



# Bharti Infratel Ltd.

By Dhruva Pandey.

<https://dhruvapandey.wordpress.com/2018/12/23/my-assessment-on-bharti-infratel/>



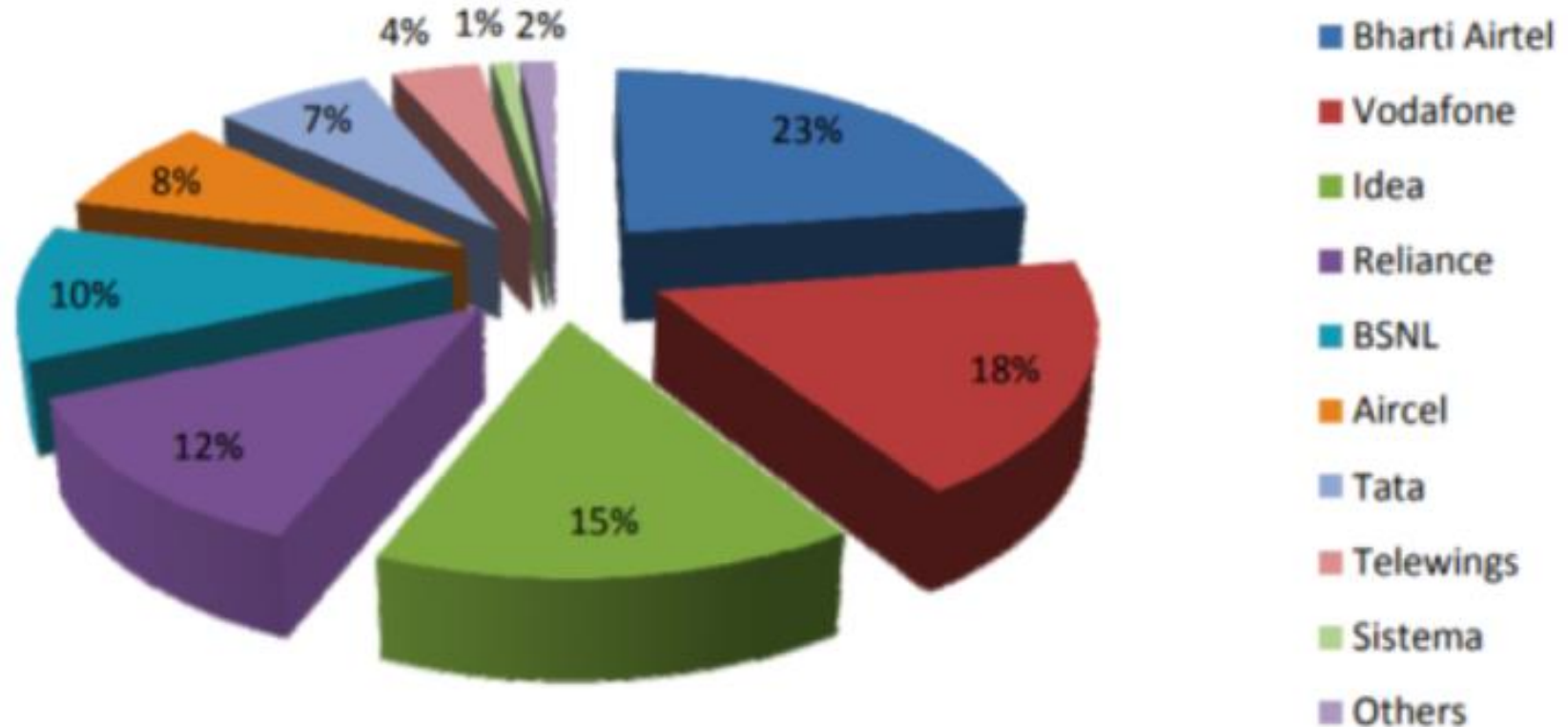
# Agenda



- Why this business ?
- Why tower companies are needed ?
- What they do ?
- Outlook near term Vs Long term ?
- What are the value drivers ?
- What's the current industry dynamics ?

How MarketShare used to look couple of years ago, when “Jio” was still an “ Idea “ on Ambani’s table.

### Wireless market share in terms of total subscribers in India

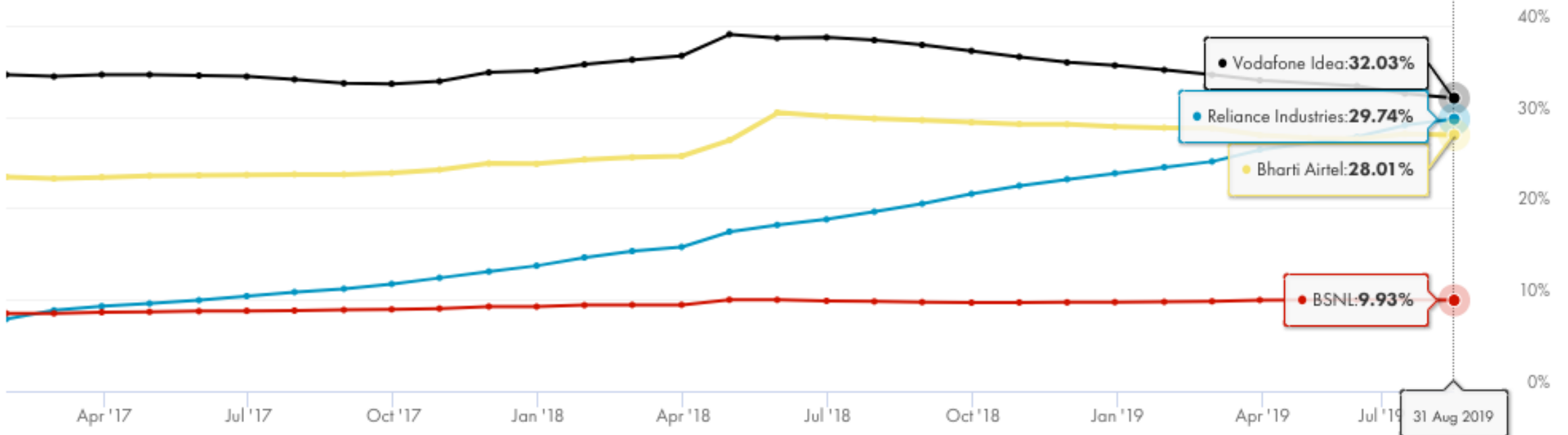


# MARKET SHARE TODAY

## Mobile Subscribers - Market Share (%)

● Vodafone Idea ✕ ● Reliance Industries ✕ ● Bharti Airtel ✕ ● BSNL ✕ ○ Aircel ○ Tata Communications ○ MTNL + Add a Comparison

Globally telecom service providers markets are oligopoly markets because economy of scale give you a huge advantage over others.



# ARPU - 2017

## Comparison of Rates

| Country | Average revenue per user |
|---------|--------------------------|
| India   | \$2.5                    |
| China   | \$8.36                   |
| USA     | \$38.09                  |
| Canada  | \$49.84                  |

- The current **hyper competition** has left India's telecom service providers unable to raise tariffs.

# ARPU - 2019

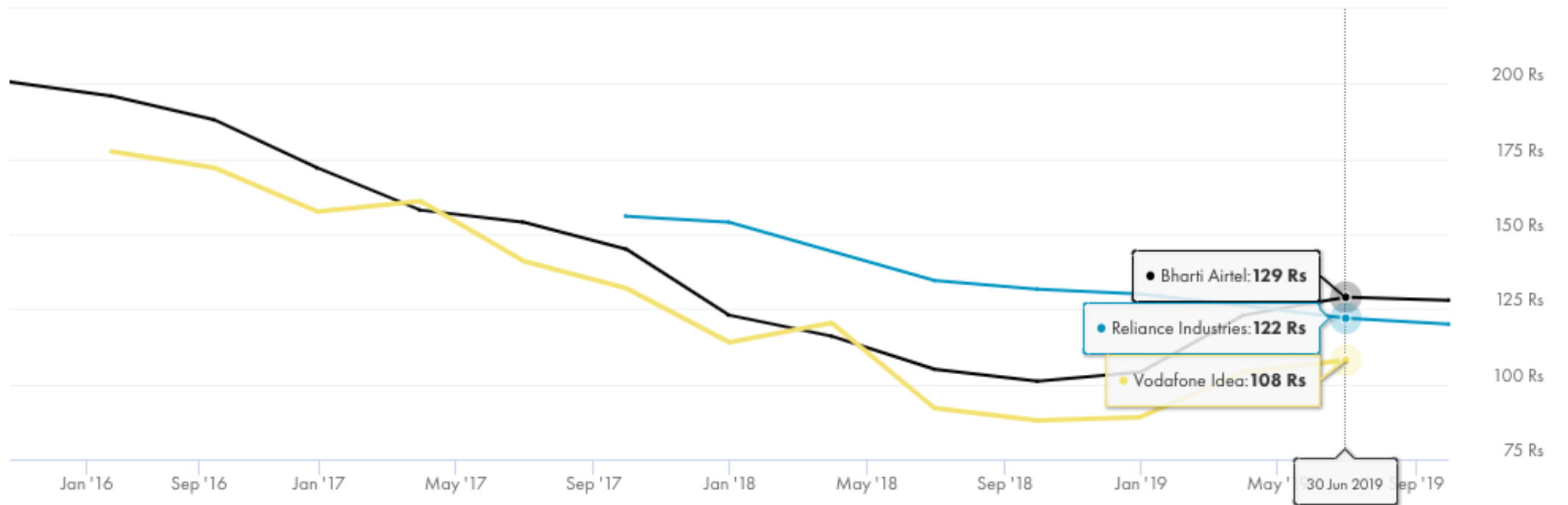
## OPERATIONAL METRICS

Sector

Company

### Average Revenue Per User (ARPU) (Rs)

● Bharti Airtel ✕ ● Reliance Industries ✕ ● Vodafone Idea ✕ + Add a Comparison





# Maintaining balance

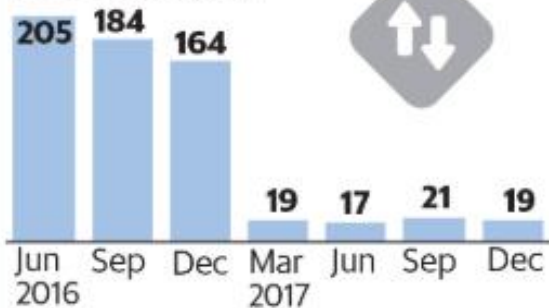
The government's ambition for a digitally connected India will require at least three healthy telcos to make investments in infrastructure.

Cost of voice and data has come down for users.

## Average price of voice call per minute (in ₹)



## Average price of 1 GB data (in ₹)



Source: Lok Sabha questions

## Goals\* of the National Digital Communications Policy 2018:

### 4 million

The number of additional jobs to be created in the digital communications sector.

### 8%

The targeted contribution of the digital communications sector to India's GDP.

### 50Mbps

Broadband connectivity speed to be provided to every citizen.

### 10Gbps

The speed of internet connectivity to all gram panchayats in India.

### 100Mbps

The speed of internet broadband on demand to all key development institutions.

### 50%

The percentage of fixed-line broadband connections for households.

### 10 million

The number of public Wi-Fi hotspots to be deployed across India.

\*To be achieved by 2022

# ARE THE TELCOS VALUE BUY?

It's just too hard to figure out, Mainly the reasons are –

- What JIO will do ?
- What Gov of India will do ?
- What TRAI will do ?
- Balance Sheets are too stressed ( look at Idea Voda, will they survive? or another Suzlon?)
- The revenue share model for Spectrums – too complex to understand for me.
- More importantly – will they ever earn respectable ROE ?

But the tower businesses in this sector are wonderful businesses to own.



Tower companies in U.S have outperformed significantly the Telecom service providers in last 20 years.

AT&T has given -18% since 1998

AT&T Inc.  
NYSE: T

+ Follow

30.57 USD 0.00 (0.00%)

29 Nov, 4:01 pm GMT-5 · Disclaimer

1 day 5 days 1 month 6 months YTD 1 year 5 years **Max**



T-Mobile has given just 3x in 20 years –

T-Mobile Us Inc  
NASDAQ: TMUS

+ Follow

**68.68** USD 0.00 (0.00%)

29 Nov, 4:00 pm GMT-5 · Disclaimer

1 day

5 days

1 month

6 months

YTD

1 year

5 years

**Max**



Verizon has given just 2.6x in 20 years.

Verizon Communications Inc.  
NYSE: VZ

[+ Follow](#)

**59.45** USD 0.00 (0.00%)

29 Nov, 4:03 pm GMT-5 · Disclaimer

1 day   5 days   1 month   6 months   YTD   1 year   5 years   **Max**



ATC has given 8x in 20 years.

American Tower Corp  
NYSE: AMT

+ Follow

162.72 USD 0.00 (0.00%)

29 Nov, 4:00 pm GMT-5 · Disclaimer

1 day

5 days

1 month

6 months

YTD

1 year

5 years

Max



# CROWN CASTLE IN/SH SH

NYSE: CCI

[+ Follow](#)

