# The history of mobile phone industry marketing essay



The phenomenal growth of the IT industry in India has brought to the fore the growing importance of India as a knowledge powerhouse. In fact it is the sector that is increasingly contributing to the high growth rate recorded in the country. However, since the mobile phone service industry is growing at a stable rate there are a large number of customers and therefore there is little pressure to take customers from competitors. The Exit barriers for the mobile industry are moderate because the initial investment is so huge that it takes time to recover the money & exit could result in losses but at the same time there are no government or social restrictions involved.

Competition has caused prices to drop and calls across India are one of the cheapest in the world. The customers can switch to another operator at very little cost. The competitors can easily attract customers by offering better services, lower prices and aggressive advertisement campaigns.

Keywords: History of Communication in India, Mobile Phones, Mobile Services, Mobile Companies in India, Mobile Phone Demand

## Introduction

Communications is the fastest growing sector within India's economy. The average compound rate of growth of the sector works out to 24. 02 percent per annum since the turn of this millennium. Public mobile telephone history begins in the 1940s after World War II. Although primitive mobile telephones existed before the War, these were specially converted two way radios used by government or industry, with calls patched manually into the land- line telephone network. With a subscriber base of more than 811. 59 million, the Mobile Telecommunications Industry in India is the second largest in the world and it was thrown open to private players in the 1990s. Competition https://assignbuster.com/the-history-of-mobile-phone-industry-marketing-essay/

has caused prices to drop and calls across India are one of the cheapest in the world.

According to the world telecommunications industry, India will have 1. 200 billion mobile subscribers by 2013. Furthermore, projections by several leading global consultancies indicate that the total number of subscribers in India will exceed the total subscriber count in the China by 2013. This is evident from a dataset on ICT spending developed by World Information Technology and Services Alliance (2006), of the total spending on ICT by India, about 63 percent was in communications. The domestic production of telecom equipment's has shown some impressive increases during the period since 2001, but even now, it accounts for only about 15 percent of the total telecoms industry. Even then with some fluctuations the equipment sector is slowly decreasing its share in the total revenues of the telecommunications industry

The history of the mobile services industry can be traced to 1997 or so when GSM cellular services were started. Since then the industry has grown and matured with another standard, CDMA, being introduced towards the end of 2002. Compared to the fixed services, the mobile services industry has a number of distinguishing features. First, the industry started as one dominated by private sector enterprises and the government religiously followed a policy of 'managed competition" by licensing more than one service provider in a telecom circle. The early part of the industry was of course riddled with much controversy pertaining to the terms and conditions under which the licenses were issued and the spectrum allocated between various kinds of service providers (Desai, 2006).

## **History of Communication in India**

Well Postal means of communication was the only mean communication until the year 1850. In 1850 experimental electric telegraph started for first time in India between Kolkata and Diamond Harbor (southern suburbs of Kolkata, on the banks of the Hooghly River). In 1851, it was opened for the use of the British East India Company. Subsequently construction of telegraph started through out India. A separate department was opened to the public in 1854. Dr. William O'Shaughnessy, who pioneered the telegraph and telephone in India, belonged to the Public Works Department, and worked towards the development of telecom. Kolkata was chosen, as it was the capital of British India.

In early1881, Oriental Telephone Company Limited of England opened telephone exchanges at Kolkata, Mumbai, Chennai and Ahmedabad. On the 28th January 1882 the first formal telephone service was established with a total of 93 subscribers. From the year 1902 India drastically changes from cable telegraph to wireless telegraph, radio telegraph, radio telephone, trunk dialing. Trunk dialing used in India for more than a decade, were system allowed subscribers to dial calls with operator assistance. Later moved to digital microwave, optical fiber, and satellite earth station. During British period all major cities and towns in India were linked with telephones.

After US, Japan, India stands in third largest Internet users of which 40% of Internet used via mobile phones. India ranks one of the lowest providers of broadband speed as compared countries such as Japan, India and Norway. Minimum broadband speed of 256kbit/s but speed above 2 Mbit is still in a nascent stage. Year 2007 had been declared as "Year of Broadband" in https://assignbuster.com/the-history-of-mobile-phone-industry-marketing-essay/

India. Telco's based on ADSL/VDSL in India generally have speeds up to 24 Mbit max while those based on newer Optical Fiber technology offer up to 100 Mbit in some plans Fiber-optic communication (FTTx). Broadband growth has been plagued by many problems. Complicated tariff structure, metered billing, High charges for right of way, Lack of domestic content, non-implementation of Local-loop unbundling have all resulted in hindrance to the growth of broadband. Many experts think future of broadband is on the hands of wireless factor.

