

A Study on Subscribers' Satisfaction with Mobile Communication Service in Thoothukudi District

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1. Introduction

In this modern IT era, there is a rapid growth and innovation witnessed in the mobile industry. The communication field has greatly transformed. The traditional use of mobile phone is text messaging and calling. It has bridged a gap in distance communication. With the advancement of new technology, the way of communication is also changed. In ancient days, pigeons were used as means of communication. Later, written messages were sent through letters by post. As the time passed, telephone came into existence and today is the era of wireless communication which gives rise to mobile phones¹. Mobiles are the latest invention and common way of communication. Now-a-days, continuing innovation in the mobile communication industry, such as mobile Internet and social networking applications such as twitter, face book, whats up....etc have further had a measurable impact in the communication field². The Mobile communication has become a force to reckon (consider) with in personal communication.

Mobile phones are long range, portable and wireless electronic device of communication. The use of mobiles has been increased, their cost is decreased considerably and this factor helped a lot to make them available for common people. Mobile phones are now inexpensive, easy to use, and comfortable and equipped with almost every latest features what one desires. Mobiles are now every one's first choice of device. It is like a status symbol now. Every person is equipped with latest mobile models and everyone has his own reason to have this magic device in his hand. Every day new model of mobiles replaces the existing one to attract the users. The interested users especially the young generation is very much fond of latest features like the new ring tones, caller tunes and wallpapers, along with this, MP3, MP4, video recording facilities, and Multimedia Message Service (MMS) and Internet facilities. Mobile users can not even imagine their world without their handset. That much a vital role is played by the mobile phones in the day to day life of human beings. Service Providers are having major part in Mobile Communication service. To enhance the usage of latest communication, the importance of service providers has increased tremendously. So it is the urge to identify the satisfaction of users regarding the service providers.

¹ Ewan, (2012), Has Apple put mobile innovation back at least 10 years, <http://www.mobileindustryreview.com>.

² Lugano, G. (2008) [Mobile social networking in theory and practice](#). First Monday, Vol.13, N.11.

So it is the urge to identify the satisfaction of users regarding the service providers. In this scenario, it would be meaningful to analyse about the subscribers' satisfaction towards the mobile communication Service Providers.

2. Statement of the problem

Mobile Communication is the part and parcel of economic life. Communication has traditionally been in the forefront of harnessing technology to communicate effectively. It has been using through wireless and latest technological communication networks for delivering a wide range of value added products and services (VAS) for a longer time. The most important factor for the economic development of a nation is its development in the infrastructure, which ultimately depends on the development in communication, transport and electricity. In communication system, there are so many modes are available. Among the various modes of communication, mobile communication plays a vital role in offering various communication services for the urban as well as rural area³.

After implementing Mobile Number Portability (MNP), many of the mobile subscribers switch over from their existing service provider to other service provider. It means many of the mobile subscribers are not yet satisfied with their service providers about their, tariff, offers and quality of service. Still, the mobile communication service is not in a good position to cover the entire rural area in India. It should be concentrated on the rural communication system because around two- third of the Indian population are living in villages⁴.

In spite of the serious efforts taken by the mobile communication service companies in co-ordination with Telecom Regulatory Authority of India (TRAI) to introduce the tariff plans and schemes of Mobile Communication Service (MCS) to subscribers. The subscribers have not yet understood the need of availing the service schemes because of the ignorance of the services provided by the providers.⁵

The mobile subscribers are not satisfied with the current tariff rates and schemes, because it has to be renewed for every month or every three month. So, the subscribers are irritated because of short term promotional offers. In the initial stage, the subscriber can enjoy many facilities but afterwards it

³ Kotler Philip, (2008), "Marketing Management", Eleventh Edition, Pearson Education Inc. Singapore, pp : 23

⁴ Dorothy Riddle, (2000), Innovating for success in the export of services (Eds), Facts for you, vol. 21, no.2, pp: 25- 29.

⁵ Vatsal Goyal, (2007), "The Indian telecom industry, IIM, Calcutta.

is reduced silently and rate will be increased slowly⁶. The tariff of the value added service (VAS) is very high. The tariff schemes are most often introduced as promotional offers and they are not made available to customers continuously for a longer period of time. This has made the problem of non-renewal of existing tariff schemes.

The subscribers are disturbed by promotional SMS as well as phone calls by the customer care service. It creates irritation to the subscribers while using mobile communication services. Nowadays, there is an option that, if the subscribers do not want to know any promotional offers through SMS and calls from the service providers, they can register under Do Not Disturb system (DND) to stop it. But by activating Do Not Disturb system, it is possible to lose some important SMS sends through social networks.

