

Survival in a Competitive Market: A Study on Mobile Telecom Operators in India

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Abstract

The Indian telecom market is the second-largest telecommunication market in the world. The market is fiercely competitive due to the rising subscriber base and increasing demand for network connectivity. The present study tries to analyze the strategies and policies that determine the survival of the mobile telecom operators of India. The focus is also on the benefits and drawbacks of various factors that eventually lead to the success or failure of these companies. The study is based on an exploratory research method where 30 doctoral theses have been reviewed, and secondary sources, namely valuable reports, and websites, have been referred to. Gleaned from the literature review, it is found that with efficient policy-making, the Indian telecom industry deliberated on infrastructural support, technological advancement, and industrial development. The success of an organization depends not only on effective telecom policy structure but also on customer loyalty, customer retention, marketing mix, service quality, and corporate image of the telecom operators. All these factors positively influenced customer perception and satisfaction and motivated customers' buying decision to have a competitive edge in the telecom market.

Keywords: Marketing strategies, buying behaviour, customer satisfaction, telecom policy, customer loyalty, customer retention, marketing mix, service quality, corporate image.

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INTRODUCTION

The Indian telecom market is the world's second-largest telecommunications market, with a tele-density of 84.88% as of April 2022 (India Brand Equity Foundation) and a subscriber base of 1.17 billion as of September 2022 (Invest India). Reliance Jio services got introduced in the telecom market commercially in 2016, after which the Indian telecom market experienced an upsurge in mergers and acquisitions. Reliance Jio flared up an unprecedented price war that destroyed profits and pushed away several telecom operators out of the market.

Intense tariff wars in the Indian telecom market made the telecom operators unstable financially. The stakeholders of the telecom market observed that insisting on being the world's cheapest telecom market would not benefit the Indian economy. That is why

consultations were made, and tariff prices rose almost 40 percent from the levels of 2017-18 and 2018-19. This has made the Indian telecom economy more sustainable with effective pricing strategies (Competition Commission of India, 2021).

In the data-centric telecom industry, multi-tasking devices have offered numerous convenient services like voice, SMS, video chat, banking, social media, entertainment, etc. These have made customers' life much more accessible than earlier. This has provoked a shift in consumer behaviour to change their lifestyle and be more social (Competition Commission of India, 2021). Hence non-pricing factors like policy framing, service quality, retention, loyalty, corporate image, product, place, people, promotion, physical evidence, process, and performance of the telecom operators are also the new constructs of competition

between the telecom service providers. The report of the Competition Commission of India (CCI) (2021) found that the product and service differentiators were given in bundled forms, including all the voice, data, and content together. These were the focus of differentiation strategies of the telecom operators to acquire and retain customers for the long term.

According to the report authored by India Brand Equity Foundation (IBEF) (2022), the market has seen strong growth in recent years, driven by factors such as affordable tariffs, expanding 3G and 4G coverage, wider availability, Mobile Number Portability (MNP), evolving consumption patterns of subscribers, and a favourable regulatory environment. The telecom market has become fiercely competitive due to the rising customer base and increasing demand for connectivity. Telecom service providers face numerous challenges to survive in this cutting-edge competition. This includes intense price competition, differentiation, technological advancements, etc. Mobile telecom operators must concentrate on several factors or strategies, including pricing and non-pricing factors, to survive and attain a competitive advantage in this ever-changing Indian telecom market.

Against this backdrop, the present study tries to analyze the strategies and policies that determine the survival of the mobile telecom operators of India in a fiercely competitive market. The focus is also on the benefits and drawbacks of various factors that eventually lead to the success or failure of these companies.

