

Project Dissertation Report On

ANALYSIS OF INDIAN

TELECOMMUNICATION INDUSTRY

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CERTIFICATE

This is to certify that the project titled “**Analysis of Indian Telecommunication Industry**” is an academic work done by “Sudhanshu Sharma” submitted in partial fulfilment of the requirement for the award of the Degree of MBA from Delhi School of Management. It has been completed under the guidance of Dr. Archana Singh. The project work's authenticity will be examined by the viva examiner, which includes data verification, checking duplicity of information, etc. It may be rejected due to non-fulfilment of quality standards set by the Institute.

Signature of Guide

Signature of Head of Department

DECLARATION

I hereby declare that the work titled “**A Study on Analysis of Indian Telecommunication Industry**” as part of the final year Major Research Project submitted by me in the 4th Semester of MBA, Delhi School of Management, Delhi Technological University, during January-May 2022 under the guidance of **Dr. Archana Singh**, is my original work and has not been submitted anywhere else.

The report has been written by me in my own words and not copied from elsewhere. Anything that appears in this report which is not my original work has been duly and appropriately referred/cited/acknowledged.

Signature

Sudhanshu Sharma

ACKNOWLEDGEMENT

Before I get into the thick of things, I would like to add a few words of appreciation for people who have been a part of this project right from its inception. This project's writing has been one of the significant academic challenges I have faced. This project would not be completed without the support, patience, and guidance of the people involved. It is my deepest gratitude to them.

It gives me incredible pleasure to present my Major research project report on “**A Study on Analysis of Indian Telecommunication Industry**”. It has been my privilege to have such project guides who have assisted me from this project's commencement. This project's success results from sheer hard work and determination put in by me with my project guide. I now take this opportunity to thank **Dr. Archana Singh**, who acted as my mentor despite his many academic and professional commitments. Her wisdom and insight inspired and motivated me. Without her understanding and support, this project would not have been exciting, and neither would have reached productivity.

I also feel the heartiest sense of accountability to my family members & friends, who helped me collect data & resource material. This project is devoted to all those people who helped me while doing this project.

Executive Summary

When India obtained independence in 1947, it embarked on a trip to develop democracy as well as representative government, develop an economic growth program, and also create a culture that might sustain its wide, intricate, and also diverse population. India's forex gets were amongst the globe's greatest by 1951, simply four years after freedom, at \$ 2.1 billion, as well as the nation made up 2.4 percent of worldwide trade. India had actually made significant strides in attaining a stable duty in the world economic situation, yet the path started in 1947 was still unfinished. India had not yet totally developed or comprehended the strategic edge that would certainly allow the country to achieve higher goals in a significantly worldwide market, with facets of its communist origins still in position. India's services market had shown the country's capability to be a leader. The concern is whether India would certainly take advantage of its prosperity by conquering developing difficulties, or whether it would certainly lose out on the chance to end up being a real-world leader.

In this research paper I would love to throw light on the existing business environment of India. I have selected an industrial market, particularly, Telecommunication Sector, under which we will certainly be Executing industry analysis using techniques like PESTEL, Porter 5 Forces, etc. After that we will execute business analysis making use of methods like RBV, IFE matrix, SWOT, PESTLE on significant firm of telecommunication industry- Reliance Jio, Airtel, etc.

At last, I will be doing Competitive Profile Matrix for the major three telecoms of India and I will give some recommendations which will be accommodating for the new entrant in this business.

This research/case research study has extensively made use of secondary information for evaluation. The second information is gathered from the research documents, annual reports, various newspaper articles, firm web sites, and also from a number of different internet sites pertaining to Telecommunication Industry, Airtel, Vodafone-Idea, and Reliance Jio.

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1. INTRODUCTION

Globalization of the world economic situation has evolved and also increased in the last couple of years of the twentieth century. India surrounds China, Bangladesh, Sri Lanka, and also Pakistan, which is close to crucial Indian Ocean trading routes. We embraced a democratic system after accomplishing freedom from Britain in 1947, which resulted in a blended financial structure with a substantial number of state-owned corporations.

When India obtained freedom in 1947, it embarked on a trip to build freedom and also democracy, develop an economic growth schedule, and also construct a culture that might sustain its wide, complex, as well as diverse populace. India's fx reserves were amongst the world's highest by 1951, just four years after freedom, at \$ 2.1 billion, as well as the country made up 2.4 percent of global trade. 6 years back, scholars, financial experts, as well as leaders commemorated as well as rejected the nation's successes and also shortcomings. Doubters said that in spite of having 17.7% of the globe's populace, India just contributed 7.04 percent of worldwide GDP. With virtually 25% of the nation's 1 billion populace living in poverty, per capita GDP (at buying power parity) was much less than \$3,000 each year. Supporters, on the various other hand, praised India's progress toward being the globe's third-largest economic climate (behind only the U.S. and China). India had made significant strides in attaining a great role in the world economic situation, yet the path begun in 1947 was still unfinished.

India had not yet totally developed or comprehended the strategic edge that would certainly allow the country to achieve higher goals in a significantly worldwide market, with facets of its communist origins still in position. India's services market especially "Telecommunication sector" had actually the ability to make the nation prosperous. The issue was whether India would make use of its ability by getting over developing obstacles, or whether it would certainly lose out on the chance to become a real-world leader.

1.1 TELECOMMUNICATION INDUSTRY

India's Telecommunication Industry is the 2nd largest on the world by the overall no. of users with (1178.41 million) customers as on 31 dec 2021. The Indian Telecommunications Market has the lowest telephone call tolls on the world made it possible for by huge telecom operators as well as hyper-competition among them.

The Government has actually allowed very easy market accessibility to telecommunications equipment and a reasonable and aggressive governing framework, has made certain accessibility of telecom services to customers at economical rates. The deregulation of FDI legislations has actually made the industry among the fastest rising as well as the leading 5 job opportunity generators in the country. There are several various players in the Indian Telecom Sector. Most of the market-share is controlled by few companies. The various giants in the market includes: Reliance Jio, Bharti Airtel, Vodafone Idea, BSNL, MTNL, etc. and also their share chart is provided listed below:

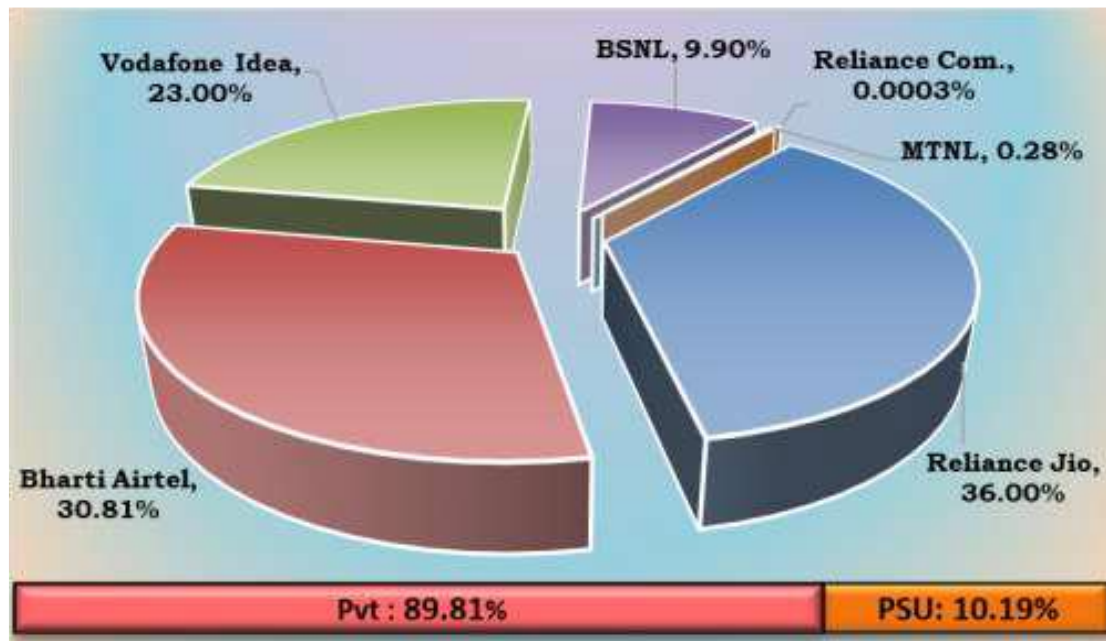


Figure: 1 Shares of subscribers of major telecom of India

(Source: TRAI website)

1.1.1 EVOLUTION OF TELECOM SECTOR

The Evolution of the Telecom Industry in India can be categorized into 3 parts:

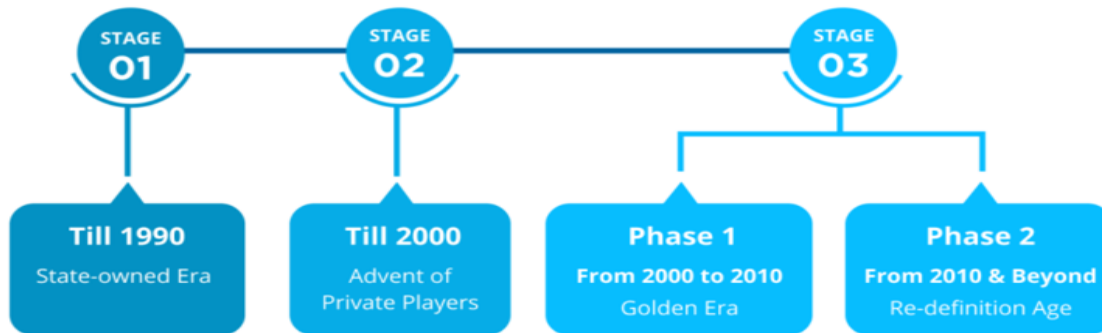


Figure: 2 Evolution of Telecom Sector

(Source: <https://www.height8tech.com>)

- Phase 1- Till 1990- State-owned Era

In the initial stage, the telecom sector was possessed and run by the government. The telephone services began in India in the year 1882 with a manual telephone exchange established in Kolkata. At first it was the Department of Telecommunication (DOT), yet after its separation from the Indian Post in the year 1985, the telecom sector evolved. The DoT was accountable for the telecommunication solutions in India till the year 1986. Subsequently, MTNL and also VSNL started running in different metro cities like Delhi and also Mumbai.

