

Distracting the Indian Telecommunications Sector: An Analytical Study on Reliance JIO Network

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Abstract

India is currently the second largest telecommunication market with the second highest number of users in the world. The Indian Telecom sector has been severely disrupted by the entry of the conglomerate, Reliance, through its offering Reliance JIO services. Reliance changed the game very much with its offering of free voice and discounted data packs along with its provision of a “basket of services” complementing and supplementing the base mobile and Smartphone telephony. It is also offering handsets as part of “bundled services” with the device as well as the service. In the age of digital technology, this war is producing benefits to the customers. The objective of the present study is to analyse the dimensions of launching JIO in the Indian market on the customers as well as competitors. It also focuses on the problems faced by JIO subscribers by analysing the satisfaction level of customers. To accomplish the above objectives, the questionnaire is designed and distributed to several customers of Telangana region. The collected data were inserted in to SPSS and analyzed by using univariate and multivariate techniques. The study reveals that the launch of JIO is successful in the Indian market and most of the customers were satisfied with JIO services.

Keywords

Telecom Industry, High Speed, Internet, Reliance JIO, Subscribers

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1. Introduction

“You want to see an angry person? Let me hear a cell phone go off.” In this way, mobiles have disrupted the human life to the maximum extent. India is one of the largest smart phones markets in the world in terms of volume. So many numbers of network services are available in this world and each and every firm is expected to maximize their market share and profit. India is currently the second largest telecommunication market and has the second highest number of internet users in the world.

“JIO” the product of Reliance Jio Infocomm Ltd (RJIL) disrupted the business in the year September, 2016. It is the only Voice over Long-term Evolution (VOLTE) service in

India. It has no separate charges for voice calls and all the calls are made over the internet. Jio provides high speed internet connectivity [4G], rich communication services and various digital services on free of cost. The Indian Telecom sector has been disrupted by the entry of the conglomerate, Reliance, through its offering Reliance JIO. Reliance has changed the game very much by offering the free voice calls and discounted data packs with its provision of a “basket of services.” It also offers handsets as part of “bundled services” where users can have the device as well as the service.

Here are the ten ways the telecom industry disrupted after Jio’s entry.

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- (i) Ultra-cheap data: Before the entry of Reliance Jio, data was very expensive and consumers had to spend up to Rs. 450/- on some networks for 1GB of data. After the launch of Jio the consumers paid roughly Rs. 10/- per GB of 4G data, where even other operators also started to offer in response.
- (ii) Increased consumption of online content: India has become top country in mobile data usage with Jio users consuming more than 100 Crore gigabytes (GB) of data per month. During the quarter ending June 2017, total data usage stood at over 4.2 million terabytes, out of which 4G data accounted for 3.9 million TBs, according to TRAI data.
- (iii) Free voice calls: Jio has disrupted the Indian telecom sector with its 'Welcome' and 'Happy New Year' offers that include free voice for the lifetime and unlimited data till March 31, 2017. The company said both local and STD calls will always be free on its network, to all networks. Jio claims its network carries presently 250 crore minutes a day of calls.
- (iv) Proliferation of 4G smart phones: The market for 4G smartphones exploded after Jio services were launched as everyone had access to the Company's 4G network for free. Infact, 95 percent of the smartphones sold in the country in the first quarter were 4G- capable, according to data by International data corporation (IDC) and Morgan Stanley Research.
- (v) Faster mobile data: According to the latest data by Telecom Regulatory Authority of India (TRAI), Jio offers an all-time high download speed of 25.6 megabit per second in November, 2017 which is the highest during the period. Jio was followed by Bharti Airtel which recorded a speed of 9.8 Mbps.
- (vi) The death of 3G: The migration to 4G networks speeded up with the launch of Jio and 3G networks are finally being left behind. Now-a-days almost all smart phones sold today are 4G compatible.
- (vii) A record in user acquisition: In December, the customer base of Reliance Jio has touched 160 million, a little over a year after the newcomer stormed into the telecom market with aggressive voice and data offerings.
- (viii) Improved broadband Internet availability: TRAI defines broadband speed as anything above 512kbps or above. Jio became the country's biggest provider of broadband Internet as the people got access to free high-speed 4G services.
- (ix) Vodafone, Idea Cellular merged: Vodafone and Idea, which are merging are to be operated as a single entity

from April, 2018. The merger has been approved by the National Company Law Tribunal. The combined entity will be the largest operator in India with over 400 million subscribers and about 41 per cent revenue share in the telecom business.

