would be flexible (generous) in extending necessary support and help to solve the problem.	-.723	-.439	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
38	The MSEDCL Company is always ready and prompt in passing on the Incentives/Benefits to the Consumers.	-0.774	-0.139	Yes
39	The MSEDCL is never harsh or unjust in imposing penalties/charges to the Consumers.	-0.549	-0.449	Yes
Variables for 'Tangibles'				
40	The MSEDCL Offices are Well Furnished, Clean and Well Maintained.	0.080	-1.339	No
41	The MSEDCL Electricity Bills are well structured and the Consumers understand it easily.	-1.116	0.450	No
42	The MSEDCL website is well designed and user friendly.	-0.769	0.340	Yes
43	The MSEDCL Employees are Well Dressed and appear neat.	-0.950	-0.479	Yes
Variables for 'Reliability'				
44	The Consumers are informed of the supply interruptions in advance.	0.030	-1.375	No
45	The Consumers are made aware by the MSEDCL, regarding the changes in Policies through its Circulars.	-0.118	-1.305	No
46	The MSEDCL Electricity Bills are delivered in time and give ample duration for the Consumers to clear the outstanding amounts before due dates as mentioned in the bill.	-0.768	-0.557	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
47	The Electricity Bills provided by the MSEDCL are accurate and free from errors.	-1.083	.806	No
48	The problem communicated to the MSEDCL is solved at the first time and generally does not repeat in future.	-.182	-1.426	No
49	The MSEDCL website provides with relevant and accurate information to its Consumers.	-1.307	1.515	No
50	The MSEDCL website offers a safe and secured option for payment of electricity bills for its Consumers.	-.115	-.116	Yes
Variables for 'Responsiveness'				
51	The MSEDCL employees are quick in attending the Consumer Complaints.	-.969	-.038	Yes
52	The MSEDCL employees listen carefully to the grievances raised by the Consumer and understand the Consumer problems.	-.985	.022	Yes
53	The MSEDCL Employees show keen interest and take up the responsibility in solving the Consumer Complaints.	-.543	-.811	Yes
54	The MSEDCL Employees are never too busy to respond to the Consumer requests.	-.471	-.810	Yes
Variables for 'Empathy'				
55	The MSEDCL Employees have caring attitude towards their Consumers.	-.841	-.250	Yes
56	The MSEDCL understands the needs of its Consumer .	-.786	-.451	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
57	The MSEDCL Company believes in keeping the 'Consumer Interest' as its top priority.	-0.380	-0.655	Yes
Variables for 'Assurance'				
58	The MSEDCL agrees to provide compensation to its Consumers if the services are not delivered as per the 'Standards of Performance ', stipulated by the MERC.	-0.209	-0.716	Yes
59	The MSEDCL Employees are adequately trained to solve the Consumer's Complaint.	-0.977	0.775	Yes
60	The MSEDCL Employees / Staff are well behaved and well mannered.	-1.207	0.423	No
61	The MSEDCL Company keeps its promise of fulfilling the Consumer demand in time.	-0.105	-1.073	No
Variables for 'Culture'				
62	The Electricity Consumers would not really mind paying more for Reliable and Quality Services.	-0.655	-0.358	Yes
63	We keep ourselves updated regarding the latest tariff applicable and other relevant information.	-1.164	0.825	No
64	With the latest developments in the power sector technologies like Smart Grids , Smart Metering etc the Consumers will be able to cope well with it.	-0.085	-0.363	Yes

Sr .	Variable Description	Skewness Statistics	Kurtosis Statistics	Normality Met (Yes/No)
65	The Open Access policy offers choice to the Electricity Consumers to select their Service Provider. So, I /We would definitely avail of this facility and plan to switch over to a New Service Provider.	-.729	1.139	No
66	Instead of Sourcing power from Distribution Utilities, Our Company would prefer to generate electricity on our own.	.330	-.907	Yes

5.7 The Descriptive Statistics, Frequency Tables and Histograms

The Descriptive Statistics calculate the Sample Size, Missing Values, Mean, Minimum Value and Maximum Value, Kurtosis, Skewness ,Standard errors associated with Skewness and Kurtosis for each variable. The statistics summarize and analyze data that help us to draw meaningful inferences and improve the decision making. The skewness tells how the data distribution is and its value reaffirms the meaningfulness of the mean. The frequency table provides information related to the ‘Number of Observations’ or Frequency assigned to each group. If the statistics are not sufficient to interpret data meaningfully then the interpretation is based on Frequency Tables. The Frequency Table displays Frequency, Percentage, Valid Percent and Cumulative Percent for each group. A Histogram displays the data graphically showing the shape, centre and spread of the distribution. The factors that are considered in the study are Satisfaction, Perceived Value, Brand Image, Loyalty, Switching Barriers, Consumer Concern, Tangibles, Reliability, Responsiveness, Assurance, Empathy and Consumer Culture. The descriptive statistics, frequency tables and histograms for each of the mentioned factors are displayed and interpreted below.

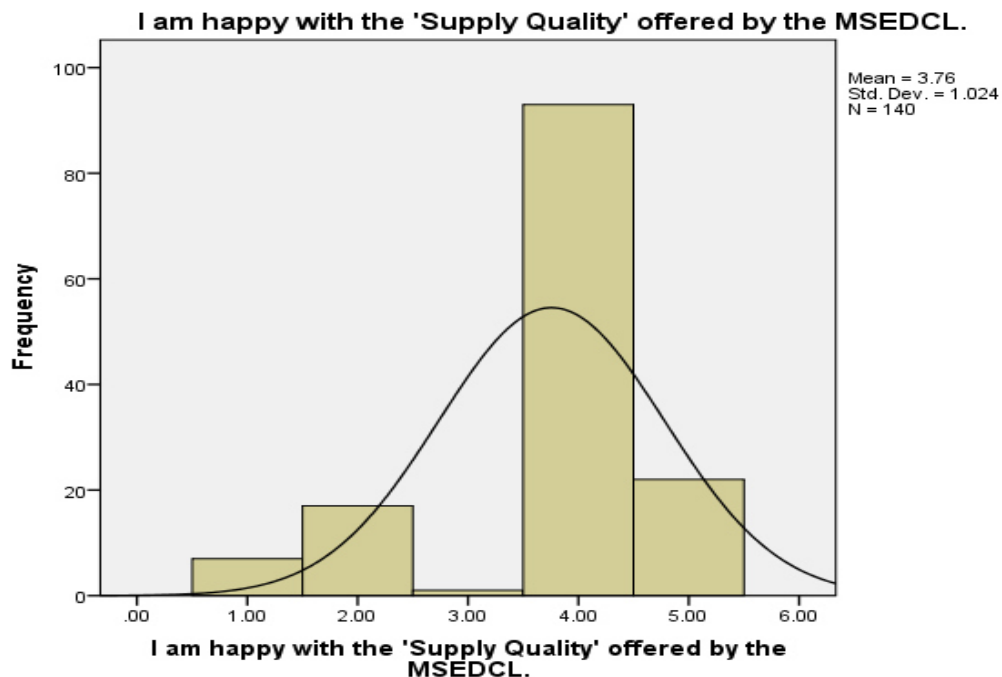
5.7.1 The Descriptive Statistics, Frequency Tables and Histograms for Consumer Satisfaction

The First Variable under Consumer Satisfaction is - *I am happy with the 'Supply Quality' offered by the MSEDCL*. The Statistics Table and the Histogram for the variable are as below.

Table 5.5: Statistics for ‘Supply Quality’

Variable →	<i>I am happy with the 'Supply Quality' offered by the MSEDCL</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.7571	Kurtosis	1.168
Std. Deviation	1.02397	Std. Error of Kurtosis	.407
Skewness	-1.331	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.1: ‘Supply Quality’ Offered by the MSEDCL



The above table for statistics and the histogram show frequency distribution for the satisfaction variable: (*I am happy with the 'Supply Quality' offered by the MSEDCL*). From the table above it may be said that the Mean = 3.7571 and the Standard Deviation = 1.02397 which is less than one third of the mean i.e. 1.2523. Therefore, 'Mean' is the meaningful value. The skewness is negative with the value of -1.331 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the 'Mean'. Hence, it may be concluded that the respondents are happy with the 'Supply Quality' offered by the MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.6: Frequency Table for 'Supply Quality'

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	7	5.0	5.0	5.0
Disagree	17	12.1	12.1	17.1
Neutral	1	.7	.7	17.9
Agree	93	66.4	66.4	84.3
Strongly Agree	22	15.7	15.7	100.0
Total	140	100.0	100.0	

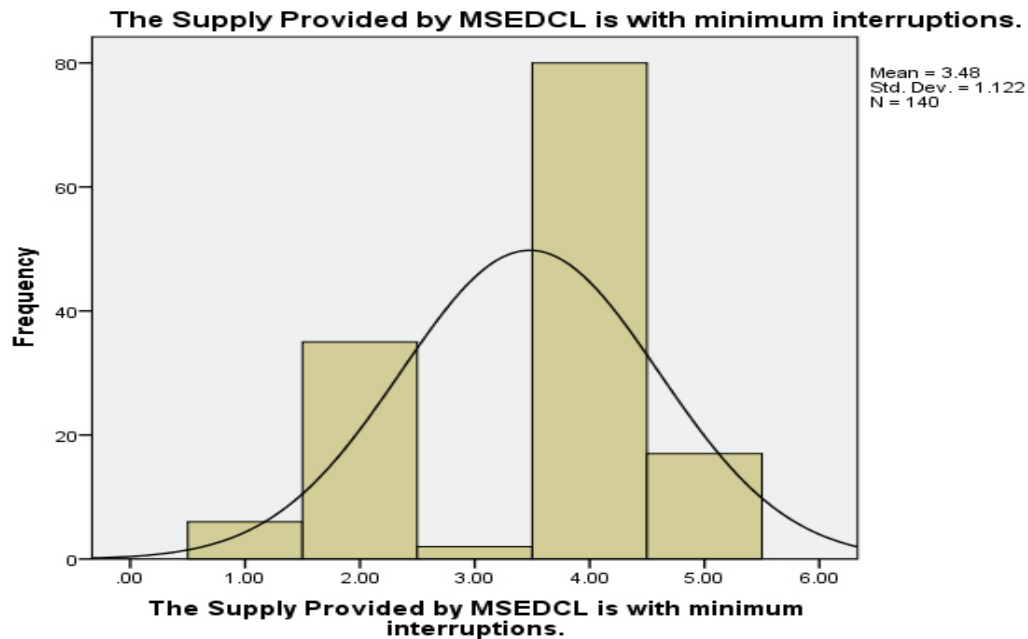
From the above frequency table the count for the groups 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 7, 17, 1, 93 and 22 respectively. The combine percentage for 'Agree' and 'Strongly Agree' is 82.1 % which also points out that the 'Supply Quality' offered by the MSEDCL is satisfactory.

The Second Variable under Consumer Satisfaction is - *The Supply Provided by MSEDCL is with minimum interruptions*. The Statistics Table and Histogram for the variable are as below.

Table 5.7: Statistics for ‘Minimum Supply Interruptions’

Variable →	<i>The Supply Provided by MSEDCL is with minimum interruptions</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.4786	Kurtosis	-.738
Std. Deviation	1.12184	Std. Error of Kurtosis	.407
Skewness	-.690	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.2: ‘Minimum Supply Interruptions’ as Related to the Service



The above table for statistics and histogram show frequency distribution for the satisfaction variable: *The Supply Provided by MSEDCL is with minimum interruptions*. From the table above it may be said that the Mean = 3.4786 and the Standard Deviation = 1.12184 which is less than one third of the mean i.e. 1.1595. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.690 showing the curve

left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the supply provided by the MSEDCL is with minimum interruptions. The Frequency Table for the selected Variable is as below.

Table 5.8: Frequency Table for ‘Minimum Supply Interruptions’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	6	4.3	4.3	4.3
Disagree	35	25.0	25.0	29.3
Neutral	2	1.4	1.4	30.7
Agree	80	57.1	57.1	87.9
Strongly Agree	17	12.1	12.1	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 6, 35, 2, 80 and 17 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 69.2 % which also points out that the Supply provided by the MSEDCL is with minimum interruptions.

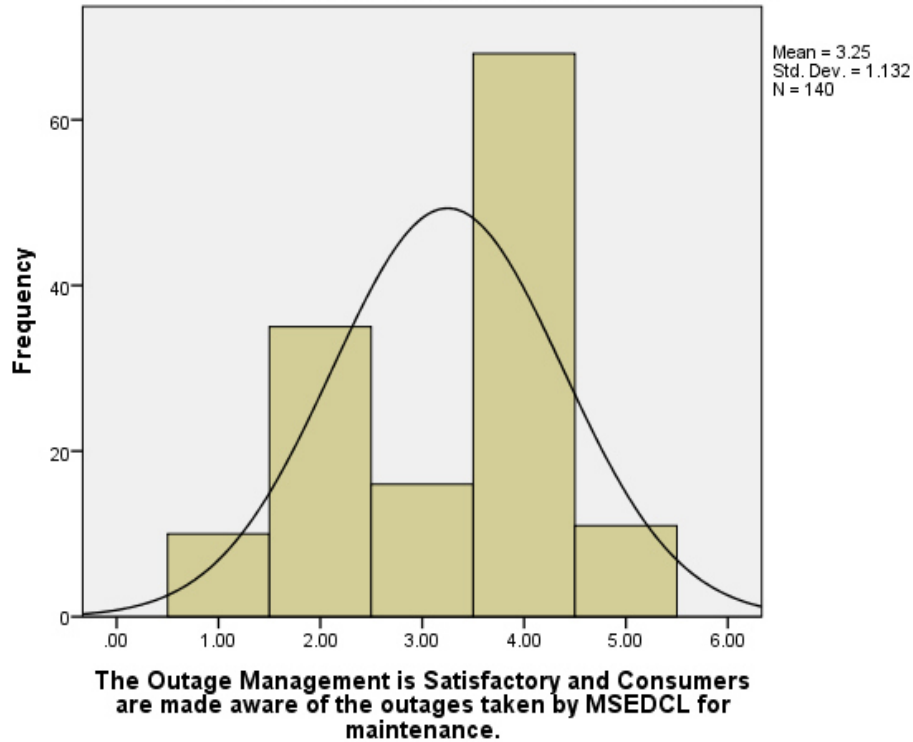
The Third Variable under Consumer Satisfaction is - *The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance*. The Statistics Table and histogram for the variable are as below.

Table 5.9: Statistics for ‘Outage Management’

Variable →	<i>The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.2500	Kurtosis	-.935
Std. Deviation	1.13242	Std. Error of Kurtosis	.407
Skewness	-.477	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.3: 'Outage Management' of the MSEDCL

The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.



The above table for statistics and histogram show frequency distribution for the satisfaction variable: *The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance*. From the table above it may be said that the Mean = 3.25 and the Standard Deviation = 1.13242 which is greater than one third of the mean i.e. 1.0833. Therefore, 'Mean' is not the meaningful value to make any interpretation. Hence, the interpretation will be based on the frequency table. The Frequency Table for the selected Variable is shown on the next page.

Table 5.10: Frequency Table for ‘Outage Management’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	10	7.1	7.1	7.1
Disagree	35	25.0	25.0	32.1
Neutral	16	11.4	11.4	43.6
Agree	68	48.6	48.6	92.1
Strongly Agree	11	7.9	7.9	100.0
Total	140	100.0	100.0	

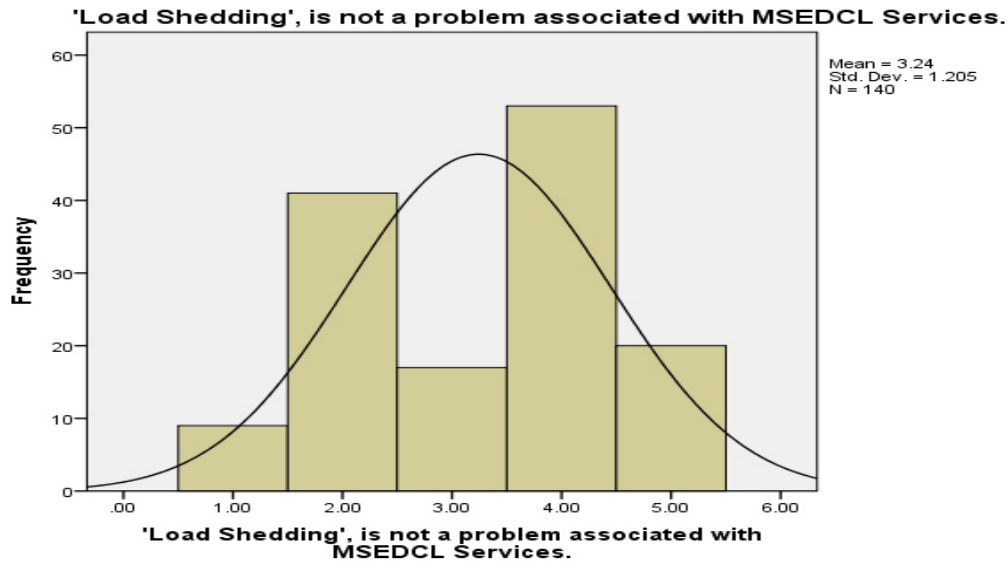
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 10, 35, 16, 68 and 11 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 56.5 % which notifies that the Outage Management of the MSEDCL is marginally towards satisfaction.

The Fourth Variable under Consumer Satisfaction is - *'Load Shedding', is not a problem associated with MSEDCL Services*. The Statistics Table and the Histogram for the variable are as below.

Table 5.11: Statistics for ‘Load Shedding’

Variable →	<i>'Load Shedding', is not a problem associated with MSEDCL Services</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.2429	Kurtosis	-1.163
Std. Deviation	1.20474	Std. Error of Kurtosis	.407
Skewness	-.204	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.4: ‘Load Shedding’ Problem Associated with the MSEDCL Service



The above table for statistics and histogram show frequency distribution for the satisfaction variable: *'Load Shedding', is not a problem associated with MSEDCL Services*. From the table above it may be said that the Mean = 3.2429 and the Standard Deviation = 1.20474 which is greater than one third of the Mean i.e. 1.0809. Therefore, 'Mean' is not the meaningful value to make any interpretation. Hence, the interpretation will be based on the Frequency Table. The Frequency Table for the selected Variable is as below.

Table 5.12: Frequency Table for ‘Load Shedding’.

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	9	6.4	6.4	6.4
Disagree	41	29.3	29.3	35.7
Neutral	17	12.1	12.1	47.9
Agree	53	37.9	37.9	85.7
Strongly Agree	20	14.3	14.3	100.0
Total	140	100.0	100.0	

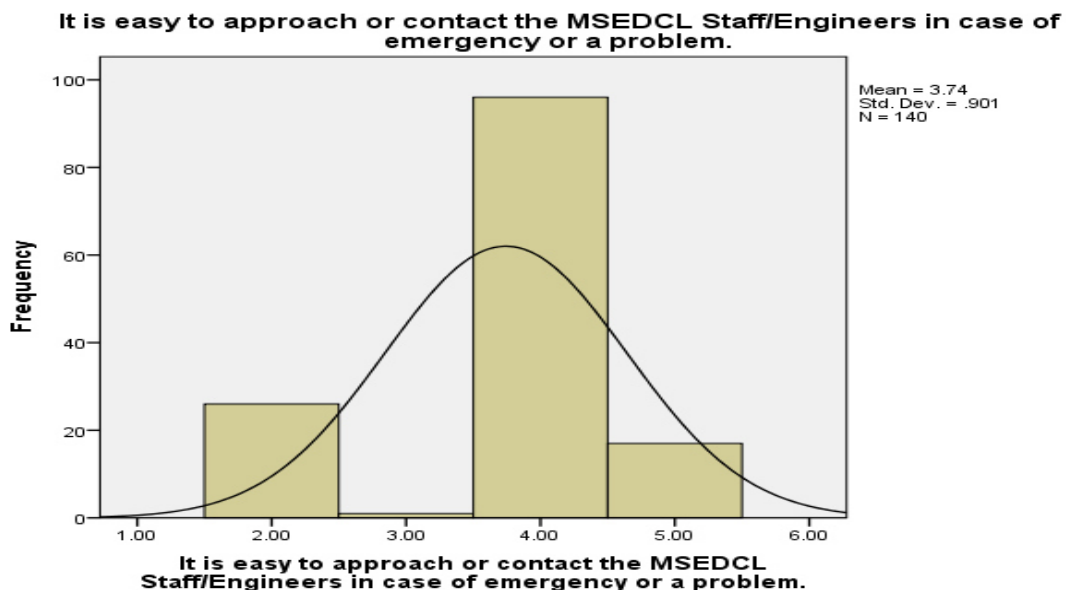
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 9, 41, 17, 53 and 20 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 52.2 % which notifies that the respondents are marginally satisfied with the problem associated to ‘load shedding’.

The Fifth Variable under Consumer Satisfaction is - *It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.* The Statistics Table and the Histogram for the variable are as below.

Table 5.13: Statistics for Ease of Approaching the MSEDCL Staff in Case of a Problem

Variable →	<i>It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.7429	Kurtosis	.166
Std. Deviation	.90061	Std. Error of Kurtosis	.407
Skewness	-1.026	Minimum	2.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.5: Approachability to the MSEDCL Employees in Case of a Problem



The above table for Statistics and Histogram show frequency distribution for the Satisfaction variable: *It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.* From the table above it may be said that the Mean = 3.7429 and the Standard Deviation = 0.90061 which is less than one third of the mean i.e. 1.2476. Therefore, ‘Mean’ is the meaningful value for interpretation. The skewness is negative with the value of -1.026 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the respondents agree that the approach to MSEDCL Staff/Engineers in case of emergency or a problem is with ease. The Frequency Table for the selected Variable is as below.

Table 5.14: Frequency Table for Ease of Approaching the MSEDCL Staff in Case of a Problem

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	0	0	0	0.0
Disagree	26	18.6	18.6	18.6
Neutral	1	.7	.7	19.3
Agree	96	68.6	68.6	87.9
Strongly Agree	17	12.1	12.1	100.0
Total	140	100.0	100.0	

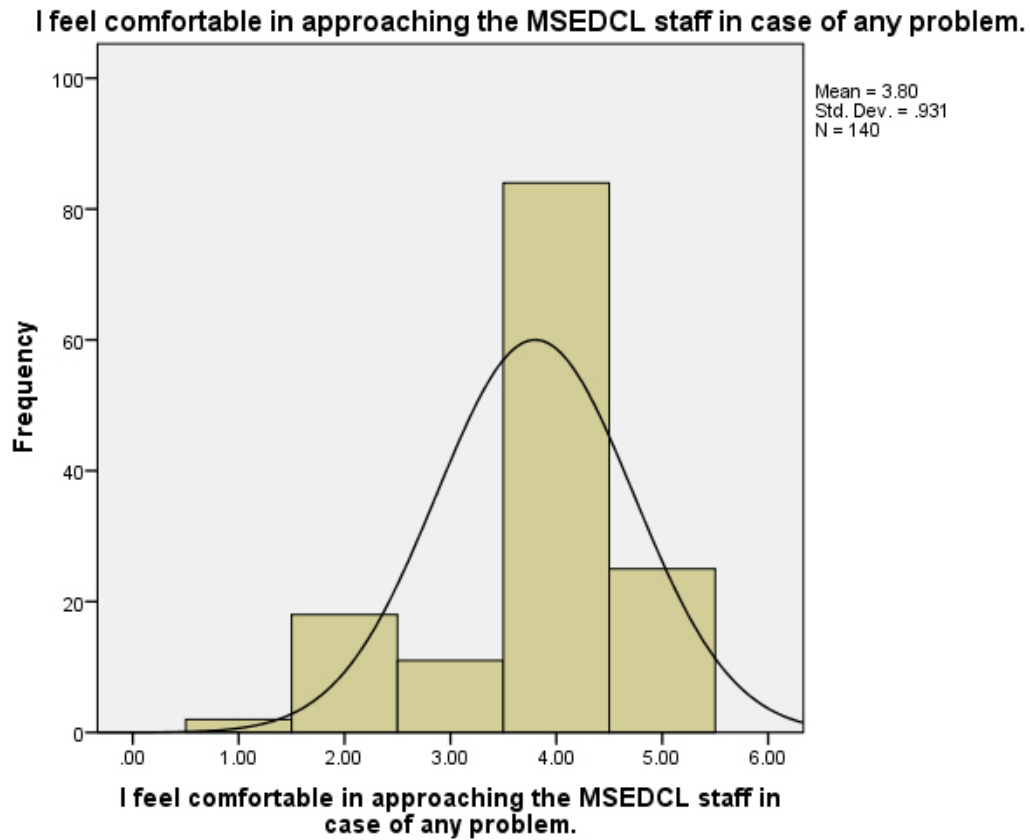
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 0, 26, 1, 96 and 17 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 80.7 % which tells that the Approach to the MSEDCL Staff/Engineers in case of Emergency or a Problem is with ease.

The Sixth Variable under Consumer Satisfaction is - *I feel comfortable in approaching the MSEDCL staff in case of any problem.* The Statistics Table and the Histogram for the variable are given on the next page.

Table 5.15: Statistics for Comfort in Approaching the MSEDCL Staff

Variable →	<i>I feel comfortable in approaching the MSEDCL staff in case of any problem</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.8000	Kurtosis	.622
Std. Deviation	.93069	Std. Error of Kurtosis	.407
Skewness	-1.002	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.6: Comfort in Approaching the MSEDCL Staff in Case of a Problem



The above table for Statistics and Histogram show frequency distribution for the satisfaction variable: *I feel comfortable in approaching the MSEDCL staff in case of any problem*. From the table above it may be said that the Mean = 3.80 and the Standard Deviation = 0.93069 which is less than one third of the Mean i.e. 1.2666. Therefore, ‘Mean’ is the meaningful value for interpretation. The skewness is negative with the value of -1.002 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the respondents agree that they are Comfortable in Approaching the MSEDCL Staff in case of any Problem. The Frequency Table for the selected Variable is as below.

Table 5.16: Frequency Table for Comfort in Approaching the MSEDCL Staff

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	18	12.9	12.9	14.3
Neutral	11	7.9	7.9	22.1
Agree	84	60.0	60.0	82.1
Strongly Agree	25	17.9	17.9	100.0
Total	140	100.0	100.0	

From the above Frequency Table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 18, 11, 84 and 25 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 77.9 % which notifies that the Consumers are Comfortable in approaching the MSEDCL Staff in case of any Problem.

So, considering the analysis of the six variables above it may be concluded that the Consumer Satisfaction is good. The Consumers are satisfied with the ‘Supply Quality’ and ‘Minimum Interruptions’ with the power supply from the MSEDCL but the Consumers are marginally satisfied with the ‘Outage Management’ and ‘Load Shedding’ free supply. The satisfaction related to ‘Outage Management’ can be improved only

through proper Coordination and Communication with the Consumers by the Employees of the MSEDCL. To some extent, the ‘Load Shedding’ problem is outside the control of the organization but still the efforts on Load Demand Forecasting and encouraging Consumers for efficient use of available electricity would help to some level. The Consumer’s Satisfaction related to Approachability to Employees in case of a Problem or Emergency is very favorable and the consumers are also comfortable in approaching the Staff of the MSEDCL, this is a positive aspect in the service offered by the MSEDCL as it indicates the sensitivity of the MSEDCL Employees in dealing with Consumer problems. Therefore, it may be concluded that the Consumers are Satisfied with the services of the MSEDCL.

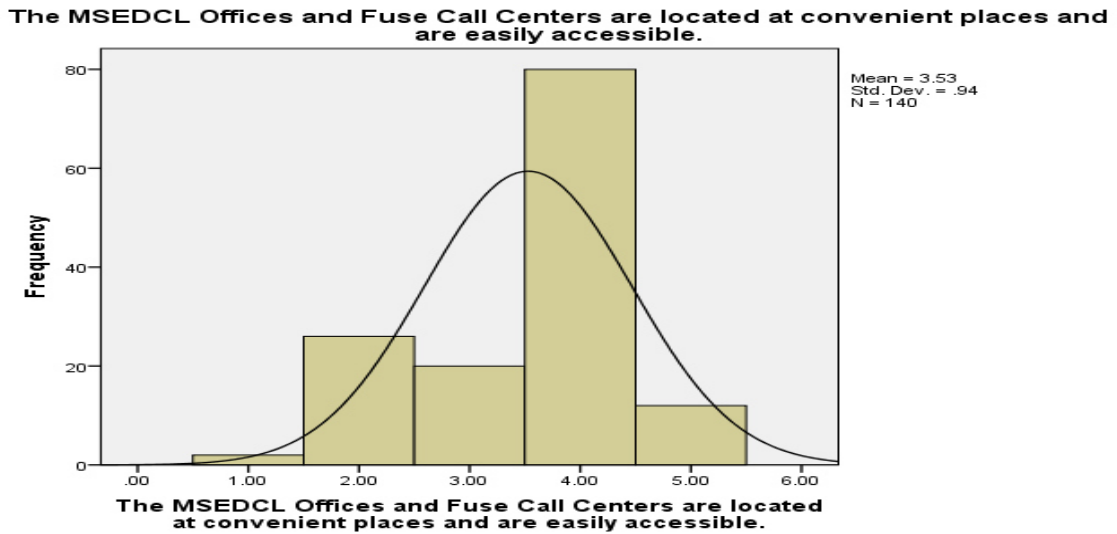
5.7.2 The Descriptive Statistics, Frequency Tables and Histograms for Consumer Perceived Value

The First Variable under ‘Consumer Perceived Value’ is - (*The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible*). The Statistics Table and the Histogram for the variable are as below.

Table 5.17: Statistics for Accessibility and Convenient Location of MSEDCL Offices

Variable →	<i>The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.5286	Kurtosis	-.322
Std. Deviation	.94025	Std. Error of Kurtosis	.407
Skewness	-.716	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.7: Accessibility and Convenient Location of the MSEDCL Offices



The above table for Statistics and Histogram show frequency distribution for the ‘Value’ variable: *The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible*. From the table above, it may be said that the Mean = 3.5286 and the Standard Deviation = 0.94025 which is less than one third of the Mean i.e 1.1762. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.716 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the respondents feel that the MSEDCL Offices and Fuse Call Centers are located at Convenient places and easily Accessible. The Frequency Table for the selected Variable is as below.

Table 5.18: Frequency Table for Accessibility and Convenient Location of the MSEDCL Offices

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	26	18.6	18.6	20.0
Neutral	20	14.3	14.3	34.3
Agree	80	57.1	57.1	91.4
Strongly Agree	12	8.6	8.6	100.0
Total	140	100.0	100.0	

From the above Frequency Table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 26, 20, 80 and 12 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 65.7 % which notifies that the respondents agree that the MSEDCL Offices and Fuse Call Centers are located at convenient places.

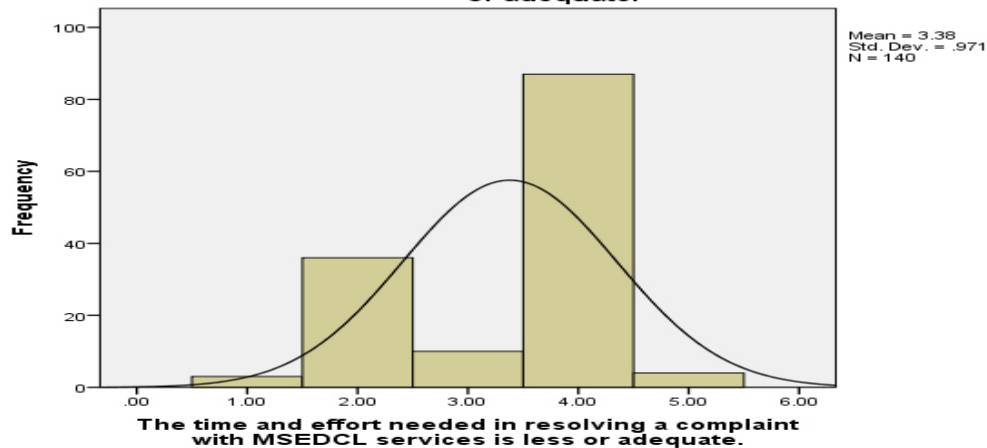
The Second Variable under ‘Consumer Perceived Value’ is - *The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.* The Statistics Table and the Histogram for the variable are as below.

Table 5.19: Statistics for Time and Effort Needed in Resolving a Complaint with the MSEDCL Services

Variable →	<i>The time and effort needed in resolving a complaint with MSEDCL services is less or adequate</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.3786	Kurtosis	-.807
Std. Deviation	.97056	Std. Error of Kurtosis	.407
Skewness	-.777	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.8: ‘Time and Effort’ Needed in Resolving a Complaint with the MSEDCL Services

The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.



The above table for Statistics and Histogram show frequency distribution for the ‘Value’ variable: *The time and effort needed in resolving a complaint with MSEDCL services is less or adequate*. From the table above it may be said that the Mean = 3.3786 and the Standard Deviation = 0.97056 which is less than one third of the Mean i.e.1.1262. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.777 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the respondents feel that the Time and Effort needed to resolve a Complaint is less or adequate. The Frequency Table for the selected Variable is as below.

Table 5.20: Frequency Table for Time and Effort Needed in Resolving a Complaint with the MSEDCL Services

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	3	2.1	2.1	2.1
Disagree	36	25.7	25.7	27.9
Neutral	10	7.1	7.1	35.0
Agree	87	62.1	62.1	97.1
Strongly Agree	4	2.9	2.9	100.0
Total	140	100.0	100.0	

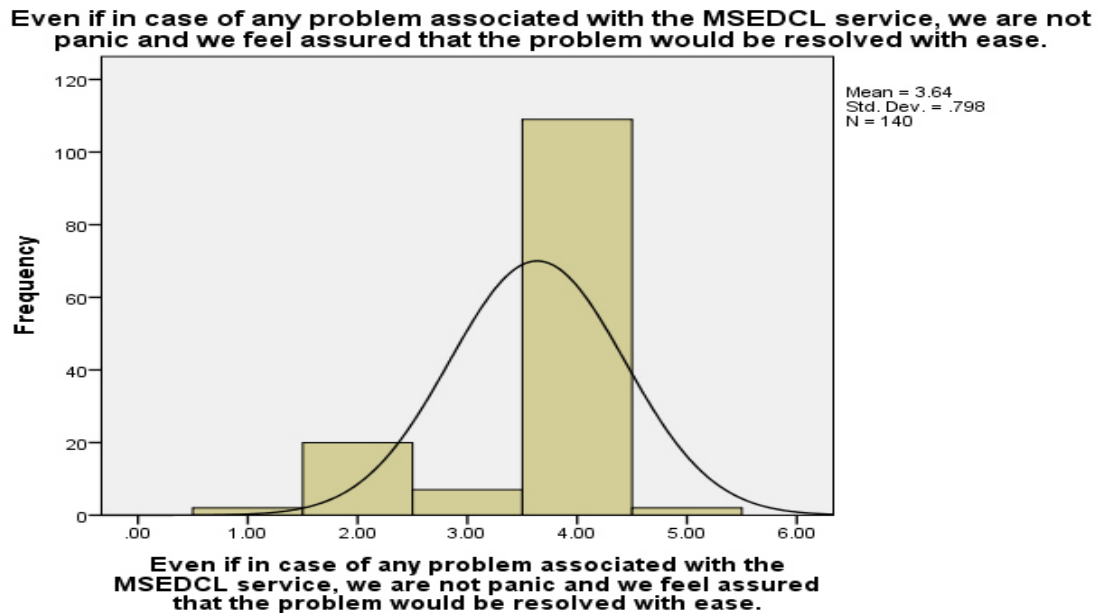
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 3, 36, 10, 87 and 4 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 65.0 % which reports that the respondents agree, the Time and Effort needed to resolve the Complaint with MSEDCL Services is less or adequate.

The Third Variable under ‘Consumer Perceived Value’ is - *Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease*. The Statistics Table and the Histogram for the Variable are as shown on the next page.

Table 5.21: Statistics for Problem Associated with the MSEDCL Service and Confidence that the Problem would be solved with Ease

Variable →	<i>Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.6357	Kurtosis	1.569
Std. Deviation	.79757	Std. Error of Kurtosis	.407
Skewness	-1.663	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.9: Problem Associated with the MSEDCL Service and Confidence that the Problem would be solved with Ease



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: (*Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease*). From the table above it may be said that the Mean = 3.6357 and the Standard Deviation = 0.79757 which is less than one third of the Mean i.e.1.2119. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.663 showing the curve left skewed

and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the respondents feel that even in case of any problem the Consumers are not panic and are assured of the resolution of the problem with ease. The Frequency Table for the selected Variable is as below.

Table 5.22: Frequency Table for Problem Associated with the MSEDCL Service and Confidence that the Problem would be solved with Ease

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	20	14.3	14.3	15.7
Neutral	7	5.0	5.0	20.7
Agree	109	77.9	77.9	98.6
Strongly Agree	2	1.4	1.4	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 20, 7, 109 and 2 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 79.3 % which points out that the respondents agree; even in case of any problem with MSEDCL Services the Consumers are assured that the problem will be solved with ease.

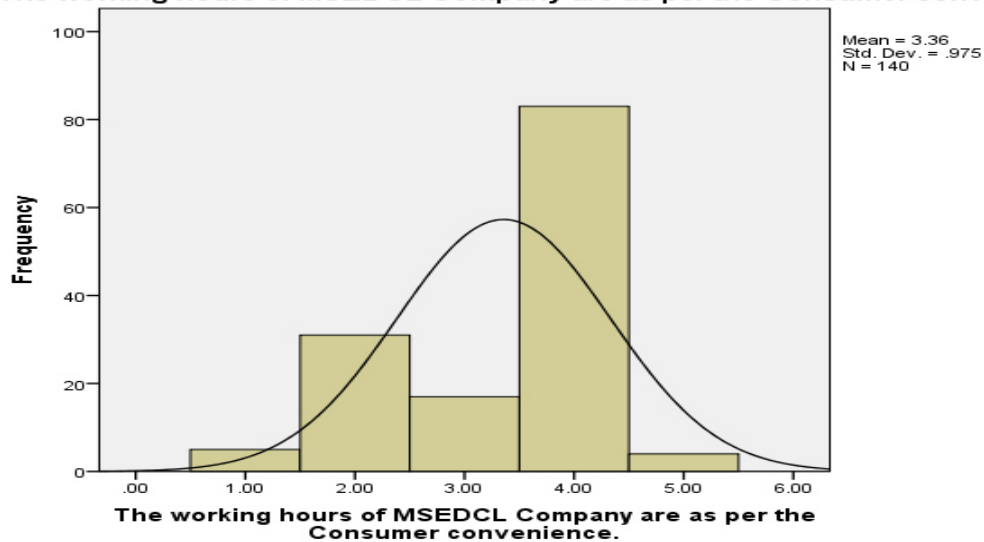
The Fourth variable under ‘Consumer Perceived Value’ is - *The working hours of MSEDCL Company are as per the Consumer convenience.* The Statistics Table and the Histogram for the Variable are displayed on the next page.

Table 5.23: Statistics for Convenient Working Hours of the MSEDCL Company

Variable →	<i>The working hours of MSEDCL Company are as per the Consumer convenience</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.3571	Kurtosis	-.547
Std. Deviation	.97502	Std. Error of Kurtosis	.407
Skewness	-.819	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.10: Convenient Working Hours of the MSEDCL Company

The working hours of MSEDCL Company are as per the Consumer convenience.



The above table for Statistics and Histogram show frequency distribution for the ‘Value’ variable: *The working hours of MSEDCL Company are as per the Consumer convenience*. From the table above it may be said that the Mean = 3.3571 and the Standard Deviation = 0.97502 which is less than one third of the mean i.e.1.1190. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.819 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the working hours of

MSEDCL Company are as per the Consumer Convenience. The Frequency Table for the selected Variable is as below.

Table 5.24: Frequency Table for Convenient Working Hours of the MSEDCL Company

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	5	3.6	3.6	3.6
Disagree	31	22.1	22.1	25.7
Neutral	17	12.1	12.1	37.9
Agree	83	59.3	59.3	97.1
Strongly Agree	4	2.9	2.9	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 5, 31, 17, 83 and 4 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 62.2 % which informs that the respondents agree; the working hours of MSEDCL Company are as per Consumer Convenience.

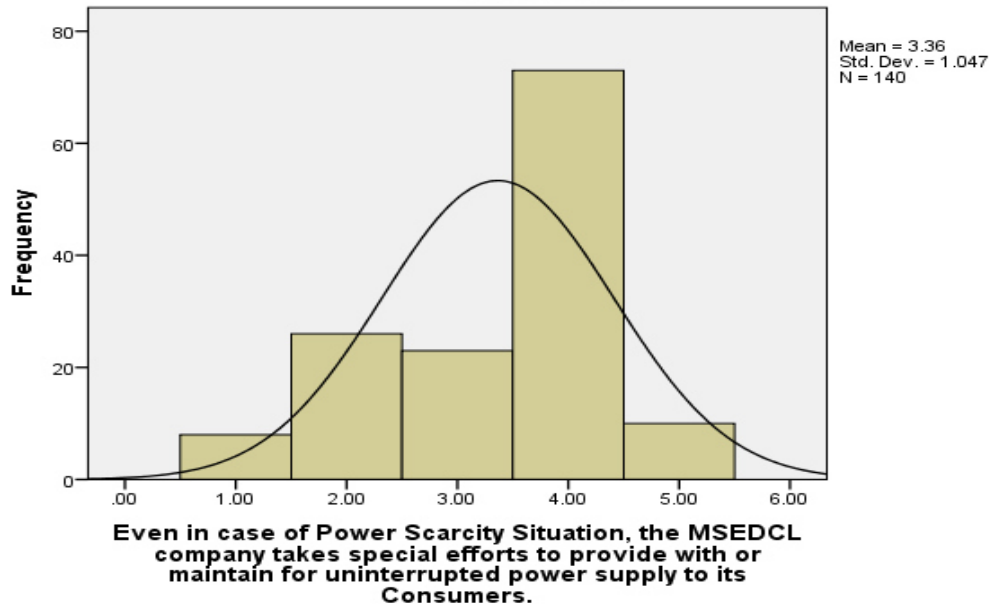
The Fifth Variable under ‘Consumer Perceived Value’ is - (*Even in case of Power Scarcity Situation, the MSEDCL Company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers*). The Statistics Table and the Histogram for the variable are as below.

Table 5.25: Statistics for ‘Special Efforts taken by the MSEDCL Company to provide with or maintain for Uninterrupted Power Supply during Power Scarcity Situations’

Variable →	<i>Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.3643	Kurtosis	-.417
Std. Deviation	1.04717	Std. Error of Kurtosis	.407
Skewness	-.701	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.11: Special Efforts taken by the MSEDCL Company to provide with or maintain for Uninterrupted Power Supply during Power Scarcity Situations

Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: (*Even in case of Power Scarcity Situation, the MSEDCL Company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers*). From the table above it may be said that the Mean = 3.3643 and the Standard Deviation = 1.04717 which is less than one third of the mean i.e.1.1214. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.701 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that even in case of power scarcity situation the MSEDCL Company takes special efforts to provide with or maintain un-interrupted power supply to its consumers. The Frequency Table for the selected Variable is shown on the next page.

Table 5.26: Frequency Table for ‘Special Efforts taken by the MSEDCL Company to provide with or maintain for Uninterrupted Power Supply during Power Scarcity Situations’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	8	5.7	5.7	5.7
Disagree	26	18.6	18.6	24.3
Neutral	23	16.4	16.4	40.7
Agree	73	52.1	52.1	92.9
Strongly Agree	10	7.1	7.1	100.0
Total	140	100.0	100.0	

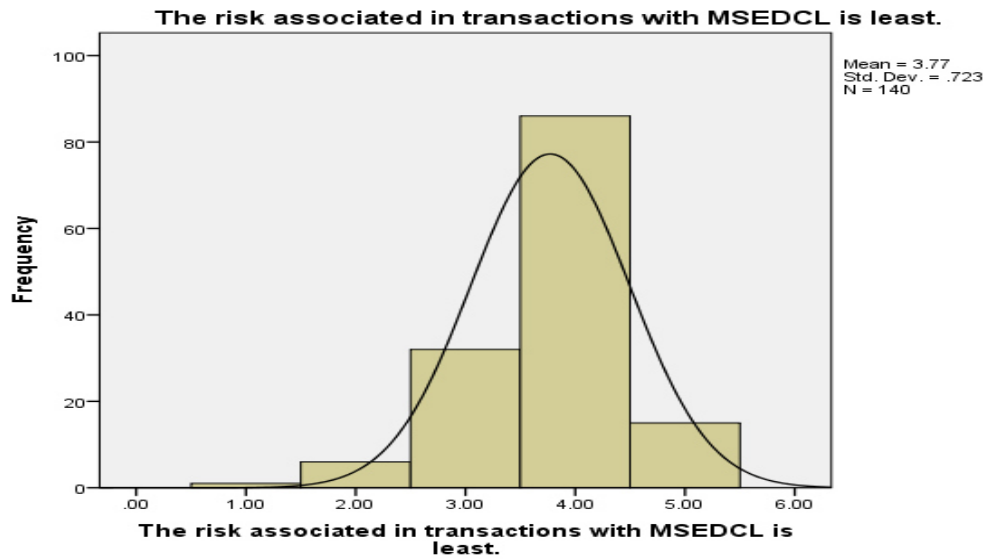
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 8, 26, 23, 73 and 10 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 59.2 % which tells that the respondents agree; even in case of power scarcity situation the MSEDCL Company takes special efforts to provide with or maintain un-interrupted power supply to its Consumers.

The Sixth Variable under ‘Consumer Perceived Value’ is - *The risk associated in transactions with MSEDCL is least*. The Statistics Table and the Histogram for the variable are as below.

Table 5.27: Statistics for Risk Associated in Transactions with the MSEDCL is least

Variable →	<i>The risk associated in transactions with MSEDCL is least</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.7714	Kurtosis	1.434
Std. Deviation	.72313	Std. Error of Kurtosis	.407
Skewness	-.781	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.12: Risk Associated in Transactions with the MSEDCL is least



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: *The risk associated in transactions with MSEDCL is least*. From the table above it may be said that the Mean = 3.7714 and the Standard Deviation = 0.72313 which is less than one third of the Mean i.e. 1.2571. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.781 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the risk associated with MSEDCL transactions is least. The Frequency Table for the selected Variable is as below.

Table 5.28: Frequency Table for Risk Associated in Transactions with the MSEDCL is least

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	.7	.7	.7
Disagree	6	4.3	4.3	5.0
Neutral	32	22.9	22.9	27.9
Agree	86	61.4	61.4	89.3
Strongly Agree	15	10.7	10.7	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 1, 6, 32, 86 and 15 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 72.1 % which reports that the respondents agree; the risk associated with the MSEDCL transactions is least.

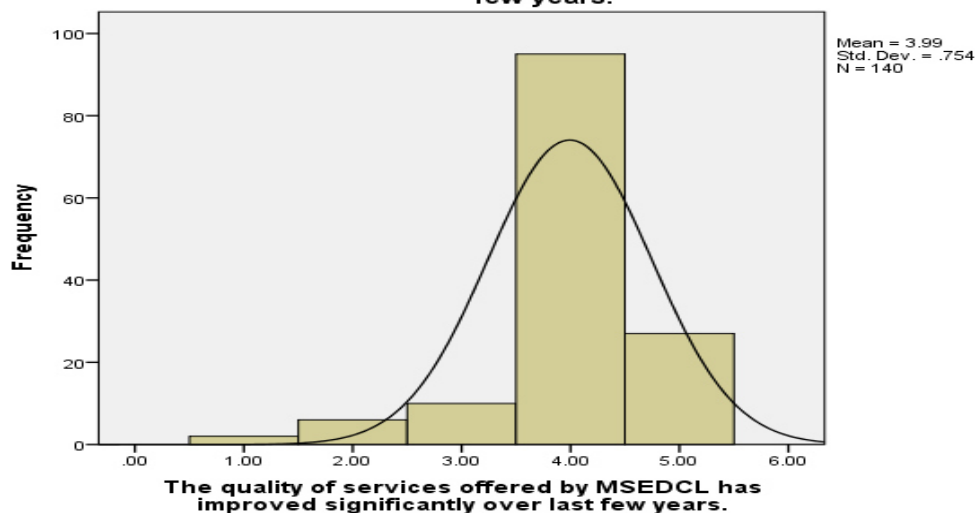
The Seventh Variable under ‘Consumer Perceived Value’ is - *The quality of services offered by MSEDCL has improved significantly over last few years.* The Statistics Table and the Histogram for the variable are as below.

Table 5.29: Statistics for ‘Quality of Services Offered by MSEDCL has Improved significantly Over last Few Years’

Variable →	<i>The quality of services offered by MSEDCL has improved significantly over last few years</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.9929	Kurtosis	3.740
Std. Deviation	.75385	Std. Error of Kurtosis	.407
Skewness	-1.419	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.13: Quality of Services Offered by MSEDCL has Improved significantly Over last Few Years

The quality of services offered by MSEDCL has improved significantly over last few years.



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: (*The quality of services offered by MSEDCL has improved significantly over last few years*). From the table above it may be said that the Mean = 3.9929 and the Standard Deviation = 0.75385 which is less than one third of the mean i.e. 1.3309. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.419 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the quality of services offered by MSEDCL has improved significantly over last few years. The Frequency Table for the selected Variable is as below.

Table 5.30: Frequency Table for ‘Quality of Services Offered by MSEDCL has Improved significantly Over last Few Years’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	6	4.3	4.3	5.7
Neutral	10	7.1	7.1	12.9
Agree	95	67.9	67.9	80.7
Strongly Agree	27	19.3	19.3	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 6, 10, 95 and 27 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 87.2 % which informs that the respondents agree; the quality of services offered by MSEDCL has improved significantly over last few years.

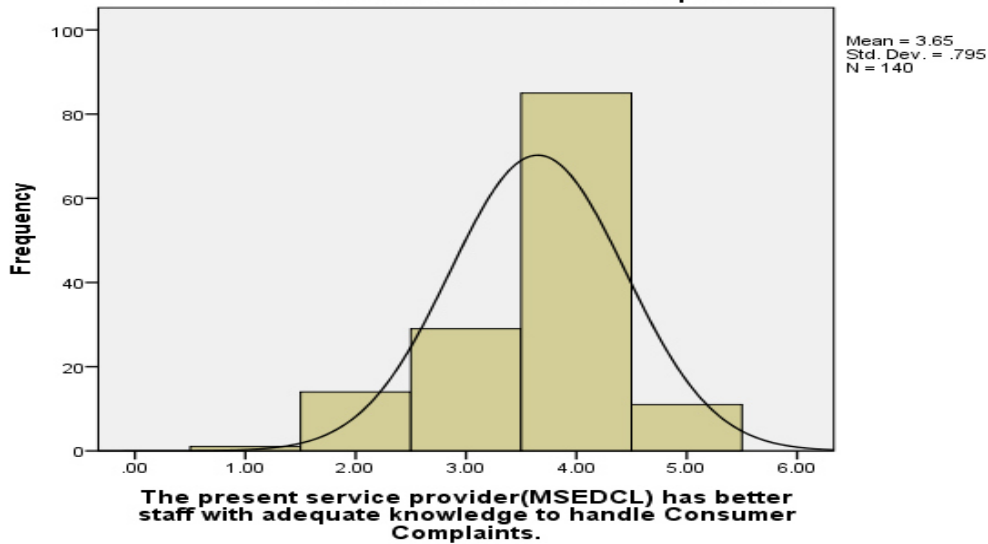
The Eighth Variable under ‘Consumer Perceived Value’ is – *The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints*. The Statistics Table and the Histogram for the variable are on the next page.

Table 5.31: Statistics for ‘The Present Service Provider (MSEDCL) has Better Staff with Adequate Knowledge to Handle Consumer Complaints’

Variable →	<i>The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.6500	Kurtosis	.621
Std. Deviation	.79499	Std. Error of Kurtosis	.407
Skewness	-.853	Minimum	1.00
Std.Error of Skewness	.205	Maximum	5.00

Histogram 5.14: Present Service Provider (MSEDCL) has Better Staff with Adequate Knowledge to Handle Consumer Complaints

The present service provider(MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: (*The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints*). From the table above it may be said that the Mean = 3.65 and the Standard Deviation = 0.79499 which is less than one third of the mean i.e.1.2166. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.853 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that

the MSEDCL has better staff with adequate knowledge to handle Consumer Complaints. The Frequency Table for the selected Variable is as below.

Table 5.32: Frequency Table for ‘The Present Service Provider (MSEDCL) has Better Staff with Adequate Knowledge to Handle Consumer Complaints’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	.7	.7	.7
Disagree	14	10.0	10.0	10.7
Neutral	29	20.7	20.7	31.4
Agree	85	60.7	60.7	92.1
Strongly Agree	11	7.9	7.9	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 1, 14, 29, 85 and 11 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 68.6 % which notifies that the respondents agree; MSEDCL has better staff with adequate knowledge to handle Consumer Complaints.

