Disruption by Reliance Jio in Telecom Industry

Thomas Joy and Sumeet Bahl
Post Graduate Student, Amrita School Of Business
Vidyapeetham, Vice President, Amrita Technologies,
thomasjoyindia@gmail.com,
sumeet.amritatech@gmail.com

Abstract - The paper mainly discusses the disruption by Reliance Jio in the telecom sector – increasing mobile usage exponentially to grow the market, squeeze out old-school competitors and build tremendous customer satisfaction. We discuss the innovative strategies adopted by Reliance Jio to capture the Indian market and look to understand the overall customer satisfaction level across the consumer base. An exploratory research approach is followed in the course of the study. Secondary sources involve data collection from Telecom Regulatory Authority of India (TRAI). The result suggests that Reliance Jio has changed the overall complexion of telecom market, their strategies have made Jio the 4th largest telecom service provider within a short span of less than 2 years and they have built a loyal and satisfied customer base.

I. INTRODUCTION

India is currently the world’s 2nd largest telecommunications market with a subscriber base of 1.183 billion and it ranks 3rd in the internet market. As the market of android users increased in India, India stands in 4th position in the app economy in the world.

JIO from Reliance is being linked as one of the biggest start-up witnessed by the world, with an underlying venture of almost Rs 1.5 Lakh crore and it is one of the greatest greenfield advanced endeavors. Reliance JIO has a current market share of 13.71% in terms of wireless subscribers (4th largest service provider) according to the TRAI data of December 2017. Six years down the lane in making, with Reliance Industries Limited buying 96% stake in BSL i.e. Infotel Broadband Services Limited for Rs. 4,800 crores (approximately) in June’ 2010, that had picked up the BWA spectrum range in 22 telecom circles inclusive at each one during the spectrum auctions that occurred earlier in that year. Later proceeding as RIL's telecom auxiliary, Infotel Broadband Services Limited was renamed as RJIL that stands for Reliance Jio Infocomm Limited in January 2013. After finalizing the key pacts for rolling out of 4G services in 2013, RJIL concentrated more on capturing market share by signing agreements with companies like Viam Networks, ATC and Tower Vision for about 61400 Telecom towers. First telecom operator to have a grip on unified pan-Indian license is JIO. Reliance Jio license authorizes toofer all telecommunication amenities except by satellite service the global mobile personal communication. Reliance Jio licenses spectrum across 22 circles in 2300 MHz and across 14 circles in 1800 MHz that’s proficient of providing the 4G wireless services. It has also moved into spectrum sharing deal with Reliance Communications that is led by Anil Ambani across 7 circles for the 850-MHz band.

The initial services were beta-launched on 27th December 2015 for RJII’s personnel, representatives and associates. The commercial launch of services happened on 5th September 2016 with various alluring offers.

II. LITERATURE REVIEW

The paper “Impact of Reliance JIO on Indian Telecom Industry: An empirical study” by Rajinder Singh discusses the various features of Reliance Jio and also it takes through some aspects of competitive edge over other service providers (Singh, 2017). In the paper “Changing the Indian telecom sector: Reliance Jio” by KR Mahalaxmi & Suresh Kumar N discusses the various factors influencing the customer preference and their impact towards Reliance Jio. The expectation level for the consumers towards Reliance Jio is made understood through questionnaire surveys in this study (Mahalaxmi & Kumar N, 2017). In the paper “Customer Satisfaction towards Telecommunication Service Provider – A study on Reliance Jio” by Chinthala, Madhuri & Kumar discusses various determinants involved in customer satisfaction. The gender wise analysis concludes that there is no difference in opinion of male & female respondents on the satisfaction level towards Reliance Jio. (Chinthala, Madhuri, & Kumar, 2017). In the paper “Customer Satisfaction and Expectation towards Airtel: A Research Conducted in West Midnapore”, Debarun Chakraborty examined the perception of customers towards cellular phone services where his study revealed that selection of service provider depends mainly on principal amenities like decent coverage, decent connectivity, good network quality and the call rate. The study also revealed that innovative marketing strategies can be used to penetrate into current market scenario. The service provider should solve problems like network call drops, connectivity issues and improve network connectivity so that the customers are satisfied (Chakraborty, 2013). The paper “Perception of Customers towards Cellular Phone Services” by Pinki Gupta, reveals that the price is a major factor in selecting the service provider. (Gupta, 2015). The reports like financial data from Telecom Authority of India (TRAI) explains about the gross revenue, adjusted revenue, license fee, spectrum charges of various telecom operators, (Telecom Authority of India, 2012–2017). The telecom subscriptions reports from TRAI discuss about...
market share of various telecom service providers. ((TRAI), 2012 - 2017).