- (x) Helped ease the way for online streaming videos: Jio serves 165 crore hours worth of streaming videos on its network each month. Jio TV app, YouTube and Hot star are reaching new audience with the new launch and Ditto TV called Jio as the ultimate growth hack.

2. Review of Literature

The entry of Reliance Jio has forced the giants like Airtel, Vodafone and Idea service providers to reduce their plans in order to sustain the disrupted environment by Reliance Jio. Ten papers were considered for literature review to gain the knowledge about customer preferences, customer satisfaction in mobile network service providers. Dr. R. Mohanasoundari and D. Bhuvaneshwari [7]. "A study on subscriber's opinion towards Jio sim with special reference to Tirupur City" suggested in improving the network coverage and removing the calling congestion. R. Sona priya and M. Sathiya [11] in their study titled "Customer satisfaction towards Reliance Jio network." concluded that 52 percent of the respondents were satisfied with Jio services and 64 percent of respondents were suggesting in improving its network coverage. Sonu singh and Shubham Bhardwaj [9] in their research paper titled "Reliance Jio – The game changer strategy that brings revolution in telecommunication sector" concluded that Jio is making money by providing everything free and also bringing the revolution in India. KR Mahalalaxmi and Suresh Kumar [6] in their study titled "Changing the Indian Telecom Sector:

Reliance "Jio" revealed that the promotional offers makes most of the customers to prefer this service provider and also concluded that most of the students choose their service provider as Reliance Jio. KR Mahalalaxmi and Suresh Kumar [5] in their study titled "A study on service quality and its impact on customer's preferences and satisfaction towards Reliance JIO in Trichy region" concluded that 71% of the respondents were satisfied with Reliance Jio service provider. Call dropping, Decreased internet speed and No network coverage in rural areas were the causes for dissatisfaction in Reliance Jio. Ms. Indumathy. R, Ms. Reshma Rajkumar and Mr. Velmurugan. G [4] in their paper titled "JIO's Digital Life – A Survey" stated that users preferred Jio sim as a secondary sim basically used for Data services and also added that network coverage and call connectivity has to be improved. Dr. Gowthami Chinthala, Ms. H. Madhuri and Mr. Kranthi Kumar [2] in their study

titled “Customer satisfaction towards telecommunication service provider – A study on Reliance JIO” concluded that 87% of the respondents are satisfied with the services provided by Jio. Rajbinder Singh [10] in his paper titled “Impact of Reliance JIO on Indian Telecom Industry: An Empirical Study” concluded that Reliance Jio has successfully hit the target market and has deep pockets to invest but has threat to competition and technology. C. Boobalan and K. Jayaraman [1] in their study titled “Customers satisfaction towards Reliance Jio sim with special reference to Dharmapuri District” revealed that the company should improve the ambience of the service stations and also stated that Reliance Jio should introduce some new schemes for the youngsters. D Satyanarayana, Dr K Sambasiva Rao and Dr S Krishnamurthy Naidu [8] in their study titled “The impact of Reliance Jio on Indian mobile Industry- A case study on mergers and acquisitions of Idea – Vodafone and Airtel – Telenor” revealed that Reliance Jio’s free offer created unexpected changes in consumer’s behaviors and competitor’s strategies and also added that there would be an impact on the equilibrium in the mobile industry which makes the rivals to undergo mergers and acquisitions.

3. Research Gap and Problem Statement

In the modern world competition is too high and every company introduces the product in to the market with the anticipation of profit. Jio is widely used by the techno-savvy customers. Reliance Jio offers cost free services but eventually it fails to achieve 100% customer satisfaction level due to lack of network coverage, lack of awareness and bulk recharge rates. Although the customers are availing Jio services, they spend some amount for using other networks. Hence the study is undertaken to analyze the subscriber’s opinion towards Jio network.

