

**REASONS BEHIND CONSUMERS SWITCHING  
BEHAVIOR TOWARDS MOBILE NETWORK OPERATORS:  
A STUDY CONDUCTED IN WESTERN PART OF RURAL  
WEST BENGAL**

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**ABSTRACT**

Discovery of mobile phones in today's world has become one of the most important product in both urban & rural market. Different network operators have captured the most of the important parts of India but still in various rural areas people does not have mobile phones in their hand. This study has been made to see that the reasons behind consumers switching behaviour at the time of using a particular mobile network operator. The area chosen for the study is Western Part of West Bengal, which comprises four districts West Midnapore, Bankura, Birbhum & Purulia district. 100 respondents have been selected on this purpose & their opinion has been recorded with the help of a close ended questionnaire. The researcher has used 5 point likert scale to assess the responses properly from the selected respondents. Factor analysis & multiple regression analysis have been used as statistical tools to find out the most important factors. Findings of the study iterate that most of the customers cited the reason for switching behaviour is poor network quality.

**Keywords:** Rural Marketing, Rural Consumers, Network Operators, TRAI, SIM Card.

## **Introduction:**

The growth of Indian telecommunication companies has created a saga in past few years. Due to LPG policies by Government of India after 1991 has allowed so many private companies into the market. The invention of cellular phones has also boosted up the buying of SIM cards & services provided by different companies. Urban market of India is already saturated by different telecommunication companies & now they want to penetrate the rural market of India. For this purpose only the study has been conducted that how the companies are trying to capture the market and to sustain in the market what are the main factors they need to look for. Here the study also explains that the reasons behind the consumers switching behavior in rural market. India has attained the second largest subscriber network after China with the total number of subscriber base of 898.02 million, out of which 867.80 million were wireless subscribers. The rural population of India was having 349.22 million of customer base out of which the wireless rural market has reached the 342.50 million mark as against 323.27 million as on 31st March 2012.

## **Review of Existing Literature:**

Rahman (2014)<sup>1</sup> in his research article iterated that there are few factors like quality factors which are responsible for customer satisfaction when they are selecting a particular service provider's services in Bangladesh. In the study 282 samples have been collected through well-structured questionnaire. The study also reveals that service innovativeness, reliability, competitiveness and service consistency have significant influence on making customer satisfied. The operator's network/signal coverage, pricing, fulfilment of customer demand etc does not have any significant influences. The analyses have been done with the multiple regression analysis. The findings conclude that to enhance customer satisfaction mobile service providers have to take care of insignificant influence in telecommunication industry in Bangladesh.

Rajarajan (2014)<sup>2</sup> examined that in India, the number of mobile subscribers has gone from just about one million to 752 million, a subscriber base that only second next to China. This study explains that the problems faced by the cellular services provided by different service providers to customers in Cuddalore town. Customer Care Service is the most important factor where the service providers need to satisfy the customer, so they can attract more number of customers. The study reveals that the cellular phone service provider are satisfied with easy accessibility and very few users are not satisfied with problem solving customer care service, communication services, VAS, product features and time taken by call centre/customer care/helpline to resolve the customer complaint with their service provider. The companies have to strategically introduce some new features, schemes, periodical offers to their service. Shah et al. (2013)<sup>3</sup> explained that the present research explains the conceptual framework of switching cost as dependant variable with six independent variables quality, satisfaction, loyalty, retention, recommendations and repurchase. The simple random sampling was used to select the sample of 200 respondents with different demographic characteristics, from different cities of Pakistan. The data was collected through self-administered questionnaires based on mobile telecommunication industry. The descriptive statistics and regression analysis has been used to analyze the different dimensions. The study attempts to find out the switching costs as an important element in marketing to understand the behavior of customers. The results provide a deep insight of consumer behavior and their preferences & it is suggested for the marketing managers to develop an effective strategy for the retention of customers.

Khan et al. (2011)<sup>4</sup> expressed in their article that the cellular Mobile Industry in India is dominated by the corporate namely BSNL, Bharti, Idea etc. The market Leader in the industry is Airtel whereas the challengers are Hutch/BSNL. The market followers are others. The expanding Indian economy, the population with more younger people, the urbanization with increased income of the household and the like provide vast scope in the cellular service market. At the same time, as competition in the telecom is intensified, service providers take new initiatives to attract customers as the requirements and expectations of the customer are increasing very fast. There is also an increase in the expectations of the product and service in terms of confirming to certain standards, reliability, dependability, durability,

performance, features, appearance, safety and user-friendliness. Though the Cellular operators have been rendering services to the customers throughout India, there is dissatisfaction expressed by the customers over excess billing, disconnection while talking, cross talk, high cost of handsets and high operating cost. Due to these factors the cellular operators have come under a lot of strong criticism. In this Article, the aspects relating to switching tendencies of consumers of mobile phone services are studied.

