/OL- IX ISSUE- VII JULY 2022 PEER REVIEW IMPACT e-JOURNAL 7.						ISSN 2349-638x
	A Stud	y of VI and	Jio Cell Pł	none Service Provi	ders in Maharashtra	
					Dr. Dnyaneshwar Anku	ishrao Yewale
					Head Dept	
					ficuu, Dopt	. of Commerce
			Kal	ikadevi Arts, Comme	rce and Science College	

#### Abstract

India's telecommunication network is the second largest in the world by number of telephone users with 1.183 billion subscribers as on 31 May 2018. It has one of the lowest call tariffs in the world enabled by mega telecom operators and hypercompetition among them. As on 31 July 2018. India has the world's second-largest Internet user-base with 460.24 million broadband internet subscribers in the country. As of 31 December 2018, India had a population of 130 crore people (1.3 billion), 123 crore (1.23 billion) Aadhaar digital biometric identity cards, 121 crore (1.21 billion) mobile phones, 44.6 crore (446 million) smartphones, 56 crore (560 million or 43% of total population) internet users up from 481 million people (35% of the country's total population) in December 2017, and 51 per cent growth in e-commerce Keyword :- Telecommunication, Broadband, Biometric, Internet, Smartphones

## Introduction

# Mobile phones have been the key to India's

technology revolution. India is the second largest mobile phone market globally, next only to China. At the end of 2018, the estimated number of smart phone users in India was 337 million, compared to 2.53 billion users worldwide. One would imagine that the exponential increase in cheaper smart phone models would displace the market for feature phones; to the contrary, feature phones continue to dominate the Indian market. While smart phone and feature phone shipments in 2018Q3 were about the same, a comparison of growth rates shows that both phablets (large screen smart phones) and regular smart phones eclipse feature phones. Mobile phone sales have increased dramatically over the last decade, both in terms of the volume and value. Using data from 2007 to 2018, we find that the compounded annual growth rate (CAGR) of mobile phone sales was 6.66% and 6.54% by volume and value respectively.

The average selling price of phones decreased at a CAGR of 0.11% during the same period. Research shows that the smart phone industry boasts of the lowest Innovation Cycle Time amongst a host of other industries. The number of years from initiation of R&D to first customer delivery is on average three years for the industry. At present, the mobile phone market in India is congested with over 75 brands and 3400 models. The market is also very dynamic; the pecking order of firms is constantly changing with new brands challenging established manufacturers. Chinese brands such as Xiaomi, Gionee, Oppo and Vivo are now very prominent in the Indian market, sidelining established domestic brands such as Lava, Intex and Micromax. In 2018, Xiaomi replaced Samsung to become the top player in India by volume. The Government of India viewed the rise of mobile phone users as an opportunity to scale up domestic manufacturing in the country. In April 2017, it notified the Phased Manufacturing Program (PMP) to boost domestic manufacturing through a mix of fiscal incentives. A report in 2017 estimated the possibility for domestic local value addition in mobile phones to rise up to 25.8% by 2019. The recently implemented National Policy on Electronics (NPE 2019) that will replace the 2012 policy, has set target of manufacture of 1 billion mobile phones by 2025. This report focuses on concentration, technological progress, adoption and price points in the mobile handset market in India over a ten-year period between 2008 and 2018. The objective is to examine the extent and nature of competition in the market. A feature mapping exercise included in this report, finds quality improvements across different price bands of mobile phones, between 2008 and 2018. In order to

6

	Aayushi	International	Inter	disciplinary	Research Journ	al (AIIRJ)
VOL- IX	ISSUE- VII	JULY	2022	PEER REVIE e-JOURNA		CTOR ISSN 2349-638x

minimize conflation with factors such as brand, type of phone, etc. we segregated phone models manufactured only by Samsung across 12 price bands for this analysis. Samsung has products across all sub-markets considered in this report.