1. Objectives of the study

The objectives of the present study are broadly in the following three heads:

- a) To study the impact of Reliance Jio on competitors.
- b) To analyse the impact of Reliance jio on customers.
- c) To identify the satisfaction level of Jio users.
- d) To know the problems faced by subscribers while using Jio network.

Hypothesis

Test the following hypothesis to know the significance impact of variables in the study.

H1: There is a significant impact of Reliance Jio on competitors with respect to gender, age, educational status and occupational back ground.

H2: There is a significant impact of Reliance Jio on competitors in relation to level of satisfaction of customers.

4. Research Methodology

In the present study descriptive analysis has been carried out, to study the subscriber’s opinion towards Jio sim. The primary data used in the study is through questionnaire from a sample of 529 respondents from Hyderabad region. The sampling technique used in this study is simple random sampling. The data was analysed by using SPSS software and the tools included were frequency analysis and chi-square analysis. The reliability test is done to know whether selected sample is adequate or not. The secondary data has been collected from journals, magazines and websites.

Limitations of the study

- 1. The study was restricted to Hyderabad region only
- 2. This study is based on the opinion given by subscribers only
- 3. Time constraint is the major limitation of the study

5. Data Analysis and Interpretation

The results were interpreted on the basis of analysis of the total sample and its demographic segments based on gender, age, education level, as well as occupational status etc. The Cronbach alpha reliability coefficient was used to calculate the reliability and it was interpreted in table 1. In this case, $\alpha = .816$, which shows the questionnaire is reliable. To determine whether there were any statistically significant differences in terms of demographic variables, the frequency analysis and cross tabulation analysis by chi square test was performed to know the goodness of all demographic and study variables. The significance levels (p-value) of 0.05 and 0.01 were used. The demographic data and study variables analysis was interpreted in Table 2 and 3 respectively.

Table 1. Reliability Test Statistics.

Reliability Statistics	
Cronbach's Alpha	No. of Items (N)
0.816	26

Table 1 reveal about the reliability of the data. This gives Cronbach’s alpha coefficient.

Table 2. Data tabulation and analysis of demographic characteristics (Personnel Factors) summary.

Gender	Respondent	Percent
FEMALE	231	43.7
MALE	298	56.3
Total	529	100.0
Age (in Years)		
<20	62	11.72
20-30	242	45.75
30-40	217	41.02
>40	8	1.51
Total	529	100
Educational Status		
GRADUATE	137	26
PG	180	34
UG	212	40
Total	529	100
Occupational Status		
HOUSE WIFE	61	11.5
PRIVATE JOB	180	34.1
SOFTWARE ENG	163	30.8
STUDENT	125	23.6
Total	529	100.0

Source: Primary data

From the above table 2 it is clear that, out of 529 respondents, 43.7% of the respondents were female and 56.3% of the respondents were male. Majority of the respondents comes under male category. In age group of respondents 46% were in the age group of 20-30 years, 41% were in the age group of 30-40 years, 12% were in the age group of less than 20 years and only 2% were above 40 years in the age group. Majority of the respondents comes under age group of below 30 years. In educational level of respondents 26% were graduates, 34% were post graduates, 40% were undergraduates. Majority of the respondents were undergraduates. From the occupation 31% respondents were software-engineers, 24% of respondents were students, 12% of the respondents were house-wives and 34% respondents were from private jobs. Majority of the respondents were from different private jobs.

Table 3. Results Hypothesis: Data Analysis of Study Variables and Goodness of the Data.