#### **Mobile Phones**

A mobile phone (also known as a cellular phone, cell phone and a hand phone) is a device that can make and receive telephone calls over a radio link while moving around a wide geographic area. It does so by connecting to a cellular network provided by a mobile phone operator, allowing access to the public telephone network. By contrast, a cordless telephone is used only within the short range of a single, private base station.

In addition to telephony, modern mobile phones also support a wide variety of other services such as text messaging, MMS, email, Internet access, short-range wireless communications (infrared, Bluetooth), business applications, gaming and photography. Mobile phones that offer these and more general computing capabilities are referred to smartphones.

Most of operator follows GSM mobile system operates under 900MHz bandwidth few recent players started operating under 1800MHz bandwidth.

CDMA operators operate under 800Mhz band; they are first to introduce EVDO based high-speed wireless data services via USB dongle. In spite of

this huge growth Indian telecom sector is hit by severe spectrum crunch, corruption by India Govt. officials and financial troubles.

In 2008, India entered the 3G arenas with the launch of 3G enabled Mobile and Data services by Government owned MTNL and BSNL. Later from November 2010 private operator's started to launch their services. India has opted for the use of both the GSM (global system for mobile communications) and CDMA (code-division multiple access) technologies in the mobile sector. In addition to landline and mobile phones, some of the companies also provide the WLL service.

## **Mobile Technologies:**

Mobile technology is the technology used for cellular communication. Mobile code division multiple access (CDMA) technology has evolved rapidly over the past few years. Since the start of this millennium, a standard mobile device has gone from being no more than a simple two-way pager to being a mobile phone, GPS navigation device, an embedded web browser and instant messaging client, and a handheld game console.

# 4G networking

One of the most important features in the [4G] mobile networks is the domination of high-speed packet transmissions or burst traffic in the channels. The same codes used in the 2G-3G networks is applied to 4G mobile or wireless networks, the detection of very short bursts will be a serious problem due to their very poor partial correlation properties. Recent study has indicated that traditional multi-layer network architecture based on the Open Systems Interconnection (OSI) model may not be well suited for

4G mobile networks, where transactions of short packets will be the major part of the traffic in the channels. As the packets from different mobiles carry completely different channel characteristics, the receiver should execute all necessary algorithms, such as channel estimation, interactions with all upper layers and so on, within a very short time to make the detections of each packet flawless and even to reduce the clutter of traffic.

# **Operating systems**

Many types of mobile operating systems (OS) are available for smartphones, including: Android, BlackBerry OS, webOS, iOS, Symbian, Windows Mobile Professional (touch screen), Windows Mobile Standard (non-touch screen), and Bada. Among the most popular is the Apple iPhone, and the newest – Android. Android is a mobile operating system (OS) developed by Google. Android is the first completely open source mobile OS, meaning that it is free to any cell phone carrier.

## Wireless communication

Bluetooth wireless specification ensures communication compatibility worldwide and the wireless technology allows you to bring connectivity with you. Bluetooth is an open specification for a cutting-edge technology that enables short-range wireless connections between desktop and laptop computers, personal digital assistants, mobile phones, printers, scanners, digital cameras and even home appliances.

# **Global Positioning System: GPS**

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A technique that can be very useful when users are mobile is the GPS system. With GPS the user can find out the exact geographical position, on https://assignbuster.com/the-history-of-mobile-phone-industry-marketing-

the earth, he is located in. GPS will tell the user the exact position day as night regardless of the current meteorological situation.

#### **Indian Satellites**

India has launched more than 50 satellites of various types, since its first attempt in 1975. The organization responsible for Indian satellites is the Indian Space Research Organization (ISRO). Most Satellites have been launched from various vehicles, including American, Russian, European satellite-launch rockets, and the U. S. Space Shuttle. First Indian satellite Aryabhata on 19th April 1975, later Bhaskara, Rohini, INSAT, Edusat, IRS, GSAT, Kalpana, Cartosat, IMS, Chandrayaan, ResourceSat, RiSat, AnuSat, etc.