Kumar (2011)<sup>5</sup> in his empirical study has investigated that the factors influencing the mobile users in selecting the cellular service providers in India based on Structured Equation Model (SEM). Due to huge growth in mobile subscribers, heavy competition between service providers and Mobile Number portability facility given to the mobile users there is a need to study the impact of various factors influencing mobile users in selecting the service provider. The study was conducted on 361 Mobile phone users for a period of 3 months. The data analysis was conducted in a three-stage process. First, reliability tests were performed. Upon satisfactory results, the factor analysis of the collected data was conducted followed by Confirmatory Factor Analysis (CFA) was performed to confirm the findings. SPSS Statistics 17.0 is used to conduct factor analysis and the validity of the model. Once the model was validated, SPSS Amos 18.0 is used to test the overall fitness of the SEM. The findings have revealed that Customer Service, Service Accessibility and Service Affordability are the most important factor influencing the mobile users compared to Promotional offers to select the service provider. This study has important implication for researchers to understand the level of impact that these factors has on selection of the service provider and the correlation between these factors.

### **Objective of the Study:**

- To study the reasons behind the switching behaviour of rural consumers of West Bengal towards different mobile network operators.

### **Hypothesis:**

- High call drop rate is the main reason for switching behaviour of consumer.

### **Research Methodology:**

The major parts of the Research Methodology are:

#### **1. Research design:**

A research design provides the framework to be used as a guide in collecting and analyzing data. For this study the researchers have used **Descriptive Research** and the type of research design is **Cross-sectional**. Cross-Sectional design is a one-shot research study at a given point of time, and consists of a sample (cross-section) of the population of interest.

#### **2. Sources of data:**

- a. Primary data:** The primary data has been collected for the study through a pre-tested questionnaire. The sampling method the researchers have used is proportionate random sampling and the respondents will be extracted from the four districts of rural West Bengal.
- b. Secondary data:** Secondary data are those which will be collected from doctoral theses, magazines, research articles, credible sources etc. Researchers have collected information from different sources to conduct the study effectively.

#### **3. Sampling plan:**

Samples are always subsets or small part of total number that can be studied. It is a portion selected from population/universe which should have same features as that of population. In this study researchers have collected the samples from the rural consumers of Western part of West Bengal.

- **Area of research:** The study will be confined to four districts of Western part of West Bengal namely West Midnapore, Bankura, Birbhum & Purulia district. The districts were selected based on the prominence of its rural characteristics.

- **Sampling size & design:** The study area have comprised of four districts of rural West Bengal. Two stage cluster sampling method has been used to collect various perceptions of subscribers of different mobile service providers in Western part of West Bengal. From the four districts of West Bengal, researchers have collected the responses from 100 respondents, out of which 25 respondents from each district has been chosen randomly & it has been selected through lottery method. The sample size along the various district has been shown in the table below:

| <b>Paschim Medinipur District (25 respondents)</b> | <b>Bankura District (25 respondents)</b> | <b>Birbhum District (25 respondents)</b> | <b>Purulia District (25 respondents)</b> |
|--|--|--|--|
| <b>Subdivisions</b>                                | <b>Subdivisions</b>                      | <b>Subdivisions</b>                      | <b>Subdivisions</b>                      |
| Kharagpur (25)                                     | Bankura Sadar (25)                       | Suri Sadar (25)                          | Purulia Sadar East (25)                  |

**Questionnaire Design:**

A simple, easy to understand questionnaire consisting of **close ended** questions has been used for data collection from rural subscribers.

**Data Analysis & Interpretations:**

**Analysis on Reasons for Shifting Behavior:**

| <b>Reliability Statistics</b> |            |
|-------------------------------|------------|
| Cronbach's Alpha              | N of Items |
| .745                          | 10         |

The reliability analysis on awareness level data has got the Cronbach's Alpha result of .780. From the table, we've depicted that this Cronbach's Alpha result acceptable & accordingly we have conducted the further analysis.

