

# PEST Analysis of Present Indian Telecom Sector

K. Reddy Sai Sravanth, N. Sundaram, Desti Kannaiah



**Abstract:** The telecom sector has gained massive growth in India. It has 1.8 billion subscribers and it is the world's second largest telecom sector. Currently telecom sector has drastically changed their structure and technology. The 4G spectrum has changed the customer's perception and motivation. The objective of the study is to explore the future opportunities of Indian telecom sector. For this purpose, PEST analysis was used. There was a lack of studies that focused on the Political, Economic, Social and Technological areas of the telecom sector. The study found that there are opportunities in rural telecom sector but they are not utilized in the proper manner.

**Keywords:** Telecom sector in India, Political analysis, Economic analysis, Social analysis and Technology analysis

## I. INTRODUCTION

Modern communication technologies have reshaped the world's telecommunication markets. Telecommunication sector is a rapidly growing industry in India, since 1990's. In the modern world, telecommunication has played a significant role. Telecommunication has become a part and parcel of every Indian. The telecommunication sector has made notable growth in reducing transaction costs, increased internet speed, allowing free calls throughout India, changing lifestyles of the societies, services, and brands. Telecommunication sector has entered the 4G technology in India. It has massively changed the market structure and has increased the competition among the operators. India's mobile market is the fastest-growing market in the world.

The Indian Telecom sector has a robust consumer demand and supportive government policies. In the telecom sector, the government is ensuring fair competition among service providers. The proactive and fair regulatory framework has resulted in the availability of telecom services to consumers at affordable prices. India is the world's second-largest telecommunication market. It has 1.18 billion subscribers. Indian mobile economy constitutes 98% mobile subscriptions.

As per the GSMA report, the telecom industry supports 6.5% of India's GDP (Telecommunication Annual Report, 2019). The telecommunication sector has shown strong growth over the years.

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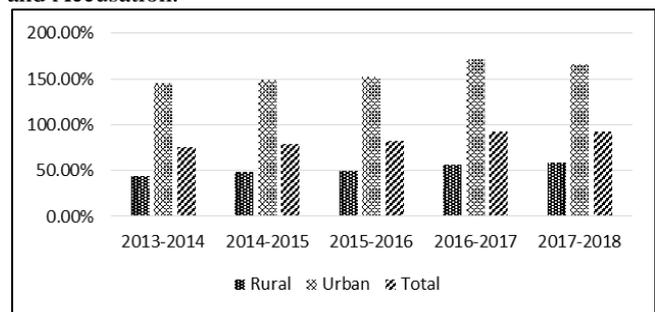
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The total subscribers at the end of the financial year September 2018 were 1206.22 million, with the number increasing from 933.00 million as on December 2014 to 1,206.22 million as on September 2018. The number of wireless subscribers increased from 904.51 million as on December 2014 to 1183.41 million as of September 2018 (TRAI, 2018). Tele-density in India increased from 75.23% in 2014 to 92.84% in September 2018 (Figure 1) (TRAI, 2018). In the rural areas tele-density increased from 43.96% in December 2014 to 59.05% in September 2018 and in the urban areas it increased from 146.96% in December 2014 to 165.90% in September 2018 (TRAI, 2018). Mobile Number Portability (MNP) increased from 117.01 million in December 2014 to 272.76 million September 2018. Moreover, Telecom companies have introduced 4G network in 2016 and changed their capital structure through Mergers and Acquisition.



**Figure 1: Rural, Urban and Total Tele-density of India**

Presently State-owned companies are Bharat Sanchar Nigam Ltd (BSNL) and Mahanagar Telephone Nigam Limited (MTNL). The market share for both the companies were 10.12%. Currently, BSNL is facing a financial crisis. The other four private companies have occupied 89.88% market share of total wireless subscribers on 28 February 2019. These service providers are Vodafone Idea (34.58%), Bharti Airtel (28.75%), Reliance Jio (25.11%), Tata Tele (1.44%) as per TRAI May Report 2019.

