An Empirical Study on Selection and Switchover Behaviour of Landline Phone Users

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Introduction:

India is among the fastest growing economies of the world. Its GDP has grown by 8.1 per cent in the year 2007-08, helped by a strong growth of 10 per cent in the Services Sector and 8.7 percent in Manufacturing Sector. IT and Telecom Sectors have made substantial contribution to the growth of the economy. Telecom sector has crossed 300.49 million subscriber mark in March 2008 and became third in the world market with a largest subscriber base. The growth of Telecom Sector in India has surpassed that of China. It took 25 years to reach the first 1 million mark in terms of subscribers. But now, India is adding one customer per second during the working hours. Telecom sector has witnessed tremendous changes in terms of the level of competition, extent of technological development and the subscriber base. Increasing competition among players has allowed a drastic reduction in rates. This has made the telecom facility accessible to a very large section of population living in both urban and rural areas. The mobile sector grew from around 10 million subscribers in 2002 to 150 million by early 2007 registering an average yearly growth of over 90 percent. The two major reasons that have fuelled this growth are low tariffs coupled with falling handset prices.

The regulatory changes and reforms that have been pushed for last 10 years by successive Indian governments also helped in the growth of the telecommunication sector. According to Telecom Regulatory Authority of India (TRAI), the rate of market expansion would increase with further regulatory and structural reforms. Even though the fixed line market share has been dropping consistently, the overall (fixed and mobile) subscribers are rising constantly. The telecom reforms have allowed the foreign telecommunication companies to enter Indian market providing it huge potential to grow further. International telecom companies like Vodafone have made entry into Indian market in a big way. Currently the Indian Telecommunication market is valued at around $100 billion(Rupees 400,000 crores). Two telecom players dominate this market - Bharti Airtel with 27percent market share and Reliance Communication with 20percent along with other players like BSNL (Bharat Sanchar Nigam Limited). There are many new developments in the telecom sector, including the ingress of 3G technology that the Indian market is witnessing at present. It is expected that by the year 2010 there will be over 500 million subscribers in the Indian telecom market. Also, the telecom industry is focusing more on rural areas to connect them with the urban areas so that the farmers and the small-scale industries can have faster access to information relating to weather and market conditions. Every aspect of the telecom sector, be it customer service, new bill plans, IT outsourcing contracts, sharing of active or passive infrastructure, marketing etc. are under- going dramatic changes with the reforms gathering the momentum and speed.

Review of Literature

Several studies have been conducted in the past covering various dimensions of telecom sector. Shukla (1987), focused on various factors, such as, efficient network, durability, availability, reliability, maintainability, dependability etc. contributing to the overall quality of services in the case of landline connection. Manickawel and Suarapandian(1996), studied the hardships being faced by landline subscribers like, problems in installation , making payment of bills, faulty lines etc. Manickawel and Suarapandian(1997), Chaudhary(2001) and Shanti(2004), explored that due to the liberalization and globalization, private players have entered into the telecom sector in India accelerating its growth. Dhingra (2000) pointed that improved quality of service can only be the competitive advantage for maintaining the market share.

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Basic Telephone Service: Major Players

Bharat Sanchar Nigam Ltd (BSNL):- BSNL formed in October, 2000, is World's 7th largest Telecommunications Company providing comprehensive range of telecom services in India: Wireline, CDMA mobile, GSM Mobile, Internet, Broadband, Carrier service, MPLS-VPN, VSAT, VoIP services, IN Services etc. Within a span of five years it has become one of the largest public sector unit in India. BSNL has installed Quality Telecom Network in the country and now focusing on improving it, expanding the network, introducing new telecom services with ICT applications in villages and wining customer's confidence. Today, it has about 47.3 million line basic telephone capacity.

Mahanagar Telecom Nigam Limited (MTNL):- MTNL was set up on 1st April 1986 by the Government of India to upgrade the quality of telecom services, expand the telecom network, to introduce new services and to raise revenue for telecom developmental needs of India's key metros – Delhi, the political capital, and Mumbai, the business capital. In the past 17 years, the company has taken rapid strides to emerge as India's leading and one of Asia's largest telecom operating companies.

Reliance Infocomm: Reliance is a $16 billion integrated oil exploration to refinery to power and textiles conglomerate. It is also an integrated telecom service provider with licenses for mobile, fixed, domestic long distance and international services. Reliance Infocomm offers a complete range of telecom services, covering mobile and fixed line telephony including broadband, national and international long distance services, data services and a wide range of value added services and applications.