This resulted in the second phase of the telecommunications market where the private giants were additionally allowed to operate.

- Phase 2- Till 2000- Development of Private Players

In the year 1994, the govt. introduced the National Telecommunications Policy (NTP) for private players. The plan clearly mentioned and also set policies or standards for the role of private operators in the business. The Cellular was first launched in 1995 in Kolkata.

An additional Success for the Market throughout the period was the formation of TRAI in 1997. It was developed to manage the fair environment as well as methods in between the drivers and also customers.

After March 2000, the government came to be a lot more liberal and began issuing more licenses as well as additionally lowered the licensing fees, in order to draw in more domestic giants. This brought about the 3rd stage of the telecom sector.

- Phase 3

The 3rd phase in the telecom sector can be categorized into two additional stages. The initial phase is from the year (2000-2010) referred to as Golden Era. The 2nd phase is from 2010 and beyond referred to as the Re-definition Age.

a) Phase 3- Stage 1- From 2000-2010- Golden Era

In the golden age, in 2005, with the introduction of 2G, the total number of mobile users began to increase at a considerable rate. The variety of mobile links quickly crossed the total variety of fixed- line links. The Indian Telecom market started to grow at an extremely higher rate as well as the competitors together with it. During the same duration, the Govt. enhanced the Foreign Direct Financial Investment (FDI) cap from 49% to 74% in the telecom sector.

b) Phase 3- Stage 2- From 2010 & beyond- Re-definition Age

One of the most significant factors of the Re-definition age are the introduction of 3G in the year 2008 and 4G in 2012. The intro of 3G and 4G networks provides introduction to the Smart Phones. This generated mobile marketing, mobile business, video calling, streaming, picture download, real-time TV, as well as multi-player gaming to everyone's phone.

After 2G, 3G as well as 4G, the 5G is now prepared to release in India.

The telecom sector is expanding at an extremely fast rate in the nation. Today, India's Telecommunications market stands second in the world in regards to market share. The country is witnessing considerable development in terms of mobile subscriptions and various other comparable solutions. It has actually added significantly to the financial growth of India.

As in the future, the telecommunications industry/ sector is most likely to play an extremely considerable function in the financial growth.

Now as we talked about the telecommunication sector of India and know about its evolution. So now let's get into the top performing players in this sector. So according to the TRAI report of March 2022, the top two firms according to their market share are as follows:

1.2 AIRTEL

“Bharti Airtel Limited”, also known as Airtel, is an Indian international telecoms service business based in New Delhi, India. It has operations in over 18 countries. Airtel offers- 2G, 3G, 4G+, 4G LTE mobile solutions, taken care of line broadband and also voice solutions relying on the country or the region of its procedures. It has likewise begun its VoLTE solutions across all its areas in India. It is the 2nd biggest network driver in India as well as likewise the second biggest network operator on the planet with about (355.7 million) subscribers.

Airtel is credited with introducing business version of contracting out all its major procedures other than those related with advertising and marketing, money, sales etc. The comparable service version was taken on as well as practiced by numerous other telecom drivers. Its major emphasis is on producing the 'minutes factory' version of low cost and high volumes. It has outsourced the manufacturing. The transmission towers or the infrastructure related tasks are run as well as maintained by its subsidiaries Bharti Infratel and Indus Towers in India.

Bharti Airtel's mission statement reads, "Hunger to win consumers forever." Its vision statement reviews, "Our Vision is to improve the life of consumers. As well as to offer them with extraordinary experience via various customer support." The USP of Bharti Airtel is its technology, open to taking threats and also trying out originalities.



1.3 RELIANCE JIO

Reliance Jio started procedures on September 5, 2016 as well as reached 100 million users within five months. For telecoms provider, this is the fastest development ever, and Jio claimed it has actually grown faster than Facebook, Twitter or any various other social media sites system. Offering free telephone calls and also information for the initial 3 months, and then extending the operation for another 3 months, has become very rewarding for lots of smart device customers.

Reliance Jio gave totally free services from Sept,2016 to Mar,2017, and then swapped over to a paid version in April. In late March, he revealed that clients need to register as Prime participants and pay an annual cost of 99 rupees, and all his customers are migrating. For the paid design, users pay 399 rupees and get 84 days of subscription. During that time, Jio gave 1GB of information daily, completing 84GB, and also was taken into consideration the least expensive gigabyte information strategy. In June 2017, 9 months after introducing the commercial solution, Reliance Jio revealed that it has 200 million individuals. This is the fastest means for a business to attract as lots of clients or customers as feasible on one platform.

Jio is growing much faster than social media systems such as Twitter and Facebook. The company revealed this turning point one week before AGM (announcing the following

chapter). On July 21, 2017, The world's first 4G mobile phone is introduced. Before the launch of JioPhone, Reliance Jio worked as a provider, but wishes to come to be a network and equipment supplier at the very same time. The launch of JioPhone straight targets Tier 2 and Rate 3 cities. According to reports, 500 million land phone users in the country have been deprived of 4G solutions. It is not surprising that JioPhone promptly ended up being the very successful item in the United States.

Telecommunications provider as well as consequently altered the means the nation makes use of information. In the last event, the business revealed that mobile information intake has enhanced from 200 million GB monthly to nearly 37 million GB each month. He stated that one Jio customers used nearly 240 GB of data. Today, Mukesh Ambani, Head of State of Reliance Industries (RIL), has achieved most of the goals he introduced in the past four to 5 years. As a companion of Jio Platforms Ltd (JPL), appropriate departments related to world-renowned capitalists such as Facebook, SilverLake as well as Panorama have raised 53,124 crores through part, minimizing the net debt to absolutely no. He claimed: "Accepting Facebook will certainly provide electronic chances and also chances for 60 million MSMEs, 120 million farmers, 30 million little entrepreneurs and also countless SMEs in the informal industry, and also make it possible for people to look for various digital services



2. REVIEW OF LITERATURE

Dr. Papori Baruah Professor & Rashmi Baruah, - “Telecom Sector in India: Past, Present and Future”.

This paper provides insight into the telecoms industry and the actions that companies are taking to improve their client relationships. From this research, one can learn about the current state of the practises and programmes used by the industry's leading players, as well as the procedures they use to improve customer retention and satisfaction, which leads to increased earnings and a positive psychological image of the brand among customers. This article also aids in providing individualised and customised solutions to the telecom industry.

Zaraq Zahoor, Abhinav Publication, (March, 2015)- “an overview of indian telecom sector”.

In this research paper, primary focus has been positioned to bring to light the background and advancement of telecommunication market in India. It also discovers the value of telecommunications sector in India and the numerous variables that have actually played a significant function in helping with the growth of telecom field in India. Information has been collected from several sources including books, journals, websites, papers etc. The paper describes the circumstance of Indian telecommunications industry.

Peter Curwen, Professor, UK. (2018) – “Reliance Jio forces the Indian mobile market to restructure”. This research paper talks about how Reliance Jio compels the Indian mobile market to restructure.

Rekha Acharya and Ranjana Patel, Indian Journal of Science and Technology. “Contribution of Telecom Sector to Growth of Indian”, February 2015.

This paper examines the service sector, which plays a critical part in strengthening an economy. As a result, it is critical to recognise the Service sector's role and contribution to economic progress. The paper has been bringing forward the development of India's economic position with magnificent stability for more than a decade.

India, with a gain of 8.1 percent points in GDP, has the highest service efficiency among the top 15 countries from 2001 to 2011. With the use of a regression model, this paper attempts to assess the trend of development of telecom sector exports and imports, as well as their impact on telecom field growth.

Jaspreet Kaur, (March 2018). "A case study on market leaders and challengers of the Indian telecom industry (mobile phone segment) with special reference to reliance JIO's strategies and performance challenging existing firms".

In this research, it was examined how leaders and challengers' function, as well as the approaches and counter-strategies they employ to either defend their position or achieve a higher one.

As a result, the purpose of this study is to examine the cutting-edge of the Indian Telecom Sector's mobile phone sector, with a specific focus on the case of Reliance JIO, which has outperformed other prominent telecom companies. This research is primarily based on secondary data, in which legal concerns are reviewed in order to identify the tactics used by Reliance JIO to evaluate the current leaders.

Sunil Mahapatra, December 2019. "PEST Analysis of Present Indian Telecom Sector".

This paper speaks about the telecom industry which has acquired enormous development in India. It has 1.8 million clients as well as it is the globe's second biggest telecommunications sector. During 2019, telecommunications market has drastically transformed their framework and technology. The 4G range has actually altered the client's assumption as well as inspiration.