The telecom sector has undergone a huge change over the years because of the introduction of telecom reformation policy by the Government of India. A new telecom policy was announced in the year 2017 (National Digital Communication Policy---2018) which was designed keeping in mind the needs of modern technology like 5G, Machine to Machine interface, Internet of Things and other features. For introducing these features, to serve the nation better, and to build a strong base for Digital India, the telecom sector has also launched "customer focused" and "application driven" strategies. These in turn will help to amplify the opportunities of telecom-based services (Department of Telecommunication Annual report 2019).



## II. LITERATURE REVIEW

The study analysed the customer's perceived satisfaction about mobile service providers. The data analysis was done using t-tests, multiple regression, and exploratory factor analysis.

The research was conducted in the Delhi-NCR region. Network connectivity, schemes offered, call rates and SMS rates were found to affect satisfaction. Amongst them network connectivity had the highest impact. Therefore, companies should provide better network connectivity for customers and must reduce the call and SMS rates (Sharma, 2014).

Another study found the factor that affected the profitability of Indian telecom companies. This paper was based on panel data methodology. The research was based on secondary data. The variable that were used for analysis were; profitability, size, tangibility, leverage, liquidity, growth opportunity, non-debt tax shield, and bankruptcy profitability. The study concluded that companies had to use internal funds for future expansions. The profitable companies should borrow less and they accumulate internal funds for their financial needs. The study also indicated that growth is an essential factor for profitability. The analysis proved that large firms were bankrupt because they do not have profitability, prospects, and growth. The other factors of the research i.e. liquidity, tangibility Z-score and NDTS did not affect the profitability (Khan, 2018).

The article shed light on the effect that mergers and acquisitions would have on the purchasing company's Return on Equity. Correlation, t-tests were used for the study. They analysed the secondary data of 5 telecom companies. It was found that mergers and acquisitions had no impact on the Return on Equity of the purchasing Indian telecom company (Singh, 2017).

An analysis was done on the adoption of mobile phones in India. For the analysis, S-shaped growth curve models was used. It was based on Secondary data. The researcher stated that high growth phase of circulation of mobile phone will continue throughout the years.

Mobile phone demand on average in India will increase at 36.9% per year between 2005-2006 and 2010-2011 and 15.75 per year between 2010- 2011 and 2015- 2016. The rapid expansion of mobile subscribers will increase government revenue and GDP (Singh, 2008).

The study found the impact that working capital management had on the telecom companies. The researcher used correlation analysis and ordinary square least regression analysis. The research was based on secondary data of 8 telecom companies. The outcomes of the study stated that there was a significant relationship between working capital management and profitability.

The correlation analysis showed that Return on Asset had a negative relationship with Inventory Conversion Period, Cash Conversion Cycle, Average Payment Period and current ratio. The regression analysis was used to assess the significant impact on profitability.

As a result, Return on Asset had a positive relationship between Cash Conversion Cycle, Average Payment Period, Average Collection Period and Debt Ratio (Mahato, 2016).

The paper studied the diffusion of mobile telephony in

India. Epidemic theory, Bass model, Nonlinear and Gompertz model tool were used for the analysis. Secondary data was used. The variables of investigation were Social, Economic, Political and Technological factors. Bass model disclosed extremely imitative Indian mobile telephony. Gompertz model best defined the country's mobile telephony diffusion pattern. Empirical findings indicate that all three variables — fixed-line telephony, Calling Party pay and efficient tariff based on the recognized factors — were important determinants of the diffusion speed. The outcomes of this study indicated that both effectiveness (service provider) and rationality (public intervention) were needed for the diffusion of mobile telephony in the Indian telecommunication industry (Gupta, 2012).

The study examined the overall financial efficiency of the select telecom companies. The researcher used F-test and Z-score model for analysis. Secondary data was used. Descriptive statistics revealed that the position of liquidity and solvency in both the long and the short term was unsatisfactory and telecom companies will have to correct it. F-test verified a lesser degree of associations between economic factors and financial variables (Pandey, 2013). From the above studies, it was clear that there was a lack in the number of studies that focused on the Political, Economic, Social and Technological arenas of the telecom sector. Moreover, the said analysis is said to change over the years. Hence, this study was necessary for adding knowledge about the present-day Indian Telecom Sector.

