

A Study on Customer satisfaction towards Reliance Jio network

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Abstract- Indian Telecom industry is one of the fastest growing telecom markets in the world. In telecom industry, service providers are the main drivers, The entitled “A Study on Customer satisfaction towards Reliance Jio network” is carried out with an objective to determine the customer satisfaction on Reliance Jio and to find out the customers satisfaction towards the products and services and. Data were collected by survey method through structured questionnaire with both opened and closed ended questions. For distribution of questionnaire to the customers random sampling method was used to select the customers and the survey was taken among those selected users. After collecting the data from the respondents it was analysed using Simple Percentage Analysis, Friedman Test, chi-squared test and regression. In the era of information explosion, people are to be provided with quick and timely access to information. The present study carried out with 172 users of Reliance Jio. The whole study is carried with the help of those respondents.

Index Terms- Jiosim, Jio network, service.

1. INTRODUCTION

Marketing concept starts with the consumer needs and in behavior in meeting these needs. Every action of a person is based on the needs. The real problem is to learn what a customer takes into consideration when he chooses a particular brand. Such a study is concerned with consumer Satisfaction.

1.1 Customer Satisfaction

Customer Satisfaction in business term is a measure of how products & services supplied by a company meet or surpass customer expectation. In a competitive marketplace, where businesses compete for customers, customer satisfaction is seen as a key differentiator & increasingly has become a key element of business strategy. The study makes effort to ascertain the satisfaction level of customers of

Reliance Jio. The subject has been taken for the research as it plays key role in the success of Telecom sector. No company can think of selling their product without having satisfied customer. No company can survive in long run without coming up to the satisfaction level of customer.

- JIO Product and Services
- JioPhone
- 4G broadband
- LYF smartphones
- JionetWi-Fi

1.2 Problem Identification

- The Customer’s transformation of network from the existing services to the Reliance Jio 4G Mobile services have been increasing highly.
- Even though the sector has reflected promising growth, the industry is expected to continue to record good subscriber growth.
- The company can come up to the expectation only by finding out the problem that customers are facing during their purchase of Reliance Jio products.
- The study makes effort to ascertain the satisfaction level of customers of Reliance Jio through survey. So that company would be able to come up to the expectation level of its customer.

1.3 Objectives of the Study

- To measure the effectiveness of various factors that leads to the customer satisfaction of Reliance Jio 4G mobile services.
- To test whether the various factors that leads to the customer satisfaction are significantly different or not.
- To know the awareness level about jiosim.

- To identify the factors influencing to choose jio network.
- To study the problems faced by subscribers while using jio network.

1.4 Need for the Study

- To eliminate the discomforts of services provided by the Reliance Jio.
- To measure the satisfaction level as there is always scope of improvement.

1.5 Scope of the Study

This study covers customers about Reliance Jio. It makes effort to ascertain the satisfaction level of customers of Reliance Jio 4G mobile services. The various factors that lead to test the satisfaction level of customers are speed, connectivity, customer care, getting new connections, compatibility. By using this factors to measure the satisfaction level towards Reliance Jio.

1.6 Limitations of the Study

- The behavior of the customer is unpredictable which may result in the lacking of accuracy in the data.
- As the sample size of the survey was so small and comprise of only 172 customers, the results may have some prone to errors.
- Study accuracy totally based upon the respondents response.
- Stipulated short span of time for survey.
- The study is based on the opinion expressed by subscribers only.

2. REVIEW OF LITERATURE

Review of Literature helps in getting the view of current trends in the industry and it helps accruing an idea in which way the study should be focused. It also helps in getting a reference to how the study should be preceded.

B. Adhinarayanan and K. Balanagagurunathan(2011) in their article entitled, "A Study on Customer Satisfaction towards Reliance Telecom in Tamilnadu with Special Reference to Salem City" have indicated that Indian Telecom sector, like any other industrial sector in the country, has gone through many phases of growth and diversification. Starting from