Telecom Policy

The telecommunication (telecom) industry requires an appropriate policy framework to generate handy guidelines to make the mobile telecom operators grow and sustain in the ever-competitive market. In India, telecom policies are framed and enforced by regulatory authorities like the Telecom Regulatory Authority of India (TRAI), Department of Telecommunications (DoT), Wireless Planning Commission (WPC), Standing Advisory Committee on Frequency Application (SAFCA), and Telecom Disputes Settlement and Appellate Tribunal. TRAI is an autonomous government-funded regulatory authority free from political manipulation or market players' influence. Its policy framework is adaptable to the ever-changing, technologically converged telecom industry (Shiny, 2014).

In his study, Ojha (2007) observed the importance of the Government's amendments to the Telecommunications Tariff Order (TTO), 1999, which was made to protect service providers and customers. He also explored the influence of product segmentation strategy that allowed mobile phone service providers to use any digital divide technology, including Global System for Mobile Communication (GSM) and Code-

Division Multiple Access (CDMA) in India. With the government's vital policy reforms, the Indian telecom industry has deliberated on infrastructural support and technological advancement (Kumbhat, 2015; Alwarappan, 2015).

National Telecom Policy, 1999 has contributed much to the economic development in both urban and rural areas. There has been a rapid increase in supply and demand for telecom services (Kumbhat, 2015). Solanki (2017) observed that the government of India had taken numerous steps in its policy-making to increase telecom companies' adaptability to technological advancements. Efficient policy-making led to the high performance of mobile telecom operators with high intensity of customer satisfaction (Patel, 2019).

Though India had an opportunity to form a sound, more structured telecom policy by learning from the experiences of other similar nations, she squandered her chance, resulting in a less structured and systematic telecom policy (Vinaya, 2008). TRAI's powers were ambiguous as opposed to its transparent policy framework, as it had numerous disputes with the operations of the Ministry of Communications. According to Shiny (2014), TRAI could not prevent the anti-competitive behaviour from the dominant operators due to its liberal policies.

Customer Loyalty

Customer loyalty is the willingness of existing customers to make repeat purchases from a company. The success of any organization depends significantly on customer loyalty as it motivates the customer's buying decision and influences them to choose one company over others. Nair (2014) observed that customer satisfaction is the most significant element in determining customer loyalty, followed by the company's image and promotion mix. The aspects of customer satisfaction, such as satisfaction with service items and features, contentment with the provider, and choice among various plans offered by the company, together had the most significant influence on customer loyalty. Furthermore, the most vital indicators of customer loyalty were recommending the company's services to their acquaintances, repurchasing from the same company, and spreading positive word of mouth. Verma (2018) observed that customer loyalty was positively and significantly related to customer satisfaction.

According to Bansal (2017), customer engagement strategies had a moderately positive impact on customer loyalty. This indicated a stark improvement in customer loyalty with the enhancement of customer engagement experiences. Tyagi (2022) explored the mediating effects of brand recognition and recalled the relationship between service quality,

customer satisfaction, and customer loyalty in the Indian telecom sector.

However, Singh (2014) opined that customer loyalty was relatively low in the Indian telecom market as the customers were highly influenced by the telecom operators' switching costs and price structures. Jeevapriya (2014) observed that customer satisfaction and loyalty suffered significantly due to the influence of service marketing factors like ongoing developments and the legitimacy of telecom services to the current laws and taxations.

Customer Retention

Customer retention strategy is applied by a business to keep track of customer engagement with the resultant turnover, thereby providing great experiences and offering value to its customers. Business growth and sustainability rely heavily on customer acquisition and retention.

Kumar (2013) studied the effectiveness of customer retention in the Indian telecom sector. He observed that the determinants of customer retention were perceived tangibility, perceived reliability, perceived responsiveness, assurance, empathy, network quality, convenience, interpersonal relationship, and switching costs. Customers' tastes and preferences mainly affected the factors influencing customer retention. As a company retains customers, they repeatedly purchase from the same company and become loyal customers. This, in turn, makes them familiar with the products and services offered by the company, and the customers' tastes and preferences get highly influenced. To cater to varied customer preferences, telecom companies require diverse marketing strategies. For this, the providers focused on reliable and uninterrupted services along with the latest technology usage by customers. Customer acquisition and retention success was derived from internalizing the senses of customer behaviour and altering the strategies (Dhananjay, 2018).