**Factor Analysis:**

**A) KMO & Bartlett's Test:**

| <b>KMO and Bartlett's Test</b>                   |                    |         |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .598    |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 803.571 |
|  | df                 | 45      |
|  | Sig.               | .000    |

The analysis started by the researcher with the help of Factor Analysis to find out the factors influencing the purchase decision at the time of online shopping. The KMO & Bartlett's Test is providing a very good result to start the further analysis. KMO measure of sampling adequacy is providing the value of 0.598, which is on a very higher side. It also implies that the samples are adequate. The Bartlett's Test of Sphericity also explains that the significance level is .000, which is quite significant.

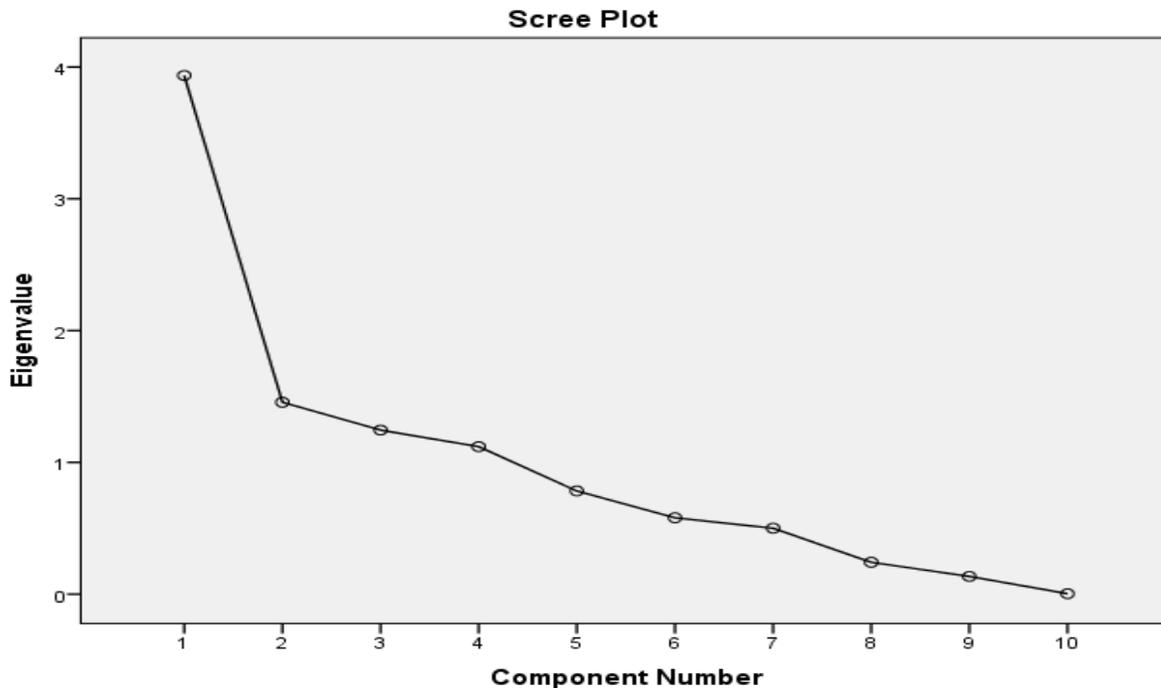
**B) Total Variance Explained:**

| Total Variance Explained |                     |               |              |                                     |               |              |                                   |               |              |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| Component                | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings |               |              |
|                          | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                             | % of Variance | Cumulative % |
| 1                        | 3.936               | 39.359        | 39.359       | 3.936                               | 39.359        | 39.359       | 2.609                             | 26.093        | 26.093       |
| 2                        | 1.456               | 14.562        | 53.921       | 1.456                               | 14.562        | 53.921       | 2.204                             | 22.041        | 48.134       |
| 3                        | 1.245               | 12.451        | 66.372       | 1.245                               | 12.451        | 66.372       | 1.658                             | 16.579        | 64.713       |
| 4                        | 1.120               | 11.196        | 77.568       | 1.120                               | 11.196        | 77.568       | 1.286                             | 12.855        | 77.568       |
| 5                        | .783                | 7.832         | 85.400       |                                     |               |              |                                   |               |              |
| 6                        | .580                | 5.795         | 91.196       |                                     |               |              |                                   |               |              |
| 7                        | .500                | 5.003         | 96.198       |                                     |               |              |                                   |               |              |
| 8                        | .242                | 2.421         | 98.619       |                                     |               |              |                                   |               |              |
| 9                        | .135                | 1.346         | 99.965       |                                     |               |              |                                   |               |              |
| 10                       | .004                | .035          | 100.000      |                                     |               |              |                                   |               |              |

Extraction Method: Principal Component Analysis.