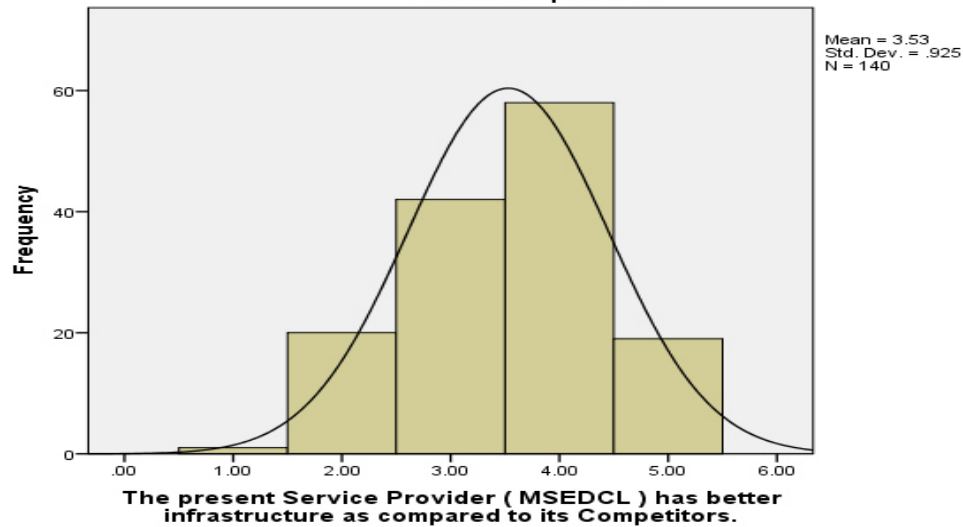
The Ninth Variable under ‘Consumer Perceived Value’ is - *The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.33: Statistics for ‘The Present Service Provider (MSEDCL) has Better Infrastructure as Compared to its Competitors’

Variable →	<i>The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.5286	Kurtosis	-.547
Std. Deviation	.92482	Std. Error of Kurtosis	.407
Skewness	-.251	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.15: Present Service Provider (MSEDCL) has Better Infrastructure as Compared to its Competitors

The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: (*The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors*). From the table above it may be said that the Mean = 3.5286 and the Standard Deviation = 0.92482 which is less than one third of the mean i.e. 1.1762. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.251 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the MSEDCL has better infrastructure as compared to its Competitors. The Frequency Table for the selected Variable is as below.

Table 5.34: Frequency Table for ‘The present Service Provider (MSEDCL) has Better Infrastructure as Compared to its Competitors’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	.7	.7	.7
Disagree	20	14.3	14.3	15.0
Neutral	42	30.0	30.0	45.0
Agree	58	41.4	41.4	86.4
Strongly Agree	19	13.6	13.6	100.0
Total	140	100.0	100.0	

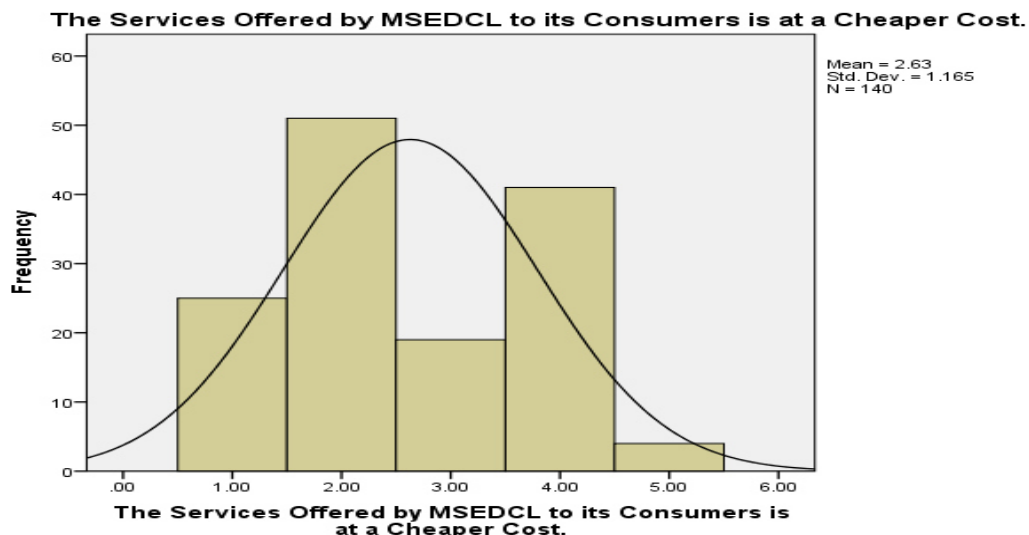
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 1, 20, 42, 58 and 19 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 55 % which tells that the respondents agree; MSEDCL has better infrastructure as compared to its Competitors.

The Tenth Variable under ‘Consumer Perceived Value’ is - *The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.35: Statistics for ‘The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost’

Variable →	<i>The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	2.6286	Kurtosis	-1.208
Std. Deviation	1.16510	Std. Error of Kurtosis	.407
Skewness	.182	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.16: Services Offered by MSEDCL to its Consumers is at a Cheaper Cost



The above table for statistics and histogram show frequency distribution for the ‘Value’ variable: *(The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost)*. From the table above it may be said that the Mean = 2.6286 and the Standard Deviation = 1.16510 which is greater than one third of the mean i.e. 0.8762. Therefore, ‘Mean’ is not the meaningful value for interpretation. The skewness is positive with the value of 0.182 showing the curve right skewed and the data piled on the left side. Hence, the interpretation will be based on frequency table. The Frequency Table for the selected Variable is as below.

Table 5.36: Frequency Table for ‘The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	25	17.9	17.9	17.9
Disagree	51	36.4	36.4	54.3
Neutral	19	13.6	13.6	67.9
Agree	41	29.3	29.3	97.1
Strongly Agree	4	2.9	2.9	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 25, 51, 19, 41 and 4 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 45 % and the combine percentage of ‘Strongly Disagree’ and ‘Disagree’ is 54.3 % which notifies that the respondents **disagree**; the Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.

The ‘Value’ factor depends on the ‘Benefits’ availed by a Consumers against the ‘Cost’ incurred. Generally, the ‘Value’ is positive if the ‘Benefits’ received by a Consumer exceed the ‘Cost’ borne by him to avail a Service or a Product. The benefits associated with the services of the MSEDCL like convenient location of Offices, working hours of the Company as per the consumer convenience, better Employees/Staff and

Infrastructure as compared to its competitors, special efforts of the MSEDCL in dealing with power scarcity situations and provide un-interrupted power supply to its consumers, improvement in the services over last couple of years and the least risk associated in the transactions with the MSEDCL are appreciated by the Consumers. The consumers also feel that the non monetary cost in availing the services of the MSEDCL is less as they experience the time required to resolve a complaint is adequate and Consumers are not panic in case of any problem associated with the service but when it comes to the monetary cost the Consumers disagree that the services offered by the MSEDCL are at a cheaper cost. Even if, the Consumers realize the benefits associated with the ‘Service’, the opinion related to the ‘Cost of Service’ is adverse. Hence, it may be said that the consumers don’t find ‘Value’ in the service provided by the Company. The MSEDCL Company should take necessary steps in bringing down the ‘Cost of Service’ in order to improve the ‘Perceived Value’.

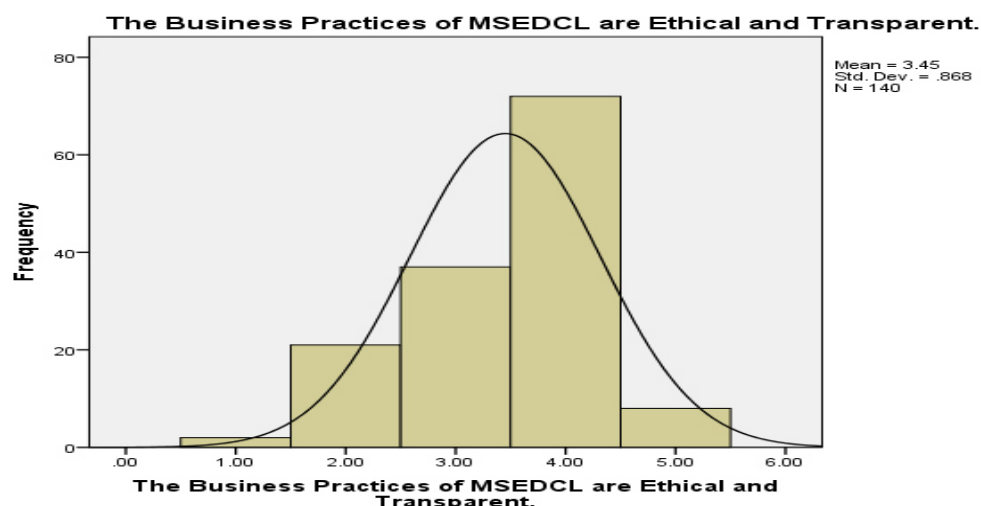
5.7.3 *The Descriptive Statistics, Frequency Tables and Histograms for Brand Image*

The First Variable under ‘Brand Image’ is - *The Business Practices of MSEDCL are Ethical and Transparent*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.37: Statistics for ‘The Business Practices of MSEDCL are Ethical and Transparent’

Variable →	<i>The Business Practices of MSEDCL are Ethical and Transparent</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.4500	Kurtosis	-.161
Std. Deviation	.86769	Std. Error of Kurtosis	.407
Skewness	-.615	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.17: Business Practices of MSEDCL are Ethical and Transparent



The above table for statistics and histogram show frequency distribution for the 'Brand Image' variable: (*The Business Practices of MSEDCL are Ethical and Transparent*). From the table above it may be said that the Mean = 3.45 and the Standard Deviation = 0.86769 which is less than one third of the Mean i.e. 1.15. Therefore, 'Mean' is the meaningful value. The skewness is negative with the value of -0.615 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the 'Mean'. Hence, it may be concluded that the respondents feel that the Business Practices of MSEDCL are Ethical and Transparent. The Frequency Table for the selected Variable is as below.

Table 5.38: Frequency Table for 'The Business Practices of MSEDCL are Ethical and Transparent'

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	21	15.0	15.0	16.4
Neutral	37	26.4	26.4	42.9
Agree	72	51.4	51.4	94.3
Strongly Agree	8	5.7	5.7	100.0
Total	140	100.0	100.0	

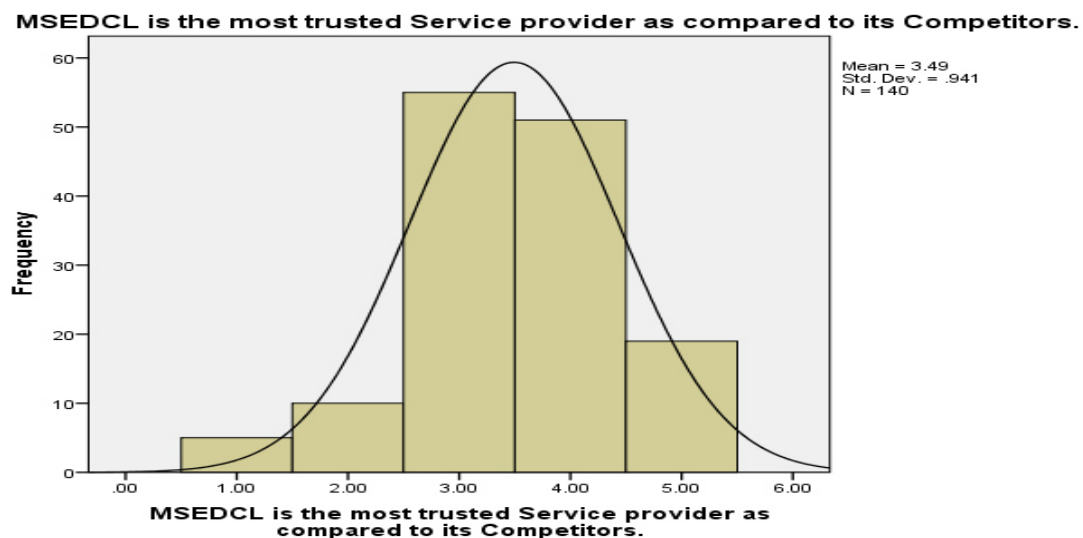
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 21, 37, 72 and 8 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 57.1 % which reports that the respondents agree that the Business Practices of MSEDCL are Ethical and Transparent.

The Second Variable under ‘Brand Image’ is - *MSEDCL is the most trusted Service provider as compared to its Competitors*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.39: Statistics for ‘MSEDCL is the Most Trusted Service Provider as Compared to its Competitors’

Variable →	<i>MSEDCL is the most trusted Service provider as compared to its Competitors</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.4929	Kurtosis	.267
Std. Deviation	.94066	Std. Error of Kurtosis	.407
Skewness	-.400	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.18: MSEDCL is the Most Trusted Service Provider as Compared to its Competitors



The above table for statistics and histogram show frequency distribution for the ‘Brand Image’ variable: (*MSEDCL is the most trusted Service provider as compared to its Competitors*). From the table above it may be said that the Mean = 3.4929 and the Standard Deviation = 0.94066 which is less than one third of the Mean i.e. 1.1643. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.400 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that MSEDCL is the most trusted Service provider as compared to its Competitors. The Frequency Table for the selected Variable is as below.

Table 5.40: Frequency Table for ‘MSEDCL is the Most Trusted Service Provider as Compared to its Competitors’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	5	3.6	3.6	3.6
Disagree	10	7.1	7.1	10.7
Neutral	55	39.3	39.3	50.0
Agree	51	36.4	36.4	86.4
Strongly Agree	19	13.6	13.6	100.0
Total	140	100.0	100.0	

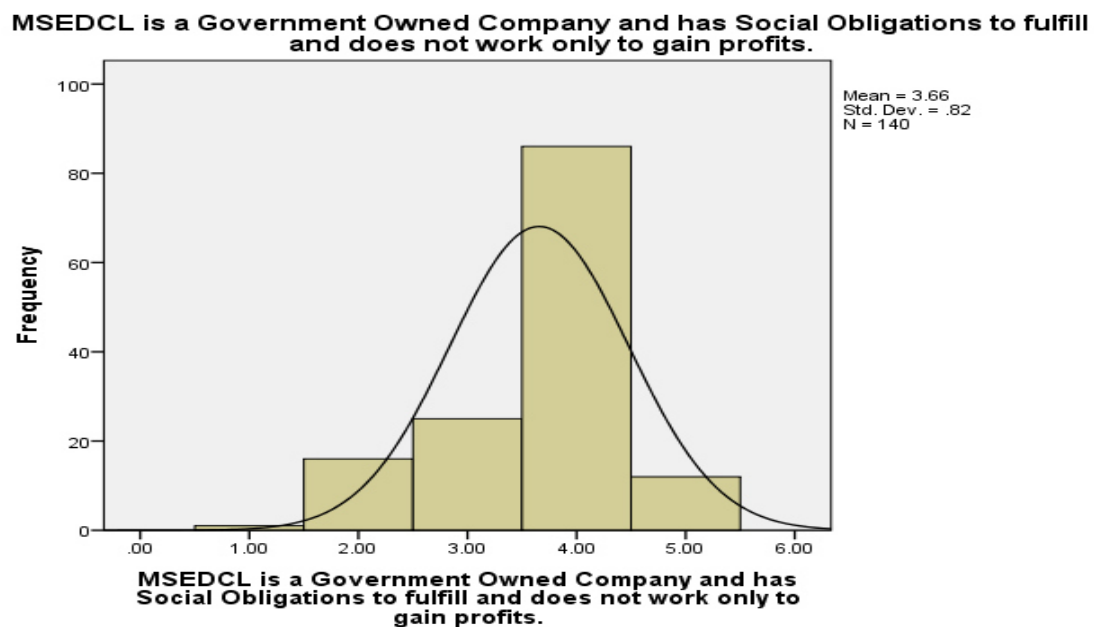
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 5, 10, 55, 51 and 19 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 50 %, combined percentage of ‘Strongly Disagree’ and ‘Disagree’ is 10.7 % and % of “Neutral’ is 39.3 % which notifies that the respondents **moderately agree** that MSEDCL is the most trusted Service provider as compared to its Competitors.

The Third Variable under ‘Brand Image’ is - *MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.41: Statistics for ‘MSEDCL is a Government Owned Company and has Social Obligations to Fulfill and does not Work Only to Gain Profits’

Variable →	<i>MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.6571	Kurtosis	.506
Std. Deviation	.82035	Std. Error of Kurtosis	.407
Skewness	-.874	Minimum	1.00
Std.Error of Skewness	.205	Maximum	5.00

Histogram 5.19: MSEDCL is a Government Owned Company and has Social Obligations to Fulfill and does not Work Only to Gain Profits



The above table for statistics and histogram show frequency distribution for the ‘Brand Image’ variable: (*MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits*). From the table above it may be said that the Mean = 3.6571 and the Standard Deviation = 0.82035 which is less than one third of the mean i.e.1.2190. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.874 showing the curve left skewed and the data

piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits. The Frequency Table for the selected Variable is as below.

Table 5.42: Frequency Table for ‘MSEDCL is a Government Owned Company and has Social Obligations to Fulfill and does not Work Only to Gain Profits’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	.7	.7	.7
Disagree	16	11.4	11.4	12.1
Neutral	25	17.9	17.9	30.0
Agree	86	61.4	61.4	91.4
Strongly Agree	12	8.6	8.6	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 1, 16, 25, 86 and 12 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 70 % which tells that the respondents agree that MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.

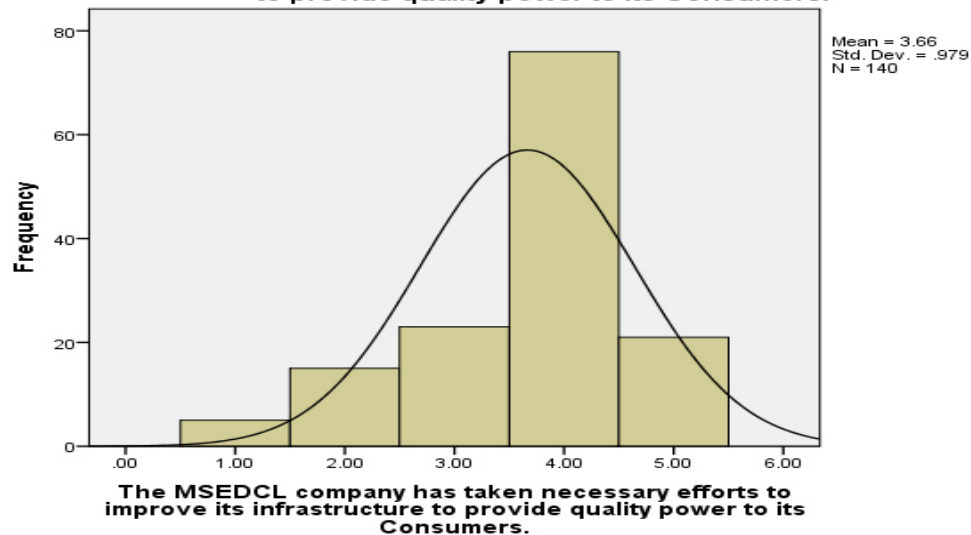
The Fourth Variable under ‘Brand Image’ is - *The MSEDCL Company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.* The Statistics Table and the Histogram for the Variable are as below.

Table 5.43: Statistics for ‘The MSEDCL Company has taken necessary efforts to Improve its Infrastructure to Provide Quality Power to its Consumers’

Variable →	<i>The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.6643	Kurtosis	.527
Std. Deviation	.97899	Std. Error of Kurtosis	.407
Skewness	-.914	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.20: MSEDCL Company has taken necessary efforts to Improve its Infrastructure to Provide Quality Power to its Consumers

The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.



The above table for statistics and histogram show frequency distribution for the ‘Brand Image’ variable: *The MSEDCL Company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.* From the table above it may be said that the Mean = 3.6643 and the Standard Deviation = 0.97899 which is less than one third of the mean i.e. 1.2214. Therefore, ‘Mean’ is the meaningful value. The skewness is

negative with the value of -0.914 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the 'Mean'. Hence, it may be concluded that MSEDCL Company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers. The Frequency Table for the selected Variable is as below.

Table 5.44: Frequency Table for 'The MSEDCL Company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers'

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	5	3.6	3.6	3.6
Disagree	15	10.7	10.7	14.3
Neutral	23	16.4	16.4	30.7
Agree	76	54.3	54.3	85.0
Strongly Agree	21	15.0	15.0	100.0
Total	140	100.0	100.0	

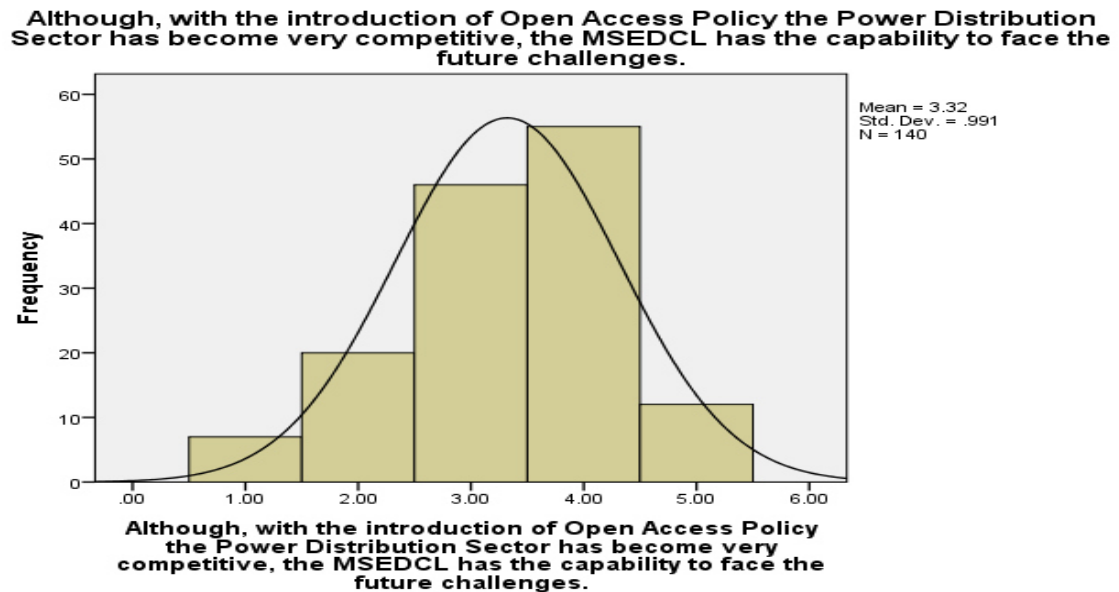
From the above frequency table the count for the groups 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 5, 15, 23, 76 and 21 respectively. The combine percentage for 'Agree' and 'Strongly Agree' is 69.3 % which tells that the respondents agree that MSEDCL Company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.

The Fifth Variable under 'Brand Image' is - *Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.* The Statistics Table and the Histogram for the Variable are as below.

Table 5.45: Statistics for ‘MSEDCL has Capabilities to Face Challenges of Competitive Environment Due to Open Access Policy’

Variable →	<i>Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.3214	Kurtosis	-.172
Std. Deviation	.99110	Std. Error of Kurtosis	.407
Skewness	-.460	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.21: MSEDCL has Capabilities to Face Challenges of Competitive Environment Due to Open Access Policy



The above table for statistics and histogram show frequency distribution for the ‘Brand Image’ variable: *Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.* From the table above it may be said that the Mean = 3.3214 and the Standard Deviation = 0.99110 which is less than one third of the mean i.e.1.1071.

Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.460 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that even after the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges. The Frequency Table for the selected Variable is as below.

Table 5.46: Frequency Table for ‘MSEDCL has Capabilities to Face Challenges of Competitive Environment Due to Open Access Policy’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	7	5.0	5.0	5.0
Disagree	20	14.3	14.3	19.3
Neutral	46	32.9	32.9	52.1
Agree	55	39.3	39.3	91.4
Strongly Agree	12	8.6	8.6	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 7, 20, 46, 55 and 12 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 47.9 % , the combine percentage of ‘Strongly Disagree’ and ‘Disagree’ is 19.3 % and that of ‘Neutral’ is 32.9 %, which notifies that the respondents **moderately** agree that even after the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.

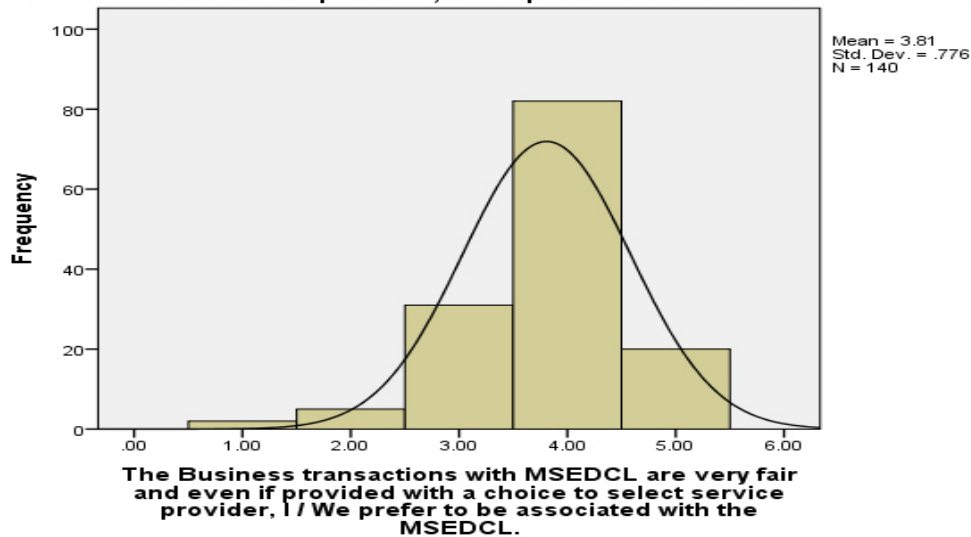
The Sixth Variable under ‘Brand Image’ is - *The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.* The Statistics Table and the Histogram for the Variable are as below.

Table 5.47: Statistics for ‘The Business Transactions with MSEDCL are Very Fair and Even if Provided with a Choice to Select Service Provider, I / We Prefer to be Associated with the MSEDCL’

Variable →	<i>The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.8071	Kurtosis	1.715
Std. Deviation	.77642	Std. Error of Kurtosis	.407
Skewness	-.866	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.22: The Business Transactions with MSEDCL are Very Fair and Even if Provided with a Choice to Select Service Provider, I / We Prefer to be Associated with the MSEDCL

The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.



The above table for statistics and histogram show frequency distribution for the ‘Brand Image’ variable: *The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.* From the table above it may be said that the Mean = 3.8071 and the Standard Deviation = 0.77642 which is less than one third of the Mean i.e. 1.2690. Therefore,

‘Mean’ is the meaningful value. The skewness is negative with the value of -0.866 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence it may be concluded that the Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.48: Frequency Table for ‘The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	5	3.6	3.6	5.0
Neutral	31	22.1	22.1	27.1
Agree	82	58.6	58.6	85.7
Strongly Agree	20	14.3	14.3	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 5, 31, 82 and 20 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 72.9 % which tells that the respondents agree that the Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.

The Social Image of the MSEDCL Company is favorable and the Consumers believe that the MSEDCL has social Obligations to fulfill and does not work only to gain profits. The Consumers recognize the Company’s attitude in developing Infrastructure so as to deliver quality services and also admit that the business practices with the Company are Ethical and Transparent. In present situation, the Consumer prefer to maintain trust with the MSEDCL by continuing to avail the services from the Company but with the introduction of Open Access policy the Consumers moderately agree about the

Capabilities of the MSEDCL in facing the future challenges. The Consumers are also modest in conveying that the MSEDCL Company is the most trusted Service Provider as compared to its competitors. Thus it may be concluded that the ‘Social Image’ of the MSEDCL is favorable and the ‘Consumer Trust’ would be sustained only if the company ensures its capability to face the future challenges in the competitive market.

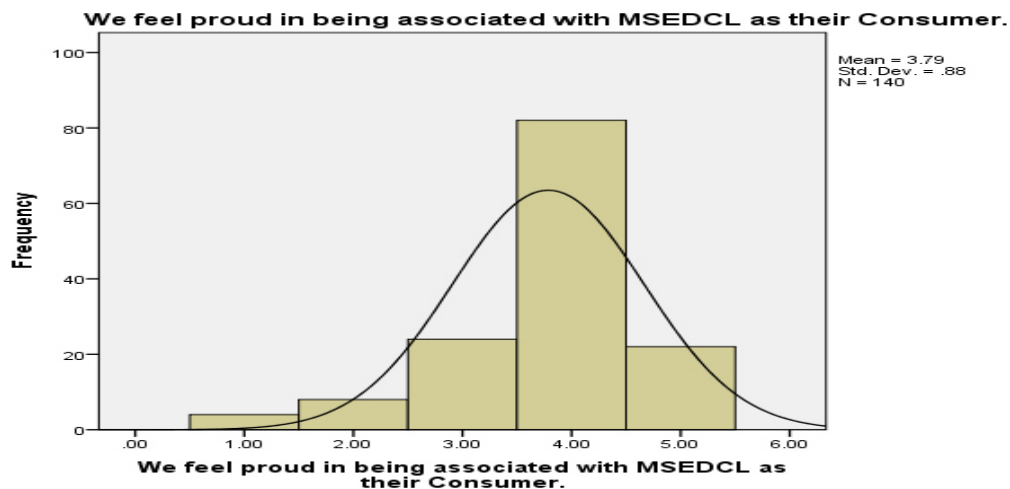
5.7.4 The Descriptive Statistics, Frequency Tables and Histograms for Loyalty

The First Variable under ‘Loyalty’ is - *We feel proud in being associated with MSEDCL as their Consumer.* The Statistics Table and the Histogram for the Variable are as below.

Table 5.49: Statistics for ‘We feel proud in being associated with MSEDCL as their Consumer’

Variable →	<i>We feel proud in being associated with MSEDCL as their Consumer</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.7857	Kurtosis	1.692
Std. Deviation	.87971	Std. Error of Kurtosis	.407
Skewness	-1.109	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.23: ‘We Feel Proud in Being Associated with MSEDCL as their Consumer’



The above table for statistics and histogram show frequency distribution for the ‘Loyalty’ variable: (*We feel proud in being associated with MSEDCL as their Consumer*). From the table above it may be said that the Mean = 3.7857 and the Standard Deviation = 0.87971 which is less than one third of the mean i.e. 1.2619, Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.109 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the Consumers feel proud in being associated with MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.50: Frequency Table for ‘We feel proud in being associated with MSEDCL as their Consumer’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	4	2.9	2.9	2.9
Disagree	8	5.7	5.7	8.6
Neutral	24	17.1	17.1	25.7
Agree	82	58.6	58.6	84.3
Strongly Agree	22	15.7	15.7	100.0
Total	140	100.0	100.0	

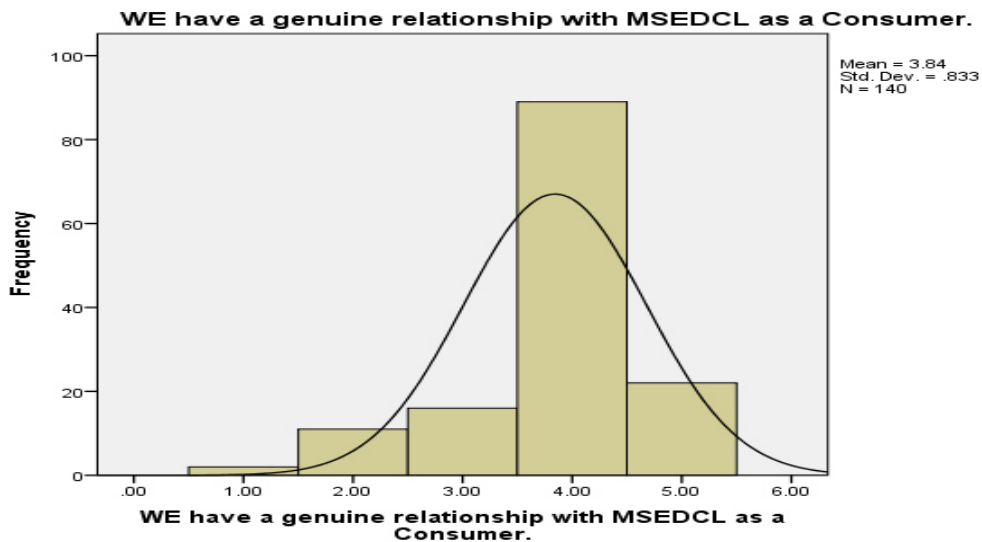
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 4, 8, 24, 82 and 22 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 74.3 % which reports that the respondents agree that Consumers feel proud in being associated with MSEDCL.

The Second Variable under ‘Loyalty’ is - *We have a genuine relationship with MSEDCL as a Consumer*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.51: Statistics for ‘We have a genuine relationship with MSEDCL as a Consumer’

Variable →	<i>We have a genuine relationship with MSEDCL as a Consumer</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.8429	Kurtosis	1.685
Std. Deviation	.83340	Std. Error of Kurtosis	.407
Skewness	-1.134	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.24: ‘We have a Genuine Relationship with MSEDCL as a Consumer’



The above table for statistics and histogram show frequency distribution for the ‘Loyalty’ variable: (*We have a genuine relationship with MSEDCL as a Consumer*). From the table above it may be said that the Mean = 3.8429 and the Standard Deviation = 0.83340 which is less than one third of the mean i.e. 1.2809. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.134 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it

may be concluded that the Consumers feel they have genuine relationship with the MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.52: Frequency Table for ‘We have a genuine relationship with MSEDCL as a Consumer’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	11	7.9	7.9	9.3
Neutral	16	11.4	11.4	20.7
Agree	89	63.6	63.6	84.3
Strongly Agree	22	15.7	15.7	100.0
Total	140	100.0	100.0	

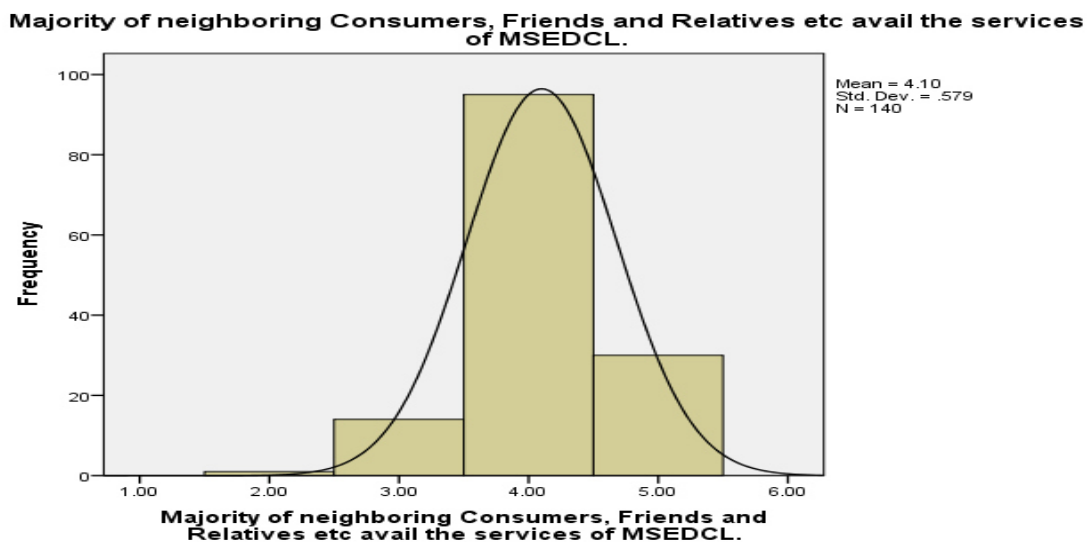
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 11, 16, 89 and 22 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 79.3 % which informs that the respondents agree that, Consumers feel they have genuine relationship with the MSEDCL.

The Third Variable under ‘Loyalty’ is - *Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.53: Statistics for ‘Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL’

Variable →	<i>Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	4.1000	Kurtosis	.920
Std. Deviation	.57901	Std. Error of Kurtosis	.407
Skewness	-.230	Minimum	2.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.25: ‘Majority of Neighboring Consumers, Friends and Relatives etc Avail the Services of MSEDCL’



The above table for statistics and histogram show frequency distribution for the ‘Loyalty’ variable: (*Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL*). From the table above it may be said that the Mean = 4.10 and the Standard Deviation = 0.57901 which is less than one third of the Mean i.e. 1.3666. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.230 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.54: Frequency Table for ‘Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	0	0.0	0.0	0.0
Disagree	1	.7	.7	.7
Neutral	14	10.0	10.0	10.7
Agree	95	67.9	67.9	78.6
Strongly Agree	30	21.4	21.4	100.0
Total	140	100.0	100.0	

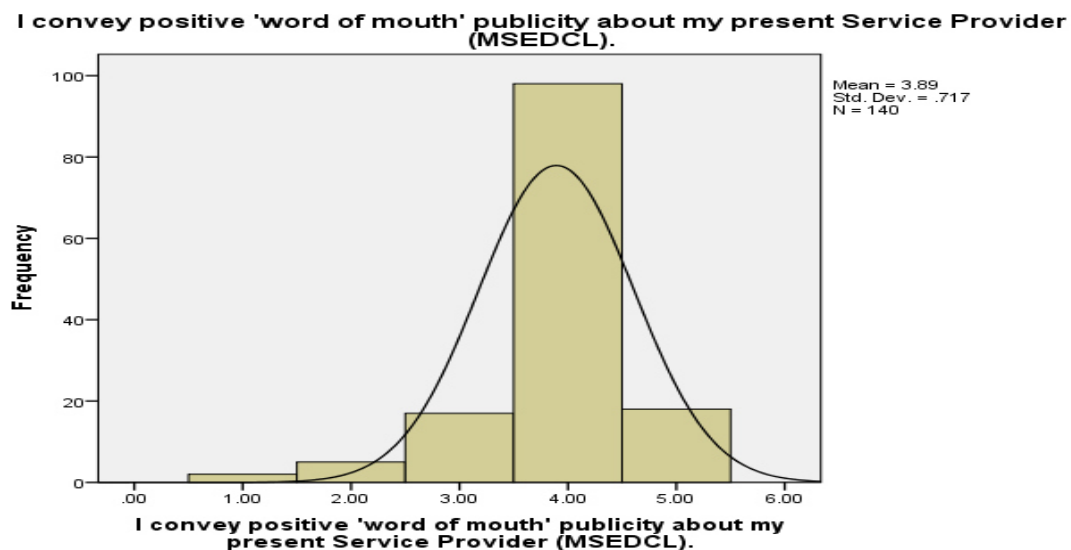
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 0, 1, 14, 95 and 30 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 89.3 % which notifies that the respondents agree that, Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL.

The Fourth Variable under ‘Loyalty’ is - *I convey positive 'word of mouth' publicity about my present Service Provider-MSEDCL*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.55: Statistics for ‘I convey positive 'word of mouth' publicity about my present Service Provider-MSEDCL’

Variable →	<i>I convey positive 'word of mouth' publicity about my present Service Provider-MSEDCL</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.8929	Kurtosis	3.828
Std. Deviation	.71667	Std. Error of Kurtosis	.407
Skewness	-1.386	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.26: ‘I Convey Positive 'Word of Mouth' Publicity about my Present Service Provider-MSEDCL’



The above table for statistics and histogram show frequency distribution for the ‘Loyalty’ variable: *I convey positive 'word of mouth' publicity about my present Service Provider-MSEDCL*. From the table above it may be said that the Mean = 3.8929 and the Standard Deviation = 0.71667 which is less than one third of the mean i.e. 1.2976. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.386 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the Consumers convey positive 'word of mouth' publicity about their present Service Provider-MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.56: Frequency Table for ‘I convey positive 'word of mouth' publicity about my present Service Provider-MSEDCL’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	5	3.6	3.6	5.0
Neutral	17	12.1	12.1	17.1
Agree	98	70.0	70.0	87.1
Strongly Agree	18	12.9	12.9	100.0
Total	140	100.0	100.0	

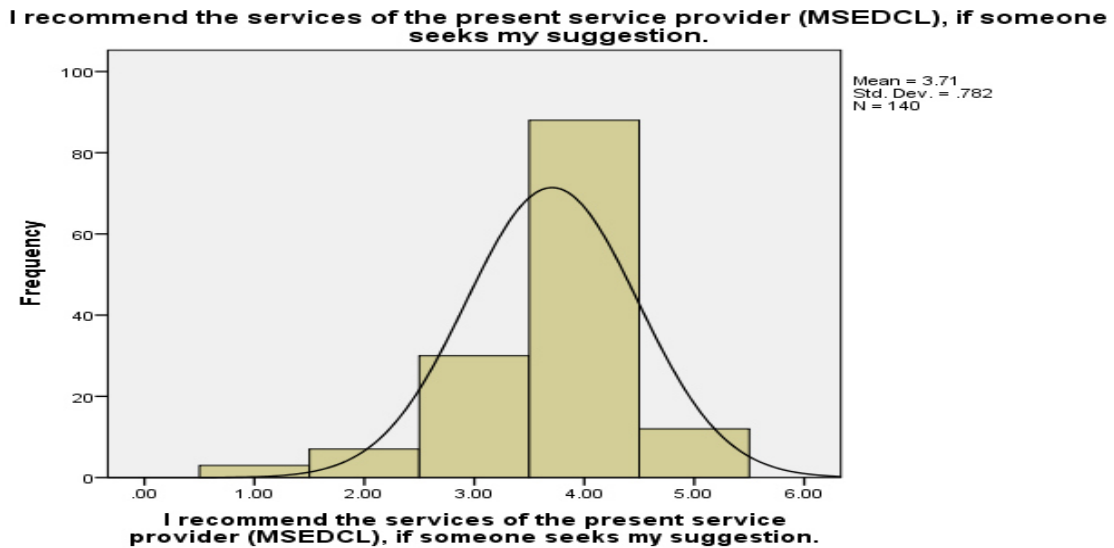
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 5, 17, 98 and 18 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 82.9 % which tells that the respondents agree that, the Consumers convey positive 'word of mouth' publicity about their present Service Provider-MSEDCL.

The Fifth Variable under ‘Loyalty’ is - *I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion*. The Statistics Table and the Histogram for the variable are as below.

Table 5.57: Statistics for ‘I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion’

Variable →	<i>I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.7071	Kurtosis	2.203
Std. Deviation	.78196	Std. Error of Kurtosis	.407
Skewness	-1.172	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.27: ‘I Recommend the Services of the Present Service Provider (MSEDCL), if Someone Seeks my Suggestion’



The above table for statistics and histogram show frequency distribution for the ‘Loyalty’ variable: (*I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion*). From the table above it may be said that the Mean = 3.7071 and the Standard Deviation = 0.78196 which is less than one third of the mean i.e. 1.2357. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.172 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the

Consumers recommend the services of the present service provider (MSEDCL), if someone seeks their suggestion. The Frequency Table for the selected Variable is as below.

Table 5.58: Frequency Table for ‘I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	3	2.1	2.1	2.1
Disagree	7	5.0	5.0	7.1
Neutral	30	21.4	21.4	28.6
Agree	88	62.9	62.9	91.4
Strongly Agree	12	8.6	8.6	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 3, 7, 30, 88 and 12 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 71.5 % which reports that the respondents agree that, the Consumers recommend the services of the present service provider (MSEDCL), if someone seeks their suggestion.

The analysis of all the Variables related to ‘Loyalty’ wrap ups that the Consumers are loyal to the MSEDCL Company. The Social bonding factor is dominant and goes in favor of the Company as the Consumers admit that the majority of Friends, Neighbors and Relatives avail the Services of the MSEDCL. The Consumers disclose that they have genuine relationship and feel proud in being associated with the MSEDCL.

5.7.5 The Descriptive Statistics, Frequency Tables and Histograms for Barriers to Switch

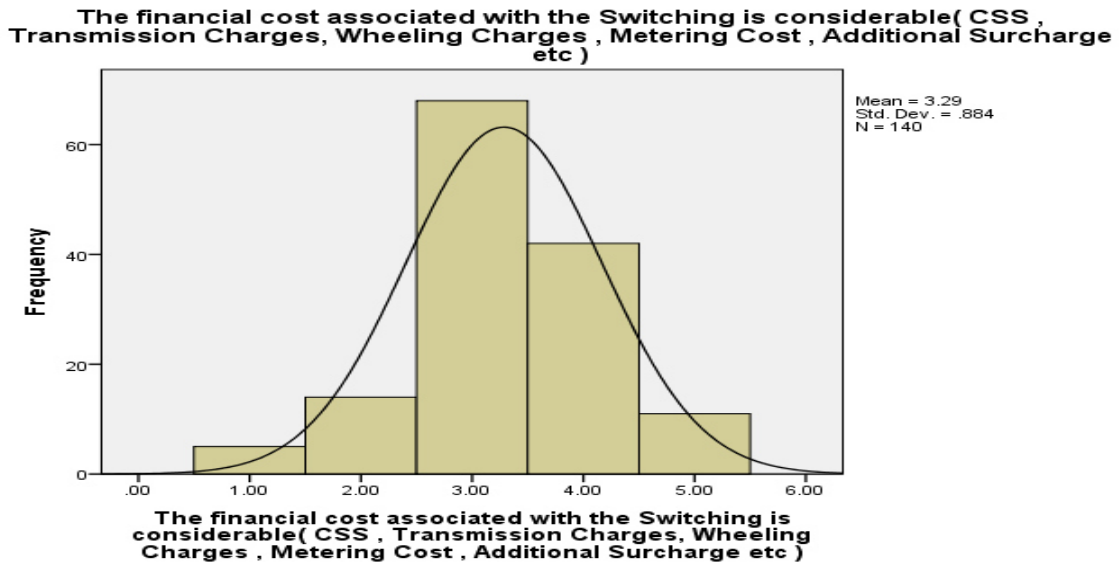
The First Variable under ‘Barriers to Switch’ is - *The financial cost associated with the Switching is considerable (CSS , Transmission Charges, Wheeling Charges ,*

Metering Cost , Additional Surcharge etc). The Statistics Table and the Histogram for the variable are as below.

Table 5.59: Statistics for ‘The financial cost associated with the Switching is considerable (CSS, Transmission Charges, Wheeling Charges, Metering Cost, Additional Surcharge etc)’

Variable →	<i>The financial cost associated with the Switching is considerable (CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.2857	Kurtosis	.395
Std. Deviation	.88379	Std. Error of Kurtosis	.407
Skewness	-.215	Minimum	1.00
Std.Error of Skewness	.205	Maximum	5.00

Histogram 5.28: ‘The Financial Cost Associated with the Switching is Considerable (CSS, Transmission Charges, Wheeling Charges, Metering Cost, Additional Surcharge etc)’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: *The financial cost associated with the Switching is considerable (*

CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc). From the table above it may be said that the Mean = 3.2857 and the Standard Deviation = 0.88379 which is less than one third of the mean i.e. 1.0952. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.215 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the financial cost associated with the Switching is considerable. The Frequency Table for the selected Variable is as below.

Table 5.60: Frequency Table for ‘The financial cost associated with the Switching is considerable (CSS, Transmission Charges, Wheeling Charges, Metering Cost, Additional Surcharge etc)’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	5	3.6	3.6	3.6
Disagree	14	10.0	10.0	13.6
Neutral	68	48.6	48.6	62.1
Agree	42	30.0	30.0	92.1
Strongly Agree	11	7.9	7.9	100.0
Total	140	100.0	100.0	

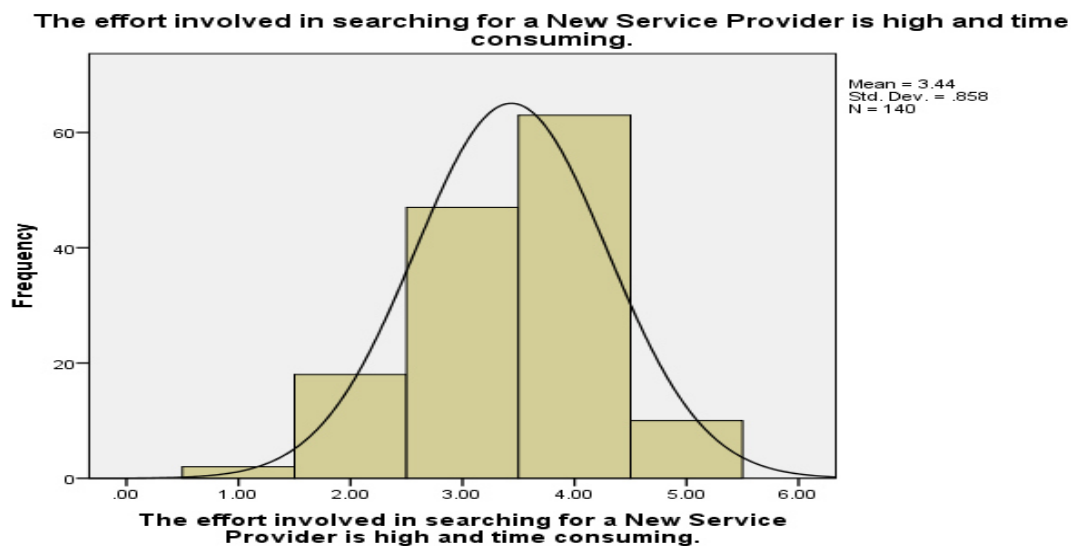
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 5, 14, 68, 42 and 12 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 37.9 % , the combine percentage of ‘Strongly Disagree’ and ‘Disagree’ is 13.6 % and that of ‘Neutral’ is 48.6 %, thus making it difficult to interpret as the count of ‘Neutral’ is substantial. So considering the above facts it would be wise to say that the respondents **are undecided** about the financial cost associated with the Switching.

The Second Variable under ‘Barriers to Switch’ is - *The effort involved in searching for a New Service Provider is high and time consuming.* The Statistics Table and the Histogram for the Variable are as below.

Table 5.61: Statistics for ‘The effort involved in searching for a New Service Provider is high and time consuming’

Variable →	<i>The effort involved in searching for a New Service Provider is high and time consuming</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.4357	Kurtosis	-.094
Std. Deviation	.85840	Std. Error of Kurtosis	.407
Skewness	-.421	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.29: ‘The Effort Involved in Searching for a New Service Provider is High and Time Consuming’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: *The effort involved in searching for a New Service Provider is high and time consuming*. From the table above it may be said that the Mean = 3.4357 and the Standard Deviation = 0.85840 which is less than one third of the mean i.e. 1.1452. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.421 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the effort involved in searching for a New Service Provider is high and time consuming. The Frequency Table for the selected Variable is as below.

Table 5.62: Frequency Table for ‘The effort involved in searching for a New Service Provider is high and time consuming’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	18	12.9	12.9	14.3
Neutral	47	33.6	33.6	47.9
Agree	63	45.0	45.0	92.9
Strongly Agree	10	7.1	7.1	100.0
Total	140	100.0	100.0	

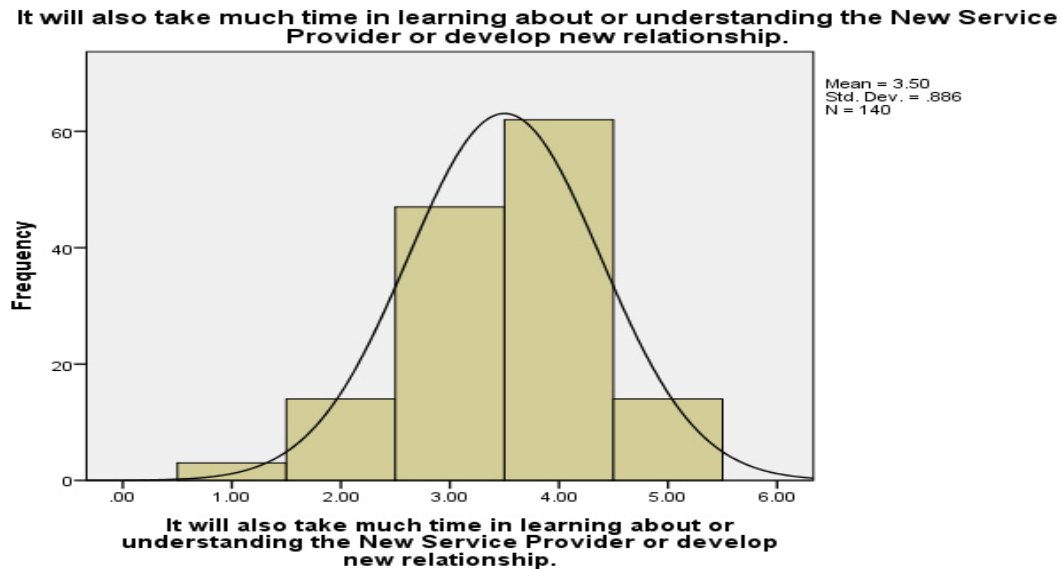
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 18, 47, 63 and 10 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 52.2 %, which points out that the respondents **moderately agree**, the effort involved in searching for a New Service Provider is high and time consuming.

The Third Variable under ‘Barriers to Switch’ is - *It will also take much time in learning about or understanding the New Service Provider or develop new relationship*. The Statistics Table and the Histogram for the variable are as below.

Table 5.63: Statistics for ‘It will also take much time in learning about or understanding the New Service Provider or develop new relationship’

Variable →	<i>It will also take much time in learning about or understanding the New Service Provider or develop new relationship</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.5000	Kurtosis	.180
Std. Deviation	.88554	Std. Error of Kurtosis	.407
Skewness	-.473	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.30: ‘It Will Also Take Much Time in Learning about or Understanding the New Service Provider or Develop New Relationship’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: (*It will also take much time in learning about or understanding the New Service Provider or develop new relationship*). From the table above it may be said that the Mean = 3.50 and the Standard Deviation = 0.88554 which is less than one third of the mean i.e. 1.1666. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.473 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that it takes much time in learning about or understanding the New Service Provider or develop new relationship. The Frequency Table for the selected Variable is as below.