Tata Teleservices: Tata Teleservices is a part of the $12 billion Tata Group, which has 93 companies, over 200,000 employees and more than 2.3 million shareholders. Tata Teleservices' bouquet of telephony services includes: mobile services, wireless desktop phones, public booth telephony and wireline services. Together with Tata Teleservices (Maharashtra) Limited, it currently offers services under the brand name 'Tata Indicom' in over 3,400 towns.

Subscriber Base & Growth of Basic Telephony

The subscriber base, percentage market share and growth of basic telephony service providers have been shown in Table 1.1. The total subscriber base for landline telephone services was 26.65 million and reached to the highest level in the year 2005-06. The subscriber base for the basic telephone services reduced in the last two years i.e. 2006-07 and 2007-08 from the level of 50.17 million to 39.41 million. This may be due to more familiarity, usefulness and convenience being available to the subscribers from the mobile telephone services. Moreover the tariff for mobile services has reduced to a large extent in the recent past. This reduction in the tariffs for mobile services must have led to the switchover of the landline customers to mobile phone services. The basic landline telephone services sector was opened up for private players in 1994. Despite that, the presence of private players was negligible till 1999-2000 as the public sector players enjoyed more than 99 percent of the total subscriber base. BSNL and MTNL are the two public sector players providing services though BSNL has emerged as a giant providing the services to more than 80 percent of total landline subscribers as it has a wide network all over the country except Delhi and Mumbai. The subscriber base of the MTNL is reducing continuously since 2002-2003.In 1999-2000 MTNL had the subscriber base of 4.03 million which reduced till 2007-2008 to 3.73 million. This fall in subscriber base was due to the entry of private sector players, such as, Airtel, Tata Indicom and Reliance in the basic telephone service and also due to the popularity of mobile phone services. MTNL operates in Delhi and Mumbai only and its subscriber base reduced sharply as all the private

Subscriber Base & Percentage Share of Basic Telephony Service Providers

(Figures in millions)

Service Provider	1999-2k	2k- 2001	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	TGR* (%age)	CAGR** (%age)
Public Players											
BSNL	22.48 (84.35)	28.11 (85.94)	33.22 (86.44)	35.90 (86.55)	36.11 (84.29)	37.04 (80.19)	37.51 (74.75)	33.74 (82.80)	31.55 (80.04)	40.35	4.32
MTNL	4.03 (15.12)	4.33 (13.24)	4.63 (12.05)	4.63 (11.16)	4.38 (10.22)	4.06 (8.79)	3.87 (7.71)	3.73 (9.15)	3.68 (9.33)	-8.68	-1.13
Total (a)	26.51 (99.47)	32.44 (99.18)	37.85 (98.49)	40.53 (97.71)	40.49 (95.51)	41.10 (88.98)	41.38 (82.46)	37.47 (91.95)	35.13 (89.37)	32.52	3.58
Private Players											
Tata/ Hughes	0.05 (0.18)	0.13 (0.40)	0.31 (0.81)	0.45 (1.09)	1.00 (2.33)	2.58 (5.59)	4.02 (8.01)	0.53 (1.32)	0.72 (1.83)	1340	39.57
Bharti	0.09 (0.35)	0.12 (0.36)	0.18 (0.46)	0.37 (0.89)	0.62 (1.46)	0.86 (1.86)	1.35 (2.70)	1.87 (4.54)	2.28 (5.82)	2433	49.78
Reliance	-	-	-	-	0.50 (1.17)	1.31 (2.84)	2.99 (5.96)	0.57 (1.40)	0.87 (2.20)	74	14.85
HFCL	-	0.01 (0.03)	0.06 (0.16)	0.08 (0.19)	0.13 (0.30)	0.19 (0.41)	0.26 (0.53)	0.17 (0.42)	0.15 (0.38)	1400	47.23
Shyam	-	0.01 (0.03)	0.03 (0.08)	0.05 (0.12)	0.10 (0.23)	0.15 (0.32)	0.17 (0.34)	0.15 (0.37)	0.16 (0.4)	1500	48.60
Total (b)	0.14 (0.53)	0.27 (0.82)	0.58 (1.51)	0.95 (2.29)	2.35 (5.49)	4.99 (11.02)	8.79 (17.54)	3.29 (8.05)	4.28 (10.63)	2957	53.34
Total (a)+ (b)	26.65	32.71	38.43	41.48	42.84	46.09	50.17	40.76	39.41	47.87	5.01