The study's goal is to uncover the Indian telecom industry's future potential. There were few research papers that focused on the telecommunications industry's political, economic, social, and technological aspects. According to the findings, there exist potential in the sector of country telecommunications, but they are not being tapped to their full potential.

Dr. Surpreet Sahai, Assistant Professor, 7 July 2020, “An In-Depth Study of Indian Telecom Industry – Its Market Size, Consumer Trends and Opportunities”.

In this, findings provide insights into the telecom business and the actions that companies are taking to improve their client relationships. From this research, I can comprehend today circumstance of the techniques as well as programs being complied with by the leading giants in this field as well as the process followed by them to enhance customer retention as well as consumer fulfilment that consequently, results in boosted revenues and also brand picture psychological of the customers.

2.1 Research Gap

Till now most of the research is done separately on the Indian telecommunication sector without involving and comparing major Indian telecom players like Reliance Jio, Airtel and Vodafone Idea (VI) all together. Also, most of the research haven't applied Porter 5 forces, Resource Based View, IFE matrix, Porter's five forces analysis which I will be applying in my research paper to get a better perspective of Indian Telecom Sector. Also, no paper is available to give the recommendations to the new entrant in the telecom industry or even existing player who wants to gain competitive edge over others.

2.2 Objectives of our study

- To study the Macro-environment of the country (India).
- To examine the Macro-environment and identify & analyze the weaknesses and strengths of the Telecommunication industry.
- To analyse the strengths, Weakness, Internal & External Factors affecting the company, valuable resources of Reliance Jio, Airtel, VI and how they are competing with each other.
- Forecasting the number of mobile data traffic in India as well as globally.
- To examine the performance of the major telecom companies.
- To give the recommendations based on the analysis done to the new entrant and even the existing player in the telecom industry.

2.3 Scope of the study

This paper majorly focuses on three major telecom companies of India and hence all the analysis is done with taking India and its three major telecom companies (Jio, Airtel, Vodafone-Idea) in mind.

I have selected these three companies due to the following reasons:

- Number of the subscribers.
- Percentage wise market share of the companies.
- Internet speed both downloading and uploading.

With a 36.00 percent customer market share and 387.5 million subscribers, Reliance Jio (Mr. Mukesh Ambani's company) is the biggest telecom corporation. (Thanks to the addition of 72.7 million new members) [Development of 22.6 percent].

Mr. Sunil Bharti Airtel's Bharti Airtel is India's second-largest telecom company, with a market share of 30.81 percent and 327 million users. (With a new client base of 6.62 million) [An increase of 2.06 percent]

With 319.1 million members and a "23.00 percent Telecom subscriber market share", Vodafone-idea is India's third-largest telecom company

As Based on the current TRAI information, Reliance Jio has covered the typical 4G download speed rankings with 21.1 megabits per second (Mbps) rate, whereas Vodafone-Idea has come 2nd the chart in terms of 4G upload speed. According to the data, Jio's speed was nearly two times that of its competitor Airtel.

According to the TRAI data "the Bharti Airtel had an average 4G download rate of 13.7 Mbps, while Vodafone's speed is a more with 17.9 Mbps. Vodafone, which can be found in 2nd in the download rate, has actually topped the 4G upload speed positions. Its uploading rate was 8.2 Mbps, Airtel 6.1 Mbps, & Reliance Jio 7.3 Mbps.

3. RESEARCH METHODOLOGY

This research/case study has broadly used secondary data for analysis. The secondary data is gathered from the research papers, annual reports, various newspaper articles, company websites, and from several different websites regarding Telecommunication Industry, Airtel, Vodafone-Idea, and Reliance Jio. Mostly the which is used for analysis is taken from TRAI website like no of subscribers, market share of the companies and internet speeds they provide.

In this research paper I would be firstly using techniques like PESTEL, Porter 5 Forces, etc. A PESTLE analysis- “A tool used to gain a macro picture of an industry environment. PESTLE stands for Political, Economic, Social, Technological, Legal and Environmental factors. It allows a company to form an impression of the factors that might impact a new business or industry”.

Porter's Five Forces is defined as “a model that identifies and analyzes five competitive forces that shape every industry and helps determine an industry's weaknesses and strengths”.

Then for the industry analysis I will be applying methods like RBV, IFE matrix. The resource-based view is defined as “a managerial framework used to determine the strategic resources a firm can exploit to achieve sustainable competitive advantage”.

An Internal Factor Evaluation (IFE) Matrix is defined as “a strategy formulation tool that summarizes and evaluates the major strengths and weaknesses in the functional areas of a business, and it also provides a basis for identifying and evaluating relationships among those areas”.

At last, I will be doing Competitive Profile Matrix for the major three telecoms of India. A Competitive Profile Matrix (CPM) is an analytical tool “that provides necessary information of competitive advantage based on critical success factors and serves as the basis for an organization's strategy”.

4. ANALYSIS

4.1 PESTLE ANALYSIS (INDIA)

- Political Environment

Central government plans enacted in a country can make clear political structure. It has to do with the government's function in the country, such as setting financial plans or limiting federal government expenditure. Moreover, both the economic and lawful processes are affected by the political system.

In India, corruption is a major fundamental cause of the problem. It has a negative impact on the nation's economy and political climate, putting the country's financial recovery to halt. Corruption raises the cost of doing business, putting foreign direct investment at a disadvantage. Nonetheless, increased public awareness and government programmes are helpful in overcoming corruption's challenges.

- Economic Environment

When India got freedom in 1947, they took on an inward-looking command economic situation. The federal government plans what products as well as services the country will create, just how much it will create, and at what prices it will sell them. Additionally, most of companies are managed by the state in a command economy. In regards to GDP, today India is just one of the world's significant economic climates. In 2021-22, the GDP was approximated to be around \$2.32 trillion. Customer need, on the various other hand, has actually recently declined. Consequently, the economic situation is compromising, triggering extensive problem.

India is among the lowest corporate income tax rates on the globe. Existing tax rates were cut to 15 percent from 25 percent for newly incorporated companies till march 2024, while existing firm 22% from 30%.

- Social Environment

A culture can be characterized as an area of people who share comparable beliefs and norms and are combined partly by a shared culture. A federal government or state can likewise endure one or more cultures.

India, with a population of over 1.4 billion people, has a large customer base. international corporations represent a major opportunity. It's no wonder that India is home to a large number of international corporations. With a workforce of 425-430 million people expected by 2022, India has affordable labour. As a result of India's open and cheap manpower, a number of multinational companies have outsourced a number of their commercial activities to the country.

India is a “multi-ethnic, multi-lingual, and multi-religious” country. While social togetherness is a tremendous strength, ethnic issues do arise in the region on occasion.

The nation's standard of living is continuously improving, and the nation's middle course is expanding, with plenty of optional revenue. Nonetheless, it deserves keeping in mind that India is currently prone, with one in every 5 Indians living in destitution.

- Technological Environment

India is one of the “world's most technically smart” countries. According to some sources, it is the “world's third most technologically sophisticated nation” If investors will join hands with local companies, combined with passionate approval for FDI norms, represents a huge chance for investors. In the Indian IT as well as BPM industry, MNCs such as HP, IBM, as well as Microsoft are major players.

- Legal Environment

The lawful framework of a nation consists of guidelines and also legislations that govern conduct. Law frameworks in a nation are specifically important for international organization because they govern company technique, analyze service deals, and establish the legal rights and duties of those participated in company transactions. According to Morgan Stanley (2008), the Indian lawful system is based on English usual regulation which, in principle, has the globe's ideal financier protection. In addition, they believe that continuing lawful reforms in India are essential to deal with the licensing, safety and security, as well as corruption that are suppressing business development. When it pertains to corruption, it's clearly described as using public office for individual gain.

In the 2021 corruption perception index, India was rated 85th among 180 countries. India's labor regulations have ended up being a warm topic of discussions of just how to run an effective private sector in India. Any service with greater than 100 workers that wants to shut down procedures or reduce its team has to initially get approval from the central government. Unlike various other countries, these regulative demands are more difficult to settle. Nonetheless, the government has actually specified that it will certainly alter the legal legislation guideline from 100 to 1000 workers, however this modification has yet to be executed.

- Environmental Issues

Despite tremendous progress in recent years, India stays to face a slew of environmental issues, including “air pollution”, “water contamination”, “habitat loss”, and “human garbage disposal” directly into rivers.

Conclusion

Ultimately, India's economic situation will certainly start to develop quickly. Ongoing modifications would certainly be essential to the country's future advancement in order to capitalize on its wide-ranging need and solid development capacity, every one of which have actually been underutilized. Corruption, conflicts, a lack of infrastructure, expanding earnings voids, and regulation, on the other hand, placed a worry on business entering India.

Understanding such factors to consider is vital for accessing the Indian market, where these challenges can be fixed by collaborating or combining with Indian companies that are progressively associated with cross-border purchases. There are major investment opportunities in the IT and also BMP markets, with \$2.5 billion in funding and also a wide no of efforts spread across 76 districts. The central government has actually also started a variety of initiatives, consisting of unique economic areas, location-based incentives, and also export-oriented systems.

4.2 PESTLE ANALYSIS (TELECOMMUNICATION SECTOR)

- **Political Factors**

- a) Foreign Direct Investments (FDI)

FDI has played an extremely considerable duty in the shift of the telecom field by installment of required telecom framework and monetary development for many years. FDI's Inflow during the financial year 2021-2022 was US\$ 400 million. The general FDI inflow for the year 2020 was less (4.4 billion) as compared to this one. The main factor behind the total increase for FDI is because the government raised FDI percentage from 49% to 100% in 2021. Another factor was the improvement in the telecommunications laws and also the favorable environment to operate.