The analysis finds improvements in functionalities across most price bands with the addition of features such as dual SIM, improved wifi, GPS and cameras. Comparison of technology and phone types indicates that the market for mobile phone is highly segmented and any competition analysis at the industry level may be subject to qualifications. Defining the relevant market is central to any competition analysis. There are two fundamental dimensions of the relevant market product and geography. Since the analysis focuses on India and sub-regional demand data is not available, the market segmentation in this report is based on product categories. We segment the market using three distinct approaches, by price, by technology and by phone type, in addition to an overall analysis of the market. Price bands are defined based on observable characteristics in the data and expert feedback. Technology generations are exogenously determined, namely 2G, 2.5G, 3G and 4G. The introduction of each generation was a landmark in the technology evolution of the industry. And finally, the third segmentation divides the market into broad product categories, namely, feature phones, phablets and smart phones. There are however, overlapping trends across different market segmentations. For example, 2G and 2.5G phones generally fall within the lower price bands. Feature phones also fall within www all the lower price bands.

#### **Objective of the Study**

- 1. To discuss the cell phone service providers in Maharashtra.
- 2. To discuss the Vodafone idea and Jio year wise development and its services.

#### **Research Methodology**

This part of the research furnishes the research methodology used in this study. The review uses secondary data. The data is collected various magazines, through newspapers, and government websites for this study.

#### Cell Phone Service Providers in Maharashtra

Two different technologies are deployed by the mobile operators in India namely GSM and CDMA. The GSM service providers are BSNL, MTNL, Bharthi Airtel, Vodofone, IDEA, Aircel, Reliance Communications, RelianceJio, Uninor, and Tata Communications whereas the CDMA service providers are TATA, and Reliance.

In this study I have selected two cell phone service providers in Maharashtra state First Vodafone idea and Second Jio.

#### 1. Idea and Vodafone (VI)

Profile of Idea Cellular Limited								
Туре	Public 92							
Traded as	<u>BSE</u> : <u>532822</u>							
	<u>NSE</u> : <u>IDEA</u>							
Industry	Telecommunications							
Fate	Merged with Vodafone India March							
	2017							
Successor	Vodafone Idea Limited							
Founded	1995; 26 years ago							
Headquarters	Gandhinagar, Gujarat, India							
Key people	Kumar Mangalam							
	Birla (Chairman) Himanshu							
	Kapania (Managing Director)							
Products	Mobile telephony, wireless broadband							
Revenue	35,475.7 crore (US\$5.0 billion) (2016)							
<b>Operating</b> 10,291.9 crore (US\$1.4 billion) (2016)								
income								
Net income	831.1 crore (US\$-120 million) (2016)							
Members	220.00 million (June 2018)							
Parent	Aditya Birla Group							
Website	www.ideacellular.com							
Source: https://en.wikipedia.org/								

Vodafone Idea Limited is an Aditya Birla Group and Vodafone Group partnership. It is India's leading telecom service provider. The Company provides pan India Voice and Data services across 2G, 3G and 4G platform. With the large spectrum portfolio to support the growing demand for data and voice, the company is committed to deliver delightful customer experiences and contribute towards creating

	Aayushi	International	Inter	disciplinary Res	earch Journal (AI	IRJ)
VOL- IX	ISSUE- VII	JULY	2022	PEER REVIEW e-JOURNAL	IMPACT FACTOR 7.331	ISSN 2349-638x

a truly 'Digital India' by enabling millions of citizens to connect and build a better tomorrow. The Company is developing infrastructure to introduce newer and smarter technologies, making both retail and enterprise customers future ready with innovative offerings, conveniently accessible through an ecosystem of digital channels as well as extensive onground presence. The Company is listed on National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) in India.

#### **1.1 Vodafone Idea Services**

Vodafone – a postpaid & Prepaid GSM service. Idea – a prepaid GSM service, similar to Vodafone Prepaid. offering 2G, 3G and 4G, 4G+ and VoLTE.