#### **Mobile Phone Demand**

Demand of mobile phones in India is expected to reach 350 million units per annum by 2020, says a study by industry body FICCI with market analyst firm Ernst and Young (E&Y)." India is the world's second-largest telecom market after China, with the total wireless subscriber base crossing 850 million at the end of June 2012. By 2020, the handset demand is projected to reach 350 million a year," the study said. At present, Indian mobile handset market is estimated to be in around 130 million handsets per annum. It's estimated that 505 million handsets are to be manufactured in India during the same year.

The study has found that average selling price (ASP) of handsets in the country is estimated to increase to Rs 2, 950 by 2020 as compared to Rs 2, 300 in 2012." In India, handsets are categorized as high, medium, low, and ultra low cost ASP devices. The medium ASP segment is likely to be the

fastest growing segment in terms of volume," Prashant Singhal, Telecom Industry Leader, E&Y, said. He added that affordability of feature-rich handsets is also expected to be a key enabler of handset adoption.

The study sees untapped rural market to provide handset players the next phase of growth. The number of 3G subscribers expected to cross 300 million by 2020, fuelling the growth of 3G-enabled handsets. A favorable policy and regulatory initiative conducive for handset manufacturing in India is expected to drive sustainable growth in this segment," the statement said. The study recommends that there is need to set up handset manufacturing cluster parks that would enable a sustainable ecosystem for the manufacture of mobile handsets in the country.

According to market research group IDC, mobile phone sales in India stood at 218 million last year, a growth of 16 percent from 2011. A chunk of that growth came from the rise in demand for smartphones in the country. The smartphone segment registered a whopping 48 percent growth YoY for a total number of 16. 3 million handsets sold in 2012 vs. 11 million handsets in 2011. According to the report, low-end smartphones accounted for majority of the smartphone sales. The Indian manufacturers ramped up shipments and released multiple models in the sub 10, 000 categories, to take a significant share of the smartphone market in the country. According to the report, while the local vendors were dominant players in the sub \$100 category, they gave a tough competition to global manufacturers in the \$100-200 price range as well.

Android continued to be the dominant player in the market but the last few months also witnessed the rise of iOS and Windows Phone as mobile platforms in the country. However the Indian market is still significantly small when compared to China, where vendors were able to push over 150 million smartphone units alone. According to IDC, "This (Indian) market is expected to continue its growth into 2013, driven by the stupendous growth of close to 70 per cent in the smartphone market." India is expected to become the number three markets for smartphones by 2017, and Brazil will be fourth, as those countries overtake mature markets like Japan and Britain, IDC said.

#### **Mobile Phone Service**

First mobile telephone service on non-commercial basis started in India on 48th Independence Day at country's capital Delhi. The first cellular call was made in India on July 31st, 1995 over Modi Telstra's Mobile Net GSM network of Kolkata. Later mobile telephone services are divided into multiple zones known as circles. Competition has caused prices to drop and calls across India are one of the cheapest in the world. India has become one of the fastest growing mobile markets in the world, therefore the mobile phone service companies have high fixed costs as a result of which they try to increase their productive capacity, which leads to intense competition. The customers can switch to another operator at very little cost. The competitors can easily attract customers by offering better services, lower prices and aggressive advertisement campaigns.

The mobile services (commercial services) were commercially launched in August 1995 in India. First with GSM services, then in 2002-03 CDMA services also commenced offered first with reliance pan India service. https://assignbuster.com/the-history-of-mobile-phone-industry-marketing-essay/

(Actually CDMA services were being provided by others also much before reliance shyam / himachal futuristic in Rajasthan under rainbow brand essentially mobile for city only therefore worked only in city's municipal limit). In the initial 5-6 years the average monthly subscribers additions were around 0. 05 to 0. 1 million only and the total mobile subscribers base in December 2002 stood at 10. 5 millions. However, after the number of proactive initiatives taken by regulator and licensor, the monthly mobile subscriber additions increased to around 2 million per month in the year 2003-04 and 2004-05. The mobile tariffs in India have also become lowest in the world. A new mobile connection can be activated with a monthly commitment of US\$ 5 only. In 2005 alone 32 million handsets were sold in India. The data reveals the real potential for growth of the Indian mobile market.

When the GSM services commenced, the charges were as high as Rs 26/ minutes. The calls were charged both for incoming & outgoing calls. Also there was peak & off-peak rates separately. Initially Airtel, Essar, RPG, BPL, Skycell etc. were early service providers.