Note: Figures in parenthesis indicates the market share of the player.
*TGR = (Pn – P0)/ (P0) 100 (Pn = Subscriber base of last year, P0 = Subscriber base of initial year)
** CAGR= {Antilog(Pn –P0)/ (n-1) – 1} 100 (Pn = Subscriber base of last year, P0 = Subscriber base of initial year)

players started their market from these metro cities. Among private players, the subscriber base of Airtel is continuously increasing and it is having largest number of subscribers among different private sector players. Its subscriber base in the year 2007-2008 was 2.28 million with approximately 6 percent of the market share. Reliance was also emerged as the major private sector player till the year 2005-2006 with 2.99 million subscriber base but lost its market share in 2006-2007.Other private sector players like Tata, HFCL and Shyam Telelinks are also striving for their market share. Out of total market, Public sector players have a market share of approximate 89 percent while all private sector players together have a market share of approximate11 percent. The Total Growth Rate (TGR) of BSNL over a period of 9 years shows that it has grown at a rate of 40.35 percent whereas MTNL is loosing its subscriber base and its total growth rate is -8.68 percent. The compound annual growth rate of BSNL is 4.32 percent for the same period and combined annual growth rate of MTNL is -1.13 percent. For private players, the total growth rate is tremendous as they started with small subscriber base. The highest total growth rate is of Airtel as it has highest subscriber base among the private players and lowest total growth rate is of Reliance as it lost its major chunk of subscribers. Combined total growth rate of public sector players is 32.52 percent and combined total growth rate of private players is 2957 percent during the study period starting from 1999-2000 to 2007-08. Combined compound annual growth rate of public sector is 3.58 percent and 53.34 percent in case of private sector players.

Objective of the Study

Keeping in view the trends in the growth of subscriber base for landline phone services and knowledge gained from the review of literature, the present study entitled "An Empirical Study on Selection and Switchover Behaviour of Landline Phone Users" has been taken up with the following specific objectives.

1. To identify the role of influencing factors affecting the choice of service provider.
2. To identify the reasons for the switchovers from one landline phone service provider to another service provider.

Research Methodology

Using convenience-cum-quota sampling technique of data collection, the questionnaire was administered to a sample of three hundred respondents using landline telephone services covering respondents from different age group, education level, income bracket and occupation.

The study has been carried out with the help of both primary and secondary data. Primary data for the research was collected with the help of a structured questionnaire especially designed to achieve the specific objectives of the study. The questionnaire focused on the issues like, the factors influencing the choice of connection of a particular service provider, tendency to switchover and the reasons thereof. A total of seventy five respondents of each service provider namely, BSNL, MTNL, Bharti, Reliance and Tata Indicom have been selected. Secondary data has been obtained from different journals, Annual Reports of TRAI and websites.

Data Analysis

Data leads to no conclusions, but if arranged in a systematic order and studied carefully with the help of various techniques available for data analysis will certainly help to draw certain logical conclusions which can be used for strategy formulation and decision making process. Various statistical tools such as measures of central tendency, compound annual growth rate, total growth rate and F-Test have been used for the analysis of data.

Findings and Anaysis

The telecom sector has grown at a fast rate in the recent years. But the subscriber base of fixed line service is falling at present due to the more popularity and comfort of mobile phone services. However 39.42 million subscribers as on 31st March 2008, still makes basic landline service as an important telecom service.

Quality and customer satisfaction has received considerable attention of the market operators and customer satisfaction has become a core area for strategy formulation in last few years. As Oliver described, "Satisfaction is the customer's fulfillment response. It is a judgment that a product or service feature, or the product of service itself, provided (or is providing) a pleasurable level of consumption related fulfillment, including levels of under or over-fulfillment".

Business firms cannot afford to loose a single profitable customer in present competitive business environment. Moreover business firms look for innovative ways to leverage customer satisfaction to determine resource allocation and drive growth in business. A business organization can respond to the customer's needs in ways that increase revenue as well as improve customer and employee, satisfaction and loyalty by leveraging the results from a customer satisfaction survey. One of the best ways for a company to increase customer satisfaction is to understand what the customers really want. The business organizations should make an attempt to collect first hand information from the customers regarding their level of satisfaction and also to ascertain the areas where the firms are expected to concentrate upon to further improve the level of satisfaction. A product/service may not be rated highly satisfactory on all the dimensions and by all the customers. Higher level of customer satisfaction results in greater customer retention, leading to higher profitability and market share. Companies continue to rank customer satisfaction as a high priority.