telegraphic and telephonic systems in the 19th century, the field of telephonic communication has now expanded to make use of advanced technologies like GSM, CDMA, and WLL to the great 3G Technology in mobile phones. T. Kavipriya and P.Rengarajan (2012) in their article titled, "User's Level of Satisfaction with Mobile Phone Service Providers - with Special Reference to Tiruppur District, Tamil Nadu" have point out in recent the demand for mobile phone is increasing. There are many players in the mobile phone industry. Though cell phone industry has its origin in the recent past and the growth has been excellent. To market their services, every company is adding many new features. S.Vishnuvarthani (2013) in her article entitled "Consumers' Awareness and Preference for Mobile Phone Services at Erode City" has pointed out that telecommunication is one of the most important growing service sectors in India. It plays an inevitable role in today's busy world. The telecommunication includes both mobile communication and fixed telephony lines. In recent days there is an upsurge in the use mobile phones rather than land lines. The number of mobile phone subscribers outnumbered land line telephony system. It is because of certain advantages that mobile phone has for itself. Government and private operators are competing at close margin and are trying to provide multiple value added services to people. Hence, the cellular operators should strive to provide cost effective quality equipments, affordable and competitive call tariffs for connectivity at various levels and customized services in order to satisfy and delight their consumers. Dinesh Kumar Pandiya, DrBrajeshKumar, MazahidulHaqueChoudhury (2014) did a study titled "A Study of Customer satisfaction on Telecom Service Providers". To understand the performance of different brands in the market on various parameters like Network Satisfaction, GPRS, SMS pack, customer care, free talk time, festival offer, full talk time, free roaming, validity, connection charges, ease of availability of retailers selling recharge coupon, ease of availability of the retailers transferring recharge voucher and online recharge. This study it helps in understanding the factors influencing customer satisfaction towards telecom service like service quality of network, customer care, SMS packs, free talk time, connection charges, Ease of availability of the retailer selling

recharge coupon, Ease of availability of retailers transferring recharge voucher. Nitika Rawat (2015) did a study titled “Future and Challenges of 4G Wireless Technology” In his paper he explains about IP based and IP based devices. This paper describes how 4G is easy to deploy and thus, cost effective as well. The idea of multimode software for maintaining different networks simultaneously is explained, along with the mechanisms of system initiated discoveries. Also, the challenge of managing user accounts is discussed. The paper describes the concept of security that should be given heed. This paper explores what 4G network technology actually is, along with some of the propositions in order to fully figure out the advantages and challenges of effectively implementing 4G. A.K. Antony (2016) “A study on consumer satisfaction towards reliance jio connection palakad area kerala state” The study aims to know the level of satisfaction towards the reliance jio net connect. He concluded most of the respondents are highly satisfied with the reliance net connect for its network coverage.

3. RESEARCH METHODOLOGY

This chapter clearly defines the research methods used to conduct the study. It also explains how the necessary data and information to address the research objectives and questions was collected, presented and analyzed.

Research methodology

Research Methodology is a way to systematically solve the research problem. This would include the procedure and techniques used to perform the research as well as any of the terminology and explanation of how these methods will be applied effectively.

Sample size

Sample size refers to the numbers of respondents selected for the survey. The sample size selected for the study is 172. Individual Customers are taken as the Sampling unit. The type of sampling is Random Probability sampling. In simple random sampling each member of population is equally likely to be chosen as part of the sample.

Collection of data

Data can be defined as the quantitative or qualitative values of a variable. Here the Data is collected using Questionnaire method. Data is thought to be the lowest unit of information from which other measurements and analysis can be done. Data can be numbers, images, words, figures, facts or ideas. Data in itself cannot be understood and to get information from the data one must interpret it into meaningful information. There are various methods of interpreting data. Data sources are broadly classified into primary and secondary data.

Source of data

Primary data

The primary data is original research data in its raw form without any analysis or processing. This provides a wealth of information for researchers. Primary data collected through survey from the respondents by using questionnaire.

Tools for data collection

In this study Questionnaire is used for data collection

4. ANALYSIS AND INTERPRETATION

The primary data collected using the instrument – Questionnaire with demographical questions, research questions and a open ended feedback questions from 172 respondents. The data are coded in to MS excel and transformed into the software package SPSS for statistical analysis. The following analysis were carried out

- 1) Percentage Analysis
- 2) Regression Analysis
- 3) Friedman Test
- 4) chi-squared test

Percentage Analysis

In Percentage Analysis, demographic factors are considered to evaluate the research questions to find the percentage level of the responses. The following is the formula for percentage analysis:

$$\text{Percentage of respondent} = \frac{\text{No of Respondent}}{\text{Total no of respondent}} \times 100\%$$

Total no of respondent

Profile of the Respondents

- 59% are the Male respondents and 41% are the female respondents.