**113.00** USD 0.00 (0.00%)

29 Nov, 4:01 pm GMT-5 · Disclaimer

1 day

5 days

1 month

6 months

YTD

1 year

5 years

**Max**



This company has given 17x

SBA Communications Corporation  
NASDAQ: SBAC

+ Follow

168.55 USD +0.19 (0.11%) ↑

29 Nov, 4:00 pm GMT-5 · Disclaimer

1 day

5 days

1 month

6 months

YTD

1 year

5 years

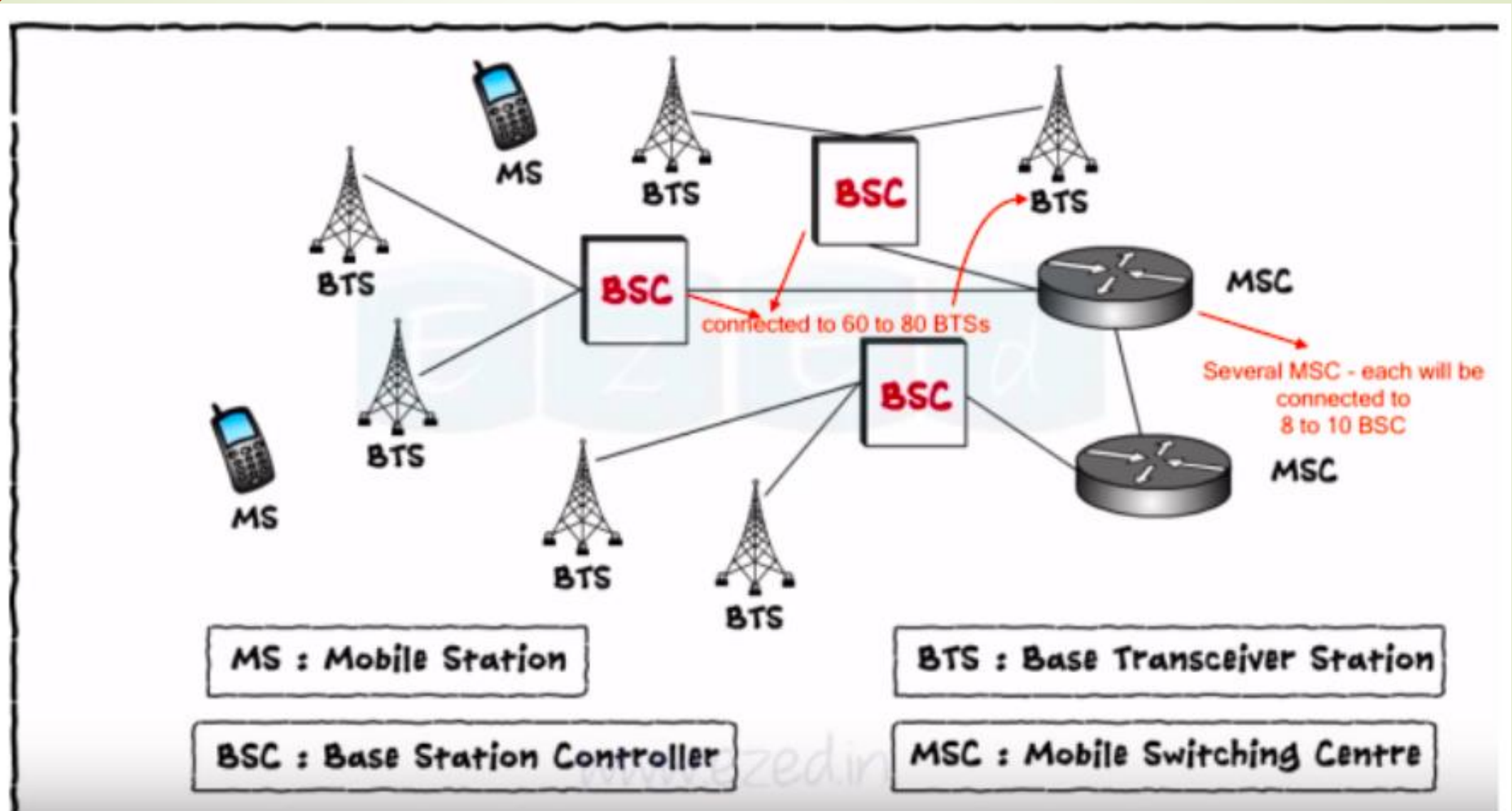
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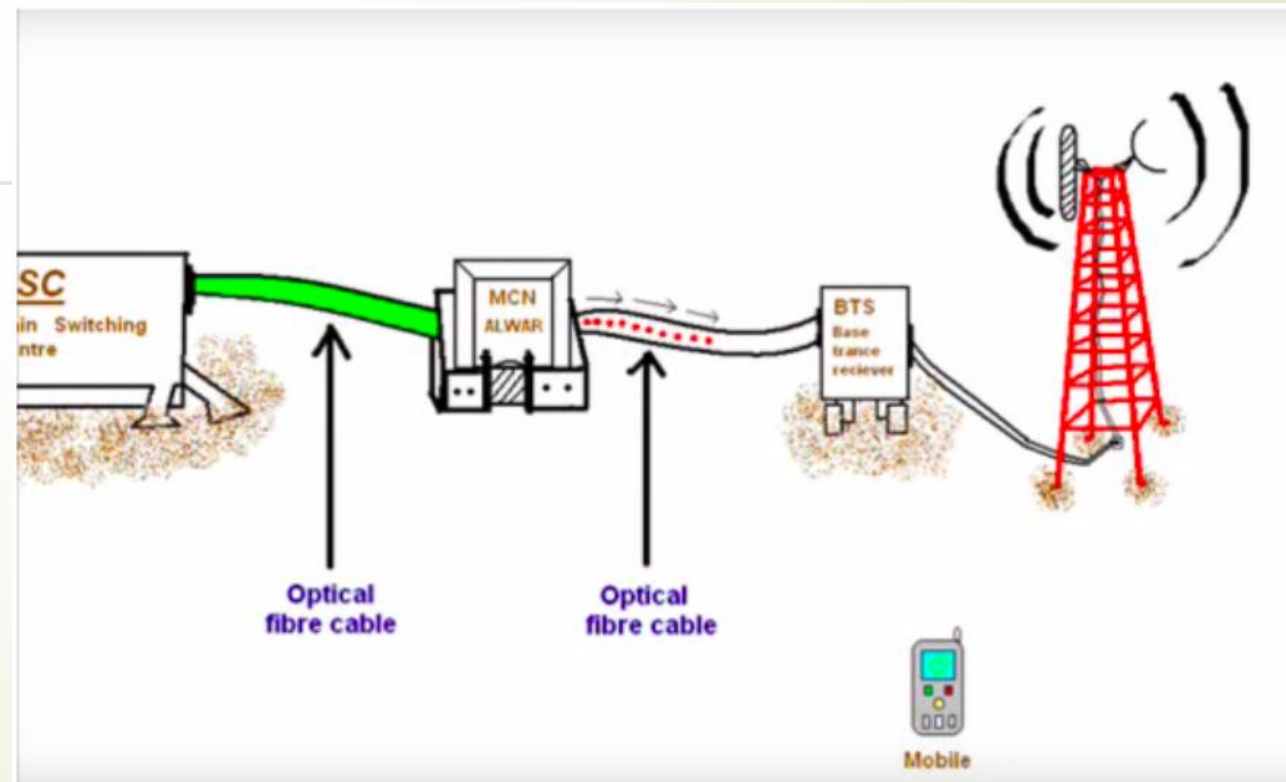
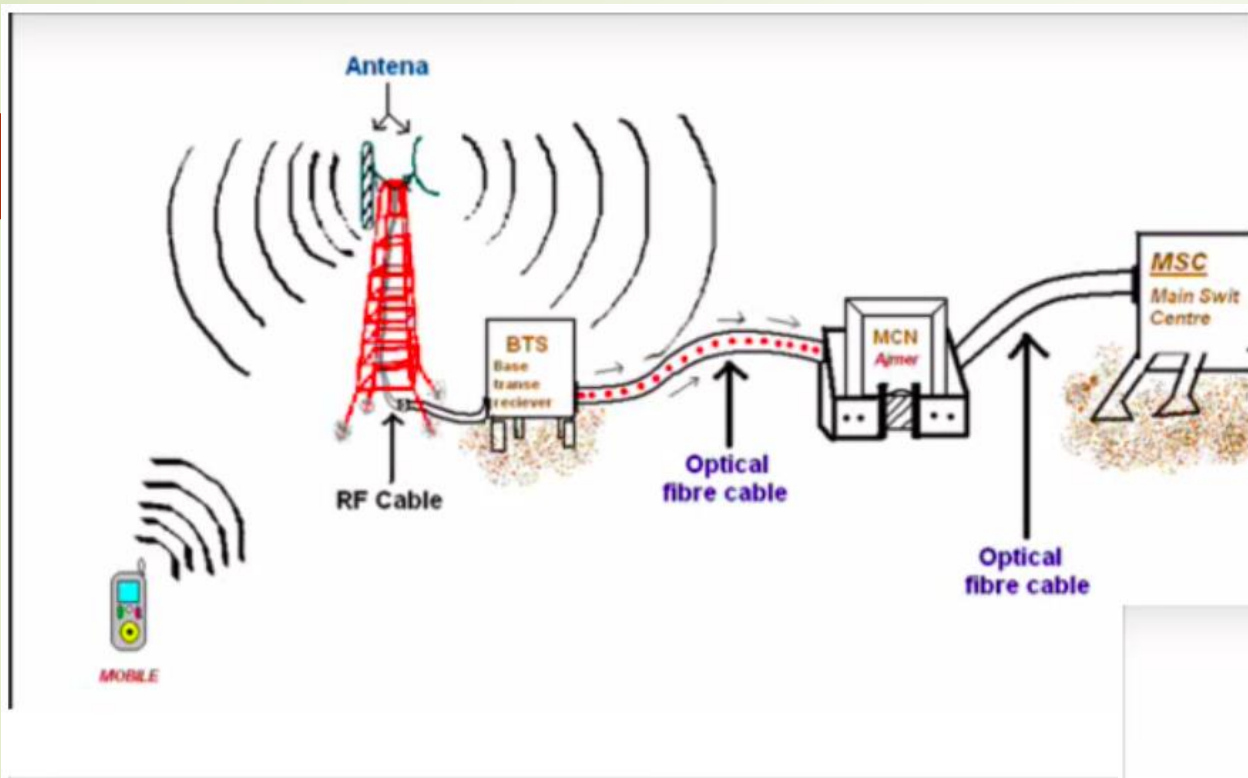


If you add up the dividends which might be in range of 3-5% , these tower companies have given wonderful returns to the shareholders.



# WHY TOWER COMPANIES ARE NEEDED ?

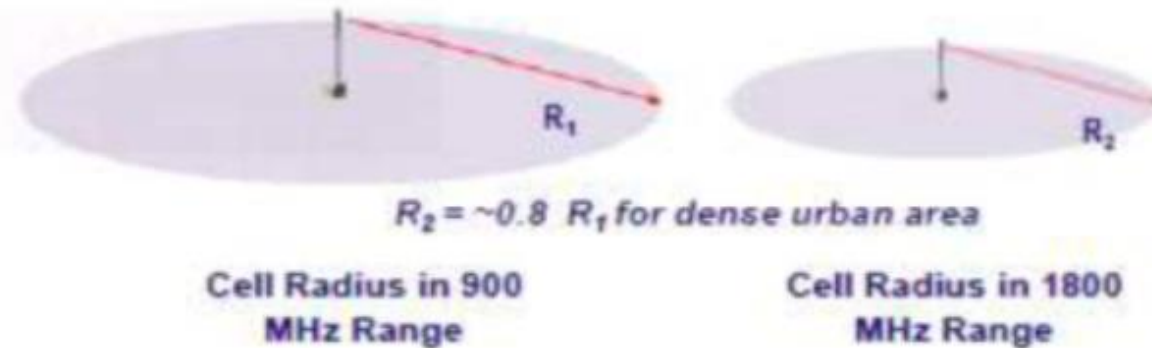




# Why we need BTS ( in simple terms Towers ) ?

- All the waves can carry information effectively upto some distance, Larger the wavelength ( smaller the frequency ) longer it will be able transmit messages.
- the reason why spectrum with lower frequency band 900 MHz sells at much higher cost in comparison to let's say 3500 Mhz as shown below.

*Indicative cell radius for 900 MHz and 1800 MHz spectrum*



|   | Dense urban | Urban | Rural |
|---|-------------|-------|-------|
| Variation in radius according to topology | 1x          | ~2-3x | 8-10x |

*(Source: Analysys Mason.)*

**To be able to communicate outside these circle you will require towers (BTS)** that's where the tower companies come into play.

# We will need more towers going forward –

- higher the auction of high frequency band more the **number of towers will be needed** “ 5G will require lot more BTS than have today, will be another growth driver for tower companies.
- And our Gov price (700 - 900Mhz) so high that no one bids for them – “ Good for tower companies “

## Spectrum auction ends, govt makes Rs65,789 crore, misses target

Proceeds from spectrum auction a fraction of the Rs5.63 trillion of airwaves on offer; no bids were received for 700 MHz, 900 Mhz bands → because they were priced too high

Airtel also said that the pricing of the 700MHz band spectrum needs to be addressed on a priority basis for the country to reap the digital dividend arising of this high-quality spectrum band. “It made no economic case for them (telcos) based on the high reserve prices,” the company said.

Lower frequencies are better at passing through walls and travelling longer distances than higher frequencies, allowing carriers to set up fewer cell towers and save on costs. They're also usually more expensive to get.

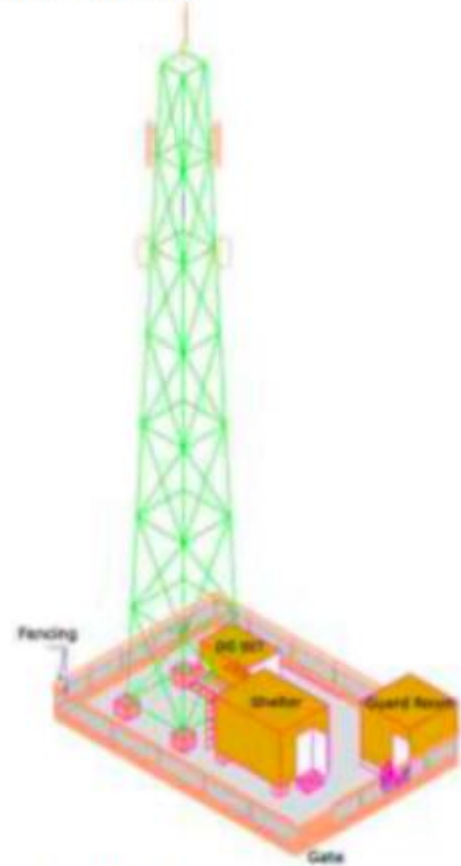


# There are generally two types of towers

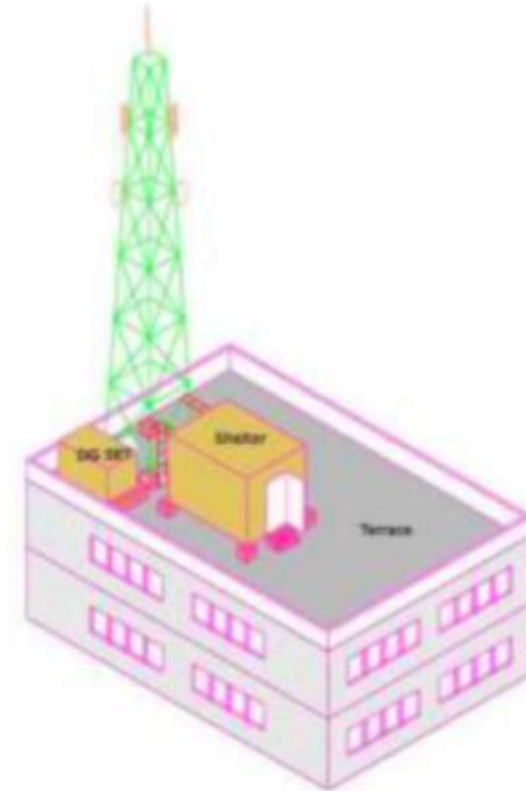
- Ground Based Towers (“GBTs”)
  - Roof Top Towers (“RTTs”).
- The process of setting up a tower typically takes 45 to 90 days; however, the duration can vary significantly from case-to-case. Once the construction steps are completed and a site is ready to be handed over to an operator, a site is said to be “ready for installation” or “RFI”, which means wireless service providers can install their active components and make the network operational.

RTTs are erected on top of high-rise buildings and their height is typically 14 metres to 20 metres. The capacity of a shared RTT is typically 2 to 3 tenants, which can be increased to accommodate more tenants through adjustments and incurring additional capital expenditure. (Source: CRISIL.)

Structure of a GBT



Structure of a RTT



(Source: CRISIL.)

# what tower companies like Bharti Infratel do?

Passive infrastructure essentially consists of tower sites and complements the active network infrastructure, while it does not play any role in carrying wireless signals, it is a vital part of any wireless network as it is critical to ensure the active components are operational. It accounts for about 70% of the capital costs for setting up a wireless network in India. Tower infrastructure includes components such as:

- Tower site, which is typically around 4,000 square feet of land for a GBT or on top of a high-rise/building in the case of a RTT;
- Steel tower on which active components such as antennae are mounted;
- Shelter room to house the equipment;
- Power regulation equipment;
- Battery bank;
- DG set;
- Air conditioner;
- Fire extinguisher; and
- Security cabin.





# What is the business model ?

There are two types of business model –

1. Turnkey service providers TSPs – ( all are in verge of bankruptcy GTL infra, HFCL etc )

2. Tower companies.

# TSPs Vs Tower Companies.

- TSPs build the site and **hand it over to the operators** and **provides the operation and maintenance services**, whereas the tower companies builds the site for operators and the assets belong to the tower companies in return they receive the monthly rentals from the operators stationing BTSs on their sites.

## *Turnkey service providers*

Turnkey service providers (“TSPs”) such as GTL Limited, Nu Tek, HFCL and Spanco offer tower infrastructure solutions on a turnkey basis to operators. This business model differs from that of tower companies, **as TSPs build the site for, and subsequently hand it over to, the operator.** Thereafter, they provide operations and maintenance services to the operator depending upon the terms of the contract. In contrast, **tower companies typically build sites for operators and the asset is recorded in their books; in return, they receive monthly rentals from the operators for stationing BTSs on their sites.** (Source: CRISIL.)

