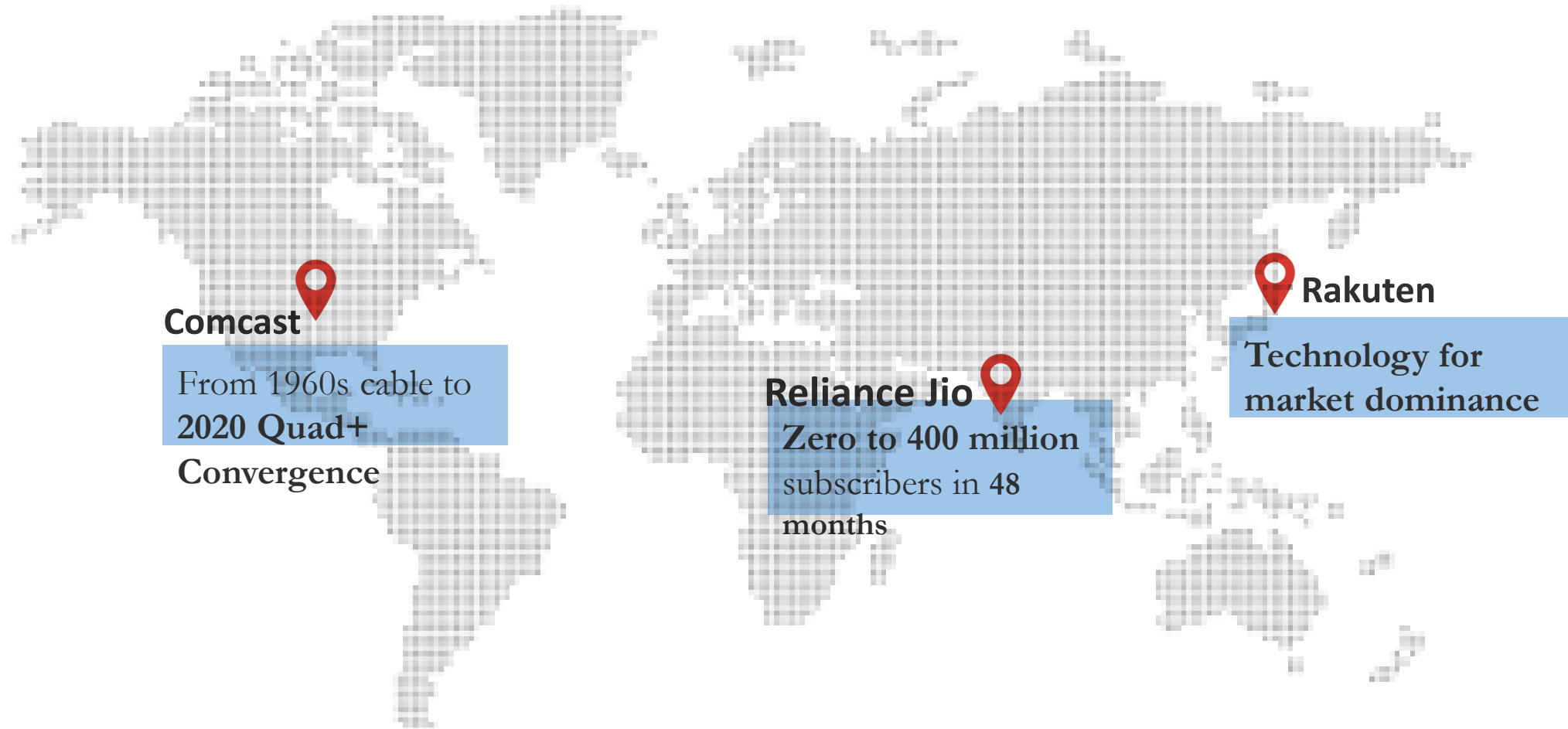


# The Mobile Mobile World: New Business Models in the Telecom Sector

RS Sharma



# Three stories of unprecedented disruption around the telecom world tell an interesting story



# Reliance Jio

A **new entrant**  
Reduced the **cost of mobile** to a fraction  
and **created brutal market consolidation**  
in a country of **1.1 billion**  
in just **4 years**.

(Source: Data from DOT and TRAI website, \*2020 data as on Jun 2020)



# RJio's Business Strategy:

Make connectivity free, and offer paid services on top.