- b) National Digitalization Commission Plan (2018)

The Govt. of India has actually introduced the National Digitalization Commission Plan (NDCP) -2018. It targets at meeting the communication and info requirements of different enterprises as well as residents. The policy establishes resilient, safe and secure and cost-effective data solutions as well as framework. The primary goal of the plan is to supply broadband services for all, produce additional 4 million work in the Digital Communications as well as Telecom industry as well as to increase its total contribution by 6% in India's GDP.

- **Economic Factors**

- a) Tax

The GST rate for Telecommunications Sector is 18%. The tax price differs based upon the region where the telecommunications solutions are used. The implementation of GST has actually affected the telecom field in an adverse facet as the tax obligation rates imposed are raised. The majority of its complementary services like infrastructure upgradation as well as various other have actually additionally seen a boost in its general expense.

b) Revenue Growth

The Telecom sector revenue growth rate is in the declining pattern with a 4.5% revenue development in 2nd quarter and 4.2% in the 3rd quarter of FY2022. The Average Profits per individual (ARPU) will raise by 1.04% during the very same duration. The overall financial debt for the telecom sector is most likely to enhance in the forthcoming period due to AGR (Adjusted Gross Revenue).

c) Productivity Development

The technological transformation has led the curve. The extreme competitors in the telecommunications sector have actually made a terrific influence on the nation. According to the RBI information, the productivity of the telecom industry has gotten on the higher level as compared to the various other sectors given that the 1991 reforms. The general productivity rate is above 10% in the recent years for the industry. As a result, it is just one of the fastest expanding industries of the Indian Economic situation.

• **Social Factors**

a) Education

Telecom can promote access to the academic solutions in the rural areas. It can add in offering the called for system to straight access the needed web content or components in respect to various courses. It can assist in improving the skill rates among grownups in the backwoods and likewise for providing the expertise of needed abilities as well as talent. According to the KPMG Report, “the Indian Digital Education Industry is expected to expand from 1.6 million customers to more than 10 million clients in the upcoming years”.

b) Wellness

Healthcare Providers and delivery is set to transform its training course in the future. Telecommunications growth and various other similar systems adds enhanced outcomes of high quality. In a number of circumstances, the need or need for a hospital stay in the

non-emergency situation have actually been lowered with using telecommunication as well as various other upgraded tools. The significant development in the case of telemedicine and also M-health applications have made it much more reliable for the health care sector to supply the required and also timely therapy.

- **Technological Factors**

Both desires as well as necessities for telecommunications offerings are progressing. For instance, in mobile phone companies now optical fiber is utilized over copper one. Phones have become additional compact, moving the telecom company in right direction.

- **Legal Factors**

The telecommunication enterprise is often impacted via means of ways of policies problems. Specifically troubles with the government, syndicates, as well as clients. But the venture has actually allowed importing and also exporting of telecommunications product (worldwide smart devices, for example), permitting added improvement in telecom technology tools.

- **Environment Factors**

Climate adjustments as well as worldwide warming can have an effect on just how telecommunication goods acquire customers. In expressions of employment, with generation progressing, personnel intend to adapt changes.

Products come and go, regularly transformed using means of methods of something better' (relying upon who's asked, buyer or company). The old version comes to be redundant or unneeded.

4.3 PORTER'S FIVE FORCE ANALYSIS

Porter's five forces are:

1. Buying Power.
2. Supply Power.
3. Threat of entrants.
4. Threat of substitute.
5. Degree of Rivalry.

Given below is the Porter's five force analysis of Indian Telecommunication Industry:

Buyer Power : Moderate	Supply Power : Moderate
<p>Weakening Factors:</p> <ul style="list-style-type: none">➤ A small number of firms serve a high number of buyers➤ Inelastic nature of Demand <p>Strengthening Factors</p> <ul style="list-style-type: none">➤ Low levels of product differentiation / High standardisation➤ Low customer loyalty , and very price sensitive customers➤ Low switching costs	<p>Weakening Factors:</p> <ul style="list-style-type: none">➤ Few Large companies as Suppliers➤ High Switching costs as exiting long-term contracts are difficult <p>Strengthening Factors</p> <ul style="list-style-type: none">➤ Specialized suppliers are dependent on telecom➤ Supplier sign long-term contracts for raw materials such as steel oil and other commodities which are volatile

Threat Of Entrants : Weak

Weakening Factors:

- Established Companies hold dominance
- Requires significant capital outlay
- High Fixed costs result in high operating leverage and hence focus is on customer acquisition and retention
- Short technical upgradation cycles
- TRAI influences entry barriers by setting rules and regulations

Threat Of Substitutes: Moderate

Weakening Factors:

- Fixed Line and Wireless are substitutes of each other.
- Internet based communication

Strengthening Factors

- Lower Quality of internet voice calling
- Players are offering packaged services

Degree Of Rivalry: High

Strengthening Factors

- Presence of large incumbents
- Low levels of service differentiation
- Competing factors are brand awareness , functionality and value pricing
- Convergence of technology , media has let to lateral competition

Figure: 3 Porter's five force analysis of Indian Telecommunication Industry

(Source: Own Analysis)

4.4 PESTLE ANALYSIS (AIRTEL)

- Political Factors

Airtel has been quite prone to lots of political activities and also decisions. In current times, there have been numerous circumstances where the business procedures of the business have been impacted adversely and which present a serious danger to the company.

a) Lately, the Government has recommended the choice of reducing the interconnect usage costs substantially, which has for that reason impacted the profits of Airtel. Interconnection costs are defined as “the costs paid by the network firm from whose network a customer made a call to one more firm network's user”.

b) Given that Airtel has a huge number of customers, several various other network individuals made contact us to Airtel customers and Airtel obtains excellent profits for each call yet after decrease in prices it shed its revenue dramatically.

c) Another Political Action or decision that influenced the firm, the range public auction prices established by the federal government are too expensive for telecom companies that their economic setting is not very secure and favorable. India has among the greatest spectrum auction prices worldwide and also it has actually influenced the productivity of telecommunications operators as well as the overall general expenses has been boosted.

d) The following Political Aspect can be the state of instability, civil discontent and also various other political tensions for not having the ability to operate in a large number of nations. This has influenced the total subscribers of the business as well as in a number of areas of operation, the lack of political support and instability has resulted in boost in costs and also consequently losses for the firm.

- Economic Factors

a) India is among the world's most rapidly rising economies as well as by the year 2025 every citizen over two decades of age in India will certainly have access to mobile or the telecom solutions. The population of individuals in the age bracket (18-45 yrs.) constitutes a significant part.

b) It provides an excellent chance for Airtel to increase its client base considerably, which would certainly subsequently result in rise in the demand for customer support and would boost the sales and also earnings instantly.

c) Furthermore, after Jio started its operations, major mergers and purchases happened in the telecom market (in reference to India) and also now there are only 4 major drivers on the market. So, this has actually resulted in enhancing the consumer base as well as the overall competitors has actually reduced.

d) One more economic element can be the Favorable lasting expectation in the significant operating markets. This can result in a much better as well as steady lasting development for the company and also its procedures.

e) Economic Recession as a result of the Covid-19 Pandemic. It has caused the decline growth of the significant economic climates of the globe, as well as has impacted the economic position of the company.

- Social Factors

a) Customers moving towards faster Internet and also IOT services. According to the current patterns or the most recent needs, customers often tend to move towards faster and also a lot more effective Web solutions. The overall demand of such services has actually been enhanced due to the modification at the social front.

b) An additional social element can be the surge in information demand as a result of the easy availability of smartphones. With the development in the technological area, there has actually been a significant boost in the smartphone availability with recent features and also at a very less costly cost as contrasted to the previous ones. This has actually led to the rise in the total need for information or Internet for daily activities.

- Technological Factors

a) Airtel participates in a variety of technological breakthroughs. It is establishing a new development laboratory in Bengaluru to produce breakthroughs in the Internet of Things (IoT), virtual enhanced reality, and also expert system to provide clients with electronic possibilities.

b) It has launched its electronic development campaign— “Task next- for which it will spend 2000 crore rupees in three years to bring electronic solutions to the marketplace. It is likewise intending on launching 5G services in India”.

c) Household solutions, smart television solutions have all been added to the company's portfolio. It has purchased “Wynk music” in response to the client's song demands. The company's goal is to expand into many additional current technology-related areas in order to expand its client base and attract a larger number of customers.

d) Progressing Connectivity leads in the direction of IOT services. The firm is focusing on the latest technical improvements to improve its services and also to enter into different markets and also use the related solutions.

- Legal Factors

a) Rigorous Cybersecurity regulations for storing and marketing customer data. The Indian Govt. has major problems for data personal privacy. There have actually been specific legislations like the Info. Tech. Act, 2000 and also Info. tech. Rules, 2011 which have actually been made to make certain the Right to Privacy for individuals as well as they likewise consist of specific rules in accordance to the offenses or information leaks made.

b) Steady elimination of discontinuation charge for “wireless-to-wireless” residential telephone calls. In the year 2019, TRAI presented specific laws as well as laws relating to the progressive abolition of discontinuation costs for the wireless-to-wireless residential calls, this however led to loss of income for the telecom business. Presently in the year 2020, the discontinuation charges are Rs.0.06 per min which will certainly be further lowered to zero in the future.

c) Lately the firm has actually proposed the “Airtel Zero- advertising and marketing platform where customers are enabled to gain access to mobile applications completely free and their respective data fees will be paid by application companies”. It produced an outcry at the social front and also individuals straightaway declined it, stating it protested the internet nonpartisanship design. The declarations made was that Airtel cannot make a decision which apps to utilize and also which apps not to use. Airtel has also been accused of favouring or assisting businesses that pay them more money while slowing down the internet performance of web sites that pay them less. Following such allegations, Airtel was forced to cancel the project.