III. OBJECTIVE OF THE STUDY

This paper mainly deals with the following objectives:

- To understand the overall disruption level made by Reliance Jio in telecom sector
- To understand the various marketing, operational and functional strategies and their impact on the Indian market
- To understand the overall customer satisfaction level towards Reliance JIO

IV. RESEARCH METHODOLOGY

An exploratory research was conducted to understand the disruption of telecom sector by Reliance Jio. Secondary data was collected mainly from TRAI to reach out the conclusions. Excel analysis tools like percentage analysis were used in the study.

V. ANALYSIS & FINDINGS

A. Disruption by Reliance Jio in telecom sector

![Fig. 1. Total Subscriber Base across India from 2013-17](image)

After the commercial launch of RJIO on September 5, 2016, with free services, we can see a tremendous growth of about 77.7 million in total subscriber base in Quarter 4 in 2016. All the 12 service providers in India were eager to capture new customers and also to retain the existing customers after the launch of Reliance JIO.

![Fig. 2. Wireless subscriber base - company wise data](image)

After the launch of RJIL, we can conclude that overall market share of all the players in wireless subscriber base increased in 2017 compared to 2016. There was a reduction of wireless subscriber base for the players who were categorized under others (Reliance, Tata, Aircel, MTNL, Telenor & Sistema). These players could not retain their existing customers due to many reasons. Some of these players were not having a technology like 4G and VOLTE to compete with Reliance JIO.

![Fig. 3. Gross revenue of major players](image)

There was a huge reduction in revenue for major players like Bharati Airtel (1124.23 Crore), Idea (529.28 Crore), Vodafone (524.54 Crore) and BSNL (694.42) in Q4, 2016 soon after the introduction of Reliance JIO free services. The overall revenue of the major players in 2017 was much less compared to the revenue they obtained in 2016.

B. Strategies adopted by Reliance Jio to capture the Indian market

The spotlight i.e. three-pronged on broadband networks, reasonable smartphones and data services, and the approachability of rich element and applications has endowed Jio to make an incorporated business procedure...
from the initial preparatory point and today, Jio is equipped for offering an exceptional mix of telecom, rapid info, computerized trade, media and payment services. The various strategies adopted by Reliance JIO to capture Indian market are as follows:

1) Marketing Disruption:
   - Free voice, JIO apps, SMS & data initially: SIM’s was initially given free to attract the customers. The customers were asked initially to use whatever amount of data they like later they made into a restriction of data to 1GB/day. The customers were made addictive to data by giving them free. This strategy really pulled 100 million subscribers to take JIO within 170 days.
   - Bundled entertainment JIO apps: The customers of the Reliance JIO were offered access to a substantial suite of digital services. These traverse over the zones of news, music, video, financial services, healthcare, education & communications.
   - Physical advertising & sponsorships: Reliance Jio have invested a lot in physical advertisements like flyers and posters in most of the parts of the country. It have also sponsored events like Indian Super League (ISL) which also makes many prospects to become Jio customers. The overall brand value of Reliance Jio was increased through these programs.
   - Low cost mobile phones: Most of the rural population in India uses low cost mobile phones and they uses technologies like 2G & 3G. By the introduction of low cost mobile phones Reliance Jio has a target of achieving rural consumers in India. Reliance Jio offers Jio feature phone at low cost with the latest technology of 4G.