# The business model is pretty simple –

- ▶ The telecom service provider (TSV) approach them saying “  
-Hey "we need to put a BTS in this circle “
- ▶ Tower company – Sure, give us 45-90 days to –
  - a) Find the suitable location within this circle – includes negotiating deal with land / building owner (mostly rental.)
  - b) To get the necessary approvals from Government bodies.
  - c) Then installing the passive infrastructure like tower , generator etc.
- Once its up the telecom service providers install their cells on it and in return Tower companies receive fixed monthly rental from them as per master service agreement (MSA).
- This same **passive infrastructure (Tower etc) can be used by other operators to deploy their cells**, This kind of sharing creates win win condition for everyone.

# Where is the moat ?

- ▶ Suppose Airtel decides to put up a tower and gives the contract to an tower company. Now suppose later on Jio also wants to put up its cells in that locality then it makes sense for Jio to share the passive infrastructure with Airtel as this will bring the cost down everyone. So, now if Jio joins in the net cost for each will be 75K i.e, total rental for tower company 1.5 lacs per month vs 1 lac with only Anchor tenant.( for 4G incremental cells telcos got 70% discount)
- ▶ This kind of sharing creates win win for all in the ecosystem and this acts as beautiful network effect type MOAT for the tower companies.
- ▶ How network effect works – **once they have one tenant they most likely to get 2nd and it makes more sense for 3rd one to join in.**
- ▶ As the number of sharing operators on a tower increases, it results in better economics for tower companies as they are able to generate incremental revenue while incurring insignificant incremental capital expenditure.

# Tenancy Ratio -

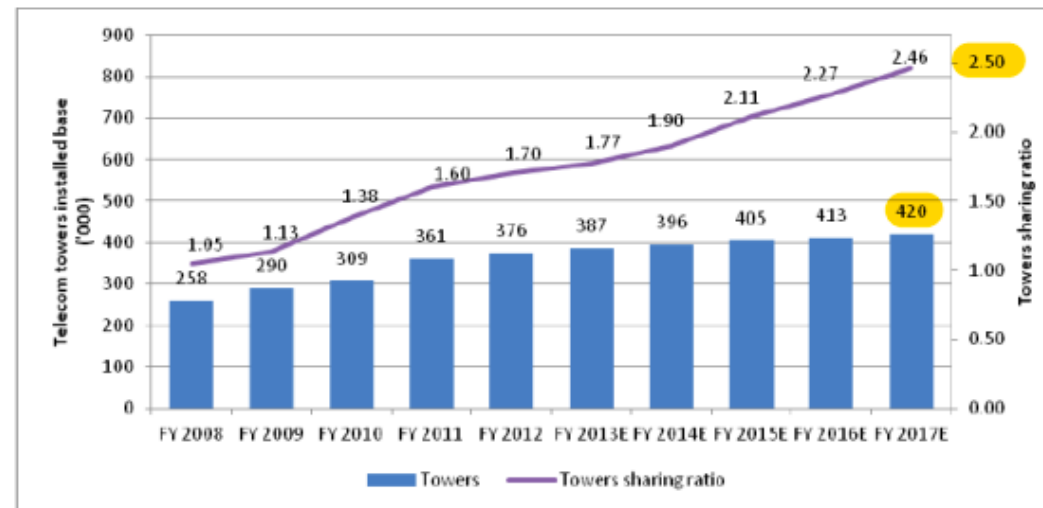
- ▶ Number of telecom operators per tower is called tenancy ratio, As we have seen massive consolidation to only 3 operators, the optimum tenancy ratio should be around 2 to 3 (3 is the max).
- ▶ Before 2008 the tower sharing was not allowed by regulation, Post 2008 we have seen the constant increase in the tenancy ratio, which even in bad environment helped tower companies to grow.

## Trend in number of towers (historical) for 2G and 3G

It is estimated that 2G base stations are currently installed on 376,000 towers. (Source: Analysys Mason.)

The current coverage of 3G remains focused on select cities, but operators are expected to roll out 3G networks in tier II and tier III cities in the next two years, and Analysys Mason expects that 3G coverage will reach villages with a population of greater than 5,000 after a few years, amounting to about 19,000 villages in total.

## Telecom towers installed base and tenancy in India, financial year 2008 – financial year 2017





# Even the down side is limited –

- What happens when Telecom Operator want to exit early or dishonour the master service agreement ?
- Not only they have to pay exit penalty but the rental for other two tenants go up. So, they don't see much of EBITA loss, As discussed in below conf call –

## Sachin Salgaonkar - Bank of America - Mumbai

Thank you for the opportunity. I have two questions. First question is on some of the comments what Akhil made which is this quarter we saw the impact from last of the small operators. So Akhil does that mean the impact from Tata is behind us or we may see some impact as and how Bharti and Tata close their merger, so that is question one. Question two and clearly it is perhaps a good thing to see that while co-locations declined the impact on EBITDA is not there, but I also remember the math which you guys had shared before which is two times tenancy is roughly 65% margin, three times tenancy 75% margin, basically when the tenancy falls there is an impact in margin and my question is more on the lines of Idea-Vodafone cancellation impact. I remember in the last call you guys mentioned it is a 20000-25000 cancellation tenancy impact. Is that fair to assume on that number roughly a 4 to 5 percentage point impact on EBITDA margin could be seen. Thanks.

## Devender Singh Rawat - Managing Director and CEO - Bharti Infratel Limited

This is D.S. Rawat this side. First one from a number reporting standpoint, the Tata impact has been taken completely on the numbers; however, Akhil did mention that there are still some revenue paying co-locations which are in service. So numbers that we report on co-locations are basis notices received and all the Tata numbers have been included as noticed received. However, their termination dates have not come in yet, we continue to recognize revenue that is getting paid against these as rentals. So the number that Akhil mentioned in the call was closed to about 6000, those are the numbers for which the revenues are still coming in. Your question on Voda-Idea merger and the model itself, yes the model is that the higher we move up on tenancy ratios, EBITDA tends to improve and the reverse is also true, but we did mention that there are three corrections on the reverse step that we get as an advantage. First one of course being that you expect if two entities merge, a larger amount of electronic equipment deployed which is loading. Number two, when the third operator moves out on the site, the incumbents the one and two, their rentals moves

## Bharti Infratel Limited First Quarter Ended June 30, 2018 Earnings Conference Call

up like the way it slides when the third tenant comes in, the reverse happens there too. So those are some of the adjustments that happen to compensate for the revenue loss that happens. So there will be an EBITDA impact, but is that in line with exactly the number of tenancies in terms of percentage, that might not be entirely true. On exact number on EBITDA impact till we do not have exact site-wise details for an operator it is not possible to comment on that and secondly these as we have seen in the past have staggered over a fairly larger time and particularly Voda-Idea merger which is the merger of two large entities, one needs to create capacities before you can start to free-up electronic equipment and redeploy. We are yet to see exact deployment plan from our customers and once we have that hopefully we will be able to get more clarity. The numbers that you said were the numbers that have been given on a consolidated basis 20000 to 25000 on a consol level.



# Overall summary on Business Model –

## **Business Model for Tower Companies**

### *Key characteristics (Source: CRISIL.)*

The business model of the tower industry is characterised by the following factors:

#### *High capital outlay*

Given the high capital investments required in the business, tower companies generally require high debt funding.

#### *Annuity driven business*

As a tower gets a tenant, it usually generates stable cash flow in the form of tower rentals from occupants over the term of the MSA between the two parties. Hence, there is a fair amount of certainty in the cash flow forecasts of a tower asset.

#### *High incremental profitability*

Operating expenditure of a tower such as site rentals, security and maintenance are largely fixed. Thus, each increment in tenancy is accompanied by a minimal increase in costs. This leads to a more than proportionate increase in profits with an increase in tenancy.

#### *Low churn*

Towers are an integral part of the wireless service provider networks and shifting to another tower leasing company is quite inconvenient. The complexity in adjusting to a competitor's tower sites further lowers the churn rate, in addition, most contracts between service providers and tower companies are long-term in nature thereby increasing

the switching costs.

#### *Low risk of technology obsolescence*

Tower companies provide tower infrastructure that tends to be technology agnostic. Wireless service providers own their active equipment and therefore bear the technology risk. Thus, tower companies face low risk due to technology obsolescence.

# Cost Structure -

## Capex

The tower business is highly capital intensive, requiring significant capital expenditure outlay for the building of towers.

The capital required to set up a tower depends upon the type of tower being constructed as well as its height. GBTs would involve capital expenditure of approximately ₹ 3.0 million, while RTTs typically require lower capital expenditure. (Source: CRISIL.)

The main capital expenditure heads are:

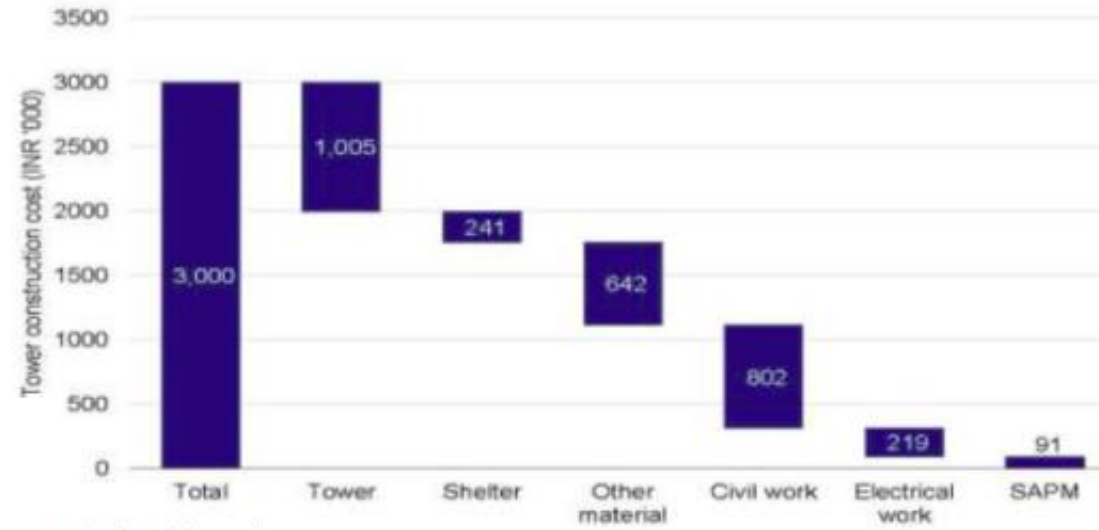
- Construction and tower cost, which is typically around half of the capital cost for a GBT and around 20% for a RTT;
- Cost of related equipment such as shelters, air conditioners, diesel generators, batteries, and electrical works such as power interface units (“PIUs”), switched mode power supply and cabling charges; and
- Other pre-operative expenditure such as expenses for local approvals, municipal deposits and civil works for gates and fences.

## Opex

The main components of operating expenditure in the tower business are:

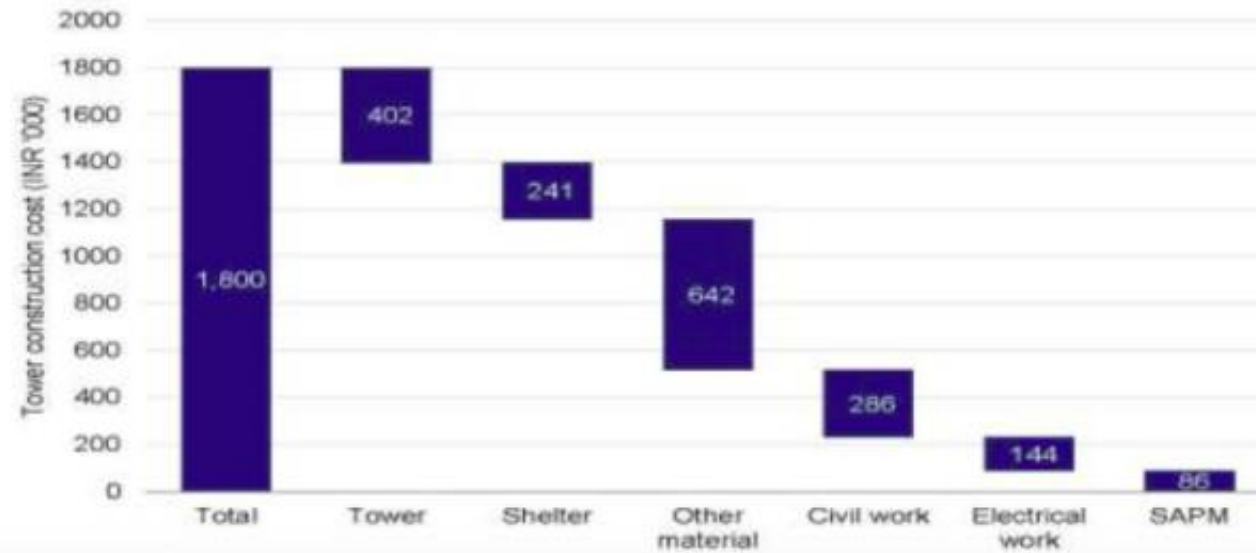
- Network operating cost:
  - Repairs and maintenance such as preventive, corrective, and breakdown maintenance required to keep a tower operational;
  - Site rentals; and
  - Security, insurance and other miscellaneous expenditure;
- Power consumption at the tower site, including the cost of diesel required to operate DG sets during power breakdowns – these costs are generally pass-through in nature and fully reimbursed by operator tenants, although some operators are now adopting a fixed energy model where tenants pay a fixed energy charge per month, calculated on the basis of the number of tenants on the tower and the operator’s equipment installed at the tower;
- Employee costs; and
- Selling, general and administration expenses.

### Construction cost of ground based towers in urban areas



(Source: Analysys Mason.)

### Construction cost of roof top towers in urban areas



(Source: Analysys Mason.)



# Overall tower business has following strength –

- ▶ **MOAT – Network Effect** - works in favour of business.
- ▶ Operating leverage comes into play - The cost of running a tower is majorly fixed thus each increase in tenancy leads to a high return on capital deployed.
- ▶ The raise in rentals 3-4% every year as per MSA (Master service agreement.)
- ▶ As Indus/Bharti infratel owned by Airtel / Voda-idea – They don't have to worry about customer acquisition.
- ▶ Some level of regulatory entry barrier.
- ▶ Long term contract (10-15 years) provides good revenue visibility.
- ▶ **Moat – Switching cost** – The cost to the customer of moving equipment from one tower to another is likely to discourage relocation.