Table 5.64: Frequency Table for ‘It will also take much time in learning about or understanding the New Service Provider or develop new relationship’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	3	2.1	2.1	2.1
Disagree	14	10.0	10.0	12.1
Neutral	47	33.6	33.6	45.7
Agree	62	44.3	44.3	90.0
Strongly Agree	14	10.0	10.0	100.0
Total	140	100.0	100.0	

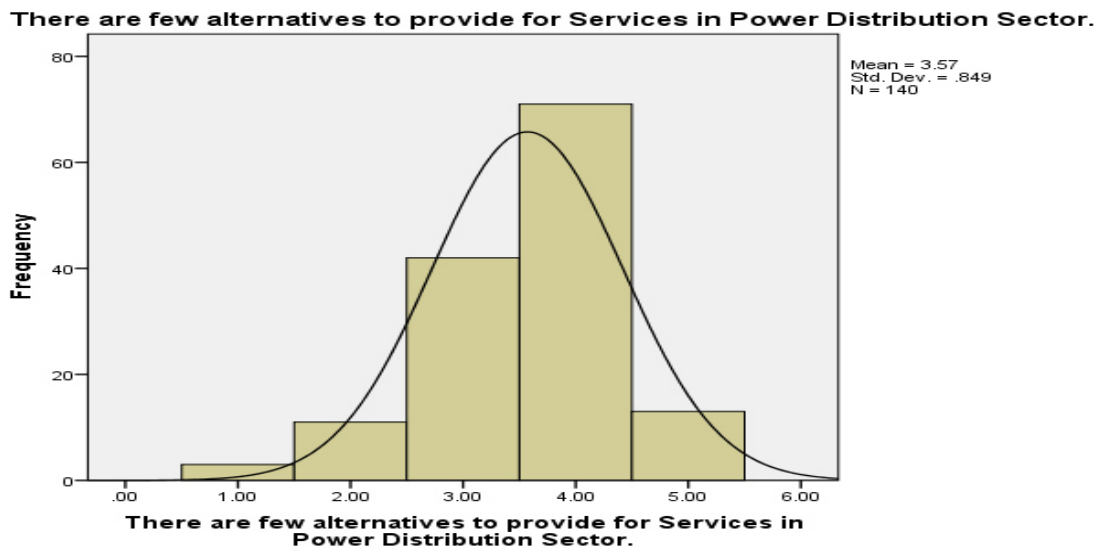
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 3, 14, 47, 62 and 14 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 54.3 %, which reports that the respondents **moderately agree**; the time taken is much in learning about or understanding, the New Service Provider or develop a new relationship.

The Fourth Variable under ‘Barriers to Switch’ is - *There are few alternatives to provide for Services in Power Distribution Sector*. The Statistics Table and the Histogram for the Variable are as below.

Table 5.65: Statistics for ‘Few alternatives to provide for Services in Power Distribution Sector’

Variable →	<i>There are few alternatives to provide for Services in Power Distribution Sector</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.5714	Kurtosis	.675
Std. Deviation	.84940	Std. Error of Kurtosis	.407
Skewness	-.691	Minimum	1.00
Std.Error of Skewness	.205	Maximum	5.00

Histogram 5.31: ‘Few Alternatives to Provide for Services in Power Distribution Sector’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: *(There are few alternatives to provide for Services in Power Distribution Sector)*. From the table above it may be said that the Mean = 3.5714 and the Standard Deviation = 0.84940 which is less than one third of the mean i.e. 1.1904. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of - 0.691 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the alternatives to provide for Services in Power Distribution Sector are few. The Frequency Table for the selected Variable is as below.

Table 5.66: Frequency Table for ‘Few alternatives to provide for Services in Power Distribution Sector’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	3	2.1	2.1	2.1
Disagree	11	7.9	7.9	10.0
Neutral	42	30.0	30.0	40.0
Agree	71	50.7	50.7	90.7
Strongly Agree	13	9.3	9.3	100.0
Total	140	100.0	100.0	

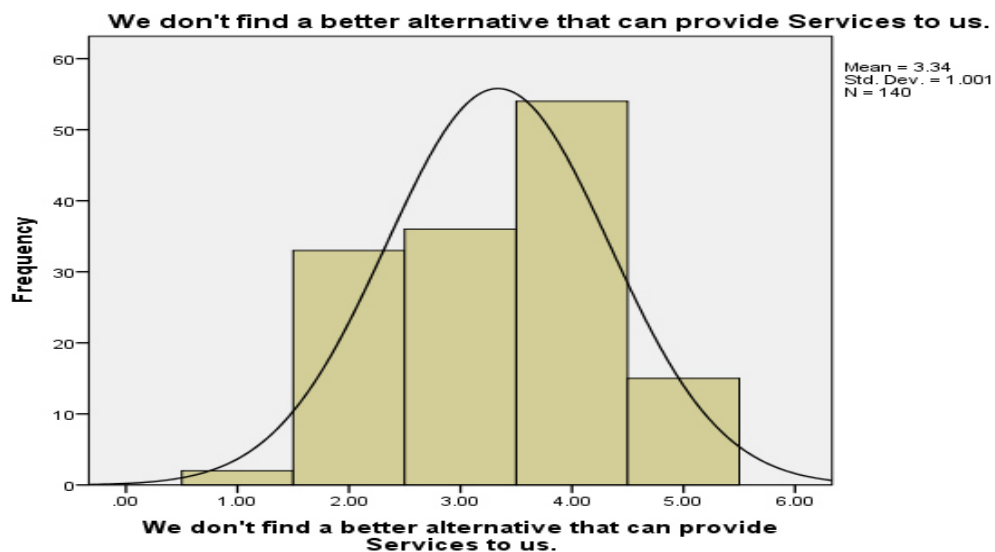
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 3, 11, 42, 71 and 13 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 60.0 %, which informs that the respondents agree; the alternatives to provide for Services in Power Distribution Sector are few.

The Fifth Variable under ‘Barriers to Switch’ is - *We don't find a better alternative that can provide Services to us*. The Statistics Table and the Histogram for the variable are as below.

Table 5.67: Statistics for ‘Lack of Better Alternatives to provide Services’

Variable →	<i>We don't find a better alternative that can provide Services to us</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.3357	Kurtosis	-.890
Std. Deviation	1.00080	Std. Error of Kurtosis	.407
Skewness	-.149	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.32: ‘Lack of Better Alternatives to Provide Services’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: *We don't find a better alternative that can provide Services to us*. From the table above it may be said that the Mean = 3.3357 and the Standard Deviation = 1.0008 which is less than one third of the mean i.e. 1.1119. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -0.149 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the consumers don’t find a better alternative that can provide Services to them. The Frequency Table for the selected Variable is as below.

Table 5.68: Frequency Table for ‘Lack of Better Alternatives to provide Services’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	2	1.4	1.4	1.4
Disagree	33	23.6	23.6	25.0
Neutral	36	25.7	25.7	50.7
Agree	54	38.6	38.6	89.3
Strongly Agree	15	10.7	10.7	100.0
Total	140	100.0	100.0	

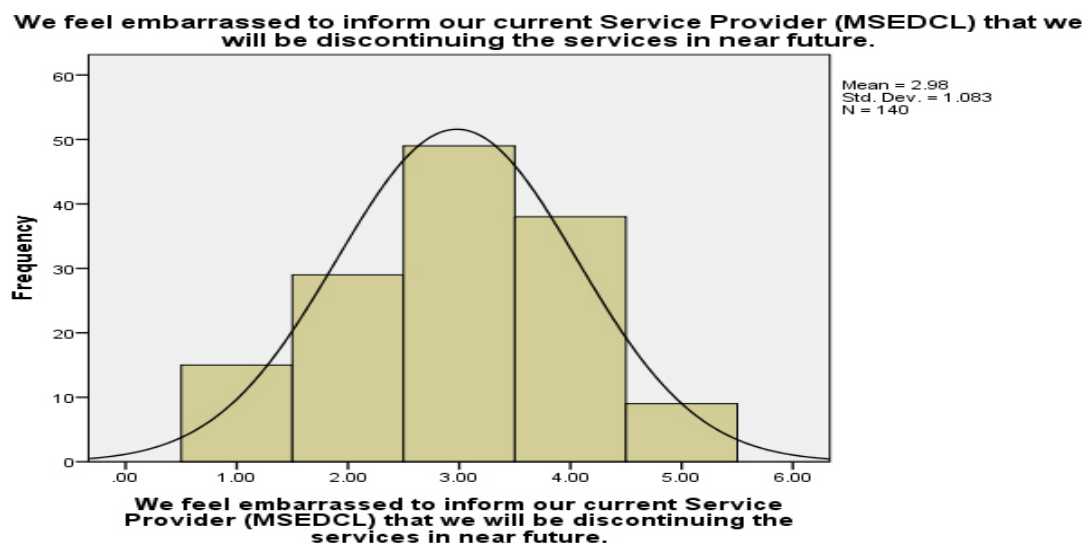
From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 2, 33, 36, 54 and 15 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 49.3 % , the combine percentage of ‘Strongly Disagree’ and ‘Disagree’ is 25.0 % and that of ‘Neutral’ is 25.7 %, which makes it obscure to interpret as the count of ‘Neutral may deviate either side. So considering only the ‘Agree’ and ‘Disagree’ percentages it may be said that the respondents **moderately** agree; the consumers don’t find a better alternative that can provide Services to them.

The Sixth Variable under ‘Barriers to Switch’ is - *We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.* The Statistics Table and the Histogram for the variable are as below.

Table 5.69: Statistics for ‘Consumer Feeling embarrassed to inform current Service Provider about discontinuation of Services in near future’

Variable →	<i>We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	2.9786	Kurtosis	-.616
Std. Deviation	1.08268	Std. Error of Kurtosis	.407
Skewness	-.164	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.33: ‘Consumer Feeling Embarrassed to Inform Current Service Provider about Discontinuation of Services in Near Future’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: *We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.* From the table above it may be said that the Mean = 2.9786 and the Standard Deviation = 1.0826 which is greater than one third of the mean i.e. 0.9928. Therefore, ‘Mean’ is not the meaningful value. Hence, the interpretation should be done based on frequency table. The Frequency Table for the selected Variable is as below.

Table 5.70: Frequency Table for ‘Consumer Feeling embarrassed to inform current Service Provider about discontinuation of Services in near future’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	15	10.7	10.7	10.7
Disagree	29	20.7	20.7	31.4
Neutral	49	35.0	35.0	66.4
Agree	38	27.1	27.1	93.6
Strongly Agree	9	6.4	6.4	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 15, 29, 49, 38 and 9 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 33.5 % , the combine percentage of ‘Strongly Disagree’ and ‘Disagree’ is 31.4 % and that of ‘Neutral’ is 35.0 %, which makes it ambiguous to interpret as the data is uniformly distributed. So, it may be concluded that **the consumers neither agree nor disagree** about how they feel to inform the current Service Provider (MSEDCL), that they will be discontinuing the services in near future.

The Seventh Variable under ‘Barriers to Switch’ is - *I have a sense of loyalty with my existing service provider that is MSEDCL*. The Statistics Table and the Histogram for the variable are as below.

Table 5.71: Statistics for ‘Sense of Loyalty with the existing Service Provider’

Variable →	<i>I have a sense of loyalty with my existing service provider that is MSEDCL</i>		
Details ↓	Sample N :- Valid – 140; Missing – 0		
Mean	3.7571	Kurtosis	1.364
Std. Deviation	.76686	Std. Error of Kurtosis	.407
Skewness	-1.011	Minimum	1.00
Std. Error of Skewness	.205	Maximum	5.00

Histogram 5.34: ‘Sense of Loyalty with the Existing Service Provider’



The above table for statistics and histogram show frequency distribution for the ‘Barriers to Switch’ variable: *I have a sense of loyalty with my existing service provider that is MSEDCL*. From the table above it may be said that the Mean = 3.7571 and the Standard Deviation = 0.76686 which is less than one third of the mean i.e. 1.2523. Therefore, ‘Mean’ is the meaningful value. The skewness is negative with the value of -1.011 showing the curve left skewed and the data piled on the right side thus reaffirming the meaningfulness of the ‘Mean’. Hence, it may be concluded that the consumers have a sense of loyalty with the existing service provider that is MSEDCL. The Frequency Table for the selected Variable is as below.

Table 5.72: Frequency Table for ‘Sense of Loyalty with the existing Service Provider’

Group/Class	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	.7	.7	.7
Disagree	11	7.9	7.9	8.6
Neutral	23	16.4	16.4	25.0
Agree	91	65.0	65.0	90.0
Strongly Agree	14	10.0	10.0	100.0
Total	140	100.0	100.0	

From the above frequency table the count for the groups ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’ are 1, 11, 23, 91 and 14 respectively. The combine percentage for ‘Agree’ and ‘Strongly Agree’ is 75.0 %, which point outs that the respondents agree; the consumers have a sense of loyalty with the existing service provider that is MSEDCL.

The statistical analysis of the Variables associated with ‘Barriers to Switch’ enfolds that the Consumers agree that they have sense of loyalty with the existing service provider, but also have the Opinion that the Alternatives to offer Services in Power Distribution Sector are few. The Consumers are having modest opinion about the time and effort involved in searching and understanding about a New Service Provider and humbly agree that they don’t find a better alternative to provide services. The Consumers are not clear about the Cost associated in Switching from one Service Provider to another and are reserved in expressing how they feel in informing the present Service Provider that, ‘they would be discontinuing the services in near future’.

5.7.6 The Descriptive Statistics and Frequency Table for Service Quality

The basic determinants of Service Quality namely Tangibles, Reliability, Responsiveness, Assurance and Empathy are also analyzed to evaluate the Quality of Service offered by the MSEDCL. The analysis is tabulated in the table below considering Mean, Standard Deviation and respondents response to the questionnaire on a Likert scale having classes ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly Agree’.

Analyzing Tangibles

Table 5.73: Statistics for Tangible Variable 1 - *The MSEDCL Offices are well Furnished, Clean and Well Maintained.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
2.76	1.045	12	8.6	60	42.9	19	13.6	48	34.3	1	0.7
Conclusion		Not Satisfied, 51.5 % (8.6 % + 42.9 %) Disagree									

Table 5.74: Statistics for Tangible Variable 2 - *The MSEDCL Electricity Bills are well structured and the Consumers understand it easily*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.71	1.029	5	3.6	23	16.4	1	.7	90	64.3	21	15.0
Conclusion		Satisfied, 79.3 % (64.3 % + 15.0 %) Agree									

Table 5.75: Statistics for Tangible Variable 3 - *The MSEDCL website is well designed and user friendly.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.69	0.767	0	0.0	14	10.0	27	19.3	87	62.1	12	8.6
Conclusion		Satisfied, 70.7 % (62.1 % + 8.6 %) Agree									

Table 5.76: Statistics for Tangible Variable 4 - *The MSEDCL Employees are well Dressed and appear neat.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.38	0.941	4	2.9	31	22.1	14	10.0	89	63.6	2	1.4
Conclusion		Satisfied, 65 % (63.6 % + 1.4 %) Agree									

The above statistical analysis reveals that the Tangible aspects related to Structure of Electricity Bills, Design of the Company Website and appearance and neatness of the Employees is satisfactory, but the Tangible aspect related to cleanliness and maintenance of MSEDCL Offices is not satisfactory.

Analyzing Reliability

Table 5.77: Statistics for Reliability Variable 1 - The Consumers are informed of the supply interruptions in advance.

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
2.95	1.259	16	11.4	53	37.9	6	4.3	52	37.1	13	9.3
Conclusion		Neutral. Because, the % of 'Favorable' and 'Adverse' Opinions is almost same.									

Table 5.78: Statistics for Reliability Variable 2- The Consumers are made aware by the MSEDCL, regarding the changes in Policies through its Circulars.

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
2.85	1.209	22	15.7	41	29.3	18	12.9	53	37.9	6	4.3
Conclusion		Neutral. Because, the % of 'Favorable' and 'Adverse' Opinions is almost same.									

Table 5.79: Statistics for Reliability Variable 3 - *The MSEDCL Electricity Bills are delivered in time and give ample duration for the Consumers to clear the outstanding amounts before due dates as mentioned in the bill.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.45	1.189	12	8.6	26	18.6	7	5.0	76	54.3	19	13.6
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 67.9 % (54.3% + 13.6%).									

Table 5.80: Statistics for Reliability Variable 4 - *The Electricity Bills provided by the MSEDCL are accurate and free from errors.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.74	0.962	4	2.9	17	12.1	12	8.6	85	60.7	22	15.7
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 76.4 % (60.7% + 15.7%).									

Table 5.81: Statistics for Reliability Variable 5 - *The problem communicated to the MSEDCL is solved at the first time and generally does not repeat in future.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.07	1.050	5	3.6	53	37.9	13	9.3	65	46.4	4	2.9
Conclusion		Moderately Satisfied. Because, the % of 'Favorable' Opinions is 49.3 % (46.4% + 2.9%).									

Table 5.82: Statistics for Reliability Variable 6 - *The MSEDCL website provides with relevant and accurate information to its Consumers.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.58	0.830	4	2.9	13	9.3	26	18.6	91	65.0	6	4.3
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 69.3 % (65.0% + 4.3%).									

Table 5.83: Statistics for Reliability Variable 7 - *The MSEDCL website offers a safe and secured option for payment of electricity bills for its Consumers.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.85	0.667	0	0.0	2	1.4	37	26.4	81	57.9	20	14.3
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 72.2 % (57.9% + 14.3%).									

The above statistical analysis points out that the respondents hold neutral opinion about the information dissemination related to Supply Interruptions and Changes in MSEDCL Circulars and Policies. The Opinion related to the Reliability of overall Billing System and the Website facility for payment and Information Disclosure is favorable.

Analyzing Responsiveness

Table 5.84: Statistics for Responsiveness Variable 1 - *The MSEDCL employees are quick in attending the Consumer Complaints.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.51	1.082	9	6.4	23	16.4	9	6.4	85	60.7	14	10.0
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 70.7 % (60.7% + 10.0%) .									

Table 5.85: Statistics for Responsiveness Variable 2 - *The MSEDCL employees listen carefully to the grievances raised by the Consumer and understand the Consumer problems.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.47	1.055	9	6.4	22	15.7	13	9.3	85	60.7	11	7.9
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 68.6 % (60.7% + 7.9%) .									

Table 5.86: Statistics for Responsiveness Variable 3 - *The MSEDCL Employees show keen interest and take up the responsibility in solving the Consumer Complaints.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.27	1.053	7	5.0	34	24.3	20	14.3	71	50.7	8	5.7
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 56.4 % (50.7% + 5.7%) .									

Table 5.87: Statistics for Responsiveness Variable 4 - The MSEDCL Employees are never too busy to respond to the Consumer requests.

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.26	1.029	6	4.3	34	24.3	25	17.9	67	47.9	8	5.7
Conclusion		Moderately Satisfied. Because, the % of 'Favorable' Opinions is 53.6 % (47.9% + 5.7%).									

From the above statistical data it is clear that the Employee Interest, Quickness and over all Responsiveness to Consumer Complaints is rated favorable.

Analyzing Empathy

Table 5.88: Statistics for Empathy Variable 1 - The MSEDCL Employees have caring attitude towards their Consumers.

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.40	1.058	9	6.4	24	17.1	18	12.9	79	56.4	10	7.1
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 63.5 % (56.4% + 7.1%).									

Table 5.89: Statistics for Empathy Variable 2 - The MSEDCL understands the needs of its Consumer.

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.33	1.049	9	6.4	27	19.3	19	13.6	78	55.7	7	5.0
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 60.7 % (55.7% + 5.0%).									

Table 5.90: Statistics for Empathy Variable 3 - *The MSEDCL Company believes in keeping the 'Consumer Interest' as its top priority.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.27	1.025	6	4.3	30	21.4	34	24.3	59	42.1	11	7.9
Conclusion		Moderately Satisfied. Because, the % of 'Favorable' Opinions is 50.0 % (42.1% + 7.9%).									

The statistical analysis above notifies that the Employees have an Empathetic attitude in dealing with the Consumers.

Analyzing Assurance

Table 5.91: Statistics for Assurance Variable 1 - *The MSEDCL agrees to provide compensation to its Consumers if the services are not delivered as per the 'Standards of Performance', stipulated by the MERC.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
2.78	0.879	10	7.1	42	30.0	56	40.0	32	22.9	0	0.0
Conclusion		Not Satisfied. Because, the % of 'Adverse' Opinions is 37.1 % (7.1% + 30.0%). The % of 'Neutral' is also considerable i.e. 40%.									

Table 5.92: Statistics for Assurance Variable 2 - *The MSEDCL Employees are adequately trained to solve the Consumer's Complaint.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.53	0.900	5	3.6	14	10.0	32	22.9	79	56.4	10	7.1
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 63.5 % (56.4% + 7.1%).									

Table 5.93: Statistics for Assurance Variable 3 - *The MSEDCL Employees / Staff are well behaved and well mannered.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.60	0.829	1	0.7	23	16.4	12	8.6	99	70.7	5	3.6
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 74.3 % (70.7% + 3.6%).									

Table 5.94: Statistics for Assurance Variable 4 - *The MSEDCL Company keeps its promise of fulfilling the Consumer demand in time.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.07	1.036	6	4.3	45	32.1	29	20.7	53	37.9	7	5.0
Conclusion		Neutral. Because, the % of 'Favorable' Opinions 42.9% (37.9%+5%) is not very high as compared to 'Adverse' Opinions 36.4% (4.3%+32.1%).									

The Consumers are assured about the skills and the behavior of the employees of the MSEDCL but bear adverse Opinion when it is about giving compensation due to failure in Service Delivery as per the Standards of Performance. The Consumers remain Neutral in expressing about the Company fulfilling its promises to meet the Consumer Demands in time.

5.7.7 *The Descriptive Statistics and Frequency Table for Consumer Concern*

Table 5.95: Statistics for Consumer Concern Variable 1 - *The MSEDCL Company understands our specific needs and the MSEDCL staff pay attention to it.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.47	0.948	3	2.1	24	17.1	28	20.0	73	52.1	12	8.6
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 60.7 % (52.1% + 8.6%).									

Table 5.96: Statistics for Consumer Concern Variable 2 - *In case of payment default, the MSEDCL Company is more likely to understand our problem and would agree to give grace period for clearance of dues without disconnecting our supply.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.32	1.054	7	5.0	27	19.3	34	24.3	58	41.4	14	10.0
Conclusion		Moderately Satisfied. Because, the % of 'Favorable' Opinions is 51.4 % (41.4% + 10.0%).									

Table 5.97: Statistics for Consumer Concern Variable 3 - *In case of any Supply problem associated with the Consumer side, the MSEDCL Employees would be flexible (generous) in extending necessary support and help to solve the problem.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.27	1.125	15	10.7	19	13.6	28	20.0	68	48.6	10	7.1
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 55.7 % (48.6% + 7.1%).									

Table 5.98: Statistics for Consumer Concern Variable 4 - *The MSEDCL Company is always ready and prompt in passing on the Incentives/Benefits to the Consumers.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.59	0.981	3	2.1	24	17.1	17	12.1	79	56.4	17	12.1
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 68.5 % (56.4% + 12.1%).									

Table 5.99: Statistics for Consumer Concern Variable 5 - *The MSEDCL is never harsh or unjust in imposing penalties/charges to the Consumers.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.44	0.961	3	2.1	26	18.6	29	20.7	70	50.0	12	8.6
Conclusion		Satisfied. Because, the % of 'Favorable' Opinions is 58.6 % (50.0% + 8.6%).									

The above data analysis indicates that the Consumer Concern is at focal point for the MSEDCL whether it is about understanding needs specific to Consumers, Solving Consumer Complaints and imposing Penalties to Consumers or passing on Incentives or Benefits to the Consumers.

5.7.8 *The Descriptive Statistics and Frequency Table for Consumer Culture*

Table 5.100: Statistics for Consumer Culture Variable 1 - *The Electricity Consumers would not really mind paying more for Reliable and Quality Services.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.40	1.117	11	7.9	20	14.3	28	20.0	64	45.7	17	12.1
Conclusion		Agree. Because, the % of 'Favorable' Opinions is 57.8 % (45.7% + 12.1%).									

Table 5.101: Statistics for Consumer Culture Variable 2 - *We keep ourselves updated regarding the latest tariff applicable and other relevant information.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.73	0.792	0	0.0	19	13.6	10	7.1	100	71.4	11	7.9
Conclusion		Agree. Because, the % of 'Favorable' Opinions is 79.3 % (71.4% + 7.9%).									

Table 5.102: Statistics for Consumer Culture Variable 3 - *With the latest developments in the power sector technologies like Smart Grids, Smart Metering etc the Consumers will be able to cope well with it.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.82	0.719	0	0.0	3	2.1	41	29.3	73	52.1	23	16.4
Conclusion		Agree. Because, the % of 'Favorable' Opinions is 68.5 % (52.1% + 16.4%).									

Table 5.103: Statistics for Consumer Culture Variable 4 - *The Open Access policy offers choice to the Electricity Consumers to select their Service Provider. So, I /We would definitely avail of this facility and plan to switch over to a New Service Provider.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
3.32	0.789	5	3.6	9	6.4	66	47.1	56	40.0	4	2.9
Conclusion		Neutral. Because, the % of ‘Favorable’ Opinions is 42.9 % (40.0% + 2.9%) and that of ‘Neutral’ is 47.1% .									

Table 5.104: Statistics for Consumer Culture Variable 5 - *Instead of Sourcing power from Distribution Utilities, Our Company would prefer to generate electricity on our own.*

Mean	Standard Deviation	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		No	%	No	%	No	%	No	%	No	%
2.53	1.041	20	14.3	61	43.6	25	17.9	32	22.9	2	1.4
Conclusion		Disagree. Because, the % of ‘Adverse’ Opinions is 57.9 % (14.3% + 43.6%).									

The statistical analysis of the Variables on Consumer Culture reveals that the Consumers are ready to pay more for better Quality of Services. The Variable 2 above tells that the Awareness of the Consumers is high and they keep themselves updated, Variable 3 above points out that the Consumers are Tech Savvy and they have no problem in accepting new technologies. The Variable 4 above is about the Consumers’ Risk Taking Ability and the opinion of the respondents is Neutral. The Variable 5 above is about ‘PROSUMERISM’, i.e. do the Consumers prefer to meet the Power demand on their own. The response to the Variable 5 is adverse which means the consumers would prefer to fulfill their Electricity demand from the Distribution Companies instead of generating on their own.

5.8 To Determine the Factors Contributing to ‘Consumer Perceived Value’

Purpose of the Study: - To find out if there is any difference in the perception of Value across various Value Propositions.

Statistical Test: - Friedman Chi-Square test.

Variables and Measurement:- The respondents were presented with following ten value propositions.

Table 5.105: Variables to Measure ‘Consumer Perceived Value’

Item No.	Item Description
1	The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.
2	The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.
3	The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.
4	Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.
5	The working hours of MSEDCL Company are as per the Consumer convenience.
6	Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.
7	The risk associated in transactions with MSEDCL is least.
8	The quality of services offered by MSEDCL has improved significantly over last few years.
9	The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.
10	The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.

Each Variable is measured on a five point Likert scale (‘1’= Strongly Disagree. ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree).

Null Hypothesis H₀:- There is no difference in perception of 'Value' across various Value Prepositions.

Alternate Hypothesis H₁:- There is significant difference in perception of 'Value' across various Value Prepositions.

Level of Significance:- $\alpha = 0.05$.

Table 5.106: Test Statistics^a for Friedman Test

N	140
Chi-Square	186.517
Df	9
Asymp. Sig.	.000

a. Friedman Test

Observations: - Chi-Square χ^2 (Degrees of freedom df = 9), Sample Size N = 140, p-value=0.000.

From the above observations as the p-value is less than α (0.05), the Null Hypothesis H₀ is rejected. Therefore it may be concluded that there is significant difference in perception of 'Value' across various Value Prepositions. The Ranks Table given on the next page, points out where the difference lies.

Table 5.107: Ranks Table for Variables of Consumer Perceived Value

Description of the Variable	Mean Rank
The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.	5.57
The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.	5.18
Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.	5.89
The working hours of MSEDCL Company are as per the Consumer convenience.	5.24
Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.	5.20
The risk associated in transactions with MSEDCL is least.	6.24
The quality of services offered by MSEDCL has improved significantly over last few years.	7.03
The present service provider(MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.	5.84
The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.	5.47
The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.	3.36

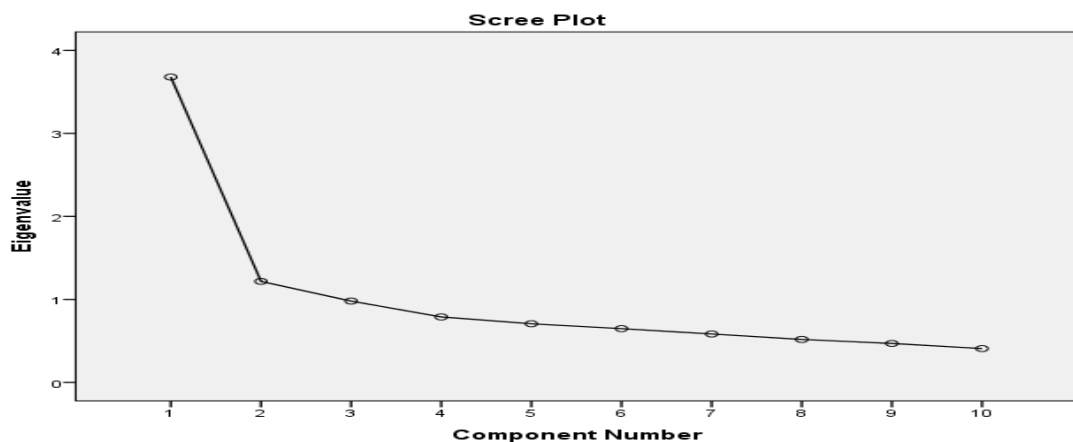
From the Mean Ranks table above it may concluded that the ‘Quality of Services Offered by MSEDCL has improved significantly over last few years’ tops the table with a value of 7.03 and the variable ‘Services Offered by the MSEDCL to its Consumers is at a Cheaper Cost’ bottoms the table with a value of 3.36.

The total variance table indicates that there are two components which explain 48.959 % of total variance cumulatively. The Total Variance Explained table is also displayed below.

Table 5.108: Total Variance Explained for Factorizing Consumer Perceived Value

Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.679	36.786	36.786	3.679	36.786	36.786
2	1.217	12.173	48.959	1.217	12.173	48.959
3	.980	9.803	58.761			
4	.789	7.891	66.652			
5	.707	7.069	73.721			
6	.648	6.480	80.201			
7	.584	5.840	86.041			
8	.518	5.182	91.223			
9	.470	4.698	95.921			
10	.408	4.079	100.000			

Graph 5.1: Scree Plot for Factorizing Consumer Perceived Value



The Rotated Component Matrix tells us which of the Individual Variables falls under each of the two components. The Table is displayed below.

Table 5.109: Rotated Component Matrix^a for Factorizing Value

Description of the Variable	Component		Name of the Component
	1	2	
The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.	.742		Assurance in Service Delivery.
The quality of services offered by MSEDCL has improved significantly over last few years.	.687		
The risk associated in transactions with MSEDCL is least.	.659		
Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.	.632		
The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.	.595		
The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.	.464		
Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.		.717	Cost of Service.
The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.		.706	
The working hours of MSEDCL Company are as per the Consumer convenience.		.698	
The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.		.676	

Therefore, we may conclude that the two components associated with Consumer Perceived Value are ‘**Assurance in Service Delivery**’ and ‘**Cost of Service**’ The Cost of Service includes Time, Psychological as well as Monetary Cost factors.

5.9 Ascertaining the Relationships between Variables: Testing the Hypothesis

5.9.1 Correlation between Consumer Perceived Value and Consumer Satisfaction

Purpose: - To Study whether there is any relation between ‘Consumer Perceived Value’ and ‘Consumer Satisfaction’.

Statistical Test: - Bi-Variate Correlation

Variables and Measurement: - Both the variables ‘Consumer Perceived Value’ and ‘Consumer Satisfaction’ are metric scale variables measured on a five point scale (‘1’= Strongly Disagree, ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree)

Null Hypothesis H_0 : There is no relation between ‘Perceived Value’ and ‘Satisfaction’ i.e. ($r = 0$)

Alternate Hypothesis H_1 : There is significant relation between ‘Perceived Value’ and ‘Satisfaction’ i.e. ($r \neq 0$)

Level of Significance ($\alpha = 0.05$)

Table 5.110: Correlation between ‘Satisfaction’ and ‘Value’

Correlations			
		Satisfaction	Value
Satisfaction	Pearson Correlation	1	.485**
	Sig. (2-tailed)		.000
	N	140	140
Value	Pearson Correlation	.485**	1
	Sig. (2-tailed)	.000	
	N	140	140

Observations: **Pearson Correlation(r) = 0.485 , p = 0.000, N = 140.**

Conclusion: - Since (**p = 0.000**) is less than (**$\alpha = 0.05$**) the Null Hypothesis **H₀** is rejected. Therefore, it is concluded that there is significant relationship between ‘Value’ and ‘Satisfaction’. The positive value of ‘r’ suggests that there is a direct relation between the variables ‘Value’ and ‘Satisfaction’, which means if ‘Value’ increases, ‘Satisfaction’ increases or vice-versa. Based on the value of $r = 0.485$, it may be further said that the relation between the two variables is **Moderate**.

5.9.2 Correlation between Consumer Satisfaction and Consumer Loyalty

Purpose: - To Study whether there is any relation between ‘Satisfaction’ and ‘Loyalty’.

Statistical Test: - Bi-Variate Correlation.

Variables and Measurement :- Both the variables ‘Consumer Satisfaction’ and ‘Consumer Loyalty’ are metric scale variables measured on a five point scale (‘1’= Strongly Disagree. ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree)

Null H₀: There is no relation between ‘Satisfaction’ and ‘Loyalty’ i.e. ($r = 0$)

Alternate H₁: There is significant relation between ‘Satisfaction’ and ‘Loyalty’ i.e. ($r \neq 0$)

Level of Significance ($\alpha = 0.05$)

Table 5.111: Correlation between ‘Satisfaction’ and ‘Loyalty’

Correlations			
		Satisfaction	Loyalty
Satisfaction	Pearson Correlation	1	.525**
	Sig. (2-tailed)		.000
	N	140	140
Loyalty	Pearson Correlation	.525**	1
	Sig. (2-tailed)	.000	
	N	140	140

Observations: **Pearson Correlation(r) = 0.525 , p = 0.000, N = 140.**

Conclusion: - Since (**p = 0.000**) is less than (**$\alpha = 0.05$**) the Null Hypothesis **H₀** is rejected. Therefore, it is concluded that there is significant relationship between ‘Satisfaction’ and ‘Loyalty’. The positive value of ‘r’ suggests that there is a direct relation between the variables ‘Satisfaction’ and ‘Loyalty’, which means if ‘Satisfaction’ increases, ‘Loyalty’ increases or vice-versa. Based on the value of $r = 0.525$, it may be further said that the relation between the two variables is **Moderate**.

5.9.3 Correlation between Consumer Perceived Value and Consumer Loyalty

Purpose: - To Study whether there is any relation between ‘Value’ and ‘Loyalty’.

Statistical Test: - Bi-Variate Correlation.

Variables and Measurement: - Both the variables ‘Consumer Perceived Value’ and ‘Consumer Loyalty’ are metric scale variables measured on a five point scale (‘1’= Strongly Disagree. ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree)

Null H₀: There is no relation between ‘Value’ and ‘Loyalty’ i.e. ($r = 0$)

Alternate H₁: There is significant relation between ‘Value’ and ‘Loyalty’ i.e. ($r \neq 0$)

Level of Significance ($\alpha = 0.05$)

Table 5.112: Correlation between ‘Value’ and ‘Loyalty’

Correlations			
		Loyalty	Value
Loyalty	Pearson Correlation	1	.709**
	Sig. (2-tailed)		.000
	N	140	140
Value	Pearson Correlation	.709**	1
	Sig. (2-tailed)	.000	
	N	140	140

Observations: **Pearson Correlation(r) = 0.709 , p = 0.000, N = 140.**

Conclusion: - Since (p = 0.000) is less than (α = 0.05) the Null Hypothesis H_0 is rejected. Therefore, it is concluded that there is significant relationship between ‘Value’ and ‘Loyalty’. The positive value of ‘ r ’ suggests that there is a direct relation between the variables ‘Value’ and ‘Loyalty’, which means if ‘Value’ increases, ‘Loyalty’ increases or vice-versa. Based on the value of r = 0.709, it may be further said that the relation between the two variables is **Strong**.

5.9.4 Correlation between Brand Image and Consumer Loyalty

Purpose: - To Study whether there is any relation between ‘Brand Image’ and ‘Loyalty’.

Statistical Test: - Bi-Variate Correlation.

Variables and Measurement :- Both the variables ‘Brand Image’ and ‘Consumer Loyalty’ are metric scale variables measured on a five point scale (‘1’= Strongly Disagree. ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree)

Null H_0 : There is no relation between ‘Brand Image’ and ‘Loyalty’ i.e. (r = 0)

Alternate H_1 : There is significant relation between ‘Brand Image’ and ‘Loyalty’ i.e.($r \neq 0$)

Level of Significance (α = 0.05)

Table 5.113: Correlation between ‘Brand Image’ and ‘Loyalty’

Correlations			
		Brand Image	Loyalty
Brand Image	Pearson Correlation	1	.751**
	Sig. (2-tailed)		.000
	N	140	140
Loyalty	Pearson Correlation	.751**	1
	Sig. (2-tailed)	.000	
	N	140	140

Observations: **Pearson Correlation(r) = 0.751 , p = 0.000, N = 140.**

Conclusion: - Since (p = 0.000) is less than (α = 0.05) the Null Hypothesis **H₀** is rejected. Therefore, it is concluded that there is significant relationship between ‘Brand Image’ and ‘Loyalty’. The positive value of ‘r’ suggests that there is a direct relation between the variables ‘Brand Image’ and ‘Loyalty’, which means if ‘Brand Image’ increases, ‘Loyalty’ increases or vice-versa. Based on the value of r = 0.751, it may be further said that the relation between the two variables is **Strong**.

5.9.5 Correlation between Consumer Perceived Value and Brand Image

Purpose: - To Study whether there is any relation between ‘Value’ and ‘Brand Image’.

Statistical Test: - Bi-Variate Correlation.

Variables and Measurement: - Both the variables ‘Consumer Perceived Value’ and ‘Brand Image’ are metric scale variables measured on a five point scale (‘1’= Strongly Disagree. ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree)

Null H₀: There is no relation between ‘Value’ and ‘Brand Image’ i.e. (r = 0)

Alternate H₁: There is significant relation between ‘Value’ and ‘Brand Image’ i.e. (r ≠ 0)

Level of Significance (α = 0.05)

Table 5.114: Correlation between ‘Value’ and ‘Brand Image’

Correlations			
		Brand Image	Value
Brand Image	Pearson Correlation	1	.697**
	Sig. (2-tailed)		.000
	N	140	140
Value	Pearson Correlation	.697**	1
	Sig. (2-tailed)	.000	
	N	140	140

Observations: **Pearson Correlation(r) = 0.697 , p = 0.000, N = 140.**

Conclusion: - Since (**p = 0.000**) is less than (**$\alpha = 0.05$**) the Null Hypothesis **H₀** is rejected. Therefore, it is concluded that there is significant relationship between ‘Value’ and ‘Brand Image’. The positive value of ‘r’ suggests that there is a direct relation between the variables ‘Value’ and ‘Brand Image’, which means if ‘Value’ increases, ‘Brand Image’ increases or vice-versa. Based on the value of $r = 0.697$, it may be further said that the relation between the two variables is **Strong**.

5.9.6 Correlation between Consumer Satisfaction and Brand Image

Purpose:- To Study whether there is any relation between ‘Satisfaction’ and ‘Brand Image’.

Statistical Test: - Bi-Variate Correlation.

Variables and Measurement :- Both the variables ‘Consumer Satisfaction’ and ‘Brand Image’ are metric scale variables measured on a five point scale (‘1’= Strongly Disagree. ‘2’= Disagree, ‘3’= Neutral, ‘4’= Agree and ‘5’= Strongly Agree)

Null H₀: There is no relation between ‘Satisfaction’ and ‘Brand Image’ i.e. ($r = 0$)

Alternate H₁: There is significant relation between ‘Satisfaction’ and ‘Brand Image’ i.e. ($r \neq 0$)

Level of Significance ($\alpha = 0.05$)

Table 5.115: Correlation between ‘Satisfaction’ and ‘Brand Image’

Correlations			
		Brand Image	Satisfaction
Brand Image	Pearson Correlation	1	.618**
	Sig. (2-tailed)		.000
	N	140	140
Satisfaction	Pearson Correlation	.618**	1
	Sig. (2-tailed)	.000	
	N	140	140

Observations: **Pearson Correlation(r) = 0.618 , p = 0.000, N = 140.**

Conclusion: - Since ($p = 0.000$) is less than ($\alpha = 0.05$) the Null Hypothesis H_0 is rejected. Therefore, it is concluded that there is significant relationship between ‘Satisfaction’ and ‘Brand Image’. The positive value of ‘r’ suggests that there is a direct relation between the variables ‘Satisfaction’ and ‘Brand Image’, which means if ‘Satisfaction’ increases, ‘Brand Image’ increases or vice-versa. Based on the value of $r = 0.618$, it may be further said that the relation between the two variables is **Strong**.

5.10 Studying the Moderating Role of the Switching Barriers on the Relationship between Perceived Value/Satisfaction and Consumer Loyalty: Testing the Hypothesis

It is already ascertained that a direct relationship exists between ‘Consumer Perceived Value’ and ‘Consumer Loyalty’, ‘Consumer Satisfaction’ and ‘Consumer Loyalty’. The relationship between Satisfaction-Loyalty is **Moderate** whereas the relationship between Perceived Value-Loyalty is **Strong**. Now it is important to analyze the role of Switching Barriers on these relationships. The various switching barriers considered in the study are tabulated as below.

Table 5.116: List of Switching Barriers with Short Names

Sr.	Details of the Switching Barrier	Short Name for the Barrier
1	The financial cost associated with the Switching is considerable(CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)	Switching Cost
2	The effort involved in searching for a New Service Provider is high and time consuming.	Time & Effort
3	It will also take much time in learning about or understanding the New Service Provider or develop new relationship.	Cultivating New Relationship

Sr.	Details of the Switching Barrier	Short Name for the Barrier
4	There are few alternatives to provide for Services in Power Distribution Sector.	Few Alternatives
5	We don't find a better alternative that can provide Services to us.	Lack of Better Alternative
6	We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.	Compassion with present Service Provider
7	I have a sense of loyalty with my existing service provider that is MSEDCL.	Loyalty with present Service Provider

Considering the above seven Switching Barriers, it would be interesting to understand their effect on the relationship of Satisfaction and Perceived Value with Loyalty. One by one the effect of each barrier on the relationship between Satisfaction and Loyalty, Value and Loyalty is described below.

5.10.1 Effect of Switching Cost on relationship between Consumer Perceived Value and Consumer Loyalty.

Research Question: Whether ‘Switching Cost’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Switching Cost’

Hypothesis H₀: ‘Switching Cost’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H₁: ‘Switching Cost’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.117: Model Summary for Moderating Role of Switching Cost on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.729 ^a	.532	.521	.38832

a. Predictors: (Constant), Value_Brr1, Value, The financial cost associated with the Switching is considerable (CSS, Transmission Charges, Wheeling Charge, Metering Cost, Additional Surcharge etc)

Table 5.118: ANOVA^a for Moderating Role of Switching Cost on Value - Loyalty Relationship

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	23.288	3	7.763	51.480	.000 ^b
Residual	20.507	136	.151		
Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Value_Brr1, Value, The financial cost associated with the Switching is considerable (CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)

Table 5.119: Coefficients^a for Moderating Role of Switching Cost on Value - Loyalty Relationship

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.288	.491		.587	.558
	Value	.972	.150	.946	6.470	.000
	The financial cost associated with the Switching is considerable (CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)	.410	.158	.646	2.595	.010
	Value_Brr1	-.099	.046	-.697	-2.169	.032

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has significant impact on ‘Loyalty’. ($t = 6.47$, $B = 0.972$, $p\text{-value} = 0.000$).

‘Switching Cost’ has significant impact on ‘Loyalty’. ($t = 2.595$, $B = 0.410$, $p\text{-value} = 0.010$).

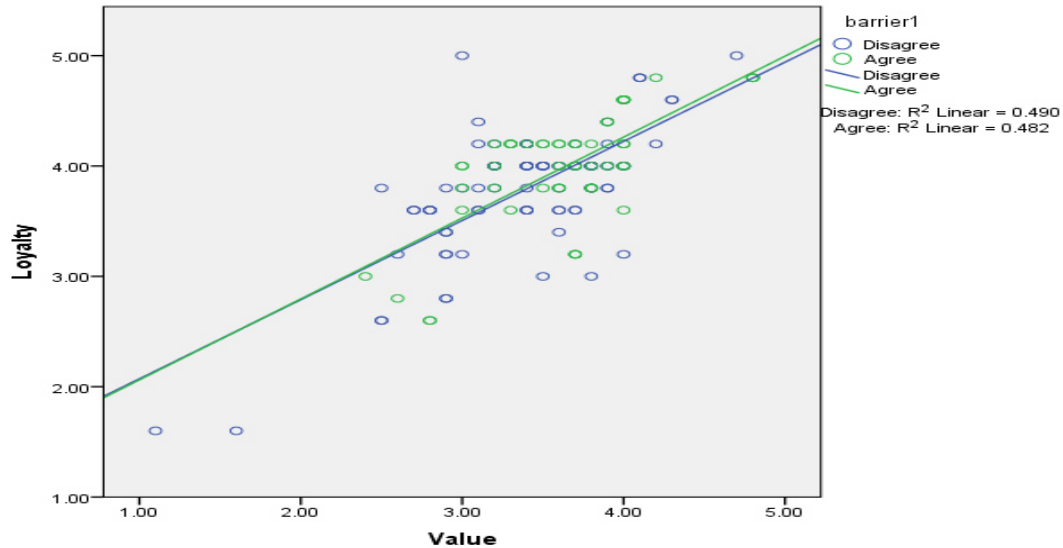
Interaction of ‘Value’ & ‘Switching Cost’ also has significant effect on ‘Loyalty’. ($t = -2.169$, $B = -0.099$, $p\text{-value} = 0.032$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Switching Cost’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to

see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Switching Cost’.

Graph 5.2: Group Plot for Moderating Role of Switching Cost on Value - Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.49 and R^2 for ‘Agree’ is 0.48, this proves that the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Switching Cost’, hence ‘Switching Cost’ influences the relationship between ‘Value’ and ‘Loyalty’.

5.10.2 Effect of ‘Time and Effort in Searching New Service Provider’ on relationship between Consumer Perceived Value and Consumer Loyalty.

Research Question: Whether ‘Time & Effort’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Time & Effort’

Hypothesis H₀: ‘Time & Effort’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H₁: ‘Time & Effort’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.120: Model Summary for Moderating Role of ‘Time & Effort’ on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742 ^a	.551	.541	.38017

a. Predictors: (Constant), Value_Brr2, Value, The effort involved in searching for a New Service Provider is high and time consuming.

Table 5.121: ANOVA for Moderating Role of ‘Time & Effort’ on Value - Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.140	3	8.047	55.675	.000 ^b
	Residual	19.656	136	.145		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Value_Brr2, Value, The effort involved in searching for a New Service Provider is high and time consuming.

Table 5.122: Coefficients for Moderating Role of ‘Time & Effort’ on Value - Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.009	.966		1.045	.298
	Value	.675	.280	.657	2.415	.017
	The effort involved in searching for a New Service Provider is high and time consuming.	.135	.261	.206	.518	.605
	Value_Brr2	.003	.075	.023	.045	.964

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has significant impact on ‘Loyalty’. ($t = 2.415$, $B = 0.675$, $p\text{-value} = 0.017$).

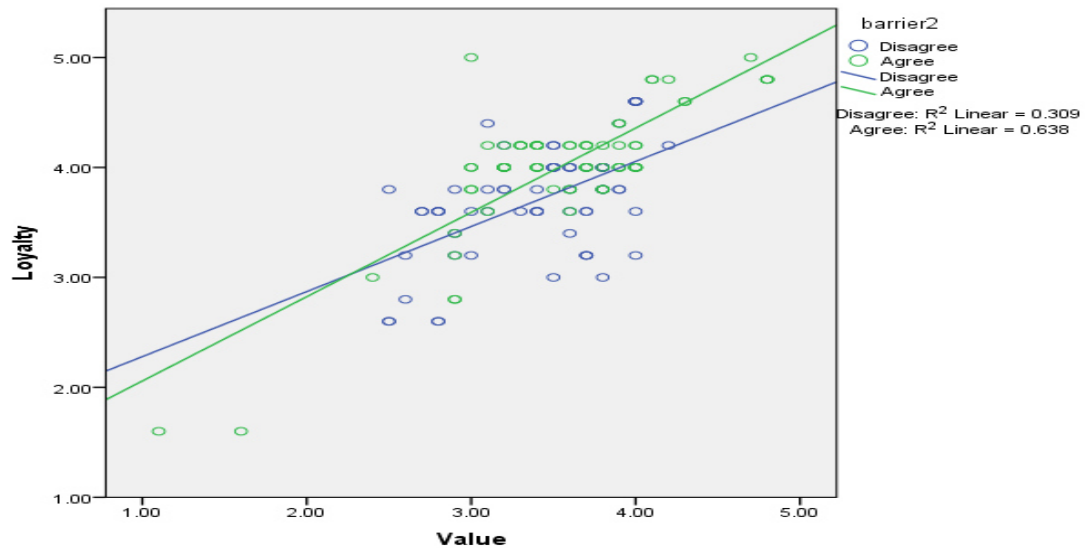
‘Time & Effort’ does not have significant impact on ‘Loyalty’. ($t = 0.518$, $B = 0.135$, $p\text{-value} = 0.605$).

Interaction of ‘Value’ & ‘Time & Effort’ also does not have significant effect on ‘Loyalty’. ($t = 0.045$, $B = 0.003$, $p\text{-value} = 0.964$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there is no moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Time & Effort’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Time & Effort’.

Graph 5.3: Group Plot for Moderating Role of ‘Time & Effort’ on Value - Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.309 and R^2 for ‘Agree’ is 0.638, but the interaction effect of ‘Time & Effort’ and ‘Value’ on ‘Loyalty’ is **insignificant**, therefore the above graph does not have any relevance.

5.10.3 Effect of ‘Cultivating Relationship with New Service Provider’ on correlation between Consumer Perceived Value and Consumer Loyalty.

Research Question: Whether ‘Cultivating New Relationship’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Cultivating New Relationship’

Hypothesis H₀: ‘Cultivating New Relationship’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H₁: ‘Cultivating New Relationship’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.123: Model Summary for Moderating Role of ‘Cultivating New Relationship’ on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713 ^a	.508	.497	.39798

a. Predictors: (Constant), Value_Brr3, It will also take much time in learning about or understanding the New Service Provider or develop new relationship., Value

Table 5.124: ANOVA for Moderating Role of ‘Cultivating New Relationship’ on Value - Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.255	3	7.418	46.836	.000 ^b
	Residual	21.541	136	.158		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Value_Brr3, It will also take much time in learning about or understanding the New Service Provider or develop new relationship., Value

Table 5.125: Coefficients for Moderating Role of ‘Cultivating New Relationship’ on Value - Loyalty Relationship

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.252	.250		4.998	.000
	Value	.690	.102	.672	6.798	.000
	It will also take much time in learning about or understanding the New Service Provider or develop new relationship.	.049	.040	.077	1.234	.219
	Value_Brr3	.003	.014	.021	.216	.829

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has significant impact on ‘Loyalty’. ($t = 6.798$, $B = 0.690$, $p\text{-value} = 0.000$).

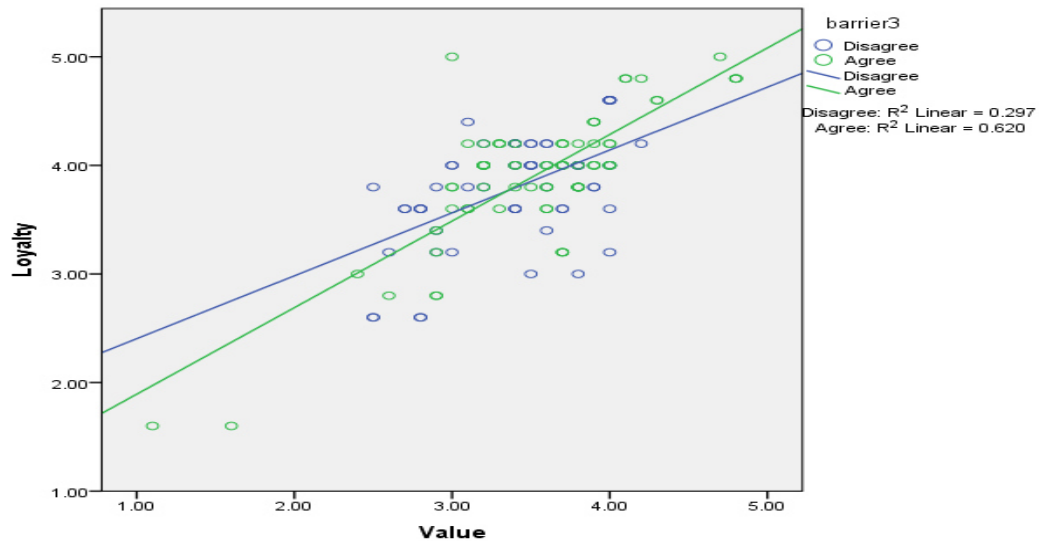
‘Cultivating New Relationship’ does not have significant impact on ‘Loyalty’. ($t = 1.234$, $B = 0.049$, $p\text{-value} = 0.219$).

Interaction of ‘Value’ & ‘Cultivating New Relationship’ also does not have significant effect on ‘Loyalty’. ($t = 0.216$, $B = 0.003$, $p\text{-value} = 0.829$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there is no moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Cultivating New Relationship’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Cultivating New Relationship’.