## III. RESEARCH METHODOLOGY

The study is purely a conceptual paper. The objective of the paper is to explain the opportunities of present Indian telecom industry. For analysis purpose the researchers have used the PEST Analysis. The researcher relied on the secondary sources like journals, websites, editorials and published reports.

## IV. DISCUSSION

“PEST Analysis (Political, Economic, Social and Technological) is a management method whereby an organization can assess major external factors that influence its operation in order to become more competitive in the market. As described by the acronym, those four areas are central to this model”. – Investopedia.

The external environment variable is beyond the control of the firm. It requires corporate strategy realignment analysis for shifting of business environments. Firms which are operating in different parts of the country possess invulnerable ecosystem.

It has a large variety of exogenous factors which can influence the firm's competitive position. The firms have to understand and evaluate the external factors of the business models and also have to mitigate these external factors through the use of pre-emptive strategy (Bonnicipest, 2014).

## A. Political Analysis

- **Foreign Direct Investments (FDI):** FDI has played a vital role in shaping the telecom sector in telecom infrastructure and financial expansion over the past years. FDI's during the financial year 2018- 2019 was US\$2.67 million. However, there was a fall in FDI inflow in 2019. The reasons behind the fall in FDI is because of the reduction of the number of telecom companies through mergers. Another reason was the lack of certainty over telecom regulations and the absence of a conducive environment to operate (PTI , 2019).
- **National Digital Communication Policy – 2018:** The Government of India has introduced National Digital Communication Policy (NDCP) – 2018. It fulfils the communication and information needs of enterprises and citizens. This policy establishes resilient, secure, ubiquitous and affordable digital communications services and infrastructure. It facilitates digitally empowered society and economy. The main goal of the policy will be achieved by 2022. It will provide broadband for all, create additional 4 million jobs in the Digital Communications Sector and increase the contribution of digital communications sector by 8%, towards Indian's Gross Domestic Product (Telecommunication annual report, 2019).

## B. Economic Analysis

- **Goods and Service Tax:** The Goods and Service Tax rate (GST) is 18% for the telecom services. The rate varies based on the place in which telecommunication services are offered. Integrated Goods and Service Tax (IGST) is charged for inter-state supply. In case the location of the supplier and the place of supply are in other states the CGST + SGST charges will apply. The petroleum products are excluded from GST but it is necessity for telecommunication sector. This sector has to maintain round the clock continuous supply of services to the telecommunication towers because towers run's on diesel i.e. electricity, lithium cell batteries and DG sets. As a result, this has a huge cascading effect on the telecommunications sector. GST council is yet to decide whether to treat the sale of Subscriber Identification Module as service or goods (Gupta, 2019).
- **Domestic and export share:** TRAI had made some recommendations on exports. The telecom body said that India has to transform its imports to exports for the indigenous manufacturing of telecommunication equipment. It has instructed that India should target in bringing down the import of telecom equipments to the level of net-zero within 2022. To promote this target of TRAI a collective fund of amount of 10 Billion Dollars should be allocated to develop the Research and Development of telecom products in our country. The primary reasons for decreasing exports and increasing imports is continuous competition from China. There was large scale production and low-cost export of telecom equipments in China. On the other hand, in India imported telecom equipment from Sweden, the United States, and Finland (Rathee, 2018).
- **Revenue Growth:** Telecom industry is set to reverse previous two years of declining trend with a 7% revenue

growth in 2020. Fiscal owing has expected that average revenue per user (ARPU) will increase by 11%. Debt protection metrics will remain to improve even though debt metrics will be weak. Sponsors support and deleveraging plans will give continuous support for overall credit profile. Due to elevated Capex and weak cash accruals, the telecom industry has been pushing into debt since the last three years of fiscal 2019 (Gurnaney, 2019).

- **Productivity Growth:** The technological revolution has remained ahead of the curve. The hyper-competition in the telecom industry has made a great impact on the country. According to Reserve Bank of India data, the productivity of telecommunication sector is high when comparing the other sectors from the reforms since 1991. Its productivity is also growing over 10% in the present. On the other hand, other sectors are not achieving even 5% of productivity growth in the same. Telecom sector has been taken up to 7% of growth from the last decade. It is one of the fast-moving sectors in the Indian economy (Kapoor, 2018).