Alwarappan (2015) developed a structural equation model explaining the relationship of marketing strategies with customer retention. It was observed that customer retention was significantly influenced by customer perception. Bansal (2017) in his study performed parametric tests like ANOVA to establish a relationship between customer retention and customer engagement marketing. He observed that customer engagement strategies significantly impacted customer retention, and a moderate positive relationship was found among them.

However, customer switchover from one telecom operator to another varied with time and technology changes. It also varied with the changes in customer segments (Singh, 2014).

Service Quality

Customers' choice of mobile telecom service provider depends crucially on the operators' quality of service. Service quality influences the choice of Managed Service Provider (MSP) (Laxmi, 2017). Tyagi (2022) found that service quality positively influenced brand awareness, brand image, and customer satisfaction. All of these constructs influenced customer loyalty and retention.

Perceived service quality was positively influenced by six significant constructs: tangibility, responsiveness, reliability, empathy, assurance, and network quality. The perceived service quality greatly influences customer satisfaction (Nair, 2014). All service quality dimensions except tangibility for all the telecom service providers were highly related to customer satisfaction (Alaguchamy, 2014; Raju, 2012).

According to Singh (2014), the service quality gap negatively influences customers' satisfaction with service providers. Jeevapriya (2014) found that the service quality gap among urban customers was higher than that of rural customers. It had a negative influence on customer satisfaction and loyalty. Stella (2018) opined that the overall service quality of BSNL was satisfactory among customers.

Jasrai (2016) found that after-sales service quality could have been better as there was no availability of the latest service plans, offers, recharge coupons, etc. The rural customers were satisfied with talk time, validity, and customer care services but not network quality, reliability, and signal strength.

Corporate Image

Corporate image is the impression of the company transcribed in the customers' minds. This impression is about the company's products, services, performance, and generally, the goodwill of the company. The corporate image positively influences customer satisfaction (Nair, 2014; Alaguchamy, 2014). It can be enhanced by the company's promotion and distribution channel performance (Nair, 2014).

According to Porwal (2014), Airtel had a better corporate image than Idea as the quality of services provided was far better than that of Idea. Stella (2018) observed that customers were unfamiliar with the BSNL brand due to fewer regional media advertisements. Different on-site brand communities were formed among customers due to the good corporate image of the telecom service providers (Bansal, 2017).

Dhananjay (2018) observed that corporate image helped in customer retention. With a positive corporate image, existing customers trusted the company and stayed with the company. This also helped in customer acquisition. According to Bansal (2019), the Indian youth valued corporate image more than calling and value-added services. The corporate

image was more influential for lower-income group people (Anupama, 2014).

Vijayakumar (2007) observed that customers preferred a brand with comprehensive network coverage and clarity. Customers also perceived that their social status increased because of the high corporate image of the telecom service provider. Corporate image strongly influences customer attitudes to avail of the services of telecom operators (Balakumar, 2017).

Tyagi (2022) observed that brand equity which consisted of brand awareness, brand or corporate image, and brand loyalty, was highly impacted by service quality and customer satisfaction from the services provided by telecom operators. A robust corporate image helped reduce customer churn in the Indian telecom sector. Khan (2009) opined those urban customers highly valued brand equity, while rural customers valued product distribution and service support.

Marketing Mix

Alterations in the marketing mix significantly impact a concern's brand image, customer loyalty, and overall profitability. Survival in a competitive oligopolistic market is greatly influenced by the decisions and policies adopted for the 8Ps: product, price, place, promotion, process, positioning, people, and process. A synoptic discussion of these factors is presented below.

