

CREDENCE CAPITAL

(Investment Club of IIM Lucknow)

Indian Telecom Industry

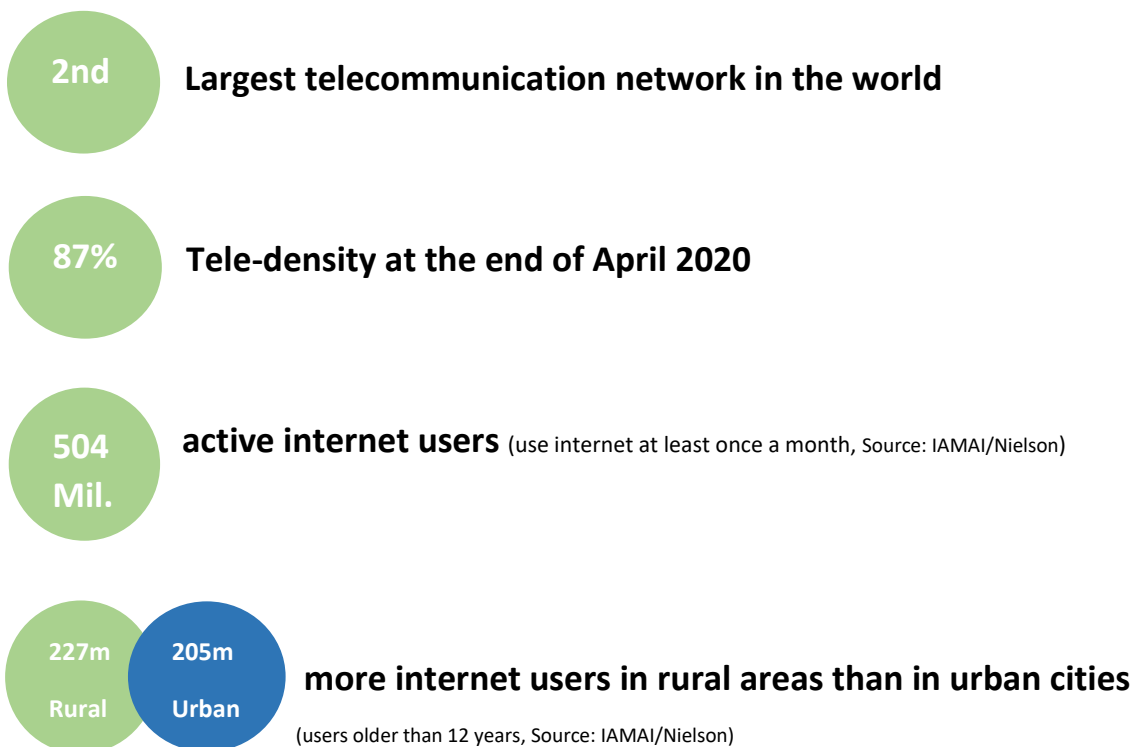
Sector Report

Introduction

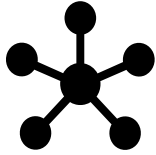
'Think of telecommunications as the world's biggest machine. Strung together by complex networks, telephones, mobile phones and internet-linked PCs, the global system touches nearly all of us. It allows us to speak, share thoughts and do business with nearly anyone, regardless of where in the world they might be.'

At the end of 2019, India had the world's second largest telecommunication network-both in terms of number of telephone (1.127 billion subscribers) and internet user base (661.9 million broadband internet subscribers). India's tele-density, which is the number of telephone connections for every 100 individuals living within an area, has steadily risen over the past decade and stood at 87%, growing from 75% in 2014.

Overview of the Indian telecom industry



Key Stakeholders



Network Equipment Providers

Companies manufacturing hardware that facilitate telecommunication fall under this bucket. They provide the requisite equipment for both service providers and tower operators -with a product portfolio ranging across public switching equipment, transmission equipment and customer premise equipment. Firms such as Nokia, Ericsson, Huawei, ZTE are a few prominent names operating in the segment.



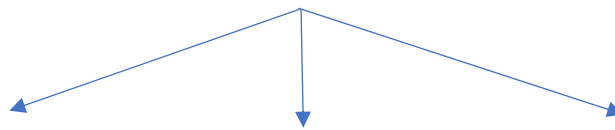
Telecom Infrastructure Providers

Also known as tower service providers, these companies set up the telecom towers across locations, leasing it out to network service providers. The segment has seen many new entrants providing tough competition on the quality front. Bharti Infratel, Indus Towers are some prominent players operating in this space.



Network Service Providers

Service providers includes players across the wireless, wireline and internet services channel interacting with the end user and providing them network services. These players buy licenses from the government and earn revenues through tariffs charges to the customer. Major players in this space include Reliance Jio, Bharti Airtel, Vi.