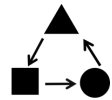
Five pillars of the **Digital Life** approach:



1. **Network** – Ensure Pan India 4G LTE coverage



1. **Devices** – Innovative 4G MiFi and feature phones



1. **Applications and content** – Bouquet of Apps and wide array of media and infotainment content

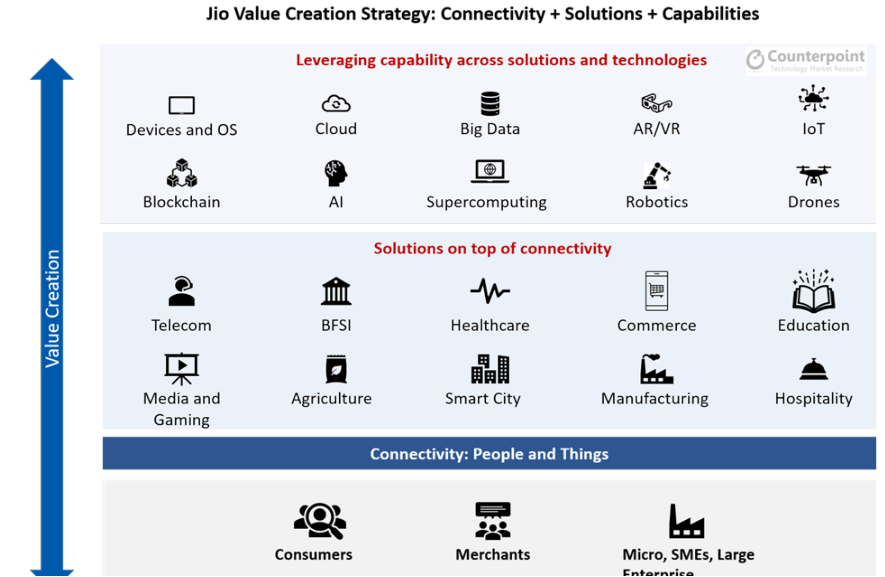


1. **Service experience** – High speed wireless broadband with highest quality



1. **Tariff** – practically unlimited voice and data at less than US \$ 2 per month

**From a mobile company to a tech solutions company!**



Kept costs low with a low cost spectrum, IP based network, & economies of scale in data



# The Market Impact of RJio

**DEMAND:**  
Inclusion &  
Exponential  
growth for  
Voice & Data

**Exponential data consumption** growth due to free high speed data: consumption from around 700 MB per subscriber per month to **10 GB per subscriber** per month.

**Created enormous demand for data services** - free subscription for suite of Jio applications. **Doubled voice minutes** of usage per subscriber.

**SUPPLY:**  
Reshaping  
the market

Disruption of **voice revenue** (>50% of competitors' revenue) **came under stress**. As **cash flows of competitors shrunk rapidly** – they **couldn't upgrade & expand capacity** of their wireless networks quickly.

Jio became the **market leader in less than 3 years**, and the **brutal consolidation** reshaped the entire telecom sector: **from 11 operators in 2016 to 5 operators in 2020**

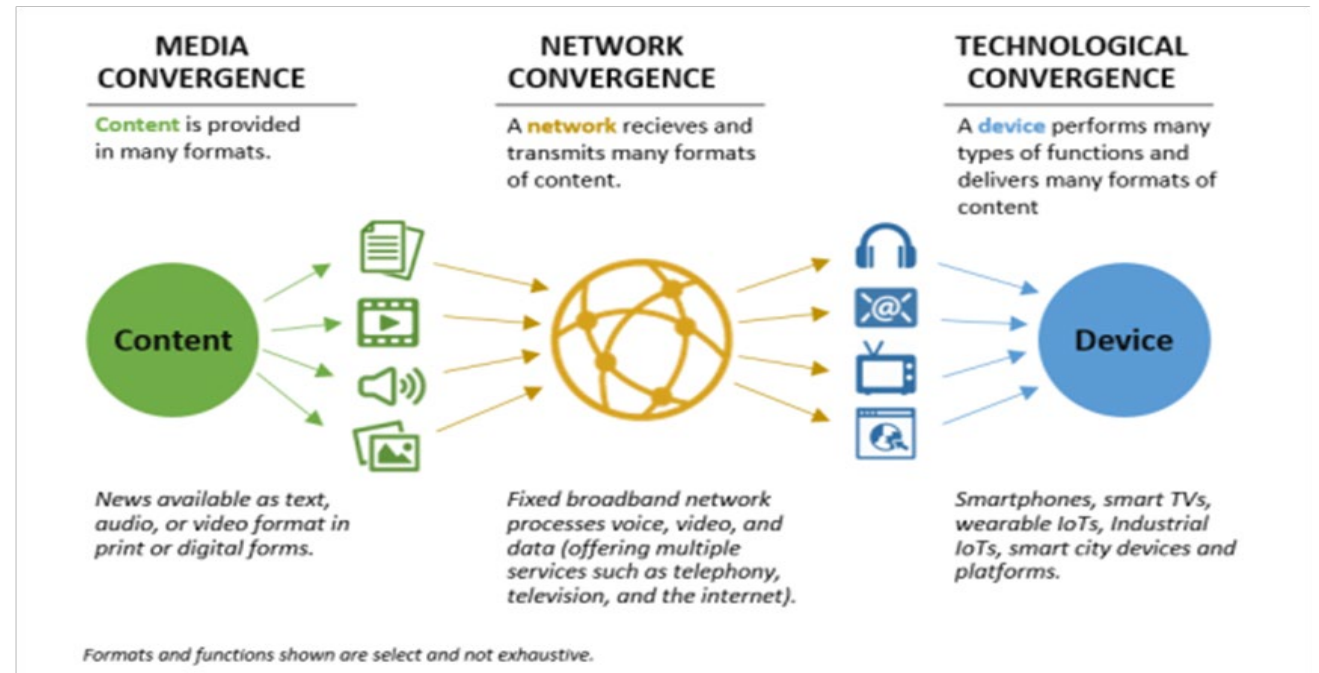
# Comcast



From **Cable TV** to **IoT**: How a 60 year old company took advantage of **convergence** to become a market leader in wireless