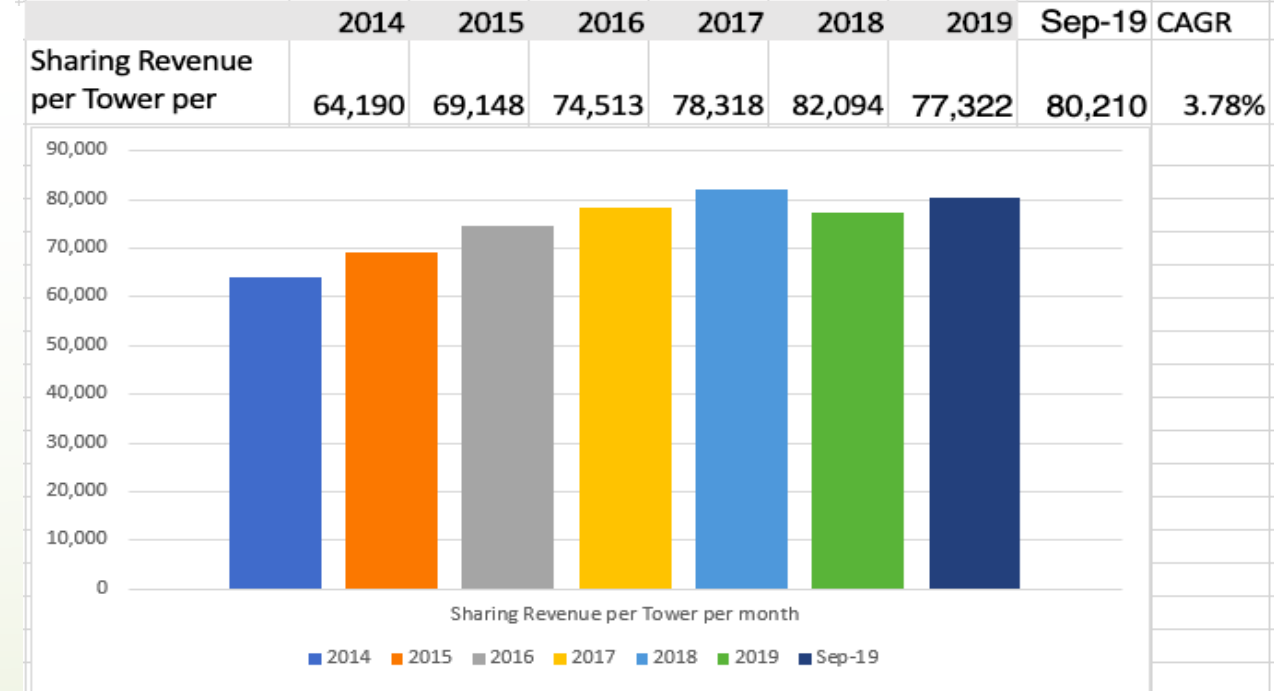
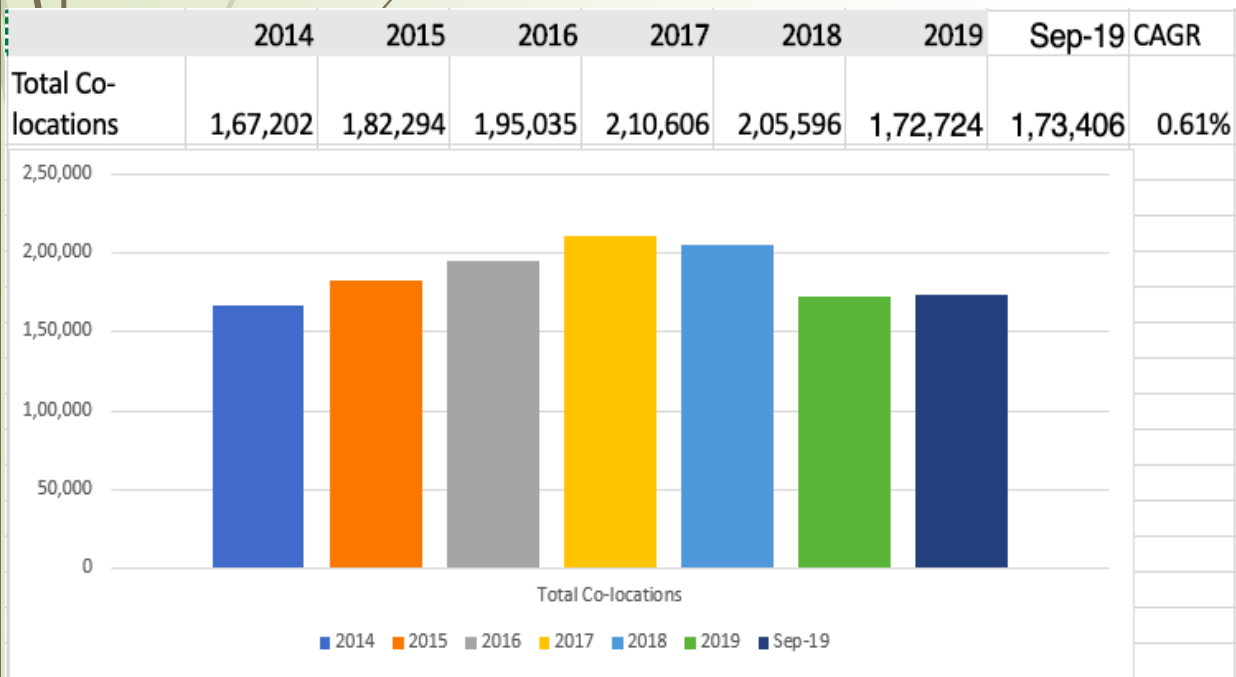
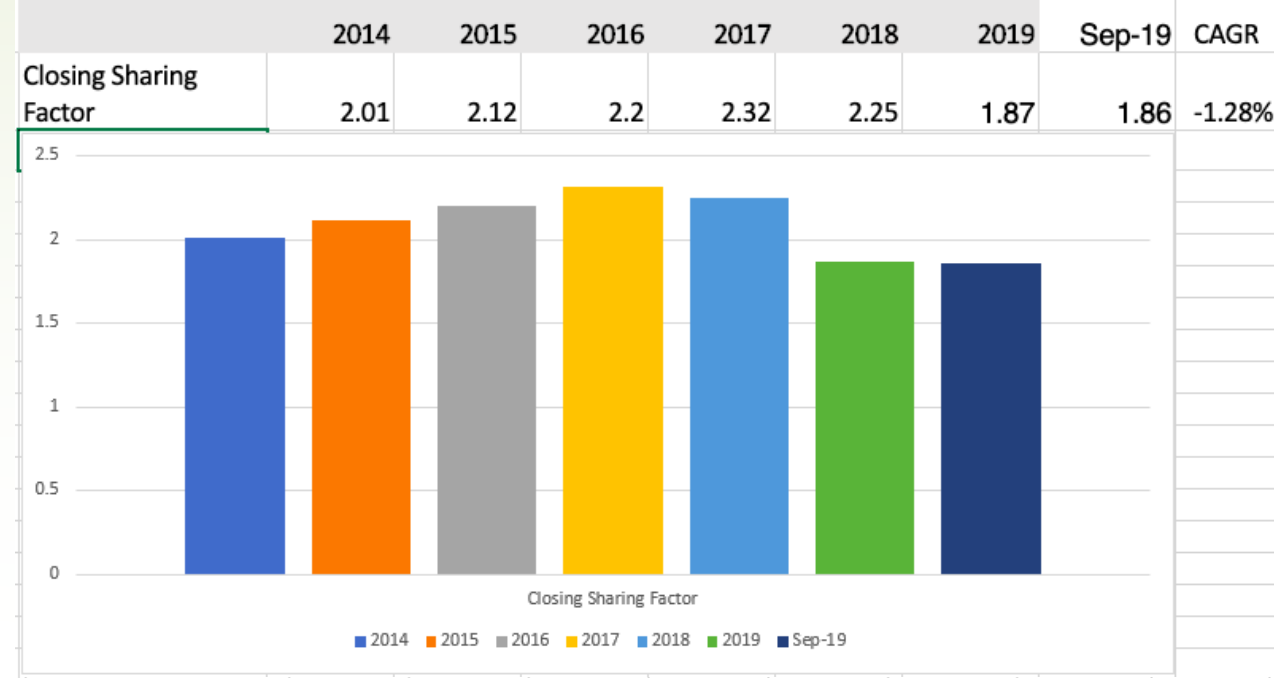
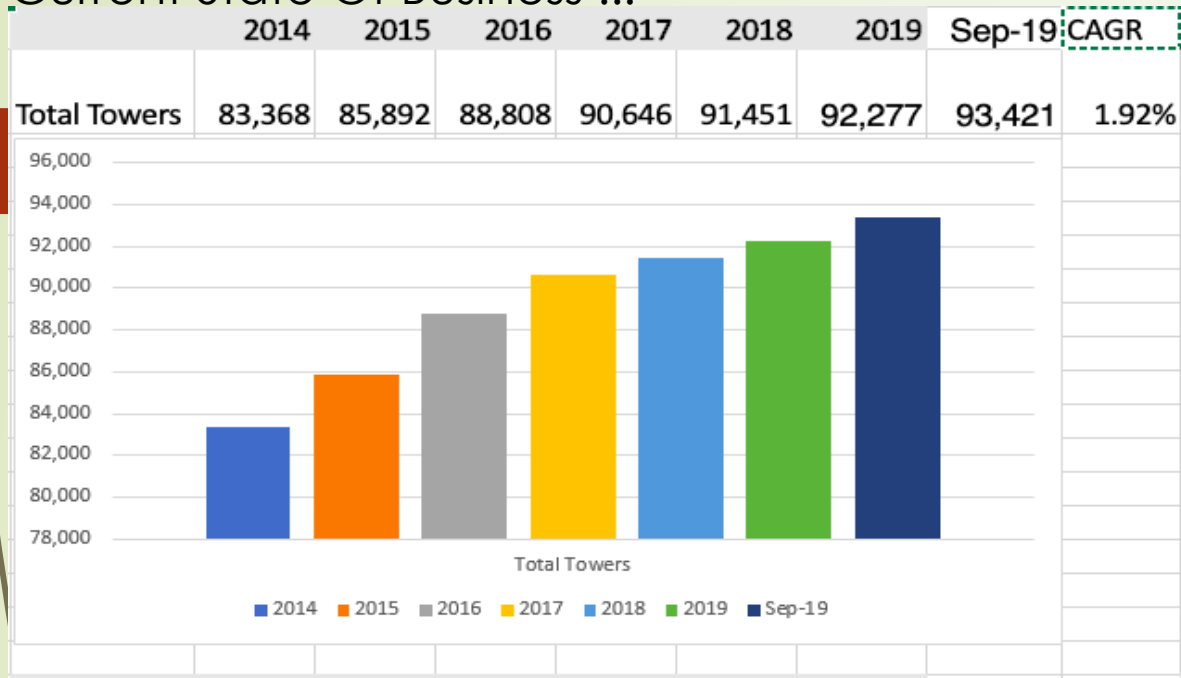


# What is the current state of business ?

- *Pretty bad !*
- *Telecom sector is in doldrums.*
- *Lots of Telco's disappeared since 2014, 13-14 players to 2.5.*
- *JIO is building their own Capacity (Towers).*
- *Rest 1.5 players don't have money to do Capex.*
- *Voda – Idea will default.*
- *Etc.*
- *Is it all true or are you justifying market behavior ?*

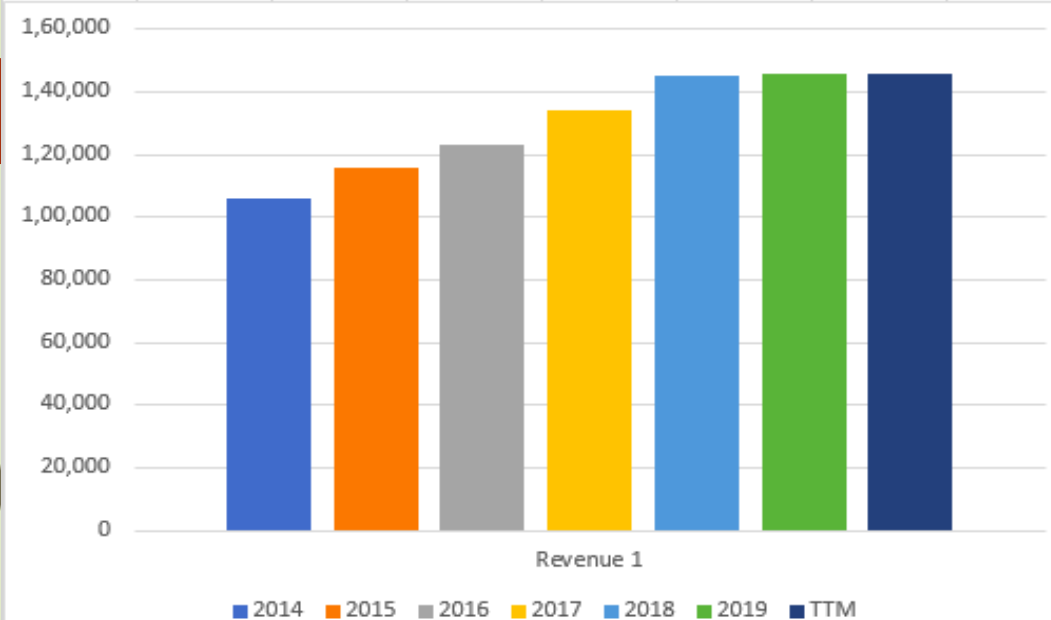


# Current State Of Business ...

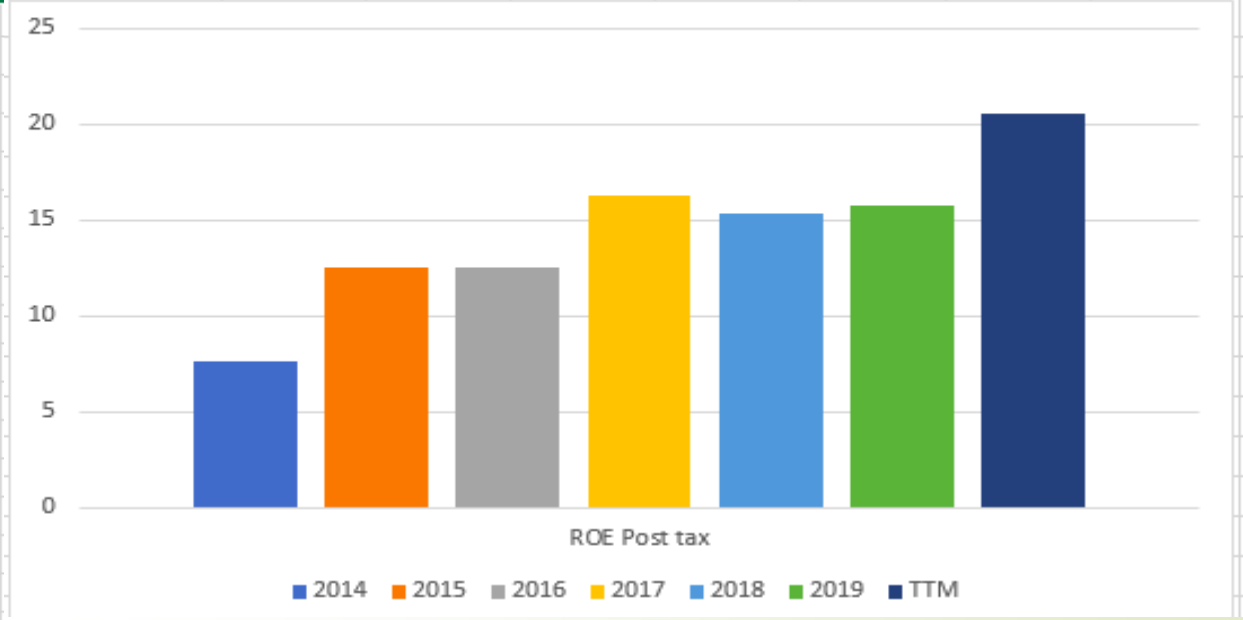




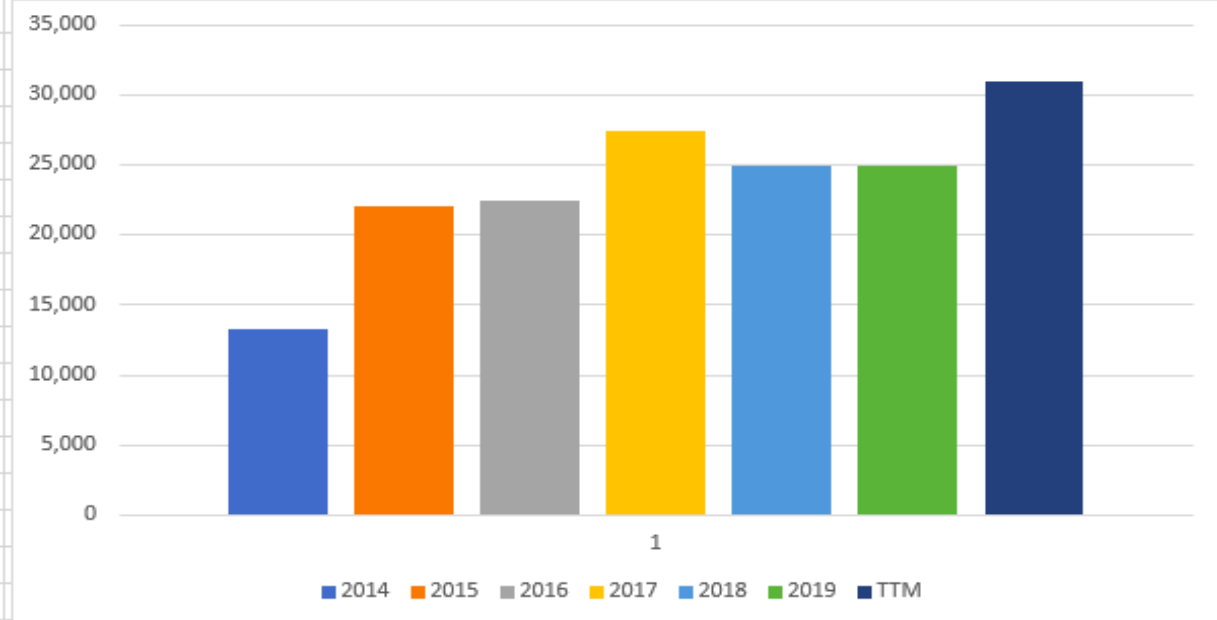
| Rs Mn     | 2014     | 2015     | 2016     | 2017     | 2018     | 2019     | TTM      | CAGR  |
|-----------|----------|----------|----------|----------|----------|----------|----------|-------|
| Revenue 1 | 1,06,199 | 1,15,646 | 1,23,313 | 1,34,237 | 1,44,896 | 1,45,823 | 1,45,900 | 5.44% |