Graph 5.4: Group Plot for Moderating Role of ‘Cultivating New Relationship’ on Value - Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.297 and R^2 for ‘Agree’ is 0.620, but the interaction effect of ‘Cultivating New Relationship’ and ‘Value’ on ‘Loyalty’ is **insignificant**, therefore the above graph does not have any relevance.

5.10.4 Effect of ‘Availability of few Alternatives to provide services’ on relationship between Consumer Perceived Value and Consumer Loyalty.

Research Question: Whether ‘Few Alternatives’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Few Alternatives’

Hypothesis H_0 : ‘Few Alternatives’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H_1 : ‘Few Alternatives’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.126: Model Summary for Moderating Role of ‘Few Alternatives’ on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.736 ^a	.541	.531	.38444

a. Predictors: (Constant), Value_Brr4, Value, There are few alternatives to provide for Services in Power Distribution Sector.

Table 5.127: ANOVA for Moderating Role of ‘Few Alternatives’ on Value - Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.695	3	7.898	53.441	.000 ^b
	Residual	20.100	136	.148		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Value_Brr4, Value, There are few alternatives to provide for Services in Power Distribution Sector.

Table 5.128: Coefficients for Moderating Role of ‘Few Alternatives’ on Value - Loyalty Relationship

coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.737	.714		-1.031	.304
	Value	1.245	.203	1.211	6.127	.000
	There are few alternatives to provide for Services in Power Distribution Sector.	.628	.205	.951	3.062	.003
	Value_Brr4	-.158	.058	-1.049	-2.738	.007

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has significant impact on ‘Loyalty’. ($t = 6.127$, $B = 1.245$, $p\text{-value} = 0.000$).

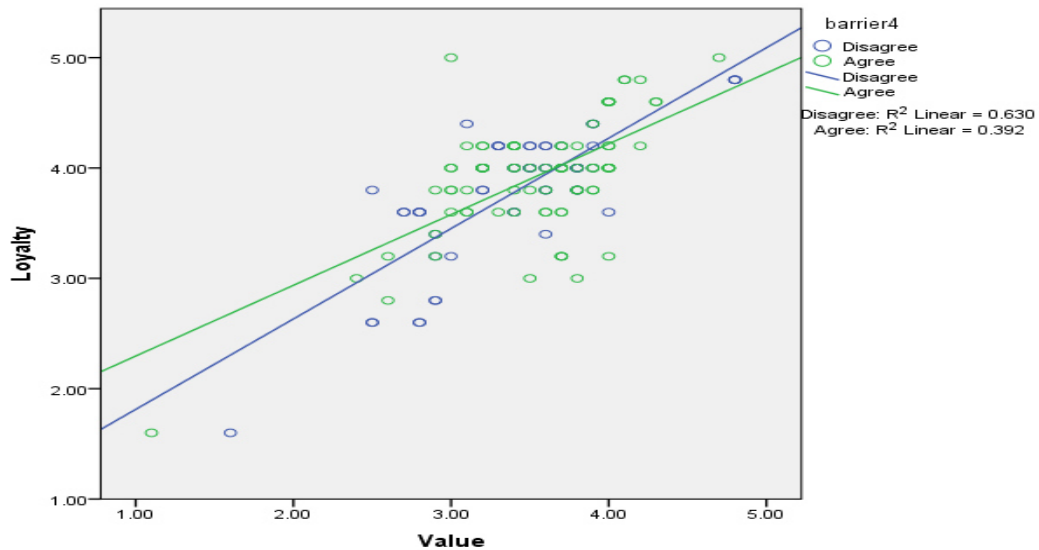
‘Few Alternatives’ has significant impact on ‘Loyalty’. ($t = 3.062$, $B = 0.628$, $p\text{-value} = 0.003$).

Interaction of ‘Value’ & ‘Few Alternatives’ also has significant effect on ‘Loyalty’. ($t = -2.738$, $B = -0.158$, $p\text{-value} = 0.007$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Few Alternatives’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Few Alternatives’.

Graph 5.5: Group Plot for Moderating Role of ‘Few Alternatives’ on Value - Loyalty Relationship



From the above it is observed that R² for ‘Disagree’ is 0.630 and R² for ‘Agree’ is 0.392, this proves that the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Few Alternatives’, hence ‘Few Alternatives’ influences the relationship between ‘Value’ and ‘Loyalty’.

5.10.5 Effect of ‘Lack of Better Alternatives to provide Services’ on relationship between Consumer Perceived Value and Consumer Loyalty.

Research Question: Whether ‘Lack of Better Alternatives’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Lack of Better Alternatives’

Hypothesis H₀: ‘Lack of Better Alternatives’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H₁: ‘Lack of Better Alternatives’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.129: Model Summary for Moderating Role of ‘Lack of Better Alternatives’ on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.746 ^a	.557	.547	.37783

a. Predictors: (Constant), Value_Brr5, Value, We don't find a better alternative that can provide Services to us.

Table 5.130: ANOVA for Moderating Role of ‘Lack of Better Alternatives’ on Value - Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.381	3	8.127	56.930	.000 ^b
	Residual	19.414	136	.143		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Value_Brr5, Value, We don't find a better alternative that can provide Services to us.

Table 5.131: Coefficients for Moderating Role of ‘Lack of Better Alternatives’ on Value - Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.846	.640		-1.322	.188
	Value	1.275	.181	1.241	7.029	.000
	We don't find a better alternative that can provide Services to us.	.736	.199	1.312	3.690	.000
	Value_Brr5	-.186	.055	-1.415	-3.355	.001

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has significant impact on ‘Loyalty’. ($t = 7.029$, $B = 1.275$, $p\text{-value} = 0.000$).

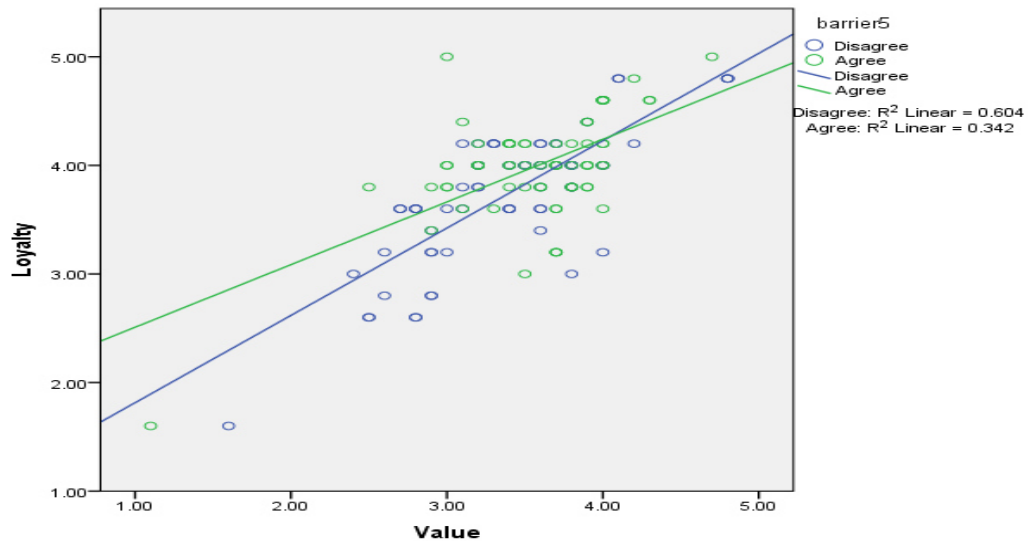
‘Lack of Better Alternatives’ has significant impact on ‘Loyalty’. ($t = 3.690$, $B = 0.736$, $p\text{-value} = 0.000$).

Interaction of ‘Value’ & ‘Lack of Better Alternatives’ also has significant effect on ‘Loyalty’. ($t = -3.355$, $B = -0.186$, $p\text{-value} = 0.001$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Lack of Better Alternatives’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Lack of Better Alternatives’.

Graph 5.6: Group Plot for Moderating Role of ‘Lack of Better Alternatives’ on Value - Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.604 and R^2 for ‘Agree’ is 0.342, this proves that the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Lack of Better Alternatives’, hence ‘Lack of Better Alternatives’ influences the relationship between ‘Value’ and ‘Loyalty’.

5.10.6 Effect of ‘Compassion with present Service Provider’ on relationship between Consumer Perceived Value and Consumer Loyalty

Research Question: Whether ‘Compassion with present Service Provider’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Compassion with present Service Provider’

Hypothesis H₀: ‘Compassion with present Service Provider’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H₁: ‘Compassion with present Service Provider’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.132 : Model Summary for Moderating Role of ‘Compassion with present Service Provider’ on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.791 ^a	.626	.618	.34711

- a. Predictors: (Constant), Value_Brr6, We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future., Value

Table 5.133: ANOVA for Moderating Role of ‘Compassion with present Service Provider’ on Value - Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.410	3	9.137	75.832	.000 ^b
	Residual	16.386	136	.120		
	Total	43.795	139			

- a. Dependent Variable: Loyalty

- b. Predictors: (Constant), Value_Brr6, We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future., Value

Table 5.134: Coefficients for Moderating Role of ‘Compassion with present Service Provider’ on Value - Loyalty Relationship

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.095	.224		9.332	.000
	Value	.178	.099	.173	1.803	.074
	We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.	-.034	.030	-.066	-1.152	.251
	Value_Brr6	.093	.014	.663	6.670	.000

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has **no significant** impact on ‘Loyalty’. ($t=1.803$, $B = 0.178$, $p\text{-value} = 0.074$).

‘Compassion with present Service Provider’ also has **no significant** impact on ‘Loyalty’. ($t = -1.152$, $B = -0.034$, $p\text{-value} = 0.251$).

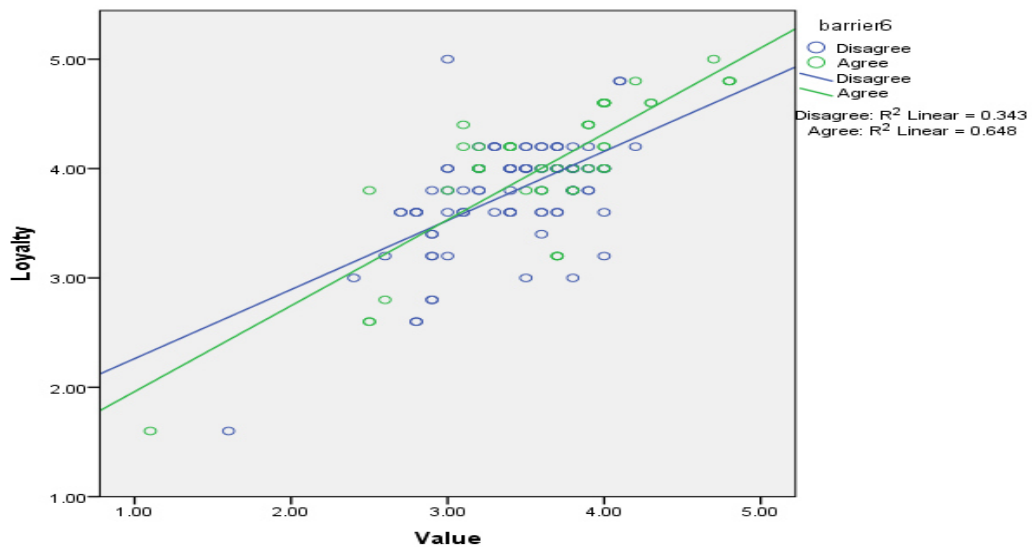
Interaction of ‘Value’ & ‘Compassion with present Service Provider’ has **significant** effect on ‘Loyalty’. ($t = 6.670$, $B = 0.093$, $p\text{-value} = 0.000$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is **moderation effect**. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Compassion with present Service Provider’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A

group plot is constructed to see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Compassion with present Service Provider’.

Graph 5.7: Group Plot for Moderating Role of ‘Compassion with Present Service Provider’ on Value - Loyalty Relationship



From the above it is observed that R² for ‘Disagree’ is 0.343 and R² for ‘Agree’ is 0.648, this proves that the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Compassion with present Service Provider’, hence ‘Compassion with present Service Provider’ influences the relationship between ‘Value’ and ‘Loyalty’.

5.10.7 Effect of ‘Loyalty with the present Service Provider’ on correlation between Consumer Perceived Value and Consumer Loyalty.

Research Question: Whether ‘Loyalty with the present Service Provider’ has a moderating role on the relationship between ‘Perceived Value’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Value’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Loyalty with the present Service Provider’

Hypothesis H₀: ‘Loyalty with the present Service Provider’ does not influence the relationship between ‘Value’ and ‘Loyalty’

Hypothesis H₁: ‘Loyalty with the present Service Provider’ influences the relationship between ‘Value’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.135: Model Summary for Moderating Role of ‘Loyalty with the present Service Provider’ on Value - Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 ^a	.535	.524	.38707

- a. Predictors: (Constant), Value_Brr7, Value, I have a sense of loyalty with my existing service provider that is MSEDCL.

Table 5.136: ANOVA for Moderating Role of ‘Loyalty with the present Service Provider’ on Value - Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.420	3	7.807	52.107	.000 ^b
	Residual	20.376	136	.150		
	Total	43.795	139			

- a. Dependent Variable: Loyalty

- b. Predictors: (Constant), Value_Brr7, Value, I have a sense of loyalty with my existing service provider that is MSEDCL.

Table 5.137: Coefficients for Moderating Role of ‘Loyalty with the present Service Provider’ on Value - Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.919	.604		1.521	.131
	Value	.682	.193	.664	3.524	.001
	I have a sense of loyalty with my existing service provider that is MSEDCL.	.232	.165	.317	1.409	.161
	Value_Brr7	-.023	.048	-.162	-.465	.643

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Value’ has **significant** impact on ‘Loyalty’. ($t = 3.524$, $B = 0.682$, $p\text{-value} = 0.001$).

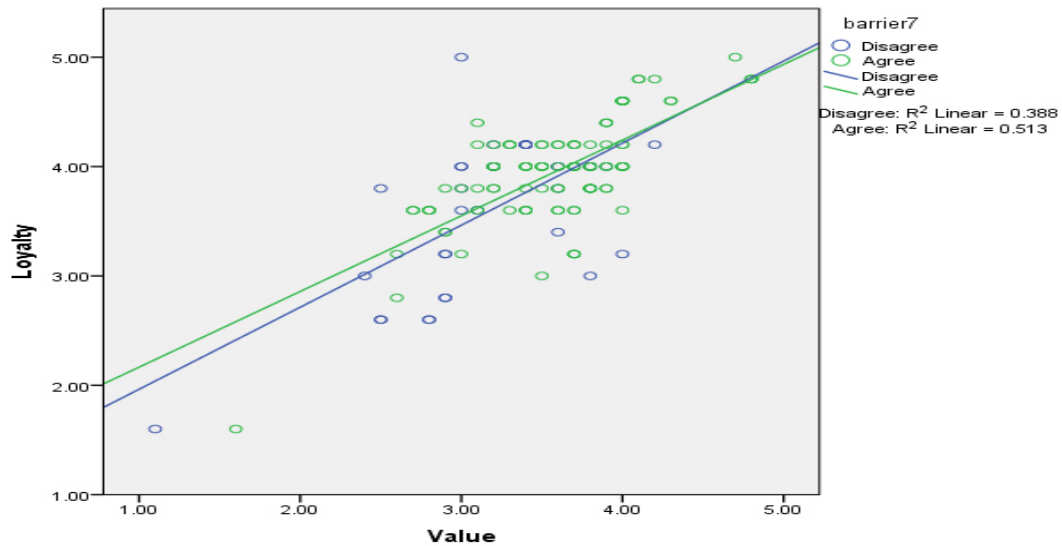
‘Loyalty with the present Service Provider’ **does not have significant** impact on ‘Loyalty’. ($t = 1.409$, $B = 0.232$, $p\text{-value} = 0.161$).

Interaction of ‘Value’ & ‘Loyalty with the present Service Provider’ also **does not have significant effect** on ‘Loyalty’. ($t = -0.465$, $B = -0.023$, $p\text{-value} = 0.643$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there is no moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Loyalty with the present Service Provider’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Value’ and ‘Loyalty’ is different across the two levels of ‘Loyalty with the present Service Provider’.

Graph 5.8: Group Plot for Moderating Role of ‘Loyalty with the Present Service Provider’ on Value - Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.388 and R^2 for ‘Agree’ is 0.513, but the interaction effect of ‘Loyalty with the present Service Provider’ and ‘Value’ on ‘Loyalty’ is **insignificant**, therefore the above graph does not have any relevance.

5.10.8 Effect of Switching Cost on relationship between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether ‘Switching Cost’ has a moderating role on the relationship between ‘Satisfaction’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Satisfaction’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Switching Cost’

Hypothesis H_0 : ‘Switching Cost’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Switching Cost’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.138: Model Summary for Moderating Role of ‘Switching Cost’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.632 ^a	.400	.386	.43968

a. Predictors: (Constant), sat_brr1, Satisfaction, The financial cost associated with the Switching is considerable (CSS, Transmission Charges, Wheeling Charges, Metering Cost, Additional Surcharge etc)

Table 5.139: ANOVA for Moderating Role of ‘Switching Cost’ on Satisfaction – Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.504	3	5.835	30.182	.000 ^b
	Residual	26.291	136	.193		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), sat_brr1, Satisfaction, The financial cost associated with the Switching is considerable(CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)

Table 5.140: Coefficients for Moderating Role of ‘Switching Cost’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.032	.467		2.211	.029
	Satisfaction	.659	.142	.938	4.655	.000
	The financial cost associated with the Switching is considerable(CSS , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)	.528	.142	.831	3.708	.000
	sat_brr1	-.102	.043	-.748	-2.401	.018

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has significant impact on ‘Loyalty’. (t = 4.655 , B = 0.659, p-value = 0.000).

‘Switching Cost’ has significant impact on ‘Loyalty’. (t = 3.708 , B = 0.528, p-value = 0.000).

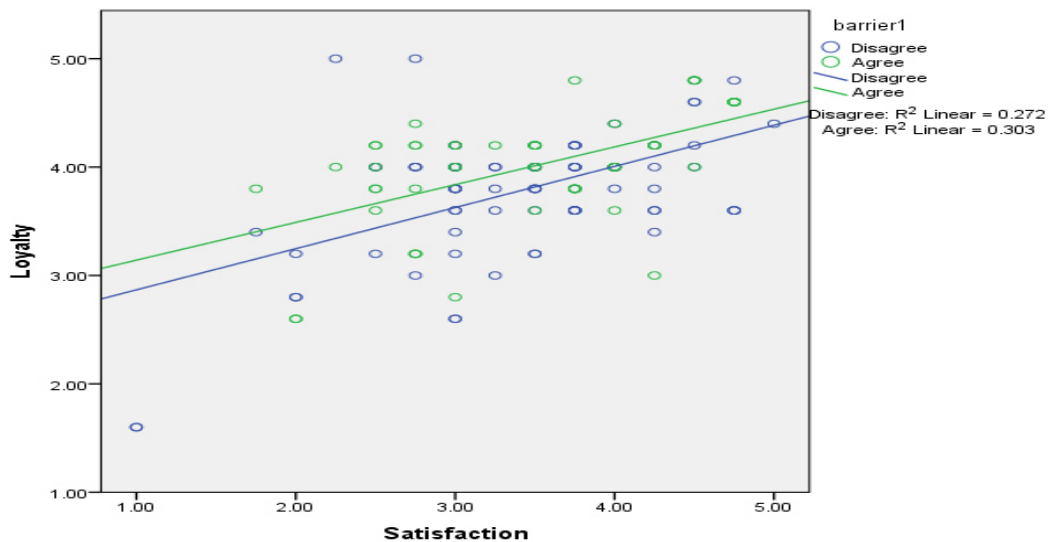
Interaction of ‘Satisfaction’ & ‘Switching Cost’ also has significant effect on ‘Loyalty’. (t = -2.401 , B = -0.102, p-value = 0.018).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is moderation effect. In order to verify if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the

different levels of 'Switching Cost', the interval scale variable is converted in to categorical variable with two response options 'Agree' and 'Disagree'. A group plot is constructed to see if the relationship between 'Satisfaction' and 'Loyalty' is different across the two levels of 'Switching Cost'.

Graph 5.9: Group Plot for Moderating Role of 'Switching Cost' on Satisfaction – Loyalty Relationship



From the above it is observed that R² for 'Disagree' is 0.272 and R² for 'Agree' is 0.303, this proves that the relationship between 'Satisfaction' and 'Loyalty' is different across the two levels of 'Switching Cost', hence 'Switching Cost' influences the relationship between 'Satisfaction' and 'Loyalty'.

5.10.9 Effect of 'Time and Effort in Searching New Service Provider' on relationship between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether 'Time & Effort' has a moderating role on the relationship between 'Satisfaction' and 'Loyalty'?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – 'Satisfaction',

Dependent Variable – 'Loyalty', Moderator Variable – 'Time & Effort'

Hypothesis H₀: ‘Time & Effort’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Time & Effort’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.141: Model Summary for Moderating Role of ‘Time & Effort’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.614 ^a	.376	.363	.44812

a. Predictors: (Constant), sat_brr2, Satisfaction, The effort involved in searching for a New Service Provider is high and time consuming.

Table 5.142: ANOVA for Moderating Role of ‘Time & Effort’ on Satisfaction – Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.486	3	5.495	27.365	.000 ^b
	Residual	27.310	136	.201		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), sat_brr2, Satisfaction, The effort involved in searching for a New Service Provider is high and time consuming.

Table 5.143: Coefficients for Moderating Role of ‘Time & Effort’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.186	.635		3.444	.001
	Satisfaction	.279	.186	.398	1.504	.135
	The effort involved in searching for a New Service Provider is high and time consuming.	.132	.179	.203	.742	.459
	sat_brr2	.023	.052	.166	.433	.665

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has **no significant** impact on ‘Loyalty’. ($t = 1.504$, $B = 0.279$, $p\text{-value} = 0.135$).

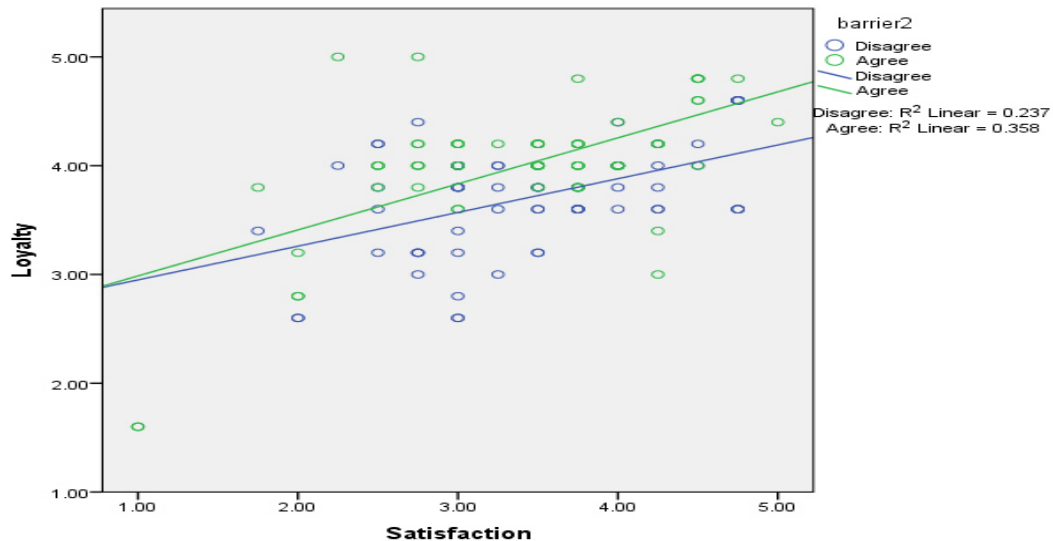
‘Time & Effort’ **does not have significant impact** on ‘Loyalty’. ($t = 0.742$, $B = 0.132$, $p\text{-value} = 0.459$).

Interaction of ‘Satisfaction’ & ‘Time & Effort’ **also does not have significant effect** on ‘Loyalty’. ($t = 0.433$, $B = 0.023$, $p\text{-value} = 0.665$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there no moderation effect. In order to verify if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the different levels of ‘Time & Effort’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Time & Effort’.

Graph 5.10: Group Plot for Moderating Role of ‘Time & Effort’ on Satisfaction – Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.237 and R^2 for ‘Agree’ is 0.358, but the interaction effect of ‘Time & Effort’ and ‘Satisfaction’ on ‘Loyalty’ is **insignificant**, therefore the above graph does not have any relevance.

5.10.10 Effect of ‘Cultivating Relationship with New Service Provider’ on correlation between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether ‘Cultivating New Relationship’ has a moderating role on the relationship between ‘Satisfaction’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Satisfaction’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Cultivating New Relationship’

Hypothesis H₀: ‘Cultivating New Relationship’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Cultivating New Relationship’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.144: Model Summary for Moderating Role of ‘Cultivating New Relationship’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.574 ^a	.329	.314	.46487

- a. Predictors: (Constant), sat_brr3, Satisfaction, It will also take much time in learning about or understanding the New Service Provider or develop new relationship.

Table 5.145: ANOVA for Moderating Role of ‘Cultivating New Relationship’ on Satisfaction – Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.405	3	4.802	22.220	.000 ^b
	Residual	29.390	136	.216		
	Total	43.795	139			

- a. Dependent Variable: Loyalty.
 b. Predictors: (Constant), sat_brr3, Satisfaction, It will also take much time in learning about or understanding the New Service Provider or develop new relationship.

Table 5.146: Coefficients for Moderating Role of ‘Cultivating New Relationship’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.355	.651		3.617	.000
	Satisfaction	.291	.186	.414	1.565	.120
	It will also take much time in learning about or understanding the New Service Provider or develop new relationship.	.081	.178	.127	.454	.650
	sat_brr3	.019	.050	.148	.381	.704

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has **no significant impact** on ‘Loyalty’. (t = 1.565, B = 0.291, p-value = 0.120).

‘Cultivating New Relationship’ **does not have significant impact** on ‘Loyalty’. (t = 0.454, B = 0.081, p-value = 0.650).

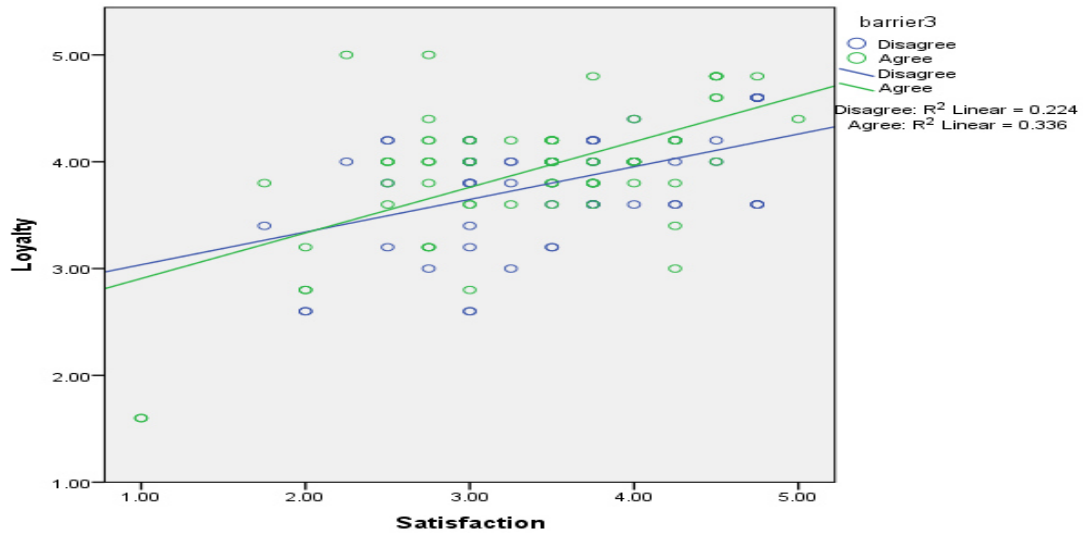
Interaction of ‘Satisfaction’ & ‘Cultivating New Relationship’ also **does not have significant effect** on ‘Loyalty’. (t = 0.381, B = 0.019, p-value = 0.704).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there is no moderation effect. In order to verify if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the different levels of ‘Cultivating New Relationship’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A

group plot is constructed to see if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Cultivating New Relationship’.

Graph 5.11: Group Plot for Moderating Role of ‘Cultivating New Relationship’ on Satisfaction – Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.224 and R^2 for ‘Agree’ is 0.336, but the interaction effect of ‘Cultivating New Relationship’ and ‘Satisfaction’ on ‘Loyalty’ is **insignificant**, therefore the above graph does not have any relevance.

5.10.11 Effect of ‘Availability of few Alternatives to provide services’ on relationship between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether ‘Few Alternatives’ has a moderating role on the relationship between ‘Satisfaction’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Satisfaction’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Few Alternatives’

Hypothesis H_0 : ‘Few Alternatives’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Few Alternatives’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.147: Model Summary for Moderating Role of ‘Few Alternatives’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569 ^a	.323	.308	.46677

a. Predictors: (Constant), sat_brr4, There are few alternatives to provide for Services in Power Distribution Sector., Satisfaction

Table 5.148: ANOVA for Moderating Role of ‘Few Alternatives’ on Satisfaction – Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.164	3	4.721	21.670	.000 ^b
	Residual	29.631	136	.218		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), sat_brr4, There are few alternatives to provide for Services in Power Distribution Sector., Satisfaction

Table 5.149: Coefficients for Moderating Role of ‘Few Alternatives’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.152	.579		1.989	.049
	Satisfaction	.708	.176	1.008	4.010	.000
	There are few alternatives to provide for Services in Power Distribution Sector.	.431	.164	.653	2.639	.009
	sat_brr4	-.102	.050	-.736	-2.056	.042

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has **significant** impact on ‘Loyalty’. (t = 4.010, B = 0.708, p-value = 0.000).

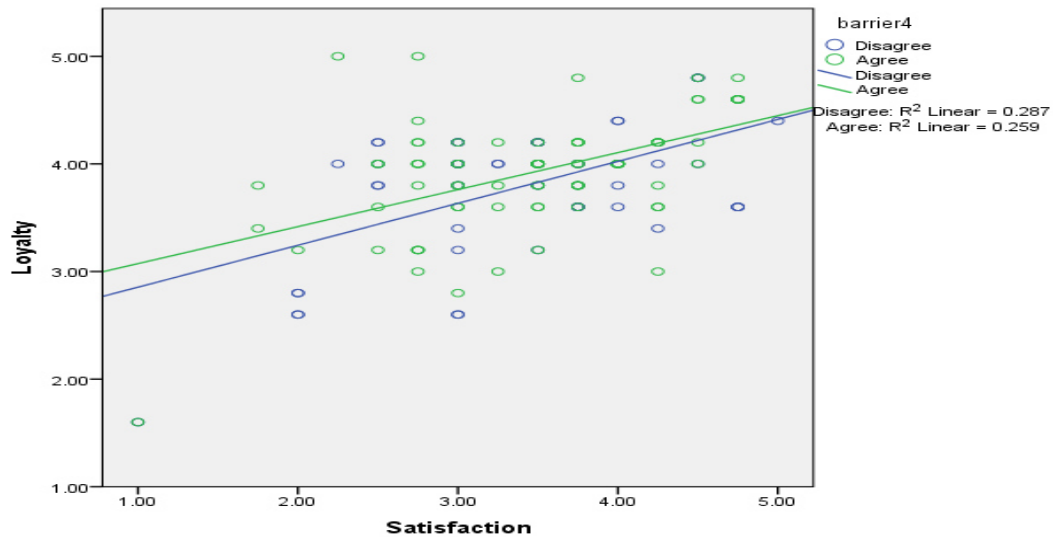
‘Few Alternatives’ has **significant** impact on ‘Loyalty’. (t = 2.639, B = 0.431, p-value = 0.009).

Interaction of ‘Satisfaction’ & ‘Few Alternatives’ also has **significant** effect on ‘Loyalty’. (t = -2.056, B = -0.102, p-value = 0.042).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is moderation effect. In order to verify if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the different levels of ‘Few Alternatives’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Few Alternatives’.

Graph 5.12: Group Plot for Moderating Role of ‘Few Alternatives’ on Satisfaction – Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.287 and R^2 for ‘Agree’ is 0.259, this proves that the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Few Alternatives’, hence ‘Few Alternatives’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’.

5.10.12 Effect of ‘Lack of Better Alternatives to provide Services’ on relationship between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether ‘Lack of Better Alternatives’ has a moderating role on the relationship between ‘Satisfaction’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Satisfaction’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Lack of Better Alternatives’

Hypothesis H_0 : ‘Lack of Better Alternatives’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Lack of Better Alternatives’ influences the relationship between
‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.150: Model Summary for Moderating Role of ‘Lack of Better Alternatives’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.598 ^a	.357	.343	.45494

a. Predictors: (Constant), sat_brr5, Satisfaction, We don't find a better alternative that can provide Services to us.

Table 5.151: ANOVA for Moderating Role of ‘Lack of Better Alternatives’ on Satisfaction – Loyalty Relationship

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	15.648	3	5.216	25.202	.000 ^b
Residual	28.148	136	.207		
Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), sat_brr5, Satisfaction, We don't find a better alternative that can provide Services to us.

Table 5.152: Coefficients for Moderating Role of ‘Lack of Better Alternatives’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.878	.526		1.669	.097
	Satisfaction	.777	.156	1.106	4.963	.000
	We don't find a better alternative that can provide Services to us.	.548	.155	.977	3.538	.001
	sat_brr5	-.130	.045	-1.057	-2.871	.005

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has **significant** impact on ‘Loyalty’. ($t = 4.963$, $B = 0.777$, $p\text{-value} = 0.000$).

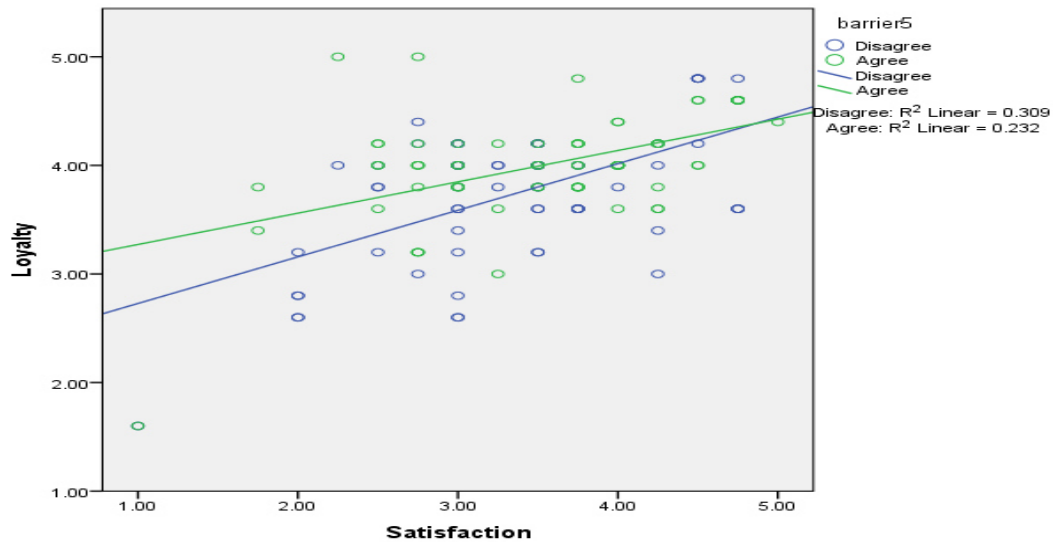
‘Lack of Better Alternatives’ has **significant** impact on ‘Loyalty’. ($t = 3.538$, $B = 0.548$, $p\text{-value} = 0.001$).

Interaction of ‘Satisfaction’ & ‘Lack of Better Alternatives’ also has **significant** effect on ‘Loyalty’. ($t = -2.871$, $B = -0.130$, $p\text{-value} = 0.005$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables interact we conclude that there is moderation effect. In order to verify if the relationship between ‘Value’ and ‘Loyalty’ is different across the different levels of ‘Lack of Better Alternatives’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Lack of Better Alternatives’.

Graph 5.13: Group Plot for Moderating Role of ‘Lack of Better Alternatives’ on Satisfaction – Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.309 and R^2 for ‘Agree’ is 0.232, this proves that the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Lack of Better Alternatives’, hence ‘Lack of Better Alternatives’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’.

5.10.13 Effect of ‘Compassion with present Service Provider’ on relationship between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether ‘Compassion with present Service Provider’ has a moderating role on the relationship between ‘Satisfaction’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Satisfaction’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Compassion with present Service Provider’

Hypothesis H₀: ‘Compassion with present Service Provider’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Compassion with present Service Provider’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.153: Model Summary for Moderating Role of ‘Compassion with the present Service Provider’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540 ^a	.292	.276	.47750

a. Predictors: (Constant), sat_brr6, Satisfaction, We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.

Table 5.154: ANOVA for Moderating Role of ‘Compassion with the present Service Provider’ on Satisfaction – Loyalty Relationship

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	12.787	3	4.262	18.694	.000 ^b
Residual	31.009	136	.228		
Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), sat_brr6, Satisfaction, We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.

Table 5.155: Coefficients for Moderating Role of ‘Compassion with the Present Service Provider’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.686	.464		5.794	.000
	Satisfaction	.286	.133	.408	2.150	.033
	We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.	-.003	.148	-.007	-.024	.981
	sat_brr6	.020	.041	.180	.491	.624

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has **significant** impact on ‘Loyalty’. ($t=2.150$, $B = 0.286$, $p\text{-value} = 0.033$).

‘Compassion with present Service Provider’ has **no significant** impact on ‘Loyalty’. ($t = -0.024$, $B = -0.003$, $p\text{-value} = 0.981$).

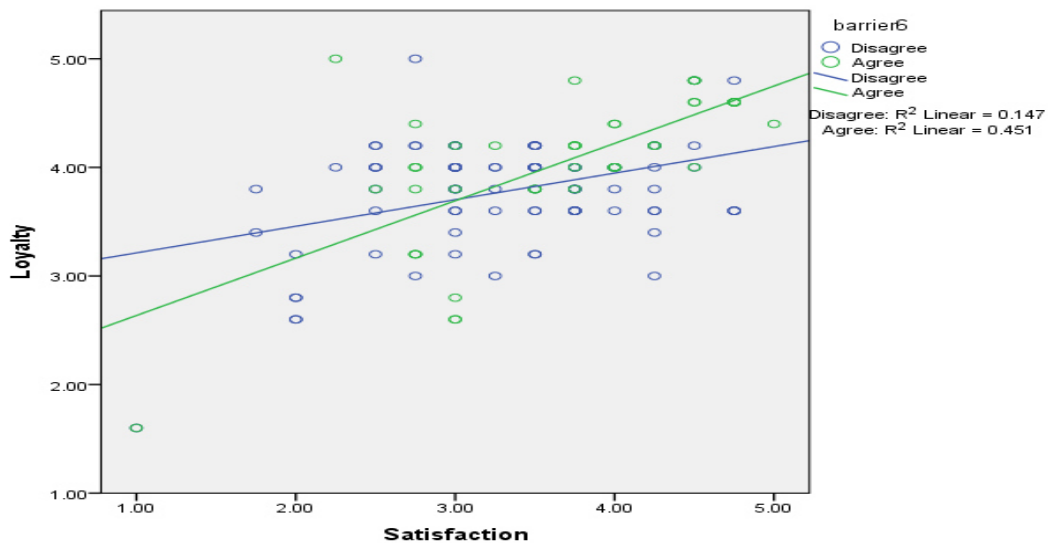
Interaction of ‘Satisfaction’ & ‘Compassion with present Service Provider’ has **no significant** effect on ‘Loyalty’. ($t = 0.491$, $B = 0.020$, $p\text{-value} = 0.624$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there is **no moderation effect**. In order to verify if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the different levels of ‘Compassion with present Service Provider’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and

‘Disagree’. A group plot is constructed to see if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Compassion with present Service Provider’.

Graph 5.14: Group Plot for Moderating Role of ‘Compassion with the Present Service Provider’ on Satisfaction – Loyalty Relationship



From the above it is observed that R² for ‘Disagree’ is 0.147 and R² for ‘Agree’ is 0.451, but the interaction effect of ‘Compassion with present Service Provider’ and ‘Satisfaction’ on ‘Loyalty’ is **insignificant**, hence the above graph has no relevance.

5.10.14 Effect of ‘Loyalty with the present Service Provider’ on correlation between Consumer Satisfaction and Consumer Loyalty

Research Question: Whether ‘Loyalty with the present Service Provider’ has a moderating role on the relationship between ‘Satisfaction’ and ‘Loyalty’?

Statistical Test: Regression Analysis for Moderating Effect.

Variables and Measurement: Independent Variable – ‘Satisfaction’,

Dependent Variable – ‘Loyalty’, Moderator Variable – ‘Loyalty with the present Service Provider’

Hypothesis H₀: ‘Loyalty with the present Service Provider’ does not influence the relationship between ‘Satisfaction’ and ‘Loyalty’

Hypothesis H₁: ‘Loyalty with the present Service Provider’ influences the relationship between ‘Satisfaction’ and ‘Loyalty’

The statistical analysis tables considering the underlying variables are displayed below.

Table 5.156: Model Summary for Moderating Role of ‘Loyalty with the present Service Provider’ on Satisfaction – Loyalty Relationship

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.404	.391	.43800

a. Predictors: (Constant), sat_brr7, I have a sense of loyalty with my existing service provider that is MSEDCL., Satisfaction

Table 5.157: ANOVA for Moderating Role of ‘Loyalty with the present Service Provider’ on Satisfaction – Loyalty Relationship

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.705	3	5.902	30.764	.000 ^b
	Residual	26.090	136	.192		
	Total	43.795	139			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), sat_brr7, I have a sense of loyalty with my existing service provider that is MSEDCL., Satisfaction

Table 5.158: Coefficients for Moderating Role of ‘Loyalty with the present Service Provider’ on Satisfaction – Loyalty Relationship

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.351	.548		2.468	.015
	Satisfaction	.437	.175	.623	2.498	.014
	I have a sense of loyalty with my existing service provider that is MSEDCL.	.454	.147	.620	3.079	.003
	sat_brr7	-.053	.044	-.443	-1.195	.234

a. Dependent Variable: Loyalty

From the above statistical table it may be inferred that ‘Satisfaction’ has **significant** impact on ‘Loyalty’. ($t = 2.498$, $B = 0.437$, $p\text{-value} = 0.014$).

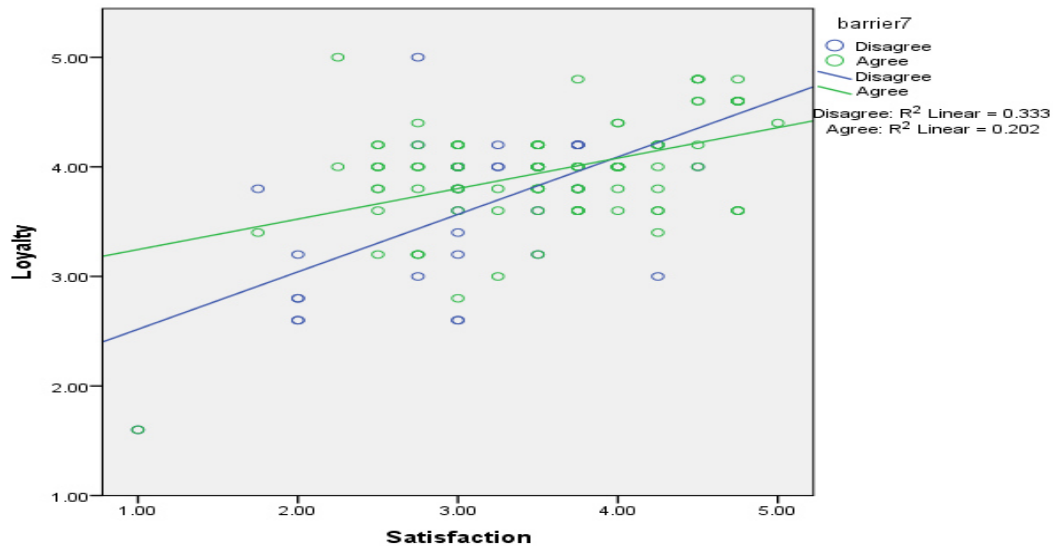
‘Loyalty with the present Service Provider’ **also has significant** impact on ‘Loyalty’. ($t = 3.079$, $B = 0.454$, $p\text{-value} = 0.003$).

Interaction of ‘Satisfaction’ & ‘Loyalty with the present Service Provider’ **does not have significant effect** on ‘Loyalty’. ($t = -1.195$, $B = -0.053$, $p\text{-value} = 0.234$).

In the above table, ‘t’ is Test of Significance and ‘B’ is Regression in Weight.

Since the two variables do not interact we conclude that there is no moderation effect. In order to verify if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the different levels of ‘Loyalty with the present Service Provider’, the interval scale variable is converted in to categorical variable with two response options ‘Agree’ and ‘Disagree’. A group plot is constructed to see if the relationship between ‘Satisfaction’ and ‘Loyalty’ is different across the two levels of ‘Loyalty with the present Service Provider’.

Graph 5.15: Group Plot for Moderating Role of ‘Loyalty with the Present Service Provider’ on Satisfaction – Loyalty Relationship



From the above it is observed that R^2 for ‘Disagree’ is 0.333 and R^2 for ‘Agree’ is 0.202, but the interaction effect of ‘Loyalty with the present Service Provider’ and ‘Satisfaction’ on ‘Loyalty’ is **insignificant**, therefore the above graph does not have any relevance.

5.11 Sector wise Analysis

The sector wise analysis is conducted so as to understand the variation of Satisfaction, Perceived Value, Loyalty, Brand Image, Risk taking ability and Quality consciousness with respect to Cost. So considering each of the variables mentioned above, the analysis is carried out to verify whether the variation is across the sectors and if the answer is yes, then what the variation is? Before going in to the detailed analysis, the sector wise breakup for the sample is represented below.

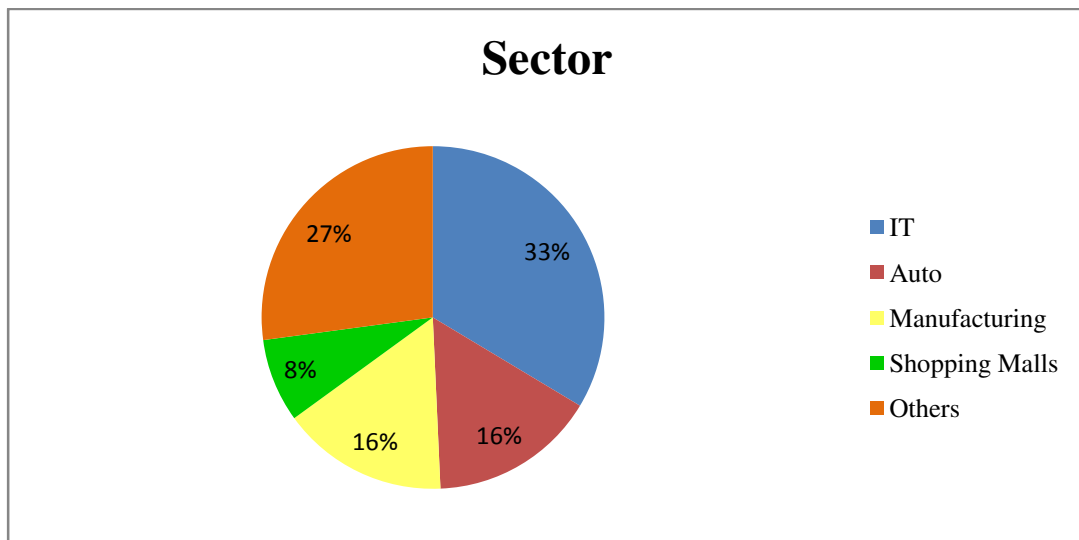
Table 5.159: Sector wise Breakup for the Sample

Sr	Sector	Frequency	Percent	Cumulative %
1	Process	7	5.0	5.0
2	Chemical	1	.7	5.7
3	IT Services	47	33.6	39.3
4	Manufacturing	22	15.7	55.0
5	Auto	22	15.7	70.7

Sr	Sector	Frequency	Percent	Cumulative %
6	Other Services	1	.7	71.4
7	Education	2	1.4	72.9
8	Construction	8	5.7	78.6
9	Health	1	.7	79.3
10	Public Services	5	3.6	82.9
11	Hospitality	7	5.0	87.9
12	Textile	1	.7	88.6
13	Shopping Mall	11	7.9	96.4
14	Research & Testing	3	2.1	98.6
15	Defense	1	.7	99.3
16	Pharmacy	1	.7	100.0
17	Total	140	100.0	

From the above table it is clear that the IT, Auto, Manufacturing and Shopping Malls are the top four sectors which constitute 72.9 % of the sample and with individual % representation as 33.6%, 15.7%, 15.7 % & 7.9 % respectively. So these four sectors will be considered for analysis and the remaining sectors will be grouped combine under 'Others'. Therefore the analysis will be amongst five groups namely IT, Auto, Manufacturing, Shopping Malls and Others. The sector wise breakup points out that the Industry in and around Pune are dominated by IT Sector followed by Auto & Manufacturing Sector. The pie chart for the five sectors is displayed below.

Pie Chart 5.1: The Sample Representation – Sector wise



The sector wise analysis for the variables Satisfaction, Perceived Value, Brand Image, Loyalty, Risk taking ability and Quality consciousness with respect to Cost is as below.

Sector wise analysis for ‘Satisfaction’

Purpose: - To study the sectors IT , Manufacturing, Auto, Others and Shopping Mall differ over ‘Satisfaction’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - Industry type i.e. ‘Sector’ is the Independent Variable (I.V.) with five response options namely IT, Manufacturing, Auto, Shopping Malls and Others.

Dependent Variable: - ‘Satisfaction’ is originally measured using following six items.

Table 5.160: Items considered for measuring ‘Satisfaction’

Item No.	Item Description
1	I am happy with the 'Supply Quality' offered by the MSEDCL.
2	The Supply Provided by MSEDCL is with minimum interruptions.
3	The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.
4	'Load Shedding', is not a problem associated with MSEDCL Services.
5	It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.
6	I feel comfortable in approaching the MSEDCL staff in case of any problem.

The above six items are converted in a single item scale using transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H₀: The five industry groups do not differ over ‘Satisfaction’.

H₁: At least one of the groups is different from the rest.

Level of Significance $\alpha = 0.05$.

The tabulation of the SPSS results for One Way ANOVA is as below.

Table 5.161: Results of One-Way ANOVA for analyzing ‘Satisfaction’ Sector wise

Industry Type (Sector)	Mean	Std. Dev.	Levene Statistic	F	P - Value	Result
IT	3.6223	.74795	L = (4, 135) = 0.751	F = (4, 135) = 3.20	0.015	Significant
Manufacturing	2.9205	.86735				
Auto	3.4545	.81517				
Others	3.5000	.79483				
Shopping Malls	3.3636	.47911				
Total	3.4321	.79953				

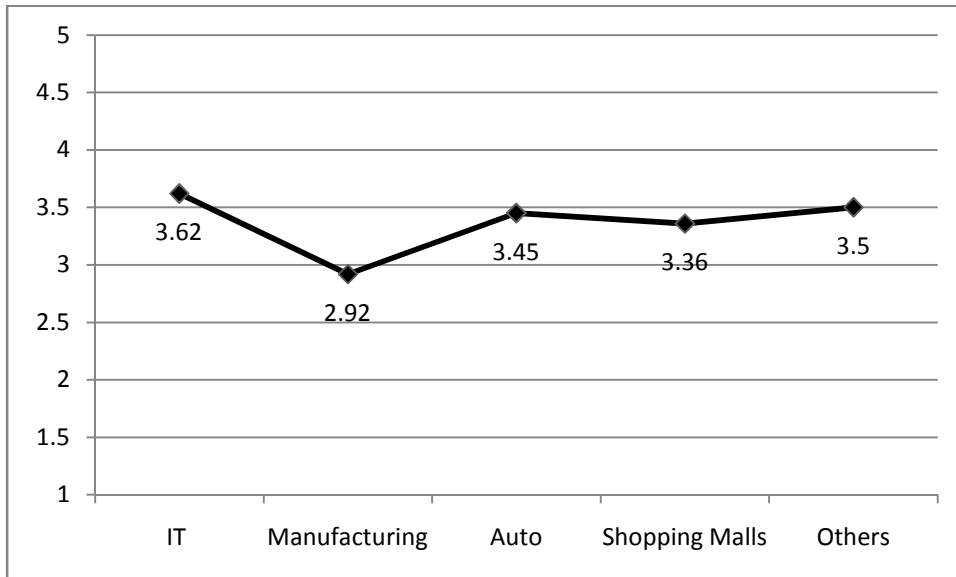
The result in the above table is ‘Significant’, which means the Alternate Hypothesis H_1 is **accepted** i.e. the ‘Satisfaction’ is different in at least one of the groups. From the above table it is clear that the ‘Mean’ for IT Sector is the highest with a value of 3.6223. the ‘Mean’ values for ‘Auto’, ‘Others’ is above average value of ‘Mean’ i.e. 3.4321 and ‘Mean’ value for ‘Shopping Mall’ is 3.3636 which is also close to the average value of the Mean which indicates that the ‘Satisfaction’ for IT, Auto, Others and Shopping Malls is **favorable**. The ‘Mean’ value for ‘Manufacturing’ sector in the above table is 2.9205, which points out that the ‘Satisfaction’, in this sector is **adverse**.

The table below also tells that the ‘Mean’ value of IT and Manufacturing differ considerably and thus fall in different subsets. The values are marked in red color.