Demographic Analysis of the Respondents

Demographic variables such as , the population size, the composition of the population, the average age of the population, the level of education, the sex composition of the population are the variables which affect the level of income, the amount of disposable income, the standard of living of the people and their buying habits.

Age wise and Gender wise Classification of Respondents

The average age and sex wise composition of population affects the income and consumption habits. The age and gender wise classification of the respondents is given in Table 1.2

Table 1.2 Age wise and Gender wise Categorization of Respondents

Age (Years)	N	%age	Sex	N	% age
Upto 20	27	9	Male	216	72
20-45	170	56.7	Female	84	28
45-60	89	29.7			
60 and Above	14	4.6			
Total	300	100		300	100

Source: Primary Survey
Note: N represents number of respondents.

Age wise classification of the respondents' shows that majority of the respondents belong to the age group 20-45 years. On the other hand only 14 percent respondents are from old age group. Gender wise classification indicates that 72 percent of the respondents are male and 38 percent of the respondents are female. It indicates that majority of landline connections are in the name of male members of the family.

Education and Occupation wise Classification

The level of education and the occupation also affects the buying habits. The education and occupation wise classification of the respondents is listed in Table 1.3

Table 1.3 Education and Occupation wise Classification

Education	N	% age	Occupation	N	%age
Illiterate	9	3	Service	116	38.7
Matric	42	14	Business	61	20.3
Graduate	108	36	Professional	45	15
Post-Graduate	141	47	Retired	15	5
			Dependent	63	21
Total	300	100		300	100

Source: Primary Survey
Note: N represents number of respondents.

The analysis indicates that 97 percent of the respondents are educated. Only 3 percent of the respondents are illiterate. While occupation wise classification indicates that service, business and professionals put together constitute the majority. Retired and Dependents (Non working Group) are 26 percent of the total respondents indicating that the telephone facility is also being considered useful even by those who are not having any personal income.

Income wise Classification

Level of income directly leads to classification of need into necessity or luxury. The classification of the respondents based on their income level is given in Table 1.4.

Classification based on the income level shows that the respondents belong to different income levels on both the parameters i.e. the personal income and family income. Maximum proportion around 29

Table 1.4 Income wise Classification

Personal Income (RS. per month)	N	%age	Family income (Rs per month)	N	%age
No self Income	59	19.7	Up to 10000	18	6
Up to 10000	27	9	10000-20000	21	7
10000-20000	35	11.7	20000-50000	103	34.3
20000-50000	90	28.6	50000-100000	74	24.7
Above 50000	89	31	Above 100000	84	28
Total	300	100		300	100
Average Monthly Income	34950		Average Monthly Income	50200	

Source: Primary Survey
Note: N represents number of respondents.

Table 1.5 Factors Influencing Selection of Service Provider

Factors	Average Statistic	Standard deviation	Standard error	F-value	P-value (2-tailed)
Advertisement	2.3	1.56	0.30		
Economical	4.18	1.49	0.29		
Family/Friends	2.26	1.65	0.32		
Brand Ambassador	1.44	0.80	0.15	57.15	.000**
Better Services	2.74	1.87	0.36		
Value added services	2.56	1.93	0.37		

Source: Primary Survey
Note: ** P- Value significant at 1% Level of Significance.

percent belongs to people have personal income less than Rs.10000 per month. 31 percent of the respondents have personal income more than Rs. 50,000 per month. Family income level wise classification of the respondents indicate that maximum number of respondents around 47 percent belongs to having income less than Rs.50000 per month followed by 24 percent covered in 50000-100000 slab. Average monthly personal income for landline telephone users is Rs. 34950 and average monthly family income is Rs. 50200.

Selection of Service Provider

There may be different factors that might be considered for availing any service or to be a consumer of the service. Such different factors may include the role of advertisement, charges paid for the service, advice by family members/friends/ relatives, the role of Brand Ambassadors and the quality of services being offered by the service providers.

Factors Influencing the Selection of Service Provider

The relative importance of the selected factors influencing the choice of service provider is presented in Table 1.5.

H0: There is no significant difference in the role of different factors affecting the selection of service providers.