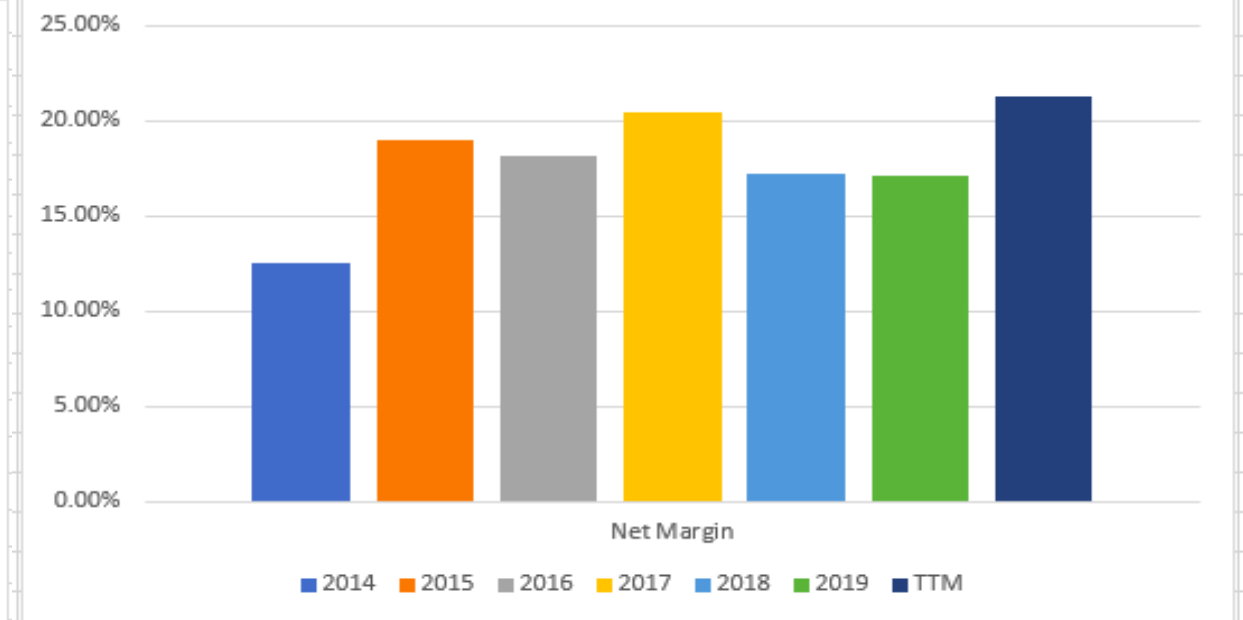
| %            | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | TTM  |
|--------------|------|------|------|------|------|------|------|
| ROE Post tax | 7.6  | 12.5 | 12.5 | 16.3 | 15.4 | 15.8 | 20.6 |



| Rs Mn              | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | TTM    | CAGR   |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Profit after tax 3 | 13,332 | 22,027 | 22,474 | 27,470 | 24,937 | 24,938 | 31,065 | 12.84% |



|            | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | TTM    |
|------------|--------|--------|--------|--------|--------|--------|--------|
| Net Margin | 12.55% | 19.05% | 18.23% | 20.46% | 17.21% | 17.10% | 21.29% |





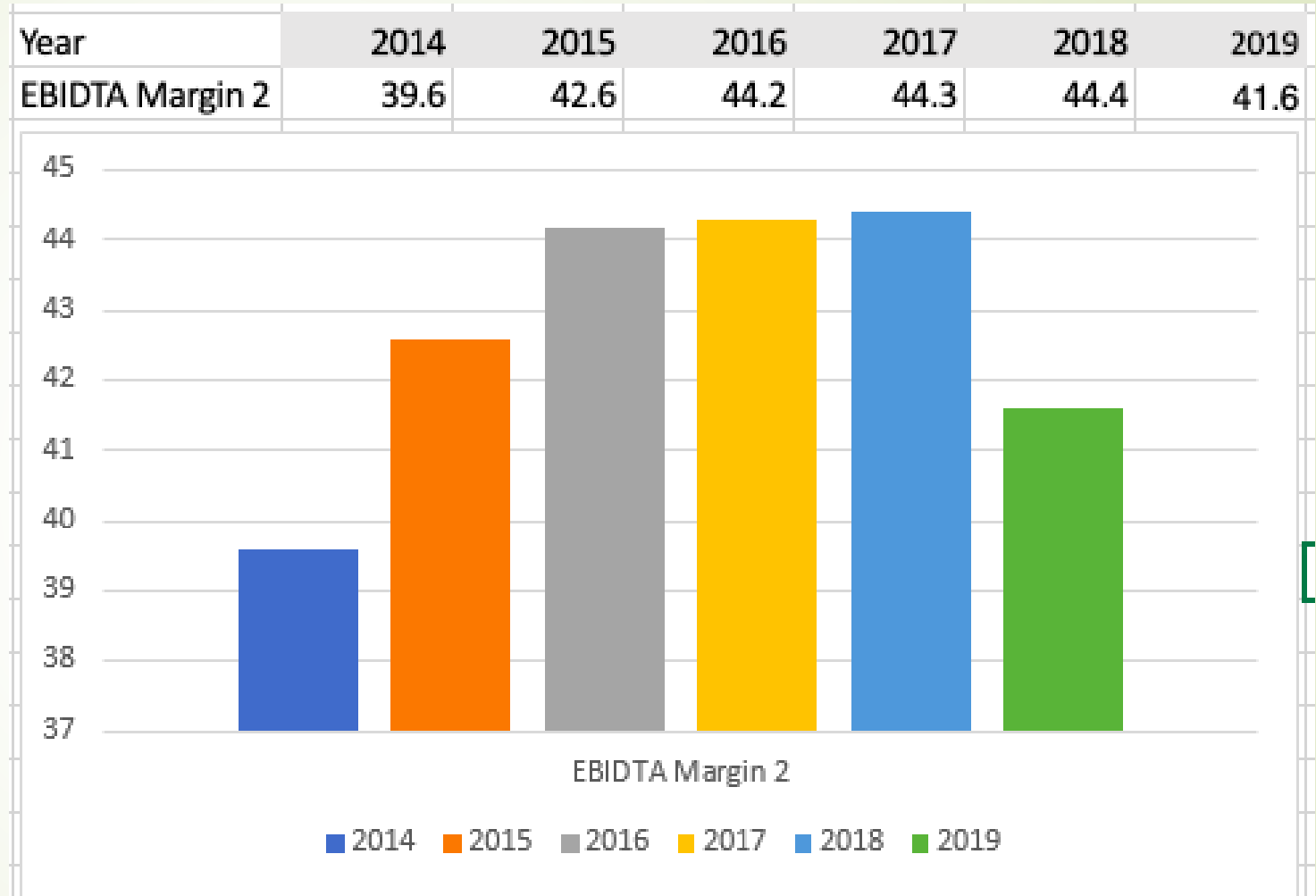
So, what past financial statements tell us ?

They tell  
everything about  
the past.

And  
absolutely nothing  
about the future.

# What could be the negative impact of consolidation ?


- Telcos now got more bargaining power, Incremental revenue per tower / margins could go down Vs the pre JIO disruption era.





# How near future looks like ?

**1. Sharp drop in BTS additions.**



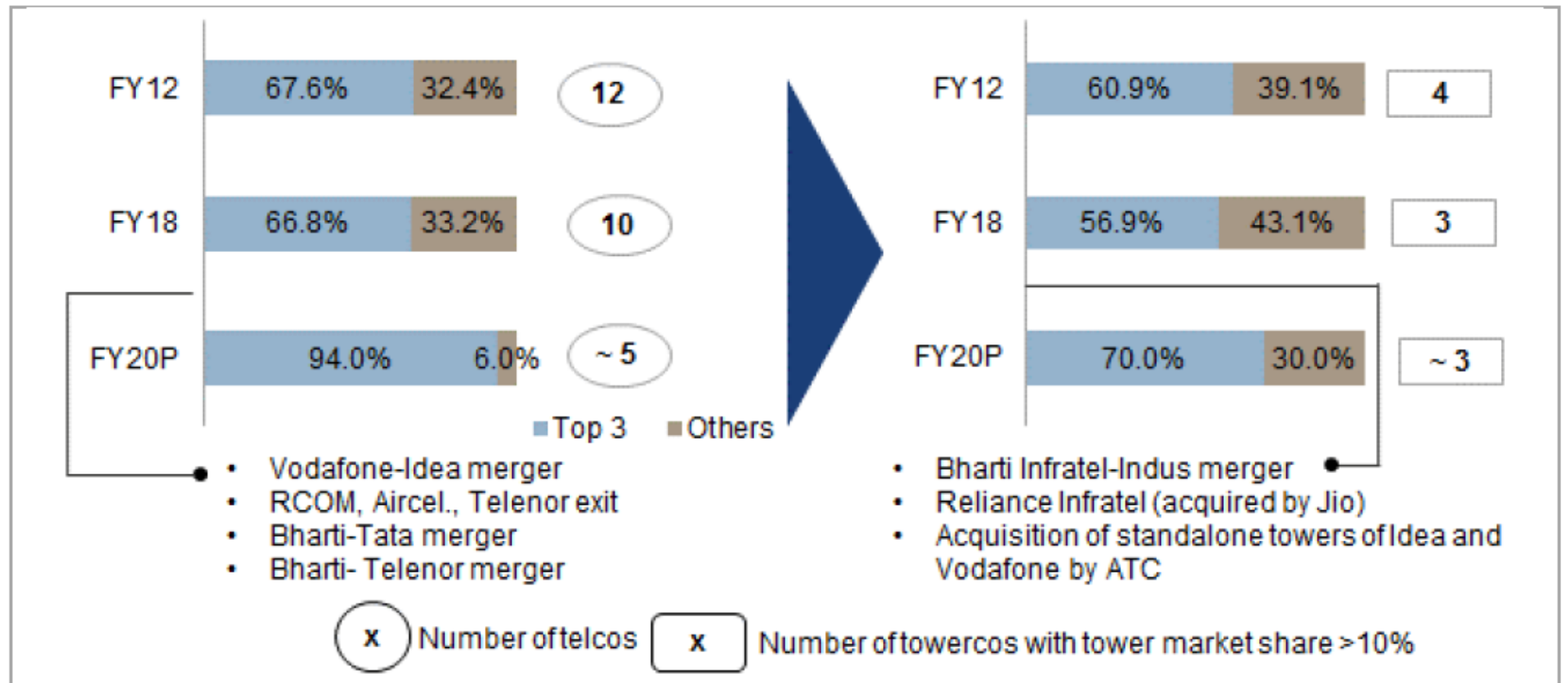
**2. Tenancy Ratio – Expected to decline by ~35% by fiscal 2020.**



**3. Rentals per tower may continue to dip in the medium term.**

# Why Margins Dipped - Telecom consolidation - Leading to tower consolidation.

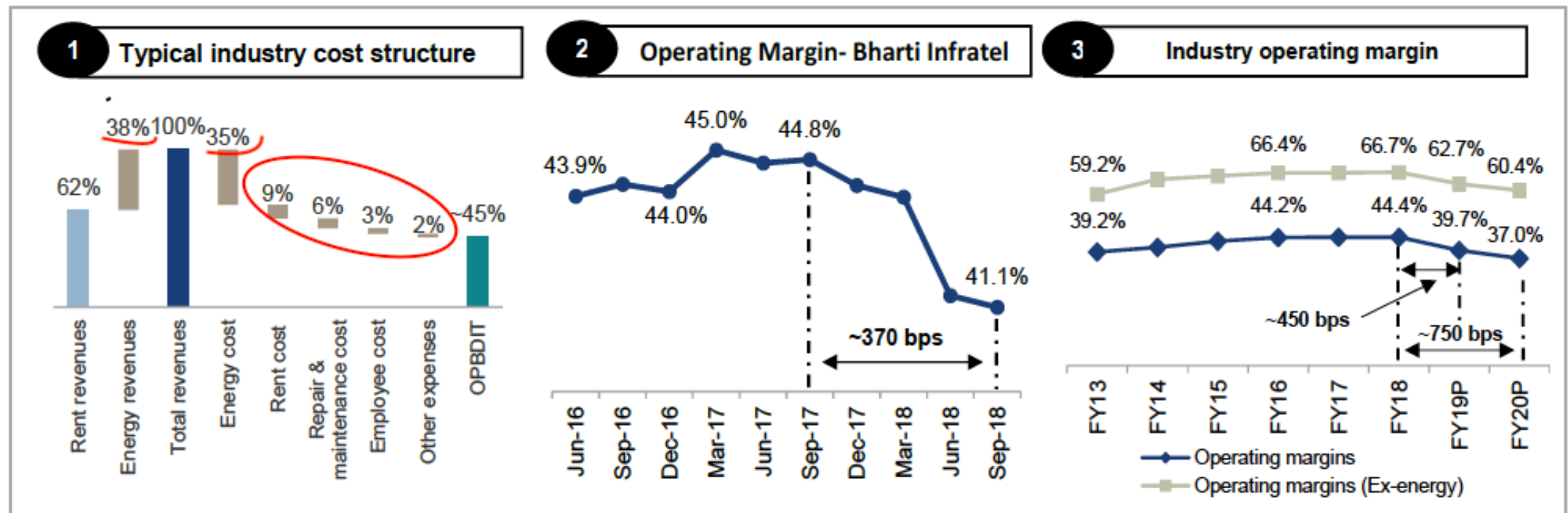
## Towercos follow telcos in consolidation



# Past marins don't tell anything about the future margins -

- ▶ The sector's overall operating margin was in the 43-44% range in the past four-five years ending March 2018. In fiscal 2018, it remained healthy at ~44%, as rental and energy margins expanded


## Industry margin to attain fiscal 2013 levels this fiscal; diesel prices won't hurt towercos



P: Projected; Note: Industry margins include financials of Bharti Infratel Ltd (Consolidated)

Source: Industry, Company reports, CRISIL Research





In fiscal 2019, operating margins contracted by ~4.50% because of:

**Co-location exits:** Vodafone Idea is in the process of exiting ~27,500 co-locations (nearly 3% of the industry), and is expected to announce more in the near term. In addition, there will be loss in tenancies of smaller players such as Aircel and Telenor as they, too, hang up.