# Comcast evolved from a cable broadband giant to a Converged, Quad+ play provider

Cable TV ✓  
Wireless ✓  
Broadband ✓  
Phone ✓  
Content Streaming ✓  
Home security ✓  
Streaming device (Flex) ✓



(Source: Congressional Research Service)



# Comcast evolved from a cable broadband giant to a Converged, Quad+ play provider

Comcast became the **second-largest** broadcasting and cable television company **in the world by revenue** (behind AT&T)

**Convergence** is leading to consolidation of networks, bundling of products, and digitisation into the Internet of Things

## Four reasons for convergence:

- Customer retention
- Enhanced user experience
- Margin/ investment expansion from network consolidation
- Hedging against disruptive technology



# Rakuten

Using **technology** for market dominance



# Rakuten - Evolution to Mobile Network Operator (MNO)

- An online marketplace started in 1997
- Japan's fourth mobile network operator (MNO) - launched services in October 2019
- **Objectives:**
  - Shift the focus from reliability to resilience
  - Not only be efficient as an operator, but as **agile as a platform player**
- Complete virtualization from Radio Access Network (RAN) to core mobile network
- Fully cloud-native, virtualized, 5G-ready network
- Reduced capital investment and operation costs
- Evolve services as needed to address the demands of a competitive environment
  - Rakuten Ecosystem — membership base, brand, data resources, and communication platforms

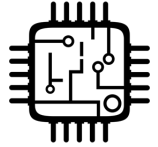
# Rakuten - Transforming the telecom business model with technology

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- **Mobile services** - the gateway to Rakuten's many services
- A **software-centric** approach - enables automation and service versatility
- **5G use cases** that target enterprise and industry vertical markets
- Support for **newer breed of low-latency services** defined in edge computing or multi-access edge computing (MEC)
- Combining mobile-edge computing with **Software Defined Network (SDN)** enabled centralized and regional data centers
  - Adoption of 5G services would be key driver for customers to migrate from existing operators
  - **Digital-first** approach : Leading MVNO with 18% market share



# What do these stories tell us about what's happening in the Mobile world?



## Changing Technology shapes this space quickly

- Digital Platforms & social networks
- Cloud Computing and Network Function Virtualization
- Edge Computing and Communications
- Augmented/Virtual reality
- Open Radio Access Networks; 5G



## Changing Competitive Landscape & business models

- **Convergence**, eg with Media & entertainment
- **Low cost Inclusion** as a strategy
- **Transborder** Service Delivery
- Backward and Forward Integrations
- Expanding into **Adjacent Markets**
- COVID-19 Creating demand



## The Regulatory Regime needs to adapt!



# Regulations need to change in a Converged World

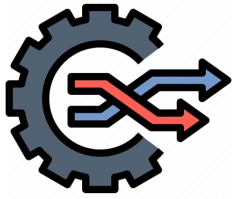
## Regulatory Regimes: vary considerably across these countries

- In the **USA**, **FCC** is a **converged and independent** regulator with the power to issue licenses, regulate services, manage spectrum
- In **India**, **TRAI** is an independent regulator for both Telecom and Broadcasting sectors. However, in India, the functions relating to licensing and spectrum management rest with the Government.

**Silo-style ICT sector regulation with **Multiple Gov't Institutions/** Regulators responsible to govern converged companies is not viable in the digital world.**

- Create confusion amongst stakeholders
- Exploitation of regulatory gaps

# An enabling regulatory regime in a Converged World would involve...



**Reorganization** of the functions of the Government Institutions/ Regulators and corresponding laws



**Institutional mechanism for coordination** and collaboration among them. Creating conditions for the new economy to flourish would require **unprecedented collaboration** across sectoral and horizontal regulators



Regulation driven by **leadership, incentive, and reward** rather than by **command-and-control** schemes.

# Conclusion



**Jio's impact** on India's digital landscape in the four short years since it launched services has been **nothing short of spectacular**.



It is **possible to enter the telecom market through multiple routes** and success will depend on leveraging technology, convergence, innovation and creative business strategies.



The level of **vertical & horizontal integration in digital**, the integration of **physical & digital space**, and **services across sectors** is unprecedented. Will **throw up many challenges to legal & regulatory framework**.



Need to **review the existing legal and regulatory framework** in places like India and restructure the governance institutions, taking cue from international developments.



# Thank you

RS Sharma

