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The Digital Transformation of India - A Case Study of Accelerated Mobile Internet

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The Digital Transformation of India-

A Case Study of Accelerated Mobile Internet

Pratiksha Ashok

Introduction

India- the land where tradition meets modernization, where local meets global, a land that has changed its image from an agrarian world to an equal competitor in the digital sector, a society where digitalization has not ripped traditional roots but uplifted small businesses and budding entrepreneurs.

In 2016, 16.5% (214.5 million) of the Indian population had access to mobile internet. In 2017, 18.2% of Indians (236 million) had access to mobile internet, an increase of approximately 22 million people having access to mobile internet in a year. The Indian Telecom Sector has emerged as one of the critical components of economic growth required for overall socio-economic development of the country as there is a positive correlation between the penetration of mobile services and internet on the growth of GDP of a country.

So, what are changed in 2016, contributing to the acceleration of mobile internet usage in India? The various factors that contributed and the impact on the consumers are the focus of this research. The factors include the rise of mobile service providers, digitalization, government policies and COVID-19, resulting in increased healthy competition, access to infrastructure and subsidies, a secure financial system and resilience in the face of a global health crisis.

Though the paper discusses a case study from India, it is relevant and crucial to be presented before a European audience for three crucial reasons i.e., to study the business model in the Indian market, to observe the potential of a rapidly developing country like India and to build and enhance the relation between these two jurisdictions. Though mobile internet is considered an integral aspect of modern life in the EU, the reality in global south countries is slowly but surely catching up.

India is witnessing rapid growth in the mobile internet sector. At the precipice of entering the world as an equal player, as a rapidly developing, growing and improving nation, India is slowly shedding its shackles of colonialism and establishing itself as a superpower, spurred on by its citizens and their contributions to the global e-commerce economy on the backbone of digitalization.

Research Question and Methodology

This paper investigates the mobile internet sector in India. The cause and effect relationship between the various factors leading to the accelerated growth of mobile internet in a global south country.

The paper uses a case study methodology to investigate the impact of accelerated mobile internet on the socio-economic and digital lives of users in India.

India and Telecommunications Sector

Telecommunications in India began with the introduction of the Telegraphy. The Indian postal and telecom sectors are one of the world's oldest. In 1850, the first experimental electric telegraph line was started in Kolkata. In 1851, it was opened for the use of the East India Company. Though telecommunications were established by the British Empire, in the post independent India, this was taken over by the Indian Government.

In an immediate post independent India, the government nationalized its economy and focused on rebuilding the Indian economy from within. In 1985, the Department of Telecom (DoT) was separated from Indian Post & Telecommunication Department. DoT was responsible for telecom services in entire country until 1986 when Mahanagar Telephone Nigam Limited (MTNL) and Videsh Sanchar Nigam Limited (VSNL) were carved out of DoT to run the telecom services of metro cities (Delhi and Mumbai) and international long-distance operations respectively

In 1991, India introduced its liberalization, privatization and globalization policy. This policy opened the Indian economy to foreign businesses and investments. This policy was also a gateway to many foreign investors to get entry into the Indian telecom markets. After March 2000, the government became more liberal in making policies and issuing licenses to private operators. The government further reduced license fees for cellular service providers and increased the allowable stake to 74% for foreign companies. Because of all these factors, the service fees finally reduced and the call costs were cut greatly enabling every common middle-class family in India to afford a cell phone. Nearly 32 million handsets were sold in India. The data reveals the real potential for growth of the Indian mobile market.