- 69% of respondents are in the age group of 18 to 25 and 20% of respondents are in the age group of 25 to 40 and remaining 11% are more than 40 age group.
- 51% of respondents are students and 35% of the respondents are an employee and 7% are doing agriculture and remaining 7% are doing their own business.
- 26% of respondents are Airtel and 16% of respondents are Aircel and 16% of respondents are Bsnl and 16% of respondents are Vodafone and 24% of respondents are using some other network like Idea, Docomo etc.

Profile of the Respondents

S.No	Particulars	No.of Respondents	Percentage (%)
Gender wise classification			
	Male	101	59
2	Female	71	41
	Total	172	100
Age wise classification			
1	18 to 25	120	69
2	25 to 40	34	20
3	More than 40	18	11
	Total	172	100
Occupation			
1	Student	88	51
2	Employee	60	35
3	Agriculture	12	7
4	Business	12	7
	Total	172	100
Network used before jio			
1	Airtel	46	26
2	Aircel	29	16
3	Bsnl	26	16
4	Vodafone	26	16
5	Others	45	26
	Total	172	100
Type of jio scheme			
1	Prepaid	143	83
2	Postpaid	29	17
	Total	172	100
Sources of jio			
1	Newspaper ads	51	30
2	Tv ads	40	23
3	Word of mouth	54	31
4	Bill boards/hoardings	27	16
	Total	172	100
Helpful service or product			
1	Jio app service	48	28
2	Jio 4G broadband	38	22
3	Jio phone	61	36
4	Jio Wi-Fi	25	14

	Total	172	100
Preference of jio			
1	Low cost	94	55
2	Network coverage	27	16
3	Quick customer care	13	7
4	Jio plans	38	22
	Total	172	100
Preference of jio pack			
1	1.5 GB/day packs	130	75
2	2 GB/day packs	31	19
3	Sachet (short term)	4	2
4	Long term	7	4
	Total	172	100
Recommend jio to others			
1	Yes	156	91
2	No	16	9
	Total	172	100

REGRESSION ANALYSIS:

Regression analysis is an important tool for modeling and analyzing data. Regression analysis estimates the relationship between two or more variables. There are multiple benefits of using regression analysis. They are as follows:

1. It indicates the significant relationships between dependent variable and independent variable.
2. It indicates the strength of impact of multiple independent variables on a dependent variable.

Regression analysis also allows us to compare the effects of variables measured on different scales, such as the effect of price changes and the number of promotional activities. These benefits help market researchers / data analysts / data scientists to eliminate and evaluate the best set of variables to be used for building predictive models.

Regression analysis for ‘Recommend R JIO to others
A regression analysis was conducted with dependent variable ‘would you like to recommend R jio to others‘ and by the independent variables consider were “why do you prefer jiosim than other service providers”, “which recharge pack would you prefer for your usage”, “the speed of jio’s 4g broadband is better compared to other networks”, “do you satisfied with jio 4g internet speed”, “experience of network in terms of indoor coverage”, “experience of network in terms of outdoor coverage”, “experience of network in terms of voice quality”, “experience of network in terms of ensuring connectivity at first time”, “experience of network in terms of roaming

services”, “experience of network in terms of providing continuous connection while talking”, “easy access to the customer care”, “compatibility of jiosim in every mobile phone is easy” “getting new connection for jio is easy compared to other networks”, “jio’s free local and national sms offer”, “experience of network in terms of error free sms delivery & receipt”

Hypothesis:

H0: there is no significant difference between the independent variables that are Influencing the dependent variable ‘Recommend R Jio to others’

H1: there is significant difference between the independent variables that are

H2: Influencing the dependent variable ‘Recommend R Jio to others’

Analysis: Model Summary for Recommend R Jio to others

Mo del	R	R Square	Adjusted Square	Std. Error of the Estimate
1	1.000	1.000	1.000	.008

Table 4.3Regression and Error values for Recommend R Jio to others

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	13.529	15	.902	12987.494	.007
Residual	.000	1	.000		
Total	13.529	16			