- Environmental Factors

The Environmental factors in the PESTLE Analysis of Airtel Includes: -

a) Required to Transition to reduced discharge modern technologies. The major procedures of the firm consist of telecommunication networks and the important facilities related to it. The company requires to aim for moving to low exhaust technologies compared to the initial ones.

b) The business is working hard to contribute in the direction of the atmosphere. It develops and implements renewable power performance in its networks, facilities, and information systems. It is promoting the use of renewable resources rather than conventional energy to meet its electricity needs. Airtel has constructed six solar plants that will reduce emissions.

c) It is also intending to service usual network framework or to share tower facilities with competitor's telecommunications networks which minimizes the requirement for different towers and assists in saving energy.

d) The company has partnered with the Odisha government for environmentally friendly campaigns. In a number of other nations, its employees have actually taken the pledge to plant a considerable variety of trees under its various campaigns.

4.5 SWOT ANALYSIS (BHARTI AIRTEL)

The SWOT Analysis for “Bharti Airtel” is presented below:

Strengths <ul style="list-style-type: none">• One of the leading telecom operators with operations in over 18 countries in Asia and Africa.• High quality network and services.• Leading provider of infrastructure and tower related services through its subsidiary.• Strong brand value among customers.• Diverse portfolio in the business-to-business services.• Strong set of strategic partnerships and alliances.	Weaknesses <ul style="list-style-type: none">• Decreasing customer base has led to the overall losses for the company.• Outsourcing different operations on a greater scale has led to being dependent on other companies.• With its acquisitions and investments in other businesses, the overall credits have been increased, Airtel group is under high debt.
Opportunities <ul style="list-style-type: none">• Exercising and coming up with new platforms like Digital TV services, payment banks etc.• Strategic partnership with Nokia for upgradation to 5G.• Different digital initiatives both taken by the govt. as well as company like ‘<u>mera pehla smartphone</u>’ etc. can boost the demand for the mobile services.• Established Infrastructure would help in the efficient use of capital expenditure.	Threats <ul style="list-style-type: none">• Aggressive or hyper-competition in the Indian Telecom Market.• Impact of pandemic on the overall operations and net cash flows.• Levy of one-time spectrum charges (OTSC) on the telecom operators in the country.• Mobile number portability (MNP) gives the customer independence to change the service providers, it can see a major slump in subscriber base due to premium service charges.

Table: 1 SWOT Analysis of Bharti Airtel

(Source: Own Analysis)

4.6 PESTLE ANALYSIS (RELIANCE JIO)

- Political Factors

In India, Reliance Jio is a prominent telecoms player. Its business enterprise has been benefited by the governmental system on several occasions. But not always like- The Telecom Regulatory Authority of India (TRAI) has issued a new guideline, - “limiting the time it takes for a phone call to ring to twenty-five seconds”. Reliance Jio opposed the bill, stating - the choice of how to solve the ringing time must be totally in the hands of the regulator.

Overall Jio enjoys consistent government support as part of the “Make In India” initiative..

- Economic Factors

With competitors such as “Airtel and Vodafone-Idea” having been established in the Indian marketplace for several years, Reliance Jio has gone through a rigorous process of capturing more than- “36 percent of the market share” in only five years.

Because India is a rate-delicate marketplace, Jio can afford to provide its services at extremely low prices. This strategy has actually worked in its favour.

For outbound calls, Reliance Jio has set a rate of “6 paisa per minute”. Previously, Jio did not charge any sort of rate for its outgoing calls on different networks.

- Social Factors

Reliance Jio aims to increase its user base to over 400 million by 2022. Its moto is “Connecting everyone. Connecting everywhere. Connecting everything”. Apart with managing its online and call offers at affordable pricing, Reliance Jio provides a variety of services such a- “Jio News, Jio Tv, Jio Movie Theater, and Jio Cloud, among others”.

These services are included, keeping in mind the interests of the young adults who make up the majority of the clientele. Jio can keep its customers by using a different strategy

based upon user profile. Jio's recharge plans are divided into different categories based on the client's personality and needs. The “MyJio app” allows customers to charge their phones with just a few clicks.

- Technological Factors

Reliance Jio was the first network provider in India to introduce the "Voice over LTE era." This time period holds a lot of promise because it can also direct 5G and 6G, allowing clients to receive information at even higher speeds.

- Legal Factors

Since its entry into the telecommunications market, Reliance Jio has been embroiled in a number of issues and has been accused by its competitors.

To start with, Airtel asserted in 2016 that “Jio was examined for around 253 days. Throughout that stage, it had collected around three million clients (testers). Airtel claims this ended up being done to collect a widespread proportion of the customers even earlier than its launch”. However, aside from the claims, Reliance Jio has yet to receive any form of legal word as a result of the lack of such a regulation regarding the supplier's selection of trial days.

Additionally, Airtel as well as Vodafone-Idea implicated Jio of using predatory exercise of presenting its carrier at astonishingly reduced prices. Reliance Jio previously has been capping in a setting to dominate those obstacles.

- Environmental Factors

- a. Jio has contributed around “Rs. 750 crores” in CSR contributions.
- b. Reliance Jio gave “free Web Services to the Indore Police” as part of its CSR initiative.

4.7 SWOT ANALYSIS (RELIANCE JIO)

A SWOT evaluation is developed to promote- “a practical, fact-based, data-driven research to know the toughness as well as weaknesses of a company, or within its industry.”



- **Strengths**

- a) Strongest Customer Acquisition approach - Reliance Jio likely has the satisfactory customer obtaining technique till day. The firm supplied their offerings at no charge for 3-6 months to all their customers. This ended in hundreds of countless consumers the usage of Reliance Jio and also finished in among the excellent client procurement technique with in documents of telecom.
- b) Strong Customer base - Jio boasts of a tremendous one hundred million subscribers withinside the very first a hundred as well as seventy days of its release a record which no different supplier has can register.
- c) Strong assistance of parent organization- Reliance Industries -The affiliation of Jio with Reliance works as a main stamina.

d) Significant network - Reliance Jio has an existence in all 22 telecom circles in India.

e) Numerous services under a single name .

- **Weaknesses**

a) Late access into the marketplace.

b) Activation Problems - Reliance Jio challenged a number of gestations troubles many thanks to currently no longer can comprise the large volumes of customers it had acquired. On such came to be delays in SIM Card activation at some stage in the length that accompanied its launch.

c) Pricing Disputes - Reliance Jio ended up being slammed for having decreased its charges past what became moral to penetrate into the industry as well as this mixed claims like corruption and cash money laundering in the direction of them.

d) Poor Data connection.

- **Opportunities**

a) Future oriented innovation - Jio makes use of 4G VoLTE network, which can be increased to sustain 5G as well as 6G technologies.

b) Applications - Reliance Jio has VoLTE, and in terms of terminology, it has gone a long means. Because of this, they can supply customers with applications that are originally paid and even free, and after that pay to use them.

c) Development to other countries - Currently, Reliance Jio just operates in India. Nevertheless, at the very least in bordering locations, there are numerous chances for abroad development.

- **Threats**

a) Danger of losing clients - Clients like Jio mainly as a result of the low cost it provides. Customer churn is feasible.

c) Criticism as well as -ve Image - Jio has involved in lots of debates since its facility. This has actually brought an unfavorable brand photo to the business.

d) Immoral ethics - Several methods made use of by Jio (such as small cost, totally free data transfer and also market penetration techniques) have shown to be unethical and also will certainly damage the firm's track record in the future.

