ABSTRACT
Telecommunication industry has witnessed unprecedented growth in recent times. The service operators are facing stiff competition resulting in redefining strategies and adopting innovative products to remain in business. The challenge today is to devise strategies that enable them to outperform competitors and ensure the delivery of quality services that can meet and exceed the expectations of their customers thereby enhancing their performance. This paper provides a brief description of the service sector in India and then it’s followed by an overview of the Indian telecommunication sector. Furthermore, this paper attempts to provide an outline of the telecommunication market structure in India making the use of Porters five force analysis.

Keywords: Telecommunication; market structure; five force analysis; service sector

INTRODUCTION
“Nothing has changed the world more during these hundred years than this astonishing change in our methods of communication” – Jawaharlal Nehru

In the last quarter of 2014 Indian economy surpassed the Chinese economy by becoming the world’s fastest-growing major economy. In terms of purchasing power parity (PPP) the economy of India is the third largest in the world (World Bank, 2016). According to the economic survey of IMF (2016), the economy of India is the “bright spot” in the global landscape. India for the first time topped the World Banks growth outlook for the year 2015-16. According to the Economic Survey (2015-16), among the three economic sectors, agricultural sector remains the largest employer in the Indian economy but it contributes to only 17% to the GDP (2015-16), the industrial sector contributes to about 26% to the GDP (2015-16) and with an annual growth rate of more than 9% since 2001 the Indian service sector is one of the fastest growing service sectors in the world contributing about 57% to the GDP as on 2015-16 up from 15% in 1950 and about 66.1% of its Gross Value Added growth in 2015-16. The service sector has become a dominant sector in India’s GDP attracting significant foreign direct investment, contributing significantly to the exports and providing large-scale employment. The service sector in India covers a wide variety of activities such as aviation, banking and finance, information technology, insurance, electricity, infrastructure, tourism, construction, education, entertainment, healthcare, printing and telecommunications. The growth of service sector is governed by domestic as well as global factors. According to Economic Survey (2016-17), the Indian service market is expected to grow at 17 percent CAGR between 2015 & 2020 and cross the $19 billion mark supported by booming telecommunications, real estate, retail, and hospitality sectors. India has the world’s second-largest telephone users with 1.18 billion subscribers as on February 2017.
and also the world’s second largest internet users with 462.12 million internet subscribers in the country as on January 2016 (TRAI, 2017). According to a survey conducted by the Confederation of Industry Associated Councils (ASCON, 2016), the three service sectors: cellular phone, housing finance and IT services have shown the highest growth rates recently. Among these sectors, the telecom sector is likely to be the growth engine for the Indian economy.

OBJECTIVES OF THE STUDY
The aim of this research is to attain the following objective:
To identify and examine market structure of telecommunication industry in India;

INDIAN TELECOMMUNICATION MARKET STRUCTURE
Since 1990 after the market liberalization, Indian telecom industry grew at a high pace and now it’s the world’s most competitive and one of the fastest growing telecom markets. The Indian telecom market in India is split into three segments. Mobile (wireless), Fixed-line (wire-line) and Internet services. The wireless segment comprises of establishments operating and sustaining switching and broadcast facilities to make available direct communications by airwaves. The wireline segment consists of establishments that operate and uphold switching and transmission facilities to provide communications through microwave, landlines, or a combination of satellite link-ups and landlines. Finally the third segment i.e the Internet services include Internet Service Providers (ISPs) that provide internet connections (broadband) through consumer and business channels. The present status of the telecommunications sector in India has been summed up in a tabular format as exhibited in

<table>
<thead>
<tr>
<th>Table 1.1: Indian Telecommunication Market Structure – Present Status</th>
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<tbody>
<tr>
<td><strong>Total Subscribers</strong></td>
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<td><strong>Mobile Subscribers</strong></td>
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<td><strong>Fixed line subscribers</strong></td>
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<td><strong>Total teledensity</strong></td>
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<td><strong>Urban teledensity</strong></td>
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<td><strong>Rural teledensity</strong></td>
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<td><strong>Internet Users</strong></td>
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<td><strong>Broadband Internet Users</strong></td>
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Source: Telecom Regulatory Authority of India. Trai Press Release No. 34/2017 28th April, 2017

TELECOM SUBSCRIPTION DATA
India is at present the second-largest telecom market in the world. The number of telephone subscribers in India increased from 1,174.80 million at the end of January 2017 to 1,188.55 million at the end of February 2017, thereby showing a monthly growth rate of 1.17%. The urban subscription increased from 681.15 million at the end of January 2017 to 692.15 million at the end of February 2017, however, the rural subscription increased from 493.65 million to 496.39 million during the same
period. The monthly growth rates of urban and rural subscription were 1.62% and 0.56% respectively during the month of February 2017. The details of the same are graphically presented below in figure 1.2. The yearly growth rate of the telecommunication subscribers has been shown graphically from the financial year (FY) 2007 to the financial year (FY) 2016 in figure 1.1. India’s telephone subscriber base expanded at a compound annual growth rate (CAGR) of 19.96 percent, reaching 1058.86 million during the FY2007–2016.