Dependent Variable: RECOMMEND RJIO TO OTHERS

Coefficients of dependent variables for Recommend R Jio to others

Variables	Coefficients	
	B	Std. Error
(Constant)	-4.974	
why do you prefer jiosim than other service providers	.246	.009
which recharge pack would you prefer for your usage	.060	.012
the speed of jio’s 4g broadband is better compared to other networks	.340	.006
do you satisfied with jio 4g internet speed	.277	.007
experience of network in terms of indoor coverage	.241	.018
experience of network in terms of outdoor coverage	1.549	.023
experience of network in terms of voice quality	.133	.011
experience of network in terms of ensuring connectivity at first time	-1.575	.021
experience of network in terms of roaming services	-.157	.009
experience of network in terms of providing continuous connection while talking	1.192	.016
easy access to the customer care	.151	.008
compatibility of jiosim in every mobile phone is easy	-.689	.021
getting new connection for jio is easy compared to other networks	.819	.025
jio’s free local and national sms offer	-1.068	.024
experience of network in terms of error free sms delivery & receipt	.662	.012

Regression equation:

$$RTO = a_1 + a_1PJS + a_2RPU + a_3SJB + a_4JIS + a_5EIC + a_6EOC + a_7EVQ + a_8ECF + a_9ERS + a_{10}ECC + a_{11}ACC + a_{12}CJS + a_{13}GNC + a_{14}JSO + a_{15}SDR + \epsilon_1$$

Where,

RTO - RECOMMEND RJIO TO OTHERS

PJS - PREFERENCE OF JIO SIM

RPU - RECHARGE PACK FOR USAGE

SJB- SPEED OF JIO'S BROADBAND

JIS- JIO INTERNET SPEED

EIC- EXPERIENCE OF INDOOR COVERAGE

EOC- EXPERIENCE OF OUTDOOR COVERAGE

EVQ- XPERIENCE OF VOICE QUALITY

ECF-EXPERIENCE OF CONNECTIVITY AT FIRST TIME

ERS- EXPERIENCE OF ROAMING SERVICES

ECC-EXPERIENCE OF CONTINUOUS CONNECTION

ACC- ACCESS TO THE CUSTOMER CARE

CJS- COMPATABILITY OF JIO SIM

GNC- GETTING NEW CONNECTION FOR JIO

JSO- JIO'S SMS OFFER

SDR- SMS DELIVERY & RECEIPT

a₁ - Constant

a₁ - Coefficient of PJS

a₂ - Coefficient of RPU

a₃ - Coefficient of SJB

a₄ - Coefficient of JIS

a₅ - Coefficient of EIC

a₆ - Coefficient of EOC

a₇ - Coefficient of EVQ

a₈ - Coefficient of ECF

a₉ - Coefficient of ERS

a₁₀ - Coefficient of ECC

a₁₁ - Coefficient of ACC

a₁₂ - Coefficient of CJS

a₁₃ - Coefficient of GNC

a₁₄ - Coefficient of JSO

a₁₅ - Coefficient of SDR

ε₁ - Error

By substituting the value from table 4.15, the regression equation will be ,

$$RTO = - 4.974 + 0.246PJS + 0.060RPU + 0.340SJB + 0.277 JIS + 0.241EIC + 1.549EOC + 0.133EVQ - 1.575 ECF - 0.157 ERS + 1.192 ECC + 0.151ACC - 0.689 CJS + 0.819GNC - 1.068 JSO + 0.662SDR + 1.000..... Eq. (1)$$

Interpretation:

The Significance (P Value) of the model is 0.007, which is less than the stipulated P-Value of 0.05. So this test is statistically significant. The independent variables are considered for the test are “why do you prefer jiosim than other service providers”, “which recharge pack would you prefer for your usage”, “the speed of jio’s 4g broadband is better compared to other networks”, “do you satisfied with jio 4g internet speed”, “experience of network in terms of indoor coverage”, “experience of network in terms of outdoor coverage”, “experience of network in terms of voice quality”, “experience of network in terms of ensuring connectivity at first time”, “experience of network in terms of roaming services”, “experience of network in terms of providing continuous connection while talking”, “easy access to the customer care”, “compatibility of jiosim in every mobile phone is easy” “getting new connection for jio is easy compared to other networks”, “jio’s free local and national sms offer”, “experience of network in terms of error free sms delivery & receipt”. By running that regression test the co-efficient of predicts and constant value are arrived as $a_1 = - 4.974$, $\alpha_1 = 0.246$, $\alpha_2 = 0.060$, $\alpha_3 = 0.340$, $\alpha_4 = 0.277$, $\alpha_5 = 0.241$, $\alpha_6 = 1.549$, $\alpha_7 = 0.133$, $\alpha_8 = - 1.575$, $\alpha_9 = - 0.157$, $\alpha_{10} = 1.192$, $\alpha_{11} = 0.151$, $\alpha_{12} = - 0.689$, $\alpha_{13} = 0.819$, $\alpha_{14} = - 1.068$, $\alpha_{15} = 0.662$ and $\epsilon_1 = 1.000$ (value of R square) with this the regression equation Eq. (1) is formed.