SNo	Study variables	Chi-Square	df	Sig.
1	Do you have a mobile phone?	501.371	1	.000*
2	Are you aware about Reliance JIO?	335.049	1	.000*
3	If more than one, mention the networks you are using currently using	120.338	3	.000*
4	How long you have been using your current network?	340.966	3	.000*
5	Since how long you are using Reliance JIO services?	864.732	3	.000*
6	What type of service do you use?	794.930	2	.000*
7	What factors do you consider when choosing any network?	551.709	2	.000*
8	Are you satisfied with your current service provider?	187.571	1	.000*
9	JIO is used as a. Primary network provider	142.302	2	.000*
10	JIO used primarily for	499.408	3	.000*
11	What is your family's average monthly income?	34.667	3	.000*
12	What is your average monthly expenditure on mobile?	595.257	3	.000*
13	Did you ever change your service provider by Mobile Number Portability?	76.372	1	.000*
14	If yes, then which service provider did you opt for? (After portability)	715.654	5	.000*
15	The source you came to know about Reliance JIO?	408.565	3	.000*
16	Which feature of Reliance JIO convinced you to use this?	410.216	4	.000*
17	Which service do you like most while using the Reliance JIO services?	569.365	4	.000*
18	Are you satisfied with Reliance JIO services?	287.834	2	.000*
19	What should be improved in Reliance JIO services?	261.716	2	.000*
20	Would you like to recommend for others?	107.280	1	.000*
21	Rating of Reliance JIO services on the basis of satisfaction n			
	1. Network coverage	114.941	4	.000*
	2. Data services	237.172	4	.000*
	3. Calling services	172.692	4	.000*
	4. JIO App	360.045	4	.000*
	5. Customer care	103.524	4	.000*
	6. New schemes & Offers	337.144	5	.000*

Source Primary Data: *values significant at 0.05 levels

Table 3 reveals the goodness of fit of a statistical model which describes how well it fits a set of observations of study variables. Measures of goodness of fit typically summarize the discrepancy between observed values and the values expected under the model in question. Such measures can be used in statistical hypothesis testing. Here, in this study about 21 questionnaires showed significant at 0.05 levels.

Table 4. Cross Tabulation Analysis of Gender factor with Primarily JIO Users.

Crosstab			JIO used primarily				Total
Gender v/s JIO used primarily for			Calls	Data speed	Both	Non Users	
Gender	FEMALE	Count	14	134	79	4	231
		% of Total	2.6%	25.3%	14.9%	.8%	43.7%
	MALE	Count	19	204	64	11	298
		% of Total	3.6%	38.6%	12.1%	2.1%	56.3%
Total		Count	33	338	143	15	529
		% of Total	6.2%	63.9%	27.0%	2.8%	100.0%

Source Primary Data: Chi-Square=11.798 P=.008* significant at 0.05 levels.

In Table 4 the personal factor Gender is compared with primary use of JIO. The calculated value is more than the table value. Since, chi-square test value 11.798, p value is .008 and significant at 0.05 levels. So, hypothesis is accepted. Hence we conclude that there is significant relationship between gender and primary use of JIO. Clearly of total 25.3% female and 38.6% male primarily prefer ‘data speed’ only.

Table 5. Gender v/s Feature of Reliance JIO convinced?

Gender v/s Which feature of Reliance JIO convinced you to use this?		Which feature of Reliance JIO convinced you to use this?					Total
		Price (Free sim)	Unlimited calling services	Unlimited Dataservices	All services	Non Users	
FEMALE	Count	11	34	59	116	11	231
	% of Total	2.1%	6.4%	11.2%	21.9%	2.1%	43.7%
MALE	Count	17	50	61	161	9	298
	% of Total	3.2%	9.5%	11.5%	30.4%	1.7%	56.3%
Total	Count	28	84	120	277	20	529
	% of Total	5.3%	15.9%	22.7%	52.4%	3.8%	100.0%

Source Primary Data: Chi-Square=63.447 P=.0003 significant at 0.05 levels.

Table 5 exposed about the personal factor Gender compared with convincing feature of Reliance JIO. The calculated value is more than the table value. Since, chi-square is 63.447, p-0003 significant at 0.05 levels. So, hypothesis is accepted. Hence we conclude that there is significant relationship between gender and convincing feature of JIO. Clearly, of total, 21.9% female, male 30.4% liked ‘all services’. As a whole 52.4% of users responded positively for the convincing services that are offered by Jio.

Table 6. Gender v/s Rate the Reliance JIO services on the basis of level satisfaction on network coverage.

Reliance JIO services		Network Coverage					Total	
		Poor	Average	Good	Very Good	Excellent		
Gender	FEMALE	Count	51	62	72	39	7	231
		% of Total	9.6%	11.7%	13.6%	7.4%	1.3%	43.7%
	MALE	Count	62	86	92	37	21	298
		% of Total	11.7%	16.3%	17.4%	7.0%	4.0%	56.3%
Total		Count	113	148	164	76	28	529
		% of Total	21.4%	28.0%	31.0%	14.4%	5.3%	100.0%

Source Primary Data: Chi-Square=16.005 P=0.40 not significant at 0.05 levels.