4.8 FORECASTING- INTERNET TRAFFIC

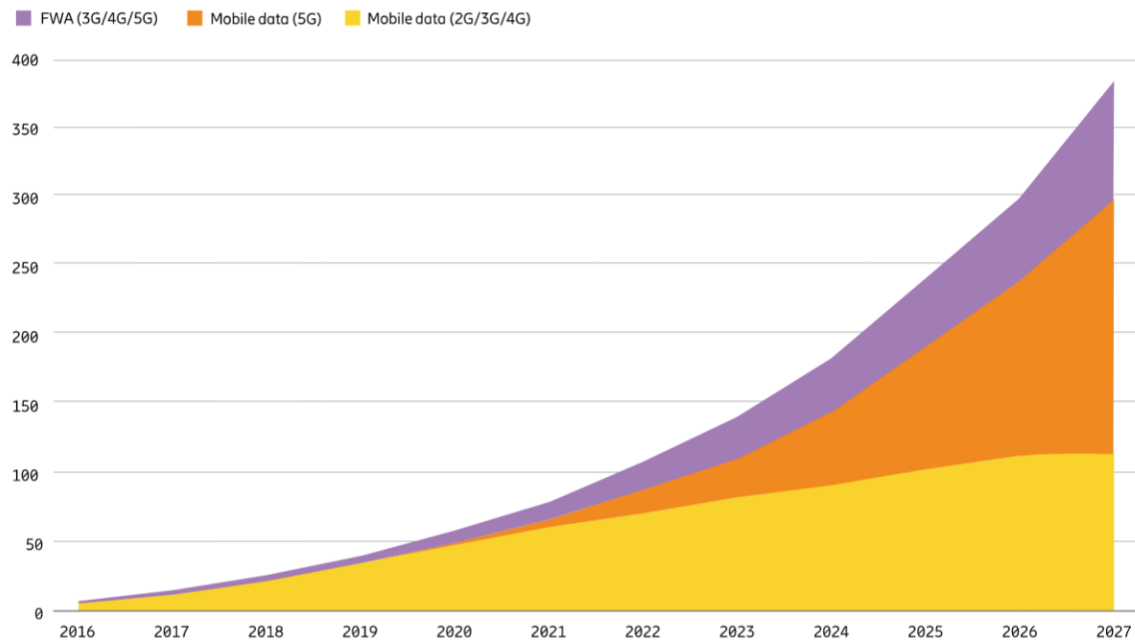


Figure: 4 India “mobile network data traffic-EB per month”

(Source: Own Analysis)

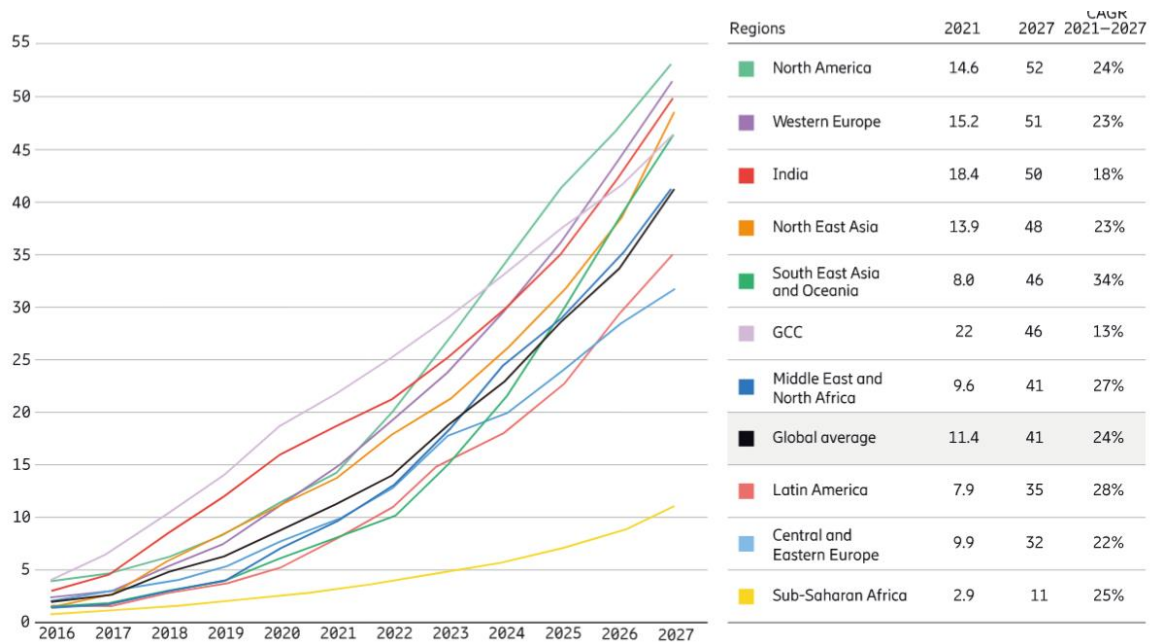


Figure: 5 Global Mobile data traffic per smartphone (GB per month)

(Source: Own Analysis)

COVID-19 boosted India's dependency on telecom networks – “remote health consultations, online ordering, online education, content consumption, and video conferencing”.

Because of the dependency on “mobile networks” to do the work from home as well as stay connected, the “average monthly traffic per smartphone” is expected to rise to “18.4GB in 2021”, since “16.1GB in 2020”. The avg. traffic per phone is the 2nd highest in the world, and it is expected to reach “50GB per month by 2027”. Monthly usage growth is fuelled by service providers' competitive pricing for subscription packages.

4.9 PERFORMANCE OF TELECOM COMPANIES

Null Hypothesis:

Ho1: “No significant difference is present in profitability of chosen companies”.

Ho2: “No significant difference is present in managerial efficiency of chosen companies”.

Managerial Efficiency Analysis

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	40.551	17827.25	402.658
STD. DEV.	16.61026	16155.98	246.998655
HIGH	83.97	49606	820.9
LOW	22.61	1105.17	0

Table: 2 Inv. Turnover Ratios

(Source: Own Analysis)

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	9.639	38.28	43.834
STD. DEV.	5.34355	12.83071	17.0011101
HIGH	14.83	53.11	64.03
LOW	1.8	18.08	15.81

Table: 3 Asset Turnover Ratios

(Source: Own Analysis)

Profitability analysis

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	-16.305	16.504	2.757
STD. DEV.	61.23006	9.020234	13.9916676
HIGH	23.07	30.74	16.85
LOW	-197.06	-0.4	-25.65

Table: 4 Operating Margins

(Source: Own Analysis)

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	-582.725	0.921	-18.502
STD. DEV.	1660.274	25.11267	50.2706282
HIGH	206.45	23.78	8.98
LOW	-5542.54	-66.43	-163.55

Table: 5 Net Profit Margins

(Source: Own Analysis)

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	0.1	2.085	0.19
STD. DEV.	0.165831	1.385837	0.24677925
HIGH	0.5	5.34	0.6
LOW	0	1	0

Table: 6 DPS Ratios

(Source: Own Analysis)

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	-19.889	1.792	-3.453
STD. DEV.	49.99843	28.67857	11.5374824
HIGH	10.37	33.02	7.94
LOW	-165.21	-71.08	-26.97

Table: 7 Adjusted EPS Ratios
(Source: Own Analysis)

RATIO	R. COM.	AIRTEL	VODA-IDEA
MEAN	-8.924	2.487	-80.118
STD. DEV.	33.20251	15.07177	244.355598
HIGH	22.98	17.49	12.83
LOW	-105.94	-35.7	-812.45

Table: 8 Return on (Net Worth/Equity Ratios)
(Source: Own Analysis)

ANALYSIS	F VALUE (AT 95% LEVEL OF SIGNIFICANCE)
MANAGERIAL EFFICIENCY	
INVENTORY TURNOVER RATIO	9.990702334
FIXED ASSET TURNOVER RATIO	17.65276411
PROFITABILITY	
OPERATING MARGIN (%)	1.95755828
NET PROFIT MARGIN (%)	1.095564848
DIVIDEND PER SHARE	34.43104108
ADJUSTED EPS	1.692796954
RETURN ON NET WORTH PER EQUITY	0.944819254

Table: 9 Results of ANOVA TEST
(Source: Own Analysis)

At a 95% level of significance, the critical value of F-Ratio is 2.866. Because the F ratio value of all chosen variables is higher than the critical value, the “null hypothesis” will be rejected for all of them.

We can see a different image when it comes to profitability. The F Ratio value for “Operating Margin, Net Profit Margin, Adjusted EPS, and Return on Net Worth/Equity” is less than crucial. As a result, we can conclude that all of the selected organisations behave similarly for all of these profitability indicators, with no significant differences in their performance.

4.10 COMPETITIVE PROFILE MATRIX

Companies taken for analysis:

- Jio
- Airtel
- Vodafone-Idea

Price Competitiveness

Taking 2GB/per day plans as a of criterion to evaluate the price competition of these 3 brand names.

			
Plan	₹455/₹719/₹839	₹395/₹666/₹719	₹459/₹719/₹839
Validity	84 Days	84 Days	84 Days
Calls	Unlimited	Unlimited	Unlimited
SMS	100SMS/Day	100SMS/Day	100SMS/Day

Figure:6 Price of 1, 1.5,2GB/Day plan for 84 days

(Source: www.MySmartprice.com)

	 	 	 
Benefits	Disney+ Hotstar Mobile	Disney+ Hotstar Mobile	Disney+ Hotstar Mobile
Price	Up to Rs 3359	Up to Rs 3119	Rs 3099
Data	Up to 3GB/day	Up to 3GB/day	Up to 3GB/day
Validity	Up to 365 Days	Up to 365 Days	Up to 365 Days
Calls	Unlimited	Unlimited	Unlimited

Figure: 7 Company Wise Plans and Price for 3GB/day

(Source: www.MySmartprice.com)

Quality of product/service

Based on internet speed

As Based on the current TRAI information, Reliance Jio has covered the typical 4G download speed rankings with 21.1 megabits per second (Mbps) rate, whereas Vodafone-Idea has come 2nd the chart in terms of 4G upload speed. According to the data, Jio's speed was nearly two times that of its competitor Airtel.

According to the TRAI data “the Bharti Airtel had an average 4G download rate of 13.7 Mbps, while Vodafone's speed is a more with 17.9 Mbps. Vodafone, which can be found in 2nd in the download rate, has actually topped the 4G upload speed positions. Its uploading rate was 8.2 Mbps, Airtel 6.1 Mbps, & Reliance Jio 7.3 Mbps”.