## **1.2 Value Added Services**

- callertunes & tones
  - profile tunes
- Vi<sup>TM</sup> services
- voice chat
- star talk
- Vi<sup>™</sup> movies & TV
- games
- astrology
- name tunes
- do It yourself
- sports
- contests
- short codes and special characters
- conference call

## 1.3 Vi Popular plan

- 3G Data (835)
- 4G Data (801)
- Voice Calls Rate Cutter (763)
- Roaming International (100)
- ISD Rate Cutter (9)
- Data (2G/3G/4G) (833)
- Night & Weekend (22)
- SMS (648)
- Top Up (266)
- 28 Day Validity Plans (445)
- 1 GB Per Day Plans (216)
- 2 GB+ Per Day Plans (199)
- 84 Day Validity Plans (156)
- VI (Vodafone Idea) to VI (Vodafone Idea) plans (22)
- Unlimited Plans (674)

#### 1.4 Year wise Development of Vodafone Idea

- **1995:** Incorporated as Birla Communications Limited Obtained licenses for providing GSM-based services in the Gujarat and Maharashtra Circles following the original GSM license bidding process
- 1996:Changed name to Birla AT&T Communications Limited following joint venture between Grasim Industries and AT&T Corporation
- 1997: Commenced operations in the Gujarat and Maharashtra Circles
- 1999: Migrated to revenues share license fee regime
- 2000: Merged with Tata Cellular Limited, thereby acquiring original license for the Andhra Pradesh Circle
- 2001: Acquired RPG Cellular Limited and consequently the license for the Madhya Pradesh (including Chattisgarh) Circle Changed name to Birla Tata AT&T Limited
- 2001: Obtained license for providing GSM-based services in the Delhi Circle following the fourth operator GSM license bidding process
- 2002: Changed name to Idea Cellular Limited and launched Idea brand name . Commenced commercial operations in Delhi Circle Reached the one million subscriber mark
- 2003: Reached the two million subscriber mark
- 2004: Completed debt restructuring for the then existing debt facilities and additional funding for the Delhi Circle. Acquired Escotel Mobile Communications Limited (subsequently renamed as Idea Mobile Communications Limited) Reached the four million subscriber mark First operator in India to commercially launch EDGE
  - 2005: -Reached the five million subscriber mark
    - Won an award for the Bill Flash service at the GSM Association

2006: -Became part of the Aditya Birla Group subsequent to the TATA Group transferring its entire shareholding in the Company to the Aditya Birla Group

- Acquired Escorts Telecommunications Limited (subsequently renamed as Idea Telecommunications Limited)
- Reached the 10 million subscriber mark