Table 6 disclosed about the personal factor Gender compared with JIO services on network coverage on the basis of level of satisfaction. The calculated value is more than the table value. Since, chi-square test value is 16.005; p value is 0.40 not significant at 0.05 levels. So, the hypothesis rejected. Hence we conclude that there is no gender impact on JIO services like network coverage.

Table 7. Gender v/s Rate the Reliance JIO services on the basis of level satisfaction on Data Service.

Reliance JIO services			Data services					Total
			Poor	Average	Good	Very Good	Excellent	
Gender	FEMALE	Count	21	42	107	50	11	231
		% of Total	4.0%	7.9%	20.2%	9.5%	2.1%	43.7%
	MALE	Count	30	67	126	57	18	298
		% of Total	5.7%	12.7%	23.8%	10.8%	3.4%	56.3%
Total	Count	51	109	233	107	29	529	
	% of Total	9.6%	20.6%	44.0%	20.2%	5.5%	100.0%	

Source Primary Data: Chi-Square=43.467 P=.004 significant at 0.05 levels.

Table 7 showed that the personal factor Gender compared with JIO data services on the basis of level of satisfaction. The calculated value is more than the table value. Since, chi-square test value 43.467, p- value is 0.04 significant at 0.05 levels. So, the hypothesis accepted. Hence we conclude that

there is a gender impact on JIO services like data service. Clearly, of total, 20.2% female, male 23.8% said that company is providing good data services. As a whole 44.0% of respondents are satisfied towards the data services.

Table 8. Gender v/s Rate the Reliance JIO services on the basis of level of satisfaction on calling services.

Reliance JIO services			Calling services					Total
			Poor	Average	Good	Very Good	Excellent	
Gender	FEMALE	Count	35	48	96	34	18	231
		% of Total	6.6%	9.1%	18.1%	6.4%	3.4%	43.7%
	MALE	Count	50	55	124	45	24	298
		% of Total	9.5%	10.4%	23.4%	8.5%	4.5%	56.3%
Total	Count	85	103	220	79	42	529	
	% of Total	16.1%	19.5%	41.6%	14.9%	7.9%	100.0%	

Source Primary Data: Chi-Square=116.02 P=0.023 significant at 0.05 levels.

Table 8 revealed that the personal factor Gender compared with Reliance JIO services on calling Services on the basis of level of satisfaction. The calculated value is more than the table value. Since, chi-square test value is 116.02; p value is 0.023 significant at 0.05 levels. So, the hypothesis is

accepted. Hence we conclude that there is a gender impact on JIO calling services. Clearly, of total, 18.1% female, male 23.4% are satisfied towards the calling services of Jio. As a whole 41.6% respondents are satisfied towards the calling services.

Table 9. Gender v/s Rate the Reliance JIO services on the basis of level satisfaction on JIO app.

Reliance JIO services			JIO App					Total
			Poor	Average	Good	Very Good	Excellent	
Gender	FEMALE	Count	13	28	116	54	20	231
		% of Total	2.5%	5.3%	21.9%	10.2%	3.8%	43.7%
	MALE	Count	23	31	156	60	28	298
		% of Total	4.3%	5.9%	29.5%	11.3%	5.3%	56.3%
Total	Count	36	59	272	114	48	529	
	% of Total	6.8%	11.2%	51.4%	21.6%	9.1%	100.0%	

Source Primary Data: Chi-Square=96.042 P=0.04 significant at 0.05 levels

Table 9 explained that the personal factor Gender compared with Reliance JIO services on JIO apps on the basis of level of satisfaction. The calculated value is more than the table value. Since, chi-square test value is 96.042; p value is 0.04 significant at 0.05 levels. So, the hypothesis is accepted.

Hence we conclude that there is a gender impact on the level of satisfaction of JIO apps. Clearly, of total, 21.9% female, male 29.5% of respondents were satisfied with Jio apps. As a whole 51.4% of respondents were satisfied with JIO apps.