According to the table the first three components have found more than 1 Eigen values and the total variance table iterates that cumulatively 77.568% of total variance has been explained by all the four components. Here the 1<sup>st</sup> component explains 26.093% of total variation whereas the 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> component explains 22.041%, 16.579% & 12.855% of total variation.

**C) Scree Plot:**



The four components have been selected to conduct the further research because all the three values are having Eigen Value of more than 1. These components have been shown diagrammatically with the help of Scree plot.

**D) Rotated Component Matrix**

| <b>Rotated Component Matrix<sup>a</sup></b>         |                  |          |          |          |
|---|------------------|----------|----------|----------|
|   | <b>Component</b> |          |          |          |
|   | <b>1</b>         | <b>2</b> | <b>3</b> | <b>4</b> |
| Poor network quality                                | .884             |          |          |          |
| High call drop rate                                 | .858             |          |          |          |
| Poor coverage                                       | .753             |          |          |          |
| Poor voice clarity                                  | .662             |          |          |          |
| Poor roaming facilities                             | .552             |          |          |          |
| High call rate/SMS charge                           |                  | .876     |          |          |
| High internet charge                                |                  | .701     |          |          |
| Less promotional activity                           |                  |          | .798     |          |
| New brand trial                                     |                  |          | .697     |          |
| Influence form family/friends/others                |                  |          |          | .829     |
| Extraction Method: Principal Component Analysis.    |                  |          |          |          |
| Rotation Method: Varimax with Kaiser Normalization. |                  |          |          |          |
| a. Rotation converged in 15 iterations.             |                  |          |          |          |

From the above table it has been observed that all the 10 variables have been divided in 4 components. Here we have used the Principal Component Analysis for extraction & Varimax with Kaiser Normalization for rotation method.

Rotated Component Matrix table explains that from the 1<sup>st</sup> component which is based on the factors related to network related issues, most of the customers think that at the time of switching the service provider the most important factor is “Poor network quality”. The coefficient value of “Poor network quality” is .884 whereas High call drop rate is having the value of .858, Poor coverage is .753, Poor voice clarity is .662 & Poor roaming facilities is .552. The 2<sup>nd</sup> component explains about call/internet charges by different companies where “High call rate/SMS charge” is having a value of .876 & “High internet charge” with .701. The 3<sup>rd</sup> component explains about various promotional activities in the rural market. Here it is evident from the research that respondents have mostly responded the factor named “Less promotional activity” with .798 & “New brand trial” with .697. The 4<sup>th</sup> component explains about the influence of family/friends at the time of switching behavior of different customers. It has been found from the study that “Influence form family/friends/others” is having the value of .829.

Herewith from the above table we have found that the most important factors according to the respondents from all the four components are “Poor network quality”, “High call rate/SMS charge”, “Less promotional activity” & “Influence form family/friends/others”.

To find out the most important factor the researcher has used multiple regression analysis & from this the researcher has implemented a Multiple Regression Model.

**Regression Analysis:**

We have used the best alternative from all the four components and these are written below:

From 1<sup>st</sup> Component- Poor network quality

2<sup>nd</sup> Component- High call rate/SMS charge

3<sup>rd</sup> Component- Less promotional activity

4<sup>th</sup> Component- Influence form family/friends/others

Here the Switching Behavior Score has been used as a Dependent Variable and the remaining factors from each component has been used as Independent variables

| Model Summary <sup>b</sup> |                   |          |                   |                            |                   |          |     |     |               |               |
|----------------------------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| Model                      | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               | Durbin-Watson |
|                            |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |               |
| 1                          | .868 <sup>a</sup> | .753     | .742              | 2.956                      | .753              | 72.297   | 4   | 95  | .000          | 2.189         |

a. Predictors: (Constant), Poor network quality, High call rate/SMS charge, Less promotional activity, Influence form family/friends/others