Market share

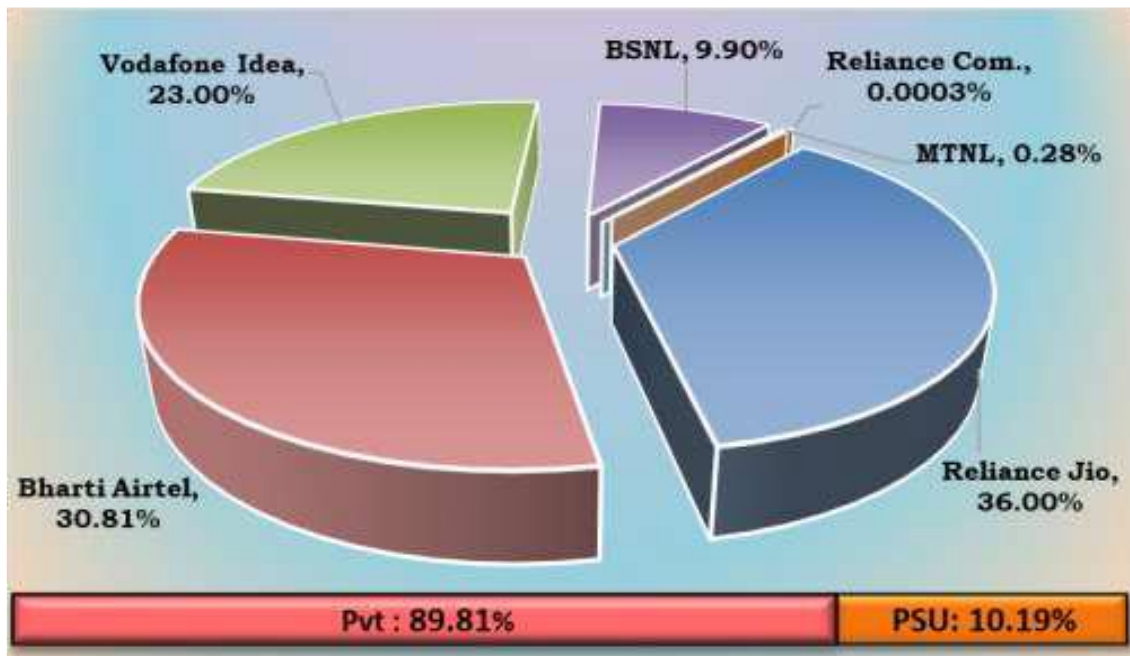


Figure: 8 Percentage of Market Share

(Source: TRAI Website)

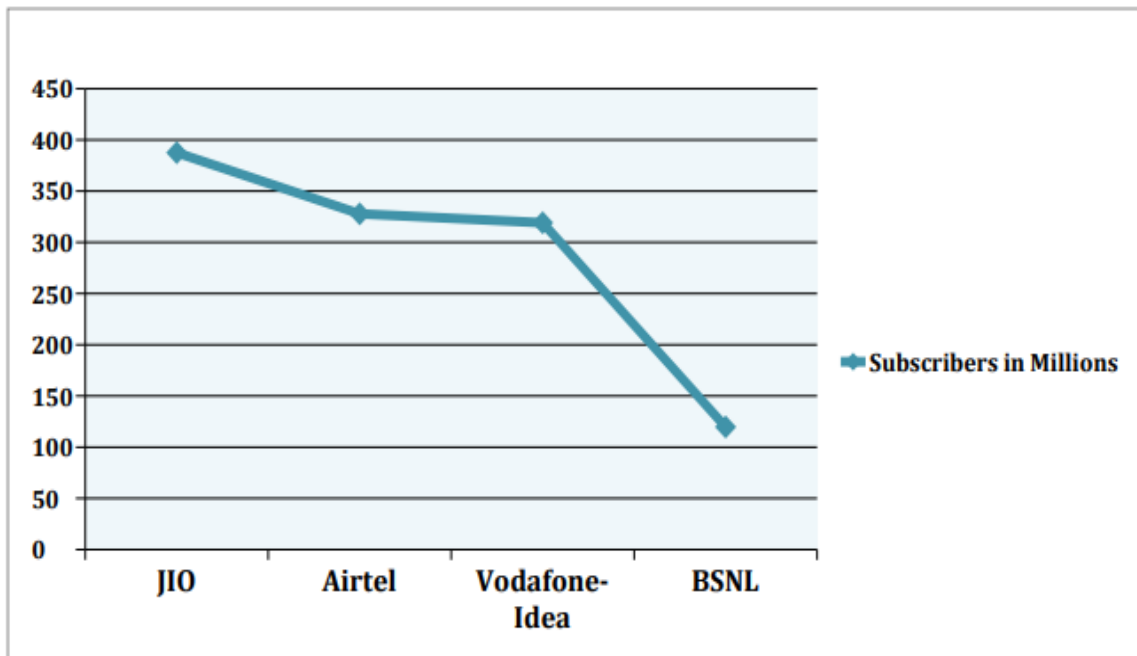


Figure: 9 Line chart of Subscribers

(Source: Own Analysis)

With a “36.00 percent customer market share and 387.5 million subscribers”, Reliance Jio (Mr. Mukesh Ambani’s company) is the main telecom company. (Thanks to the addition of 72.7 million new members) [Development of 22.6 percent].

Mr. Sunil Bharti Airtel's Bharti Airtel is India's second-largest telecom company, with a market share of 30.81 percent and 327 million users. (With a new client base of 6.62 million) [An increase of 2.06 percent]

“With 319.1 million members and a 23.00 percent Telecom subscriber market share”, Vodafone-idea is India's third-largest telecom company. Vodafone- Concept is struggling and is on the verge of bankruptcy if the federal government does not intervene (74.15 million memberships down 18.85 percent).

Customer Loyalty

Reliance Jio got 74.7 million new clients in FY-20-21 with a 20.6% growth compared to the previous year.

Research study performed by Bernstein revealed that Jio's consumers are most likely to remain dedicated with 80% of customers preparing to upgrade to 5G are likely to consider Jio as the initial option.

“We expected many people would appreciate the 'free' Jio deal but be vital pertaining to voice top quality - with numerous likely to return to their key operator once they were forced to pay. What we see is the opposite,” the report specified.

“Jio scores greatest general on consumer loyalty-- & outscores the incumbents on customer service, comfort, data protection, information speeds, & mobile choice. They also outscored Vodafone & Idea in voice quality & voice protection,” it included.

Advertising

When it involves making positive brand name awareness, Reliance Jio has actually embraced a bit aggressive advertising and marketing approach, consisting of releasing marketing campaign on tv, radio, papers, publications, & social media. They also have used film sector stars & stars' power to do acting in their commercials advertisements & come to be accompanied their brand.

As far as the social existence of Airtel & various other competitors is concerned, Jio wins thoroughly in the number of followers on Instagram – 999K vs 516K vs 317K.

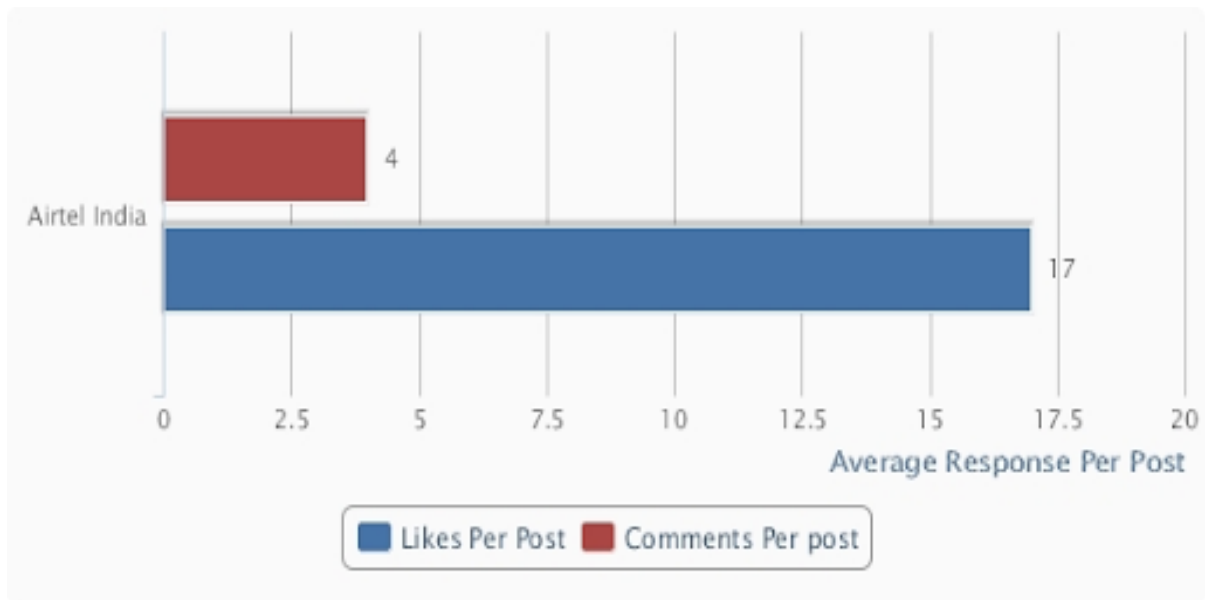


Figure: 10 Airtel’s Facebook Likes and Comments
 (Source: SImplify360 – A social media Analytics Tool)

Although their engagement is something the company needs to function upon, the above chart shows their Facebook engagement of Airtel. When it pertains to YouTube, Airtel is doing a respectable work with more than 400 videos and almost 20 million sights but loses the race with Jio in customer count:887 k to 2.63 million.