Product Mix

Product mix strategies of mobile telecom operators have positively and significantly influenced customer satisfaction (Verma, 2018). Product segmentation is one of the critical aspects of product mix, which aims to create distinct customer segments. This allows mobile telecom operators to use digital technology throughout India, including GSM and CDMA (Ojha, 2007). Rural customers' innovativeness in mobile telecom services was significantly influenced by product involvement but not by the need for uniqueness (Jasrai, 2016).

Rao (2013) found that customers preferred prepaid connections over postpaid connections. They trusted the telecom operators to provide affordable products catering to their needs. As the users had trust in the retailers, they preferred to buy regular products from familiar places (Porwal, 2014).

Technological advancements and changing customer needs led companies to develop innovative products. Customers remain loyal to the company if they are satisfied with the product, its services, and its features (Nair, 2014). With the increase in the number of customer segments, companies' product portfolios shifted from technical product aspects to feature

aspects. These technologically converged products, i.e., smartphones with innovative feature attributes, were dominant in the market and became famous for multitasking. This influenced telecom operators to develop creative manufacturing processes to enhance product quality (Dawar, 2016).

Price Mix

Fairness in price influences customer preference and satisfaction and thus influences customers' buying decisions (Solanki, 2017; Laxmi, 2017; Khan, 2017; Raju, 2012; and Verma, 2018). Most customers support need-based product pricing and dynamic pricing strategies simultaneously and agree that price discounts are an essential marketing strategy of cellular service providers (Rao, 2013). Dawar (2016) observed that technological innovation also influenced price mix positively and significantly for Indian telecom operators. However, Jasrai (2016) opined that price sensitivity and the need for uniqueness did not affect consumer innovativeness. In a price-sensitive environment, telecom products and services become customer-centric and provide affordable items to customers. The effect of price reduction of telecom services was noticed to be higher in the case of Airtel than in Idea. According to Idea employees, price reduction increased customer acquisition and service consumption. Idea captured customers' wallet shares with inexpensive calls and SMS rates (Porwal, 2014).

The price structure of telecom products and services positively influences customer loyalty and retention (Singh, 2014; Dhananjay, 2018). It has a high impact on people belonging to the lower income group when choosing the services of a telecom operator (Anupama, 2014). According to Stella (2018), the tariff rates offered by the telecom operators were satisfactory, but the customers had an unfavorable opinion of the perceived price of BSNL. They expected more internet speed at the same price as offered by BSNL.

Place Mix

Technological innovation has revolutionized the distribution framework in the mobile phone market. It converted traditional physical stores to digital or virtual stores with the rise in delivery speed of products and services. Mobile companies have expanded their distribution networks, leading to their telecom market growth (Kanwal, 2007). Dawar (2016) opined that technological innovation had a positive and significant impact on the distribution strategy of telecom service providers. According to Porwal (2014), customers developed a relationship of trust with the retailers, so they preferred to buy a regular product from a familiar place. Airtel and Idea believed place mix was a critical factor in gaining a competitive edge as customers looked for convenient places to buy good quality products. Place mix of telecom service providers influences customer satisfaction (Verma, 2018; Khan, 2017).

Rao (2013) observed that customers' decision to purchase products from telecom operators was highly influenced by purchase location and connectivity to distribution stores. As compared to urban areas, connectivity problems were more in rural areas. Dhananjay (2018) observed that customer acquisition and retention depended much on the distribution network and place of service. Distribution strategy is one of the effective strategies of place mix. According to Nair (2014), distribution channel performance influences corporate image. The distribution strategy of Airtel was far better than that of BSNL, for which the retailers always recommended Airtel connection. Airtel customer care centers were situated at convenient locations that satisfied the customers (Laxmi, 2017).

Partnering with other retailers is one of the place mix strategies in the Indian telecom industry. Telecom operators sell their products and services by partnering with other retailers. According to Alwarappan (2015), retail shops were the essential point of contact for customers in the mobile business.