The network coverage problem is a major problem faced by the subscribers. The need of signal is necessary for both the caller and the receiver. The mobile networks coverage is poor in underground, inside buildings, subways, tunnels, hilly region and on travel. Sometimes or in some places, there is full tower shut down for an hour or more, or even for a day.

Apart from that, the survival of the mobile communication scheme in future depends on the ultimate satisfaction of the subscribers. This has led to following research questions,

- Has the mobile communication given satisfaction to the subscribers?
- What is the effective impact of communication on personal, demographic and rational variables on subscribers' satisfaction?
- What are the problems affecting subscribers' satisfaction?
- What is the level of subscriber satisfaction?

The problems can be better answered and suitable policies and strategies can be formulated, when a research has been conducted on these aspects. It has led to a scientific and thorough investigation of the mobile communication service. The above aspects are thoroughly investigated and the data were collected and critically analysed in the research work, to establish a useful strategy for the effective implementation of mobile tariff schemes. The present study tries to probe into the level of the satisfaction of subscribers towards mobile communication service.

3. Objectives of the Study

- To identify the satisfaction level of subscribers towards mobile service providers in Thoothukudi District.
- To analyse the relationship between demographic factors and level of satisfaction of the subscribers in the study area.
- To give suggestions for the improvement of the quality in mobile communication service.

4. Scope of the study

⁶ Dr. M.Chinnadurai et.al, (2006), Promotional strategies of cellular services: A customer perspective, Indian journal of marketing p. 29.

The present study is primarily designed to study the "A Study on Subscribers' Satisfaction with Mobile Communication Service Providers in Thoothukudi District". Mobile Communication Service providers play a vital role in the economic development of our country. This study has included the vast analysis about the subscribers' perception and satisfaction towards mobile communication service providers, purpose of using GPRS, preference of offers available for recharge, opinion about the services provided by MCS, satisfaction level of subscribers towards tariff charges, service offers, service quality and parameters, problem faced by subscribers while using services, satisfaction about customer care services. It helps the customers to identify the satisfaction level towards mobile communication service provider. This study focused on GSM services only. It helps the service providers to identify the needs and expectation of the customers.

5. Hypotheses

The following null hypotheses are formed.

Ho: There is no significant association between demographic profile and overall satisfaction of the respondents.

Ho: There is no significant association between period of service and factors determining satisfaction of the respondents and overall satisfaction of the respondents.

Ho: There is no significant association between age and type of technology.

Ho: There is no significant association between income and amount spent for recharge.

Ho: There is no significant association between size of family and amount of monthly recharge.

6. Methodology

Methodology is the core for a good research work. In this part, the researcher has discussed area of the study, period of study, collection of data, construction of questionnaire, pilot study.

Collection of Data

The study is based on primary and secondary data. The primary data are collected from sample respondents with the help of questionnaire. Secondary data are collected from websites, Telecom Regulatory Authority of India (TRAI), Cellular Operators Authority of India (COAI), and printed from journals, books, magazines and newspapers.

Sampling Design

Primary Data were collected through well framed questionnaire. The questionnaire was rearranged by the pilot study. The public sector includes BSNL and in private sector Aircel, Airtel, Vodafone and Idea have been selected on the basis of top five GSM service providers in the study area⁷ by using stratified random sampling. 250 sample respondents have been selected from each service provider and the questionnaire was sent to 1250 (250×5) respondents selected using simple random sampling method. From among the

⁷ <http://www.telecomindiaonline.com/Indian-gsm-operators-2011-12.html>.

selected 1250 respondents 726 respondents are considered as sample respondents due to completeness of the questionnaire and the remaining 524 respondents were rejected due to incompleteness in filling questionnaire and few questionnaire were not returned back. From among the 726 respondents, 104 (BSNL) respondents are public and remaining 622 (Airtel-224, Airtel- 212, Vodafone- 132 and Idea -54) respondents are private sector subscribers.

Tools used in the study

The collected data were processed further with the help of the statistical tools namely mean, standard deviation, ranking, chi-square, one way ANOVA and t-test. The collected information was presented in a spread sheet and analysed it using SPSS 16.0 to bring out with a fine output result presented in a separate table.

7. Limitations

- 1) The area of the study is restricted to Thoothukudi district only.
- 2) The study focused on GSM - prepaid subscribers.
- 3) The changing conditions, preference and government policy do have any direct influence on the satisfaction of the subscribers.

