

From Growth to Transformation: Understanding Prepaid and Postpaid User Trends in India's Telecom Industry

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Abstract

The telecom industry in India has experienced unprecedented and multifaceted growth in recent years, driven largely by rapid technological advancements, affordable data services, and expanding network coverage. While the wireline segment has witnessed a steady decline, the wireless market has surged, particularly in rural and semi-urban regions where teledensity was historically low. This shift has made personalized mobile communication an essential aspect of daily life for a growing segment of the population. Within this dynamic environment, understanding consumer preferences for prepaid and postpaid mobile services has become increasingly important for telecom operators seeking to retain and expand their subscriber base. This study presents a comparative analysis of prepaid and postpaid users in India, examining key factors such as usage patterns, cost considerations, service expectations, demographic influences, and satisfaction levels. The research highlights the reasons behind the dominance of prepaid connections, including affordability and flexibility, while also identifying the value-driven motivations for choosing postpaid plans. The findings suggest that both segments play a critical role in shaping the future trajectory of India's telecom sector, which continues to hold vast potential for further growth and innovation.

Keywords: Prepaid Users, Postpaid Users, Mobile Subscribers, Usage Patterns.

The telecom industry in India has experienced unprecedented and multifaceted growth in recent years, driven largely by rapid technological advancements, affordable data services, and expanding network coverage. While the wireline segment has witnessed a steady decline, the wireless market has surged, particularly in rural and semi-urban regions where teledensity was historically low. This shift has made personalized mobile communication an essential aspect of daily life for a growing segment of the population. Within this dynamic environment, understanding consumer preferences for prepaid and postpaid mobile services has become increasingly important for telecom operators seeking to retain and expand their subscriber base. This study presents a comparative analysis of prepaid and postpaid users in India, examining key factors such as usage patterns, cost considerations, service expectations, demographic influences, and satisfaction levels. The research highlights the reasons behind the dominance of prepaid connections, including affordability and flexibility, while also identifying the value-driven motivations for choosing postpaid plans. The findings suggest that both segments play a critical role in shaping the future trajectory of India's telecom sector, which continues to hold vast potential for further growth and innovation.

problem of the research paper is "The Effect on The Reliance Jio." The problem mainly focuses on how the telecom

Introduction:

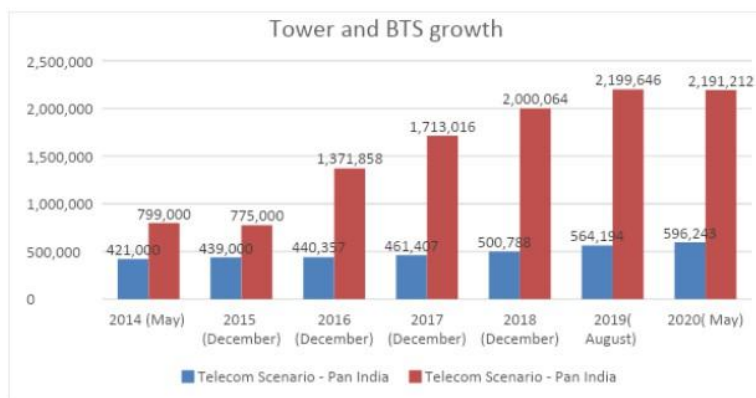
In this dynamic world with increased penetration of internet i.e. e- trading, online buying and social media etc. The behavior of consumers varying day to day. In this present scenario creating the customer loyalty is a big challenge. In today’s market it is very important to study about the behavior, taste and satisfaction level of consumers because satisfaction of consumer is the utmost factor which is necessary and should be taken care by every seller, because consumers are the one who helps to run their business and their organizations.

The mobile phone has become a necessity for each and every individual all over the world. The telecom sector is changing very fast due to the use of upgrading technology, high rate of competition in the market and business etc. The competition in every business is very high be it service, manufacturing or telecom sector. The companies should try to retain their customers by providing them good quality services, because in today’s time customer wants product and services of better quality which give them satisfaction and value for money.

In today’s world telecommunication is the fastest developing sector and it also emerged as an important segment of growth. The usage of a telephone is in diverse activities like social and economic and collecting information and knowledge and it's also used for saving time as well as expenditure. The people owe mobile phones nowadays. It is the easiest way for all to communicate with anybody. With the help of telecommunication a lot of job opportunities have been created. For e.g. a doctor can take lots of information regarding its patient problem and even amazon, snap deal, flipkart all are hiring people for online portals.