**Figure 1.1: Yearly Telephone Subscription Data**

![Graph](image1.png)

Source: Telecom Regulatory Authority of India. Trai Press Release No. 34/2017 28th April, 2017

**Figure 1.2: Present (urban/rural) Telecom Subscription Data (in Millions)**

![Graph](image2.png)

Source: Telecom Regulatory Authority of India. Trai Press Release No. 34/2017 28th April, 2017

**TOTAL WIRELESS SUBSCRIPTION DATA**

The wireless segment accounts for 97.62 percent (FY 2016) of total telephone subscriptions dominated the market, with the wireline sector accounting for a total share of 2.4 percent only. During Financial Year 2007-16, wireless subscribers in the country increased at a CAGR of 22.94 percent, with the number of subscribers reaching to 1,058.85 million in FY2016 (figure 1.4). Also, the total wireless subscriber base (GSM, CDMA & LTE) increased from 1,150.45 million at the end of January 2017 to 1,164.20 million at the end of February 2017, thereby registering a monthly growth rate of 1.19%. The wireless subscription in urban areas increased from 660.63 million at the end of January 2017 to 671.63 million at the end of February 2017, and wireless subscription in rural areas increased from 489.82 million to 492.57 million during the same period. The monthly growth rates of urban and rural wireless subscription were 1.66% and 0.56% respectively.
MARKET SHARE OF SERVICE PROVIDERS

As on 28th February 2017, the private service providers held a market share of 91.19 percent of the wireless subscribers, while the two (PSU) Public Sector Units service providers, BSNL and MTNL have a total market share of 8.81%. The graphical representation of service provider-wise market share in wireless subscriber base is given below in figure 1.5. The six service providers Bharti Airtel, Vodafone, Idea, Reliance Communication, Aircel and BSNL accounting for almost 82 percent of the total subscriber base in the country.
PORTERS FIVE FORCE MODEL OF INDIAN TELECOM MARKET

COMPETITIVE RIVALRY
1. The low cost of switching a telecommunication operator and price sensitivity is increasing the competition among the existing players in the market.
2. The high exit barriers for the industry have also intensified competition.
3. There are around 6 to 7 players in each region, leading to a very intense competition.
4. The availability of mobile number portability option for the customers has also intensified the competition.

THREAT OF NEW ENTRANTS
1. The government regulations for the industry are very strict thus discouraging new entrants.
2. Extremely high infrastructure setup cost, high investment in high technology devices has discouraged the entry of new players in the industry.
3. The industry is based on technology and innovation, factors that evolve and need to be embraced and understood. Thus a proper know how of the industry is important and may act as a barrier to entry.
4. Difficulty in achieving economies of scale, brand differentiation acts as a barrier to entry.
SUBSTITUTE PRODUCTS
1. There is hardly any threat of availability of substitute products as there is no substitute available in the market that can provide similar service.

BARGAINING POWER OF SUPPLIERS
1. The bargaining power of suppliers is high as there are just a few suppliers to the sector and the infrastructure.
2. The switching cost of suppliers is also high in the industry.

BARGAINING POWER OF CUSTOMERS
1. The presence of numerous service providers coupled with low switching cost and the availability of mobile number portability option gives customers high bargaining power with their telecommunication service provider.
2. Customers being price sensitive to this industry also adds to their bargaining power.

CONCLUSION
This paper makes use of Porters five force model within the telecommunications industry. It can be concluded that the industry is witnessing intense competition due to the availability of 6-7 operators in each circle, low cost of switching a telecommunication operator, mobile number portability, price sensitivity of the customers and availability of 6-7 operators in each circle. The threat of new entrants to the industry is low due to the existing intense competition, requirement of huge infrastructural set up cost, high investment in technology, difficulty in achieving economies of scale, brand differentiation and tough government regulations acts as a barrier to entry. Further, there is hardly any threat of substitute products as there is no substitute available in the market that can provide similar service. Also, the bargaining power of suppliers and customers is high as there are just a few suppliers to the sector and the customers being price sensitive coupled with numerous service providers and low switching cost adds to their bargaining power.

REFERENCES