As the p-value is much less than 0.05, (i.e. 0.007), we reject the null hypothesis. Hence there is a significant relationship between the variables in the linear regression model of the data set faithful.

Friedman Test

The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is used to test for differences between groups when the dependent variable being measured is ordinal. It can also be used for continuous data that has violated the assumptions necessary to run the one-way ANOVA with repeated measures (e.g., data that has marked deviations from normality). Thus here the Friedman is used to test the differences between various factors influencing Reliance Jio services.

Customer Satisfaction Level towards Reliance Jio 4G

Mobile Services/product:

From the literature reviews, the following factors have been identified to check how far it satisfies the customer towards Reliance Jio 4G mobile services/product. The factors collected from the review of literature have been furnished below;

- Speed
- Network Coverage
- Customer Care
- Compatibility
- Getting New connection
- SMS

Formulation of Hypothesis:

H0: The various factors satisfying the Reliance Jio services are not significantly different.

H1: The various factors satisfying the Reliance Jio services are significantly different.

Level of Significance (α):

The level of significance is 5%, therefore the confidence level is 95%.

Descriptive Statistics of Factors Influencing the Reliance Jio Services

Factors influencing the Reliance Jio Service Period	No of Respondents	Mean	Std. Deviation
The speed of Jio's 4G broadband is better compared to other networks	172	3.62	.936
Do you satisfied with Jio's 4G internet speed	172	3.11	1.012
Experience of network in terms of indoor coverage	172	3.04	1.102
Experience of network in terms of outdoor coverage	172	3.45	1.016
Experience of network in terms of voice quality	172	3.07	1.076
Experience of network in terms of ensuring connectivity at 1st attempt	172	3.17	1.119
Experience of network in terms of roaming services	172	3.42	.983
Experience of network in providing continuous connection while talking	172	3.22	1.094
Easy access to the customer care	172	3.05	.969
Compatibility of Jiosim in every mobile phones is easy	172	3.09	1.191
Getting new connection for Jiosim is easy when compared to other networks	172	2.85	1.198
Jio's free local and national SMS	172	3.77	1.031
Experience of network in terms of error free SMS delivery & receipt	172	3.54	1.106

Mean Ranks of Factors influencing the Reliance Jio Services

Factors influencing towards Reliance Jio	Mean Rank
Getting new connection for Jiosim is easy when compared to other networks	6.87
Easy access to the customer care	7.30
Experience of network in terms of indoor coverage	7.45
Experience of network in terms of voice quality	7.64
Do you satisfied with Jio's 4G internet speed	7.73
Compatibility of Jiosim in every mobile phones is easy	7.85
Experience of network in terms of ensuring connectivity at 1st attempt	8.08
Experience of network in providing continuous connection while talking	8.19
Experience of network in terms of roaming services	9.19
Experience of network in terms of outdoor coverage	9.55
Experience of network in terms of error free SMS delivery & receipt	9.70
The speed of Jio's 4G broadband is better compared to other networks	10.10
Jio's free local and national SMS	10.74

Test Statistics of Factors Influencing the Reliance Jio Services

Particulars	Values
N	172
Chi-Square	233.153
Degree of freedom	15
Asymptotic Significant	.000

Interpretation

The Asymptotic Significant (P Value) is less than the stipulated value of 0.05. So the carried out test is statistically significant with the degree of freedom 15 and calculated Chi Square value is 233.153. The Chi Square table value is 29.663. As the calculated Chi Square value is higher than the table value, the H0 is getting rejected and H1 is accepted. It infers that there is significant difference among various factors satisfying the Reliance Jio.