Table 5.162: Hochberg Homogeneous Subsets (Satisfaction)

Industry type	N	Subset for alpha = 0.05	
		1	2
Manufacturing	22	2.9205	
Shopping Malls	11	3.3636	3.3636
Auto	22	3.4545	3.4545
Others	38	3.5000	3.5000
IT	47		3.6223
Sig.		.138	.956

Graph 5.16: Graphical Representation of the Sector wise Mean for ‘Satisfaction’



Sector wise analysis for ‘Brand Image’

Purpose: - To study the sectors IT , Manufacturing, Auto, Others and Shopping Mall differ over ‘Brand Image’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - Industry type i.e. ‘Sector’ is the Independent Variable (I.V.) with five response options namely IT, Manufacturing, Auto, Shopping Malls and Others.

Dependent Variable: - ‘Brand Image’ is originally measured using following six items.

Table 5.163: Items Considered for Measuring ‘Brand Image’

Item No.	Item Description
1	The Business Practices of MSEDCL are Ethical and Transparent.
2	MSEDCL is the most trusted Service provider as compared to its Competitors.
3	MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.
4	The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.

Item No.	Item Description
5	Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.
6	The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.

The above six items are converted in a single item scale using transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H_0 : The five industry groups do not differ over ‘Brand Image’.

H_1 : At least one of the groups is different from the rest.

Level of Significance $\alpha = 0.05$.

The tabulation of the SPSS results for One Way ANOVA is as below.

Table 5.164: Results of One-Way ANOVA for analyzing ‘Brand Image’ Sector wise

Industry Type (Sector)	Mean	Std. Dev.	Levene Statistic	F	P - Value	Result
IT	3.8050	.55747	L = (4, 135) = 0.545	F = (4, 135) = 5.166	0.001	Significant
Manufacturing	3.1818	.55135				
Auto	3.7273	.73920				
Others	3.3904	.60562				
Shopping Malls	3.5909	.66818				
Total	3.5655	.64525				

The result in the above table is ‘Significant’, which means the Alternate Hypothesis H_1 , is **accepted** i.e. the ‘Brand Image’ is different in at least one of the groups. From the above table it is clear that the ‘Mean’ for IT Sector is the highest with a value of 3.8050. The ‘Mean’ values for ‘Auto’, ‘Shopping Malls’ is above average value of ‘Mean’ i.e. 3.5655 and ‘Mean’ value for ‘Others’ and ‘Manufacturing’ are 3.3904 and 3.1818 respectively are lesser than the average value of the Mean which indicates that the ‘Brand

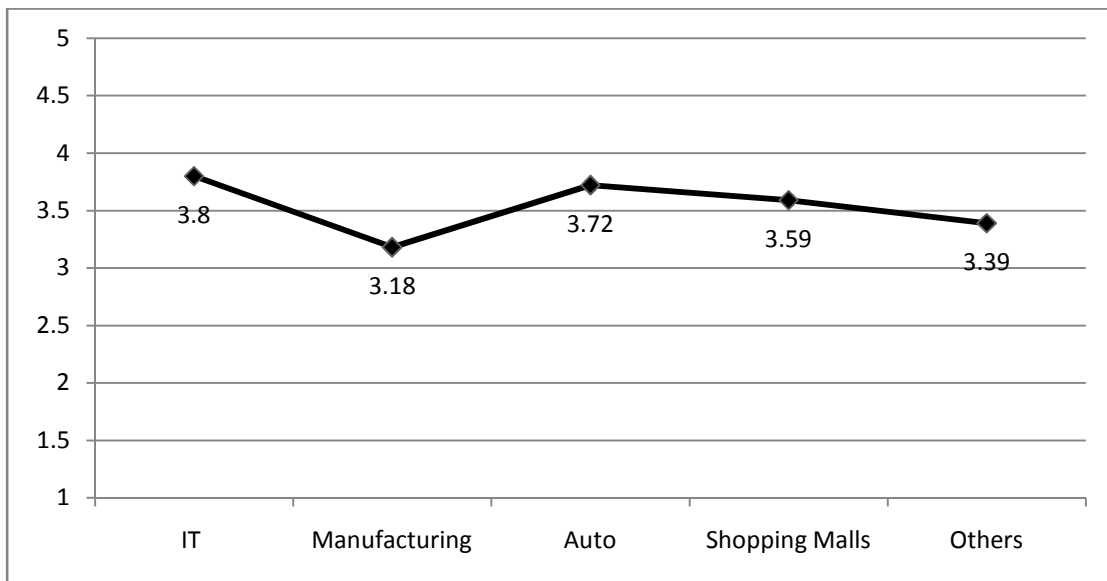
Image’ for IT, Auto, ‘Others’ and ‘Shopping Malls’ is **favorable**. The ‘Mean’ value for ‘Manufacturing’ sector in the above table is 3.1818, which points out that the ‘Brand Image’, in this sector is **moderately favorable**.

The table below also tells that the ‘Mean’ values of IT & Auto are displayed in one subset whereas the ‘Mean’ value of Manufacturing is being displayed in other subset. The values are marked in red color.

Table 5.165: Hochberg Homogeneous Subsets (Brand Image)

Industry type	N	Subset for alpha = 0.05	
		1	2
Manufacturing	22	3.1818	
Others	38	3.3904	3.3904
Shopping Malls	11	3.5909	3.5909
Auto	22		3.7273
IT	47		3.8050
Sig.		.247	.232

Graph 5.17: Graphical Representation of the Sector wise Mean for ‘Brand Image’



Sector wise analysis for ‘Loyalty’

Purpose: - To study the sectors IT , Manufacturing, Auto, Others and Shopping Mall differ over ‘Loyalty’.

Statistical Tool for Analysis: - Kruskal Wallis Test (As the Data Distribution is not Normal).

Variables for Measurement: -

Independent Variable: - Industry type i.e. ‘Sector’ is the Independent Variable (I.V.) with five response options namely IT, Manufacturing, Auto, Shopping Malls and Others.

Dependent Variable: - ‘Loyalty’ is originally measured using following Five items.

Table 5.166: Items Considered for Measuring ‘Loyalty’

Item No.	Item Description
1	We feel proud in being associated with MSEDCL as their Consumer.
2	We have a genuine relationship with MSEDCL as a Consumer.
3	Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL.
4	I convey positive 'word of mouth' publicity about my present Service Provider (MSEDCL).
5	I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion.

The above five items are converted in a single item scale using transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H₀: The five industry groups do not differ over ‘Loyalty’.

H₁: At least one of the groups is different from the rest.

Level of Significance $\alpha = 0.05$.

Table 5.167: Kruskal Wallis Test Results for Sector wise Analysis of ‘Loyalty’

Industry Type (Sector)	Mean	Std. Dev.	Chi Square	df	P - Value	Result
IT	3.9617	.50843	5.745	4	0.219	Insignificant
Manufacturing	3.7455	.61468				
Auto	3.9818	.58849				
Others	3.7737	.55832				
Shopping Malls	3.7818	.60962				
Total	3.8657	.56132				

The result in the above table is ‘Insignificant’, which means the Null Hypothesis H_0 , is **retained** i.e. the ‘Loyalty’ is almost same in all the groups. From the above table it is clear that the ‘Mean’ for ‘Auto’ Sector is the highest with a value of 3.9818. The ‘Mean’ values for ‘IT’ is 3.9617 and again the ‘Mean’ value for ‘Manufacturing’ is lowest amongst all the groups’ i.e. 3.7455. But it must be noted that the ‘Mean’ for Loyalty for all the sectors is **favorable**.

Sector wise analysis for ‘Perceived Value’

Purpose: - To study the sectors IT , Manufacturing, Auto, Others and Shopping Mall differ over ‘Perceived Value’.

Statistical Tool for Analysis: - Kruskal Wallis Test (As the Data Distribution is not Normal).

Variables for Measurement: -

Independent Variable: - Industry type i.e. ‘Sector’ is the Independent Variable (I.V.) with five response options namely IT, Manufacturing, Auto, Shopping Malls and Others.

Dependent Variable: - ‘Perceived Value’ is originally measured using following Ten items. The table is displayed below.

Table 5.168: Items Considered for Measuring ‘Value’

Item No.	Item Description
1	The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.
2	The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.
3	The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.
4	Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.
5	The working hours of MSEDCL Company are as per the Consumer convenience.
6	Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.
7	The risk associated in transactions with MSEDCL is least.
8	The quality of services offered by MSEDCL has improved significantly over last few years.
9	The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.
10	The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.

The above ten items are converted in a single item scale using transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H_0 : The five industry groups do not differ over ‘Perceived Value’.

H_1 : At least one of the groups is different from the rest.

Level of Significance $\alpha = 0.05$.

Table 5.169: Kruskal Wallis Test Results for Sector wise Analysis of ‘Value’

Industry Type (Sector)	Mean	Std. Dev.	Chi Square	df	P - Value	Result
IT	3.6362	.49757	7.483	4	0.112	Insignificant
Manufacturing	3.3091	.51354				
Auto	3.5682	.50463				
Others	3.3868	.61564				
Shopping Malls	3.3455	.51839				
Total	3.4836	.54622				

The result in the above table is ‘Insignificant’, which means the Null Hypothesis H_0 , is **retained** i.e. the ‘Perceived Value’ is almost same in all the groups. From the above table it is clear that the ‘Mean’ for ‘IT’ Sector is the highest with a value of 3.6362. The ‘Mean’ values for ‘Auto’ is 3.5682 and again the ‘Mean’ value for ‘Manufacturing’ is lowest amongst all the groups’ i.e. 3.3091. But it must be noted that the ‘Mean’ for ‘Perceived Value’ for all the sectors is **favorable**.

Sector wise analysis for ‘Quality Consciousness with respect to Cost’

Purpose: - To study the sectors IT , Manufacturing, Auto, Others and Shopping Mall differ over ‘Quality Consciousness with respect to Cost’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - Industry type i.e. ‘Sector’ is the Independent Variable (I.V.) with five response options namely IT, Manufacturing, Auto, Shopping Malls and Others.

Dependent Variable: - ‘Quality Consciousness with respect to Cost’ is originally measured using following the item.

Table 5.170: Item Considered for Measuring ‘Quality Consciousness with respect to Cost’

No.	Item Description
1	The Electricity Consumers would not really mind paying more for Reliable and Quality Services.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H_0 : The five industry groups do not differ over ‘Quality Consciousness with respect to Cost’.

H_1 : At least one of the groups is different from the rest.

Level of Significance $\alpha = 0.05$.

Table 5.171: Results of One-Way ANOVA for Analyzing ‘Quality Consciousness with respect to Cost’ Sector wise

Industry Type (Sector)	Mean	Std. Dev.	Levene Statistic	F	P - Value	Result
IT	3.5745	1.19318	L = (4, 135) = 0.506	F = (4, 135) = 2.213	0.071	Insignificant
Manufacturing	3.2273	1.10978				
Auto	3.7727	1.15189				
Others	3.0263	.99964				
Shopping Malls	3.5455	.82020				
Total	3.4000	1.11755				

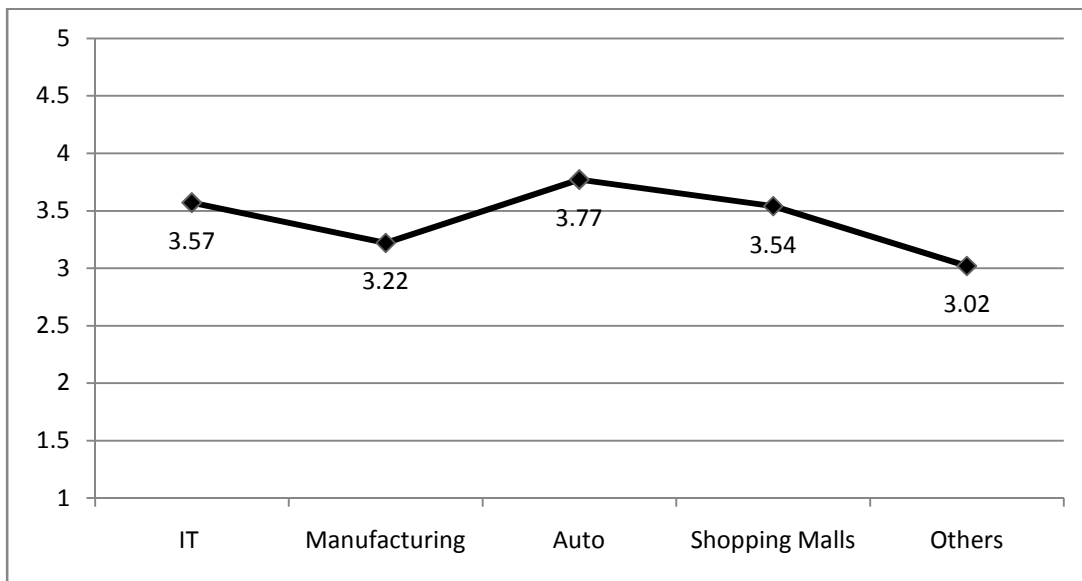
The result in the above table is ‘Insignificant’, which means the Null Hypothesis H_0 , is **retained** i.e. the ‘Quality Consciousness with respect to Cost’ is same amongst all the groups. From the above table it is clear that the ‘Mean’ for ‘Auto’ Sector is the highest with a value of 3.7727. The ‘Mean’ value for ‘Others’ is the lowest with a value of 3.0263 which tells that the consumers are ‘Neutral’ or ‘Undecided’ about the underlying factor, ‘Quality Consciousness with respect to Cost’. The ‘Mean’ value for remaining sectors is above ‘Three’ and may be considered **favorable, i.e.** the consumers would agree to pay a premium for quality services.

The table below also tells that the ‘Mean’ value of all the five sectors fall under one subset. This further confirms the above interpretation of the data.

Table 5.172: Hochberg Homogeneous Subsets (Quality Consciousness with respect to Cost)

Industry type	N	Subset for alpha = 0.05
		1
Others	38	3.0263
Manufacturing	22	3.2273
Shopping Malls	11	3.5455
IT	47	3.5745
Auto	22	3.7727
Sig.		.233

Graph 5.18: Graphical Representation of the Sector wise- Mean for ‘Quality Consciousness with respect to Cost’



Sector wise analysis for ‘Risk Taking Ability’

Purpose: - To study the sectors IT , Manufacturing, Auto, Others and Shopping Mall differ over ‘Risk Taking Ability’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - Industry type i.e. ‘Sector’ is the Independent Variable (I.V.) with five response options namely IT, Manufacturing, Auto, Shopping Malls and Others.

Dependent Variable: - ‘Risk Taking Ability’ is originally measured using following the item.

Table 5.173: Item Considered for Measuring ‘Risk Taking Ability’

Item No.	Item Description
1	The Open Access policy offers choice to the Electricity Consumers to select their Service Provider. So, I /We would definitely avail of this facility and plan to switch over to a New Service Provider.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H_0 : The five industry groups do not differ over ‘Risk Taking Ability’.

H_1 : At least one of the groups is different from the rest.

Level of Significance $\alpha = 0.05$.

Table 5.174: Results of One-Way ANOVA for Analyzing ‘Risk Taking Ability’

Sector wise

Industry Type (Sector)	Mean	Std. Dev.	Levene Statistic	F	P - Value	Result
IT	3.3191	.78315	L = (4, 135) = 2.712	F = (4, 135) = 0.919	0.455	Insignificant
Manufacturing	3.2727	.76730				
Auto	3.5455	.85786				
Others	3.3158	.84166				
Shopping Malls	3.0000	.44721				
Total	3.3214	.78902				

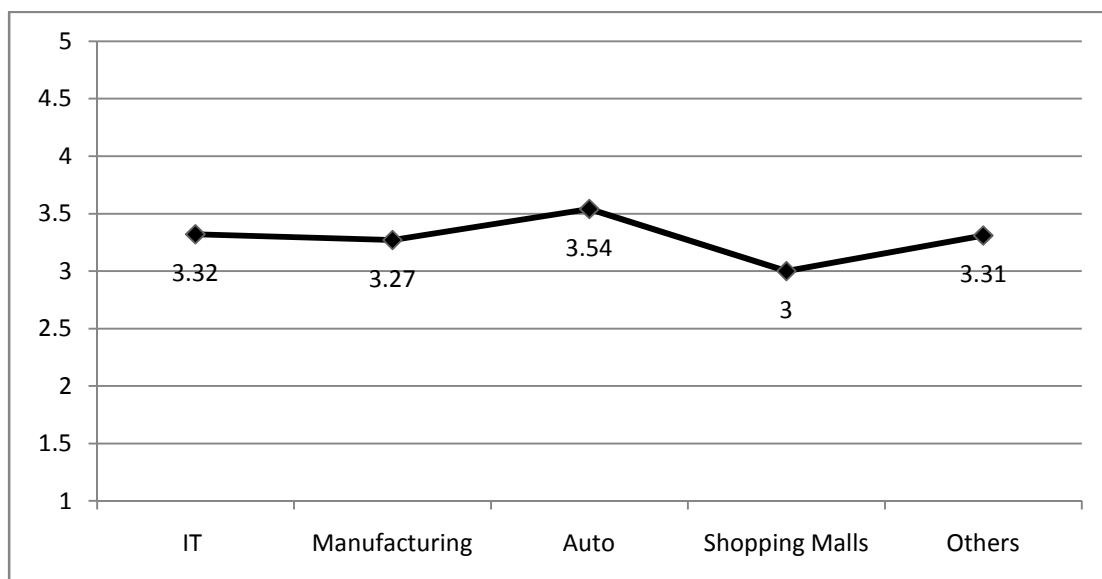
The result in the above table is ‘Insignificant’, which means the Null Hypothesis H_0 , is **retained** i.e. the ‘Risk Taking Ability’ is same amongst all the groups. From the above table it is clear that the ‘Mean’ for ‘Auto’ Sector is the highest with a value of 3.5455. The ‘Mean’ value for ‘Shopping Malls’ is the lowest with a value of 3.0000 which tells that the consumers are ‘Neutral’ or ‘Undecided’ about the underlying factor, ‘Risk Taking Ability’. The ‘Mean’ value for remaining sectors is above ‘Three’ and may be considered towards **favorable, i.e.** the consumers may plan to switch over to another service provider by availing the option of Open Access Policy.

The table below also tells that the ‘Mean’ value of all the five sectors fall under one subset. This further confirms the above interpretation of the data.

Table 5.175: Hochberg Homogeneous Subsets (Risk Taking Ability)

Industry type	N	Subset for alpha = 0.05
		1
Shopping Malls	11	3.0000
Manufacturing	22	3.2727
Others	38	3.3158
IT	47	3.3191
Auto	22	3.5455
Sig.		.215

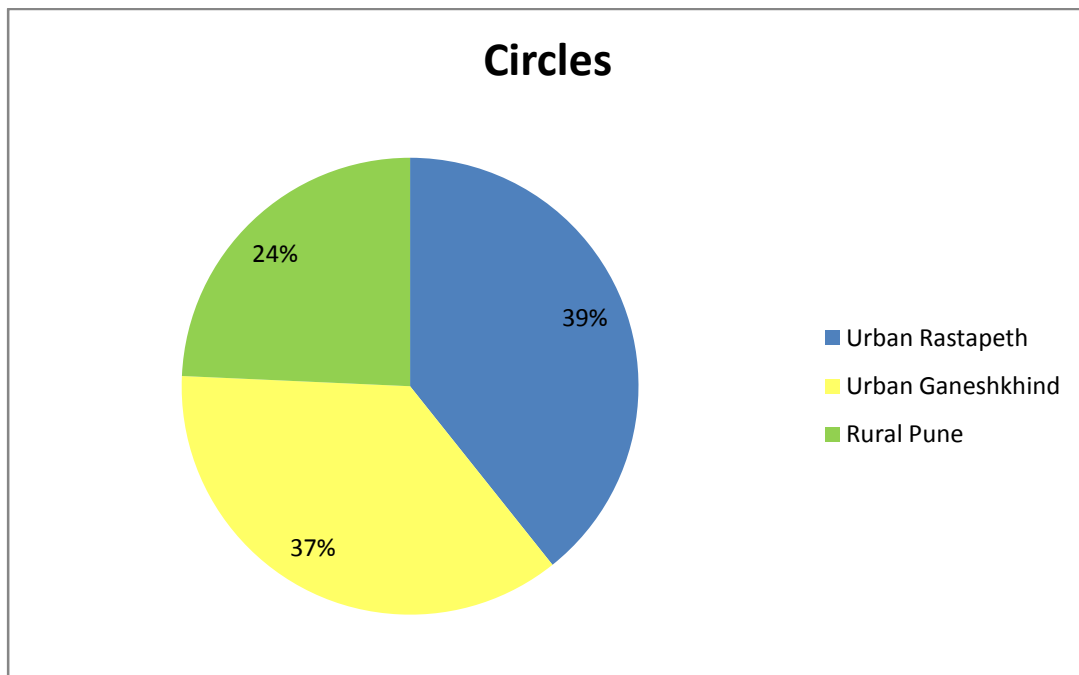
Graph 5.19: Graphical Representation of the Sector wise Mean for ‘Risk Taking Ability’



5.12 Circle wise Analysis

The Circle wise analysis is conducted so as to understand the variation of Satisfaction, Perceived Value, Loyalty, Brand Image, Risk taking ability and Quality consciousness with respect to Cost. So considering each of the variables mentioned above, the analysis is carried out to verify whether the variation is across the Circles and if the answer is yes, then what the variation is? Before going in to the detailed analysis, the Circle wise breakup for the sample is represented below. The Pune Zone has three Circles namely the Rastapeth, the Ganeshkhind and the Pune Rural. The Rastapeth and the Ganeshkhind are urban circles. The Rastapeth Circle caters to Consumers falling under the limits of Pune Municipal Corporation, the Ganeshkhind Circle mainly caters the load demand of Consumers falling under the limits of Pimpri Chinchwad Municipal Corporation and the Pune Rural Circle caters the demand of Consumers in the outskirts of Pune like Chakan, Alandi, Talegaon, Mulshi etc. The circle wise count of Consumers in the sample under the Rastapeth, the Ganeshkhind and the Pune Rural Circle are fifty five, fifty one and thirty four respectively. The pie chart of % consumers represented under three Circles is displayed below.

Pie Chart 5.2: The Sample Representation - Circle wise



The Circle wise analysis will help to determine the relative positions of the circles considering the above mentioned variables. Understanding the relative position of the Circles will help the MSEDCL to focus its attention on specific areas.

Circle wise analysis for ‘Satisfaction’

Purpose: - To study the Circles Urban Rastapeth, Urban Ganeshkhind and Rural Pune, differ over ‘Satisfaction’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - ‘Circle’ is the Independent Variable (I.V.) with three response options namely Urban Rastapeth, Urban Ganeshkhind and Rural Pune.

Dependent Variable: - ‘Satisfaction’ is originally measured using six items displayed in the Table 5.160. These Six Items are converted in a single item scale using Transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H₀: The three Circles do not differ over ‘Satisfaction’.

H₁: At least one of the Circles is different from the rest.

Level of Significance α = 0.05.

The tabulation of the SPSS results for One Way ANOVA is as below.

Table 5.176: Results of One-Way ANOVA for Analyzing ‘Satisfaction’ Circle wise

Name of the Circle	Mean	Std. Dev.	Levene Statistic	F	P - Value	Result
Urban Rastapeth	3.4091	.71259	L = (2, 137) = 0.337	F = (2, 137) = 1.18	0.311	Insignificant
Urban Ganeshkhind	3.5539	.82510				
Rural Pune	3.2868	.88577				
Total	3.4321	.79953				

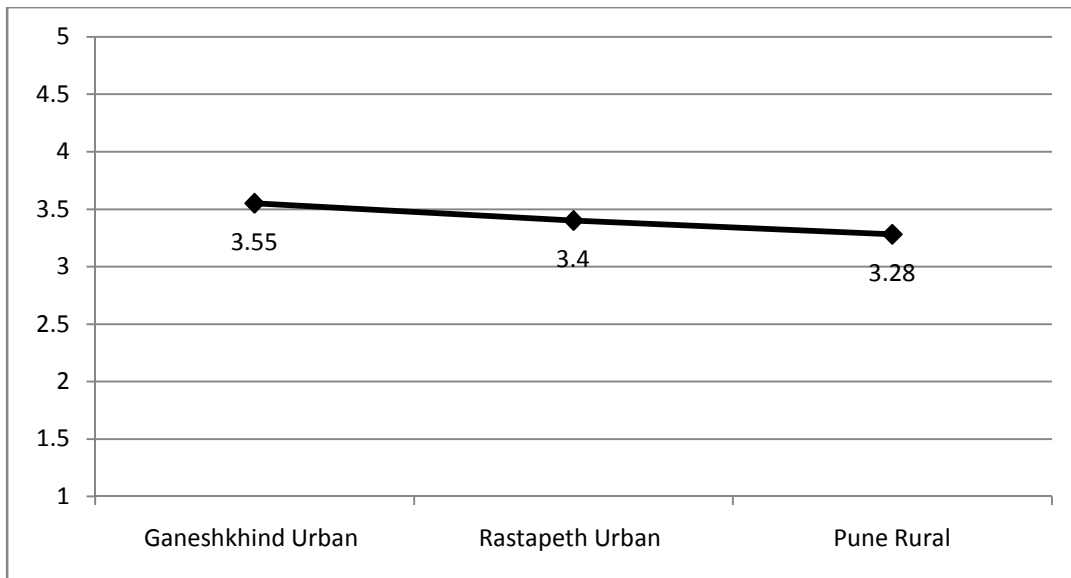
The result in the above table is ‘Insignificant’, which means the Null Hypothesis H₀, is **retained** i.e. three Circles do not differ over ‘Satisfaction’. From the above table it is clear that the ‘Mean’ for Urban Ganeshkhind Circle is the highest with a value of 3.5539 and the Mean value for Rural Pune Circle is the lowest at 3.2868. The value of the

‘Mean’ in the table above indicates that the ‘Satisfaction’ for the three Circles is **favorable**. The table below also tells that the ‘Mean’ value of all the Circles falls under one subset. This further confirms the above interpretation.

Table 5.177: Hochberg Homogeneous Subsets (Circle wise - Satisfaction)

Name of the Circle	N	Subset for alpha = 0.05
		1
Rural Pune	34	3.2868
Urban Rastapeth	55	3.4091
Urban Ganeshkhind	51	3.5539
Sig.		.308

Graph 5.20: Graphical Representation of the Circle wise Mean for ‘Satisfaction’



Circle wise analysis for ‘Brand Image’

Purpose: - To study the Circles Urban Rastapeth, Urban Ganeshkhind and Rural Pune, differ over ‘Brand Image’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - ‘Circle’ is the Independent Variable (I.V.) with three response options namely Urban Rastapeth, Urban Ganeshkhind and Rural Pune.

Dependent Variable: - ‘Brand Image’ is originally measured using six items displayed in the Table 5.163. These Six Items are converted in a single item scale using Transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H₀: The three Circles do not differ over ‘Brand Image’.

H₁: At least one of the Circles is different from the rest.

Level of Significance α = 0.05.

The tabulation of the SPSS results for One Way ANOVA is as below.

Table 5.178: Results of One-Way ANOVA for Analyzing ‘Brand Image’ Circle wise

Name of the Circle	Mean	Std. Dev.	Levene Statistic	F	P - Value	Result
Urban Rastapeth	3.5394	.56197	L = (2, 137) = 3.267	F = (2, 137) = 3.016	0.052	Significant
Urban Ganeshkhind	3.7190	.56617				
Rural Pune	3.3775	.82297				
Total	3.5655	.64525				

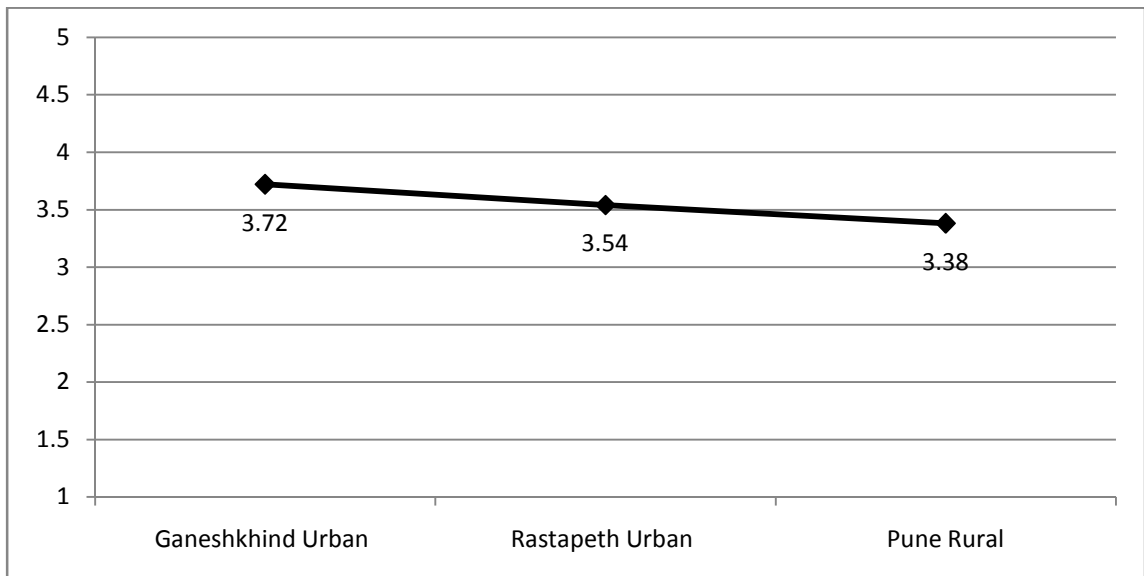
The result in the above table is ‘Significant’, which means the Alternate Hypothesis H₁ is **accepted** i.e. at least one of the three Circles differs over ‘Brand Image’. From the above table it is clear that the ‘Mean’ for Urban Ganeshkhind Circle is the highest with a value of 3.719 and the Mean value for Rural Pune Circle is the lowest at 3.3775. The value of the ‘Mean’ in the table above indicates that the ‘Brand Image’ for the three Circles is **favorable**.

The table below also tells that the ‘Mean’ value of Rural Pune and Urban Ganeshkhind falls under two different subsets. The values are highlighted in the red. Thus the Mean values of Brand Image for Rural Pune and Urban Ganeshkhind Circles are different. This further confirms the above interpretation.

Table 5.179: Hochberg Homogeneous Subsets (Circle wise - Brand Image)

Name of the Circle	N	Subset for alpha = 0.05	
		1	2
Rural Pune	34	3.3775	
Urban Rastapeth	55	3.5394	3.5394
Urban Ganeshkhind	51		3.7190
Sig.		.544	.456

Graph 5.21: Graphical Representation of the Circle wise Mean for ‘Brand Image’



Circle wise analysis for ‘Loyalty’

Purpose: - To study the Circles Urban Rastapeth, Urban Ganeshkhind and Rural Pune, differ over ‘Loyalty’.

Statistical Tool for Analysis: - Kruskal Wallis Test (As the Data Distribution is not Normal).

Variables for Measurement: -

Independent Variable: - ‘Circle’ is the Independent Variable (I.V.) with three response options namely Urban Rastapeth, Urban Ganeshkhind and Rural Pune.

Dependent Variable: - ‘Loyalty’ is originally measured using Five items as revealed in the Table 5.166. These five items are converted in a single item scale using Transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H_0 : The three ‘Circles’ do not differ over ‘Loyalty’.

H_1 : At least one of the Circles is different from the rest.

Level of Significance $\alpha = 0.05$.

The tabulation of the SPSS results for Kruskal Wallis Test is as below.

Table 5.180: Kruskal Wallis Test Results for Circle wise Analysis of ‘Loyalty’

Name of the Circle	Mean	Std. Dev.	Chi Square	df	P - Value	Result
Urban Rastapeth	3.8400	.50976	3.957	1	0.047	Significant
Urban Ganeshkhind	3.9686	.47222				
Rural Pune	3.7529	.73039				
Total	3.8657	.56132				

The result in the above table is ‘Significant’, which means the Null Hypothesis H_0 , is **not retained** i.e. the ‘Loyalty’ is **not same** in all the groups. From the above table it is clear that the ‘Mean’ for ‘Ganesh Khind Urban’ Circle is the highest with a value of 3.9686. The ‘Mean’ values for ‘Rastapeth Urban Circle’ is 3.84 and the ‘Mean’ value for ‘Pune Rural Circle’ is lowest amongst all the groups’ i.e. 3.7529. But it must be noted that the ‘Mean’ for Loyalty for all the Circles is **favorable**.

Sector wise analysis for ‘Perceived Value’

Purpose: - To study the Circles Urban Rastapeth, Urban Ganeshkhind and Rural Pune, differ over ‘Perceived Value’.

Statistical Tool for Analysis: - Kruskal Wallis Test (As the Data Distribution is not Normal).

Variables for Measurement: -

Independent Variable: - ‘Circle’ is the Independent Variable (I.V.) with three response options namely Urban Rastapeth, Urban Ganeshkhind and Rural Pune.

Dependent Variable: - ‘Perceived Value’ is originally measured using Ten items already shown in the Table 5.168. These Ten items are converted in a single item scale using Transform – Recode – Different Variable command in SPSS software.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H₀: The three ‘Circles’ do not differ over ‘Perceived Value’.

H₁: At least one of the Circles is different from the rest.

Level of Significance $\alpha = 0.05$.

The tabulation of the SPSS results for Kruskal Wallis Test is as below.

Table 5.181: Kruskal Wallis Test Results for Circle wise Analysis of ‘Value’

Name of the Circle	Mean	Std. Dev.	Chi Square	df	p – Value	Result
Urban Rastapeth	3.4164	.57535	7.535	1	0.006	Significant
Urban Ganeshkhind	3.6176	.39684				
Rural Pune	3.3912	.65753				
Total	3.4836	.54622				

The result in the above table is ‘Insignificant’, which means the Null Hypothesis H₀, is **not retained** i.e. the ‘Perceived Value’ is **different** in all the groups. From the above table it is clear that the ‘Mean’ for ‘Urban Ganeshkhind’ Circle is the highest with a value of 3.6176. The ‘Mean’ values for ‘Urban Rastapeth’ is 3.4164 and the ‘Mean’ value for

‘Rural Pune’ is lowest amongst all the groups’ i.e. 3.3912. But it must be noted that the ‘Mean’ for ‘Perceived Value’ for all the Circles is **moderately favorable**.

Circle wise analysis for ‘Quality Consciousness with respect to Cost’

Purpose: - To study the Circles Urban Rastapeth, Urban Ganeshkhind and Rural Pune, differ over ‘Quality Consciousness with respect to Cost’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - ‘Circle’ is the Independent Variable (I.V.) with three response options namely Urban Rastapeth, Urban Ganeshkhind and Rural Pune.

Dependent Variable: - ‘Quality Consciousness with respect to Cost’ is originally measured using the item revealed in the Table 5.170.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H₀: The three Circles do not differ over ‘Quality Consciousness with respect to Cost’.

H₁: At least one of the Circles is different from the rest.

Level of Significance $\alpha = 0.05$.

The tabulation of the SPSS results for One Way ANOVA is as below.

Table 5.182: One Way ANOVA Results for Circle wise Analysis of ‘Quality Consciousness with respect to Cost’

Name of the Circle	Mean	Std. Dev.	Levene Statistic	F	P – Value	Result
Urban Rastapeth	3.0182	1.06268	L = (2, 137) = 0.063	F = (2, 137) = 5.731	0.004	Significant
Urban Ganeshkhind	3.6863	1.06752				
Rural Pune	3.5882	1.13131				
Total	3.4000	1.11755				

The result in the above table is ‘Significant’, which means the Alternate Hypothesis H₁, is **accepted** i.e. at least one of the three Circles differs over ‘Quality Consciousness with respect to Cost’. From the above table it is clear that the ‘Mean’ for Urban Ganeshkhind Circle is the highest with a value of 3.6863 and the Mean value for Urban

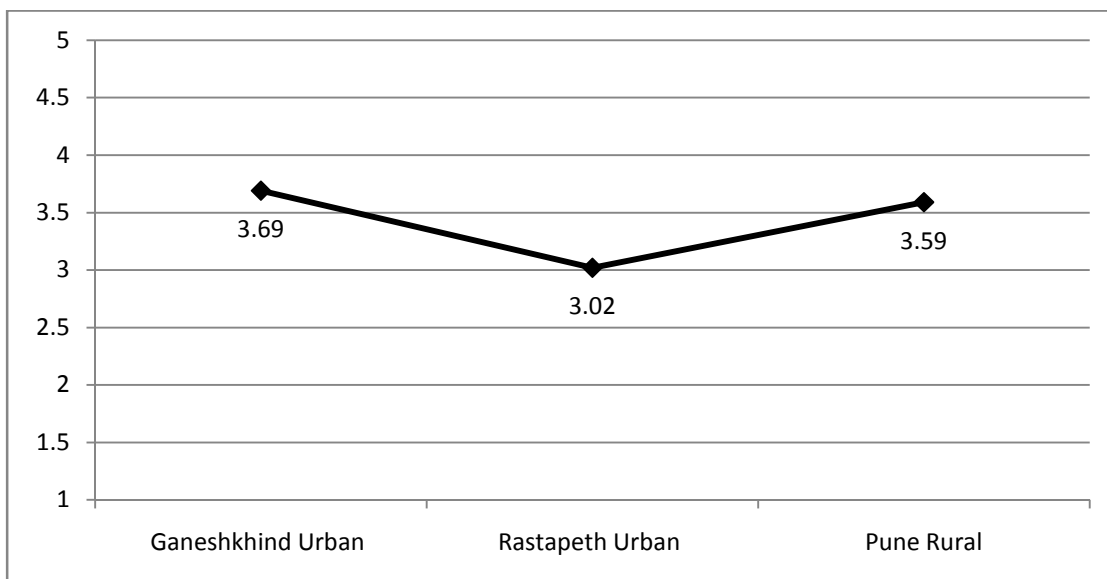
Rastapeth Circle is the lowest at 3.0182. The value of the ‘Mean’ in the table above indicates that the ‘Quality Consciousness with respect to Cost’ for the Urban Ganeshkhind and Rural Pune Circles is **more**.

The table below also tells that the ‘Mean’ value of Rural Pune and Urban Ganeshkhind falls under one subset and the value of Urban Rastapeth Circle falls under other subset. The values are highlighted in the red. This further confirms the above interpretation.

Table 5.183: Hochberg Homogeneous Subsets (Circle wise - Quality Consciousness with respect to Cost)

Name of the Circle	N	Subset for alpha = 0.05	
		1	2
Urban Rastapeth	55	3.0182	
Rural Pune	34		3.5882
Urban Ganeshkhind	51		3.6863
Sig.		1.000	.963

Graph 5.22: Graphical Representation for Circle wise Mean for ‘Quality Consciousness with respect to Cost’



Circle wise analysis for ‘Risk Taking Ability’

Purpose: - To study the Circles Urban Rastapeth, Urban Ganeshkhind and Rural Pune, differ over ‘Risk Taking Ability’.

Statistical Tool for Analysis: - One Way ANOVA.

Variables for Measurement: -

Independent Variable: - ‘Circle’ is the Independent Variable (I.V.) with three response options namely Urban Rastapeth, Urban Ganeshkhind and Rural Pune.

Dependent Variable: - ‘Risk Taking Ability’ is originally measured using the item displayed in the Table 5.173.

The Null Hypothesis and the Alternate Hypothesis are mentioned below.

H_0 : The three Circles do not differ over ‘Risk Taking Ability’.

H_1 : At least one of the Circles is different from the rest.

Level of Significance $\alpha = 0.05$.

The tabulation of the SPSS results for One Way ANOVA is as below.

Table 5.184: One Way ANOVA Results for Circle wise Analysis of ‘Risk Taking Ability’

Name of the Circle	Mean	Std. Dev.	Levene Statistic	F	P – Value	Result
Urban Rastapeth	3.1455	.80319	L = (2, 137) = 4.696	F = (2, 137) = 3.717	0.027	Significant
Urban Ganeshkhind	3.5490	.54088				
Rural Pune	3.2647	.99419				
Total	3.3214	.78902				

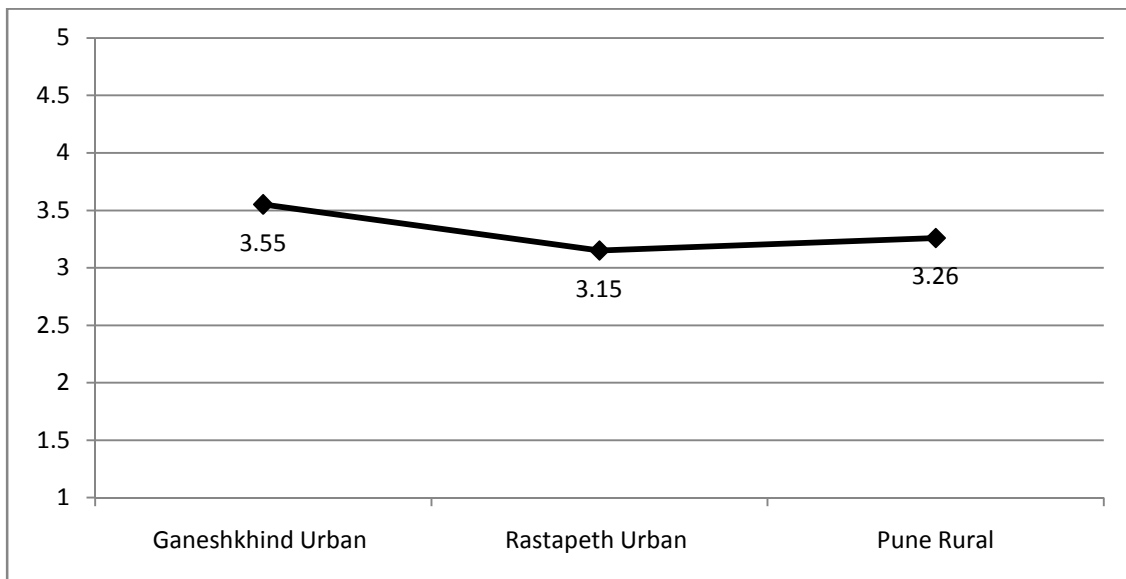
The result in the above table is ‘Significant’, which means the Alternate Hypothesis H_1 is **accepted** i.e. at least one of the three Circles differs over ‘Risk Taking Ability’. From the above table it is clear that the ‘Mean’ for Urban Ganeshkhind Circle is the highest with a value of 3.5490 and the Mean value for Urban Rastapeth Circle is the lowest at 3.1455. The value of the ‘Mean’ in the table above indicates that the ‘Risk Taking Ability’ in switching from one Service Provider to the other for the Urban Ganeshkhind and Rural Pune Circles is **more**.

The table below also tells that the ‘Mean’ value of Urban Ganeshkhind falls under one subset and the value of Urban Rastapeth Circle under other subset. The values are highlighted in the red. This further confirms the above interpretation.

Table 5.185: Hochberg Homogeneous Subsets (Circle wise- Risk Taking Ability)

Name of the Circle	N	Subset for alpha = 0.05	
		1	2
Urban Rastapeth	55	3.1455	
Rural Pune	34	3.2647	3.2647
Urban Ganeshkhind	51		3.5490
Sig.		.848	.233

Graph 5.23: Graphical Representation for Circle wise Mean for ‘Risk Taking Ability’



5.13 Testing the Consumer Retention Model

The basic aim of the research is to come up with a Consumer Retention Model. The conceptual model is already discussed in the Chapter Three of the Thesis, the testing of model using Structural Equation Modeling would examine if the sample data fits the theoretical model. If the sample data fits the theoretical model then it may be said that the Model sustains in the field conditions. The Strength of relationships between various variables of model i.e. Perceived Value, Satisfaction, Brand Image and Loyalty are already derived in the Section 5.9 of this Chapter, but the strength of relationship does not tell anything about the cause – effect relationship between the variables. The test conducted below would also bring to light the predictors of Satisfaction, Brand Image and Loyalty.

Purpose: To study the predictors of Consumer Loyalty

Statistical Test: Confirmatory factor analysis and Structural Equation Modeling

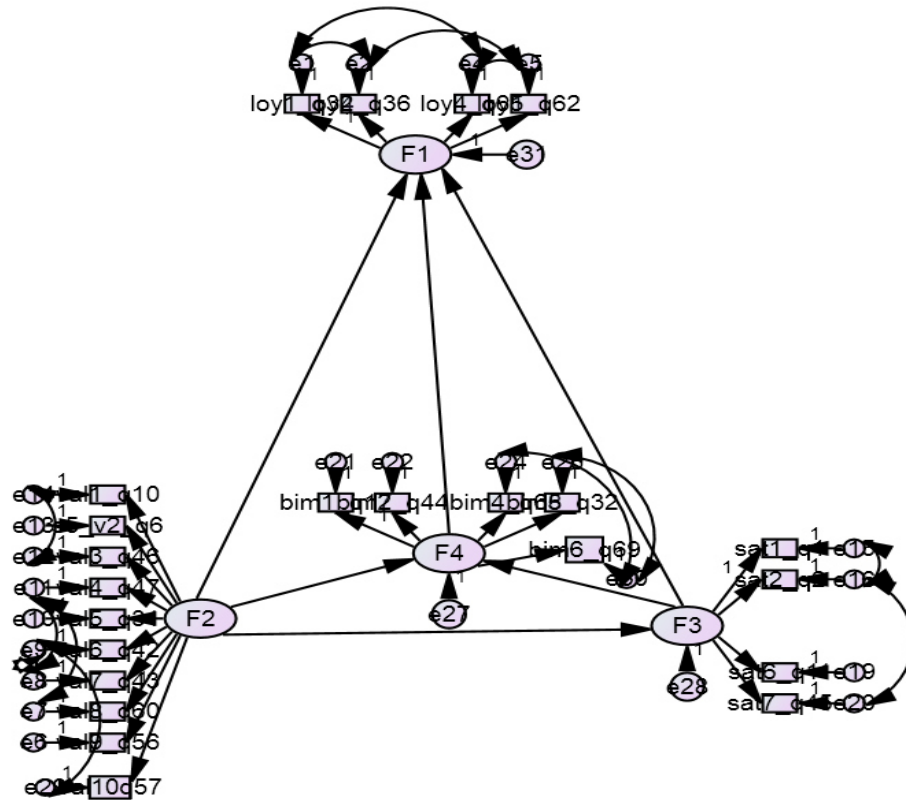
The Hypothetical Model

The model consisted of one exogenous variable (Perceived value) and three endogenous variables (Loyalty, Brand Image, and Satisfaction)

The hypothetical paths are given below

1. Perceived value is a positive predictor of Brand Loyalty
2. Perceived value is a positive predictor of Brand Image
3. Perceived value is a positive predictor of Satisfaction
4. Satisfaction is a positive predictor of Brand Image
5. Satisfaction is a positive predictor of Consumer Loyalty
6. Brand Image is positive predictor Consumer Loyalty

Figure 5.1: Blueprint of the Hypothetical Model



A two-step Structural Equation Modeling strategy using IBM SPSS Amos 20; a full information maximum likelihood procedure was employed in estimating the parameters. Measurement model was tested before the assessment of structural model. Although the measurement model provides an assessment of convergent validity and discriminant validity of the latent factors, the measurement model in conjunction with the structural model enables a comprehensive assessment of the full latent model.

Variables and Measurement:

The exogenous variable “Perceived value” was measured using a 10-item inventory as shown below. Also the three endogenous variables namely, Brand Image, Satisfaction and Loyalty are also tabulated below.

Table 5.186: Items for Measuring Exogenous Variable ‘Perceived Value’

Item No.	Item Description
1	The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.
2	The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.
3	The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.
4	Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.
5	The working hours of MSEDCL Company are as per the Consumer convenience.
6	Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.
7	The risk associated in transactions with MSEDCL is least.
8	The quality of services offered by MSEDCL has improved significantly over last few years.
9	The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.
10	The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.

Table 5.187: Items for Measuring Endogenous Variable ‘Brand Image’

Latent construct	Brand image
Item 1 (BIM1)	The Business Practices of MSEDCL are Ethical and Transparent.
Item 2 (BIM2)	MSEDCL is the most trusted Service provider as compared to its Competitors.
Item 3 (BIM3)	MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.
Item 4 (BIM4)	The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.
Item 5 (BIM5)	Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.
Item 6 (BIM6)	The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.

Table 5.188: Items for Measuring Endogenous Variable ‘Satisfaction’

Latent construct	Satisfaction
Item 1 (Sat1)	I am happy with the 'Supply Quality' offered by the MSEDCL.
Item 2 (Sat2)	The Supply Provided by MSEDCL is with minimum interruptions.
Item 3 (Sat3)	The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.
Item 4 (Sat4)	'Load Shedding', is not a problem associated with MSEDCL Services.
Item 5 (Sat5)	It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.
Item 6 (Sat6)	I feel comfortable in approaching the MSEDCL staff in case of any problem.

Table 5.189: Items for Measuring Endogenous Variable ‘Loyalty’

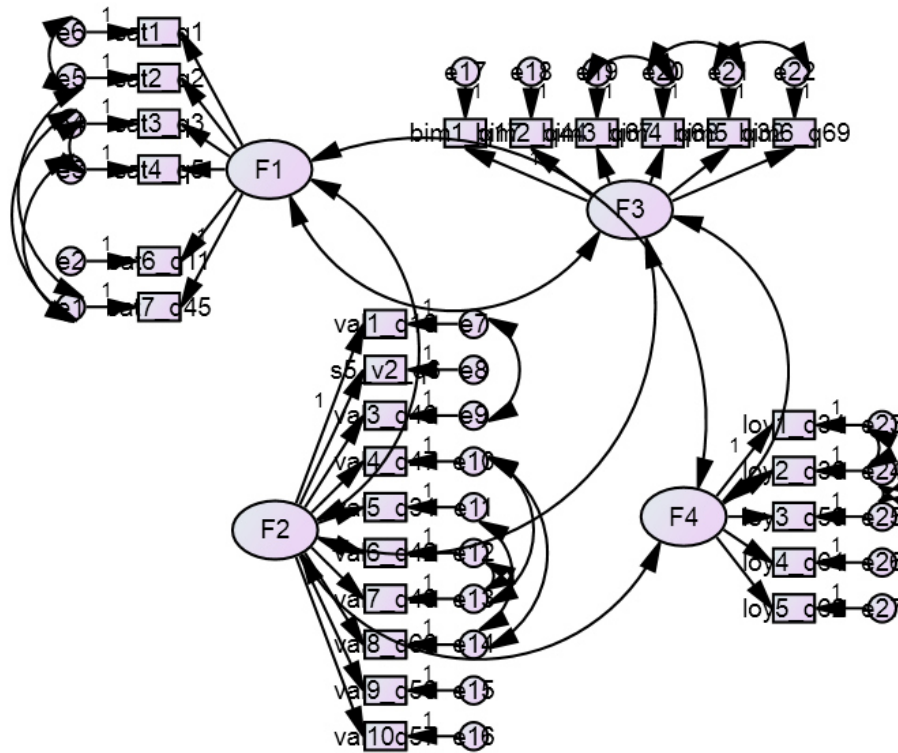
Latent construct	Loyalty
Item 1 (Loy1)	We feel proud in being associated with MSEDCL as their Consumer.
Item 2 (Loy2)	We have a genuine relationship with MSEDCL as a Consumer.
Item 3 (Loy3)	Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL.
Item 4 (Loy4)	I convey positive 'word of mouth' publicity about my present Service Provider (MSEDCL).
Item 5 (Loy5)	I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion.

Confirmatory Factor Analysis

Confirmatory factor analysis is a way of testing how well the indicators of a construct represent the construct. SEM involves testing two models: measurement model and structural model. CFA is used to validate the measurement model. The researcher’s hypothesized model included 4 latent construct (Perceived Value, Brand Image, Satisfaction and Loyalty).

Confirmatory analysis was used to validate the following structure (measurement model) using IBM Amos.

Figure 5.2: Blueprint of the CFA Model



The CFA model was assessed using IBM SPSS Amos 20. Review of the modification indexes led to re-specifying the model. The re-specified model achieved significant chi-square of 499.62, $df = 214$, $p = 0.000$, which indicates a poor fitting model, however these results may be ignored since chi-square test is data sensitive and may produce significant result for very minor difference if sample size is large. Hence most researchers and experts suggest CMIN/DF as an alternative.

Other fit indices used to assess mode fit are GFI, NFI, CFI and RMSEA. Results of these model fit indices are given in the table below

Table 5.190: Results of Model Fit Indices (SEM)

Fit Indices	Observed	Criteria of Acceptable Fit	Result
CMIN/DF (Minimum discrepancy as indexed chi-square)	2.335	Less than 5	Accepted fit
CFI (Comparative fit index)	0.820	More than 0.9 for good fit, between 0.9 to 0.8 for borderline fit	Borderline fit
PNFI(Parsimonious Normal fit)	0.616	More than 0.5	Accepted fit Marginally
RMSEA (Root Mean Square error of approximation)	0.09	Less than 0.08 for adequate fit, between 0.08 and less than .1 borderline fit	Borderline fit

The three indices suggest an acceptable weak fit between the sample data and the hypothesized model.

Construct Validity and Reliability

Construct validity is the extent to which a set of measured items actually reflect the theoretical latent construct they are designed to measure. It includes (1) Convergent validity (Factor loadings, Average Variance extracted (AVE), Composite Reliability); (2) Discriminant Validity)

Factor Loading

The size of factor loading is an important indicator of convergent validity. Factor loadings that are significant with loading values above 0.5 indicate convergent validity. The following table shows construct, items of construct and their loading values. Note that loading of all constructs are above the threshold mark of 0.5. Except for Sat2, Sat 5,

Val 1, Val2 , Val7 and Val10. The factor loadings with value less than 0.5 are highlighted with red.

