

MOBILE TELECOM SERVICES AND ITS GROWTH IN INDIA - A REVIEW

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Abstract

Telecommunications have a significant impact on every aspect of our life in the ever evolving digital age of today. From mobile phones to the internet, the demand for efficient telecom services is constantly on the rise. In India, a country with a massive population and a burgeoning economy, the telecom industry has witnessed remarkable growth over the years. This article explores the evolution of telecom services in India, the factors driving its growth, and the challenges faced by the industry.

Keywords: Telecommunication, Mobile Telecom, Service Providers, Growth

1. INTRODUCTION TO TELECOM SERVICES IN INDIA

The telecom industry in India has come a long way since its inception. It all started with the establishment of the first telegraph line in 1851, connecting Kolkata (then Calcutta) with Diamond Harbour. Fast forward to the present, India boasts one of the largest and most diverse telecom markets globally, serving millions of customers with a wide range of services. In the fast-paced digital age, the telecommunications industry has become the backbone of modern society. India, with its massive population and rapidly developing economy, has experienced an incredible surge in the demand for telecom services. In this essay, we will examine the elements that have fueled the expansion of telecom services in India. The challenges it faces, and how it has evolved over the years to meet the increasing demands of the population. M-commerce gains momentum, its benefits, including universality, personalisation, adaptability, immediate connectivity, and immediacy, make it a promising business model for the future. As a subclass of e-commerce, mobile commerce (M-commerce) denotes a brand-new area of commercial possibility. By enabling customers to complete online transactions using a handheld device, m-commerce enhances electronic commerce (Mahatanankoon, 2007). M-commerce is a method of conducting business while on the go. M-commerce was described by Feng et al. (2006) as a fresh and inventive business potential with distinct qualities including mobility and greater accessibility. M-commerce was defined by Shankar et al. (2010) as causing a change in the sales paradigm.

1.1 The Telecom Revolution

The 1990s marked a significant turning point for the Indian telecom sector when the government took steps to liberalize the industry. Prior to this, telecom services were largely restricted to the public sector. With the introduction of private players and foreign investments, the landscape of telecom services underwent a revolutionary change. The beginning of the 1990s saw the government introduce plans to liberalize the Indian telecom industry. Sector and promote private investment. Prior to this, the telecom sector was under the monopoly of state-owned enterprises, resulting in limited services and exorbitant costs for consumers.

The opening up of the telecom industry to private players brought about a revolution. It led to increased competition, which, in turn, drove down costs and improved service quality. With the introduction of mobile technology and wireless communication, connectivity reached even the remotest corners of the country. This revolution marked the beginning of a new era for telecom services in India.

1.2 Key Players in the Indian Telecom Industry

Today, the Indian telecom market is dominated by several major players. Some of the key telecom service providers include:

- 1. Reliance Jio Infocomm Limited:** A Reliance Industries company called Reliance Jio entered the telecom market in a revolutionary way in 2016. With its disruptive pricing strategies and high-speed 4G network, Jio revolutionized the industry and rapidly gained a massive subscriber base.
- 2. Bharti Airtel Limited:** One of the most renowned and established telecom providers in India is Bharti Airtel, usually referred to as Airtel. Airtel, which was founded in 1995, has had a significant impact on the development of the Indian telecom industry and is still a key participant with a sizable user base.
- 3. Vodafone Idea Limited:** Another significant telecom company in the nation is Vodafone Idea, which was created from the merger of Vodafone India and Idea Cellular. Despite facing challenges, the company remains a significant contender in the market.
- 4. Bharat Sanchar Nigam Limited (BSNL):** BSNL is a government-owned telecom operator that has been a part of the Indian telecom landscape for decades. While it faces competition from private players, BSNL continues to provide services in rural and remote areas, contributing to digital inclusion.

1.3 The Growth Drivers

Several factors have contributed to the rapid growth of the telecom industry in India. Let's delve into the key growth drivers:

- 1. Increasing Smartphone Penetration:** The advent of affordable smartphones has been a game-changer for the Indian telecom sector. As smartphones became more accessible, a large section of the population got access to the internet and various digital services. The availability of affordable smartphones has been a game-changer in the Indian telecom

landscape. As smartphone prices continue to drop, more people can afford to own a device capable of accessing the internet and enjoying various telecom services. This accessibility has bridged the digital divide, creating a vast market for telecom companies and stimulating the growth of value-added services.

- 2. Internet and Data Revolution:** The launch of high-speed mobile internet, particularly 4G services, transformed the way people access information and connect with each other. The data revolution further fueled the demand for telecom services. One of the primary drivers of the growth of telecom services in India is the continuous technological advancements. The country embraced 2G, 3G, and eventually 4G technology, which revolutionized communication and internet accessibility. The widespread adoption of smartphones further fueled the demand for data services.

With the emergence of cutting-edge technologies like 5G on the horizon, India is poised for yet another leap in its telecom infrastructure, offering faster and more reliable connectivity. The increasing internet penetration in India has played a pivotal role in driving the growth of telecom services. As more people gain access to the internet, the demand for online services, social media, e-commerce, and digital entertainment has surged.

The rapid expansion of digital services has not only impacted the urban population but also led to the digital empowerment of rural India. As a result, the telecom sector has witnessed a significant boost in revenue and customer base.

- 3. Digital India Initiative:** The government of India's "Digital India" campaign aimed to accelerate the adoption of digital technologies across the country. This initiative boosted the demand for telecom services, especially in rural areas.

The Indian government has been proactive in supporting the telecom sector's growth. Initiatives like "Digital India" and "Make in India" have focused on enhancing digital infrastructure and domestic manufacturing, respectively. Additionally, favourable policies and regulations have encouraged investments in the sector, promoting healthy competition and ensuring the availability of quality services to consumers.