From the Mean Rank table, we can able to categories the factors which gives high ranking to low ranking. They are;

High Ranking Factors Influencing the Reliance Jio Services

Factors influencing towards Reliance Jio	Mean Rank
Jio's free local and national SMS	10.74
The speed of Jio's 4G broadband is better compared to other networks	10.10
Experience of network in terms of error free SMS delivery & receipt	9.70
Experience of network in terms of outdoor coverage	9.55
Experience of network in terms of roaming services	9.19

Moderate Ranking Factors Influencing the Reliance Jio Services

Factors influencing towards Reliance Jio	Mean Rank
Experience of network in providing continuous connection while talking	8.19
Experience of network in terms of ensuring connectivity at 1st attempt	8.08

Low Ranking Factors Influencing the Reliance Jio Services

Factors influencing towards Reliance Jio	Mean Rank
Compatibility of Jiosim in every mobile phones is easy	7.85
Do you satisfied with Jio's 4G internet speed	7.73
Experience of network in terms of voice quality	7.64
Experience of network in terms of indoor coverage	7.45
Easy access to the customer care	7.30
Getting new connection for Jiosim is easy when compared to other networks	6.87

- From the above table it is inferred that, the factors which are compatibility, speed, voice quality, indoor coverage, access to the customer care, getting new connection are ranking poor. If the industry is

taking care on these factors, the company would be able to come up to the expectation level of its customer and can improve its services.

Chi-square test for 'the network which is used before Rjio:

Particulars	The network which is used before Rjio
chi-square	11.081
Degree of freedom	4
Asymptotic Significant	.026

Hypothesis:

H0: there is no significant difference between the respondents about 'the network which is used before rjio'

H1: there is significant difference between the respondents about 'the network which is used before rjio'

Interpretation:

The significance (p value) calculated is 0.026 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 11.081. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'use social media'

chi-square test for type of jio scheme:

Particulars	Type of jio scheme
chi-square	75.558
Degree of freedom	1
Asymptotic Significant	.019

Hypothesis:

H0: There is no significant difference between the respondents about 'type of jio scheme'

H1: There is significant difference between the respondents about 'type of jio scheme'

Interpretation:

The significance (p value) calculated is 0.019 which is less than the stipulated value of 0.05. so this test is

statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 75.558. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding ‘type of jio scheme’

Chi-square test for source about Rjio:

Particulars	Source about Rjio
chi-square	10.372
Degree of freedom	3
Asymptotic Significant	.016

Hypothesis:

H0: there is no significant difference between the respondents about ‘source about rjio’

H1: there is significant difference between the respondents about ‘source about rjio’

Interpretation:

The significance (p value) calculated is 0.016 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 10.372. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding ‘source about rjio’.

Chi-square test for ‘helpful service or product:

Particulars	Helpful service or product
chi-square	16.233
Degree of freedom	3
Asymptotic Significant	.001

Hypothesis:

H0: there is no significant difference between the respondents about ‘helpful service or product’.

H1: there is significant difference between the respondents about ‘helpful service or product’.

Interpretation:

The significance (p value) calculated is 0.001 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 16.233. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding ‘helpful service or product’.

Chi-square test for ‘preference of jio than others’

Particulars	preference of jio than others
chi-square	87.953
Degree of freedom	3
Asymptotic Significant	.000

Hypothesis:

H0: there is no significant difference between the respondents about ‘preference of jio than others’.

H1: there is significant difference between the respondents about ‘preference of jio than others’.

Interpretation:

The significance (p value) calculated is 0.000 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 87.953. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding ‘preference of jio than others’.

Chi-square test for ‘recharge pack preference’

Particulars	Recharge pack preference
chi-square	244.884
Degree of freedom	3
Asymptotic Significant	.007

Hypothesis:

H0: there is no significant difference between the respondents about ‘recharge pack preference’.

H1: there is significant difference between the respondents about 'recharge pack preference'.

Interpretation:

The significance (p value) calculated is 0.007 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 244.884. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'recharge pack preference'.

chi-square test for 'Recommendation to others'

Particulars	Recommendation to others
chi-square	113.953
Degree of freedom	1
Asymptotic Significant	.000

Hypothesis:

H0: there is no significant difference between the respondents about 'recommendation to others'

H1: there is significant difference between the respondents about 'recommendation to others'

Interpretation:

The significance (p value) calculated is 0.000 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 113.953. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'recommendation to others'.

Chi-square test for 'The speed of broadband'

Particulars	The speed of broadband
chi-square	18.291
Degree of freedom	4
Asymptotic Significant	.001

Hypothesis:

H0: there is no significant difference between the respondents about 'the speed of broadband'.

H1: there is significant difference between the respondents about 'the speed of broadband'.