2) Pricing disruption:
   - Introduction of new pricing strategies: Reliance Jio have changed the spending and frequency of recharges made by customers in telecom market. Traditional pricing strategies were having 12 billing cycles (recharges) but it got reduced to about 3 to 4 billing cycles (recharges).
   - Affordable Pricing: Reliance JIO offers free voice calls, free roaming and 100 SMS per day at affordable prices after their free services. 100Rs from every customer was collected for prime membership every year by Reliance JIO. JIO offers various plans like 84GB data for 84 days at Rs 399. All the plans in JIO offer free voices and 100 SMS daily. Before the launch of reliance Jio most of the service providers were providing 1GB data for approximately 190Rs. This pricing was made affordable by Reliance Jio.
   - Disruption of recharges: Before the launch RJIL have made various agreements with Tower Vision, ATC and Viom networks for about erection of 61400 towers in India. Reliance Jio has laid in excess of 2.5 lakh kilometers of fiber-optic links, covering 18,000 urban societies and further one lakh townships, with the fact of 100% covering of the country's population by 2018. Fiber is the basic spine on which a telecom specialist organization can give high-end services to consumers. Reliance Jio has a grid of fibre optics cables for a complete IP network of above 250,000 course km. In addition to the fibre backhaul, extensive last mile fibre connectivity is being rolled out to deliver the fibre to the home potential.

3) Operational strategy:
   - Construction of towers & laying fibre optic cables: Before the launch RJIL have made various agreements with Tower Vision, ATC and Viom networks for about erection of 61400 towers in India. Reliance Jio has laid in excess of 2.5 lakh kilometers of fiber-optic links, covering 18,000 urban societies and further one lakh townships, with the fact of 100% covering of the country's population by 2018. Fiber is the basic spine on which a telecom specialist organization can give high-end services to consumers. Reliance Jio has a grid of fibre optics cables for a complete IP network of above 250,000 course km. In addition to the fibre backhaul, extensive last mile fibre connectivity is being rolled out to deliver the fibre to the home potential.

   - Construction of international networks like BBG gateway: Reliance Jio was involved in shaping a multi-terabit capacity global grid and an 8,100 km cable system, BBG i.e. the Bay of Bengal Gateway. The Bay of Bengal Gateway offers straight connectivity to Middle East and South East Asia, there on to Africa, European and Far East Asia from end to end unification interconnection with current cable systems. This is tactically important because it has the undersea cable landing facility in Chennai which can provide a low latency route, high-speed and high capacity networking linking India to the globe.
   - Investments in licenses: Reliance JIO signed the Unified License Agreement with GOI i.e. Government of India, Ministry of Communication and IT, Department of Telecommunication (\"DoT\") in 2013 October. This license favors offering any telecom facility (containing voice, except GMPCS i.e. Global Mobile Personal Communication by the satellite service) using any technology within the licensed areas.
   - Investments in the spectrum: Reliance JIO is the chief telecom operative to hold a Unified Pan India license, to its credit it holds a 846.10 MHz total liberalised spectrum together with 440.0 MHz in the 2300 MHz band wherein it includes one block of 20 MHz in each of the 22 circles, 213.60 MHz in the 1800 MHz band blocks fluctuating from 2x3 MHz to 2x10 MHz in 18 circles and 192.50 MHz in the 800 MHz band blocks fluctuating from 2x2.5 MHz to 2x5 MHz in each of the 22 circles, with the inclusive spectrum acquired from Reliance
Communications Group (“RCOM”) across 13 circles). The greater part of technology is changed and can be utilized for revealing any innovation. Sharing of spectrum & acquisitions of wireless infrastructure from RCOM: RJIO got into pacts with RCOM for involvement of spectrum in the 800MHz band across 21 circles initially and in 28th December 2017, RJIL i.e. Reliance Jio Infocomm Limited, a supplementary of Reliance Industries Limited (“RIL”), announced signing of definitive agreement for the acquisition of specified assets of Reliance Communications Limited (“RCOM”) and its affiliates. In addition to the2300MHz band, the Company now also has pan-India spectrum in the 800MHz band and is the only operator using sub-GHz spectrum band for LTE services in the country today. The Company plans to provide seamless 4G services using LTE technology in 800 MHz, 1800 MHz and 2300 MHz bands through an integrated ecosystem. This combined spectrum footprint across frequency bands provides significant network capacity and deep in-building coverage.