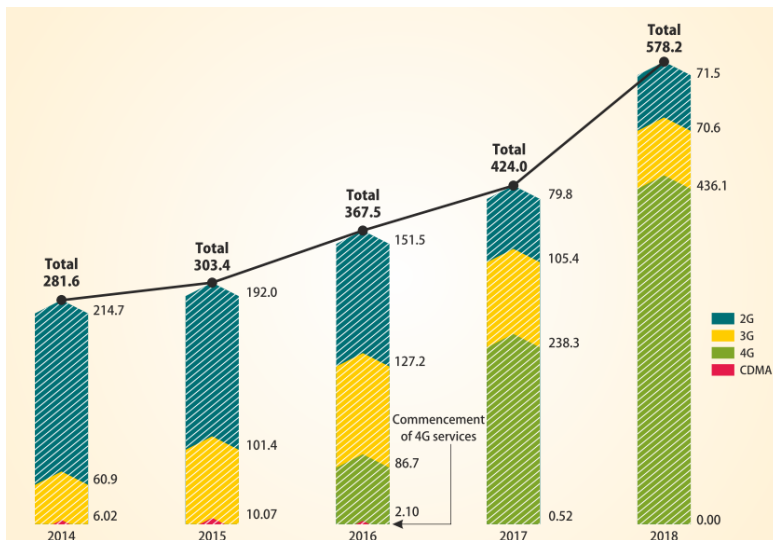


Figure 1: Number of users of internet from 2G to 4G, in Millions

Factors that impacted rapid acceleration

In 2016, 16.5% (214.5 million) of the Indian population had access to mobile internet. In 2017, 18.2% of Indians (236 million) had access to mobile internet, an increase of approximately 22 million people having access to mobile internet in a year.

There are various factors that contributed to this surge of mobile usage. Through this case study, the causes for such a rise in mobile internet usage are highlighted from the perspective of users. These causes cannot be individually held responsible; however, the confluence of such factors has impacted the industry to a great extent.

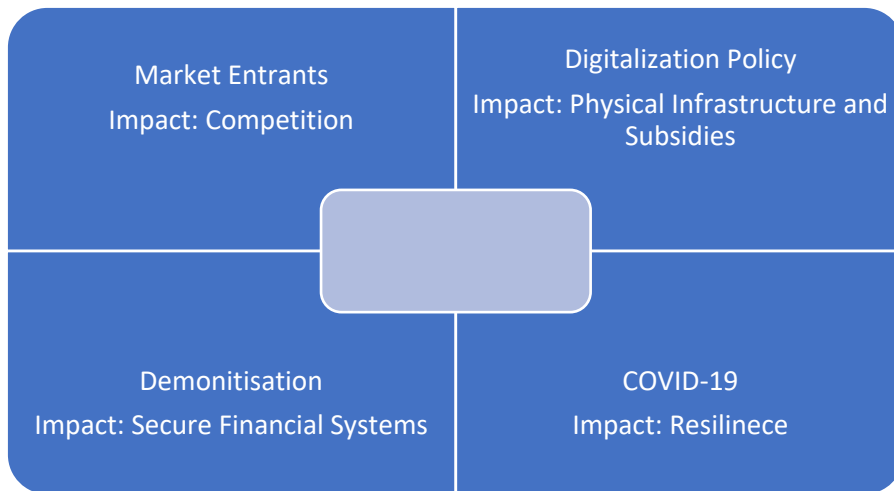


Figure 2: Factors and Impact of Mobile Acceleration in India

1. Market Entrants and Competition

Mobile internet, invaluable in the modern age, expanded drastically in India in 2016. However, mobile internet, in India, till 2016, was limited to urban and metropolitan cities. The entry of Reliance Jio has shaken up the market and consumerism. The market entry strategy of Reliance Jio was unprecedented. Their pricing market entry strategy guaranteed market entry and a position in the market. Reliance Jio, when it was launched, provided free unlimited internet connections and voice calling for the first three months. This strategy encouraged users to switch from one provider to Reliance Jio. In December, as a new year celebratory offer, they provided a further three months of free unlimited internet connection and voice calling - which amounted to six months of free internet and calling for subscribing to Reliance Jio. These marketing moves entrenched Reliance Jio's position in the market. As of 2021, Reliance Jio has more than 36% market share in the telecommunications sector, with competitors of Bharti Airtel having 30.81%, BSNL having 9.9% and MTNL having 0.28%.

This meant that consumer now had a wide variety of choices in the market. The competition in the market provides consumers with choices and mobile portability and the competitors with a healthy competitive environment. Consumers were now not limited to large cities but towns and villages. The consumer base was not extended, and mobile phones and internet connections are becoming more of a necessity than a luxury.