Promotion Mix

The Indian telecom sector combines the promotion mix strategies like advertisement, sales promotion, public relations, and personal selling to attain a large subscriber base (Ojha, 2007; Porwal, 2014). These promotional initiatives taken by service providers helped them build a customer base, which initiated growth (Ojha, 2007). Promotional strategies adopted by Airtel influenced customer preference and satisfaction more than MTNL (Laxmi, 2017). Airtel and Idea focused on promotion mix strategies to attain a competitive edge and maintain a healthy relationship with their customers (Porwal, 2014).

Customers get information about cellular services through newspapers, word of mouth, and promotional offers (Rao, 2013). Customers make their buying decision according to the recommendations of friends and relatives, television, outdoor advertisements, newspapers, and magazines (Vijayakumar, 2007). Bansal (2017) observed that the perception of marketing professionals varied towards customer engagement strategies of service. On the other hand, customers of all telecom operators were satisfied with the promotional schemes and offers introduced in the market.

According to Nair (2014) and Khan (2017), promotion mix positively influences corporate image and customer loyalty. Most retailers were satisfied with Airtel and Idea's advertisement and sales promotion (Dhananjay, 2018), while customers perceived the promotional effectiveness of BSNL to be lower than its immediate competitors (Nair, 2014). According to Dawar (2016), technological innovation positively impacted the promotion strategies of mobile telecom

service providers. This helped in building marketing communications like online advertisements and email marketing. There was a positive impact of technological innovation on the retailers' opinions about the promotion mix.

Process Mix

According to Porwal (2014), the influence of the process mix of telecom service providers on the buying decisions of customers was critical to gain a competitive edge. Customers looked for excellent processes to choose their telecom operator. The introduction of innovative manufacturing processes led to the development of feature attributes for multitasking. With the development of feature attributes in a product, technological advancement has also paved the way to make the complex process mix much more uncomplicated to the customers. This was done with the help of apps, e-services, and network connectivity (Dawar, 2016). Rao (2013) opined that most customers had to undergo complex processes while getting cellular service. Anupama (2014) observed that transparency in the billing process and brand names were highly influential in customer decision-making. However, Verma (2018) found in his study that the marketing mix's process strategy did not significantly impact customer satisfaction.

Physical evidence or Positioning Mix

Physical evidence mix is customers' physical environment while availing of telecom service. Companies use this strategy to attract the targeted customer segment and attain a proper position in the telecom market. It is also called the positioning mix as it creates an image of the product and services in customers' minds.

According to Porwal (2014), the physical evidence mix was critical for telecom service providers to gain a competitive edge in the Indian telecom market. Rao (2013) observed that BSNL and Airtel customers got connections from authorized showrooms, franchises, marketing executives, and service centers. All these are part of telecom service providers' physical evidence or promotion mix strategy. Khan (2017) found in his study that the physical evidence component of the marketing mix was more critical to brand loyalty than customer satisfaction. However, Verma (2018), through his research, opined that physical evidence did not influence customer satisfaction to a great extent.

People Mix

People mix strategy refers to everyone involved in the product or service of the company directly or indirectly. This includes employees, retailers, distributors, customer service representatives, salespeople, technicians, and engineers. Porwal (2014) observed that the people influence customers' buying decisions. Different marketing communication tools like Integrated Marketing Communications (IMC)

impact customers differently. IMC factors of Airtel influenced customers differently than that of Idea. Pleased customers also were involved in the people mix strategy of Idea as they become brand ambassadors and spokespeople for the company. Employees of Airtel and Idea believed that people mix was a critical component for gaining a competitive advantage in the Indian telecom market.

Verma (2018) opined that people mix strategy influenced customer satisfaction positively and significantly. According to Rao (2013), most BSNL, Airtel, and Vodafone customers said they never influenced existing customers but brought prospective customers to the company. This indicated the efficiency of the people mix strategy of mobile telecom service providers (Stella, 2018).