Pager communication launched successfully in India in the year 1995. Pagers were looked upon as devices that offered the much-needed mobility in communication, especially for businesses. Motorola was a major player with nearly 80 per cent of the market share. The other companies included Mobilink, Pagelink, BPL, Usha Martin telecom and Easy call. Pagers were generally worn on the belt or carried in the pocket. Pager companies in India also offered their services in regional languages also. However, the end had begun already. When mobile phones were commercially launched in India, https://assignbuster.com/the-history-of-mobile-phone-industry-marketing-essay/

the pager had many advantages to boast. Pagers were smaller, had a longer battery life and were considerably cheaper. However, the mobile phones got better with time and continuously upgraded themselves.

1994 Airtel and Essar rate per minute 16. 80 per minute both way in coming and outgoing both are chargeble connection and sim available on booking @5260 no roaming ericson and motorolla the only 2 black and white cell phones were available i m the 2571 customer of airtel.

Reliance started the price war by offering low price handset & low call charges (supposedly "low" but in truth not).

Tata also jumped in CDMA operation. Today there are 4 GSM service providers in each circle & 2/3 CDMA service providers.

It is quite likely that the rapid expansion of mobile services will provide economic, logistic and strategic challenges to the operators. As operators expand coverage into urban, semi-urban, and rural areas, they will be confronted with the daunting tasks of developing a countrywide infrastructure and improving and maintaining the quality of service. Next Generation Networks, multiple access networks can connect customers to a core network based on IP technology. These access networks include fiber optics or coaxial cable networks connected to fixed locations or customers connected through Wi-Fi as well as to 3G networks connected to mobile users.

# Mobile Companies in India

India is the world's fastest growing mobile industry in the world and there are a large number of mobile companies such as Airtel, Reliance, Vodafone, BSNL, Idea Cellular, Tata Indicom, Aircel, MTNL, Spice, BPL Mobile, Ping Mobil, and Uninor.



CDMA, GSM, EVDO, HSPA

148, 614, 402

16.7%

3

Vodafone

GSM, EDGE, HSPA

146, 841, 840

16.4%

4

Idea Cellular

GSM, EDGE, HSPA

106, 380, 741

11.9%

5

BSNL

GSM, EDGE, HSPA, CDMA, ECDO

92, 561, 492

10.8%

6

**Tata Teleservices** 

GSM, CDMA, EDGE, EVDO, HSPA+

73, 851, 329

9.2%

7

Aircel

GSM & CDMA, EDGE, HSPA

61, 640, 752

6.9%

8

Uninor

GSM, EDGE

26, 330, 211

4. 2%

9

## Videocon

#### GSM, HSDPA, CDMA

_	100	000
1	1 70	886
	123.	000

0.6%

10

MTNL

GSM, HSDPA

5, 236, 171

0.6%

11

S Tel

GSM, GPRS

3, 543, 782

0.5%

12

Loop

GSM, EDGE

2. 210, 498

#### Conclusion

Along with the extraordinary growth of the IT industry in India,

Telecommunications is increasingly contributing to the high growth rate recorded in this country. The average compound rate of growth of the sector works out to 24. 02 percent per annum since the turn of this millennium. The mobile services industry has a number of distinguishing features dominated by private sector enterprises and the government religiously followed a policy of 'managed competition" by licensing more than one service provider in a telecom circle. However, since the mobile phone service industry is growing at a stable rate there are a large number of customers and therefore there is little pressure to take customers from competitors. The Exit barriers for the mobile industry are moderate because the initial investment is so huge that it takes time to recover the money & exit could result in losses but at the same time there are no government or social restrictions involved. Since the start of this millennium, a standard mobile device has gone from being no more than a simple two-way pager to being a mobile phone, GPS navigation device, an embedded web browser and instant messaging client, and a handheld game console. Competition has caused prices to drop and calls across India are one of the cheapest in the world. The customers can switch to another operator at very little cost. The competitors can easily attract customers by offering better services, lower prices and aggressive advertisement campaigns. As a result, in the future, it would be impossible to identify whether the next generation network is a fixed or mobile network and the wireless access broadband would be used

both for fixed and mobile services. It would then be futile to differentiate between fixed and mobile networks both fixed and mobile users will access services through a single core network. Cloud based data services are expected to come. According to the world telecommunications industry, India will have 1. 200 billion mobile subscribers by 2013. Furthermore, projections by several leading global consultancies indicate that the total number of subscribers in India will exceed the total subscriber count in the China by 2013.

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