Table 5.191: Factor Loading of Items of Constructs(SEM)

Construct	Item	Factor Loading
F1 Satisfaction	Sat1:- I am happy with the 'Supply Quality' offered by the MSEDCL.	0.609
	Sat2:- The Supply Provided by MSEDCL is with minimum interruptions.	0.480
	Sat3:- The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.	--
	Sat4:- 'Load Shedding', is not a problem associated with MSEDCL Services.	--
	Sat5:- It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.	0.481
	Sat6:- I feel comfortable in approaching the MSEDCL staff in case of any problem.	0.781
F2 Perceived value	Val1:- The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.	0.443
	Val2:- The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.	0.433
	Val3:- The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.	0.664
	Val4:- Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.	0.680
	Val5:- The working hours of MSEDCL Company are as per the Consumer convenience.	0.531
	Val6:- Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.	0.572
	Val7:- The risk associated in transactions with MSEDCL is least.	0.451
	Val8:- The quality of services offered by MSEDCL has improved significantly over last few years.	0.610
	Val9:- The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.	0.637
	Val10:- The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.	0.462

Construct	Item	Factor Loading
F3 Brand Image	Bim1:- The Business Practices of MSEDCL are Ethical and Transparent.	0.534
	Bim2:- MSEDCL is the most trusted Service provider as compared to its Competitors.	0.820
	Bim3:- MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.	--
	Bim4:- The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.	0.663
	Bim5:- Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.	0.542
	Bim6:- The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.	0.762
F4 Loyalty	Loy1:- We feel proud in being associated with MSEDCL as their Consumer.	0.825
	Loy2:- We have a genuine relationship with MSEDCL as a Consumer.	0.625
	Loy3:- Majority of neighboring Consumers, Friends and Relatives etc avail the services of MSEDCL.	--
	Loy4:- I convey positive 'word of mouth' publicity about my present Service Provider (MSEDCL).	0.792
	Loy5:- I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion.	0.682

Average Variance Extracted (AVE)

Average variance extracted is another important indicator of construct validity. As a rule of thumb AVE of 0.5 or higher suggest adequate convergence.

Construct Validity (Composite Reliability)

Composite reliability is an indicator of reliability of construct. Coefficient alpha is very commonly used technique of reliability; however, it may underestimate reliability. Thus

other techniques are recommended for assessing internal consistency of a measure. Values above 0.6 indicate adequate reliability.

Cronbach's Alpha

Cronbach's alpha is one of the most widely used measures of internal consistency. If items correlate well they are said to be measuring the same construct. Alpha value above 0.7 indicates adequate reliability for a construct. Table 5.192 shows that alpha values for all constructs are above the **threshold mark of 0.7**. Composite Reliability is an alternative to Cronbach's alpha, since alpha is said to underestimate reliability. The values of Composite Reliability for all constructs are also above **the threshold value of 0.6**, as displayed in the table below.

Table 5.192: Composite Reliability and Cronbach's Alpha

Construct	No. Items	Construct Validity (Composite Reliability)	Chronbach's Alfa	Avg.
F1 Satisfaction	4	0.683	0.72	0.587
F2 Perceived Value	10	0.81	0.79	0.548
F3 Brand Image	6	0.80	0.81	0.664
F4 Loyalty	4	0.717	0.785	0.731

Discriminant Validity

Construct of model should be unrelated. Discriminant validity assesses the extent to which a construct is truly distinct from the other constructs in the model. High discriminant validity provides evidence that a construct is unique and different from the rest and have phenomenon that other measures do not. Discriminant validity exists, if average of Variance Extracted is greater than r^2 between two constructors said in other words; the square root of AVE should be larger than the correlations between constructs.

Table 5.193: Factor Matrix Showing Discriminant Validity

	F1-Satisfaction	F2- Value	F3- Image	F4- Loyalty
F1- Satisfaction	0.766			
F2- Value	0.899	0.74		
F3- Image	0.969	0.852	0.81	
F4- Loyalty	0.997	0.910	0.982	0.854

Diagonal values are root of average variance extracted and off diagonal values are correlation scores between constructs.

Discriminant validity results showed poor discrimination between constructs.

Conclusion: Fit indexes CMIN/DF,PNFI, CFI and RMSEA suggest a adequate fit between sample data and theoretical model. Construct reliability, average variance extracted, Cronbach’s alpha suggest that items of construct have internal consistency and the measures are valid. Discriminant validity results showed weak discrimination constructs. Since the measurement model is valid, we proceed to test the Structural Model.

Assessing the Structural Model

Table 5.194: Criteria Employed to Assess the SEM Model

Fit indices	Observed	Criteria of Acceptable Fit	Result
CMIN/DF(Minimum discrepancy as indexed chi-square)	2.255	Less than 5	Acceptable fit
PNFI (Parsimonious Normal fit index)	0.618	More than 0.5 for adequate fit	Acceptable fit
CFI (Comparative Fit Index)	0.833	More than 0.9 for good fit, between 0.9 to 0.8 for borderline fit	Borderline fit
RMSEA (Root Mean Square error of approximation)	0.095	Less than 0.08	Marginally missed

The Three fit indices suggest a good fit between the sample data and the hypothetical model.

Assessing the Significance of Paths

Strength and significance of the paths were assessed using standardized regression weights and p value. Following table shows the results for relationship between exogenous and endogenous variables.

Table 5.195: Assessing the Significance of Paths

Path	Standardized regression weight	P value	Result
Perceived value → Consumer loyalty	-0.079	0.887	Not supported
Perceived value → Brand image	-0.131	0.768	Not Supported
Perceived value → Satisfaction	0.903	0.000	Supported
Satisfaction → Brand image	1.06	0.034	Supported
Satisfaction → Consumer loyalty	1.150	0.393	Not supported
Brand image → Consumer loyalty	-0.042	0.961	Not supported

Conclusion: From the Table 5.195 the Predictors are tabulated as below.

Table 5.196: Concluding the Predictors

Inference Drawn	Values	
	B	p
Perceived value is a not a significant predictor of Consumer loyalty	-0.079	0.887
Perceived Value is a not a significant predictor of Brand Image	-0.131	0.768
Perceived Value is a significant positive predictor of Satisfaction	0.903	0.000
Satisfaction is a significant positive predictor of Brand Image	1.06	0.034
Satisfaction is a not a significant predictor of Consumer Loyalty	1.15	0.393
Brand Image is a not a significant predictor of Consumer Loyalty	- 0.042	0.961

Chapter 6

**Harvesting the
Objectives -
Findings, Suggestions
and Conclusions**

Chapter 6

Harvesting the Objectives - Findings, Suggestions and Conclusions

6.1 The Purpose

Chapter.5 in the report deals with the thorough investigation of the data collected using the statistical software. The statistical analysis provides a scientific way to slice up the data and decode the information collected through the survey questionnaire. The data is given statistical treatment such as Descriptive Statistics, Friedman Test, One Way ANOVA/Kruskal Wallis Test, Bivariate-Correlation and Regression Analysis, so as to throw light upon all facets of the data. The individual aspects of the data analysis have been summated in this chapter, to expound the findings and recommend solutions to the underlying problems and serve the Objectives of the Research study. The chapter endeavors to act in accordance with the Research Objectives defined in the study. In the next section of the chapter, the research objectives are taken up, one by one, and the findings along with probable suggestions have been described.

6.2 Reaching the Objectives

Evaluating Consumer Satisfaction, determining factors contributing to Consumer Perceived Value, finding out strength of relationship between variables viz. Satisfaction, Value, Brand Image and Loyalty, studying the moderating role of Switching Cost on Value/Satisfaction - Loyalty relationship and testing the Consumer Retention Model are the fundamental objectives of the Study. Therefore, considering each objective and the data analysis specific to the selected objective, the findings and suggestions are dealt with in this section.

6.2.1 *Evaluating Consumer Satisfaction*

The Findings:- The basic variables selected for evaluating Consumer Satisfaction are 'Supply Quality', 'Supply Interruptions', 'Outage Management', 'Load Shedding', 'Staff approachability during emergency' and 'Comfortability in approaching staff in

case of a problem'. The results reveal that the Consumers are fairly satisfied over Supply Quality and Minimum Interruptions in supply provided by the MSEDCL. However, the Consumers are marginally satisfied over 'Outage Management' and 'Load Shedding free supply'. The outage management can be improved by communicating and coordinating with the concern company staff. The MSEDCL already has a system set up for Outage Management. The concern electrical department of the Client Company is not only informed about the scheduled maintenance outage, on the other hand, the outage on proposed feeders is taken only after consent from the client company. Therefore, the outage management is not a problem for Consumers being fed by dedicated/express feeders from the Sub Stations. The consumers connected to a common feeder may face problems related to Outage Management, because it is merely impossible for MSEDCL to plan an outage on the feeder considering the consent of all the consumers to it. The Consumers have expressed satisfaction on the Company's supply with minimum interruptions, but the sudden momentary interruptions on feeders add to the dissatisfaction of the Consumers. In this regard, an incidence may be cited that happened with a software firm. During data collection, the incidence was shared by the respondent of a Client Company, with a condition to maintain privacy of the information. The Company is a reputed global software firm and has an express feeder feeding their business premises. Express feeders are dedicated feeders to a particular consumer and the power from the sub stations is directly delivered to the consumer premises as the feeder has no other consumers or installations connected to it. So, it may be said that express feeder is a dedicated feeder to the consumers, which is supposed to deliver quality power at higher reliability. The Consumer fetching power from express feeder has to pay a premium for the reliable power supply, as this feeder is also exempted from load shedding schedules. Now, coming back to the Consumer, who is availing of such a facility of express feeder originating from an Extra High Voltage Sub Station, the CEO of the Client Company had scheduled a visit on the Business Premises. Unfortunately, the supply tripped during the meeting and even the backup generators failed to provide necessary power. The interruption was hardly for 10-15 minutes, but this incidence was a blot on the MSEDCL's service delivery. The CEO was unhappy with the interruption and the concern Electrical Head of the company was interrogated after the event. The

Electrical Head had no justification for the momentary interruption of power and the premium paid by the company for availing the facility of express feeder. Therefore, it is essential for MSEDCL to note such incidences and empathetically think about the Consumers. The coordination with the Consumer as well as the MSETCL (Transmission Wing) is very much needed, because even if the failure of supply is due to some fault at Transmission Unit, finally the blame of the consumer accounts to the poor service delivery by the MSEDCL.

As we know, the Urban and Industrial areas are excluded from load shedding schedules; still the MSEDCL has to inculcate confidence amongst Industrial/Commercial consumers about providing of uninterrupted power supply. The organization has already adopted the policy of implementing load shedding for non-paying and high loss areas. The feeders are identified based on poor billing and collection efficiency and such feeders find a place in load shedding list during power scarcity situations.

The study also reveals the consumer's satisfaction related to "approachability to employees in case of a problem or emergency" and the opinion in this regard is very favorable and the consumers also feel comfortable in approaching the Staff of the Company. This is a positive aspect in the service offered by the MSEDCL, as it indicates the sensitivity of its Employees in dealing with Consumer problems. During data collection, most of the respondents expressed satisfaction about the responsiveness of the Field Engineers in attending the consumer problems, especially during emergencies. The respondents also said that in most of the cases, the problems are beyond the control of field staff. Nevertheless, the response to the consumers during such situations soothes the consumer dissatisfaction to a greater extent.

The eligible Open Access Consumers in the Pune Zone are geographically spread over a large area and the area is divided into three Circles, namely, the Rastapeth Urban, the Ganeshkhind Urban and the Pune Rural. The eligible open access consumers also belong to various sectors like IT, Auto, Manufacturing, Shopping Malls etc, so it would be essential to discuss the 'Consumer Satisfaction' on Sector and Circle level. The sections 5.11 and 5.12 in Chapter.5, deal with the Sector wise and Circle wise

analysis respectively. The sector wise analysis reveals that the consumers in IT Sector are relatively more satisfied, whereas the consumers in the Manufacturing sector are least satisfied. The satisfaction of consumers on 'Auto', 'Shopping Malls' and 'Others' is average. This signifies that the MSEDCL has to concentrate on manufacturing sector. The manufacturing sector also includes small industries, as against branded companies in IT sector. Therefore, the organization must listen to the voice of such consumers. The dissatisfaction amongst the consumers in the manufacturing sector may provide opportunity to the competitors in near future. Keeping in mind that the power distribution sector is undergoing a transition phase from monopolistic environment to a competitive one, the MSEDCL also needs to pay attention to consumers in 'Auto' and 'Shopping Mall' sectors. The power supply interruptions may not affect the quality of output in IT Industry or Shopping Malls, but supply interruptions may certainly affect the quality of product in the 'Auto' & 'Manufacturing' Industry. Hence, these two sectors need a special attention, when it is about supply quality and providing of uninterrupted power supply.

The Circle wise analysis discloses that the 'Satisfaction' does not vary across the three Circles and the 'Satisfaction' may be said to be favorable in all the Circles, although figures also reveal that relatively 'Satisfaction' is the highest in the Ganeshkhind Circle, followed by the Rastapeth Circle and the lowest in the Pune Rural Circle.

The Consumer Satisfaction is discussed considering the parameters like 'Supply Quality', 'Supply Interruptions', 'Outage Management', 'Load Shedding', 'Staff approachability during emergency' and 'Comfortability in approaching staff in case of a problem'. But the discussion on Consumer Satisfaction would be incomplete, if the concept of 'Service Quality' is not reviewed. The section 5.7.6 covers the Descriptive Statistics and Frequency Tables on Service Quality. The evaluation of Service Quality is based on the basic determinants, Viz. Tangibles, Responsiveness, Reliability, Assurance and Empathy and the survey questionnaire related to Service Quality is already conferred in Chapter.4 of the Thesis. The result summary of the data analysis for Service Quality is tabulated as below.

Table 6.1: Result Summary of Service Quality Analysis

Sr No	Determinant of Service Quality	Variable describing the Determinant	Result
I	Tangibles	1.Appearance of MSEDCL Offices, Cleanliness, etc	Not Satisfied
		2.Structure of Electricity Bills and its understandability to Consumers	Satisfied
		3.Website Design and its User friendliness	Satisfied
		4.Dressing and Neatness of MSEDCL Employees	Satisfied
Sr No	Determinant of Service Quality	Variable describing the Determinant	Result
II	Reliability	Informing Consumers in Advance about Supply Interruptions.	Neutral
		Making Consumers aware of the changes in Policies through its Circulars.	Neutral
		Delivery of Electricity Bills to Consumers within time.	Satisfied
		Providing accurate and error free Electricity Bills to Consumers.	Satisfied
		Fixing the Consumer problem first time and avoiding recurrence of a problem in future.	Moderately Satisfied
		Relevance and accuracy of information to Consumers via Website.	Satisfied
		MSEDCL website as a safe and secure payment option for payment of Electricity Bills.	Satisfied

Sr No	Determinant of Service Quality	Variable describing the Determinant	Result
III	Responsiveness	MSEDCL Employee quickness in attending Consumer Complaints.	Satisfied
		Understanding and listening to Consumer problems.	Satisfied
		Employee interest and keenness in solving consumer grievances	Satisfied
		Employee response to Consumer requests	Moderately Satisfied
IV	Empathy	Caring attitude of Employees towards Consumers.	Satisfied
		Understanding Consumer Needs	Satisfied
		Keeping Consumer Interest as Top Priority	Moderately Satisfied
V	Assurance	Providing compensation to Consumers if the services are not delivered as per 'Standards of Performance'	Not Satisfied
		Adequately trained Employees to solve Consumer Complaints	Satisfied
		Well Behaved and Well mannered MSEDCL Staff	Satisfied
		MSEDCL Company keeping its promise to fulfill Consumer Demand in time.	Neutral

From the above table, the overall Satisfaction as regards 'Service Quality' offered by the MSEDCL looks to be favorable. However, the Company must improve the **tangibles** related to the Offices located at Field, ensure **reliability in disseminating**

information about supply outages in advance and also communicate the latest circulars to the Consumers, **assure Consumers of guaranteed Service** and provide **compensation** in case of failure to deliver the services on time. Along with the overall Satisfaction over Service Quality, the descriptive statistics and frequency tables in the Section 5.7.7 also advocates favorable Satisfaction on MSEDCL's 'Concern for Consumers'.

The Suggestions: - In accordance with the findings cited in the above section, the suggestions for improving the Satisfaction are mentioned below.

✓ The findings point out that 'Outage Management' is a grey area in 'Consumer Satisfaction'. The dissatisfaction is about the momentary tripping of power supply and not about the planned outages, because the outages taken by MSEDCL are given due publicity in advance in the Local Newspapers. In order to deal with this issue, it is necessary for the organization to maintain a database of such consumers at Substations. The database must include Mobile Numbers of all VIP consumers. Even if the supply is to be tripped for a moment for a certain reason at the substation, the concern operator must send a group SMS (*Short Messaging Service*) to all such VIP consumers connected on the particular feeder. Such intimations at a short notice will definitely make the Consumers aware of momentary tripping of supply from the feeder. Even during faults, the group messaging to the VIP consumers about the happenings at Site and probable time needed to restore the supply can be shared. This measure comes at a low cost and only requires honest and sincere efforts from the Operators at the Substation. Such subtle measures will definitely create favorable perception amongst the Consumers and improve the Satisfaction to a greater extent.

✓ The Consumers also feel that they are not made aware of the latest policies and circulars of MSEDCL. In the present information age it is very easy, convenient and economical to circulate information. The Company should have email IDs of all the eligible Open Access consumers and whenever a circular related to Consumers is published by the Head Office a soft copy of the same should be sent to all the eligible open access consumers. The billing activity of all HT Consumers is carried out at Circle Office; therefore, the Circle Office should take up the responsibility of creating a group

email for all such VIP consumers and should email relevant circulars as and when published by the Head Office. The tariff copy approved by the MERC is made available on the MSEDCL's website, even then it should be emailed to the VIP Consumers. This will definitely create a favorable perception about the Company's Service Quality in the minds of Consumer.

✓ The Consumers may compromise with the tangible aspect of the MSEDCL Offices, but as regards reliable and quality power supply Consumers would not negotiate, because it is the most desired aspect of Service Quality. The Zone of tolerance between the accepted and desired service as regards supply quality is narrow. Realizing this, the Company has to ensure uninterrupted power supply with higher reliability to keep the Consumers satisfied. The findings above make it evident that the Consumers are annoyed with momentary tripping; so it is essential for MSEDCL to pay attention to minimize such tripping and assure uninterrupted power supply. In this regard, it would be wise for the Organization to adopt best practices and make use of 'Quality Tools' like Pareto Analysis to minimize interruptions and improve the quality of supply being delivered to the Consumers. Pareto Analysis uses Pareto Charts¹, which orders problems by their relative frequency in a descending bar graph to focus efforts on the problem that offers the greatest potential for improvement. Pareto Analysis follows the basic principle of 80/20 rule. Vilfredo Pareto, a 19th Century Italian Economist observed that usually a few factors account for a large percentage of total cases e.g. 80% interruptions on a feeder are due to 20% of problems. Consequently focusing on the 20% problems would clear 80 % of the interruptions on a feeder, thus offering maximum benefits with minimum effort. The MSEDCL has good Training Infrastructure and it should be used effectively to impart training on such topics that provide solutions to practical problems. Interruptions on each feeder can be taken up as a case study, Applying little bit of research and proven techniques like Pareto Analysis, Standard Templates can be prepared and shared within the organization. The improvement in the quality of supply to the consumers will surely boost the satisfaction level of the Consumers.

✓ Various Infra Projects are implemented for strengthening the Infrastructure and offer quality power to the Consumers. Such developmental schemes would reap more

benefits to the Company, if the selection of locations is being made, considering the future potential revenue return to the Organization. The findings point out that the Satisfaction in Pune Rural Circle is relatively least, besides this, the analysis of survey data reveals that the Satisfaction is relatively poor amongst Manufacturing & Auto Industry; therefore, such areas should get priority, while implementing Infra Projects. At present, the power distribution sector is still monopolistic in nature as the Consumers have few alternatives available. But in future, if the competition intensifies and Consumers have better options available, it would be very difficult for MSEDCL to get back the lost Consumers, because the cost of bringing them back² is higher than retaining the existing ones.

✓ Nowadays, mobile network service providers offer value added services to their consumers, so as to differentiate their service from the Competitors. Similarly, the MSEDCL has well qualified engineers who have acquired professional qualifications like Energy Auditor / Energy Manager certified by Bureau of Energy Efficiency. A pool of such engineers can be selected to offer consultancy to the VIP consumers by conducting energy audit of their manufacturing units and give necessary tips on saving energy usage. These efforts will surely provide delight for the Consumers and create a positive brand image for the organization.

✓ The MSEDCL must understand that consumers are no longer loyal. They want returns for every penny being paid by them. The Consumers also feel, they need to be thanked for their patronage. So, it would be wise for the Organization to express gratitude to such high end users or VIP consumers by greeting wishes, especially on special occasions like Diwali, New Year, etc. Expressing gratitude would be a great surprise to the Consumers and doing this would instill confidence amongst them about Company's change in attitude from Monopolistic to Consumer Centric.

✓ The implementation of all the suggestions would be smooth and will offer desired benefits, only if the top management extends support to the Operating Staff. The approach of the Top Management should be corrective and not punitive in nature; the Management must encourage culture of smart work and promote innovative ideas by motivating employees to think creative and take away the fear of failure, while implementing new ideas.

6.2.2 Factorizing Consumer Perceived Value

The Findings: -The Consumer Perceived Value is one of the important aspects in the study of Consumer Behavior. The value of a Service is said to be positive, if the benefits received by a Consumer exceed the cost incurred. If the benefits received are less as against the cost being paid, then the Value is said to be negative. The section 5.7.2 deals with Descriptive Statistics, Frequency Tables and Histograms for all the variables selected for Perceived Value. The summary at a glance for all the variables is tabulated below.

Table 6.2: Respondent's Opinion about the Variables of Consumer Perceived Value

Sr No.	Variable Selected for Measurement (Brief description of the Question representing the Variable)	Respondents Opinion
1	Ease in Accessibility and convenient location of MSEDCL Offices	Favorable
2	Resolution of Complaints in less or adequate time	Favorable
3	Assurance with the present Service Provider that the problem will be solved with ease and without any panic to Consumer	Very Favorable
4	Working Hours of MSEDCL as per Consumer convenience	Favorable
5	Special Efforts to maintain Uninterrupted power supply	Favorable
6	Minimum Risk in transactions with the MSEDCL	Favorable
7	Improvement in Quality of Services offered by MSEDCL over last couple of years	Very Favorable
8	MSEDCL having better staff with adequate working knowledge to solve Consumer complaints	Favorable
9	MSEDCL having better infrastructure as compared to its competitors	Moderately Favorable
10	MSEDCL offering its Services to Consumers at a Cheaper Cost	Adverse

The above ten variables make an effort to weigh up the benefits received and cost incurred by the Consumer while availing of the MSEDCL services. The above table indicates that the Consumers find value, because the services offered by the Company have improved over last couple of years, the psychological cost in availing of the service is also less, as the Consumers are not panic in case of a problem and feel assured that the problem will be fixed up with ease. Nonetheless, the consumers have adverse opinion about the Monetary Cost associated with the Company services and feel that the services offered are not at a cheaper cost. The adverse opinion about the Monetary Cost fades the overall Consumer Perception concerning the 'Perceived Value'.

The ten variables selected for measuring Perceived Value help to conduct microanalysis, but in order to shrink the number of variables associated with Perceived Value, Friedman Test and Factor analysis are conducted and discussed in details in Section 5.8. The section reveals that the two components associated with Consumer Perceived Value are '**Assurance in Service Delivery**' and '**Cost of Service**'. The Cost of Service includes time, psychological as well as monetary cost factors.

The sector wise and circle wise analysis of 'Perceived Value' is dealt with in Section 5.11 and Section 5.12 of Chapter.5 respectively. The sector wise analysis reveals that the 'Value' is almost same and favorable across all the sectors, viz IT, Auto, Manufacturing, Shopping Malls and Others. The Value perception is highest in the IT sector followed by Auto and is lowest in the Manufacturing sector. The Circle wise analysis mentions that the perception about Value is different across the three Circles. The Consumers rank the Ganeshkhind Urban Circle first and the Pune Rural Circle again finds third place with the lowest value among the three Circles. The Rastapeth Urban Circle is ranked second, though it has a marginal edge over the Rural Circle, even then necessary efforts should be initiated to improve the Value perception amongst the consumers in the Circle.

Finally, it would be interesting to notice Consumer perception about '**Value**' is **not just low pricing**. On the contrary, the data analysis of 'Variable 1' in Section 5.7.8 enlightens the fact that Consumers are ready to pay more, if the quality of services is improved. This implies '**Value is not about Low pricing**', but '**it is about What**

Consumer get for what they pay’. The sector wise analysis in Section 5.11 tells that the Auto Industry tops the sector list in displaying readiness to pay more for reliable and better quality of services followed by IT Sector and Shopping Malls respectively. The Manufacturing Sector is modest over the underlying factor. The Circle wise analyses in Section 5.12 over the same parameter further exposes that the ‘Quality consciousness with respect to Cost’ is higher in Ganeshkhind Urban & Pune Rural Circles as compared to Rastapeth Circle, which means the Consumers in Rastapeth Urban Circle are not willing to pay extra for reliable and improved service quality as against the opinion of Consumers in the remaining two Circles.

The Suggestions: - The MSEDCL has to focus on the Monetary Cost aspect of service as the opinion associated with it is adverse. Further, the monetary cost is a dominant factor and impacts the behavior of Consumer adversely. The monetary cost associated with the service can be brought down by reducing losses in the distribution and improving the revenue collection. The billing and collection efficiency measure the loss and revenues recovered respectively and these two parameters are aligned with performance of the Business Units as well as the Employees. The Company needs to focus its attention on power purchase as the major part of expenditure is associated with it. Therefore, the MSEDCL has to devise techniques and explore procedures that would reduce the power purchase cost and help to bring down the ‘Cost of Service’. Accurate Demand forecasting and meticulously executing long term power purchase agreements would suffice the purpose. The proposed topic is very broad and needs thorough investigation, in-depth study and commitment from the top management.

6.2.3 Ascertaining Strength of Relationship amongst Consumer Satisfaction, Consumer Perceived Value, Brand Image and Consumer Loyalty

The research study spotlights the conceptual framework with Consumer Satisfaction, Consumer Perceived Value, Brand Image and Consumer Loyalty as the main variables of interest. It becomes indispensable to understand the strength of relationship between the underlying variables, while studying each of the variables individually. The Section 5.9 deals with the statistical part of the analysis. The Bi-variate Correlation test is used to determine the strength of relationship. The value of

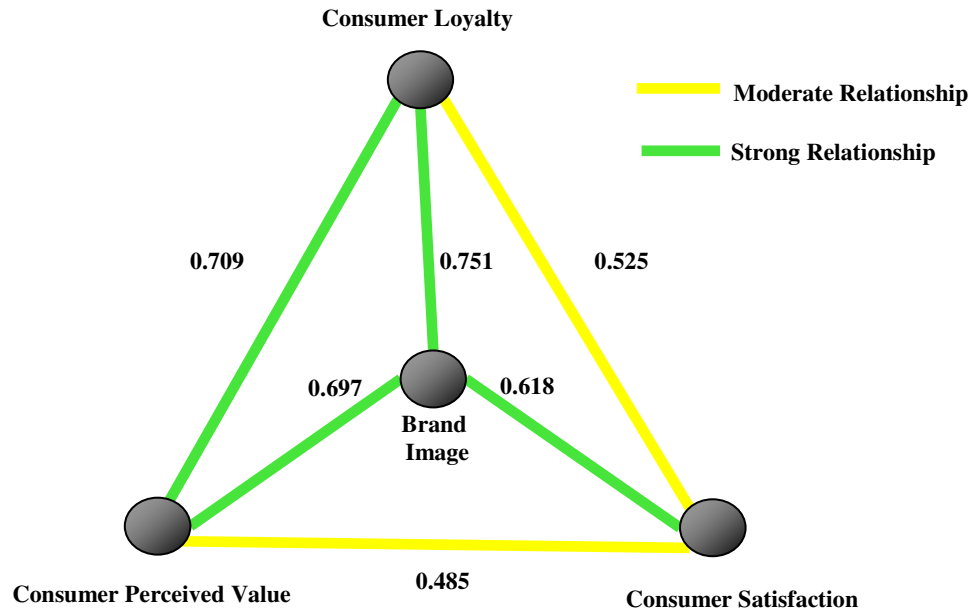
Pearson correlation(r), decides the strength of relationship. The value ranges 0.0 to 1.0 and the categorization of the strength is as follows($r = 0$ to 0.2 – Very Poor Relationship, $r = 0.2$ to 0.4 – Poor, $r = 0.4$ to 0.6 – Moderate, $r = 0.6$ to 0.8 – Strong, $r = 0.8$ to 1.0 – Very Strong Relationship). A positive value indicates direct relationship and a negative sign associated with the Pearson correlation(r) signifies an indirect relationship between the variables. The summary of the results is tabulated below.

Table 6.3: Strength of Relationship between the Variables: Satisfaction, Value, Brand Image and Loyalty

Sr No	Variables	Pearson Correlation	Strength of Relation
1	Value – Satisfaction	0.485	Moderate
2	Satisfaction – Loyalty	0.525	Moderate
3	Value – Loyalty	0.709	Strong
4	Brand Image – Loyalty	0.751	Strong
5	Value – Brand Image	0.697	Strong
6	Satisfaction – Brand Image	0.618	Strong

The above summary data considering the conceptual model of the Research is graphically shown on the next page.

Figure 6.1: Strength of Relationship between Variables: Satisfaction, Value, Brand Image and Loyalty



In the above diagram, the lines in ‘Yellow’ indicate **Moderate** strength of relationship between the variables and the ‘Green’ line indicates **Strong** relationship between the two variables. The line color would have been ‘Red’ had any of the relationship been ‘Very Poor’ or ‘Poor’, which is not the case in our study.

The Findings: The above representation shows that relatively the relationship between Value and Satisfaction is the weakest and the relationship between Brand Image and Loyalty is the strongest one. The relationships mentioned above only point out the strength and does not show any cause effect relation between the variables. As stipulated, the relationship between Brand Image and Loyalty is relatively the strongest one and thus invites attention on the analysis related to these variables. The Section 5.7.3 & 5.7.4 have thrown light upon the detailed analysis of Brand Image and Loyalty respectively. The consumers perceive ‘Brand Image’ to be Socio-Ethical, as the Business practices with the Company are ethical and transparent; the Consumers also recognize MSEDCL as a government owned Company having social obligations to fulfill and it does not work only to earn profits. The Social Image is rated favorable by

the consumers, but in connection with the Open Access policy, the Consumers moderately agree that MSEDCL has capabilities to face future challenges and preserve the same attitude in conveying trustworthiness about the Company as compared with competitors. Thus, it may be said that the Social Image of MSEDCL is favorable, but the Company may gain Consumer Trust, only if it positively faces out the challenges of competitive market in near future, assuring quality services and better value to its Consumers.

The analysis of 'Loyalty' in the Section 5.7.4 discloses that the Consumers hold genuine relationship and feel proud in being associated with MSEDCL. The social bonding factor is again dominant as the Consumers agree that majority of their Friends, Relatives and Neighbors avail of MSEDCL services.

The relationship between 'Brand Image' and 'Loyalty' is strong and is directly proportional i.e. if one variable increases/decreases the other variable does so. It may be said that forming a favorable 'Brand Image' may help MSEDCL inspire 'Loyalty' amongst its consumers, yet this discussion does not claim that 'Brand Image' is the causal variable for 'Consumer Loyalty'.

The observation of Pearson correlation values in the table above also point out that the relationship of 'Value' with the variables Loyalty & Brand Image is stronger in comparison with the relationship between 'Satisfaction' and Loyalty & Brand Image. Hence, it may be understood that 'Value' becomes significant variable as compared to 'Satisfaction', when the Brand Image of the Company and Consumer Loyalty are being inspected.

The Suggestions: The strength of relation is highest for Brand Image – Loyalty, followed by Value – Loyalty and Value – Brand Image relationships. Therefore, it is imperative that 'Brand Image' and 'Value' receive special consideration as the focus of the study is on Consumer Loyalty. The enhancement of 'Value' as mentioned in the Section 6.2.2 above is possible mainly by making the cost of services cheaper. The necessary suggestions regarding the same are mentioned in the section. Ensuring value to the Consumers will improve the Brand Image of the MSEDCL and instill confidence among

the Consumers regarding the Company’s capabilities to face the challenges in a competitive environment and thus enabling to sustain its Social Image. The Sector wise analysis in Section 5.11 signifies the favorable ‘Brand Image’ of the MSEDCL in IT, Auto and Shopping Mall Sector, but its Image is not so favorable in Manufacturing Sector. Similarly, the Circle wise analysis in Section 5.12 over Brand Image discloses the ranking of Circles in the descending order as the Ganeshkhind Urban, Rastapeth Urban followed by the Pune Rural Circle at the bottom. It is made clear that MSEDCL would be in a position to serve the public better, only if the high consumption; high revenue consumers maintain association with the Company in future.

6.2.4 Moderating role of the Switching Barriers on the relationship between Perceived Value/Satisfaction and Consumer Loyalty

The Section 6.2.3 above has surveyed the strength of relationships amongst the variables. The ‘Consumer Loyalty’ variable is of prime importance and hence its relationship with Consumer Perceived Value and Consumer Satisfaction with ‘Switching Barriers’ as the moderating variable is conferred in Section 5.10. The Switching Barriers include elements like Switching Cost, Time and Effort in searching New Service Provider, cultivating relationship with New Service Provider, availability of Few Alternatives, lack of Better Alternatives, compassion and Loyalty with the Present Service Provider. As mentioned in the above section, the relationship between ‘Value’ and ‘Loyalty’ is strong and the relationship between ‘Satisfaction’ and ‘Loyalty’ is moderate. The moderating role of the Switching barriers on the said relationships is summarized in the table below.

Table 6.4: Moderating Role of Switching Barriers on Value - Loyalty and Satisfaction – Loyalty Relationship

Sr No	Switching Barrier (Moderating Variable)	Effect of Switching Barrier on Relationship	
		Value - Loyalty	Satisfaction – Loyalty
1	Switching Cost	Moderating Effect	Moderating Effect
2	Time & Effort in searching New Service Provider	No Effect	No Effect

Sr No	Switching Barrier (Moderating Variable)	Effect of Switching Barrier on Relationship	
		Value - Loyalty	Satisfaction – Loyalty
3	Cultivating relationship with New Service Provider	No Effect	No Effect
4	Availability of Few Alternatives	Moderating Effect	Moderating Effect
5	Lack of Better Alternatives	Moderating Effect	Moderating Effect
6	Compassion with the Present Service Provider	<u>Moderating Effect</u>	<u>No Effect</u>
7	Loyalty with the Present Service Provider	No Effect	No Effect

The Findings: The Switching Barriers have the same impact on both the relationships except for the Barrier, Compassion with the Present Service Provider. This barrier has influence on the Value – Loyalty relation, but does not influence Satisfaction – Loyalty relation, thus restating the sensitivity of the Variable ‘Value’ as compared to ‘Satisfaction’. The descriptive statistics about all the Switching Barriers mentioned above is referred to in the Section 5.7.5. The barrier ‘Compassion with the Present Service Provider’ is regarding the Consumers’ embarrassment informing the present Service Provider about the discontinuation in service in near future. The descriptive statistics about the variable in section 5.7.5 also divulges that the Consumers are not clear about their feelings informing the present Service Provider about the discontinuation of services in near future.

Cultivating relationship and the Time and Effort in searching new Service Provider are also non-influencing Barriers regarding the relationships Value – Loyalty and Satisfaction – Loyalty. The descriptive statistics tells that Consumers agree moderately upon, Time & Effort needed in Searching and Cultivating relationship with New Service Provider is considerable.

The barriers that influence the relationships under study are ‘Switching Cost’, ‘Availability of Few Alternatives’ and ‘Lack of Better Alternatives’. The descriptive statistics in the Section 5.7.5 point out that the Alternatives available at present are few and Consumers do not find a better alternative than MSEDCL to provide for services to them. The above findings notify the monopolistic environment of Power Distribution Sector. The ‘Switching Cost’ acts as an influencing barrier on the relationships, although the descriptive statistics alarms at the consumers ambiguity in understanding the financial implications of the Switching Cost.

The Consumers at present have a sense of loyalty towards MSEDCL, but the above said barrier does not influence the relationships under study. Considering all the aspects mentioned above it may be said that at present Consumers are loyal with Company, probably because of non availability of alternatives or lack of better alternatives. The consumers are not clear about the financial impact of Switching Cost and therefore, considering all these factors, Consumers prefer to stay loyal with the MSEDCL. The analysis of Variable 4 in Section 5.7.8 is about Consumer choice to switch over to another Service Provider and the frequency table highlights that most of the Consumers are ‘Neutral’ or ‘Undecided’ over this. This demonstrates the ‘Risk Taking Ability’ of most of the eligible Open Access Consumers in switching over to another Service Provider is less, thus emphasizing the statement made above on present Loyalty of Consumers with the MSEDCL.

The Suggestions: - The present loyalty of the Consumers with the MSEDCL should not be taken for granted, because the Power Distribution Sector is still monopolistic and hence, consumers have very few options or do not find a better alternative. The Open Access in Distribution is in a premature stage at present and the Power Distribution Company has some time to improve the quality of services delivered to its Consumers. In this regard, it becomes essential to open up a dedicated Open Access Unit in the Organization at Zone Level that handles grievances of eligible open access consumers through its website or by email Communication. The Company website provides sufficient information to its Consumers, the Low Tension (LT) consumers have the facility to view and pay the bills on Company website, It is surprising that the High

Tension (HT) consumers are kept away from this facility. The HT Consumers have high consumption pattern, thus making the amount payable considerably large, these consumers have willingness to promptly pay the bills due, so as to avail of the prompt payment discounts. In some cases the non receipt of the bills hinders the Consumer from availing of prompt payment discount. For this reason the HT Consumers demand availability of Bills on MSEDCL website like the LT Consumers. The HT Consumers pay Electricity Bills in Lakhs / Crores and thus the prompt payment discount is in Thousands / Lakhs. Understanding specific needs of these VIP Consumers will create a favorable perception about Company services, enhance Value, improve satisfaction and will help retain the Consumers in future. Today, we see many financial institutions offering door step services to its prospective Consumers. Nowadays, availing of Home or a Car loan, opening a new account with a Bank is just at a Call/SMS to the toll free Number. The Organization needs to sense the transforming nature of the Sector and should offer such services to HT Consumers. The preparation and sanctioning of technical estimates and signing of agreement with the prospective HT Consumers should be at Applicants door step. The MSEDCL is already having 'Connection on Call' mechanism operational for LT Consumers, but it would be prudent to concentrate more on services to the HT Consumers. The awareness amongst the MSEDCL employees about the retention of HT Consumers, offering value to the Consumers and differentiating the service delivered would create barriers to new entrants in the Distribution Sector, thus mitigating the risk of Consumers switching to other Service Providers in near future.

A favorable Brand Image supplements Consumer Loyalty, so considering the sector and circle wise analysis in Section 5.11 and 5.12 respectively; it would be wise to take efforts in consolidating the Company's Brand Image in Pune Rural Circle with special focus on Manufacturing Sector in all the three Circles.

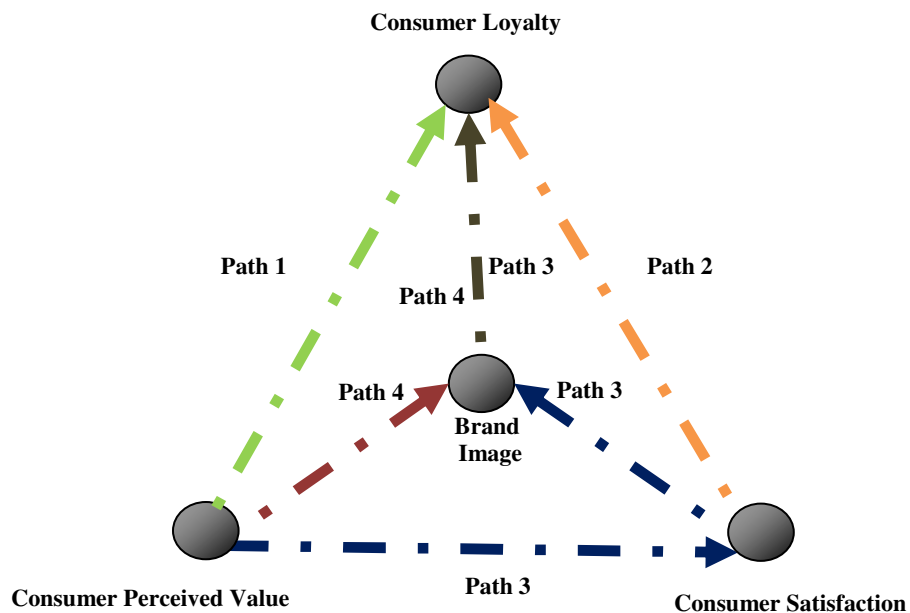
6.2.5 The Consumer Retention Model

The Section 5.13 in Chapter.5 of the Thesis has tested the Consumer Retention Model and the outcome of the test demonstrates that the sample data fits the theoretical model.

It may be concluded that the conceptual model comes out successful as the field sample data fits the theoretical model.

The Findings: The prime variable of interest is Consumer Loyalty in the model. The strength of relationships between various variables of the model is conversed in the Section 6.2.3 of this Chapter, now it would be interesting to understand the paths in the model that finally lead to Consumer Loyalty. The model below shows the probable paths that may lead to Consumer Loyalty.

Figure 6.2: Probable Paths in the Model that Lead Consumer Loyalty



The above figure suggests four paths that finally lead to Loyalty.

Path 1: Perceived Value → Loyalty.

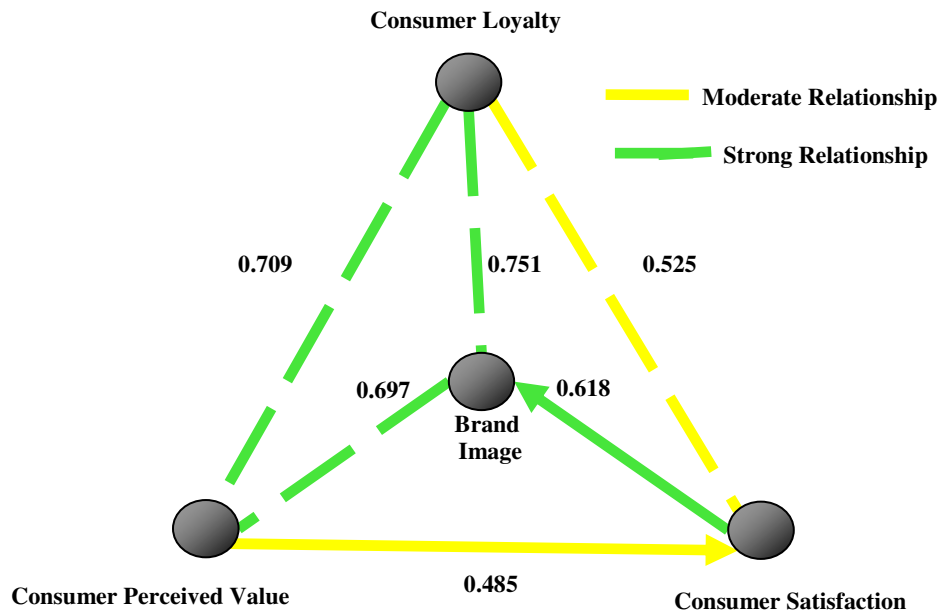
Path 2: Satisfaction → Loyalty.

Path 3: Perceived Value → Satisfaction → Brand Image → Loyalty.

Path 4: Perceived Value → Brand Image → Loyalty.

The Path 3 above is the longest route to Loyalty, implying ‘Value’ leading to ‘Satisfaction’, ‘Satisfaction’ leading to ‘Brand Image’ and finally ‘Brand Image’ leading to Loyalty. The results in the analysis conducted in Section 5.13 show the path that holds true. The graphical representation is given below.

Figure 6.3: Results of SEM Showing the Predictor Relationship between Variables of the Model



The above figure illustrates that the Path 3 mentioned above is partially approved. The ‘Value’ is predictor of ‘Satisfaction’, ‘Satisfaction’ is predictor of ‘Brand Image’, but ‘Brand Image’ is not a predictor of ‘Loyalty’. The predictor relationship is shown in solid arrow, whereas the remaining relationships in the figure are indicated with dotted line. From the above it is clear that **‘Loyalty’ has no predictor**, which may be the result of the power distribution sector still being monopolistic and at present, As such Consumers hardly have options to switch over to alternate Service Provider.

The Value chain partially approved in the analysis is graphically represented below.

Figure 6.4: Diagrammatic Representation of Value Chain



6.3 Conclusion

The desired objectives of the study encompassing Evaluation of Consumer Satisfaction for eligible Open Access Consumers in the Pune Region, understanding Value Proposition and factorizing Consumer Perceived Value, ascertaining relationship between the basic variables, understanding the moderating role of Switching Barriers and testing of the Consumer Retention Model are completely met in the Research work. The study endeavors to bring to light the present environment of the Power Sector, Consumer Culture and perception regarding the underlying variables concerning the Sectors and Circles. Apart from achievement of the Objectives, the research work has investigated and put forth new aspects of Consumer Behavior in Power Distribution Sector. Some of the major conclusions are briefed below.

1. The research has emphasized the importance of a particular consumer segment for power distribution utilities in order to tackle the competitive environment in future.
2. It has been statistically verified that the fundamental factors contributing to 'Perceived Value' are 'Assurance in Service Delivery' and 'Cost of Service'.
3. The research exemplifies that Value is not about Low Pricing; but it is about What Consumers get for what they pay. The Auto Industry has shown utmost interest for this feature followed by IT Sector and Shopping Malls respectively.
4. The Power Consumers are not willing to be 'PROSUMERS' i.e. at present the Consumers prefer to source their electricity demand from Service Providers, instead of generating it on their own. Conversely, it may be anticipated, any technological

advancement in near future as regards ‘Solar Energy’ would change the Consumers’ view point.

5. The acceptance of ‘Consumer Retention Model’ based on the conceptual framework is statistically proved in the Research.
6. The strength of relationships between various variables is ascertained and it has been statistically supported that the relationship, Brand Image - Loyalty is the strongest, whereas the relationship, Perceived Value – Satisfaction is relatively the weakest one.
7. The causal variables of Brand Image, Satisfaction and Perceived Value are found out in the research; however the study illustrates no causal variable for Loyalty.
8. The Time and Effort related to the barriers ‘Searching’ and ‘Cultivating relationship’ with New Service Provider do not influence the Value/Satisfaction – Loyalty relationships. These relationships are influenced by the barriers ‘Switching Cost’, ‘Availability of Few Alternatives’ and ‘Lack of Better Alternatives’. The availability of few and lack of better alternatives demonstrates the monopolistic nature of the power distribution sector. As regards ‘Switching Cost’, the Consumers are not clear about the financial implications while switching from one service provider to another.
9. The present environment of Power Distribution sector is still monopolistic. Even then the study intended to focus on Loyalty, because the Sector is going through a transformational phase and in near future the Consumers may find better options than the present Service Provider. Nevertheless, the study has laid the foundation for concentration on ‘Loyalty’ in Power Distribution, prior to the environment becoming competitive, thus, illustrating the foresight of the Research.
10. The detailed Sector wise and Circle wise analysis of variables in the study has pin pointed ‘Manufacturing’ Sector and the ‘Pune Rural’ Circle as the areas needing immediate attention and improvement.

Therefore, the research study wraps up the achievement of the desired objectives. The objectives of the Study are in alignment with the Electricity Act 2003, considering the recent amendments in the Act as per the Electricity Amendment Bill³, 2014, introduced in ‘Lok Sabha’ which aims at Promoting Competition, Efficiency in Operations and Improvement in Quality of Supply of Electricity. The salient features in the amendment include Enhancing Grid Safety and Security, Promotion of

Renewable Energy, Rationalization of Tariff and Separation of Carriage & Content in the Distribution Sector. The concept of separation of Carriage and Content proposes the multiple supply licensees in which the Content of Distribution Sector will be separated from the Carriage (i.e. Distribution Network). The Carriage will continue to be a regulated activity, while the determination of tariff would be based on market principles. In order to protect the interest of Consumers, the retail sale of electricity is proposed to be capped through the Regulator. One of the Supply Licensees is proposed to be a Government controlled company. Finally, it may be said that the findings in the study will benefit all the Stakeholders in the Distribution Sector and envisions a healthy competitive environment for the Power Consumers.

References:-

- 1 - James A. Fitzsimmons, Mona J. Fitzsimmons, *Service Management*. New Delhi: Tata Mcgraw Hill Publishing Co. Ltd, 2006. Fifth Edition. p-177.
- 2 – Kumar Alok, Sinha Chhabi and Sharma Rakesh. *Customer Relationship Management: Concepts & Applications*. New Delhi: biztantra, 2008. p 4.
- 3 - <http://pib.nic.in/newsite/PrintRelease.aspx?relid=113779> 19.12.2014.

Chapter 7

Plausible Outcome of the Research

Chapter 7

Plausible Outcome of the Research

The environment in the Power Distribution Sector is changing from monopolistic to a competitive one and at this juncture the research offers a stitch in time for Distribution Companies by targeting the significant Consumer Segment, during the transforming state of affairs. The study would not only assist the Government Owned Power Distribution Companies to combat with the future challenges, but would also provide vital inputs for the Regulators to understand the Consumer needs and Interest, thus, enabling them to frame rules in alignment with it. The study has kept 'Consumer' at its focal point and the detailed discussion about the Open Access in Power Distribution would enable Consumers understand the threats associated while switching from a Service Provider to another. The study intends to benefit all the stakeholders and envisages a healthy viable ambiance in future, for the Power Consumers. Some reasonable effects of the Research Study are briefed as below.

1. The study may lend a hand to understand the Consumer needs as it has probed to identify the Service Delivery aspects that would offer 'Value' for the Power Consumers. The coverage of subtle issues related to Service Delivery and microanalysis of the allied variables will help the MSEDCL understand the reasons for Service Failures and plan strategies for Service Recovery. This will help the MSEDCL face the future challenges in competitive environment.
2. Having considered the Consumer's Voice, the discussion of basic variables in the research provides platform for the MSEDCL as well as the Regulator (MERC), to design Service Standards in accordance with Consumer needs and Interest.
3. It should be noted by eligible Open Access Consumers that a hasty decision, without understanding the 'Consumption Pattern', financial implications of switching and related terms and conditions of the agreement with the new Service Provider, would make the situation even worst for them. The research study has covered all the finest

issues linked to Open Access; as a consequence, the report would operate to provide guidelines to the eligible Open Access Consumers, while switching over to another Service Provider. Apart from understanding the financial implications, related to switching, the detailed questionnaire in the Research would offer a readymade checklist of various parameters that an eligible Open Access Consumer must look for, while changing the existing Service Provider.

4. The study carves new gaps for further Research. The Employee side, related to implementation of Open Access policy remains concealed, so also are the problems associated with the Regulator in amending the existing rules and regulations for making the objective pragmatic and extending the advantages of competition to the Society at large.

