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# THE TRIPLE 'A' STRATEGY FOR SUCCESS

Affordability, accessibility and technological advancements are the critical aspects that India needs to take care of in its digital mission journey

In the rapidly evolving global digital arena, India emerges as a front-runner. This transformative journey, catalysed by the ambitious Digital India initiative, revolutionises the nation into a digitally empowered society and knowledge economy. The telecom industry, at the heart of this transformation, transcends its role as an economic entity to become a catalyst for societal and technological change. The COVID-19 pandemic demonstrated the indispensable role of telecom in lives today, from education, healthcare, and social communications, to governance, or anything else. It reinforced the sector's status as a lifeline, connecting and empowering societies during times of crisis.

The digital consumer landscape in India is witnessing a democratisation of access, with an increasing digital appetite not just in urban areas but in rural regions as well. This broad-based engagement is bridging the urban-rural digital divide and expanding the market for digital services. With one of the world's largest mobile subscriber bases and a burgeoning internet user community, India's telecom sector is ripe for the adoption of next-generation technologies like 5G, which promises not just enhanced connectivity but a potential revolution in various sectors. However, there are challenges to be met, like infrastructure development, regulatory hurdles, and ensuring accessibility and affordability.

As India stands at this digital juncture, the telecom sector is not just reflecting the nation's aspirations but

also shaping the potential for an inclusive digital future. This article aims to explore the interplay of affordability, accessibility and technological advancements in shaping India's telecom narrative and its impact on the country's digital destiny.

## INDIA'S TELECOM SECTOR STATUS

With over 1.17 billion subscribers and the number of internet users surpassing 881.26 million, India's telecom industry is a cornerstone of the nation's socio-economic progress, propelled by the government's progressive push for digital initiatives, aiming to provide digital infrastructure as a utility to every citizen.

India's vast and varied geography, with its mix of urban, semi-urban and rural areas, poses unique challenges and opportunities for telecom expansion. While urban areas boast high telecom density and advanced services, basic connectivity is still being developed in some rural regions. Economically, India presents a contrast between a burgeoning middle class with an increasing digital appetite and significant sections still facing economic constraints impacting digital access.

## AFFORDABILITY, ACCESSIBILITY, ADVANCEMENTS

In its report on the connected world, McKinsey categorised countries into four groups based on their rate of progress in the connectivity continuum. These groups are named 'Pioneers', 'Leaders', 'Followers' and 'Trailing Markets'. However, McKinsey assigned China and India to



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In a price-sensitive market like India, where the majority of the population has limited spending capacity, making 5G services and devices affordable is crucial.



## IN BRIEF

- India's telecom sector has emerged as a transformative force, connecting societies and catalysing technological change amid global competition.
- Affordability, cost-effective infrastructure, and financial inclusion are vital to propel digital inclusion and effective network development.
- Embracing 5G advancements, including spectrum technologies and IoT integration, is crucial for India's global competitiveness.
- Indigenous research, investment in education, and a robust application ecosystem is imperative for sustained leadership.
- Addressing affordability and accessibility ensures widespread benefits, fostering social inclusion and positioning India as a global tech hub.
- Collaboration between the government, industry, and stakeholders is essential to ensure equitable access to digital transformation.

distinct archetypes, acknowledging their unique status. Specifically, McKinsey described India as 'digitising faster than any trailing market'.

The nation's connectivity providers are contending with price wars, and McKinsey suggests that either price increases or government intervention may be necessary to encourage further network development. Given these unique challenges, India's approach to enhancing digital infrastructure must differ from other countries. A focused and tailored strategy is essential for a more effective digital rollout in India. Each component of this triad – affordability, accessibility, and advancement – has its own aspects, and we must look at them more holistically.

## OVERCOMING AFFORDABILITY BARRIERS

Affordability is a pivotal aspect of 5G adoption in India. Consumer pricing plays a crucial role, particularly in a price-sensitive market where the majority has limited spending capacity. Ensuring the affordability of 5G services and devices becomes imperative for widespread adoption.