	Aayushi In	ternation	al Interdiso	ciplinary F	Research Journal (A	IIRJ)		
VOL-		JULY	2022	PEER REVIEW e-JOURNAL		ISSN 2349-638x		
200	7: -Won an award for	r the CARE	service in the		vory from Idea most afford			
	Best Billing				Smartphone launched in Ind			
200	9 -Subscriber base as	s on Decem	ber 31, 2009:		-Idea Cellular introduces by	uffet plans for post-		
	57,611,872			-	bscribers			
•	Emerging Compar	-			-Idea wins 900 MHz for I	Delhi, and 4G in 8		
	growing mobile c	•		-	ic markets			
	fastest growing te				Cellular Ltd Board recomme			
•	IDEA wins press Award 2008 for My	-	den Peacock		Microsoft has tied with Idea			
•	IDEA and Babajo		unique wan	subscri	or billing on the Windo	ws store for fidea		
•	portal for job seeke			subscii	Idea Cellular Ltd has su	ccessfully retained		
201	): - Idea Cellular - A			11	the crucial 900 MHz spe	•		
201	(3G Spectrum)		inter	ISCIDI	MHz of 900 MHz spectrum			
•	Idea cellular wants to	o provide 3G	services in 4	PI	Videocon Telecommuni			
	circles out of the 11	-			spectrum in Gujarat and U			
	has contacted Noki	a Siemens	Networks for		Idea Cellular at a valuation			
	deployment of equip	ment and ser	vices.	•	Idea launches world-clas	ss, high-speed 4G		
•	Nation gives a thu	imbs up to	Idea Oongli		LTE services in all fou	r Telecom service		
	Cricket	ž /			areas of South India			
•	IDEA Cellular red	-		•	Idea Cellular launches 40			
	Customer Responsi				South India, Andhra P			
0011	Telecom sector by A			2016	Kerala, Tamil Nadu and T	-		
2011	: - In order to provide			2016:	Idea launches 4G services			
	mobile users regard number portability, i			2017:	Idea Cellular launches Eas	•		
	helpline number just				2017: Idea Cellular achieves highest 4G Upload Speed in May 17: TRAI			
	its launch.		unce days of	•	Idea achieves footprint of 2.6 lakh cell sites			
•	Launch of 'Idea My	Cash'. Powe	ered by Axis		across the country; 50			
	Bank				network			
•	Idea introduces spec	cial Internation	onal Roaming		Merger of Vodafone India	a and Idea: creating		
	offer		SN 23	249-63	the largest telecoms operation	tor in India.		
•	Idea user become		lian to win	• (ד	Birth of Digital Idea, Wi			
	Panchkoti Mahamon				suite of integrated Dig	ital Entertainment		
2012:	Department of Teleco		VVIA, I.		Apps			
	proposal of Malaysi			ourna	Idea Cellular extends part			
	raise 1 per cent sta			2 Dali	XI Punjab for the second y ance Jio	/ear.		
	percent would not threat for the country	-	fresh security	2. Ken				
0	Idea Cellular declare		n 2G		Reliance Jio Infocomm I	Limited		
0	Spectrum auction							
0	Idea, one of the leadi	ng telecom b	orands in		Jio			
	India, continues to bu	-						
	has now bagged the p	-						
	Communication			Туре	Subsidiary of Relia	nce Industries		
0	Idea wins at the prest	-		Industr	y Telecommunication	15		
	Communication Awa	ards 2012, se	cond year					
	consecutively.			Founde	<b>ed</b> 15 February 2007;	13 years ago		
					rnal@gmail.com	Page No.		
	Chief Editor: - Pramo	od P. Tandale	e (Mob.089992)	50451) <b>webs</b>	ite :- www.aiirjournal.com	9		

## Aayushi International Interdisciplinary Research Journal (AIIRJ)

|--|

Founder	Mukesh Ambani
Headquarters	Maker Chambers IV, 222 Nariman Point, <u>Mumbai, Maharashtra</u> , <u>India</u>
Key people	Mukesh Ambani (Chairman) Sandip Das (Managing Director)
Products	<u>Fixed line telephone</u> , <u>Mobile</u> <u>telephony</u> <u>Wireless broadband</u> , <u>Internet services</u> <u>OTT Services</u>
Revenue	22,858 crore (US\$3.2 billion) (Q3 2020-21)
Operating income	4,363 crore (US\$2.0 billion) (FY 2019-20)
<u>Net income</u>	5,562 crore (US\$780 million) (FY 2019-20)
<u>Total assets</u>	241,705 crore (US\$34 billion) (FY 2019-20)
<u>Total equity</u>	170,956 crore (US\$24 billion) (FY 2019-20)
Members	41.08 <u>crore</u> (410.8 million) (Q2 2020-21)
Parent	Jio Platforms
<u>Subsidiaries</u>	LYF 2
Website	jio.com

https://en.wikipedia.org/wiki/Jio

Reliance Jio is an entire ecosystem that allows Indians to live the digital life to the fullest. This ecosystem consists of powerful broadband networks, useful applications, best-in-class services and smart devices distributed to every doorstep in India. Jio's media offerings include the most comprehensive libraries and programmes of recorded and live music, sports, live and catch up television, movies and events. Jio is about creating connected intelligence for 6 billion global minds to unleash the power of a young nation. The three-pronged focus on broadband networks, affordable smartphones and the availability of rich content and applications has enabled Jio to create an integrated business strategy from the very beginning, and today, Jio is capable of offering a unique combination of telecom, high speed data, digital commerce, media and payment services.