8. Analysis and interpretation

Problem affecting subscribers' satisfaction

Problems	Public sector		Private sector	
	Mean Score	Rank	Mean Score	Rank
Connectivity/engaged problem	2.44	I	2.58	II
Promotional calls disturbance	1.48	III	2.82	I
Charging/offering service without informing	1.85	II	2.11	III

Source: computed primary data

From the above table, it is clear that in public sector connectivity/engaged problem has the first rank followed by charging/offering service without information and finally promotional calls disturbance whereas in private sector, promotional calls disturbance has the first rank followed by connectivity/engaged problem and charging/offering service without information.

It is inferred that in public sector connectivity/engaged problem is the major problem whereas in private sector promotional calls disturbance is the major problem to affect the satisfaction of the respondents.

Satisfaction of the subscribes

Descriptive statistics

Dimensions	Public Sector (n=104)				Private Sector (n=622)			
	Mean	S.D	Min	Max	Mean	S.D	Min	Max
Service offers	29.48	3.382	20	37	35.16	4.855	21	46
Service tariff	16.90	2.157	11	22	17.64	3.759	8	27
Service quality	13.43	1.624	7	17	14.01	2.203	7	19
Reduce Problems	7.99	2.022	4	13	9.63	2.278	4	16
Customer care service	15.43	1.989	9	20	14.94	2.050	6	20
Overall satisfaction	83.24	5.726	67	98	91.37	8.162	66	113

Source: computed primary data

There are ten important factors in the measurement of subscribers' satisfaction on the factor 'service offers' with the score of any item ranging between 1 and 5; the total scores on the instrument ranging between 10 and 50, with a neutral point of 30 (10 x3 =30). The mean score of public sector below the natural point indicates dissatisfaction with service offers and the mean score of private sector above the neutral point indicates satisfaction with service offers.

There are six important factors in the measurement of subscribers' satisfaction on the factor 'service tariff' with the score of any item ranging between 1 and 5; the total scores on the instrument ranging between 6 and 30, with a neutral point of 18 (6 x3 =18). The mean score of public sector and private sector below the natural point indicates dissatisfaction with service tariff.

There are four important factors in the measurement of subscribers' satisfaction on the factor 'service quality' with the score of any item ranging between 1 and 5; the total scores on

the instrument ranging between 4 and 20, with a neutral point of 12 (4 x3 =12). The mean score of public sector and private sector below the neutral point indicates dissatisfaction on service quality.

There are there important factors in the measurement of subscribers' satisfaction on the factor 'reduced problems' with the score of any item ranging between 1 and 5; the total scores on the instrument ranging between 3 and 15, with a neutral point of 9 (3 x3 =9). The mean score of public sector below the neutral point indicates dissatisfaction with reduced problems and the mean score of private sector above the neutral point indicates satisfaction with reduced problems.

There are four important factors in the measurement of subscribers' satisfaction on the factor 'customer care service' with the score of any item ranging between 1 and 5; the total scores on the instrument ranging between 4 and 20, with a neutral point of 12 (4 x3 =12). The mean score of public sector

and private sector above the neutral point indicates satisfaction on customer care service.

There are twenty seven important factors in the measurement of subscribers' overall satisfaction on the factor 'overall service' with the score of any item ranging between 1 and 5; the total scores on the instrument ranging between 27 and 135, with a neutral point of 81 (27 x 3 = 81). The mean score of public sector and private sector above the neutral point indicates satisfaction on overall service.

It is inferred that public sector subscribers satisfied with customer care service but dissatisfied with service offers, service tariff, service quality and reduced problems whereas in private sector subscribers satisfied with service offers, reduced

problem, customer care service but dissatisfied with service tariff and service quality. Overall both sector subscribers are satisfied with service.

Relationship between Factors determining satisfaction and overall satisfaction

To find out the significant relationship between factors determining satisfaction and overall satisfaction of respondents, the following hypothesis framed is "There is no significant association between factors determining satisfaction and overall satisfaction of respondents". The factors determining satisfaction includes service offers, service tariff, service quality, reduced problem and customer care service. For that chi- square test is used and the results are shown below table.