Performance Mix

The performance mix strategies are the marketing efforts to have good returns, profits, and reputational gains in a company. Shiny (2014) observed that private-sector service providers were superior to public-sector service providers in terms of financial performance and consumer satisfaction. According to Stella (2018), customer expectation of the BSNL brand was more than its performance reality. Anupama (2014) found that brand reputation was more influential for older customer segments, while factors like brand goodwill greatly influenced lower-income group people. It was also observed that Tata Indicom customers' durability and the brand's reputation were more critical, while BSNL customers' knowledge of staff about the brand was a highly influential factor.

CONCLUSION

India's telecommunication industry required an appropriate telecom policy framework to make mobile telecom operators grow and sustain in the ever-competitive market. The government's amendments to the TTO 1999 and NTP 1999 protected service providers and customers. Customer engagement strategies had a moderately positive impact on customer loyalty. In India, customer loyalty suffered greatly due to telecom operators' switching costs, price structures, service marketing factors, etc. Business growth and sustainability depend on customer retention massively. It was influenced dramatically by customer perception. The marketing mix strategies pursued by telecom operators influenced customers' buying behaviour positively and significantly. Technological advancement led to robust marketing mix strategies that helped attain customer trust and satisfaction in the Indian telecom market. Service quality positively influenced brand awareness, brand image, customer loyalty, retention, and satisfaction. The service quality gap among urban customers was higher than that of rural customers. Corporate image had a positive influence on customer satisfaction. It was enhanced by the promotion and distribution channel performance of

the company. The corporate image helped in customer acquisition and retention. Customers perceived that their social status increased because of the high corporate image of telecom service providers. A robust corporate image helped reduce customer churn in the Indian telecom sector. The financial performance of private operators was much better than public mobile telecom operators in India.

In conclusion, it has been found that with efficient policy-making, the Indian telecom industry deliberates on infrastructural support, industrial development, and technological advancement. The success of an organization depends not only on an effective telecom policy structure but also on customer loyalty, customer retention, marketing mix, service quality, and the corporate image of telecom operators. All these factors positively influence customer perception and satisfaction and motivate customers' buying decisions to have a competitive edge in the telecom market.

REFERENCES

- Alaguchamy, N. (2014). *Service Quality and Customer Satisfaction of Mobile Phone Service Providers: A Study with Reference to Madurai District, Tamil Nadu* [Doctoral Dissertation, Madurai Kamraj University]. Shodhganga. <http://hdl.handle.net/10603/125285>
- Alwarappan, S. (2015). *Marketing Strategies and Customer Perception Towards Mobile Services in Southern Districts of Tamilnadu* [Doctoral Dissertation, Manonmaniam Sundaranar University, Tirunelveli]. Shodhganga. <http://hdl.handle.net/10603/133687>
- Anupama, A. N. V. D. (2014). *Impact of Expectation and Perceptions on Satisfaction and Brand Loyalty Among the Customers of Cellular Services: A Comparative Study of BSNL and Tata Indicom* [Doctoral Dissertation, Sri Venkateswara University]. Shodhganga. <http://hdl.handle.net/10603/118523>
- Balakumar, V. (2017). *A Study on Attitude of Corporate Customers Towards Bharat Sanchar Nigam Limited (BSNL) Services* [Doctoral Dissertation, Anna University]. Shodhganga. <http://hdl.handle.net/10603/231760>
- Bansal R. (2017). *Impact of Customer Engagement Strategies on Customer Loyalty and Retention in Telecom Sector* [Doctoral Dissertation, Maharshi Dayanand University]. Shodhganga. <http://hdl.handle.net/10603/208311>
- Bansal, Y. (2019). *Impact of Marketing Strategies on Youths Buying Behaviour in Telecom Sector* [Doctoral Dissertation, IIS (deemed to be University)]. Shodhganga. <http://hdl.handle.net/10603/271344>
- Dawar S. (2016). *Impact of Technological Innovation on Marketing Mix of Mobile Phone*