Interpretation:

The significance (p value) calculated is 0.001 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 18.291. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'the speed of broadband'.

Chi-square test for 'Jio 4G internet speed'

Particulars	Jio 4g internet speed
chi-square	34.860
Degree of freedom	4
Asymptotic Significant	.012

Hypothesis:

H0: There is no significant difference between the respondents about 'jio 4g internet speed'.

H1: There is significant difference between the respondents about 'jio 4g internet speed'.

Interpretation:

The significance (p value) calculated is 0.012 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 34.860. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'jio 4g internet speed'.

Chi-square test for 'Indoor coverage'

Particulars	Indoor coverage
chi-square	12.012
Degree of freedom	4

Asymptotic Significant	.017
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Hypothesis:

H0: there is no significant difference between the respondents about 'indoor coverage'.

H1: there is significant difference between the respondents about 'indoor coverage'.

Interpretation:

The significance (p value) calculated is 0.017 which is less than the stipulated value of 0.05. so this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 12.012. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'indoor coverage'

Chi-square test for 'Outdoor coverage'

Particulars	Outdoor coverage
chi-square	12.186
Degree of freedom	4
Asymptotic Significant	.016

Hypothesis:

H0: there is no significant difference between the respondents about 'outdoor coverage'

H1: there is significant difference between the respondents about 'outdoor coverage'

Interpretation:

The significance (p value) calculated is 0.016 which is less than the stipulated value of 0.05. so this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 12.186. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'outdoor coverage'.

Chi-square test for 'Experience of voice quality'

Particulars	Experience of voice quality
chi-square	21.895

Degree of freedom	4
Asymptotic Significant	.003

Hypothesis:

H0: There is no significant difference between the respondents about 'experience of voice quality'.

H1: There is significant difference between the respondents about 'experience of voice quality'.

Interpretation:

The significance (p value) calculated is 0.003 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 21.895. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'experience of voice quality'.

chi-square test for 'connectivity at first time'

Particulars	Connectivity at first time
chi-square	17.477
Degree of freedom	4
Asymptotic Significant	.002

Hypothesis:

H0: there is no significant difference between the respondents about 'connectivity at first time'.

H1: there is significant difference between the respondents about 'connectivity at first time'.

Interpretation:

The significance (p value) calculated is 0.002 which is less than the stipulated value of 0.05. So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 17.477. This is higher than the table value of 9.488. since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'connectivity at first time'.

chi-square test for 'continuous connection while talking'

Particulars	Continuous connection while talking
chi-square	15.035
Degree of freedom	4
Asymptotic Significant	.005

Hypothesis:

H0: there is no significant difference between the respondents about continuous connection while talking

H1: there is significant difference between the respondents about continuous connection while talking

Interpretation:

The significance (p value) calculated is 0.005 which is less than the stipulated value of 0.05. so this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 15.035. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding continuous connection while talking.

chi-square test for 'Easy access to the customer care'

Particulars	Easy access to the customer care
chi-square	35.616
Degree of freedom	4
Asymptotic Significant	.001

Hypothesis:

H0: there is no significant difference between the respondents about 'easy access to the customer care'.

H1: there is significant difference between the respondents about 'easy access to the customer care'.

Interpretation:

The significance (p value) calculated is 0.001 which is less than the stipulated value of 0.05. so this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 35.616. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is

a significant difference between the respondents regarding 'easy access to the customer care'.

Chi-square test for 'Compatibility of jio'

Particulars	Compatibility of jio
chi-square	23.756
Degree of freedom	4
Asymptotic Significant	.000

Hypothesis:

H0: there is no significant difference between the respondents about 'compatibility of jio'

H1: there is significant difference between the respondents about 'compatibility of jio'

Interpretation:

The significance (p value) calculated is 0.000 which is less than the stipulated value of 0.05. so this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 23.756. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'compatibility of jio'

Chi-square test for 'Getting new connection'

Particulars	Getting new connection
chi-square	44.919
Degree of freedom	4
Asymptotic Significant	.000

Hypothesis:

H0: there is no significant difference between the respondents about 'getting new connection'.

H1: there is significant difference between the respondents about 'getting new connection'.

Interpretation:

The significance (p value) calculated is 0.000 which is less than the stipulated value of 0.05. so this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 44.919. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we

cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'getting new connection'.