**Decline in rentals per tower:** Industry's rental per tower is expected to decline by 7-9% on-year owing to co-locations exits and lower tenancies. However, increase in number of towers and exit penalties will limit the decline in rent revenues of the industry.

# 1. Sharp drop in BTS additions -

## What happened from 2015 – 2018 ?

- ▶ **BTS additions almost doubled from 2015 – 2018**, India has ~1.68 million base transceiver stations (BTSS) as of fiscal 2018, an increase of ~8.2 lakh from 2015.
- ▶ **Led by the massive roll-out of 4G services in the country**. Meanwhile, the number of tenants per tower (**tenancy ratio**) also nearly doubled from 1.2 times in fiscal 2016 to 2.13 in fiscal 2018

## What is happening now ?

- ▶ **2G/3G to 4G** -- Migration of 2G/3G subscribers to 4G, there has been a gradual decline in number of 2G and 3G BTSS. They are either being replaced by 4G BTSS (by existing telecom operator) or completely taken off from the sites (by telcos who have exited the industry).
- ▶ As a result, the aggregate share of 2G and 3G BTSS reduced from ~92% in fiscal 2015 to ~56% in fiscal 2018.
- ▶ After fiscal 2019, net tower addition will be 8,000-10,000 per year over the next four-five years, much lower than past five years Vs 15,000 towers in Fy18.

# 1. Sharp drop in BTS additions -

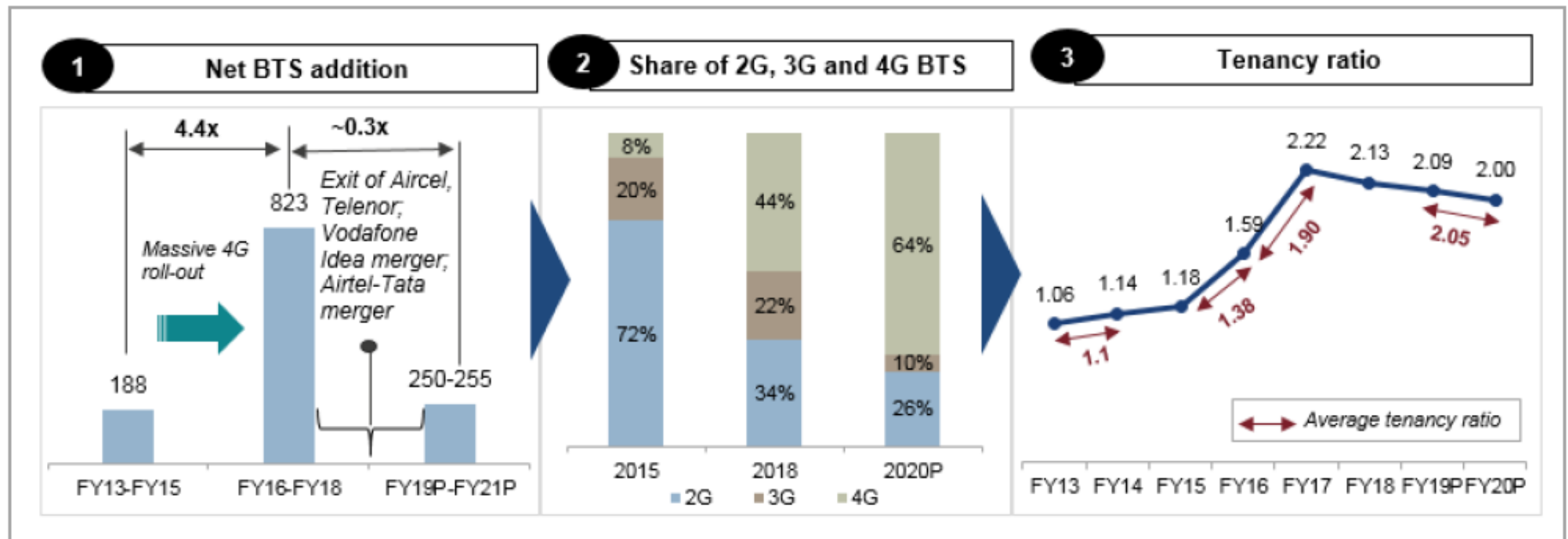
**Fiscal 2019 – 2021 estimate = 2.55 lacs Vs 16 lacs during 2015-2018**

- CRISIL Research estimates a net BTS addition of **~2.55 lakh** over fiscals 2019-2021, a **decline of ~70%** over the net additions during fiscals 2016-2018 (**8 lacs**). The slower additions can be attributed to:
  - a. The exit of smaller telcos, whose BTS can now be replaced by existing telcos
  - b. Replacement of existing telcos' 2G/3G BTSs with 4G BTSs as subscriber mix tilt towards 4G
  - c. Exit of redundant overlapping tenancies of the merged entities
  - d. Launch of 5G likely only post 2020 in India

## 2. Tenancy Ratio – Expected to decline by ~35% by fiscal 2020.

- Thus, the tenancy ratio is also expected to decline gradually to ~2.0 and the share of 2G and 3G BTSs (combined) is likely to go down to ~35% by fiscal 2020.

### Exit of tenancies (smaller players) leading to decline in BTS net addition resulting in lower tenancies



Net BTS additions are in '000. P: Projected; Source: Industry, CRISIL Research

### 3 - Rentals per tower may continue to dip in the medium term.

- ▶ The rent revenue per tower has grown at a CAGR of ~5.5% between fiscals 2013 and 2018 owing to increase in loading of towers. Over the past three fiscals, majority of the existing towers were loaded for 4G roll-out. Although, the incremental rental per tenant is at a discount of 70-80% of a single tenancy, the increase in number of tenants per tower (as shown in chart above) lead to the growth.
- ▶ In fiscal 2019, however, rent revenue per tower is **estimated to decline 7-9%**, owing to loss of tenancies of Vodafone-Idea and other smaller telcos. The towercos will not have bargaining power to levy the forgone opportune rental (from exit of tenancies) on the existing ones as the telcos' financials are already stressed.
- ▶ We believe the trend of Reliance Jio setting up its captive towers would also add to the pressure of telecom tower operators exerting pressure on rental growth.



# Cont ...

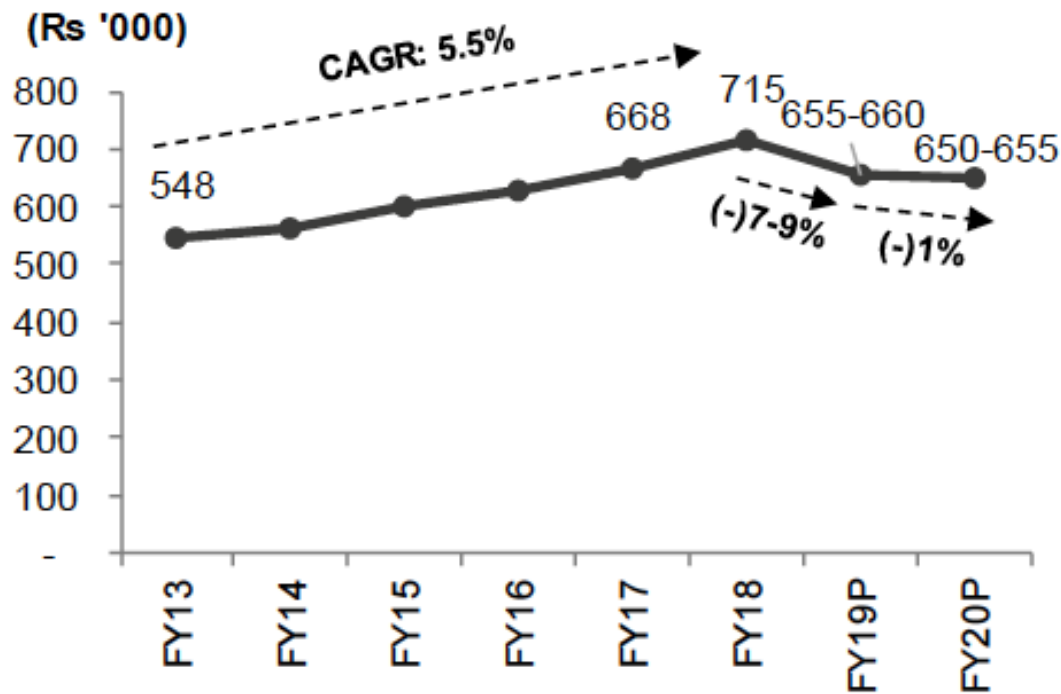


- Additionally, the majority of new tower addition in the industry will be in the rural areas having lower rentals than the urban rental per tower.
- This structural change in the tower mix will also pull down the rent revenues per tower.
- However, addition of towers will limit the decline in revenues.
- **Thus, CRISIL Research expects the rent revenues of the industry to decline ~2-3% on-year in fiscal 2019 and remain flattish in fiscal 2020 amid dropping rental per tower.**

## Exit/consolidation of telcos likely to result in rent revenue loss in FY19

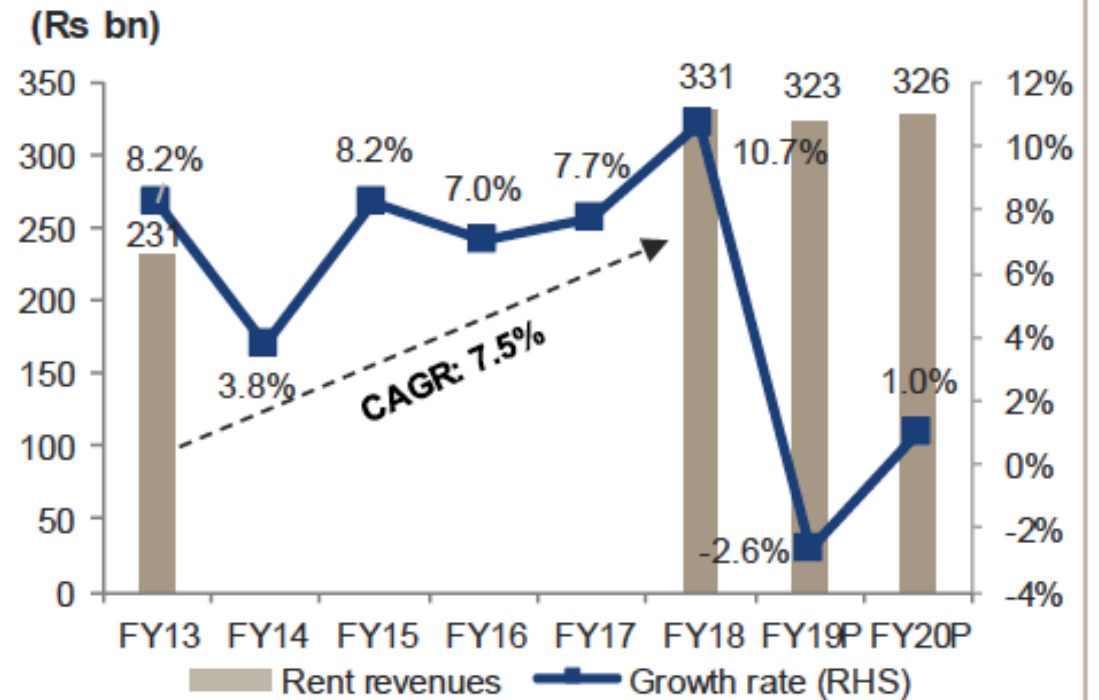
1

### Rent revenue per tower



2

### Rent revenues and growth





# Impact of Vodafone – Idea Merger

- ▶ The major impact of the Vodafone-Idea co-location losses has been seen in fiscal 2019. However, depending on the timing of contract terminations, exit penalties realised by the towercos and new business from the merged entity, the effect of loss in tenancy may spill over into fiscal 2020 as well.



# What else could be the new source of revenue ?

## **Right of way, fibreisation continue to be key monitorables**

Getting the right of way (RoW) to set up passive infrastructure has been a challenge for the Indian telecom sector participants. Delays as a result of complex procedures across states, non-uniformity in levies, have been major impediments in planning and setting up towers and laying fibre across the country.

Currently, less than 25% of the towers are fibreised in India compared with more than 75% in China and the US. In order to leverage the use cases post deployment of 5G, India needs to have a minimum 70% fibreisation. Industry interactions suggest even though the average cost for laying intra-city optic fibre is ~Rs 20-25 lakh per km, that quadruples in metros.

While nationwide coverage needs enormous investments by both the government and the private sector, infrastructure sharing will be key to achieving high fibreisation levels and hence remains a key monitorable for future BTS additions amid roll-out of 5G.

# What will be the long growth drivers for the tower industry over a **long run**?

- ▶ Improvement in tenancy ratio.
- ▶ As we move from 1G to 2G to 5G – More is the densification of network required, which acts as a natural tailwind for tower companies.

*BTS multiples for migration among frequency bands in dense urban areas*

|                     |          | New frequency band |          |          |          |          |
|---------------------|----------|--------------------|----------|----------|----------|----------|
|                     |          | 900 MHz            | 1800 MHz | 2100 MHz | 2300 MHz | 2600 MHz |
| Base frequency band | 900 MHz  | 1.0x               | 1.6x     | 1.9x     | 3.2x     | 3.7x     |
|                     | 1800 MHz |                    | 1.0x     | 1.2x     | 2.0x     | 2.3x     |
|                     | 2100 MHz |                    |          | 1.0x     | 1.7x     | 2.0x     |
|                     | 2300 MHz |                    |          |          | 1.0x     | 1.1x     |
|                     | 2600 MHz |                    |          |          |          | 1.0x     |

*(Source: Analysys Mason.)*





## Rural Area Will Drive The Growth -

Most of the towers will be added in rural areas given low tower penetration in these regions. (The tele-density there still lags behind at 58.25%.)

India's tower density is ~15 towers per sq km in metros and ~0.17 (average) for the rest of the circles.

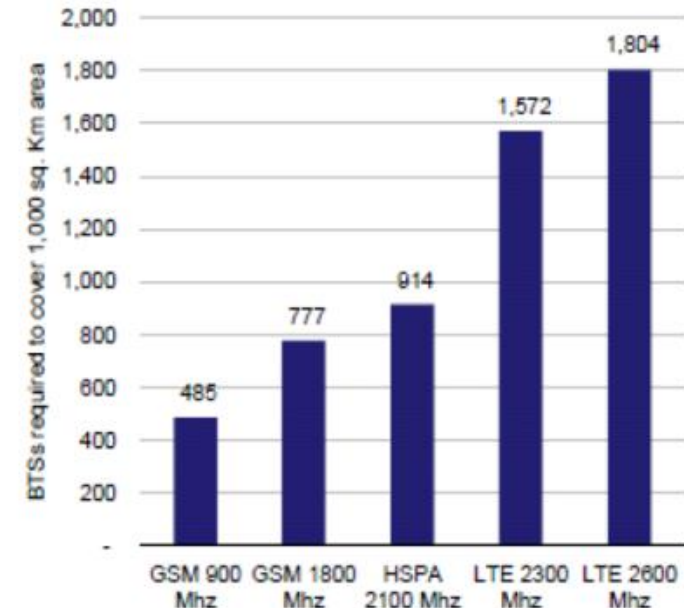
In contrast, other emerging countries such as China have ~0.2 towers per sq km.