VI is additionally attempting to boost their marketing started. The brand has actually traditionally positioned itself by emphasizing the consumer experience. From its initial tagline, 'A Concept Can Change Your Life,' to its most recent, 'Stay Connected,' it has actually placed itself as a brand name that links people.

4.11 IFE EVALUATION

The “Internal Factor Evaluation (IFE) Matrix” is a business tool for assessing a company's internal environment and identifying its strengths and flaws.

Strength

Strong backing of parent company Reliance Industries Limited – Secure & steady endorsement of parent company Reliance Industries, a credible brand and a Household name for years, which mirrors the Indian beliefs as well as has a high depend on among the customers.

WEIGHT ASSIGNED – 0.20

RATINGS – 4/4

Strongest Consumer Acquisition method- Reliance Jio most likely has the very best customer purchase technique to day. All consumers were given free access to the services for a period of 4-6 months. This resulted in a large number of people signing up for Reliance Jio, making it one of the most successful customer acquisition methods in telecommunications history.

WEIGHT ASSIGNED -- 0.20

RATINGS-- 3/4

Fast & wide connect with Cutting-edge Technology

Reliance Jio has a pan-India coverage in over 22 telecoms circles and is widely regarded as a reliable and fast connection without any connectivity issues. Jio now uses its most modern 4G LTE technology, which is one of the world's most promising future technologies.

WEIGHT ASSIGNED-- 0.15

SCORES-- 2/4

Numerous offerings under a single name – Reliance Jio provides various solutions & applications like movies, games, purchasing, talks, messenger, etc, offering the client different choices to choose from.

Apps Introduced by Jio - MyJioApp, Jio Chat, JioTv, JioSaavn, Jio Mart, JioDrive, JioMoney, & many more....

WEIGHT ASSIGNED – 0.10

RATINGS – 3/4

Weakness

Late entry-- Reliance Jio is a late entrant into a marketplace that already had established players such as:” Airtel, Idea, and Vodafone”. Yet Jio has been very effective in making a location for itself in an extremely open market & acquiring a dedicated customer base with time.

WEIGHT ASSIGNED-- 0.05

SCORES-- 3/4

Data link issues & Activation problems-- Reliance Jio's internet connection is a widespread problem. Activation is also a major issue, with delays in SIM Card activation occurring throughout the period after the introduction.

WEIGHT ASSIGNED-- 0.125

SCORES-- 2/4

Prices Controversies & Claimed support by the Federal government-- Reliance Jio was slammed for lowering its costs beyond what was moral to pass on to the market, resulting in suspicions of corruption and cash laundering being levelled against them at the period of currency devaluation. The marketing campaign of Reliance Jio revealing the Prime Minister of India as the brand name ambassador of Jio landed it right into a warm pool of conflicts with no enough information from Reliance's side.

WEIGHT ASSIGNED-- 0.025

RATINGS-- 1/4

IFE Matrix of Reliance Jio

STRENGTH	WEIGHT ASSIGNED	RATINGS	WEIGHTED SCORE
Strong backing of parent company Reliance Industries Limited	0.2	4	0.8
Stronger Customer Acquisition Strategy	0.2	3	0.6
Fast & wide network with Innovative Technology	0.15	2	0.3
Multiple offerings under a single name	0.1	3	0.3
Brand Management	0.15	4	0.6
WEAKNESS	WEIGHT ASSIGNED	RATINGS	WEIGHTED SCORE
Late entry into the market	0.05	3	0.15
Data Connection issues & Activation issues	0.125	2	0.25
Criticism & Negative image	0.025	1	0.025
TOTAL	1		3.025

Table: 10 IFE Matrix of Reliance Jio

(Source: Own Analysis)

5. FINAL CONCLUSION

Based upon the total inner and external analysis as well as SWOT analysis provided for Telecommunication Industry, Reliance Jio, Airtel, and Competitors profile matrix, IFE Matrix, RBV of the three significant telecommunications companies- Reliance Jio, Airtel, Vodafone-Idea, this area will use Verdict and suggestions which will help the various other firms to take a note on them and then tackle calculated instructions that will boost their expertise and also competences, as well as lower its chances for hazards.

The below recommendations are hence made for the other companies who intends to transform the Indian Telecom industry:

- **Reinforce circulation network**

- a) Control

This is an important calculated proposal because it will provide the company more control over its merchandise in numerous markets. The company will be able to control where its products are positioned, enhancing accessibility and availability.

- b) Improved consumer relations

At the same time, the structuring of the distribution network will allow the company to work more closely with end customers by being easier to connect them with the same quality of product in diverse regions.

- **Develop special advertising strategies**

- a) Higher infiltration

This critical recommendation will aid the company reach a larger number of clients and also penetrate considerably deeper into target customer sets.

- b) Forming a collaboration with customers

Special advertising strategies will entail novel as well as sophisticated tactical methods of connecting with the customers and involving them with the brand name.

- **Adapt to diverse cultural facets**

- a) Identify different consumer group

Each market, as well as each target group, has its own set of features. This suggestion is made so that the company can better connect with diverse target groups in various markets.

- b) Adapt and also respond

By adjusting to various social and regional characteristics, the company will be able to reach out to more of its target customers, who will feel a stronger affinity for the product and be more likely to consume it.

- **Widen the zones**

- a) Market development

An additional tactical suggestion for the business to Revolutionizing Indian Telecommunications is to expand right into more recent areas as well as markets. This development will certainly offer the business direct contact to brand-new buyer teams. It will also provide visibility for business-related expansion both locally and globally.

- b) Product diversity

Product diversity is another way to promote growth. By introducing new items, the company will be able to penetrate further into prevailing marketplaces by identifying new buyer clusters and target client clusters. This will likely broaden the company's revenue streams as well as improve its total marketplace share.

5.1 IFE MATRIX

The EFE matrix assists in recognizing the vital external opportunities as well as risks that are impacting or might impact a company. The general rule is to determine 10-20 crucial external elements as well as added 10-20 crucial interior elements, however you need to identify as numerous variables as feasible. As we know the total score of 2.5 is an average rating.

In outside analysis a higher overall rating shows that company's strategies are well made to fulfill the opportunities and also resist risks. In interior evaluation a better rating indicates that the firm is solid versus its rivals. So, from the research study we familiarized the IFE Rating of Reliance Jio i.e., 3.025. So, the brand-new company ought to attempt to obtain ball game above 3.025 in the coming future and also a minimum of try to obtain greater than 2.5 in today.

5.2 SAF CRITERIA

When a competitor is determining on a specific strategic course for the long term, it will certainly encounter difficulties

As a result, it is critical that managers assess the technique in terms of its value and applicability. The supervisors will have to pick a structure to review the various critical choices. They will also require to pick a sensible technique is to examine the various methods separately. Approaches can be evaluated & analyzed making use of criteria of suitability, acceptability, & feasibility (SAF).

- **Creation of a menu for high-income groups.**
- **Development of a wide range of product and services for existing target demographics.**
- **Increasing existing advertising expenditure.**

5.3 OPPORTUNITIES

The “telecommunications sector” is through a transformational period. Along with potential, the telecom industry faces numerous obstacles around the world in this period. New innovations such as the “Internet of Things (IoT), augmented reality (AR), virtual reality (VR), microservices, and others” are also new challenges.

- 5G Networks – Telecommunications service providers are preparing to launch 5G networks, which will usher in a significant wave of speedier internet. Despite the fact that the technology hasn't been completely demarcated, suppliers are moving forward with “lab and field tests” in order to remain affordable.

By 2023, complete 5G internet should be available to the general public. So, it's a big opportunity for a new player to interfere with the telecommunications market like the Reliance Jio did when 4G came out.

- Internet of Things – The Telecommunications sector encounters difficulties due to the massive volume of data generated by interconnected devices. For telcos, “becoming an IoT connection provider and supplying Machine to Maker (M2M) devices” can develop up novel revenues options.

According to Gartner, “By 2020, over 20 billion devices will be connected to the Internet of Things, and IoT services and product vendors will generate \$300 billion in revenue”.

According to a survey by Tata Consultancy Solutions (TCS), “the telecommunications market places fourth as far as spending on IoT modern technology is concerned. Making software-based updates to their services and products has actually been rated as the top business procedure renovation by telecom firms. Various other organization improvements are offering customized marketing campaigns, improving customer division, and also offering much better solution”.

5.4 ADVANTAGE INDIA

i. Policy assistance

According to an online source, “The Union Cabinet approved Rs. 12,195 crore (US\$ 1.65 billion) production-linked reward (AND ALSO) scheme for telecommunications & networking products under the Division of Telecommunications. On October 14, 2021, 31 firms consisting of 16 MSMEs and also 15 non-MSMEs (8 domestic and 7 global firms) have actually been authorized under the Production-linked Reward (PLI) Scheme”. To drive the growth of 6G innovation, the Division of Telecom (DoT) has actually created a sixth generation (6G) innovation team.

ii. Increasing Investments

According to an online source, “In Union Budget Plan 2022-23 the Department of Telecommunications will get designated Rs. 84,587 crore (US\$ 11.11 billion). Income expenditure will allot 36% and capital investment 64%. FDI inflow in the telecom sector stood at US\$ 38.25 billion in between April 2000-December 2021”.

As it always has, the obstacles in the telecommunications sector are changing rapidly and telecommunications sector obstacles continue to progress. With mindful planning as well as foresight regarding lessons found out following the coronavirus pandemic, network Companies as well as the new Entrants can establish their business on an encouraging 2022.

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