Chi-square test for 'Jio's local and national sms'

Particulars	Jio's local and national sms
chi-square	19.977
Degree of freedom	4
Asymptotic Significant	.001

Hypothesis:

H0: there is no significant difference between the respondents about 'jio's local and national sms'.

H1: there is significant difference between the respondents about 'jio's local and national sms'.

Interpretation:

The significance (p value) calculated is 0.001 which is less than the stipulated value of 0.05 So this test is statistically significant to conduct chi-square test. The degree of freedom for the test is 4 (5-1), the chi-square calculated value is 19.977. This is higher than the table value of 9.488. Since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis. Hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'jio's local and national sms'.

Chi-square test for 'Error free sms delivery & receipt'

Particulars	Error free sms delivery & receipt
chi-square	42.012
Degree of freedom	4
Asymptotic Significant	.000

Hypothesis:

H0: there is no significant difference between the respondents about 'errors freesms delivery & receipt'.

H1: there is significant difference between the respondents about 'errors freesms delivery & receipt'.

Interpretation:

The significance (p value) calculated is 0.000 which is less than the stipulated value of 0.05 so this test is

statistically significant to conduct chi-square test the degree of freedom for the test is 4 (5-1), the chi-square calculated value is 42.012. this is higher than the table value of 9.488 since the chi-square calculated is higher than chi-square table value, we cannot accept the null hypothesis hence reject null hypothesis and accept alternate hypothesis, so there is a significant difference between the respondents regarding 'error free sms delivery & receipt'.

5. FINDINGS SUGGESTIONS AND CONCLUSION

The research findings are the deciding factor to know the proportion of determinant of the Customer satisfaction towards Reliance Jio mobile services.

Findings

From the percentage analysis, it is found that

- Customers of Age group (18-25) are using Reliance Jio more than other age groups.
- Most of the Respondents preferring Reliance jio are low cost and jio plans.
- 91% of the Respondents are recommending Reliance jio to other peoples.
- Most of the Respondents think that jio phone and jio app are the more helpful services in Rjio.

From the Regression Analysis, it is found that

- As we have conducted research on the given variables we came to know that the factors like recommendation over jio is difference to all the other variables in the analysis (reject null hypothesis), as there is significant difference between the dependent and independent variables taken in the analysis.

From the Friedman test, it is found that

- Customer's Satisfaction level with Jio's free local and national SMS has the high
- Mean ranking of about 10.74. The Speed of Jio's 4G broadband is better when
- compared to other networks,
- The Reliance Jio 4G mobile service provides excellent network in terms of error free SMS
- Delivery & receipt. It provides excellent network in terms of outdoor coverage.
- It also provides excellent network in terms of roaming services.

- Compatibility of Jiosim in every mobile phone is difficult when compared to other networks.
- Jio's 4G internet speed is not highly satisfied.
- Network in terms of voice quality and indoor coverage have low mean ranking.
- Access to customer care is found difficult among customers.
- Getting new connection for Jiosim is difficult when compared to other networks.

From the Friedman test, it is found that

- After making analysis on all the factors given in the survey report we found out that most of the respondents were difference by the factors like network used before jio, jio scheme, helpful services, jio plans, recharge pack preference, recommendation to others, jio broadband, internet speed, indoor coverage, outdoor coverage, voice quality, continuous connection, roaming services, compatibility, getting new connection customer care, sms offer, and sms delivery and receipt as one factor influences all the other factors as they have relationship.

SUGGESTIONS

- Most of the customers had a bad experience with respect to call connectivity so this is one area which the company needs to address it immediately.
- The company may take necessary steps to remove the problem of calling congestion & call drop.
- Similarly customer care is doing a moderate job, they could have been trained better to improve the satisfaction in this aspect.
- Increase the quality of the service to increase the customer loyalty.
- To improve towers and to solve the network coverage problems.
- Reliance jio can get the feedback from existing customers and the references for making new customers.
- Make JIO services available in 3G phone

CONCLUSION

From the details it can be concluded that the good number of customers who are highly satisfied with

Reliance Jio's free local and national SMS and experience excellent network in terms of error free SMS delivery & receipt, outdoor coverage, roaming services. They have also agreed that the speed of Jio's 4G broadband is better when compared to other networks. Reliance Jio is capturing the wide area of Indian markets increasingly day by day. Hence, these statistics imply a bright future for the company. It can be said that in near future, the company will be booming in the telecom industry.

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