Process technology:
- Technological Advancements like Voice over Long Term Evolution (VOLTE): The usage of Voice over Long Term Evolution (VOLTE) is expected to offer numerous advantages, mutually in price and operations. It affords an extra effective usage of spectrum in contrast to traditional voice by providing a clear calling experience. It abolishes the necessity to have a data on one network and voice on another i.e. parallel instances. Video calls overLTE and multimedia services including multimedia messaging, video share, chat and file transfer can be deployed in parallel. It also increases handset battery life by 40 percent (compared with VoIP). All-encompassing capability extension in mobile grids is essential to meet the estimated data eruption, and the drift altogether has been to swing from UMTS i.e. Universal Mobile Telecommunications System to HSPA+ i.e. High-Speed Packet Access and now headed for LTE to meet the growing data necessities. Worldwide the first LTE grids were tossed in 2010 and from there on a rapid migration to LTE. The quickest developing versatile innovation ever was the LTE. It offers predominant execution at significantly bring down powerful cost, contrasted with different advancements and furthermore has an all-around developed environment. At present, there are around 503 commercially active LTE networks in the sphere through 167 countries according to the CSA i.e. Global Mobile Suppliers Association.
- The vision for upgrades like 5G: Reliance Jio has most advanced features such as the NFV i.e. Network Functions Virtualization and the SDN i.e. Software Defined Networking. It has an advance new gen network that is amid the finest in the globe. It is prepared for the future development innovation like progress to 5G with negligible extra capital use in systems.

Distribution strategy:
- More margins and schemes to distributors and retailers: The retailer and distributor margin given by Reliance JIO was higher compared to the other players in the market. The retailer margin was nearly 6.5% initially when the other players were giving a maximum of 4.5% margin on recharges. The retailers were also given various benefits for anew port – in connections to Reliance JIO.
- Fast and digital SIM activations through eKYC: Aadhar based sim activations was started by Reliance JIO which avoided all the paper works that were used before for sim activation. Each customer can take new connections within few minutes compared to the old process of waiting a day etc.
- 4G smartphones and other merchant devices for retailers to start Business: 4G Handsets and accessories were provided freely to the retailer’s in order to start their business like new sim activations, recharges etc. This was a motivation factor for all the retailers. Every one of the outlets were intended to have continuous entre to around 1,072 Jio workspacethrough the nation.

C. Customer satisfaction level towards Reliance Jio
The Customer Satisfaction data was taken from TRAI Analytics Portal.

1) 4G Data Speed:
The 4G data downlaod speed and upload speed was taken from TRAI My speed portal(My speed Portal, 2018) where the results represent the average of data speed samples, which were collected from various customers of the Telecom service providers(TSP’s) on a crowd sourcing basis during speed test initiated by the customers over the last 4 months.
According to TRAI My speed Portal data of February 2018, Reliance JIO has the highest 4G download average speed of about 20.3Mbps in India compared to other networks. Vodafone has the second highest download average speed of about 9.4Mbps. According to TRAI My speed Portal data of February 2018, Reliance JIO has the upload average speed of about 4.4Mbps and it is ranked 3rd in India compared to other networks. The idea has the highest upload average speed of about 6.5Mbps.

2) Call Quality & Experience Rating:

Call quality Rating and call quality experience was taken from My call Dashboard (TRAI), My call Dashboard (TRAI). 2018. There were about 147,720 JIO customer responses which were collected from a crowd source data.

JIO was having higher call rating when the people are traveling compared to other operators and it was rated with a scale of about 4.0. Out of 147,720 responses, 78% of the people were satisfied with the call quality whereas 20% of the people reported JIO with poor voice quality. There were call drops for about 2% of the people who have participated in the survey.

VI. CONCLUSION

Reliance Jio is the 4th largest wireless telecom service provider by capturing about a market share of about 13.71% within a short life span of about 15 months. Income generated by Reliance Jio has become positive in 3rd & 4th Quarter of 2017. Reliance Jio has marginalized players, especially the smaller service providers such as Tata Airtel, MTNL, Telenor & Sistema. The pricing behaviour in telecom sector has changed from a typical monthly pricing package to a variety of flexible plans tailored to the end customer. The spending and frequency of recharges in telecom industry was changed due to the introduction of Reliance Jio. Reliance Jio has opened up a new data driven industry – they have changed customer perceptions by making data services a commodity. Reliance JIO has the highest 4G download average speed of about 20.3Mbps in India compared to other networks. Reliance Jio has the upload average speed of about 4.4Mbps and it is ranked 3rd in India compared to other networks. Jio has a higher call rating when people are traveling compared to other operators and nearly 78% of the survey respondents were satisfied with the services offered from Reliance Jio.

It can be logically derived that JIO’s strategies – Marketing, Pricing, Operational, Distribution, Capacity Management - have been successful in disrupting the Indian telecom market and achieving commercial success in a short period of time.

VII. REFERENCES