## C. Social Analysis

- **Education:** Telecommunications can promote access to education in rural areas. It can help the student to access content directly. It also helps teachers in developing knowledge and skills. Telecommunication can also assist a lot to improve literacy for adults. Additionally, mobile phone education has drastically changed the mindsets of students. They provide education anytime anywhere throughout the year without time lag. By leveraging the increasing penetration of mobile value-added services and mobile phones, significant progress can be produced towards attaining 100% literacy. According to KPMG report, the Indian digital education sector is expected to expand from 1.6 million customers in 2016 to 9.6 million customers by 2021 (Christoph, 2017). India has 43 crore children at the age of 0 to 18 years. The rural-urban school enrolment ratio is 7:5, approximately 60% of students from rural areas, up to 10 years of age, absence fundamental reading skills (Kavishwar, 2018). Digital education has opportunities to expand services to rural areas because more of the students are in rural areas only.
- **Health:** Healthcare delivery is set to change it's course in the future. Telecom development and other associated techniques contribute enhanced results of quality. In several instances, these interrelated technological innovations also decreased the need for hospitalization. The significant development is in the field of telemedicine. Telemedicine and M- health application changed patient mindsets. Doctors are rare in rural areas and their time is precious. By eliminating unnecessary journeys, telemedicine can enable physicians to see more patients every day. The networks established between 22 super speciality hospitals with the 78 remote rural hospitals in the country through geostationary satellites proves the efficacy of the telemedicine (Singh, 2018).

**D. Technological Analysis:** Telecom industry is capital intensive. Therefore, the product cycle and services must stay for long before the returns are felt.

## PEST Analysis of Present Indian Telecom Sector

Licensed operators and equipment manufacturers are under pressure because technology is uncertain. The revenue of the firm will decline when technology changes (Gupta, 2015). Telecom sector needs constant upgrades in order to meet its technological advancements. Telecom capital expenditure was considered to be non-discretionary and this expenditure increases or decreases, depending on the technological changes, which occur on a time-to-time basis and which require an increase in the CAPEX (Capital expenditures) to be incurred by the operator (Care Ratings Professionals Risk Opinion, 2018). Indian telecom sector needs more investment in basic infrastructure to provide services in large scale and geographically widespread population and to boost the present insufficient spectrum (India Rating & Research, 2012).

The government has taken initial steps towards the development of India such as Smart City Project, Make in India, Payment banks, and Digital India. The 4G LITE services created a good platform for the exponential growth of cloud, Internet of Things, Machine to Machine, big data and analytics which led to huge development of voice, video, and data (Joshi, 2016). Revolution is taken place in trends and technology. It has been accepted across the world operators. Now slowly 5G is becoming a reality worldwide and will evolve naturally from current 4G networks. The 5G will constitute a turning point for communications in the future, bringing instant high-power connectivity to devices (Bose, 2019). The telecommunications industry is on the verge of technological revolution and digital transformation in order to offer its consumers a wider range of services. Consumers demand better service quality from service providers. The solution to this problem is to embrace artificial intelligence and machine learning (Khokale, 2019).

### V. CONCLUSION

This research paper studied the Political, Economic, Social and Technology factors of the Indian telecom sector. There was insecurity in legislation and the conducive environment to function so that the FDI in telecommunications businesses has been reduced. Even though the government has set targets to reach 8 percent of Telecom GDP by 2022. They will have to provide 4 million jobs in the digital communications sector in the coming days. The GST of the telecom sector was high due to which tariff rates had increased. The increase in petrol price will also affect telecom growth. The revenue of the telecom sector is increasing day by day because there are more subscribers. The social factors like digital education, telemedicine, and M-health have ample opportunities. They are yet to reach the rural areas. They have to expand their service to rural areas. The technology factors have massively changed in India. Companies need to invest more money on these changes. In general, there are changes in the Indian telecom industry, but many businesses are not reaching the rural regions. They only focus on urban areas. Companies are missing opportunities in the rural areas.

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