Cost-effective infrastructure development is another consideration. The Indian government might explore measures to make 5G infrastructure development more economical. This approach would alleviate the financial burden on telecom operators, potentially leading to lower service costs for consumers.

Additionally, fostering financial inclusion is essential. This involves creating financial products and services tailored for low-income groups, enabling them to afford digital services and devices. This strategy contributes to broader digital inclusion, aligning with India's vision for widespread technological accessibility.

## FORMULATING ACCESSIBILITY STRATEGIES

Bridging the urban-rural digital gap is a pressing need, making the deployment of 5G in rural areas dependent on innovative infrastructure solutions and government support. Ensuring digital equity requires a focus on digital inclusion for all society segments, particularly marginalised communities.

To enhance the appeal and utility of digital services in rural and semi-urban areas, the development of localised

Efficient and strategic use of spectrum, like the allocation of the potent 6 GHz band for 5G services is important to ensure optimal use of this limited resource.

content and services in regional languages is crucial. Strengthening Public-Private Partnerships (PPPs) is vital for the development of telecom infrastructure in hard-to-reach areas and there is a need to leverage the strengths of both sectors to achieve greater reach and impact.

### ADVANCING TECHNOLOGICAL FRONTIERS

To stay globally competitive, India must embrace the latest 5G advancements. This includes adopting new spectrum technologies, Edge computing and IoT integration. There is also the need to support engineering technologies by recognising that 5G's role in driving AI, AR/VR, and smart cities is crucial for India's digital evolution.

Further, encouraging indigenous 5G research and development is vital to reduce reliance on foreign technology and tailor solutions to local needs, while investing in education and training programmes is essential to cultivate a skilled workforce capable of supporting these advanced telecom technologies.

An important initial lesson from 5G implementation is the significance of developing applications tailored to market requirements alongside standards and network technologies. As India looks toward a leadership role in 6G, the young and creative workforce must ideate and develop applications which help propel the uptake and use of these technologies efficiently and optimally. There is also a need for the government to foster a robust ecosystem for application development, much like the recently committed 100 5G labs announced for the development of use cases.

### IMPACTING INDIA'S DIGITAL MISSION

Affordable and accessible 5G technology can revolutionise various sectors, including healthcare, education, agriculture and manufacturing, aligning with the goals of Digital India and Industry 4.0. Widespread 5G adoption can significantly contribute to India's economic growth, creating new job opportunities and fostering innovation across industries.

By addressing affordability and accessibility, India can ensure that the benefits of digital transformation are equitably distributed, contributing to social inclusion and national development. Besides, advancements in 5G technology can stimulate an ecosystem of innovation,

attracting global investments and positioning India as a hub for technological innovation.

### CHALLENGES AND FUTURE OUTLOOK

While the potential impact is immense, India grapples with multifaceted challenges in its digital transformation journey, encompassing infrastructure limitations, regulatory complexities, and the imperative of ensuring technology's inclusive reach. Addressing these challenges necessitates a concerted effort from the government, industry, and various stakeholders.

**Infrastructure scaling:** The primary challenge revolves around scaling infrastructure, particularly in rural and remote areas, to facilitate the robust support needed for high-speed internet and the extensive reach of 5G networks.

**Regulatory framework:** Streamlining the regulatory framework becomes imperative for expeditious technology deployment. This includes supporting the swift implementation of new technologies, ensuring data privacy and security, and effective enforcement of progressive government measures such as right-of-way rules.

**Spectrum allocation:** The judicious and strategic allocation of spectrum, especially the potent 6 GHz band for 5G services, is crucial. This aims to optimise the use of this limited resource, striking a balance that meets the diverse needs of various stakeholders in the technological landscape.

India's telecommunications sector plays a crucial role in realising the nation's digital ambitions. Balancing the three aspects of affordability, accessibility and technological advancements, will not only drive the sector's growth but also significantly contribute to India's socio-economic development, ensuring that the benefits of digital transformation are accessible to all segments of the population. Collaborative efforts from the government, private sector and civil society are essential to overcome the challenges and harness the full potential of digital technologies for national progress and prosperity. 🌟

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