#### **2.1 Reliance Jio Services and Products** Mobile broadband

The company launched its 4G broadband services throughout India in September 2016. It was slated to release in December 2015 after some reports said that the company was waiting to receive final permits from the government. Jio offers fourthgeneration (4G) data and voice services, along with peripheral services like instant messaging and streaming movies and music

## Jio Fiber

In August 2018, Jio began to test a new triple play fiber to the home service known tenatively as Jio GigaFiber, including broadband internet with speeds ranging from 100 to 1000 Mbit/s, as well as television and landline telephone services

#### LYF smartphones

In June 2015, Jio entered into an agreement with domestic handset maker Intex to supply 4G handsets capable of voice over LTE (VoLTE). However, in October 2015, Jio announced that it would be launching its own mobile handset brand named LYF

#### **JioPhone**

JioPhone is a line of feature phones marketed by Jio. The first model, released in August 2017 (with public pre-orders beginning 24 August 2017), was positioned as an "affordable" LTE-compatible feature phone. It runs the KaiOS platform (derived from the defunct Firefox OS), and includes a 2.4-inch display, a dual-core processor, 4 GB of internal storage, near-field communication support, a suite of Jio-branded apps (including the voice assistant HelloJio), and a Jio-branded application store. It also supports a "TV cable" accessory for output to an external display.

#### Jionet Wi-Fi

Prior to its pan-India launch of 4G data and telephony services, the firm has started providing free Wi-Fi hotspot services in cities throughout India including Surat, Ahmedabad in Gujarat, and Visakhap atnam in Andhra Pradesh

Indore, Jabalpur, Dewas and Ujjain in Madhya Pradesh, select locations of Mumbai in Maharashtra,] Kolkata in West Bengal, Lucknow in Uttar Pradesh, Bhubaneswar in Odisha Mussoorie in Uttarakhand,

Collectorate's Office in Meerut, and at MG Road in Vijayawada among others.

#### Jio Apps

In May 2016, Jio launched a bundle of multimedia apps on Google Play as part of its upcoming 4G services. While the apps are available to download for everyone, a user will require a

	Aayushi In	<u>iternation</u>	<u>ial Interd</u>	isciplinary Res	search Journal ( <i>I</i>	AIIRJ)
VOL- IX	ISSUE- VII	JULY	2022	PEER REVIEW	IMPACT FACTOR	ISSN 2349-638x

Jio SIM card to use them. Additionally, most of the apps are in the beta phase. Notable apps include:

- JioPages a web browser for Android devices
- JioChat instant messaging app
- JioCinema online HD video library
- JioCloud cloud-based backup tool
- JioHealth health services app
- JioNews e-reader for news
- JioMeet video-conferencing platform
- JioMoney online payments/wallet app
- JioSaavn for online and offline music streaming in English and Indian languages
- JioSecurity security app
- JioTV TV Channels streaming service
- JioVoice VoLTE phone simulator
- MyJio manage Jio account and digital services associated with it

## 2.2 Jio digital and television services Jio TV

Jio TV is an app based service enabling Jio customers to view TV channels & programmes on their preferred digital devices.

Jio TV+

Jio TV+ is a service which provides customers access to various VoD and OTT services from all over world in one app

## 2.3 Jio Festival plan offer

The Diwali festival, RelianceJio launched three new mobile recharge plans with rates beginning from 222 monthly. The new plans come with 2GB free daily data, along with free unlimited Jio-Jio voice calls and 1,000 minutes of voice calling to all non-Jio numbers.

## Jio's new 222 recharge plan:

Free Jio to Jio calls. 1,000 minutes of voice calling to non-Jio mobile numbers. After 1,000 minutes you are charged at the IUC rate of 6 paise per minute. 2GB/day high speed data. Thereafter, unlimited at 64 Kbps.100 SMS/day and complimentary subscription to Jio Apps.