b. Dependent Variable: Switching Behavior Score

| ANOVA <sup>a</sup> |              |                 |           |             |        |                   |
|--------------------|--------------|-----------------|-----------|-------------|--------|-------------------|
| Model              |              | Sum of Squares  | df        | Mean Square | F      | Sig.              |
| 1                  | Regression   | 2526.587        | 4         | 631.647     | 72.297 | .000 <sup>b</sup> |
|                    | Residual     | 830.003         | 95        | 8.737       |        |                   |
|                    | <b>Total</b> | <b>3356.590</b> | <b>99</b> |             |        |                   |

a. Dependent Variable: Switching Behavior Score

b. Predictors: (Constant), Poor network quality, High call rate/SMS charge, Less promotional activity, Influence form family/friends/others

| Coefficients <sup>a</sup> |   |                             |             |                           |              |             |                                 |              |
|---------------------------|---|-----------------------------|-------------|---------------------------|--------------|-------------|---------------------------------|--------------|
| Model                     |   | Unstandardized Coefficients |             | Standardized Coefficients | t            | Sig.        | 95.0% Confidence Interval for B |              |
|                           |   | B                           | Std. Error  | Beta                      |              |             | Lower Bound                     | Upper Bound  |
| 1                         | (Constant)                              | 7.239                       | 1.327       |                           | 5.454        | .000        | 4.604                           | 9.874        |
|                           | Influence form family / friends /others | 1.073                       | .212        | .260                      | 5.068        | .000        | .653                            | 1.493        |
|                           | Less promotional activity               | 1.145                       | .242        | .243                      | 4.723        | .000        | .664                            | 1.626        |
|                           | High call rate/SMS charge               | 2.286                       | .303        | .439                      | 7.557        | .000        | 1.686                           | 2.887        |
|                           | <b>Poor network quality</b>             | <b>2.820</b>                | <b>.340</b> | <b>.484</b>               | <b>8.304</b> | <b>.000</b> | <b>2.146</b>                    | <b>3.494</b> |

a. Dependent Variable: Switching Behavior Score

0.868 is the Correlation coefficient (R) for Model 1, it emphasizes an amount of correlation between the independent variables and dependent variable (Factors Influencing Score). The R square value explains the 0.753 or 75.3% which is quite significant. Here the significance level also implies .000 significance level which means it is quite acceptable.

From the coefficient table, we have found that “Poor network quality” is having highest un-standardized coefficient of 2.820. So it is having the highest influencing factor on consumers switching behavior when they are using the services of a particular mobile network operator. After that the second highest will be “High call rate/SMS charge” with the value of 2.286. “Less promotional activity” with value of 1.145 & “Influence form family / friends/ others” is following after that with the value of 1.073.

So, here the multiple regression equation can be expressed as,

$$\text{Switching Behavior Score} = 7.239 + \text{Less promotional activity (1.145)} + \text{Influence form family/friends/others (1.073)} + \text{Poor network quality (2.820)} + \text{High call rate/SMS charge (2.286)}$$

**Result of Hypothesis:**

**Hypothesis:**

Ha: High call drop rate is the main reason for switching behaviour of consumer.

H0: High call drop rate is not the main reason for switching behaviour of consumer.

Here it accepts the null hypothesis & rejects the alternate hypothesis.

### **Limitations:**

- The survey has been done only on the Western part of rural West Bengal. The other parts of West Bengal or even in other parts of India also the study can be conducted to the study the behaviour of consumers.
- This study is mainly reflecting the perception of rural people. It might not be applicable to the urban people.
- Sample size of 200 is small; increasing the sample size can give other results also.

### **Suggestion & Conclusion:**

The study reveals that the reasons behind the switching behavior of consumers are mainly influenced by the “Poor network quality” followed by high call rate/SMS charges & less promotional activity. They are also influenced by family/friends/others at the time of shifting their service provider in the rural areas of West Bengal. But they are not so much influenced by the other factors like high call drop rate, poor coverage, poor voice clarity, poor roaming facilities etc. The companies need to take care of these areas and they also need to think on concentrating more on most influential areas compare to other areas. The rural consumers in West Bengal still not much influenced by high internet charge or new brand trial, that are true but side by side it is also evident from the study that though they are price sensitive community still they have ranked network quality as a number one influential factor, then the rate plans & other factors are coming one after another. Now it is a job of both Government & Corporate sector to take initiatives to work on those areas where they will be benefited in the long run & to achieve 100 percent tele-density by few years only from rural areas.

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