This leads to the interesting question what spectrum telecom providers have been buying for future deployment like 5G ?

- ▶ Radio Spectrum – <https://cdn.downtoearth.org.in/mobile-20110315.jpg>
- ▶ This is what government planning to auction in 2019 –

Airwaves across the 4G bands of 700 MHz, 800 MHz, 900 MHz, 1,800 MHz, 2100 MHz, 2300 MHz and 2500 MHz, besides 5G spectrum in the 3300-3600 MHz bands, will be offered to Vodafone Idea, Bharti Airtel and Reliance Jio .

Sites required to cover 1,000 square kilometre dense urban area in different frequency bands



(Source: Analysys Mason.)

# VODA IDEA will default ?



Reason 1 – Financial - Because they won't be able to pay their Dues to Banks and Government.

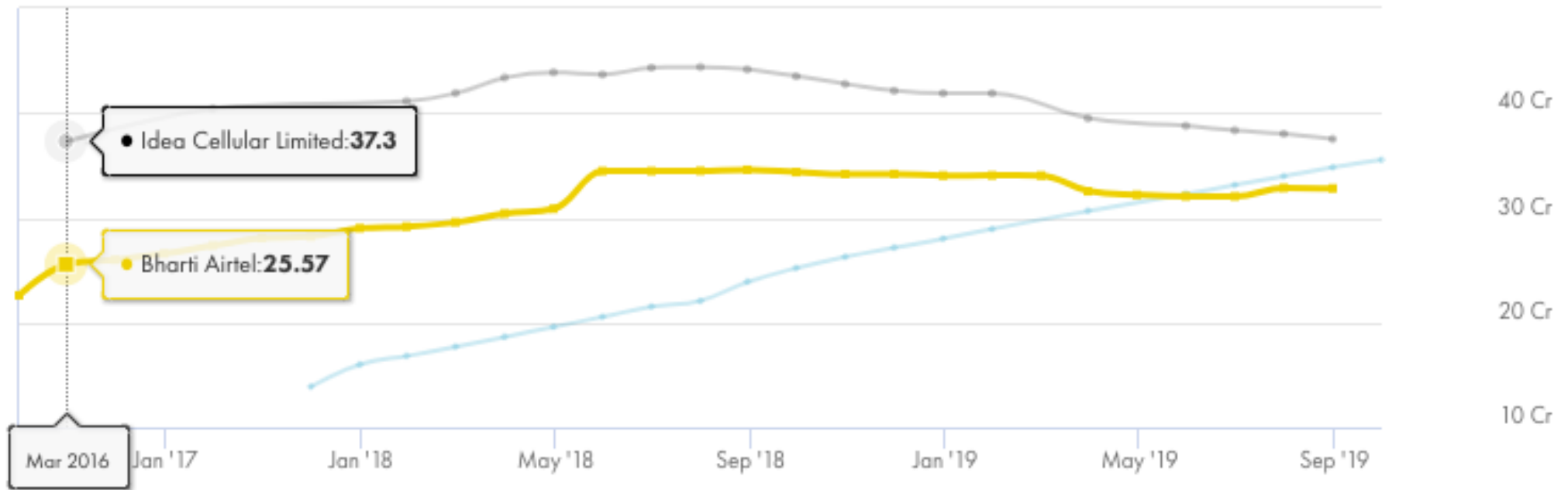


Reason 2 – Operational - They are losing Lacs of users every month - They don't have money to compete with Airtel and Jio.

# Are they really not competitive enough ?

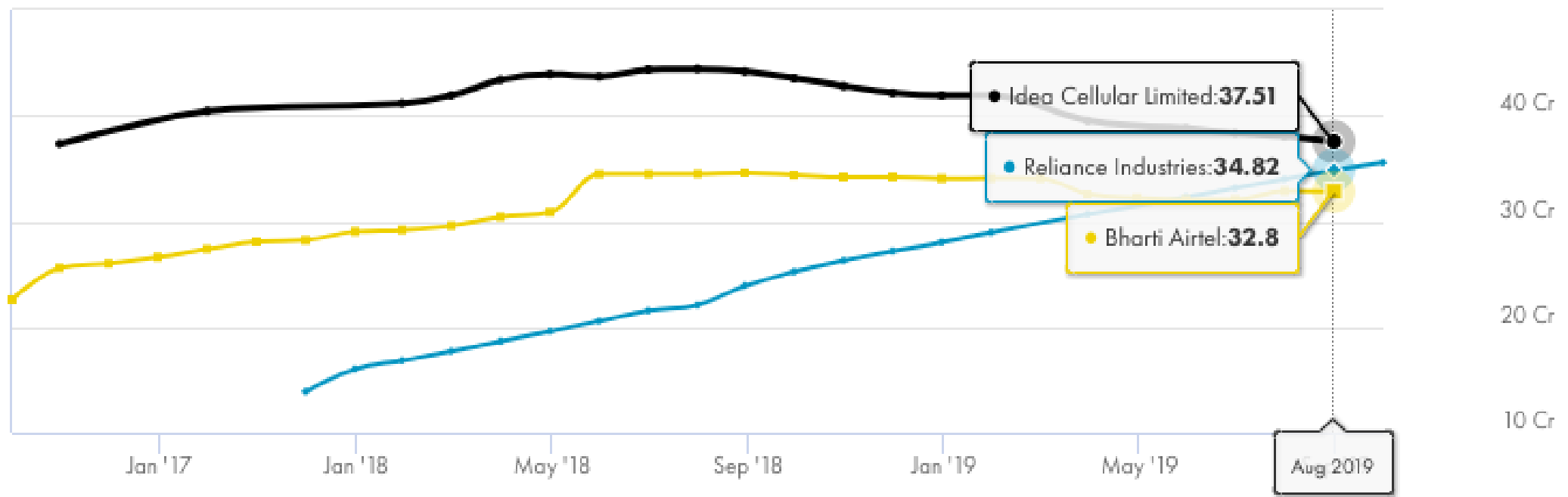
## NO OF MOBILE SUBSCRIBERS (Cr)

● Vodafone Idea ● Reliance Industries ✕ ● Bharti Airtel ✕ + Add a Company



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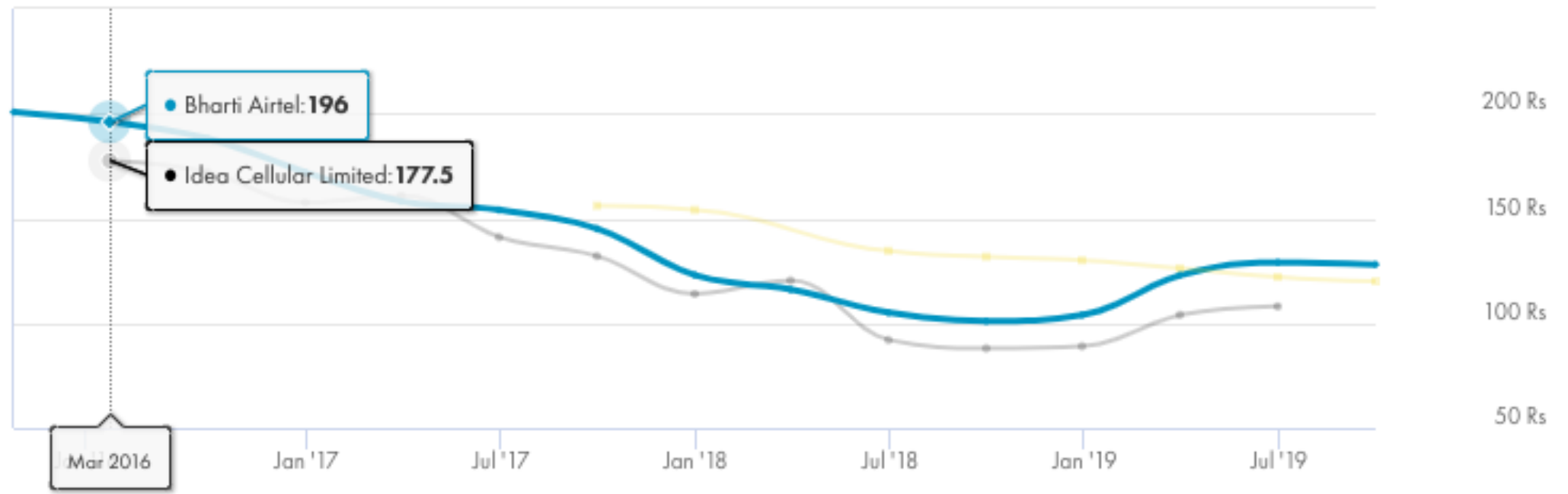




# How about ARPUs ?

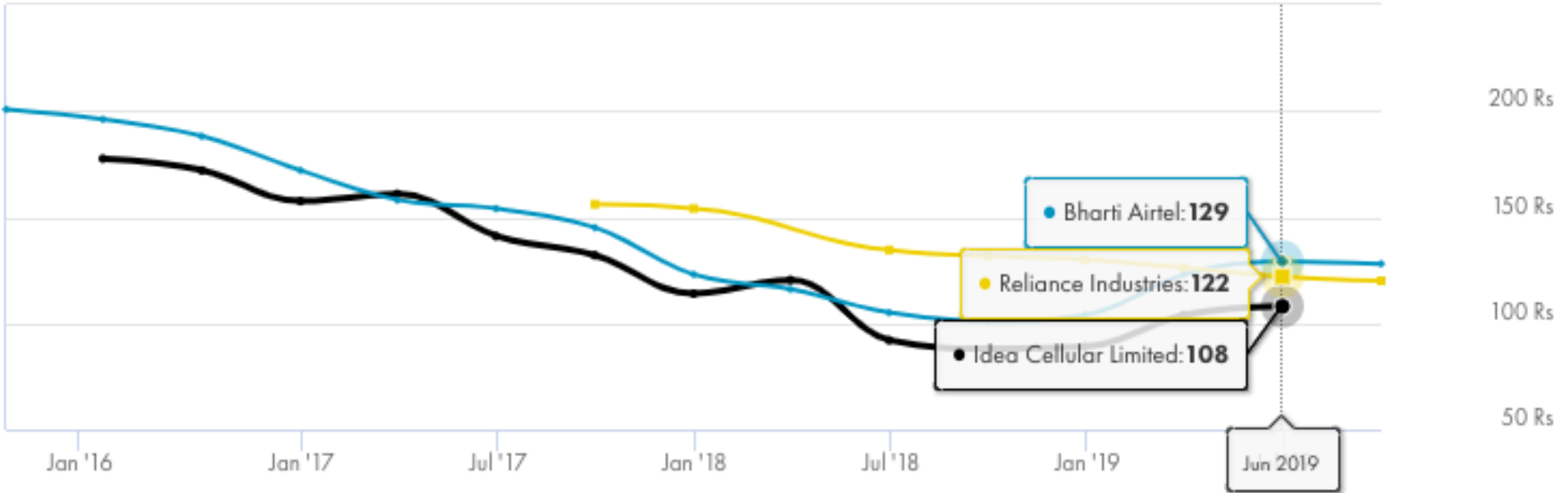
## AVERAGE REVENUE PER USER (ARPU) (Rs)

● Vodafone Idea ● Bharti Airtel ✕ ● Reliance Industries ✕ + Add a Company



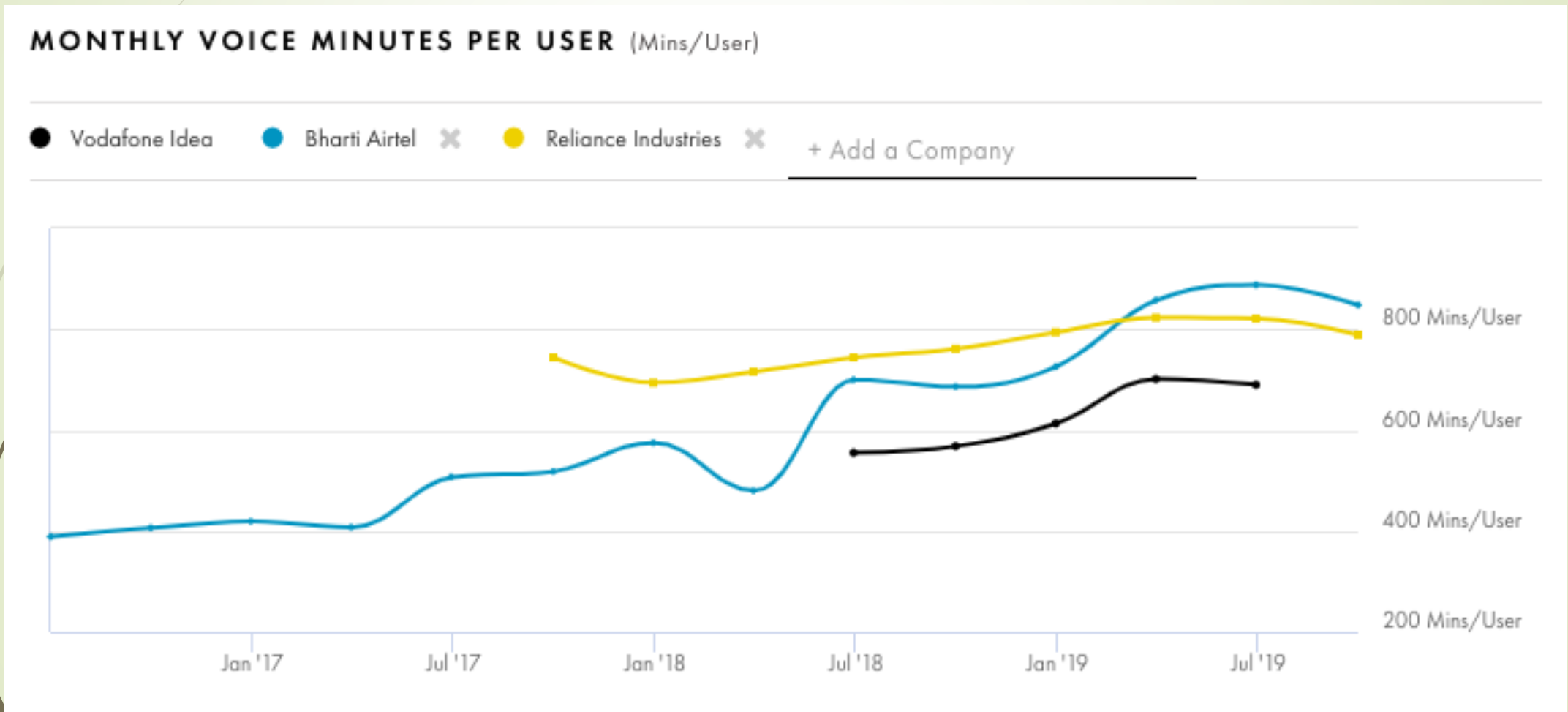
### AVERAGE REVENUE PER USER (ARPU) (Rs)

● Vodafone Idea   ● Bharti Airtel ✕   ● Reliance Industries ✕   + Add a Company



# Are users just keeping Idea as second sim for incoming call ?

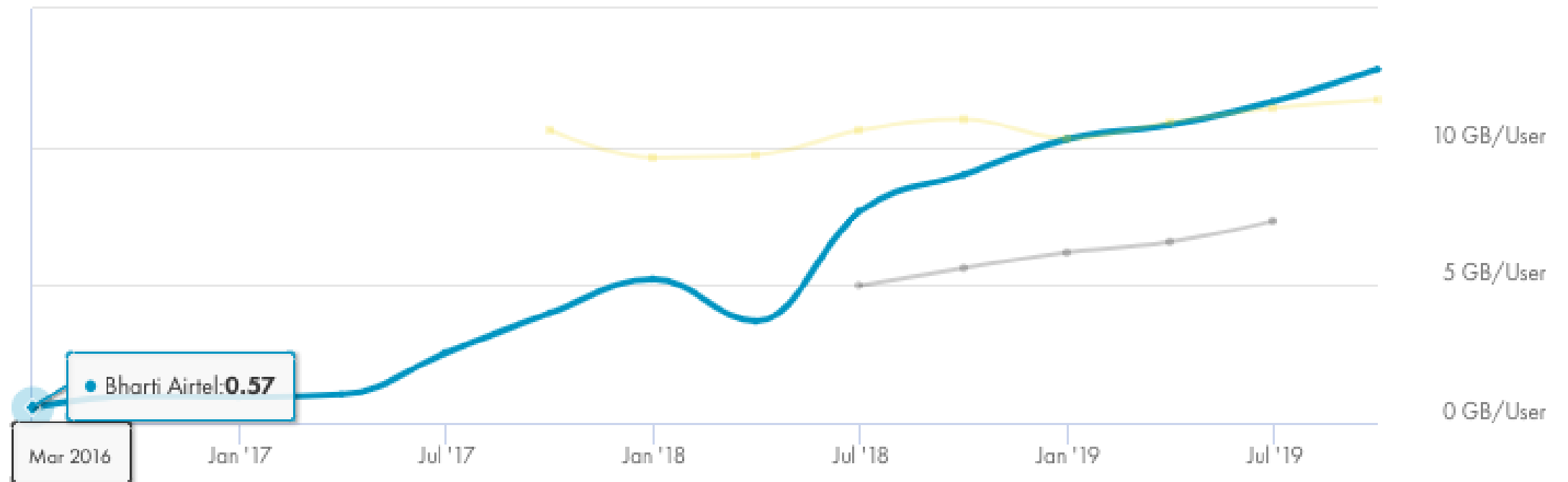
- It doesn't like the case, For all of them its going up.