Validity - 28 days (1 month)

## Jio's new 333 recharge plan:

Free Jio to Jio voice calls. Jio to Non-Jio Mobile are free upto 1,000 minutes. Thereafter, IUC calls are charged at 6paise per minute. 2GB/day high speed data. Thereafter, unlimited at 64 Kbps.100 SMS/day and complimentary subscription to Jio Apps. Validity - 56 days (2 months)

## Jio's new 444 recharge plan:

Free Jio to Jio calls. Jio to Non-Jio Mobile are free upto 1,000 minutes, after which it is charged at 6 paise/minute. 2GB/day high speed data thereafter unlimited at 64 Kbps. 100SMS/day & complimentary subscription to Jio Apps. Validity - 84 days (3 months)

## 2.4 Year wise Development of Reliance Jio Infocomm – Jio Digital Life

- **2010** Reliance Industries Limited purchased 95 per cent stake in Infotel Broadband
- 2013 Infotel Broadband renamed as Reliance Jio Infocomm
- 2016 Commercial roll-out of services in September 2016
- 2016 Surpasses 50 million subscribers within 83 days of launch
- 2017 Launched its Jiophone
- 2017 Announced acquisition of wireless spectrum, tower, fiber and MCN assets of Reliance
- Communications
- 2018 Approved plan to spin off fibre and tower assets

Adjudged 'Best Mobile Operator Service for Consumers' at Mobile World Congress

- 2019 Launched Digital Udaan for first time users
- 2019 Became the second largest operator in terms of subscribers in India
- 2019 Launched JioFiber in August
- 2020 On September 22, 2020, Jio announced its plans to launch Jio Smartphone worth Rs. 4,000 (US\$ 54) On July 15, 2020, Jio received investment of Rs. 33,737 crore (US\$ 4.79 billion) from Google for a 7.7% stake. This takes the total investment by stakeholders in Jio Platforms to Rs. 152,056 crore (US\$ 21.57 billion).In June, Jio Platform received investment of Rs. 5,683.50 crore (US\$ 806.28 million) from a unit of Abu Dhabi Investment Authority (ADIA), Rs. 9,093.60 crore (US\$ 1.29 billion) from

Email id's:- aiirjpramod@gmail.com Or aayushijournal@gmail.com Chief Editor: - Pramod P. Tandale (Mob.08999250451) website :- www.aiirjournal.com

	Aayushi In	ternational	Interd	isciplinary Rese	earch Journal (AI	IRJ)
VOL- IX	ISSUE- VII	JULY	2022	PEER REVIEW e-JOURNAL	IMPACT FACTOR 7.331	ISSN 2349-638x

Abu Dhabi-based Mubadala Investment Co. and an additional investment of Rs. 4,546.80 crore (US\$ 645.03 million) from Silver Lake

In May 2020, Jio Platform received investment of Rs. 5,655.75 crore (US\$ 802.35 million) from Silver Lake, Rs. 11,367 crore (US\$ 1.61 billion) from Vista Equity Partners and Rs. 6,598.38 crore (US\$ 936.07 million) from General Atlantic Facebook to invest US\$ 5.7 billion in Jio Platforms Ltd

#### Conclusion

The world of mobile wireless communication is rapidly developing. The last few years have experienced a remarkable growth in wireless industry. 5G technology going to be a new mobile revolution in mobile market. There are many new techniques and technologies that will be used in the new 5G cellular or mobile telecommunications system. These new 5G technologies are still being developed and the overall standards have not yet be defined. However as the required technologies develop, they will be incorporated into the new system which will be defined by the standards bodies over the coming years. Attempts are being made to reduce the number of technologies to a single global standard resulting in 5G. Trials have already started on 5G which may lead to its commercial availability around 2020. The world is trying to become completely wireless, demanding uninterrupted access to information anytime and anywhere with better quality, high speed, increased bandwidth and www.aiiriournal.com reduction in cost.

#### References

- 1. Press Release of the Telecom Regulatory Authority of India (2019). Retrieved from http://www.trai.gov.in.
- 2. The Mobile Economy India. (2019). Retrieved at http://www.gsmaintelligence.com.
- Mobile Operators Authority of India (COAI) 3.
- 4. Air PAC Mobile Solutions Fact Sheet. Available at

https://www.iii.com/sites/default/files/Mobile\_So lutions\_Fact\_Sheet.pdf

- 5. Aldeko .The best place to read and organize
- books. Available at http://www.aldiko.com.
- Bharti Airtel Annual Report FY2016. Voice & 6. Data, —Towers: Standing Tall, June 2016. Company web-sites and press releases.
- https://www.vodafoneidea.com/ 7.
- . https://www.jio.com/ 8.