Table 10. Gender v/s Rate the Reliance JIO services on the basis of level satisfaction on customer Care.

Reliance JIO services			Customer care					Total
			Poor	Average	Good	Very Good	Excellent	
Gender	FEMALE	Count	22	57	79	47	26	231
		% of Total	4.2%	10.8%	14.9%	8.9%	4.9%	43.7%
	MALE	Count	31	61	107	59	40	298
		% of Total	5.9%	11.5%	20.2%	11.2%	7.6%	56.3%
Total	Count	53	118	186	106	66	529	
	% of Total	10.0%	22.3%	35.2%	20.0%	12.5%	100.0%	

Source Primary Data: Chi-Square=11.35 P=0.62 not significant at 0.05 levels.

Table 10 depicts that the personal factor Gender compared with Reliance JIO services on customer care on the basis of level of satisfaction on customer care. The calculated value is more than the table value. Since, chi-square test value is

11.35; p value is 0.62 not significant at 0.05 levels. So, the hypothesis rejected. Hence we conclude that there is no gender impact on JIO customer care services.

Table 11. Gender v/s Rate the Reliance JIO services on the basis of level satisfaction on New schemes & Offers.

Reliance JIO services			New schemes & Offers					Total	
			Poor	Average	Good	Very Good	Excellent		nonUsers
Gender	FEMALE	Count	24	10	109	38	34	16	231
		% of Total	4.5%	1.9%	20.6%	7.2%	6.4%	3.0%	43.7%
	MALE	Count	23	10	126	63	43	33	298
		% of Total	4.3%	1.9%	23.8%	11.9%	8.1%	6.2%	56.3%
Total	Count	47	20	235	101	77	49	49	
	% of Total	8.9%	3.8%	44.4%	19.1%	14.6%	9.3%	9.3%	

Source Primary Data: Chi-Square=76.032 P=0.03 significant at 0.05 levels.

Table 11 explained that the personal factor Gender compared with Reliance JIO services on new schemes & Offers on the basis of level of satisfaction. The calculated value is more than the table value. Since, chi-square test value is 76.032; p value is 0.03 significant at 0.05 levels. So, the hypothesis accepted. Hence we conclude that there is a gender impact on

JIO services with respect to new schemes & offers. Clearly, of total, 20.6% female, male 23.8% positively responded that the company is offering good number of new schemes and offers. As a whole 44.4% users positively responded about the new schemes and offers.

Table 12. Cross Tabulation Analysis of Age factor with Study variables.

Study Variable Questionnaires	Chi-Square Value	df	Sig.
Age v/s Do you have a mobile phone? Yes/No	53.570	26	.001*
Age v/s JIO is used as Primary network provider/Secondary network provider/Non users	70.173	52	.047*
Age v/s JIO used primarily for Doing Call/Data speed /Both/Non users	109.031	78	.012*
Age v/s Which feature of Reliance JIO convinced you to use this? Price (Free sim)/Unlimited calling services/Unlimited Data services/ All services	173.494	104	.000*
Age v/s Are you satisfied with Reliance JIO services? Yes/No/Non users	75.509	52	.018*
Age v/s Would you like to recommend for others? Yes/No	321.951	86	.000*

Source Primary Data: *Values significant at 0.05 levels

Table 12 revealed the personal factor age (in years) compared with all the study variables. Most of the respondents have been using Reliance JIO services and clearly it has shown significant impact with all age groups. Since chi-square test value is 53.570, p value is 0.01 at 0.05 levels. So, the hypothesis is accepted.

Regarding the network provider, Majority of the respondents are using Reliance JIO services as their primary network

providers and clearly it has shown significant with all age groups. Since chi-square test value is 70.173, p-value is 0.047 at 0.05 levels. So, the hypothesis is accepted.

Maximum numbers of respondents are using Reliance JIO for both (i.e for calling services and data services) and clearly it has shown significant impact on all age groups. Since chi-square test value is 109.031, p value is 0.012 at 0.05 levels. So, the hypothesis is accepted.