Relationship between Factors determining satisfaction and overall satisfaction

Particulars	Statistical inference	Degrees of freedom	P value	Results
Service offers	$X^2=355.412$	1	.000 < 0.05	Significant
Service tariff	$X^2=119.996$	1	.000 < 0.05	Significant
Service quality	$X^2=4.029$	1	.045 < 0.05	Significant
Reduced problems	$X^2=104.247$	1	.000 < 0.05	Significant
Customer care service	$X^2=4.774$	1	.029 < 0.05	Significant

Source: computed primary data

From the table, it is evident that the calculated p value for service offers (0.000), service tariff (0.000), service quality (0.045), reduced problem (0.000) and customer care service (0.029) are less than the significance value (0.05) at 5 per cent level of significance. Thus, the null hypothesis is rejected and concluded that there is association between service offers, service tariff, service quality, reduced problem and customer care service and overall satisfaction. Thus, all the five factors are important for determining the satisfaction of the respondents.

9. Summary of Findings

The respondents' opinions, preference, level of satisfaction and factors affecting satisfaction are analysed and the findings are listed below.

The majority of the respondents are male. The majority of the respondents are under the age group of 21 to 30 years. The majority of the respondents in the study area are married.

47.8 per cent of the respondents are graduates and 4.7 per cent of the respondents have studied at primary level education. 23.7 per cent of the respondents are working as private sector employees. The majority of the respondents get annual income of below Rs.1, 00, 000. The public sector is not yet reached the rural area as the private sector service provider reached. 78.4 per cent of the respondents belong to nuclear family. 64.2 per cent of the respondents belong to medium size family.

It is inferred that in public sector connectivity/engaged problem is the major problem whereas in private sector promotional calls disturbance is the major problem to affect the satisfaction of the respondents.

Service offers: 38.5 per cent of the public sector respondents are neutral and 31.4 percent of the private sector respondents are highly satisfied with call offers. 36.5 per cent of the public sector respondents are neutral and 39.7 per cent of the private sector respondents are satisfied with SMS offers. It is inferred that 80.8 of the public sector respondents are neutral whereas 54.2 per cent of the respondents are satisfied with caller tune offers. It is inferred that 51.9 per cent of the public sector respondents are neutral whereas 34.8 per cent of the private respondents are satisfied with rate cutter. 41.4 per cent of the public sector respondents are neutral whereas 41.8 per cent of the private respondents are satisfied with internet packages. 38.5 per cent of public sector respondents are dissatisfied and 38.5 per cent of private sector respondents are satisfied with special offers. 36.5 per cent of public sector respondents are neutral and 41.6 per cent of private sector respondents are satisfied with availability of value added service. 39.4 per cent of the respondents are neutral and 34.7 per cent of private sector respondents are satisfied with availability of recharge cards. 39.4 per cent of the public sector respondents are satisfied and 35 per cent of the private sector respondents are highly satisfied with information about offers. 26.9 per cent of the public sector respondents are neutral and 31.1 per cent of public sector respondents are satisfied with validity of offers. It is inferred that overall most of the public respondents are neutral and most of the private respondents are satisfied with service offers offered by the service provider.

Service tariff: 53.9 per cent of the public sector respondents are neutral and 31.1 per cent of the private sector respondents are satisfied with call tariff. 47.2 per cent of the public sector respondents are satisfied and 32.2 per cent of the public sector respondents are satisfied with caller tune

charges. **49** per cent of the public sector respondents are satisfied and 42.2 per cent of the private sector respondents are satisfied with SMS charges. 65.3 per cent of the public sector respondents are neutral and 46 per cent of the private sector respondents are highly dissatisfied with festival SMS charges. **32.7** per cent of the public sector respondents are dissatisfied and 34.7 per cent of the private sector respondents are dissatisfied with other value added services. **38.5** per cent of the public sector respondents are satisfied and 33.6 per cent of the private sector respondents are satisfied with internet charges.

Thus, it is inferred that majority of the public respondents are neutral and majority of the private respondents are satisfied with service tariff except sms charges during festival time.

Service quality: **44.2** per cent of the public sector respondents are neutral and 37.3 per cent of the private sector respondents are neutral with quality of sms. **68.3** per cent of the public sector respondents are satisfied and 41.2 per cent of the private sector respondents are satisfied with the quality of the value added service. **49** per cent of the public sector respondents are neutral and 46.8 per cent of the private sector respondents are satisfied with clarity of signal and connection. **58.7** per cent of the public sector respondents are satisfied and 49.7 per cent of the private sector respondents are satisfied with quality of internet.

It is inferred that majority of the public as well as private respondents are satisfied regarding service quality.