Wireless

Transmission of information via airwaves. This accounts for more than 98% of the total subscriber base.

Wireline

Transmission of information over a physical filament. Includes landline phone systems, fibre optics etc.

Internet Services

Consists of Internet service providers primarily offering broadband

Consolidation

The entry of Reliance Jio has completely transformed the sector forcing competitors to slash prices. Mobile data prices in India fell to lowest in the world at \$0.09 per GB. This also forced market consolidation and acquisition of small players such as:

Airtel's acquisition of Telenor India and Tikona

In February 2017, Airtel bought Telenor's Indian subsidiary, Telenor India. Post the deal, Airtel took over Telenor India's liabilities pertaining to licence fees and lease obligations for mobile towers.

The deal, which gave Airtel 44 million additional users, did not involve any cash payment to Telenor. Airtel also got Telenor India's spectrum in the 1,800 MHz band as a part of the deal.

In September 2017, Airtel announced it had fully acquired Tikona Digital Network's share capital. The company also purchased Tikona's 4G airwaves for Rs 1,600 crore. The acquisition gave the Airtel access to Tikona's 4G spectrum in five circles.

Airtel and Tata Teleservices

In October 2017, Airtel announced a merger of its mobile operations with Tata Teleservices. According to the deal, Airtel acquired Tata's consumer mobile business in 19 circles. The merger was done on a debt-free, cash-free basis. The deal was essentially free for Airtel which incurred TTSL's unpaid spectrum payment liability.

Reliance Communication & Aircel shutdown

Reliance Communications had to shut down its 2G and 3G services including all voice services and only offer 4G data services from 29 December 2017, as a result of debt and a failed merger with Aircel. Surprisingly, the shut-down was shortly after completion of acquisition of MTS India on 31 October 2017. In February 2019, the

company filed for bankruptcy as it was unable to sell assets to repay its debt. It has an estimated debt of Rs. 57,383 crore against assets worth Rs. 18,000 crore.

Aircel along with its units - Aircel Cellular and Dishnet Wireless - on 1 March 2018, filed for bankruptcy due to its high levels of debt.

Vodafone Idea

The merger between Vodafone Idea was completed on 31 August 2018, and the newly merged entity was named Vodafone Idea Limited. The merger created the largest telecom company in India by subscribers and by revenue. Under the terms of the deal, the Vodafone Group holds a 45.2% stake in the combined entity, the Aditya Birla Group holds 26% and the remaining shares will be held by the public. On 7 September 2020, Vodafone Idea unveiled its new brand identity, 'Vi' which involves the integration of the company's erstwhile separate brands 'Vodafone' and 'Idea' into one unified brand.

Towards the end of 2019, the price war gradually started to end with the three major players-Jio, Airtel & Vodafone Idea raising their tariffs. The battle is gradually moving to service quality as companies begin to once again draw their focus towards growing their ARPU.

Key Current Players and Performance

Parameters	Reliance Jio	Bharti Airtel	Vi
Total Subscribers	397m	317m	305m
Market Share	34.82%	27.76%	26.75%
Average Revenue Per User (ARPU)	INR 140	INR 157	INR 114
Net monthly subscriber addition*	36 lakh	-47 lakh	-47 lakh

(TRAI Subscription Report, May 2020)

Reliance Jio

The Q1 FY21 numbers for Jio exceeded analyst expectations. Despite market movement towards consolidation of sim cards and the pandemic leading to constraints such as unavailability of physical recharge options, Jio managed to increase its subscriber base by nearly 3 percent.

Another important positive was the 7 per cent rise in ARPU which was expected to dip marginally. The increase in ARPU can be attributed to the tariff hikes undertaken in December quarter and increasing user convenience by enabling convenient recharge alternatives.

Bharti Airtel

Airtel's performance for Q1 FY21 also exceeded expectations. Airtel registered a 2% rise in ARPU over the previous quarter, however the lockdown did lead to a net fall in subscribers by 38 lakhs. This trend was however found reversing by the end of June.

With its strong performance on the ARPU front for the past seven quarters to become the industry leader in the metric, Airtel has emerged as a strong competitor to Jio. As price wars end, and the industry expectations shifts to superior quality of service, Airtel is positioned well to capitalize on the opportunity.

Vodafone Idea

Vodafone Idea made its provisioning (Rs. 19,440 Crs) for AGR liability in the quarter, leading to a pre-tax loss of Rs. 25,640 Crs. Its revenues registered a sequential fall of 9.3%, primarily due to the lockdown. Its ARPU also fell to Rs. 114 against Rs. 121 in the previous quarter.

Vi's plea before the Supreme Court to reassess its AGR dues was rejected, even as the company had indicated its ability to continue as a going concern. Its AGR liability stands at Rs. 58,254 Crs.