Most of the respondents were convinced to use Reliance JIO services because of its features and clearly it has shown significant impact with all age groups. Since chi-square test value is 173.494, p value is 0.000 at 0.05 levels. So, the hypothesis accepted.

Regarding the level of satisfaction, Most of the respondents are favoured to use Reliance JIO services and clearly it has shown significant impact with all age groups. Since chi-

square test value 75.509, p value is 0.018 at 0.05 levels. So, the hypothesis is accepted.

Majority of the respondents are willing to recommend Reliance JIO network because of its convinced services and clearly it has shown significant impact with all age groups. Since chi-square test value 321.951, p value is 0.000 at 0.05 levels. So, the hypothesis accepted.

Table 13. Cross Tabulation Analysis of Educational status with Study variables.

SNo	Study Variable Questionnaires	Chi-Square	df	Sig.
1	JIO used primarily for Doing Calls/ Data speed /Both/Non users	92.119	24	.000*
2	The source you came to know about Reliance JIO? News paper/Advertisement/Mouth publicity/Hoardings	52.952	24	.001*
3	Which feature of Reliance JIO convinced you to use this? Price (Free sim)/Unlimited calling services/Unlimited Data services/All services	410.216	4	.000*
4	Which service do you like most while using the Reliance JIO services? Unlimited calling services/Unlimited data services /Network coverage/ JIO App/All services	389.365	32	.000*
5	Are you satisfied with Reliance JIO services? Yes/No/ Non users	69.284	16	.000*
6	What should be improved in Reliance JIO services? Improve in Network coverage/ Remove calling congestion/Upgrade in android version/ Non users	124.009	16	.049*
7	Would you like to recommend for others? Yes/ No	112.058	8	.044*
8	Rating of Reliance JIO services on the basis of satisfaction 1. Network coverage	107.931	32	.000*
	2. Data services	91.746	32	.000*
	3. Calling services	48.714	32	.030*
	4. JIO App	63.553	32	.001*
	5. Customer care	70.538	32	.000*
	6. New schemes & Offers	112.647	40	.000*

Source Primary Data: *Values significant at 0.05 levels

Table 13 revealed the personal factor educational status compared with the study variables, majority of them have shown significant impact in the study. Therefore the education also plays significant role on Reliance JIO users

with respect to data speed (63%) publicity (59%), convinced features of Reliance JIO (52.4%), satisfaction level of all services (78.3%). About 53.8% of respondents recommended in improving the network coverage.

Table 14. Cross Tabulation Analysis of Occupational Status with Study variables.

S. No	Study Variable Questionnaires	Chi-Square	df	Sig.
1	Are you aware about Reliance JIO? Yes/No	35.049	6	.046*
2	If more than one, mention the networks you are using currently using	34.016	18	.013*
3	What type of service do you use? Prepaid/Postpaid/ Both	25.492	12	.013*
4	What factors do you consider when choosing any network? Call quality/Data speed/Price/Customer Service/All the above	551.709	2	.000*
5	JIO used primarily for Doing Calls/Data speed /Both/ Non users	64.547	18	.000*
6	What is your family's average monthly income? Less than 10,000/10,000-25,000/25,000 – 50,000/More than 50,000	34.667	3	.000*
7	What is your average monthly expenditure on mobile? Rs100- Rs200/ Rs 200-Rs 300 /Rs300-Rs400/ Rs 500 and above	595.257	3	.000*
8	Did you ever change your service provider by Mobile Number Portability? Yes /No	76.372	1	.000*
9	If yes, then which service provider did you opt for? (After portability) Airtel/Vodafone/Idea/BSNL/Reliance JIO/Not applicable	715.654	5	.000*
10	The source you came to know about Reliance JIO? News paper/Advertisement/Mouth publicity/Hoardings	408.565	3	.000*
11	Which feature of Reliance JIO convinced you to use this? Price (Free sim)/Unlimited calling service/Unlimited Data services/All services	100.740	24	.000*
12	Which service do you like most while using the Reliance JIO services? Unlimited calling services/Unlimited data services/Network coverage /JIO App/All services	119.365	16	.03*
13	Are you satisfied with Reliance JIO services? Yes/No/Nonusers	45.072	12	.000*
14	Would you like to recommend for others? Yes/ No	14.616	6	.023*