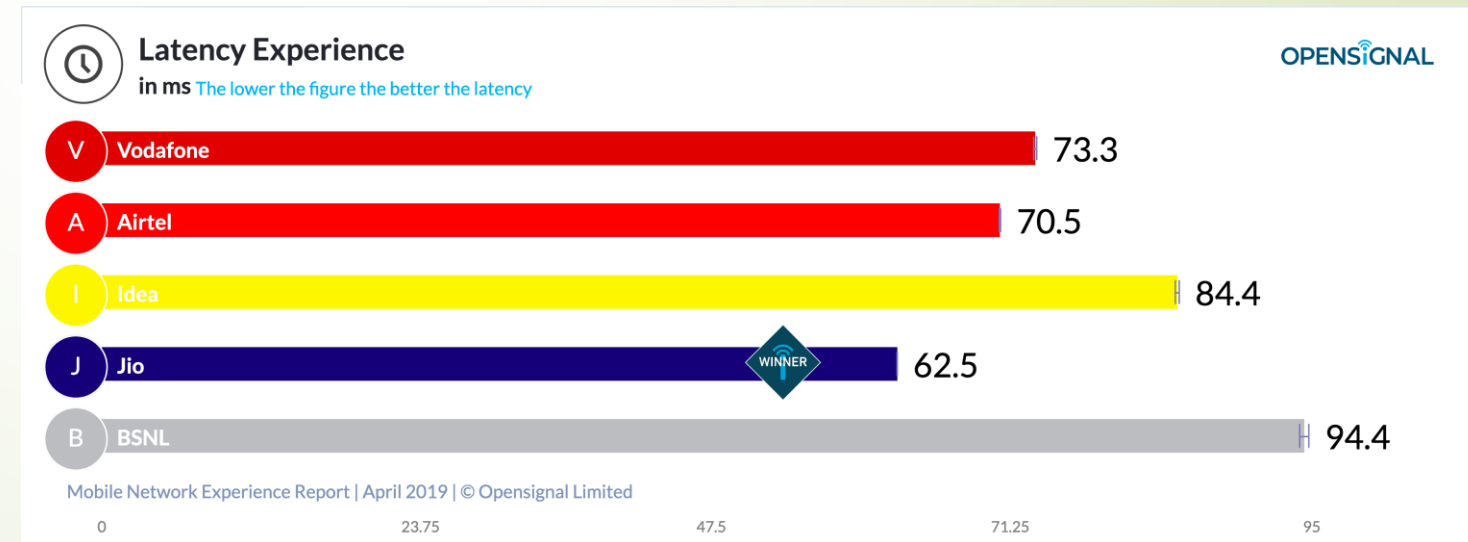
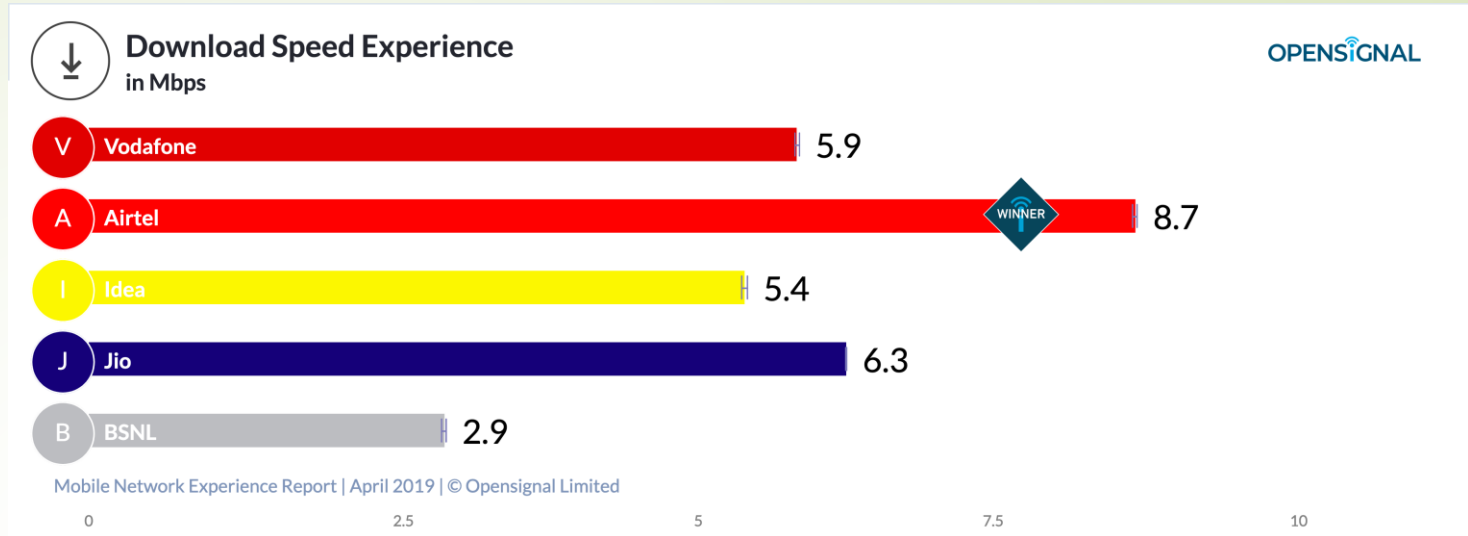
Voda- Idea users are more conservative of the three.

### MONTHLY DATA USAGE PER USER (GB/User)

● Vodafone Idea   ● Bharti Airtel ✕   ● Reliance Industries ✕   + Add a Company



# Operational Comparison -

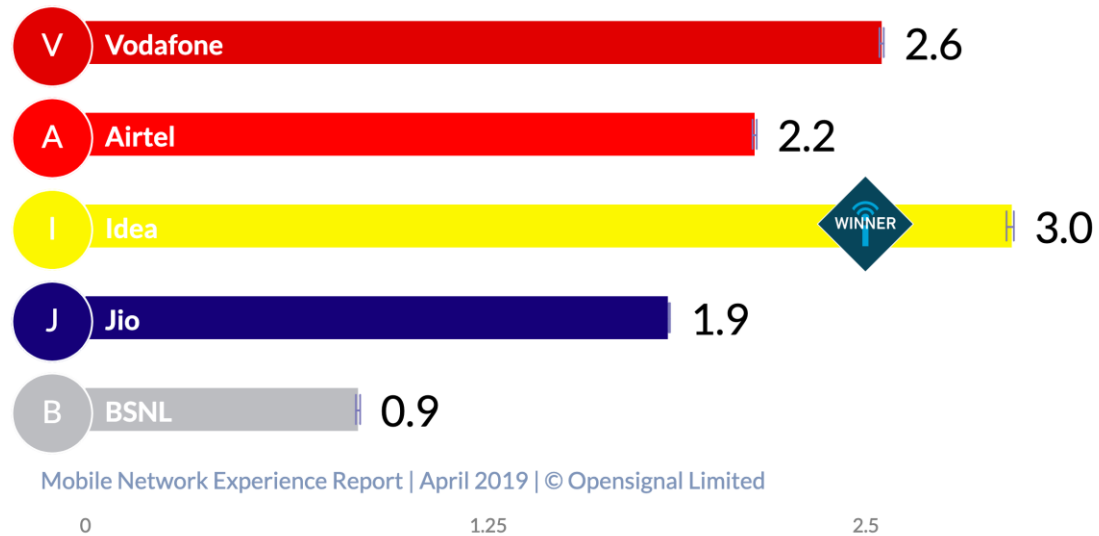




# Conti...

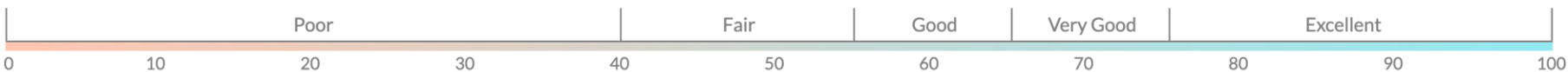
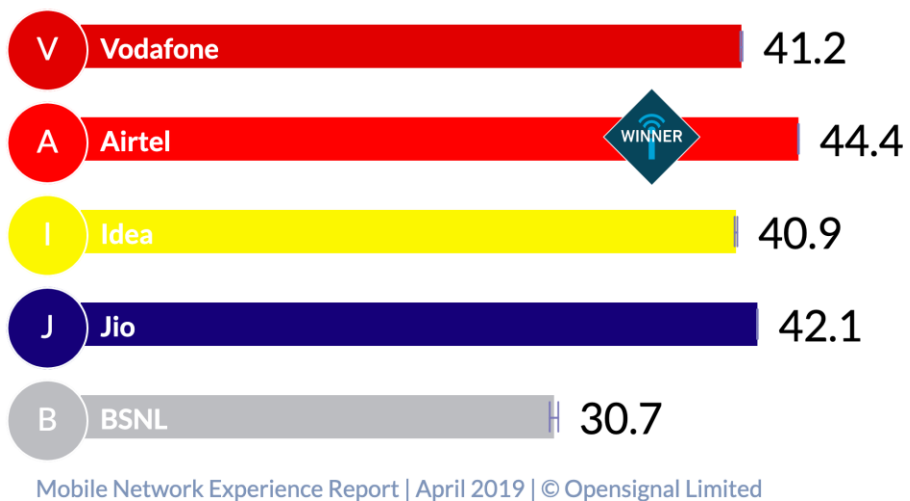
## Upload Speed Experience in Mbps

OPENSIGNAL

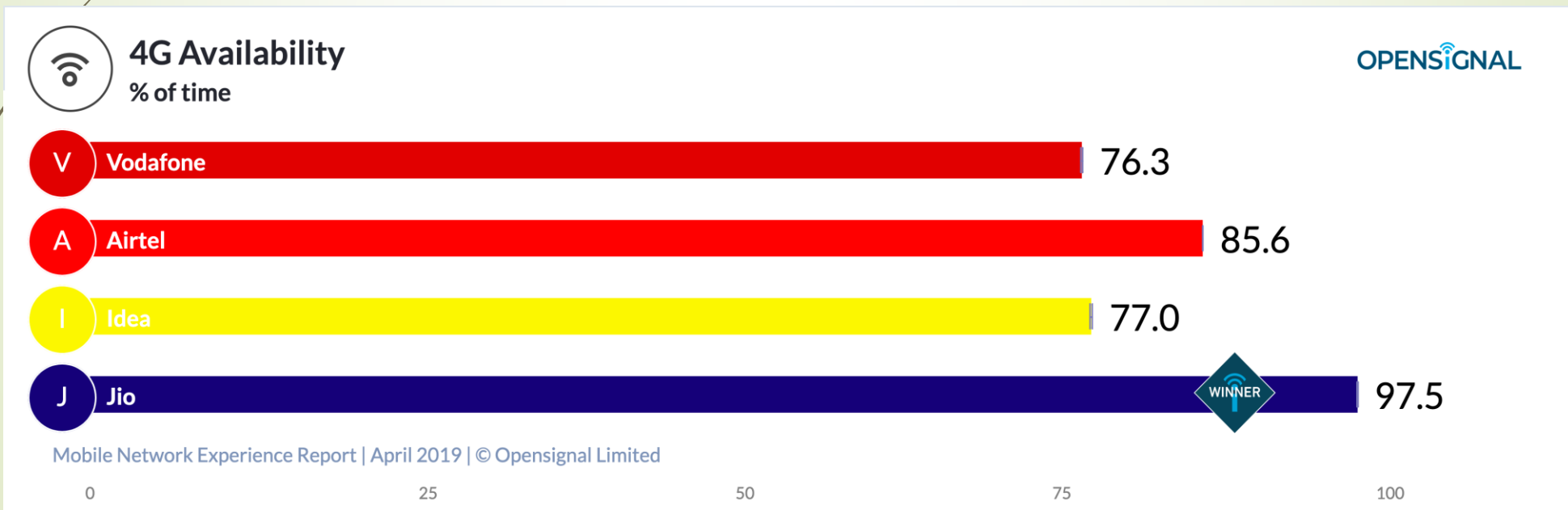


## Video Experience in 0-100 points

OPENSIGNAL



# Cont ...



# Mobile Experience Awards, India

OPENSIGNAL

April 2019, India Report



Vodafone



Airtel




Idea



Jio



BSNL

|   | Vodafone | Airtel        | Idea          | Jio           | BSNL |
|---|----------|---------------|---------------|---------------|------|
|  <b>4G Availability</b>            |          |               |               | <b>WINNER</b> |      |
|  <b>Video Experience</b>           |          | <b>WINNER</b> |               |               |      |
|  <b>Download Speed Experience</b> |          | <b>WINNER</b> |               |               |      |
|  <b>Upload Speed Experience</b>  |          |               | <b>WINNER</b> |               |      |
|  <b>Latency Experience</b>       |          |               |               | <b>WINNER</b> |      |



# AGR ISSUE -

Total potential payout 92641 crore

Balance License payable is 23188 cr

Penalty at Rs 10923 cr

Interest at Rs 58528 cr

Investors were hoping that given the stress in the system, the telcos would get some relief and be asked to pay only the principal amount but that relief has been denied as the SC called the telcos case “frivolous”.

With the wisdom of hindsight we can say, had the verdict been delivered earlier, at least the interest component would be lower and a few years ago the health of the industry was also better.

**The judgment will have a bearing on SUC case which involves a payout of Rs 41,000 crore**



Thank You...

We are not immune to this -

<https://www.youtube.com/watch?v=XHTtQ9b3heQ>

Very hard to not follow the herd -

<https://www.youtube.com/watch?v=BgRoiTWkBHU>