The Research work is just a handful contribution to the implementation of Open Access in Distribution Sector and it may be treated as baby step taken so as to ignite the topic and fuel more discussion on it in future.

| Annexure

Annexure 1: Sample Frame (List of eligible OA Consumers, Source: IT Centre, Pune)

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
1	170019040980	M/S. CITY REALITY DEVELOPMENT PVT. LTD.,	EB - 02 A, S. NO. 181, TOWN CENTER, AMANORA PARK TOWN, HADAPSAR, PUNE.	1495	HT-II E I
2	170019038890	M/S. CITY CORPORATION LTD.	S.NO.181, MALWADI ROAD, SADESATARANALI, HADAPSAR, PUNE	1315	HT-II N II
3	170019034430	M/S MANJRI STUD FARM PVT LTD.	S.P. INFOCITY SASWAD ROAD HADAPSAR FURSUNGIPUNE	2000	HT-I C
4	170019029940	M/S PATNI COMPUTERS SYSTEM LTD.	WING A+B UPPAR GROUND LEVEL LEVEL I&II CYBER CITY TOWN II MAGARPATTA HADAPSAR PUNE	2400	HT-I N
5	170019028140	M/S AMDOCS DEVELOPMENT CENTER	CYBERCITY TOWER II 6TH 7 TH FLOOR MAGARPATTA CITY HADAPSAR PUNE	2600	HT-I N
6	170019030120	M/S JOHN DEERE INDIA PVT LTD	CYBER CITY TOWER - 14 MAGARPATTA CITY HADAPSAR PUNE	1739	HT-I N
7	170019026760	EXL SERVICE COM (INDIA) PRIVATE LIMITED	CYBERCITY PHASE I MAGARPATTA HADAPSAR PUNE	1200	HT-I N
8	170019026770	THE MANAGING DIRECTOR	MAGARPATTA TOWNSHIP DEVELOPMENT & CONSTRUCTION CO LHADAPSAR PUNE	1700	HT-I N
9	170019028580	WNS GLOBAL SERVICES PRIVATE LIMITED	TOWER I 5TH, 6TH 7TH CYBERCITY PHASE I MAGARPATTA CITY HADAPSAR PUNE	1184	HT-I N
10	170019031540	M/S ELECTRONIC DATA SYSTEM (INDIA) PVT LTD/	CYBER-CITY TOWER-4 MAGARPATTA HADAPSAR PUNE	3557	HT-I C
11	170019031390	M/S ACCENTURE SERVICE PVT LTD.	CYBER CITY TOWER 5 LEVEL 6&7 MAGARPATTA CITY HADAPSAR PUNE	1849	HT-I C
12	170019036870	M/S BNY MELLON INTERNATIONAL OPERATIONAL (INDIA) PVT	CYBERCITY TOWER- S3, LEVEL 03, 04, 05, 06, 07 MAGARPATTA CITY HADAPSAR PUNE	1412	HT-I N
13	170019034850	M/S CAPITA INDIA PVT LTD.	CYBERCITY TOWER-10 LEVEL -2 & 3 MAGARPATTA CITY HADAPSAR PUNE	1232	HT-I N

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
14	170019036390	M/S MAGARPATTA TOWNSHIP DEV. & CONST CO LTD.	CRBERCITY TOWER-7,8,9, MAGERPATTA CITYHADAPSARPUNE	1111	HT-II N II
15	170019032050	M/S. AMDOCS DEVELOPMENT CENTER INDIA LTD	LEVEL 0 & 1 CYBERCITY TOWER-XIIMAGARPATTA CITY, HADAPSARPUNE	1287	HT-I N
16	170019034530	M/S JOHN DEER INDIA PVT LTD.	CYBERCITY TOWER-11 LEVEL O & 1 MAGARPATTA CITYHADAPSARPUNE	1115	HT-I N
17	170019033800	M/S MAGARPATTA TOWNSHIP DEV. & CONST.CO.LTD.	CYBERCITY TOWER-11 LEVEL3 & 4 MAGARPATTA CITYHADAPSARPUNE	2764	HT-I N
18	170019031090	M/S OPTION ONE MORTGAGE CORPORATION (INDIA)PVT LTD	LEVEL 3,4 & 5 TOWER-6, BERCITYMAGARPATTA CITY CYBERCITYHADAPSAR PUNE	1000	HT-I N
19	170019035550	BNY MELLON INTERNATIONAL OPERATION(INDIA)PVT LTD.	CYBERCITY TOWER-6 LEVEL-2 & 5 MAGARPATTACITYHADA PSARPUNE	1291	HT-I N
20	170019037500	M/S. AMDOCS DEVELOPMENT CENTER INDIA PVT.LTD	SEZ, TOWER-7, LEVEL-7, MAGARPATTACITY, HADAPSARPUNE	1272	HT-I N
21	170019033770	M/S ACCTURE SERVICE PVT LTD.	MAGARPATTA CITY SEZ TOWER-B-1 MAGARPATTA CITY VILLAGE-HADAPSAR	2409	HT-I N
22	170019038680	M/S. ASHTON REAL ESTATE DEVELOPMENT PVT.LTD	S.NO.207/1A, 207B, 207/2, LOHAGAONAt Wadgaonsheri, Viman NagarPUNE	2500	HT-II E II
23	170019038770	M/S. ALLIANCE HOSPITALITY SERVICES PVT.LTD	S.No.207/1,207B,207/2,Lohag aon,S.No.33/2A/2,33/2B/2 at Wadgaon Sheri, Viman NagarPUNE	2500	HT-II E II
24	170019038700	M/S. VAMONA DEVELOPERS PVT.LTD	S.NO.207/1A, 207B, 207/2, LOHGAONAt Wadgaonsheri, Viman NagarPUNE	2917	HT-II E II
25	170019038690	M/S. TRINITY VENTURES	S.NO.207/1A,207B, 207/2, LOHAGAONAt. Wadgaonsheri, Viman NagarPUNE	2500	HT-II N II
26	170019038430	MR. ABDUL HAMID JAFARI	CTS NO. 8 = 9, BUND GARDEN ROADOPP. POONA CLUB,PUNE	1350	HT-II N II
27	170019009401	M/S BRAMHA BAZAZ HOTEL LTD.	RAJA BAHADUR MILLBEHIND PUNE RLY.STATIONPUNE 411001	1184	HT-II N II

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
28	170019029690	M/S PANTALOOON RETAIL (I) LTD.	S.NO.364 CTS NO 1/1 F.P.NO 256,BOAT CLUB ROADPUNE	1450	HT-II N II
29	170019026500	M/S. SATYAM COMPUTER SERVICES LTD.	CTS 18-18/1 O.P.BO. 250, F.P.NO. 246BAND GARDEN ROAD,PUNE	1100	HT-I N
30	170019025550	THE COMMISSIONER PUNE MUNICIPAL CORPORATION	SHIVAJINAGARPUNEPUNE	1900	HT-IV E
31	170019036270	M/S CLASSIC CITI INVESTMENT PVT LTD.	S.NO 36 H.NO 3(PT)GHORPADIPUNE	4400	HT-II N II
32	170019033920	M/S JEWEL DEVELOPPERS	CTS NO 15 A-15/7+15/8+15/9, S.NO 479,480 A\Ikoregaon parkPUNE	1005	HT-II N II
33	170019027720	SAVILLE ESTATE PVT LTD	S.NO 471 CTS NO 21/6OPP SUN N SAND BUND GARDEN ROAD NEAR ANJUMAN ISLAMHIGH SCHOOL	1250	HT-I N
34	170019007807	M/S CLASSIC CITY INVESTMENT PVT LTD.	262 B & CBUND GARDEN ROAD PUNEPUNE 411001	1000	HT-II N II
35	170019027370	M/S GODREJ PROPERTIES & INVESTMENT LTD	3RD TO 8TH FLOORGODREJ CASTLEMAINENEXT TO RUBY HALL PUNE	1591	HT-II E II
36	170019031790	M/S VERITAS SOFTWARE(I)PVT LTD.	3RD & 8TH FIOOR,GODREJ CASTLEMAINB.G.ROAD NEXT TO RUBY HALLPUNE	1500	HT-I C
37	170019002821	MANAGING TRUSTEE GRANT MEDICAL FOUNDATION	RUBY HALL CLINIC 40, SASSON ROADPUNEPUNE	1500	HT-II E I
38	170019030970	M/S ONE STOP SHOP INDIA PVT LTD.	CTS NO 1 WESTWINGCHIRCHROAD PUNE	1265	HT-II N II
39	170019027210	M/S PRIDE PARMAR GALAXY CONDOMINIUM	CT5 NO 10 SADHU WASWANI CHOWKPUNE	1153	HT-I N
40	170019039130	ANNUTAM DEVELOPERS PVT.LTD	037 HISSA NO.412, GHORPADINR,. ABC FARM, KOREGAON PARK RDPUNE	4995	HT-II N II
41	170019003674	M/S ASSISTANT ENGINEER TRUNK MAINTENANCE	PUNE TELEPHONE PUNEMAHADAJI SHINDE BHAVAN NR POONA CLUBPUNE	2800	HT-I N
42	170019023800	M/S RUSTOM NANABHOY JEEJEABHOY	VILLOO VILLA 1 CHURCH ROAD,CAMP PUNEPUNE	1310	HT-II N II

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
122	170019031320	M/S KUMAR HOUSEING CORPORATION LTD	CEREBRUM I.T. PARKSR.NO13B,1=2=3 WADGAONSHERIPUNE	1450	HT-I N
123	170019037350	M/S. TRION PROPERTIES PVT.LTD	S.NO. 35, NAGAR ROAD, WADGAONSHERIWADGA ONSHERIPUNE	4950	HT-II E II
124	170019031560	M/S NYATI BUILDERS PVT LTD.(WING A)	TECH PARK S.NO 9/1, 10/2WADGAONSHERIPUNE	1500	HT-I N
125	170019036040	M/S. CALISTA PROPERTIES PVT LTD	S.NO 8/1 B 1/A NEAR BALAJI PALACEKHARADIPUNE	1000	HT-II N II
126	170019002422	M/S KRAN RADAR LTD	29/1 KHARADI VILLAGENAGAR RD PUNE 14KHARADI	1800	HT-I N
127	170019035800	M/S BHARATI AIRTEL LTD.	S.NO 3/1 KHARADI KNOWLEDGE PARKKHARADIPUNE	2500	HT-I N
128	170019031660	M/S EON KHARADI INFRASTRUCTURE PVT LTD.	AT PLOT NO 01,S.NO 77KHARADIPUNE	4500	HT-I N
129	170019028200	ZENSAR TECHNOLOGIES LTD	PLOT NO 4 MIDCKKHARADIPUNE	3777	HT-I N
130	170019041070	P-ONE INFRASTRUCTURE PVT.LTD	S.NO.1,H.NO.1B/2B,KHARADI PUNE.14.	2000	HT-II N II
131	170149071790	THE EXECUTIVE ENGINEER(ELECT)	P.C.M.C. AT 40MLD SEWAGE TREATMENT PLANTKASARWADIPUNE	1243	HT-IV N
132	170019000039	M/S GARRISON ENGINEER CME	KHADAKI PHUGEWADI PUNEPUNE 411012	1700	HT-II N II
133	170019000853	M/S ATLAS COPCO(INDIA) LTD	BOMBAY PUNE RD SEVANAGARDAPODIDAP ODI	1130	HT-I N
134	170019000152	M/S SANDVIK ASIA PVT LTD	POST BOX NO 40 PUNE 1FUGEWADI	4991	HT-I N
135	170019000845	M/S ALFA LAVAL(INDIA) LTD	BOMBAY PUNE ROAD DAPODIPUNE 12DAPODI	2050	HT-I N
136	170149001339	M/S INDIAN CARD CLOTHING COMPANY LTD	PUNE - MUMBAI ROAD NEAR H.A.FACTORYPIMPRI	1400	HT-I N
137	170149072480	M/S. DEVI CONSTRUCTION CO.	ICC DEVI GAURAV TECH PARKS.NO. 191 / 192 (PART), PIMPRI,PUNE	1150	HT-I C
138	170149001410	M/S PREMIER LIMITED	MACHINE TOOL DIVISIONCHINCHWAD PUNE 411019CHINCHWAD	1600	HT-I N
139	170149072000	M/S PRIME PROPERTY DEVELOPMENT CORPORATION LTD.	S.NO 31,32 CTS NO 5860MUMBAI-PUNE ROAD PIMPRI	1600	HT-II N II

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
140	170149003919	M/S VICKERS SYSTEM INTERNATIONAL LIMITED	BOMBAY PUNE ROADPUNEPUNE	1250	HT-I N
141	170149001363	M/S GKN SINTERE METAL LIMITED	PIMPRI PUNEPIMPRI	1890	HT-I N
142	170149001592	M/S PMT MACHINERY TOOLS AUTOMATICS PLTD	PO PIMPRI PF PB NO2 PIMPRI	1300	HT-I N
143	170149001452	M/S KSB PUMPS LTD MILE STONE BOMBAYPUNE	PIMPRI	2000	HT-I N
144	170149001321	M/S THYSSENKRUP INDUSTRIES PVT. LTD	P O BAG NO 22PIMPRI PUNE	1518	HT-I N
145	170149001347	M/S FINOLEX CABLES LIMITED	26/27 BOMBAY POONA RD	2434	HT-I C
146	170149001631	M/S CHIEF ENGINEER HINDUSTAN ANTIBIOTIC	BOMBAY PUNE ROAD PIMPRI	3000	HT-I C
147	170149001631	M/S CHIEF ENGINEER HINDUSTAN ANTIBIOTIC	BOMBAY PUNE ROAD PIMPRI	3000	HT-I C
148	170149065330	M/S AUTO CLUSTER DEVELOPMENT & RESEARCH INSTITUTE	H BLOCK PLOT NO 181CHINCHWADPUNE	1200	HT-I N
149	170149025340	HYT INOVATIVE PROJECTS PVT. LTD.	PLOT NO 138 &b-21 "H" BLOCKMIDC PIMPRI	1200	HT-I N
150	170149007302	M/S PUDUMJEE INDUSTRIES LTD	S.NO. 25/26 THERGAONCHINCHWAD PUNE 411033 CHINCHWAD	4950	HT-I C
151	170149001771	M/S PUDUMJI PULP AND PAPER MILLS LTD	THERGAONPUNETHERGAON	10412	HT-I C
152	170149001550	M/S SKF BEARING INDIA LIMITED	CHINCHWAD GAONCHINCHWAD PUNE 411033CHINCHWAD	5983	HT-I C
153	170149072070	M/S ALUMINIUM FOUNDRY DIVISION	C/O TATA MOTORS LTD.CHINCHWDGAONPUNE	4980	HT-I C
154	170149001401	M/S TATA MOTORS LTD	CHINCHAWAD PUNE	15841	HT-I C
155	170149028130	M/S GENNOVA BIO PHARMACITICAL LTD	PL.NO 1 PHASE IINFOTECH PARK HINJWADI MULSHIPUNE	2500	HT-I C
156	170149066990	M/S ACORIS RESEARCH LTD.	PLOT NO 3A 2nd PHASE BIOTECH PARKHINJEWADIPUNE	1000	HT-I N

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
157	170149060780	M/S INTERNATIONAL BIOTECH PARK	PHASE-II RAJIVE GANDHI BIOTECH PARKMIDC HINJAWADIPUNE	1475	HT-II N II
158	170149062690	M/S. CENTAUR PHARMACEUTICALS PVT.LTD.	PLOT NO. 4, RGIP, PH-II,HINJAWADIPUNE	1350	HT-I N
159	170149027940	M/S. SCIGEN BIOPHARMA PVT LTD.	PLOT NO. 18, IT PARK HINJAWADI PHASE IINEAR EMCURE INDUSTRIAL, TAL. MULSHI, DIST. PUNEPUNE	1490	HT-I N
160	170149026900	M/S ADITYA BIRLA FOUNDATION PUBLIC TRUST	S.NO.31 NR NEW MORYA MANGAL KARYALATHERGAON CHANCHWADPUNE	1500	HT-II N I
161	170149069200	M/S DLF AKRUDI	BLOCK NO 4 PLOT NO 28 & 29MIDC PH-II RGIPHINJAWADI PUNE	2500	HT-I C
162	170149065830	M/S DLF AKRUTI INFOPARK(PUNE)LTD.	BLOCK 1 PLOT NO 28,29 &PL2T RGIP HINJWADIPUNE	1518	HT-I C
163	170149066730	M/S DLF AKRUDI INFO PARK	BLOCK NO 2 PLOT NO 28 & 29RGIP PH-II HINJAWADIPUNE	1100	HT-I C
164	170149066720	M/S DLF AKRUDI INFO PARK	BLOCK NO 1 & 2 PLOT NO 28 & 29RGIP PH-II HINJAWADIPUNE	1500	HT-I C
165	170149069210	M/S DLF AKRUDI	BLOCK NO 3 PLOT NO 28 &29 PL-2MIDC PH-11 RGIPHINJAEADI PUNE	2200	HT-I C
166	182939021940	M/S TATA TOYO RADIATORS PRIVATE LTD	GAT NO 235 AT HINJAWADITAL MULSHI DIST PUNEHINJAWADI	1600	HT-I N
167	182939031570	M/S TATA AUTO PLASTIC SYSTEMS LIMITED	SR. NO. 235-245 AT HINJEWADITAL MULASHI DIST. PUNEPUNE	3500	HT-I N
168	170149061160	M/S 3DPLM SOFTWARE SOLUTIONS LTD.	PLOT NO 15 INFOTECH PARKHINJAWADIPUNE	1000	HT-I N
169	170019063990	M/S ISH INFORECH	PLOT NO P-1/4 PHASE - IIRGIP MIDC HINJAWADIPUNE	1400	HT-I N
170	170149062660	M/S PERSISTENT SYSTEM LTD.	PLOT NO 39-PH-1.RGIPHINJAWADIPUNE	1500	HT-I N
171	170149065920	M/S. AZTEC DISHA TECHNOLOGIES LTD	P.NO.37, RAJIV GANDHI INFOTECHPARK, HINJAWADIPUNE	1000	HT-I N
172	170149065350	M/S ASMITA INTERNATIONAL & INFRASTRUCTURE PVT.LTD	INFOTECH PARKPHASE-I HINJAWADIPUNE	1200	HT-II N II

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173	170149071050	M/S SHREE BALAJI VENTURES	AT S.NO 249/250WAKADPUNE	1200	HT-II N II
174	170149028520	M/S. INFOSYS LIMITED.	PL.NO. 24, RAJIV GANDHI INFOTECH PARKPHASE II VILLAGE MAN, TAL MULSHIHINJAWADI PUNE	5000	HT-I N
175	170149062110	M/S TATA BIUESCOPE STEEL BUILDING SOLUTION	S.NO 250,247 HINJAWADITAL MUSHILPUNE	1200	HT-I N
176	170149066080	M/S DYNASTY DEVELOPERS (P)LTD.	PLOT NO 3 RGIPHINJAWADIPUNE	3350	HT-I C
177	170149062620	M/S WIPRO LTD.	PLOT NO 2 MIDCRGIP HINJAWADIPUNE	5000	HT-I C
178	170149009518	M/S INFOSYS LIMITED	PLOT NO 1 PUNE INFOTECHPARK M.I.D.C. HINJAWADIPUNE 411027	3250	HT-I N
179	170149024530	M/S COGNIZANT TECHNOLOGY	PLOT NO 26,27 INFOTECH PARKHINJWADIDIST PUNE	3000	HT-I C
180	170149023940	M/S. WIPRO LTD.	PLOT NO. 2, INFOTECH PARK,HINJAWADI, TAL. MULSHI, DIST:PUNEHINJAWADI	5000	HT-I N
181	170149028010	M/S KPIT CUMMINS INFOSYSTEMS LTD	PLOT NO 35/36 INFOTECH PARKHINJAWADI TAL MULSHIPUNE	2309	HT-I N
182	170149070550	M/S.FLAGSHIP INFRASTRUCTURE PVT.LTD	S.NO.154, HINJAWADIPUNEPUNE	4900	HT-I N
183	170149064430	M/S FLAGSHIP INFRASTRUCRE PVT LTD	S.NO 153/2 & 157/3 HINJAWADITAL MULSHIDIST PUNE	3000	HT-VIII
184	170149070440	M/S INFOSYS LIMITED.(SEZ)	PLOT NO 24 RGIP PH-IIHINJAWADIPUNE	7000	HT-I C
185	170149070660	M/S EON HINJAWADI INFRASTRUCRE P.LTD.	PLOT NO 20 S.NO 19/20 OPP H.P.PUMPHINJAWADIPUNE	1073	HT-II N II
186	170149025190	M/S TATA TECHNOLOGIES LTD	PLOT NO25 INFOTECH PARKMIDC HINJWADIPUNE	1750	HT-I N
187	170149066600	M/S. EON HINJAWADI INFRASTRUCTURE P.LTD	S.NO.20, HINJAWADITAL MULSHIPUNE	1850	HT-I N
188	170149068650	M/S IDEA CELLULAR LIMITED	PLOT NO 19/20(IBM) IDEA SOFTWARE)HINJAWADIPUNE	3000	HT-I N
189	170149061250	M/S EMITECH EMISSION CONTROL TECHNOLOGIES INDIA LT	S.NO 282/1 AT VILLAGE MANNTAL MULSHIPUNE	1976	HT-I N

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190	170149061220	M/S TATA AUTO PLASTIC SYSTEM	A DIVISION OF TATA AUTO COMP SYSTEM LTD.S.NO280&281 RAISONIC IND.PARK AREAVILLAGE MANN TAL MULSHI PUNE	2500	HT-I N
191	170149064560	M/S.VISTEON TECHNICAL & SERVICES CENTRE PVT.LTD	S.NO. 279, VILLAGE MANNTAL. MULSHI, DIST. PUNEMANN	1500	HT-I N
192	171199035380	M/S. VISTEON AUTOMOTIVE SYSTEM (I) PVT.LT	PL.NO. III, S.NO. 283/2, RAISONI IND. PARKMANN, TAL. MULSHI, DIST. PUNEMANN	1200	HT-I N
193	170149072250	M/S. TECH MAHINDRA	RGIP PH-II, HINJAWADIVILLAGE MANN, TAL. MULSHI,PUNE	4500	HT-I C
194	170149072800	M/S. DYNASTY DEVELOPERS P.LTD	P.NO.3, RGUP PH-IIHINJAWADIPUNE	4800	HT-I C
195	170149073440	M/S. TATA CONSULTANCY SERVICES LTD	P.NO. 2 & 3 RGIP PHASE - IIIMIDC HINJAWADIPUNE	5000	HT-I C
196	170149025940	EMCURE PHARMACEUTICALS LTD	PLOT NO P2 PHASE II ADDITIONAL INFOTECH AREAHINJWADIPUNE	4200	HT-I C
197	170019029090	THE GODREJ PROPERTISE LTD.	DAGADI BUNGLOW NO 3 WAKADWADIMIMBAI PUNE ROAD SHIVAJINAGARPUNE	1500	HT-II N II
198	170019069370	M/S L & T INFOTECH LTD.	GODREJ ELERNIA " A " , 4th TO 9th FLOORAT OLD PUNE-MUMBAI ROADWAKADEWADI PUNE	1000	HT-I N
199	170019067350	M/S VODAPHONE ESSAR LTD.	S.NO 21/4 F.P.NO.27METROPOLITION IIND FLOORMUMBAI-PUNE ROAD WAKADEWADI PUNE	1800	HT-I C
200	170019067100	M/S LEON REALTORS PRIVATE LIMITED	B WING PLOT NO 64,4, SANGAMWADIMUMBAI PUNE ROADPUNE	1960	HT-II E II
201	170019071670	M/S. EMERSON EXPORT	ENGINEERING CENTRE, PL.NO. 6414,SANGAMWADIPUNE	1000	HT-I C

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202	170019072710	M/S. BAJAJ AUTO LTD.	CTS NO.12B + 315 PL.NO.38BHAMBURDA, OLD MUMBAI-PUNE RDPUNE	2000	HT-I C
203	170019028660	M/S AMEYA DEVELOPERS	38/2, BAVDHAN (kh)NEAR AMROSIA RESORTPUNE	2200	HT-I N
204	170019069260	M/S REAL TIME ESTATE MANAGMENT PVT LTD.	S.NO 322A,323A, MUMBA- BENGLORE HIGHWAYAT LALANI QUANTUM P.LTDPUNE	1128	HT-II N II
205	170019061390	M/S ICC REALITY (I) PVT LTD.	504 CORPORATE PLAZA106 A.S.B.ROADPUNE	2000	HT-I C
206	170019062440	M/S I.C.C.REALITY (I) PVT LTD.	403/A PLOT "C" S.NO 985S.B.ROADPUNE	2000	HT-I C
207	170019062430	M/S I.C.C.REALITY (I)PVT LTD.	403/A2 PLOT NO 'A"SHIVAJI HSG SOCITYPUNE	1000	HT-II E II
208	170019068310	M/S ICC REALITY PVT LTD.	ICC MERRIOTT PLOT NO 1 BS.NO 985 SHIVAJINAGARPUNE	3000	HT-II E II
209	170019006223	M/S DIRECTOR NATIONAL INSTITUTE OF	VIROLOGY 20-A DR AMBEDKARROAD POST BOX NO 11 PUNE 1PUNE 411001	1100	HT-II N II
210	170019026230	M/S MUTHA ASSOCIATES	S.NO 106 A1 BHAMBURDAS.B. ROAD GANESHKHINDPUNE	1575	HT-I N
211	170019062680	M/S SIPOREX INDIA LTD.	CTS NO 1086 F.P.NO 466GANESHKHIND ROADPUNE	1200	HT-II E II
212	170019000748	M/S GARRISON ENGINEER ERDL/ARDL SDO B/R	M I S PASHAN PUNEPASHAN	3000	HT-II E II
213	170019004573	M/S DIRECTOR NATIONAL INFORMATIC CENTRE	GOVT OF INDIA WESTERNREGION VDYOG BHAVAN PUNEGANESHKHIND RD	2000	HT-II E II
214	170019069220	M/S KAKADE DEVELOPERS PVT LTD.	"KAKADE CENTRE PORT" NEAR E-AQUARE THEATRE268+ B SHIVAJINAGARPUNE	2000	HT-II N II
215	170019070720	M/S. NVIDIA GRAPHICS PVT LTD.	94/16 BUTE PATIL CLASSICNEAR RAHUL THEATRE G'KHIND ROADSHIVAJINAGAR PUNE	2800	HT-I N
216	170019001019	M/S DIRECTOR NATIONAL CHEMICAL	LABORATORYPASHAN PUNEPASHAN	1200	HT-II E II

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217	170019004778	M/S DIRECTOR NATIONAL CHEMICAL LABORATOR	Y NCL PREMISES DR HOMI BHABHA PATH PUNEPASHAN	1200	HT-II E II
218	170019005111	M/S DIRECTOR OF INDIAN INSTITUTE	TROPICAL METROLOGY PASHAN(I. I. T. M.) DR.HOMI BHABHA ROADPASHAN	2500	HT-II E I
219	170019007912	M/S DIRECTOR NATIONAL CENTRE FOR CELL	SCIENCE UNIVERSITY CAMPUSGANESHKHIND PUNEPUNE	1400	HT-II E II
220	170019000861	M/S REGISTRAR PUNE UNIVERSITY	C/O ESTATE MANAGER ELEC & GEN-UNIVERSITY OF POONAGANESHKHIND	1935	HT-II E I
221	170019006932	M/S DIRECTOR OF SPORTS & YOUTH	SERVICES MAHARASHTRA STATEBALAWADI MAHALUNGE PUNEBALEWADI-PUNE	1500	HT-II E II
222	170019067730	M/S B.W.HIGHWAY STAR PRIVATE LIMITED	S.NO 26/B SHI CHATARAPATI SPORTS COMPLEXBALEWADIPUNE	2000	HT-II E II
223	170019069730	M/S. B.W.HIGHWAY STAR PRIVATE LIMITED	S.NO 26/B SHIVCHATRAPATI SPORT COMPLEXBALEWADIPUNE	2500	HT-II E II
224	170019029010	MILLENNIA REALTORS PVT LTD.	S.NO H.NO 8 & 12 PLOT NOA BANER ROADPUNE	4500	HT-I C
225	170019070420	M/S MILLENNIA RELTORS P LTD.	BLOCKNO B.S.NO 3 H.NO 8,12PLOT A BANERPUNE	2000	HT-I C
226	170019067920	M/S SYMPHONY SERVICES PUNE PVT LTD.	S.NO 1/3 A, H.NO 1/3 A TO 14BANERPUNE	2000	HT-I N
227	170019065210	THE ACCORD REALTY PVT LTD.	S.NO 3 H.NO 611BANERPUNE	1305	HT-I N
228	170019064040	M/S PRITAM CONSTRUCTIONS	AMAR ARMA GENESSIS.NO 21^2/2 BANERPUNE	1539	HT-I N
229	170019026790	M/S. MILLENNIA REALTORS PVT.LTD.	RMZ WESTEND SECTION NO. 2S.NO. 169/1 OPP. CITY INTERNATIONAL SCHOOLD.P ROAD, AUNDH, PUNE	1404	HT-I N
230	170019073530	M/S SUNGARD SOLUTIONS INDIA PVT LTD	AT S.NO.169/1 SECTOR - IIBLDG - B , AUNDHPUNE	1800	HT-I C
231	170019068580	M/S CHITRALI PROPERTIES P LTD.	SECTOR -II BUILDING "B"S.NO 169/1 D.P. ROADAUNDH PUNE	2900	HT-II E II

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232	170019063160	M/S CHITRALI PROPERTIES PVT LTD.	BUILDING D AT S.NO 169/1D.P. ROAD AUNDHPUNE	1580	HT-I N
233	170019066910	M/S N.S. GAIKWAD	S.NO 127/1 A TO 1E PLOT NO 8AUNDHPUNE	2000	HT-II N II
234	170019068760	M/S PRITAM CONSTRUCTION PVT LTD.	(AMAR MEGAPLEX) 2ND FLOOR TO 7TH FLOOR ONLYS.NO 106 BANERPUNE	1200	HT-II N II
235	170019068600	M/S VIORICA PROPERTIES(P) LTD.	"HOLIDAY INN" S.NO 9/9/1 MHALUNGEPUNE	1000	HT-II N II
236	170019000136	M/S KIRLOSKAR OIL ENGINES LTD	13 LAXMANRAOKIRLOSKAR ROADKHADAKIKHADAKI	4981	HT-I C
237	170019063720	M/S. GARRISON ENGINEER (PROJECT)	MILLITARY HOSPITALKIRKEEPUNE	1000	HT-II E I
238	170019024280	M/S VANSUM INDUSTRIES	34 AUNDH ROAD BOPADIBHAU PATIL ROADPUNE 3	2500	HT-I C
239	170019000055	M/S SUPRINTENDENT AMMUNATION FACTORY	KHADAKI PUNE 3KHADAKI	5000	HT-I C
240	170019001175	M/S ASSISTANT GARRISON ENGINEER (INDEP)	C#O G.E.(CENTRAL)RANGE HILLS ROAD, KHADKIKIRKEE	4000	HT-I C
241	170019000217	M/S KIRLOSKAR OIL ENGINES LTD	13 LAXMANRAO KIRLOSKARROAD KHADAKI PUNE 3KHADAKI	1000	HT-I N
242	170019060690	M/S PERSISTENT SYSTEM LTD.	FP NO9 A\12 CTS NO 12A\12ERANDVANE NEAR PADALE PLACE OPP SHARDA CENTREPUNE	1700	HT-I N
243	170019023310	M/S TECH MAHINDRA LTD.	SHARDA CENTREOFF KARVE ROAD , S.NO.91.ERANDVANE D.GYMKHANA .PUNE	2145	HT-I N
244	170019068570	M/S SUMA SHILP LTD.	"DOWN TOWN" SOFTWARE , 5TH TO 8TH FLOORS.NO 8+13 NEAR MHATRE BRIDGEERANDWANE PUNE	1400	HT-II E II
245	170019071820	M/S PRANJAPE SCHEMES CONSTRUCTION LTD.	CTS NO 25/20 F.P.NO 25 C+24AERANDWANEPUNE	1400	HT-II E II
246	170149028720	SHRI ASHOK S. BEHARAY & OTHERS	S.NO 20/2 PLOT NO CC3NEAR CITY PRIDE KOTHRUDPUNE	1000	HT-II N II

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247	170019002945	M/S AUTOMOTIVE RESEARCH ASSOCIATION OF	M/S AUTOMOTIVE RESEARCH ASS.OF INDIAVETAL TEKDI POU D RD KOTHRUDKOTHRUD PUNE	1500	HT-II N II
248	170019002902	M/S CITY ENGINEER PARWATI WATER WORKS	PUNE SINHAGAD ROAD00000000000000000000 0000000SNDT PUMPING	1200	HT-IV N
249	170019000519	M/S CUMMINS INDIA LTD.	KOTHRUD PUNE00000000000000000000 0000000KOTHRUD	4975	HT-I C
250	170019000314	M/S GARRISON ENGINEER	NATIONAL DEFENCE ACADEMYKHADAKWASL AN D A PUNE	2400	HT-VI
251	170019029590	THE DEVELOPMENT ENGINEER(WATER SUPPLY)	S.NO 16 WARJE JAKAT NAKANEAR KAKADE CITYPUNE	3000	HT-IV E
252	170149002556	M/S TRINITY ENGINEERING	14-2-1 MIDC PUNE00000000000000000000 0000000CHINCHAWAD	4350	HT-I N
253	170149003269	M/S THERMAX LTD	D-13 MID CCHINCHAWAD PUNECHINCHAWAD	2036	HT-I N
254	170149001568	M/S FORCE MOTORS	AKURDI00000000000000000000 000000000AKURDI	6428	HT-I C
255	170149001541	M/S JAYA HIND INDUSTRIES LTD	AKURDI00000000000000000000 000000000AKURDI	1100	HT-I C
256	170149002661	M/S GARWARE WALL ROPES	D-11 PL NO 11 MIDC00000000000000000000 0000000AKURDI PUNE	2160	HT-I N
257	170149002173	M/S SPACO TECHNOLOGIES (I) PVT LTD	PL NO 13 BOMBAY PUNE ROADCHINCHAWAD PUNECHINCHAWAD	1130	HT-I N
258	170149006101	M/S GARWARE WALL ROPES LIMITED	GWR FIBRE DIVISIONMIDC PLOT NO 11 BLOCK D 1CHINCHWAD PUNE	1224	HT-I N
259	170149001975	M/S ATLAS CASTALLOY LTD.	D2 LINK RD NOIIMIDCCHINCHWADCH INCHWAD	1200	HT-I N
260	170149007949	M/S FORCE MOTORS (TRACTER DIV)	OFF OLD BOMBAY PUNE RDAKURDI PUNEAKURDI 411035	4260	HT-I C

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261	170149001398	M/S GREAVES LTD	CHINCHAWAD PUNE00000000000000000000 0000000CHINCHAWAD	1200	HT-I N
262	170149001436	M/S PREMIUM ENERGY TRANSMISSION LTD.	CHINCHAWAD PUNE00000000000000000000 0000000CHINCHAWAD	1470	HT-I N
263	170149001789	M/S MATHER AND PLATT PUMPS LTD.	CHINCHWADPUNECHINC HWAD	4500	HT-I N
264	170149004851	M/S GREAVES LTD (DIESEL ENGINE UNIT	PLANT IIICHINCHWAD PUNEPUNE 411019	2248	HT-I N
265	170149001444	M/S BAJAJ AUTO LTD	AKURDIPUNEAKURDI	8000	HT-I C
266	170149004206	M/S FINOLEX INDUSTRIES LTD	BLOCK D1 PNO10 MIDC AREACHINCHWAD POONAPUNE 411019	2100	HT-I C
267	170149004168	M/S AMFORGE INDUSTRIES LTD	PL NO 32/D-2 BLOCK MIDCCHINCHWADCHINC HWAD	2415	HT-I N
268	170149008953	M/S REGIONAL TELECOM TRAINING CENTRE	PLOT NO 121 122 "G" BLOCKM.I.D.C. CHINCHWADPUNE 411019	1200	HT-I N
269	170149001991	M/S EXIDE INDUSTRIES L.T.D. CHINCHWAD	D2 MIDC IND ESTATECHINCHWAD POONA 411019	4900	HT-I N
270	170149028640	M/S SUBU CHEM PVT LTD.	G.NO 673, KUDALWADICHIKHALIPU NE	1400	HT-I N
271	170149075160	M/S SUBU CHEM PVT. LTD. (UNIT-II)	AT GAT.NO.671 , KUDAL- WADI,CHIKHALIPUNE.	1000	HT-I C
272	170149001878	M/S TATA MOTORS LTD	PIMPRI PUNE PIMPRI	5537 2	HT-I C
273	170149001673	M/S MAHINDRA HINODAY INDUSTRIES LTD.	BHOSARI INDUSTRIES ESTATEBHOSARI PUNEBHOSARI	4500	HT-I N
274	170149002998	M/S SAINT GOBAIN SEKURIT (INDIA)LTD.	M I D CBHOSARI PUNEBHOSARI	2500	HT-I N
275	170149076820	M/S. ARTEMIS PROPERTIES PVT. LTD	PLOT NO. T-187'T' BLOCK MIDCNEAR CIRT SWITCHING STN. BHOSARI.	1500	HT-II N II
276	170149001967	M/S KORES (INDIA) LTD	PEFCO FOUNDRY DIVISION E-14 BHOSARI IND. AREAPUNE 411026	2850	HT-I N
277	170149024940	M/S RELIANCE COMMUNICATION LTD	T-23 MIDC BHOSARITELCO ROADPUNE	1100	HT-I N

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278	170149003412	M/S K S B PUMPS	POWER PROJECT CHINCHAWADMIDC PUNECHINCHAWAD	3200	HT-I N
279	170149004257	M/S SONA OKEGAWA PRECISION FORGINGS LTD.	T-46 MIDC BHOSARIPUNEBHOSARI	1300	HT-I N
280	170149002009	M/S CENTURY ENKA LTD	BHOSARIPUNEPUNE	7680	HT-I C
281	170149026060	BHARUCHA STONE & SAND WORKS	S.NO.80, CHAROLI TQ HAVELI DIST PUNECHAROLIPUNE	1100	HT-I N
282	170149061280	M/S SYNTEL INTERNATIONAL PVT LTD.	PL NO B-1 MIDC SOFTWARE TECHLOGY PVT LTD.TALAWADEPUNE	2750	HT-I C
283	170149068520	M/S SYNTEL INTERNATIONAL PVT LTD.	SYNTEL SEZ PLOT NO B1 & B2TALAWADE SOFTWARE TECHNOLOGY PARKDEHU-ALANDI ROAD PUNE	1800	HT-I C
284	170149005865	M/S ADMINISTRATOR, P.C.M.C.	RAW WATER PUMPING STATION.AT.RAVET.DIST. PUNE.PIMPRI 411018	6500	HT-IV E
285	170149005831	M/S PROJECT OFFICER PYROTECHNIC PROJECT	POST ORDNANCE FACTORY ESTTAL MAVAL DIST PUNEDEHUROAD412113	1340	HT-I N
286	170149022970	M/S GARRISON ENGINEER	M E S DEHU ROADTAL MAVAL DIST PUNEPUNE	2000	HT-VI
287	170149005857	M/S EXECUTIVE ENGINEER MIDC CHICHWAD	MIDC DIVISION CHINCHWADPUNERAVET 411019	1300	HT-I C
288	170149005849	M/S EXECUTIVE ENGINEER M.I.D.C.CHINCHWAD	MIDC DIVISION CINCHWADPUNERAVET 411019	1600	HT-I C
289	170149069360	M/S S.BALAN I.T. UNIT	I.T.UNIT PLOT NO A-6 SOFTWARE PARKM.I.D.C. TALAWADEPUNE	2300	HT-II N II
290	171379020223	M/S CAPGEMINI (I) INDIA PVT LTD	TALAWADE TAL.HAWELIDIST. PUNE TALWADETALAWADE	1250	HT-I N
291	170149024190	M/s CAPGEMINI INDIA PVT LTD	A12 SOFTWARE TECHNOLOGY PARKTALWADE MIDC PUNEPUNE	1500	HT-I N
292	170149061970	M/S CAPGEMINI INDIA PVT LTD	PLOT NO 4-2 & A- 3TALAWADE SOFTWARE PARKVILLAGE TALAWADE MIDC	1250	HT-II N II

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293	170149076830	M/S CAPGEMINI INDIA PVT.LTD.	PLOT NO. A-2/A-3,TECHNOLOGY PARK,TALAWADE	1500	HT-I N
294	170149026940	M/S FUJITSU CONSULTING INDIA PVT.LTD.	PLOT NO A-15 SOFTWARE TECHNOLOGY PARKTALWADEPUNE	2272	HT-I N
295	170229042960	M/S. SAKAL PAPERS PVT LTD	GAT NO. 159, 160 URULIDEVACHITAL. HAVELI. DIST. PUNEURULIDEVACHI	1830	HT-I C
296	171579051910	HYVA INDIA PVT LTD	GAT NO.185 PART,186 PART, PHULGAONGLOBAL RAISONI IND. PARK, TAL. HAVELI,DIST.PUNEPHULG AON	1272	HT-I N
297	171179051950	OM SHREE SAI INFRA	GAT NO. 70BHAVADITAL HAVELI	1260	HT-I N
298	170529045690	M/S.VMR INFRASTRUCTURE PVT.LTD.	GAT NO.595, 602, LONIKAND,TAL-HAVELI, DIST.PUNELONIKAND	1104	HT-I N
299	171339021634	M/S WEIKFIELD FOODS PVT. LTD.	WEIKFIELD ESTATE,NAGAR ROAD, PUNEPUNE	1529	SP-I
300	170899032910	M/S. WIKA INSTRUMENTS INDIA PVT.LTD.	GAT NO. 94, & 100 AT-KESNAND,TAL. HAVELI, DIST.PUNEKESNAND	1050	HT-I N
301	183099032810	M/S. LUPIN LTD.	GAT NO. 46A/47A AT VILLAGE NANDE,TAL. MULSHI, DIST. PUNENANDE	2382	HT-I N
302	182859041600	M/S. LAVASA CORPORATION LIMITED	AT DASVETAL. MULSHI, DIST. PUNEDASVE	4500	HT-II E II
303	182919044340	M/S LUPIN LIMITED	GAT NO 1156 GHOTAWADETAL MULISHI DIST PUNEGHOTAWADE	1600	HT-I N
304	182859032360	M/S KLAUS UNION ENGINNER PVT LTD	GAT NO 1197 AT PIRANGUTTAL MULSHI DIS PUNEPIRANGUT	1592	HT-I N
305	182929001258	M/S INDO SCHOTTLE AUTO PARTS PVT.LTD.	105/1 MUKTA APARTMENTSUNDERRAO REGE MARG PUNEERANDWANE PUNE	1800	HT-I C
306	182929031640	MS/. BRINTONS CARPETS ASIA PVT LTD.	PL. NO. 414/415/416 URWADETAL. MULSHI DIST. PUNEPUNE	1400	HT-I C
307	182859020454	M/S HINDUSTAN COCA-COLA BEVERAGES PVT.LTD.	AT POST PIRANGUTTAL MULSHI DIST PUNEPIRANGUT	2200	HT-I C

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
308	182859038690	THE DIRECTOR SYMBIOSIS	G.NO. 1154 LAWALETAL. MULSHI, DIST. PUNELAWALE	1100	HT-I C
309	183099036960	M/S. AAMBY VALLEY LTD.	AMBY VALLY SAHARA LAKE CITYTAL. MULSHI, DIST. PUNESAHARA	5000	HT-II E II
310	170319021682	M/S SHOGINI TECHNOARTS PVT LTD	GAT NO 788 KHED SHIVAPURTAL HAVELI DIST PUNEKHED SHIVAPUR	1900	HT-I N
311	179419021695	M/S MAGNUM FORGE & MACHINE WORKS PVT LTD	GAT NO 777 NR SHINDEWADIAT VELU TAL BHOR DIST PUNEVELU	1900	HT-I N
312	179419040260	M/S. VIKRAM IRON & STEEL CO.LTD	G.NO.141, HISSA NO. 3, SHIVARETAL. BHOR, DIST. PUNESHIVARE	2975	HT-I C
313	170259046670	M/S DSK GLOBLE EDUCATION & RESEARCH PVT LTD	S. NO 53,54,55,KADAM WAKVASTIPUNE SOLAPUR RD TAL-HAVELI,PUNEKADAMWA KVASTI	1572	HT-II N I
314	170019000136	M/S HINDUSTAN PETROLIUM CORPORATION LTD	B P P L PROJECT LONIKALBHOR PUNE PUNE	2100	HT-I N
315	170259000028	M/S RAMA KRISHI RASAYAN LTD	POST LONIKALBHORTALUKA HAVELI DIST PUNEAT LONIKALBHOR	1250	HT-I N
316	170259031610	M/S PHILIPS INDIA LTD.	GAT NO. 125 LONIKALBHORTAL. HAVELI DIST. PUNEPUNE	1100	HT-I N
317	170259000010	M/S VISHAY COMPONENTS INDIA PVT.LTD.	TALUKA HAVELIDIST PUNEAT LONIKALBHOR	4500	HT-I N
318	170259040780	M/S. RISE n SHINE BIOTECH PVT.LTD	S.NO. 875, THEURTAL. HAVELI, DIST. PUNETHEUR	1500	SP-I
319	170429001555	M/S POONA ROLLER FLOUR MILLS PVT LTD	PLOT NO 103/104 HDAPSAR IND.ESTATEHADAPSAR PUNE	1100	HT-I N
320	170279037830	M/S. EX-ENGINEER MINOR IRRIGATION DN.I SWARGATE	DN. I SWARGATE (AT SITE SHINDAVANE)PUNEPUNE	2089 4	HT-V
321	181019030096	M/S LARSEN & TOUBRO LTD	AT TUNGARLI LONAWALATAL MAVAL DIST PUNELONAVALA	1000	HT-II N II
322	181019002475	M/S PERFECT ENGINEERING PRODUCTS PVT LTD	172, TUNGARLI, LONAWALATALUKA-MAVAL,DIST.PUNELONAWALA	1200	HT-I N

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
323	181019002441	M/S ASSTT GARRISON ENGINEER I	M E S KURAWANDE LONAWALADIST PUNELONAWALA	1800	HT-II E II
324	181029035950	M/S. JCB INDIA LTD.	PL.NO. A/A MIDC TALEGAONTAL. MAVAL, DIST. PUNETALEGAON	4990	HT-I N
325	181029040130	M/S.TRACTOR ENGINEERS LIMITED	P.NO. A-8, TALEGAONTAL. MAVAL, DIST.PUNETALEGAON	1400	HT-I N
326	181029038130	M/S. INA BEARING INDIA PVT.LTD	AT P. NO. A-3, MIDC TALEGAONTAL. MAVAL, DIST. PUNETALEGAON	2000	HT-I N
327	181029043610	M/S. MAXTECH SINTERED PRODUCTS PVT.LTD	G.NO. 127, MANGRULTAL. MAVAL, DIST. PUNEMANGRUL	1000	HT-I N
328	181029045650	M/S.DONGSHIN MOTECH PVT.LTD.	PLOT NO.19, MIDC TALEGAON DABHADE,TAL-MAVAL, DIST.PUNETALEGAON DABHADE	1000	HT-I N
329	181029043720	M/S. KAKADE STONE CRUSHER	G.NO. 216 & 221 MANGARULTAL. MAVAL, DIST. PUNEMANGARUL	2500	HT-I N
330	181029042400	M/S. SHRINIWAS ENGINEERING AUTOCOMP PVT.LTD	GAT NO. 492, NAWALAKH UMBRETAL. MAVAL, DIST. PUNENAWALAKHA UMBRE	9000	HT-I C
331	181029002040	M/S CADBURY INDIA LIMITED	AT INDURI, P.O.TALEGAONDABHADE, TAL- MAVAL,DT.PUNEINDURI	2200	HT-I N
332	181019044010	M/S.ESSAR STEEL LTD.SERVICE CENTRE	GAT NO.437, 442,AMBI GOLEGAONTAL-MAVAL, DIST.PUNEAMBI GOLEGAON	2000	HT-I N
333	181029046890	M/S.AAKAR FOUNDRY PVT.LTD.	S.NO.341/2, TALEGAON,TAL-MAVAL, DIST.PUNETALEGAON	1000	HT-I C
334	181029039800	M/S. GENERAL MOTORS INDIA PVT.LTD	A-16 MIDC AMBI (NAVLAKH UMBRE)TAL. MAVAL, DIST. PUNETALEGAON	2000 0	HT-I C
335	181029039390	M/S. BERICAP INDIA PVT.LTD	A-6, MIDC TALEGAONTAL. MAVAL, DIST. PUNETALEGAON	1950	HT-I C
336	176349002834	M/S BILCARE LIMITED	253,NARAYAN PETH LAXMI RDPUNEPUNE	1200	HT-I C
337	177529040200	M/S. PARKSONS PACKAGING LTD.	G.NO.357, KHARABWADITAL. KHED, DIST. PUNEKHARABWADI	1200	HT-I C

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
338	176119002720	M/S L'OREAL INDIA PVT. LTD	GUT NO 426 AT &P MAHALUNGEINGALE TAL KHED DIST PUNEMAHALUNGE	2500	HT-I C
339	176029030058	M/S MAHINDRA FORGINGS LTD	P-857-860,CHAKAN AMBETHANROAD,TAL KHED, DIST PUNECHAKAN	16000	HT-I C
340	176029035760	M/S. LUMAX INDUSTRIES LTD	608, CHAKAN TALEGAON ROAD, MAHALUNGETAL. KHED, DIST. PUNECHAKAN	1300	HT-I N
341	176099030837	M/S SEMCO ELECTRIC PVT..LTD.	G.N.154/1,MAHALUNGE-CHAKANTALUKA-KHED, DIST-PUNEMAHALUNGE	1050	HT-I N
342	176029033000	M/S. SEMCO ELECTRIC PVT.LTD	PLT NO. A-2, MIDC CHAKAN,TAL. KHED, DIST. PUNECHAKAN	1100	HT-I C
343	176099053460	M/S BANSAL PLASTO PA PVT. LTD.	G NO 216 TO 219 , MAHALUNGETAL-KHEDDIST-PUNE	1510	HT-I N
344	176029035720	M/S. PRECI FORGE & GEARS (DN. OF JAGADAMBA AUTO)	GAT NO. 150/2 CHAKAN, TALEGAON RD.MAHALUNGE, TAL. KHED, DIST. PUNECHAKAN	1250	HT-I C
345	176099053450	M/S PRADEEP POLYFLEX PVT. LTD.	G. NO. 216 TO 219, MAHALUNGETAL-KHEDDIST-PUNE	1510	HT-I N
346	176099030420	M/S KORES (INDIA) LTD CHAKAN FOUNDRY DN	G.N.149,CHAKAN TALEGAON RD. TAL.KHED, DIST-PUNEMAHALUNGE	6340	HT-I N
347	176029032090	M/S KEIHIN FIE PVT. LTD.	ROAD NO 3, CHAKEN M.I.D.C.TAL KHED DIST PUNECHAKEN	1000	HT-I C
348	176029046440	M/S.PLASTIC OMNIUM VARROC PVT.LTD.	AT-PLOT NO.B-14, MIDC, CHAKANTAL-KHED, DIST.PUNECHAKAN	2250	HT-I N
349	176099033680	M/S. RINDER INDIA PVT.LTD.	GAT NO. 148, MAHALUNGE, CHAKAN,TAL. KHED, DIST. PUNEMAHALUNGE	1500	HT-I N
350	176029003301	M/S AHMEDNAGAR FORGING LTD	GAT NO 2787 CHAKANTAL KHED DIST PUNEAT CHAKAN	2460	HT-I N
351	176029033450	M/S. BADVE AUTO COMPS PVT.LTD.	PLOT NO. A-3, MIDC, CHAKAN,TAL. KHED, DIST. PUNE CHAKAN	1500	HT-I N

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
352	176029030376	M/S BOSCH CHASSIS SYSTEMS INDIA LTD.	G.N.306, AT-NANEKARWADITAL-KHED, DIST-PUNENANEKARWADI	2500	HT-I N
353	177529033980	M/S. RIJ ENGINEERING PVT.LTD	S.NO. 378, KHARABWADI, CHAKAN-TALEGAON RD.TAL. KHED, DIST. PUNEKHARABWADI	2331	HT-I N
354	176089030448	M/S HIGHTEMP FURNACES LIMITED	GAT NO.615,AT-KURULITALUKA-KHED,DIST.PUNEKURULI	2000	HT-I N
355	176029033790	M/S. KSH INTERNATIONAL PVT.LTD.	GAT NO. 11/2/2A & 11/2 AT BIRDWADE,CHAKAN, TAL. KHED, DIST;PUNEBIRDWADE	1515	HT-I N
356	176089031880	M/S SKS FASTENERS LTD.	G.NO.1990, CHAKEN AMBETHAN ROADTAL KHED DIST PUNECHAKAN	1450	HT-I N
357	177769030414	M/S AUTOMOTIVE STAMPINGS AND ASSEMBLIES LTD	G-71/2, M.I.D.C. BHOSARIBHOSARI,T-HAVELI,D-PUNEPUNE	2000	HT-I N
358	176029031020	M/S ALPHA FOAM LIMITED	GAT 310 NANEKARWADI CHAKANTAL KHED DIST PUNENANEKARWADI	1800	HT-I N
359	176089045810	M/S.MAGNETI MARELLI MOTHERSON AUTO SYSTEM LTD.	GAT NO.148-150, AMBETHANTAL-KHED, DIST.PUNECHAKAN	2000	HT-I C
360	176029046110	M/S MOTHERSON AUTOMOTIVE TECHNOLOGIES & ENGINEERIN	GAT NO 150 ,AMBETHANTAL- KHED DIST- PUNECHAKAN	2000	HT-I C
361	176099047840	M/S.ATTITUDE PLASTIC PVT.LTD.,	G.NO.200, BHAMBOLI,TAL-KHED, DIST.PUNEBHAMBOLI	1500	HT-I N
362	176869053310	M/S. BRIDGESTONE INDIA PVT. LTD.	P. NO. A-43MIDC CHAKAN PH-IITAL. KHED	5000	HT-II N I
363	176029046830	M/S HYUANDAI CONSTRUCTION EQUIPMENT INDIA PVT LTD	PLOT NO.A-2,CHAKAN MIDC,PHASE-IITAL-KHED, DIST.PUNECHAKAN	2928	HT-I N
364	176099054370	M/S PHILIPS ELECTRONICS INDIA LTD.	P. NO. B - 79, MIDC CHAKAN,TAL KHED,DIST - PUNE	2150	HT-I N
365	176089030570	M/S AHMEDNAGAR FORGINGS LTD	GAT NO 614 AT KURULITAL KHED DIST PUNEKURULI	7750	HT-I C
366	170149024740	M/S INDRAYANI FERROCAST (P) LTD	GET NO 225 DHAMORE VILLAGEALANDI-MANKAL ROADPUNE	9900	HT-I N
367	170149024740	M/S INDRAYANI FERROCAST (P) LTD	GET NO 225 DHAMORE VILLAGEALANDI-MANKAL ROADPUNE	9900	HT-I N