S. No	Study Variable Questionnaires	Chi-Square	df	Sig.
15	Rating of Reliance JIO services on the basis of satisfaction 1. Network coverage	60.658	24	.000*
	2. Data services	78.569	24	.000*
	3. Calling services	68.613	24	.000*
	4. JIO App	66.470	24	.000
	5. Customer care	51.246	24	.001
	6. New schemes & Offers	81.146	30	.000

Source Primary Data: *Values significant at 0.05 levels

Table 14 revealed the personal factor occupation compared with the study variables, majority of them have shown significant impact in the study. Therefore the occupation also plays significant role on Reliance JIO users with respect to awareness, current network, average monthly income, source of information about JIO, convinced features of Reliance JIO, satisfaction level, recommendation to use JIO network services and finally rating of Reliance JIO services such as network coverage, data services, calling services, JIO apps, customer care and new sachems & offers etc., on the basis of satisfaction levels.

6. Findings of the Study

- (i) Of 529 respondents, 98.7% of the respondents were mobile users and 1.3% of the respondents they do not use any mobile.
- (ii) Of 529 respondents, 89.8% of the respondents were aware about Reliance Jio.
- (iii) Of 529 respondents, 43.7% of the respondents were female and 56.3% of the respondents were male.
- (iv) Majority of the respondents (56.3%) comes under male category.
- (v) Most of the respondents (46%) are in age group of 20-30 years.
- (vi) Majority of the respondents comes under age group of below 30 years.
- (vii) In educational level of respondents 26% were graduates, 34% were post graduates, 40% were under-graduates.
- (viii) Majority of the respondents were undergraduates.
- (ix) Majority of the respondents (34%) were from different private jobs.
- (x) Majority of respondents (34%) family's average monthly income was Rs25, 000-Rs50, 000.
- (xi) Most of the respondents (65.2%) average monthly expenditure on mobile was in between from Rs200-Rs300.
- (xii) Of 529 respondents, 79.6% of the respondents they were using jio network since one year.

- (xiii) Majority of the respondents (91.1%) were prepaid users.
- (xiv) Of 529 respondents, 79.8% of the respondents were satisfied with Jio network.
- (xv) 55.6% respondents were using Jio as their primary network provider.
- (xvi) 44.4% respondents were using Airtel/BSNL/Others as their primary network provider. Clearly Airtel is a competent to Reliance JIO.
- (xvii) Of 529 respondents, 64.5% of the respondents were satisfied with all the services of Jio.
- (xviii) 58.6% of respondents known about jio due to the mouth publicity only.
- (xix) Demographic characteristics (personnel factors) such as gender, age, educational qualifications and occupation shown impact on jio users.

7. Suggestions / Recommendations

- (i) Most of the respondents in the study are suggesting to improve the network coverage of Jio services and to remove the calling congestion problems. To remove the network problem and calling congestion, the present study suggests installing the towers in the place of unavailability of network and the remote areas.
- (ii) Data services have to provide for cheaper rate.
- (iii) The corporation may take necessary action to remove the problem of call jumps & call drops etc.
- (iv) Company has to get feedback from all the subscribers regularly to provide quality of service (QoS) guarantee.
- (v) From the analysis it can be observed that the customers are not that much happy with the customer care services provided by Jio. It is recommended that the company needs to concentrate more on the customer care services.
- (vi) Improvement in the customer care services will enrich their CRM practices and to retain existing customers and to create new customers.

8. Conclusions

- (i) The results and findings of the study exposed that the demographic characteristics are important factors and can play a vital role on Reliance Jio users.
- (ii) There is a significant impact of Reliance Jio on competitors with respect to demographic characteristics (personnel factors) such as gender, age educational qualifications and occupation shown impact on jio users.
- (iii) There is a significant impact of Reliance Jio on competitors in relation to awareness and level of satisfaction.
- (iv) The study is involved in measuring the level of satisfaction and opinion of Jio customers and most of the respondents are suggesting in improving the network coverage of Jio services.
- (v) Most of the respondents are using airtel as primary network provider and Jio as secondary network provider but in particular for the data speed Jio is preferred.

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