Telephone services are important for everyone. A middleman can ask about his raw materials and market prices. The telephone services are also helpful to the poor’s as well. It can replace the need of travel or post. Most of the people need to spend 2 to 4 per cent of their household income on telecommunication. The growth in demand for telecom services does not confine to basic services of telecom. India has seen rapid growth in terms of radio, paging, and cellular and other value added services. It is one of the prime support needed for the speedy growth and upgradation of various sectors of economy. The rapid development in telecom sector has been made possible through active participation of private sector service providers, revenue generated through foreign direct investment and a series of reforms and the policies made by govt. and also with the help of adopting new technologies in this dynamic environment

Fig 1 : Growth in Telecom infrastructure



Review of Literature:

(Manvinder, Vashali., 2017)The author said that the consumers are now eco-friendly they prefer to purchase the green marketing products which are safe and pollution free for the environment and the society. The company should come not only with more promotional campaigns of eco-friendly products, but also come with products which are according to consumer lifestyle, attitude a demand and also safe for the environment.(Sanjay,Arjumand.,2017) The service provider can capture the market by offering concessions and by extensive advertisement in short run, the quality of service provided will only enable a player to serve in highly competitive market in long run. (Surajit, 2017) The study revealed that marketers should design effective sales promotion campaigns. They should use specific deal for specific product rather than using a single deal across all products. So that the ratio of sales will increase in the future. (Surajit, 2016) The study revealed that the consumers are getting attracted to sales promotion schemes very often. It is a powerful tool for marketers as well. The marketers should design their sales promotional schemes effectively on the basis of demographic characteristics like gender, age, education. (Pawan,2016) The consumers are getting effected by the jio free services and some of them are shifting from their current network to Jio.The telecom companies should bring some new plans like jio for their customers if they want their subscribers to stick with them (Umamahesh.wari, 2016) The study revealed that in this current scenario so many broking agencies are there which are offering many products and services but the main problem come across is unawareness of products among youth. So, Reliance securities should take suitable measures like advertising among youth.

Objectives for study:

To examine the differences in perceptions between prepaid and postpaid users.

To identify which service variables significantly influence consumer choice between prepaid and postpaid connections.

To compare the overall brand-level differences in prepaid and postpaid usage among telecom users.

Hypothesis:

Null Hypothesis (H₀):

There is **no significant difference** in the different brand connections used by telecom users in India.

Alternate Hypothesis (H₁):

There **is a significant difference** in the different brand connections used by telecom users in India.

Research Methodology:

This study adopts a systematic research methodology to examine the preferences and perceptions of prepaid and postpaid telecom users among the youth in India. The methodology encompasses

the research design, sampling framework, data collection procedures, and analytical tools used for interpreting the findings. The universe of the study comprises youth in India who use telecom services. The study specifically focuses on individuals representing diverse socio-economic and educational backgrounds within the defined age group. The sample unit for the present research includes telecom users aged 15 to 35 years. This age range has been selected as it represents the most active and technology-engaged segment of the population, making them ideal respondents for a study evaluating telecom usage patterns.

A snowball sampling technique has been adopted for selecting the respondents. This non-probability sampling approach is effective in reaching a large youth population spread across different regions and social networks. The final sample size of 389 respondents was calculated using the infinite population formula, ensuring an adequate representation of the target demographic. A structured questionnaire served as the primary research instrument. Initially, a draft questionnaire was developed based on the study objectives. The draft was then subjected to expert validation, involving three management experts and one statistician. Their suggestions and feedback were incorporated to improve the clarity, relevance, and reliability of the tool. A pilot study was conducted with a small group of respondents to test the questionnaire's practicality and coherence. Necessary modifications were made based on pilot results, and the questionnaire was finalized for main data collection. Primary data were gathered directly from respondents using the structured questionnaire. The questionnaire was administered to youth aged 15–35 years through both online and offline modes to ensure wide reach and convenience. While the focus of the study is on primary data, secondary information from reports, articles, and prior studies may be used to support the discussion and analysis

Group Statistics				
	Connection	N	Mean	Std. Deviation
Product	Prepaid	309	3.04	0.681
	Postpaid	80	2.87	0.759
Price of Services	Prepaid	309	3.83	0.885
	Postpaid	80	3.40	0.957
Price of Switching	Prepaid	309	3.45	0.897
	Postpaid	80	3.45	0.836
Place	Prepaid	309	1.82	0.477
	Postpaid	80	2.02	0.631
Promotional Offers	Prepaid	309	2.60	0.844
	Postpaid	80	2.56	0.835
Promotional Sources	Prepaid	309	3.41	0.865
	Postpaid	80	3.31	0.952
Promotional Activities	Prepaid	309	2.19	0.492
	Postpaid	80	2.09	0.497
Product Preference	Prepaid	309	0.03	1.018
	Postpaid	80	-0.12	0.923
Network Preference	Prepaid	309	-0.02	0.977
	Postpaid	80	0.09	1.085
Service Expectation, 2026	Prepaid	309	0.10	3660.943
	Postpaid	80	-0.40	1.114
Customer Care services	Prepaid	309	-0.05	0.936
	Postpaid	80	0.20	1.202