- Industry in Rajasthan* [Doctoral Dissertation, Mohan Lal Sukhadia University]. Shodhganga. <http://hdl.handle.net/10603/147845>
- Dhananjay, D. D. (2018). *A Study of Strategies for Customer Acquisition and Retention of Selected Mobile Communication Service Providers in and Around Pune City* [Doctoral Dissertation, Dr. D Y Patil Vidyapeeth]. Shodhganga. <http://hdl.handle.net/10603/281818>
 - Jasrai, L. (2016). *A Study on Integrated Innovative and Inclusive Framework for Mobile Telecom Service Users in Rural Punjab* [Doctoral Dissertation, Lovely Professional University]. Shodhganga. <http://hdl.handle.net/10603/148306>
 - Jeevapriya, T. R. (2014). *Services Marketing in Telecommunications Industry in Madurai* [Doctoral Dissertation, Madurai Kamraj University]. Shodhganga. <http://hdl.handle.net/10603/138651>
 - Kanwal, P. (2007). *An Empirical Study of Trust and Commitment in Cellular Users of Selected Telecom Service Providers* [Doctoral Dissertation, Panjab University]. Shodhganga. <http://hdl.handle.net/10603/82347>
 - Khan, A. S. (2009). *Telecommunication Services with Special Reference to Cellular Mobile Phone Services in The Post Liberalization Era in Madurai District Tamil Nadu* [Doctoral Dissertation, Madurai Kamraj University]. Shodhganga. <http://hdl.handle.net/10603/125289>
 - Khan, R. Y. (2017). *A Study on Customer Preference and Perception towards Usage of Data Card with Special Reference to Tiruchirappalli District* [Doctoral Dissertation, Bharathidasan University]. Shodhganga. <http://hdl.handle.net/10603/219989>
 - Kumar, K. (2013). *Customer Retention Strategies of Telecom Service Providers* [Doctoral Dissertation, Maharshi Dayanand University]. Shodhganga. <http://hdl.handle.net/10603/32820>
 - Kumbhat, N. K. (2015). *Telecom Policies in India: A Comparative Study of Public and Selected Private Companies* [Doctoral Dissertation, University of Rajasthan]. Shodhganga. <http://hdl.handle.net/10603/148424>
 - Laxmi (2017). *Market Churning Strategies in Telecom Industry in India: A Comparative Study of MTNL and Airtel* [M. Phil Dissertation, Indira Gandhi National Open University]. Shodhganga. <http://hdl.handle.net/10603/336517>
 - Nair, S. N. (2014). *Marketing of Telecom Services by BSNL and its Competitors in Kerala* [Doctoral Dissertation, Mahatma Gandhi University]. Shodhganga. <http://hdl.handle.net/10603/171034>
 - Ojha, S. (2007). *Market Strategies and Consumer Behavior in Vadodara District for Telecommunication* [Doctoral Dissertation, Maharaja Sayajirao University of Baroda]. Shodhganga. <http://hdl.handle.net/10603/59273>
 - Patel, B. K. (2019). *An Empirical Study on Consumer Preferences Regarding Marketing Strategy of Selected Telecom Service Providers in Gujarat State* [Doctoral Dissertation, Sardar Patel University, Gujarat]. Shodhganga. <http://hdl.handle.net/10603/256461>
 - Porwal, N. (2014). *Marketing Strategies of Telecom Industry: A Comparative Analysis of Bharti Airtel and Idea Cellular with Special Reference to Eastern Rajasthan* [Doctoral Dissertation, The IIS University, Jaipur]. Shodhganga. <http://hdl.handle.net/10603/29438>
 - Raju, S. (2012). *A Study on Service Quality Among Selected Service Providers in Madurai District with Special Reference to Airtel, Aircel, Vodafone and BSNL* [Doctoral Dissertation, Madurai Kamraj University]. Shodhganga. <http://hdl.handle.net/10603/136381>
 - Rao, M. V. J. B. (2013). *Marketing Strategies of Cellular Services: A Study on Visakhapatnam Urban Cellular Customers with a Special Focus on BSNL, Airtel, and Vodafone* [Doctoral Dissertation, Andhra University, Andhra Pradesh]. Shodhganga. <http://hdl.handle.net/10603/12707>
 - Shiny, R. (2014). *Impact of Telecom Reforms in India: A Study of Select Companies* [Doctoral Dissertation, Osmania University]. Shodhganga. <http://hdl.handle.net/10603/170409>
 - Singh, V. J. (2014). *Consumer Behaviour in the Cellular Phone Service Providers Market: A Study in Madurai District* [Doctoral Dissertation, Madurai Kamaraj University, Madurai]. Shodhganga. <http://hdl.handle.net/10603/136415>
 - Solanki, A. (2017). *Marketing Strategies of Telecom Sector in India*. [Doctoral Dissertation, Devi Ahilya Vishwavidyalaya]. Shodhganga. <http://hdl.handle.net/10603/231968>
 - Stella, P (2018). *Study on Consumer Satisfaction and Brand Loyalty towards Mobile Phone Services of BSNL in Tirunelveli District, Tamil Nādu* [Doctoral Dissertation, Manonmaniam Sundaranar University]. Shodhganga. <http://hdl.handle.net/10603/244516>
 - Tyagi, S. K. (2022). *Impact of Brand Image on Customer Loyalty: An Empirical Study of Indian Telecom Sector* [Doctoral Dissertation, Glocal University]. Shodhganga. <http://hdl.handle.net/10603/448070>
 - Verma, Y. (2018). *Consumer Perception and Satisfaction Towards Indian Telecom Sector: An Empirical Study* [Doctoral Dissertation, School of Commerce and Management]. Shodhganga. <http://hdl.handle.net/10603/276821>
 - Vijayakumar, B. (2007). *Consumer Satisfaction Dissatisfaction on Mobile Phone Service Providers in Chennai* [Doctoral Dissertation, University of Madras]. Shodhganga. <http://hdl.handle.net/10603/277999>