Major Developments

RIL Asset Monetization

Jio Platforms has raised a total of Rs. 1,52,056 crores by selling 32.94 percent stake to leading global investors including Google, Facebook, Silver Lake, Vista Equity Partners, General Atlantic, KKR, Mubadala, ADIA, TPG and L Catterton, between Apr-July 2020.

The stake sale is part of Reliance Industry Ltd.'s goal of becoming a zero-debt company. By July, Reliance Industries had cumulatively raised a total of Rs. 2,12,809 crores, which is in excess of its net debt of Rs. 1,61,035 crores at the end of the financial year.

10 years to pay AGR Dues

The Supreme Court in its latest judgement pertaining to the AGR (Sept '20) allowed telecom companies, including Bharti Airtel and Vodafone Idea, to repay about Rs 1.43 lakh crore in combined dues they owe the government over 10 years. The breather is short of the 15-20 years sought by the telcos, and which the court said

was unreasonable, but came as a shot in the arm to the companies that missed a January deadline to repay their dues.

According to the court ruling, 10% of the total dues have to be paid before March 31, 2021, following which payments have to be made in yearly instalments starting from April 1, 2021 up to March 31, 2031.

The AGR verdict is quite positive for Bharti Airtel as its total dues are ~Rs.44,000 crs out of which it has already paid ~Rs.18,000 cr. Hence, Bharti has already paid more than the 10% of upfront requirement. Moreover, it has provided for ~Rs.47,000 cr in its books, hence there should no negative impact on P&L going forward

For Vodafone Idea however, the window to raise funds, have better models and meet payback commitments is very small. It was looking forward for a 20 year payment cycle and has paid only ~Rs.7,900 cr out of the total ~Rs.58,000 cr due. Considering the high annual interest, depreciation and amortization cost the annual AGR dues could put further strain on the cash flows of the company. Substantial tariff increases across the industry is one way for VI to survive the crisis.

Postpaid battle-Jio's new tariff plans

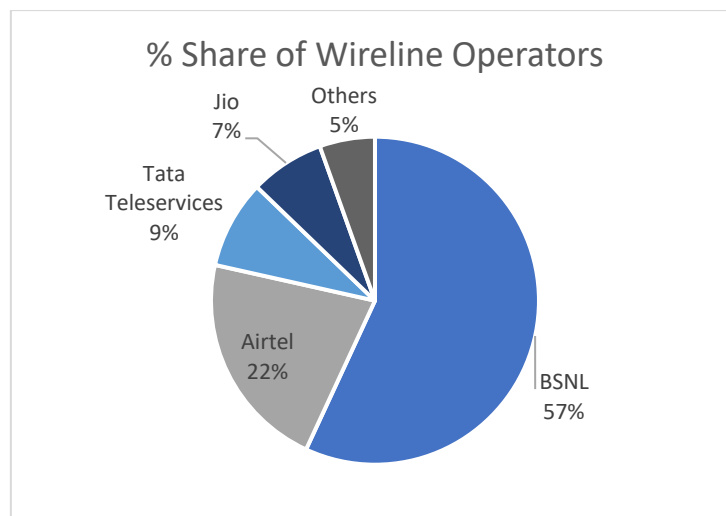
Reliance Jio announced its new postpaid plans in September, eyeing the postpaid subscriber base of Airtel and Vi. The plans, while at similar tariff levels of incumbents (except for base tariff that is 20% cheaper than Bharti Airtel Ltd.'s offering), include the benefits of three major over the top (Netflix basic, Amazon Prime and Hotstar VIP) subscription as the key attraction.

Jio's existing postpaid subscribers are only 1% of its total user base as compared to 7% and 5% of Vi and Airtel users. Postpaid users, while low in volume have a much higher ticket size and generate three times higher average revenue per user, compared to prepaid. From an industry perspective, this also signals the larger move

towards capturing higher ARPU.

Wireline Operators

The wireline segment is dominated by BSNL where it has more than 56% share of the market, with over 11.25 million subscribers. The next big player in the market is Airtel which has a 21% market share and a subscriber base of 4.27 million



(As of June 30th, 2020-TRAI Press Release)

Key Developments- Equipment Manufacturing & Tower Service Providers

Rising internet penetration and increase in the number of subscribers have necessitated network expansion to improve reach, thus creating need for investment in infrastructure.

The trend towards increasing focus on core operations has also led to telecom companies creating separate companies handling infrastructure. This not only helps them lower operating costs, but also opens up additional source of revenue.

Bharti Infratel- Indus Towers merger

On September 1, Bharti Infratel board approved the merger with Indus towers. The merged entity will be called Indus Towers. Post-merger, Vodafone will own 28.2% stake, while Bharti Airtel will own 68.6% stake.

The merger has helped Vi divest 11.15% stake for Rs. 4000 Crs. The proceeds will help Vi partly pay their dues towards AGR.