- 4. E-commerce and Mobile Banking:** The rise of e-commerce and mobile banking platforms has led to a surge in digital transactions. Telecom services play a vital role in enabling seamless transactions and online shopping experiences. Barnes (2002). The adoption of various technologies has been studied in the past using a variety of models, including the Technology Acceptance Model (TAM) (Nagi and Gunasekaran, 2007 and Wei et al., 2009), the Theory of Planned Behaviour (TPB), the Diffusion of Innovation (DOI), and the Theory of Reasoned Action (TRA) (Feng et al., 2006). Perceived utility and perceived usability have been highlighted as crucial variables influencing customers' adoption of this technology in the case of M-commerce Tiwari and Basu (2007). However, researchers have suggested that extending TAM with additional variables would improve the prediction of behavior intention towards M-commerce.

- 5. Shift to Work from Home:** The COVID-19 pandemic accelerated the trend of remote working. This shift necessitated reliable telecom infrastructure to support seamless communication and collaboration for businesses and individuals.

2. CHALLENGES IN THE TELECOM SECTOR

While the growth prospects for the Indian telecom industry are promising, there are significant challenges that players in the sector must navigate:

- 1. Intense Competition:** There are several businesses vying for market share in India's fiercely competitive telecom industry. Price wars are frequently the result of this rivalry, which affects service providers' profit margins. There are several firms vying for market share in the fiercely competitive Indian telecom sector. Price wars and operators' narrow profit margins have resulted from this competition. To stay relevant, telecom companies need to constantly innovate and offer attractive packages to retain and expand their customer base.
- 2. Spectrum Allocation:** The allocation of spectrum by the government is a critical aspect of the telecom industry. Ensuring fair distribution and availability of adequate spectrum is crucial for delivering quality services.
- 3. Infrastructure Development:** To meet the growing demands of data and voice services, telecom companies need to continually invest in expanding and upgrading their infrastructure. This requires significant capital expenditure. India's vast and diverse geography presents a challenge in terms of infrastructure development. While urban areas enjoy robust connectivity, rural regions still face connectivity gaps. Extending telecom services to remote areas requires substantial investments in infrastructure, which can be financially demanding for telecom companies.
- 4. Regulatory Challenges:** Telecom companies in India must comply with various regulatory requirements, which can sometimes create complexities and administrative burdens. The telecom sector operates under a strict regulatory framework in India. Frequent policy changes and regulatory interventions can impact the business operations of telecom companies. Adapting to these changes while ensuring compliance can be a complex task for industry players.
- 5. Digital Divide:** While urban areas enjoy advanced telecom services, rural and remote regions often face challenges in terms of network coverage and connectivity, leading to a digital divide.
- 6. Data Privacy and Security:** Data security and privacy have grown to be major issues for both customers and service providers as a result of the growing reliance on digital services. Cybersecurity threats pose a significant risk to the integrity of telecom networks, necessitating constant vigilance and investments in security measures.

3. FUTURE PROSPECTS

The future of the Indian telecom sector looks promising, with several developments on the horizon:

- 1. 5G Rollout:** India is gearing up for the rollout of 5G services, which promise even higher data speeds and lower latency. This technological advancement will unlock new possibilities in areas like IoT and augmented reality. The impending rollout of 5G technology presents a tremendous opportunity for the Indian telecom industry. Faster data speeds, lower latency, and compatibility for a huge number of connected devices will all be made possible by 5G. This development will pave the way for fresh uses like smart cities, IoT-based services, and augmented reality activities.
- 2. Internet of Things (IoT):** The proliferation of IoT devices will lead to an increased demand for reliable and robust telecom services to support seamless data exchange between connected devices.
- 3. Focus on Rural Connectivity:** To bridge the digital divide, there will be a concerted effort to expand telecom infrastructure and services in rural areas, promoting digital inclusion and economic growth. Expanding telecom services to rural areas remains a significant opportunity for growth. Government initiatives and public-private partnerships can play a vital role in bridging the connectivity gap and bringing digital services to the underserved population.
- 4. Investments in Broadband:** With the increasing reliance on the internet for various services, investments in high-speed broadband connectivity will be a top priority for telecom companies.
- 5. Digital Payment Services:** The telecom sector can further integrate digital payment services into its offerings. With the government's push for a cashless economy, telecom operators can leverage their vast customer base to promote digital transactions and financial inclusion.
- 6. Internet of Things (IoT):** The Internet of Things (IoT) presents immense potential for the telecom industry. With the proliferation of connected devices, telecom operators can explore partnerships and services tailored to IoT applications, such as smart homes, healthcare, and industrial automation.

4. CONCLUSION

The telecom services sector in India has come a long way, witnessing extraordinary growth and transformation. From basic telephony to advanced 4G networks, the industry has adapted to the changing needs of consumers and businesses. With the increasing demand for data services, the sector is poised for further expansion and innovation, with the advent of 5G and IoT technologies on the horizon. As India moves towards a more digitally connected future, the telecom industry will play a crucial role in shaping the nation's growth and progress. The growth of telecom services in India has been nothing short of remarkable. From its humble

beginnings as a government-controlled sector to the fiercely competitive industry it is today, telecom has come a long way. Technological advancements, rising internet penetration, and government support have been the driving forces behind this growth.

As the telecom sector looks ahead, embracing 5G technology, addressing infrastructure challenges, and focusing on data security will be critical to sustain the momentum. With the right strategies and innovations, India's telecom industry is well-positioned to stay at the forefront of digital transformation, leaving a lasting impact on the lives of millions of people across the country.

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