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
368	170149023090	M/S RAVIN CBALES LIMITED	G NO. 2270230 ALANDI MARKAL RD.TAL KHED DIST PUNEPUNE	1200	HT-I N
369	170149037860	M/S. MAASS FLANGE INDIA PVT.LTD	PL.NO. A, MARKAL-UDYOGNAGAR MARKALTAL. KHED, DIST. PUNEMARKAL	1189	HT-I N
370	170149023050	M/S PUSHPAK STEEL INDUSTRIES LTD.	GAT 119. ALANDI MARKAL ROADDHANORI TAL KHED DIST PUNEDHANORI	2750	HT-I N
371	170149022800	M/S AMCOR RIGID PLASTICS INDIA PVT. LTD.	GAT NO 119-123 ALANDI MARKAL RDTAL KHED DIST PUNEDHANORE	2000	HT-I C
372	170149038380	M/S. SILVER STAR ALLOYS PVT.LTD.	G.NO. 398 DHANORETAL. KHED, DIST. PUNEDHANORE	4800	HT-I C
373	170149046290	M/S PARTHSARATHI STEEL ALLOYS PVT LTD	GAT NO 128/1&2 DHANORETAL- KHED DIST- PUNEDHANORE	4900	HT-I N
374	176029031820	M/S BAJAJ AUTO LTD.	P-A/1 M.I.D.C. MAHALUNGETAL KHED DIST PUNEMAHALUNGE	7500	HT-I C
375	170149022850	M/S SANT DYANESHWAR STEEL PVT LTD	GAT NO 1076/1077ALANDI MARKAL ROAD TAL KHED DIST PUNEMARKAL	3700	HT-I N
376	170149022910	M/S SOHN STEEL PRIVATE LIMITED	GAT NO. 1252 TO 1261 ALANDI MARKAT RD.TAL KHED DIST PUNEPUNE	6000	HT-I C
377	176029038790	M/S.MINDA CORPORATION LTD.	G.NO. 307, H.NO. 1,2,3 AT NANEKARWADITAL. KHED, DIST. PUNENANEKARWADI	1350	HT-I N
378	176029031267	M/S GANAGE PRESSINGS LIMITED	G NO 228 AT NANEKARWADITAL KHED DIST PUNENANEKARWADI	1200	HT-I N
379	176029042090	M/S. BREMBO BRAKE INDIA PVT.LTD	AT GAT NO. 307, NANEKARWADI, CHAKANTAL. KHED, DIST. PUNECHAKAN	1600	HT-I N
380	176029043740	M/S. MERCEDES BENZ INDIA PVT.LTD	AT P. NO. E-3,PH.III,MIDC CHAKANTAL. KHED,DIST. PUNECHAKAN	2500	HT-I C
381	176089037450	M/S. ENDURANCE TECHNOLOGIES LTD.	B-22, MIDC CHAKANTAL. KHED, DIST. PUNECHAKAN	1500	HT-I C
382	176029033990	M/S. ENDURANCE TECHNOLOGIES LTD	B-20, MIDC CHAKAN, TAL. KHEDDIST. PUNECHAKAN	2000	HT-I C

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
383	176029035740	M/S. ENDURANCE TECHNOLOGIES LTD.	PLOT NO. B-1/3 MIDC CHAKANMAHALUNGE, TAL. R'NAGAR, DIST. PUNECHAKAN	2850	HT-I C
384	176029036410	M/S. ENDURANCE MAGNETI MARELLI SHOCK ABSO(I)PVT.LT	PL.NO. B-23, MIDC CHAKAN,TAL. RAJGURUNAGAR, DIST. PUNECHAKAN	3700	HT-I C
385	176029036490	M/S. THAI SUMMIT NEEL AUTO PVT.LTD.	P.No. C-1/1, MIDC CHAKANTAL. KHED, DIST.PUNECHAKAN	1200	HT-I N
386	176029037130	M/S. FLASH ELECTRONICS (I) PVT.LTD	P.NO. A-4, MIDC CHAKAN,TAL. KHED, DIST. PUNECHAKAN	1950	HT-I N
387	176029039710	M/S. MINDA INDUSTRIES LTD	P.NO. B-1/5, MIDC CHAKANTAL. KHED. DIST. PUNECHAKAN	1461	HT-I N
388	176029036100	M/S. SANSERA ENGINEERING PVT.LTD.	B-18, CHAKAN MIDCTAL.KHED, DIST. PUNECHAKAN	1500	HT-I N
389	176099036240	M/S. SUZLON GENERATORS PVT.LTD.	G.NO. 339/3, MAHALUNGETAL. KHED, DIST. PUNEMAHALUNGE	1700	HT-I N
390	176089030430	M/S BHARAT FORGE LTD.,M.C.D.DIVISION	G.NO.635,VILLAGE-KURULITALUKA-KHED, DIST.PUNEKURULI	2400	HT-I C
391	176089043760	M/S. KALYANI LEMMERZ LTD (CARWHEEL UNIT)	G.NO. 635/1, KURULITAL. KHED, DIST. PUNEKURULI	2500	HT-I C
392	176029003638	M/S KALYANI LEMMERZ LIMITED	G.NO.635,AT-KURULI,CHAKANTALUKA-KHED,DIST.PUNEKURULI	4900	HT-I C
393	176089030332	M/S GABRIEL INDIA LIMITED	S.NO.625, VILLAGE-KURULITAL-KHED, DIST-PUNEKURULI	2000	HT-I C
394	176029003859	M/S SPICER INDIA LTD	GAT NO 626&622 KURULITAL KHED DIST PUNEKURULI	2500	HT-I C
395	176089039370	M/S. BEHR INDIA LTD.(UNIT II)	29th Mile Stone Pune_Nashik Highway,KuruliTAL. KHED, DIST. PUNEKURULI	1100	HT-I C
396	176089030235	M/S SAINT GOBAIN SEKURIT (I) LIMITED	S.NO.617,AT KURULI,BEHINDNTB,CHAKAN,TAL-KHED,D-PUNEKURULI	2990	HT-I C
397	176029046470	M/S.SANY HEAVY INDUSTRY INDIA PVT.LTD.	PLOT NO.4, PHASE-III, M.I.D.C.CHAKAN,TAL-KHED, DIST.PUNECHAKAN.	3000	HT-I C

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
398	176029046280	M/S.GESTAMP AUTOMOTIVE INDIA PVT.LTD.	PL. NO.E-1, PHASE-III, MIDC, CHAKAN,TAL- KHED, DIST.PUNECHAKAN	2000	HT-I C
399	176029042850	M/S. VOLKSWAGEN INDIA PVT.LTD	P.NO. E-1, PH. III, MIDC CHAKANTAL. KHED, DIST. PUNECHAKAN	1500 0	HT-I C
400	176029043730	M/S.MAHINDRA VEHICLE MANUFACTURERS LTD.	P.NO.A-1, MIDC CHAKANTAL. KHED, DIST. PUNECHAKAN	1895 0	HT-I C
401	181209042640	M/S. FINOLEX INDUSTRIES LTD	G NO. 399, URSETAL. MAVAL, DIST. PUNEURSE	3000	HT-I C
402	170019003747	M/S FINOLEX PLASSON INDUSTRIES PVT. LTD	AT URSE AT POST URSE TALMAVAL DIST PUNEURSE	1200	HT-I C
403	181999052060	M/S. ACE AGRO INDUSTRIES PVT. LTD.	GAT NO. 446, POST - JAMBHU KANHATAL MAVAL, DIST. PUNEJAMBHU KANHA	1100	HT-I N
404	181139002185	M/S MAHINDRA UGINE STEEL CO. LTD.	AT&POST KANHE TAL MAVALDIST PUNEKANHE	1100	HT-I N
405	181739047280	M/S.SUNGWOO AUTOMOTIVE INDIA PVT.LTD.,	G.NO.374,518,519,520, TAKWE BK.,TAL-MAVAL, DIST.PUNETAKWE BK.	2400	HT-I N
406	181139002673	M/S SUPREME INDUSTRIES LIMITED	AT POST KANHETALUKA MAVAL, DIST.PUNEKANHE	2000	HT-I N
407	181739031530	M/S VARROC POLYMER PVT.LTD.	GAT 390 AT TAKVE BUDRUKTAL MAVAL DIST PUNETAKVE (BK)	1910	HT-I C
408	181739030301	M/S ENDURANCE TECHNOLOGIES LTD.	GAT NO.416, AT- TAKVEBUDRUK TAL- MAVAL, DT PUNETAKVE BUDRUK	2250	HT-I C
409	181209030548	M/S. MAHINDRA HINODAY INDUSTRIES LTD.	GAT NO.318,AT POST- URSETALUKA- MAVAL,DIST.PUNEURSE	2500 0	HT-I C
410	181209040720	M/S. SUPREME INDUSTRIES	G.NO. 420, AT URSETAL. MAVAL, DIST.PUNEURSE	1400	HT-I N
411	181199002761	M/S TATA MOTORS LTD.	MAVAL FOUNDRY, P- BEBEDOHOLTAL- MAVAL,DIST.PUNEBEBED OHOL	6000	HT-I N
412	181209002919	M/S FINOLEX CABLES LIMITED	26-27 BOMBAY-PUNE ROAD,PIMPARI,PUNEPUN E	3976	HT-I N
413	181199038230	M/S. GANGA PAPERS INDIA LTD	BEBEDOHALTAL. MAVAL, DIST. PUNEBEBEDOHAL	1750	HT-I N

Sr	CONSUMER NUMBER	CONSUMER_NAME	ADDRESS	CD (KVA)	TARIFF
414	181279002771	M/S VENKATESHWARA HATCHERIES P LTD	GAT NO 163 144-B & 121 ATBAUR TAL MAVAL DIST PUNEBAUR	1750	HT-I N
415	181209030599	M/S JAYA HIND INDUSTRIES LIMITED	GAT NO.350/351, AT-URSETALUKA-MAVAL,DIST-PUNEURSE	4800	HT-I N
416	181409047020	M/S.MAHINDRA HOLIDAYS & RESORTS INDIA LTD.	G.NO.375,379,380,385TO395 ,401,402,TUNGI,TAL - MAVAL, DIST.PUNETUNGI	1450	HT-II N II
417	172939030617	M/S PARAG MILK FOODS PVT.LTD.	43/1-A, AWASARI PHATATAL-AMBEGAON, DIST-PUNEA WASARI-KHURD	1450	HT-I C
418	172039003380	M/S MORDE FOODS PVT.LTD	AT POST MANCHARTAL AMBEGAON DIST. PUNEAT MANCHAR	1450	HT-I C

Annexure 2 - Survey Questionnaire

The data is being collected for academic purpose. The confidentiality of the data will be maintained. It is requested that the respondents provide correct and honest information to all the questions mentioned below.

Basic Information:-

Name of your Company:-

Location of the Company:-

Designation of the Respondent:-

To which Sector does your Company belong, please tick the correct option below:-

Process Industry / Chemical / IT Services / Manufacturing / Auto / Other Services /
Educational Institute / Construction / Hospital / Telecom / Public Services /
Any Other (Please Specify _____)

No. of Shifts Working:-

No. of Employees in your Company: - _____ No.s

Contract Demand: - _____ KVA .

Tariff Applicable (As on Bill):- _____

Approx. Monthly Electricity Bill: - Rs Lacs _____

Electricity Expenditure as % of Total Expenditure: - _____ % (Approx)

Annual Revenue Turnover: - _____ Rs Crs (Not Mandatory)

Please tick your choice for the questions mentioned below :-

A. We recognize our electricity Service Provider by the name.

1. MSEDCL
2. Maha Vitaran
3. MSEB

B. The mode of payment for Electricity Bills is

1. MSEDCL Cash Collection Centres
2. Online through Internet / Net Banking
3. Others , Banks / Private Cash Collection Centres

C. Please rate the following Switching cost, 1 to 5. '1' being the highest significant and '5' being the lowest significant.

1. Cross Subsidy Surcharge
2. Metering Cost
3. Transmission Charges
4. Wheeling Charges
5. Additional Surcharge
6. Not aware about the above charges

D. Please mark 1 to 5 for service quality parameters mentioned below. '1' being the highest significant and '5' being the lowest significant.

1. Corporate Look of MSEDCL Offices
2. Promptness in Service
3. MSEDCL Employee / Staff Behavior
4. Accuracy in Service
5. Cost of Service

Below are questions followed by Likert Scale . Please mark your honest response in the appropriate box. Please mark only one choice for each question.

1 I am happy with the 'Supply Quality' offered by the MSEDCL.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

2 The Supply Provided by MSEDCL is with minimum interruptions.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

3 The Outage Management is Satisfactory and Consumers are made aware of the outages taken by MSEDCL for maintenance.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

4 The Consumers are informed of the supply interruptions in advance.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

5 'Load Shedding', is not a problem associated with MSEDCL Services.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

6 The Services Offered by MSEDCL to its Consumers is at a Cheaper Cost.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

7 The MSEDCL employees are quick in attending the Consumer Complaints.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

8 The MSEDCL employees listen carefully to the grievances raised by the Consumer and understand the Consumer problems.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

9 The MSEDCL Employees have caring attitude towards their Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

10 The MSEDCL Offices and Fuse Call Centers are located at convenient places and are easily accessible.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

- 11 It is easy to approach or contact the MSEDCL Staff/Engineers in case of emergency or a problem.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 12 The MSEDCL Offices are Well Furnished, Clean and Well Maintained.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 13 The Consumers are made aware by the MSEDCL, regarding the changes in Policies through its Circulars.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 14 The MSEDCL Electricity Bills are well structured and the Consumers understand it easily.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 15 The MSEDCL Electricity Bills are delivered in time and give ample duration for the Consumers to clear the outstanding amounts before due dates as mentioned in the bill.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 16 The Electricity Bills provided by the MSEDCL are accurate and free from errors.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 17 The Business Practices of MSEDCL are Ethical and Transparent.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 18 The MSEDCL understands the needs of its Consumer.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 19 The MSEDCL agrees to provide compensation to its Consumers if the services are not delivered as per the 'Standards of Performance', stipulated by the MERC.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree
- 20 The problem communicated to the MSEDCL is solved at the first time and generally does not repeat in future.
- i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

21 The MSEDCL website is well designed and user friendly.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

22 The MSEDCL website provides with relevant and accurate information to its Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

23 The MSEDCL website offers a safe and secured option for payment of electricity bills for its Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

24 The MSEDCL Employees show keen interest and take up the responsibility in solving the Consumer Complaints.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

25 The MSEDCL Employees are adequately trained to solve the Consumer's Complaint.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

26 The MSEDCL Company keeps its promise of fulfilling the Consumer demand in time.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

27 The MSEDCL Employees are never too busy to respond to the Consumer requests.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

28 The MSEDCL Employees / Staff are well behaved and well mannered.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

29 The MSEDCL Company believes in keeping the 'Consumer Interest' as its top priority.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

30 The MSEDCL Employees are Well Dressed and appear neat.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

31 The working hours of MSEDCL Company are as per the Consumer convenience.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

32 We as Consumers are well recognized by the MSEDCL Staff/Employees.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

33 We feel proud in being associated with MSEDCL as their Consumer.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

34 The MSEDCL Staff give importance and make us feel that we are their esteemed Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

35 We have a genuine relationship with MSEDCL as a Consumer.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

36 The MSEDCL Company understands our specific needs and the MSEDCL staff pay attention to it.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

37 In case of payment default, the MSEDCL company is more likely to understand our problem and would agree to give grace period for clearance of dues without disconnecting our supply.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

38 In case of any Supply problem associated with the **Consumer side**, the MSEDCL Employees would be flexible (generous) in extending necessary support and help to solve the problem.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

39 The MSEDCL Company is always ready and prompt in passing on the Incentives/Benefits to the Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

40 The MSEDCL is never harsh or unjust in imposing penalties/charges to the Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

41 Even in case of Power Scarcity Situation, the MSEDCL company takes special efforts to provide with or maintain for uninterrupted power supply to its Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

42 The risk associated in transactions with MSEDCL is least.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

43 MSEDCL is the most trusted Service provider as compared to its Competitors.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

44 I feel comfortable in approaching the MSEDCL staff in case of any problem.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

45 The time and effort needed in resolving a complaint with MSEDCL services is less or adequate.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

46 Even if in case of any problem associated with the MSEDCL service, we are not panic and we feel assured that the problem would be resolved with ease.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

47 The effort involved in searching for a New Service Provider is high and time consuming.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

48 It will also take much time in learning about or understanding the New Service Provider or develop new relationship.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

49 There are few alternatives to provide for Services in Power Distribution Sector.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

50 We don't find a better alternative that can provide Services to us.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

51 We feel embarrassed to inform our current Service Provider (MSEDCL) that we will be discontinuing the services in near future.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

52 I have a sense of loyalty with my existing service provider that is MSEDCL.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

53 The financial cost associated with the Switching is considerable(Cross Subsidy Surcharge , Transmission Charges, Wheeling Charges , Metering Cost , Additional Surcharge etc)

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

54 The present service provider (MSEDCL) has better staff with adequate knowledge to handle Consumer Complaints.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

55 The present Service Provider (MSEDCL) has better infrastructure as compared to its Competitors.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

56 The association with the present service provider (MSEDCL) is convenient and less risky.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

57 Majority of neighboring Consumers, Friends, and Relatives etc avail the services of MSEDCL.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

58 The quality of services offered by MSEDCL has improved significantly over last few years.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

59 I convey positive 'word of mouth' publicity about my present Service Provider (MSEDCL).

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

60 I recommend the services of the present service provider (MSEDCL), if someone seeks my suggestion.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

61 The Electricity Consumers would not really mind paying more for Reliable and Quality Services.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

62 We keep ourselves updated regarding the latest tariff applicable and other relevant information.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

63 With the latest developments in the power sector technologies like Smart Grids , Smart Metering etc the Consumers will be able to cope well with it.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

64 The Open Access policy offers choice to the Electricity Consumers to select their Service Provider. So, I /We would definitely avail of this facility and plan to switch over to a New Service Provider.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

65 Instead of Sourcing power from Distribution Utilities, Our Company would prefer to generate electricity on our own.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

66 MSEDCL is a Government Owned Company and has Social Obligations to fulfill and does not work only to gain profits.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

67 The MSEDCL company has taken necessary efforts to improve its infrastructure to provide quality power to its Consumers.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

68 Although, with the introduction of Open Access Policy the Power Distribution Sector has become very competitive, the MSEDCL has the capability to face the future challenges.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

69 The Business transactions with MSEDCL are very fair and even if provided with a choice to select service provider, I / We prefer to be associated with the MSEDCL.

i.Strongly Disagree ii.Disagree iii.Don't Know iv.Agree v.Strongly Agree

Thanks for sharing your valuable time to answer this Questionnaire.

Annexure 3 - Codification of the Questionnaire

Note: This is a document with details of codification as generated by the SPSS Software

Variable Information:

Name	Position
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IND	Type of Industry	1
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Measurement level: Nominal

Format: F8 Column Width: 8 Alignment: Right

Value Label

- 1 Process
- 2 Chemical
- 3 IT Services
- 4 Manufacturing
- 5 Auto
- 6 Other Services
- 7 Education
- 8 Construction
- 9 Health
- 10 Telecom
- 11 Public Services
- 12 Hospitality
- 13 Textile
- 14 Shopping Mall
- 15 Research & Testing
- 16 Defence
- 17 Pharma

SHIFTS	No of Shifts working	2
--------	----------------------	---

Measurement level: Nominal

Format: F8 Column Width: 8 Alignment: Right

Value Label

- 1 One Shift
- 2 Two Shifts
- 3 Three Shifts

EMPLYS	No of Employees in the Company	3
--------	--------------------------------	---

Measurement level: Scale

Format: F8 Column Width: 8 Alignment: Right

Missing Values: 99

Name	Position
CONDMD Contract Demand in KVA Measurement level: Scale Format: F8 Column Width: 8 Alignment: Right	4
TARIF Tariff Applicable for Billing Measurement level: Nominal Format: F8 Column Width: 8 Alignment: Right	5
Value Label 1 HTI-C Ind_Exp 2 HTI-N Ind_NonExp 3 HTII-E Comm_Exp 4 HTII-N Comm_NonExp 5 HTIV-E PWW_STP_Exp 6 HTIV N PWW_STP_NonExp 7 HTV Agriculture 8 HTVI_Grp Hsg and Comm Complex 9 HTVIII Temporary 10 SP-I	
BILLAMT Approx Monthly Elect_Bill in Rs Lacs Measurement level: Scale Format: F8 Column Width: 8 Alignment: Right Missing Values: 99	6
NAMEIDFN Recognition of Service Provider by Name Measurement level: Nominal Format: F8 Column Width: 8 Alignment: Right	7
Value Label 1 MSEDCL 2 Maha - Vitaran 3 MSEB	
PAYMODE Mode of Payment Measurement level: Nominal Format: F8 Column Width: 8 Alignment: Right	8
Value Label 1 MSEDCL Cash Centres 2 Online_Net Banking 3 Others_Private Cash Collection Centres	

Name	Position
CSS Cross Subsidy Surcharge Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right Missing Values: 99.00	9
MTRCOST Metering Cost Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right Missing Values: 99.00	10
TRNSCHRG Transmission Charges Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right Missing Values: 99.00	11
WHLCHRG Wheeling Charges Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right Missing Values: 99.00	12
ADLNSURC Additional Surcharges Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right Missing Values: 99.00	13
KWCHR_OA Knowledge about OA Charges Measurement level: Nominal Format: F8.2 Column Width: 8 Alignment: Right	14
Value Label .00 Know abt OA chrgs 6.00 Dont know abt OA chrgs	
CORPLOOK Corporate Look of MSEDCL Offices Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right	15
PROMPT Promptness in Service Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right	16

Name	Position
STAF_BHR Staff Behavior Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right	17
ACCURACY Accuracy in Service Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right	18
COST_SER Cost of Service Measurement level: Ordinal Format: F8.2 Column Width: 8 Alignment: Right	19
Q1 to Q69 * No label * Measurement level: Scale Format: F8.2 Column Width: 8 Alignment: Right	20 to 88
Value Label	
1.00 Strongly Disagree	
2.00 Disagree	
3.00 Neutral	
4.00 Agree	
5.00 Strongly Agree	

ANNEXURE 4 - LIST OF ELIGIBLE OA CONSUMERS SURVEYED

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
1	170149001401	M/s TATA MOTORS LTD	CHINCHWAD, PUNE .	15841	Mr Kumbhar	8605011985
2	170149028130	M/S GENNOVA BIO PHARMACITIC ALS Ltd	Plot No 1, Infotech Park , Hinjwadi, Mulshi,Pune.	2500	Mr. Sanjay	9011551198
3	170149066990	M/S ACORIS RESEARCH LTD.(HIKAL)	PLOT NO 3A 2nd PHASE BIOTECH PARKHINJEWADI PUNE	1000	Mr Sandeep Gahivad	9765558203
4	170149060780	M/S INTERNATIONAL BIOTECH PARK(TCG)	PHASE-II RAJIV GANDHI BIOTECH PARK MIDC HINJAWADIPUNE	1475	Mr Shinde	9823770629
5	170149062690	M/S. CENTAUR PHARMACEUTICALS PVT.LTD.	PLOT NO. 4, RGIP, PH-II,HINJAWADIPUNE	1350	Mr Nagesh Pandit	9527733394
6	170149027940	M/S. SCIGEN BIOPHARMA PVT LTD.	PLOT NO. 18, IT PARK HINJAWADI PHASE II, TAL. MULSHI, DIST. PUNE	1490	Mr Mali	9373322313
7	170149069200	M/S DLF AKRUDI	BLOCK NO 4 PLOT NO 28 & 29MIDC PH-II RGIP HINJAWADI PUNE	2500	Mr Singhal	9823440848
8	170149065830	M/S DLF AKRUTI INFOPARK (PUNE)LTD.	BLOCK 1 PLOT NO 28,29 &PL2T RGIP HINJWADI PUNE	1518	Mr Singhal	9823440848
9	170149066730	M/S DLF AKRUDI INFO PARK	BLOCK NO 2 PLOT NO 28 & 29RGIP PH-II HINJAWADI PUNE	1100	Mr Singhal	9823440848
10	170149066720	M/S DLF AKRUDI INFO PARK	BLOCK NO 1 & 2 PLOT NO 28 & 29RGIP PH-II HINJAWADI PUNE	1500	Mr Singhal	9823440848

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
11	170149069210	M/S DLF AKRUDI	BLOCK NO 3 PLOT NO 28 &29 PL-2MIDC PH-11 RGIPHINJAEADI PUNE	2200	Mr Singhal	9823440848
12	182939021940	M/S TATA TOYO RADIATORS PRIVATE LTD	GAT NO 235 AT HINJAWADI TAL MULSHI DIST PUNE	1600	Mr Shashidharan/ Mr Gaikwad	7875440283/ 9689942910
13	182939031570	M/S TATA AUTO PLASTIC SYSTEMS LIMITED	SR. NO. 235-245 AT HINJEWADITAL MULASHI DIST. PUNE	3500	Mr Chandrashekhar	9881724696
14	170149061160	M/S 3DPLM SOFTWARE SOLUTIONS LTD.	PLOT NO 15 INFOTECH PARK HINJAWADIPUNE	1000	Mr Ghodekar	9766313243
15	170149028520	M/S. INFOSYS LIMITED.	PL.NO. 24, RAJIV GANDHI INFOTECH PARKPHASE II VILLAGE MAN, TAL MULSHI HINJAWADI PUNE	5000	Mr Prakash More	9881728702
16	170149066080	M/S DYNASTY DEVELOPERS (P)LTD.	PLOT NO 3 RGIP HINJAWADI PUNE	3350	Mr Ganesh Kulkarni	9225637759
17	170149062620	M/S WIPRO LTD.	PLOT NO 2 MIDC RGIP HINJAWADIPUNE	5000	Mr Sawarkar	9823384770
18	170149009518	M/S INFOSYS LIMITED	PLOT NO 1 PUNE INFOTECHPARK M.I.D.C. HINJAWADI PUNE 411027	3250	Mr Prakash More	9881728702
19	170149023940	M/S. WIPRO LTD.	PLOT NO. 2, INFOTECH PARK, HINJAWADI, TAL. MULSHI, DIST:PUNE	5000	Mr Sawarkar	9823384770
20	170149028010	M/S KPIT CUMMINS INFOSYSTEMS LTD	PLOT NO 35/36 INFOTECH PARK HINJAWADI TAL MULSHI PUNE	2309	Mr Santosh	9922994709

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
21	170149070550	M/S.FLAGSHIP INFRASTRUCTURE PVT.LTD	S.NO.154, HINJAWADIPUNE PUNE	4900	Mr Garje	9975573805
22	170149064430	M/S FLAGSHIP INFRASTRUCTURE PVT LTD	S.NO 153/2 & 157/3 HINJAWADI TAL MULSHI DIST PUNE	3000	Mr Garje	9975573805
23	170149070440	M/S INFOSYS LIMITED.(SEZ)	PLOT NO 24 RGIP PH-IIHINJAWADI PUNE	7000	Mr Prakash More	9881728702
24	170149025190	M/S TATA TECHNOLOGIES LTD	PLOT NO25 INFOTECH PARK MIDC HINJWADI PUNE	1750	Mr Swapnil	8975137600
25	170149061250	M/S EMITECH EMISSION CONTROL TECHNOLOGIES INDIA LT	S.NO 282/1 AT VILLAGE MANNTAL MULSHIPUNE	1976	Mr Shimbre	9881498682
26	170149061220	M/S TATA AUTO PLASTIC SYSTEM	A DIVISION OF TATA AUTO COMP SYSTEM LTD.S.NO280&281 RAISONIC IND.PARK AREAVILLAGE MANN TAL MULSHI PUNE	2500	Mr Katta	8805002576
27	170149064560	M/S.VISTEON TECHNICAL & SERVICES CENTRE PVT.LTD	S.NO. 279, VILLAGE MANNTAL. MULSHI, DIST. PUNEMANN	1500	Mr Vivek Munot	9850001479
28	171199035380	M/S. VISTEON AUTOMOTIVE SYSTEM (I) PVT.LT	PL.NO. III, S.NO. 283/2, RAISONI IND. PARK MANN, TAL. MULSHI, DIST. PUNEMANN	1200	Mr K. Shaktivel	9881125632
29	170149072800	M/S. DYNASTY DEVELOPERS P.LTD	P.NO.3, RGUP PH-II HINJAWADI PUNE	4800	Mr Ganesh Kulkarni	9225637759
30	170149073440	M/S. TATA CONSULTANCY SERVICES LTD	P.NO. 2 & 3 RGIP PHASE -III MIDC HINJAWADI PUNE	5000	Mr Amol	9881155407/ 7276097413

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
31	170149025940	EMCURE PHARMACEUTICALS LTD	PLOT NO P2 PHASE II ADDITIONAL INFOTECH AREA HINJWADI PUNE	4200	Mr Pawar	9372270967
32	170019061390	MS ICC REALITY (I) PVT LTD.	504 CORPORATE PLAZA 106 A.S.B.ROAD PUNE	2000	Mr Tayade/ Mr Hood	9764999228/ 9823213025
33	170019062440	MS I.C.C.REALITY (I) PVT LTD.	403/A PLOT "C" S.NO 985S.B.ROAD PUNE	2000		7798983358
34	170019062430	MS I.C.C.REALITY (I)PVT LTD.	403/A2 PLOT NO 'A"SHIVAJI HSG SOCIETY PUNE	1000	Mr Tayade/ Mr Hood	9764999228/ 9823213025
35	170019068310	MS ICC REALITY PVT LTD.	ICC MERRIOTT PLOT NO 1 BS.NO 985 SHIVAJINAGAR PUNE	3000		7798983358
36	170019069220	MS KAKADE DEVELOPERS PVT LTD.	"KAKADE CENTRE PORT" NEAR E-SQUARE THEATRE 268+ B SHIVAJINAGAR PUNE	2000	Mr Sachin Kapre	9823395832
37	170019002945	M/S AUTOMOTIVE RESEARCH ASSOCIATION OF	MS AUTOMOTIVE RESEARCH ASS.OF INDIA VETAL TEKDI POUD RD KOTHRUDKOTHRUD PUNE	1500	Mr Ardhapurkar	9975492650
38	170019002902	M/S CITY ENGINEER PARWATI WATER WORKS	PUNE SINHAGAD ROAD,SNDT PUMPING	1200	Mr Jadhav	9689931173
39	170019000519	MS CUMMINS INDIA LTD.	KOTHRUD PUNE.	4975	Mr Shrikant Ghule	9850830002
40	170019029590	THE DEVELOPMENT ENGINEER(WATER SUPPLY)	S.NO 16 WARJE JAKAT NAKA NEAR KAKADE CITY PUNE	3000	Mr Kalekar	9689931848

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
41	170149002661	M/S GARWARE WALL ROPES	D-11 PL NO 11 MIDC,AKURDI PUNE	2160	Mr Joshi	9326018093
42	170149006101	M/S GARWARE WALL ROPES LIMITED	GWR FIBRE DIVISION MIDC PLOT NO 11 BLOCK D 1CHINCHWAD PUNE	1224	Mr Joshi	9326018093
43	170149001398	M/S GREAVES LTD	CHINCHAWAD PUNE	1200	Mr Rajesh Gaikwad	7875757622
44	170149001878	M/S TATA MOTORS LTD	PIMPRI, PUNE	55372	Mr Kumbhar	8605011985
45	170149061280	MS SYNTEL INTERNATIONAL PVT LTD.	PL NO B-1 MIDC SOFTWARE TECHLOGY PVT LTD.TALAWADE PUNE	2750	Mr Prashant Pal	8411881025
46	170149068520	MS SYNTEL INTERNATIONAL PVT LTD.	SYNTEL SEZ PLOT NO B1 & B2TALAWADE SOFTWARE TECHNOLOGY PARKDEHU-ALANDI ROAD PUNE	1800	Mr Prashant Pal	8411881025
47	171379020223	M/S CAPGEMINI (I) INDIA PVT LTD	TALAWADE TAL.HAWELIDIST . PUNE TALWADE TALA WADE	1250	Mr Hemant/ Mr Dhanraj	9823436311/ 9921811584
48	170149024190	M/s CAPGEMINI INDIA PVT LTD	A12 SOFTWARE TECHNOLOGY PARKTALWADE MIDC PUNE	1500	Mr Hemant/ Mr Dhanraj	9823436311/ 9921811584
49	170149061970	M/S CAPGEMINI INDIA PVT LTD	PLOT NO 4-2 & A-3TALAWADE SOFTWARE PARK VILLAGE TALAWADE MIDC	1250	Mr Hemant/ Mr Dhanraj	9823436311/ 9921811584
50	170149076830	M/S CAPGEMINI INDIA PVT.LTD.	PLOT NO. A-2/A-3,TECHNOLOGY PARK, TALAWADE	1500	Mr Hemant/ Mr Dhanraj	9823436311/ 9921811584

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
51	170149026940	M/S FUJITSU CONSULTING INDIA PVT.LTD.	PLOT NO A-15 SOFTWARE TECHNOLOGY PARK TALWADE PUNE	2272	Mr Sanjay Sapkale	9765400155
52	171339021634	M/S WEIKFIELD FOODS PVT. LTD.	WEIKFIELD ESTATE,NAGAR ROAD, PUNE	1529		9225545340
53	183099032810	M/S. LUPIN LTD.	GAT NO. 46A/47A AT VILLAGE NANDE,TAL. MULSHI, DIST. PUNE	2382	Mr Pagare	9765800440
54	182919044340	M/S LUPIN LIMITED	GAT NO 1156 GHOTAWADE TAL MULSHI DIST PUNE	1600	Mr Pagare	9765800440
55	182929031640	MS/. BRINTONS CARPETS ASIA PVT LTD.	PL. NO. 414/415/416 URWADE TAL. MULSHI DIST. PUNE	1400	Mr Jayesh Jagtap	9657723980
56	182859038690	THE DIRECTOR SYMBIOSIS	G.NO. 1154 LAWALE TAL. MULSHI, DIST. PUNE	1100	Col. Atholi	9371010467
57	170259046670	M/S DSK GLOBLE EDUCATION & RESEARCH PVT LTD	S. NO 53,54,55,KADAM WAK VASTI PUNE SOLAPUR RD TAL-HAVELI,PUNE	1572	Mr Prasad Kulkarni	9881498296
58	181029046890	M/S.AAKAR FOUNDRY PVT.LTD.	S.NO.341/2, TALEGAON,TAL-MAVAL, DIST.PUNE	1000	Mr Sunil Nair	9850835283 7387002038
59	176119002720	M/S L'OREAL INDIA PVT. LTD	GUT NO 426 AT &P MAHALUNGE INGALE TAL KHED DIST PUNE	2500	Mr Joshi	9960658399
60	176029003301	M/S AHMEDNAGA R FORGING LTD	GAT NO 2787 CHAKANTAL KHED DIST PUNEAT CHAKAN	2460	Mr Gadak	9923207406

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
61	176089031880	M/S SKS FASTENERS LTD.	G.NO.1990, CHAKEN AMBETHAN ROAD TAL KHED DIST PUNE	1450	Mr Dalmia	9370659646
62	176029046110	M/S MOTHERSON AUTOMOTIVE TECHNOLOGIES & ENGINEERIN	GAT NO 150 ,AMBETHAN TAL- KHED DIST- PUNE	2000	Mr Nitin Sohony	8796424761
63	176089030570	M/S AHMEDNAGAR FORGINGS LTD	GAT NO 614 AT KURULI TAL KHED DIST PUNE	7750	Mr Gadak	9923207406
64	170149023090	M/S RAVIN CBALES LIMITED	G NO. 2270230 ALANDI MARKAL RD.TAL KHED DIST PUNE	1200	Mr Vivek Choudhari	9370986327
65	170149022910	M/S SOHN STEEL PRIVATE LIMITED	GAT NO. 1252 TO 1261 ALANDI MARKAT RD.TAL KHED DIST PUNE	6000	Mr Joshi	9850984930
66	176029038790	M/S.MINDA CORPORATION LTD.	G.NO. 307, H.NO. 1,2,3 AT NANEKARWADI TAL. KHED, DIST. PUNE	1350	Mr Kinikar	9850098419
67	176029042090	M/S. BREMBO BRAKE INDIA PVT.LTD	AT GAT NO. 307, NANEKARWADI, CHAKAN TAL. KHED, DIST. PUNE	1600	Mr Sunil Kawade	9881743697
68	176089037450	M/S. ENDURANCE TECHNOLOGIES LTD.	B-22, MIDC CHAKAN TAL. KHED, DIST. PUNE	1500	Mr Wani	9764772327
69	176029033990	M/S. ENDURANCE TECHNOLOGIES LTD	B-20, MIDC CHAKAN, TAL. KHED DIST. PUNE	2000	Mr Khandelwal	9765402138
70	176029035740	M/S. ENDURANCE TECHNOLOGIES LTD.	PLOT NO. B-1/3 MIDC CHAKAN MAHALUNGE, TAL. R'NAGAR, DIST. PUNE	2850	Mr Deepak Kulkarni	9765402366

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
71	176029036410	M/S. ENDURANCE MAGNETI MARELLI SHOCK ABSO(I)PVT.L T	PL.NO. B-23, MIDC CHAKAN,TAL. RAJGURUNAGAR , DIST. PUNE	3700	Mr Ajit Deshpande	9765410198
72	176029039710	M/S. MINDA INDUSTRIES LTD	P.NO. B-1/5, MIDC CHAKAN TAL. KHED. DIST. PUNE	1461	Mr Kinikar	9850098419
73	176029036100	M/S. SANSERA ENGINEERING PVT.LTD.	B-18, CHAKAN MIDC TAL.KHED, DIST. PUNE	1500	Mr Pawar	9860090192
74	176089030332	M/S GABRIEL INDIA LIMITED	S.NO.625, VILLAGE-KURULI TAL-KHED, DIST-PUNE	2000	Mr Bhosle	9922993280
75	176029003859	M/S SPICER INDIA LTD	GAT NO 626&622 KURULI TAL KHED DIST PUNE	2500	Mr Nikam	9604400396
76	176089039370	M/S. BEHR INDIA LTD.(UNIT II)	29th Mile Stone Pune_Nashik Highway,Kuruli TAL. KHED, DIST. PUNE	1100	Mr Bhende	9922409502
77	176089030235	M/S SAINT GOBAIN SEKURIT (I) LIMITED	S.NO.617,AT KURULI,BEHIND NTB,CHAKAN, TAL-KHED,PUNE	2990	Mr Agrawal	9960729015
78	176029046280	M/S.GESTAMP AUTOMOTIVE INDIA PVT.LTD.	PL. NO.E-1, PHASE-III, MIDC, CHAKAN, TAL-KHED, DIST.PUNE	2000	Mr Yogesh Patil	9673337707
79	176029042850	M/S. VOLKSWAGEN INDIA PVT.LTD	P.NO. E-1, PH. III, MIDC CHAKAN TAL. KHED, DIST. PUNE	15000	Mr Bendale	9765567589
80	176029043730	M/S.MAHINDRA VEHICLE MANUFACTURERS LTD.	P.NO.A-1, MIDC CHAKAN TAL. KHED, DIST. PUNE	18950	Mr Sanjay Kulkarni	7387000805
81	181739030301	M/S ENDURANCE TECHNOLOGIES LTD.	GAT NO.416, AT-TAKVEBUDRUK TAL-MAVAL, DT PUNETAKVE BUDRUK	2250	Mr Deepak Kulkarni	9765402366

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
82	181199002761	M/S TATA MOTORS LTD.	MAVAL FOUNDRY, P- BEBEDOHOL TAL-MAVAL ,DIST.PUNE	6000	Mr Sunil Salgarkar	9922950973
83	172939030617	M/S PARAG MILK FOODS PVT.LTD.	43/1-A, AWASARI PHATA TAL-AMBEGAON, DIST-PUNE	1450	Mr Yadav	9890700657
84	170019040980	M/S. CITY REALITY DEVELOPMENT PVT. LTD.,	EB - 02 A, S. NO. 181, TOWN CENTER ,AMANORA PARK TOWN, HADAPSAR,PUNE	1495	Mr Vivek Kulkarni	9860799726
85	170019038890	M/S. CITY CORPORATION LTD.	S.NO.181, MALWADI ROAD,SADESATA RANALI, HADAPSAR,PUNE	1315	Mr Vivek Kulkarni	9860799726
86	170019029940	M/S PATNI COMPUTERS SYSTEM LTD.	WING A+B UPPAR GROUND LEVEL CITY TOWN II MAGARPATTA HADAPSAR PUNE	2400	Mr Nimbalkar	9850985681
87	170019028140	M/S AMDOCS DEVELOPMENT CENTER	CYBERCITY TOWER II 6TH 7 TH FLOOR MAGARPATTA CITY HADAPSAR PUNE	2600	Mr Suralkar	7798582296
88	170019030120	M/S JOHN DEERE INDIA PVT LTD	CYBER CITY TOWER - 14 MAGARPATTA CITY HADAPSAR PUNE	1739		9673008449
89	170019026760	EXL SERVICE COM (INDIA) PRIVATE LIMITED	CIBERCITY PHASE I MAGARPETTA HADAPSAR PUNE	1200	Mr Nimbalkar	9850985681
90	170019026770	THE MANAGING DIRECTOR	MAGARPATTA TOWNSHIP DEVLEPMENT & CONSTRUCTION CO LHADAPSARPUNE	1700	Mr Ingole	9422006861

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
91	170019031390	M/S ACCENTURE SERVICE PVT LTD.	CYBER CITY TOWER 5 LEVEL 6&7 MAGARPATTA CITY HADAPSAR PUNE	1849	Mr Badruva han	8806665843
92	170019036870	M/S BNY MELLON INTERNATIONAL OPERATIONAL (INDIA)PVT	CYBERCITY TOWER-S3,LEVEL 03,04,05,06,07 MAGARPATTA CITY HADAPSAR PUNE	1412	Mr Vijay Singh	9921881898
93	170019036390	M/S MAGARPATTA TOWNSHIP DEV. & CONST CO LTD.	CRBERCITY TOWER-7,8,9, MAGERPATTA CITY HADAPSAR PUNE	1111	Mr Ingole	9422006861
94	170019032050	M/S. AMDOCS DEVELOPMENT CENTER INDIA LTD	LEVEL 0 & 1 CYBERCITY TOWER-XII MAGARPATTA CITY, HADAPSAR PUNE	1287	Mr Suralkar	7798582296
95	170019034530	M/S JOHN DEER INDIA PVT LTD.	CYBERCITY TOWER-11 LEVEL 0 & 1 MAGARPATTA CITY HADAPSAR PUNE	1115		9673008449
96	170019033800	M/S MAGARPATTA TOWNSHIP DEV. & CONST.CO.LTD.	CYBERCITY TOWER-11 LEVEL3 & 4 MAGARPATTA CITY HADAPSAR PUNE	2764	Mr Ingole	9422006861
97	170019031090	M/S OPTION ONE MORTGAGE CORPORATION (INDIA)PVT LTD	LEVEL 3,4 & 5 TOWER-6, MAGARPATTA CITY CYBER CITY HADAPSAR PUNE	1000	Mr Deokar	9767100903
98	170019035550	BNY MELLON INTERNATIONAL OPERATION(INDIA)PVT LTD.	CYBERCITY TOWER-6 LEVEL- 2 & 5 MAGARPATTA CITY HADAPSAR PUNE	1291	Mr Vijay Singh	9921881898

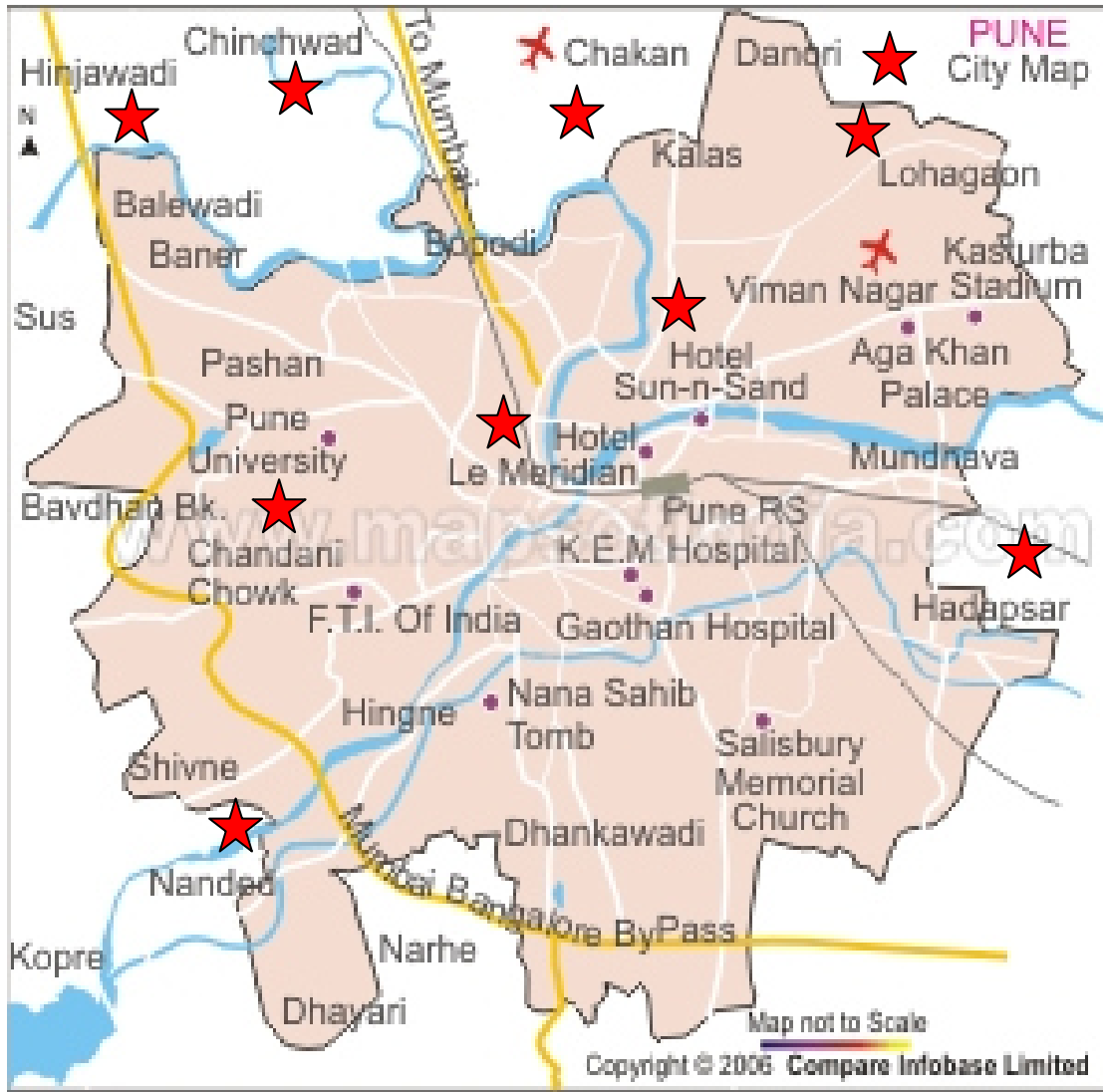
Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
99	170019037500	M/S. AMDOCS DEVELOPMENT CENTER INDIA PVT.LTD	SEZ, TOWER-7, LEVEL-7, MAGARPATTA CITY, HADAPSAR PUNE	1272	Mr Suralkar	7798582296
100	170019033770	M/S ACCETURE SERVICE PVT LTD.	MAGARPATTA CITY SEZ TOWER-B-1 MAGARPATTA CITY VILLAGE-HADAPSAR HAVELI PUNE	2409	Mr Badruhan	8806665843
101	170019038680	M/S. ASHTON REAL ESTATE DEVELOPMENT PVT.LTD	S.NO.207/1A, 207B, 207/2, LOHAGAON At Wadgaonsheri, Viman Nagar PUNE	2500	Mr Darp	9923150014
102	170019038770	M/S. ALLIANCE HOSPITALITY SERVICES PVT.LTD	S.No.207/1,207B,207/2,Lohagaon,S.No. 33/2A/2,33/2B/2 at Wadgaon Sheri, Viman Nagar PUNE	2500	Mr Darp	9923150014
103	170019038700	M/S. VAMONA DEVELOPERS PVT.LTD	S.NO.207/1A, 207B, 207/2, LOHAGAON At Wadgaonsheri, Viman Nagar PUNE	2917	Mr Darp	9923150014
104	170019038690	M/S. TRINITY VENTURES	S.NO.207/1A,207B, 207/2, LOHAGAON At. Wadgaonsheri, Viman Nagar PUNE	2500	Mr Darp	9923150014
105	170019038430	MR. ABDUL HAMID JAFARI (Life Style Mall)	CTS NO. 8 = 9, BUND GARDEN ROADOPP. POONA CLUB,PUNE	1350	Mr Isak Shaikh	9967852081
106	170019009401	M/S BRAMHA BAZAZ HOTEL LTD.(Le Meridian)	RAJA BAHADUR MILL BEHIND PUNE RLY.STATION PUNE 411001	1184		
107	170019029690	M/S PANTALOON RETAIL (I) LTD.	S.NO.364 CTS NO 1/1 F.P.NO 256,BOAT CLUB ROAD PUNE	1450	Mr Singh	7498070077

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
108	170019007807	M/S CLASSIC CITY INVESTMENT Hotel Sun n Sand.	262 B & C BUND GARDEN ROAD PUNE 411001	1000	Mr Agnihotri	9673025333
109	170019002821	MANAGING TRUSTEE GRANT MEDICAL FOUNDATION	RUBY HALL CLINIC 40, SASSON ROAD PUNE	1500	Mr Naik/Mr Kadam	9970026262/ 9890300516
110	170019030970	M/S ONE STOP SHOP INDIA (Nucleus Mall).	CTS NO 1 WEST WING CHIRCH ROAD PUNE	1265	Mr Shinde	9167093039
111	170019032530	M/S KROME PLANET INRETIORS PVT LTD.	S.NO 80/A 2 & S NO 32/1,2 WANAWARI HADAPSAR PUNE	1302	Mr Nandu Nagesh	9822088828
112	170019000543	M/S KIRLOSKAR PNEUMATIC COMPANY LTD	HADAPSAR INDUSTRIAL ESTATE PUNE HADAPSAR	2700	Mr Marathe	9881495491
113	170019000616	M/S KIRLOSKAR PNEUMATIC COMPANY LTD	HADAPSAR INDUSTRIAL ESTATE PUNE	1290	Mr Marathe	9881495491
114	170019031510	M/S SHIRKE CONST EQUIPMENT PVT LTD	S.NO 72/76 MUNDHWA PUNE	1200	Mr Shelar	9049004191
115	170019002163	M/S SIPOREX INDIA PVT LTD	72/76 MUNDHWA PUNE	1013	Mr Gosavi	8380022501
116	170019005677	M/S KALYANI THERMAL SYSTEM LTD	PRIVATE LIMITEDS NO 72-76 MUNDHAWA PUNE	2490	Mr Baravkar	9881728345
117	170019000438	M/S BHARAT FORGE LTD	POST BOX NO 57, MUNDHAWA, PUNE.	48653	Mr Dharurkar	9850877562
118	170019009044	M/S ADDL CITY ENGINEER PARVATI	RAW WATER PUMPING STATION NR OLD PARVATI SUB-STATION PUNE	1350	Mr DyEE	9689931318
119	170019000969	M/S CITY ENGINEER PARVATI WATER WORKS	PARVATI, SINHAGAD ROAD PUNE.	2000	Mr DyEE	9689931318

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
120	170019002546	M/S CITY ENGINEER PARWATI WATER WORKS	PUNE SINHAGAD ROAD	3500	Mr DyEE	9689931318
121	170019000551	M/S GARRISON ENGINEER P I R AND D	C/O GARRISON ENGINEER (I) R & D GIRINAGAR PUNE KHADAKWASLA	1000	Mr Kochar	9604947701
122	170019001710	M/S CENTRAL WATER AND POWER RESEARCH	STATION KHADAKWASLA, Pune	1200	Mr Swain	9403133224
123	170019031650	M/S PANCHSHEEL TECH PARK PVT LTD.	S.NO 191/A/2/A/1/2 YERWADENEAR DON BOSCO SCHOOLPUNE	1000	Mr Chavan	9764314062
124	170019038020	M/S. ZERO G.APARTMENT (P) LTD	S.NO. 199, P.NO. 204, 206, 209, VIMAN NAGARPUNE	1250	Mr Shashikant Thakare	9158005313
125	170019031050	M/S. WEIKFIELD IT CITI INFO PARK	30/3 + 31/1, WADGAONSHERI PUNE	1486	Mr Dattaray a Gaikwad	8805001744
126	170019038730	M/S. HSBC SOFTWARE DEVELOPMENT INDIA PVT.LTD	S.NO. 222/1, KALYANINAGAR PUNE	1400	Mr Sarade	9011431200
127	170019030170	M/S HSDI	S.NO.222/1 KALYANI-NAGAR PUNE	1400	Vinod Singh	9923244019
128	170019025560	M/S HSBC SOFTWARE DEVELOPMENT (INDIA)LTD.	RAHEJA WOOLS BUILDING NO4 PLOT NO 25S.NO222/9 KALANI NAGER PUNE	1700	Mr Sarade	9011431200
129	170019032550	M/S N.V. REALITY PVT LTD.	S.NO 30/3, 31/1 2A WEIKFIELD ESTATE NAGAR ROAD PUNE	1485	Mr Dattaray a Gaikwad	8805001744
130	170019034280	M/S MAHANTESH MALI	S.NO 30/3,31/1 & 2A VIMANGAR PUNE	1486	Mr Dattaray a Gaikwad	8805001744

Sr	Consumer Number	Consumer Name	Address	Contract Demand (KVA)	Name of the Contact Person	Contact No
131	170019034270	M/S PRAKASH MHATRE	S.NO 30/3,31/1 & 2A VIMAN NAGAR PUNE	1486	Mr Dattaray a Gaikwad	8805001744
132	170019035720	M/S. BAJAJ FINSERV LTD	S.NO.208/1B, LOHAGAONVIMAN NAGARPUNE	1400	Mr Kishor Jadhav	7387000285
133	170019037740	M/S. G CORP. PROPERTIES PVT.LTD	S.NO. 206, A/1,NEXT TO AGAKHAN PALACEYERAWA DAPUNE	2000	Mr Kumar Kirolkar	9960923337
134	170019037770	M/S. IHHR HOSPITALITY	CTS NO. 2134,2735,2136,2137,2140,2142FINAL P.NO.88, NAGAR ROADPUNE	1600	Mr Bhargav	7798889763
135	170019036220	M/S. DUET INDIA HOTEL (PUNE) PVT.LTD	S.NO. 197/3-5, VIMAN NAGARPUNE	1275	Mr S Gupta	8600700502

Annexure 5: Map of the Pune City



Source: www.mapsofindia.com.

★ Shows locations concentrated by eligible Open Access Consumers

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