- Vinaya, S. (2008). *Evolving an Integrated Telecom Strategy for the Next Decade - An Indo UK Perspective* [Doctoral Dissertation, Karnatak University]. Shodhganga. <http://hdl.handle.net/10603/107948>

Websites:

- Indian Telecommunications Industry Analysis Presentation. (n.d.). IBEF. Retrieved May 28, 2023, from <https://www.ibef.org/industry/indian-telecommunications-industry-analysis-presentation>
- Invest India. (n.d.). Telecom industry in India - Telecom sector, FDI, opportunities. Retrieved from <https://www.investindia.gov.in/sector/telecom>
- Marketing 91 (n.d.). Physical evidence in marketing mix. Retrieved May 19, 2023, from <https://www.marketing91.com/physical-evidence-marketing-mix/>
- Marketing 91 (n.d.). What is Corporate Image and why it is so important? Retrieved May 20, 2023,

from <https://www.marketing91.com/corporate-image/>

- The 4 Ps of Marketing: What They Are and How to Use Them (n.d.). Coursera. Retrieved May 20, 2023, from <https://www.coursera.org/articles/4-ps-of-marketing>
- Your Simple Guide to the 8 Ps of Marketing (2022, August 28). Retrieved May 20, 2023, from <https://www.8bitcontent.com/8-ps-of-marketing>

Reports:

- Competition Commission of India. (2021). Market Study on the Telecom Sector in India: Key Findings and Observations. <https://www.cci.gov.in/images/marketstudie/en/market-study-on-the-telecom-sector-in-india1652267616.pdf>
- India Brand Equity Foundation. (2022). Telecommunications Industry Report. https://www.ibef.org/download/1673938014_Telecommunications-November-2022.pdf