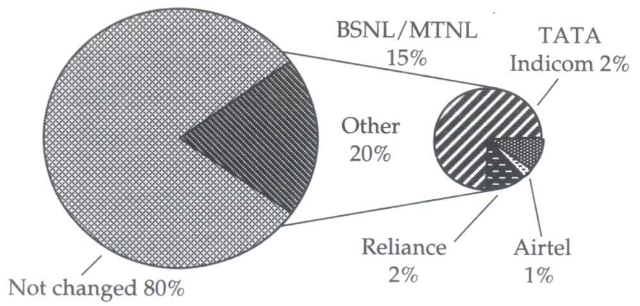
Economical factor turns out to be the most important factor as per opinion survey of the respondents. This may be due to the level of income and the available amount of disposable income in the hands of subscribers. So, most of the subscribers are cost conscious. The quality of services being offered by service providers has been the second important consideration among subscribers. The role of advertisement and specially the role of brand ambassadors turn out to be the least effective measure as per opinion of the respondents. One way Anova has been applied to identify the role of different factors. The results of analysis on the basis of statistical tools show that there is significant difference among in the role of different factors affecting the selection of service providers at 1 percent Level of Significance.

Change of Service Provider

Since many new service providers have entered in the telecommunication market. So, customers keep on changing their service providers on account of one reason or to the other. The tendency of changing the connection by subscribers has been shown in Graph 1.

Graph shows that only 20 percent of the respondents changed their service providers for landline telephone connection which means that it is not feasible for the customers to change their service

Graph 1 Change of Service Provider



providers frequently as there could be some inconvenience due to change in their telephone number. Among majority of respondents who have changed their service provider, surrendered their BSNL/MTNL connection in favor of new entrants in the field of telecommunication such as Airtel, Reliance and Tata Indicom as customer now has choice of service providers. The graph shows that only 5 percent of the respondents surrendered the connection of Airtel, Reliance and Tata Indicom.

Reasons of Changing the Service Provider

The reasons for the switch over may be the problems faced by the customer like quality of services, call charges, billing errors, attractive scheme of other service provider, and attitude of the customer care staff. The opinion of the respondents with regard to these variables has been presented in Table 1.6.

Table 1.6 Problems Faced by Respondents

Reasons	Average Statistic	Standard deviation	Standard error	F-value	P-value (2-tailed)
Call Charges	0.52	0.94	0.18	2.57	.036*
Billing errors	0.52	0.94	0.18		
Attractive scheme of other service provider	1.04	1.87	0.36		
Customer Care Staff's attitude	0.67	1.21	0.23		

Source: Primary Survey
Note: *P- Value significant at 5% Level of Significance.

H_0: There is no significant difference in the role of different factors leading to subscriber switchovers.

The entry of private players in the telecom sector has intensified the price war among service providers. New service providers are making an attempt to make their presence felt and existing service providers are also concentrating to retain their customers and also want to expand their market share. The service providers are offering attractive schemes and other facilities to have satisfied customers in the process. The mean value obtained to identify the relative importance of these factors indicates that attractive schemes offered by other service provider have been the main reason for the switch over followed by quality of service. The present analysis supports the previous analysis that Indian telephone subscribers are cost and quality conscious. The calculated P-Value is statistically significant at 5 % Level of Significance leading to the conclusion that there is significant difference in the role of different factors leading to subscriber switchover.

Suggestions

The empirical findings of the present research have also practical implications for service providers who strive to organize their service offering in order to accomplish their corporate objectives. Following are some of the suggestions which telecom service providers should take into account to enhance quality so as to induce customer satisfaction and to attain higher level of favorable outcome and to alleviate negative outcomes.

- Analysis of the factors affecting for selection of landline service providers shows that customers' are not much influenced by the brand ambassadors who endorse the brands and services of the service providers. Thus service provider should limit/stop the use of brand ambassadors as a promotional tool and should efficiently use the saved resources in improving the quality of services or handling competition.

- Customers' are now switching to the private sector operators from public sector players and even within the private sector players operating in the market due to their economy call rates and new attractive schemes. Operators' should keep in mind the market scenario and try to provide the schemes which could attract the customers' and maintain the existing one. More value added services should be introduced and operators should try to make their internet service more popular by enhancing quality and reducing cost.
- Customers are having more choices in terms of services and service providers. Availability of mobile phone services has resulted in decline in the subscriber base for the landline telephone services. So the landline telephone service providers are required to concentrate upon enhancement of customer satisfaction by adding more and more value added services.

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