The new entity is going to be the world's largest mobile tower operator outside China.

The 5G Question

The 5G network, the latest generation of wireless technology, is the next big step in the telecom revolution. Chinese telecom giant Huawei is dominating the market and has become the leading supplier and manufacturer of this new technology. However, its close ties with the Beijing government, opaque ownership structure and past allegations of legal violations, has raised concerns that its equipment could be used for espionage and surveillance.

The United States has taken a number of measures to ban Huawei and has been persuading its allies to follow suit. Beijing has criticized other countries for blocking Chinese telecom companies—terming it is a deliberate attempt to politicize a technology issue—and has hinted towards the use of 'reverse economic sanctions' if Chinese companies are banned. Against this backdrop, India's decision on a supplier for 5G technology, equipment, and software is a crucial one.

Cybersecurity risks and surveillance concerns are a major area of concern, since the Indian government is yet to formulate a robust legal and institutional mechanism for protecting privacy and data. India, based on its strategic interests will need to decide with which camp to align. The final aspect of economic considerations relates to the

cost of the equipment, which is an important factor for developing countries since they have limited finances to spend on expensive 5G equipment.

In India, 5G not only holds the potential to bring about large-scale social transformation, but also can be a key enabler for the government's flagship schemes in infrastructure, development and e-governance. Key ministries and departments in the Indian government have worked on policy documents, reports and papers to help build a concrete roadmap to deploy 5G in India. The government has also deliberated upon the question of allowing Chinese vendors to participate in 5G trials. India's Telecom Minister Ravi Shankar Prasad had announced in late December 2019 that all applicants, including Huawei, would be allowed.

However, the final decision on allowing Huawei to build India's 5G networks has not been made. The government's position on Huawei has changed from initial divergence—within government ministries and agencies—to pronounced caution. The Galwan Valley clash in June 2020 has resulted in a deterioration of ties between the two countries. The Indian government's changed position is reflected in how it is viewing the issue with a security lens now: a new committee under the ministry of home affairs will examine the question now.

Indian telecom service providers and industry associations representing telecom companies also have an important role to play in this decision. The opinion of India's largest mobile operators (Reliance Jio, Bharti Airtel and Vodafone Idea) has the power to significantly influence the government's decision on any future 5G policy.

Pre-existing partnerships and economic rationales—such as low costs and better technology—will be crucial factors for Indian mobile operators when it comes to choosing a 5G supplier given they are already under massive financial stress and due to lack of revenues. This may severely incapacitate them from investing in new technology. Before the industry decides, however, it wants the government to take a definitive stand on the 5G question so that they can “future-proof” decisions.

Valuation Metrics

EBITDA is useful as an evaluation metric due to the nature of the telecom sector. The sector is, overall, characterized by being high-growth and capital intensive, with high fixed costs and relatively high levels of debt financing. Many companies have a large base of fixed assets, leading to correspondingly high levels of depreciation expenses. One advantage of using EBITDA for evaluations is by excluding the impact of accounting and financing decisions related to capital expenditures, it allows for more accurate comparisons between similar firms, especially if one firm is in the midst of extensive capital projects while the other is not.

Practically, using EBITDA is helpful because it is also used in other valuation measures commonly applied to telecommunications companies, including EV/EBITDA and debt/EBITDA.

Discounted cash flows can be used for valuation, after considering the following factors:

1. The industry is highly regulated and forecasting future cash flows accurately, becomes a challenge
2. Most of the investments in the sector are funded through debt. Hence, the capitalization rate is close to cost of debt.
3. Major costs like spectrum pricing are largely fixed.

Trends & Opportunities

Untapped Rural Markets: The rural tele-density in April 2020 reached 58.03%, growing consistently from 43.05% in March 2016 which indicates a huge untapped opportunity in the rural markets.

Increasing mobile subscribers: The mobile subscriber base is expected to reach 1.42 billion by 2024 with 80% users having 4G connectivity.

Emergence of BWA technologies: BWA technologies, such as WiMAX and LTE is among the most significant recent developments in wireless communication. Bharti Airtel VoLTE and Reliance Jio 4G are live across all the 22 telecom circles since 2019. India is expected to be the second largest market in 5G services followed by China in the next 10 years.

Internet of Things: IoT is the concept of electronically interconnected and integrated machines, which can help in gathering and sharing data. The Indian Government is planning to develop 100 smart city projects where IoT will play a vital role in development of those cities. Reliance Jio has partnered with Samsung Electronics to set up a nationwide IoT network.

Future Outlook: In May 2020, India had about 504 million active internet users, registering a 24% growth over 2019. This number is expected to touch 639 million by the end of December. An addition of 500 mn new internet users is expected over the next 5 years, representing huge opportunity for players.