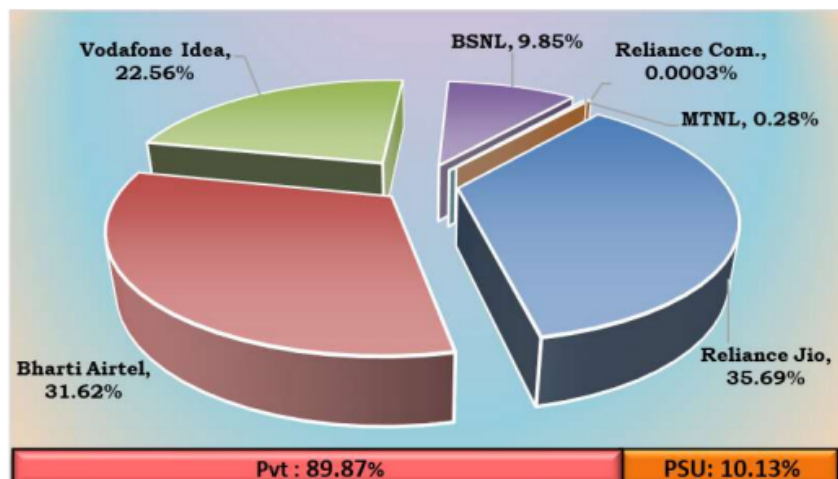


Figure 3: Service providers - wise market share as of 31 May 2022

2. Digitalization and Physical infrastructure

Secondly, an aspect of digitalization that often goes unnoticed is the physical infrastructure required. Fibre-optic cables, broadband modems, mobile towers, and even mobile devices are some of the necessary hardware to facilitate mobile internet. In the absence of this, there would not be optimum coverage and the possibility of providing 4G networks to rural parts of India. Innovations in one sector of mobile internet provision have accelerated growth in other aspects of modernization and telecommunication and physical infrastructures to improve online and offline connectivity. Mobile towers were erected, hundreds of kilometers of cables were laid, and the infrastructure required to support the need for the internet was also developed.

For consumers this meant an unprecedented level of connectivity with larger cities and towns. The development of mobile infrastructure also brought more business establishments to smaller towns who could leverage mobile internet access and low-cost infrastructure to develop their start up ideas.

India is moving towards the digital realm and has established the world's largest biometric ID system. Though this system was plagued with issues and bugs, the government has linked bank accounts, gas connections and subsidies for the poor to this scheme. This linkage has enabled those

individuals who are often unrecognized to now have identification, online access to information, subsidies for electricity, created the infrastructure for the working of the connectivity of the citizens of the country.

3. Government Policy and Secure Financial systems

Thidly, November 2016, the Indian Government, in a move to reduce black money and encourage transparent transactions, introduced their demonetizations policy- where from the stroke of midnight, specific currency notes were invalid. The option was to exchange these currency notes at banks, but they were no longer valid forms of currency. This policy urged people with money in their bank accounts but lacking physical currency to turn to mobile payments and payment wallets. From street vendors to larger stores began using the mobile internet- with their phones and internet provided to accept these methods of payments or risk going out of business. Users who were reluctant to use mobile payments systems were now urged to use such mechanisms. The demonetization policy along with the newer market entrants provide the perfect synergy required to boost the mobile internet systems.

For users to adopt such mobile banking systems, the government had to ensure secure payment systems. Online transactions has to be completely secure and trustworthy to enable users to use them for daily transactions. India has now developed Unified Payments Interface (UPI) which is an instant payment system developed by National Payments Corporation of India (NPCI). The interface facilitates inter-bank peer-to-peer (P2P) and person-to-merchant (P2M) transactions. It is used on Mobile devices to instantly transfer funds between two bank Accounts. The mobile number on the device is required to be registered with the bank.

As of November 2022, the platform has over 300 million monthly active users in India. The proportion of UPI transactions in total volume of digital transactions grew from 23% in 2018–19 to 55% in 2020–21 with an average value of ₹1,849 per transaction. It enabled over 2,348 transactions every second in 2022.

4. COVID 19 and Resilience

The final acceleration in the mobile internet in India was the Covid-19 pandemic. With people isolated at home and having to work and study from home, the internet has cemented its place amongst the basic needs of humankind- food, clothing, shelter.

61 percent of households in India used the internet in 2021, compared to just 21 percent in 2017. Over 130 million users came online in 2020 and 2021 from which nearly 80 million came online in 2020 and 43 percent of them (around 34 million) came online due to the COVID-19 crisis.

Confluence of Factors and Impacts

These factors in supplement each other in the contribute to the acceleration of mobile internet in India. Each factor has complemented each other and has accelerated access to the internet through mobile devices in India. On a macro scale, the rise of mobile intent has contributed to enhanced education content, rise in awareness, rise in use of online services and platform services.

India's Mobile internet story is not one of the rise of a company or the use of the internet in India but the underlying social and economic transformations that have taken place in the last five years. Indian society has transformed in many ways with the internet, giving voices and opportunities to communities that went previously unseen and unnoticed. The act of enabling people in India to a mobile phones and internet connectivity has completely revamped social and digital India.

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