Customer care service: **51** per cent of the public sector respondents are dissatisfied and 46 per cent of the private sector respondents are dissatisfied with waiting time for connecting with customer care service. **75** per cent of the public sector respondents are highly satisfied and 74 per cent of the private sector respondents are highly satisfied with response of customer care service. **54.9** per cent of the public sector respondents are highly satisfied and 51.6 per cent of the private sector respondents are highly satisfied with time taken to resolve query. **43.3** per cent of the public sector respondents are satisfied and 42.4 per cent of the private sector respondents are satisfied with activation/deactivation of services. It is inferred that majority of the public and private respondents are satisfied about the services provided by the customer care services.

- There is a significant difference between gender and the overall satisfaction of the respondents.
- There is a significant association between age and the overall satisfaction of the respondents.
- There is a significant difference between marital status and the overall satisfaction of the respondents.
- There is a significant difference between educational qualification and the overall satisfaction of the respondents.
- There is a significant difference between occupation and overall satisfaction of the respondents.
- There is a significant difference between annual income and the overall satisfaction of the respondents.

- There is a significant difference between nativity and overall satisfaction of the respondents.
- There is no significant difference between type of family and the overall satisfaction of the respondents.
- There is no significant relationship between size of the family and the overall satisfaction of the respondents.
- There is a significant difference between period of service and the overall satisfaction of the respondents.
- There is a significant association between age and type of technology. In other words, the age and type of technology are dependent in nature.

10. Suggestions

This will enable the service provider to understand at which point the subscribers are not satisfied on services offered by the service providers. Based on research the following suggestions are given to service providers.

To service provider

- The service providers can provide schemes like ARC i.e. Automatic Recharge Center, where the subscribers can recharge their account easily and directly. This facility may be in the form of physical distribution or automatic computerized system.
- The customer care service should intimate the subscribers regarding any deduction. Without the knowledge of the subscribers, no single rupee should be deducted. The intimation may be in the form of SMS or Call through which proper acceptance for activation of Value Added Service (VAS). The details of the charging should be given as per the subscribers' request.
- The public sector service provider should give more offers/ awareness and make the availability of more recharge cards at various places.
- The service provider should give special festival SMS offers to the subscribers who activated SMS booster (ex. minimum 10 SMS at free of cost).
- The service provider should take steps for immediate delivery of SMS to increase the quality of the SMS, especially public service sector.
- The service provider can improve the clarity of signal and connection of network by installing more towers in rural and urban areas.
- The service provider can appoint more customer care agents to get immediate response and service from customers care services.
- There is a difference between gender and satisfaction level. So, the service provider should provide various schemes and offers based on gender to satisfy them.
- As there is a difference in age group towards satisfaction, it is better to offer different types of offers based on age. For example, youth may like more SMS offers, new movie and songs downloading and high speed internet and the age old people may like low call charges, old songs downloading and free calls.
- The service provider should categorise the subscribers on the basis of education and occupation

and provide separate schemes and offers based on education and occupation.

- The service provider should introduce new schemes and offers for the subscribers based on their nativity.
- The service provider should offer some offers based on the type of family and size of family. (1+1 SIM or group free talks SIM. etc).
- The service provider should give additional offers to the long time subscribers to retain the subscribers for a longer time. Because, in the initial period or at the time of purchasing a new SIM, more offers are given by the service provider to the subscribers but service provider fail to give more offers and retain the subscribers for a longer time. So, the service provider should give more additional offers to the long time subscribers.
- The service provider should provide offers at affordable cost on which all schemes and offers should be utilized by all categories of income group.

11. Conclusion

Nowadays, mobile communication is becoming the life blood of all human beings. To make communication much easier and faster tele-communication system is adopted. Really, it is tremendous because it converts the globe into a

village. It makes everything in our finger point; we can communicate with people throughout the world. Always there is a thought that, "Every situation has two sides like coin" i.e. everything has its advantages and disadvantages. Likewise, communication also has two sides; whatever may be the reason, yet the advantages are more in communication system. It reaches the peak of satisfaction from the subscribers overall and in future. Mobile communication is nowadays included in the necessity for the life of a human being along with food, shelter and clothing. We all know that, we are in a competitive world, for everything there is an alternative. Likewise, for mobile communication service, there are so many alternative service providers. So, subscribers are confused in selecting their service providers due to stiff competition among the service providers in offering various schemes and offers to the subscribers to attract their customers; otherwise the subscribers may switch over from one service provider to another provider very easily. But, whatever may be the situation there is a general problem that "**Long Distance relationship through mobile communication generally becomes poor because of the weak signals and ends up due to jammed network**"-Amit Abraham. It must be considered by the providers to avoid network problems. Anyway, mobile communication is a boon to the people in reducing the far distance relationship.

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