Independent Samples Test

Asian And Pacific Economic Review ISSN: 1000-6052		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	P value	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Product	Equal variances assumed	3.243	0.072	2.006	387	0.046	0.176	0.088	0.003	0.348
	Equal variances not assumed			1.883	114.156	0.062	0.176	0.093	-0.009	0.360
Price of Services	Equal variances assumed	0.079	0.779	3.766	387	0.000	0.425	0.113	0.203	0.647
	Equal variances not assumed			3.595	116.361	0.000	0.425	0.118	0.191	0.660
Price of Switching	Equal variances assumed	1.025	0.312	0.021	387	0.983	0.002	0.111	-0.216	0.221
	Equal variances not assumed			0.022	130.108	0.983	0.002	0.106	-0.208	0.213
Place	Equal variances assumed	4.374	0.037	-3.078	387	0.002	-0.198	0.064	-0.324	-0.071
	Equal variances not assumed			-2.618	103.570	0.010	-0.198	0.076	-0.348	-0.048
Promotional Offers	Equal variances assumed	0.590	0.443	0.343	387	0.732	0.036	0.106	-0.172	0.244
	Equal variances not assumed			0.345	124.155	0.731	0.036	0.105	-0.172	0.244
Promotional Sources	Equal variances assumed	2.360	0.125	0.945	387	0.345	0.105	0.111	-0.113	0.323
	Equal variances not assumed			0.893	115.012	0.374	0.105	0.117	-0.128	0.337
Promotional Activities	Equal variances assumed	0.014	0.907	1.518	387	0.130	0.094	0.062	-0.028	0.215
	Equal variances not assumed			1.508	122.021	0.134	0.094	0.062	-0.029	0.217
Product Preference	Equal variances assumed	0.738	0.391	1.178	387	0.240	0.148	0.125	-0.099	0.394
	Equal variances not assumed			1.248	133.217	0.214	0.148	0.118	-0.086	0.382
Network Preference	Equal variances assumed	2.101	0.148	-0.918	387	0.359	-0.115	0.125	-0.362	0.132
	Equal variances not assumed			-0.863	114.399	0.390	-0.115	0.133	-0.379	0.149
Service Expectation	Equal variances assumed	7.554	0.006	4.090	387	0.000	0.503	0.123	0.261	0.745
	Equal variances not assumed			3.709	110.048	0.000	0.503	0.136	0.234	0.772

Customer Care services	Equal variances assumed	9.452	0.002	-1.998	387	0.046	-0.250	0.125	-0.495	-0.004
	Equal variances not assumed			-1.727	105.083	0.087	-0.250	0.145	-0.536	0.037

Results

The analysis conducted on prepaid and postpaid connections across various telecom service providers reveals several important insights regarding consumer perceptions and the significance of different service-related variables. The comparison of mean scores and standard deviations indicates that prepaid connections report the highest mean for the ‘Price of Services’ variable, accompanied by a standard deviation of 0.885, suggesting moderate variability in user responses within this category. This reflects that prepaid users perceive service pricing more favorably or more distinctively than postpaid users.

To assess the significance of differences between prepaid and postpaid users across multiple factors, p-values were evaluated for each variable. The results indicate that for the majority of variables—including Price of Switching, Promotional Sources, Promotional Offers, Product Preference, Network Preference, and Placement—the p-value exceeds 0.05. This suggests that there is no statistically significant difference between prepaid and postpaid users for these variables. Consequently, the null hypothesis is accepted for these factors, indicating similar perceptions across both subscriber groups. In contrast, variables such as Price of Services, Price of Switching, Placement, Customer Care Service, Service Expectation, Promotional Offers, and Product Preference registered p-values below 0.05, demonstrating statistically significant differences between prepaid and postpaid users. For these variables, the null hypothesis is rejected, and the alternative hypothesis is accepted. This implies that these factors meaningfully influence consumer choice and satisfaction, and distinctions between prepaid and postpaid user perceptions are substantial.

Overall, the results indicate that differences exist among various telecom brands and their service offerings, influencing consumer preferences. The findings highlight that users from diverse demographic and socio-economic backgrounds choose prepaid or postpaid connections based on affordability, perceived value, service quality, and promotional attributes. This demonstrates that telecom users in India adopt different service types aligned with their personal financial capacity, usage behavior, and service expectations, leading to identifiable variations in preference patterns across the subscriber base.

Conclusion:

The telecom industry in India has undergone a remarkable transformation over the past several years, marked by rapid technological advancements, competitive market dynamics, and substantial expansion of wireless services. The steady decline in wireline connections clearly reflects the shifting preference of subscribers toward more flexible, accessible, and affordable wireless communication modes. This transition has been further accelerated by the growing penetration of mobile networks in rural and semi-urban regions areas that historically exhibited low teledensity. The cellular segment, in particular, has played a pivotal role in bridging the connectivity gap and enhancing digital inclusion across diverse socio-economic groups.

With personalized telecom access becoming an indispensable part of daily life, the sector has evolved from being a luxury to a fundamental utility for communication, information, and digital services. The widespread adoption of mobile phones, combined with increasing demand for data services, highlights the sector's importance not only as a communication medium but also as a driver of economic and social development.

Looking ahead, the Indian telecom sector holds immense potential for continued growth. The increasing adoption of smartphones, expansion of 4G and 5G networks, advancement of digital services, and rising consumer expectations are poised to create new opportunities for innovation and service differentiation. As the market continues to evolve, a deeper understanding of consumer behavior—such as the comparative preferences of prepaid and postpaid users—will be crucial for telecom operators striving to stay competitive, enhance customer satisfaction, and contribute to the nation's digital transformation.

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