Chapter 3. RESEARCH METHODOLOGY

3.1 Statement of the Problem
3.2 Purpose of the Study
3.3 Research objectives
3.4 Hypotheses
3.5 Significance of the Study
3.5.1 Theoretical concern
3.5.2 Practical concern
3.6 Delimitations of the Study
3.7 The population
3.8 Sample
3.9 Collection of Data
3.10 Questionnaire
3.10.1 Design
3.10.2 Pre-testing
3.11 Techniques of Data Analysis
3.12 Profile of sampled respondents
In the previous two chapters, theoretical background of the study was presented. In this chapter research methodology was applied to study the problem considered for the purpose of study. This chapter deals with (i) statement of the problem, (ii) purpose of the study, (iii) objectives of the study, (iv) hypothesis of the study, (v) significance of the study, (vi) delimitations of the study, (vii) the population (i.e. the respondents included in the study), (viii) sample, (ix) questionnaire, (x) methods of data collection, (xi) statistical techniques to analyse the data, (xii) profile of sampled respondents.

3.1 STATEMENT OF THE PROBLEM

The problem of the study can be stated as:

“Customers Intention to Switch towards Mobile Number Portability - A Study in Selected Districts of Chhattisgarh”

3.2 PURPOSE OF THE STUDY

The purpose of the study was to assess the satisfaction/dissatisfaction of customers towards their present cellular service provider, porting-In and porting-Out trends among different categories of cellular service providers in the state of Chhattisgarh and to find out customers intention to switch among customers from present cellular service providers to new service providers while
availing facility of Mobile Number Portability (MNP) in the state of Chhattisgarh.

### 3.3 OBJECTIVES OF THE STUDY

In order to fulfill the above purpose following specific objectives are framed for the study:

1. To assess the satisfaction/dissatisfaction of customers towards their present cellular service provider in Chhattisgarh.
2. To analyse the awareness about Mobile Number Portability among the Pre paid and Post paid individual users in Chhattisgarh.
3. To analyse the awareness about Mobile Number Portability among the Pre-paid and Post paid Business users in Chhattisgarh.
4. To find out the intention to switch towards Mobile Number Portability among the Pre paid and Post paid Business users in Chhattisgarh.
5. To find out the intention to switch towards Mobile Number Portability among the Pre-paid and Post paid individual users in Chhattisgarh.
6. To analyse the porting-In and porting-Out trends among different categories of cellular service providers in the state of Chhattisgarh.

### 3.4 HYPOTHESES

On the basis of above objectives following null hypotheses were formulated:

\[ H_{01} : \text{There is no significant difference in respondents satisfaction with respect to call/ voice quality of cellular services district wise.} \]
H_{02} : There is no significant difference in respondents’ satisfaction with respect to call drop rate of cellular services district wise.

H_{03} : There is no significant difference in respondents’ satisfaction with respect to call forwarding and waiting services district wise.

H_{04} : There is no significant difference in respondents’ satisfaction with respect to sms service district wise.

H_{05} : There is no significant difference in respondents’ satisfaction with respect to network reliability district wise.

H_{06} : There is no significant difference in respondents’ satisfaction with respect to network coverage district wise.

H_{07} : There is no significant difference in respondents’ satisfaction with respect to call congestion district wise.

H_{08} : There is no significant difference in respondents’ satisfaction with respect to call setup success rate district wise.

H_{09} : There is no significant difference in respondents’ satisfaction with respect to activation process of connection district wise.

H_{010} : There is no significant difference in respondents’ satisfaction with respect to network availability during roaming district wise.

H_{011} : There is no significant difference in respondents’ satisfaction with respect to network restoration district wise.

H_{012} : There is no significant difference in respondents satisfaction with respect to promotional offers of cellular services district wise.

H_{013} : There is no significant difference in respondents’ satisfaction with respect to product range of cellular services district wise.
H_{014}: There is no significant difference in respondents’ satisfaction with respect to customer relation district wise.

H_{015}: There is no significant difference in respondents’ satisfaction with respect to access to helpline numbers district wise.

H_{016}: There is no significant difference in respondents’ satisfaction with respect to response of customer care executives district wise.

H_{017}: There is no significant difference in respondents’ satisfaction with respect to problem solving ability of executives district wise.

H_{018}: There is no significant difference in respondents’ satisfaction with respect to redressal mechanism district wise.

H_{019}: There is no significant difference in respondents’ satisfaction with respect to timely billing district wise.

H_{020}: There is no significant difference in respondents’ satisfaction with respect to accuracy of billing district wise.

H_{021}: There is no significant difference in respondents’ satisfaction with respect to value added services district wise.

H_{022}: There is no significant difference in respondents’ satisfaction with respect to quick complaint resolution district wise.

H_{023}: There is no significant difference in respondents’ satisfaction with respect to friendly and politeness of staff district wise.

H_{024}: There is no significant difference in respondents’ satisfaction with respect to pricing structure and schemes district wise.

H_{025}: There is no significant difference between prepaid and postpaid connection holders perception about time taken in MNP process.
H026: There is no significant difference between individual and business connection holders perception about time taken in MNP process.

H027: There is no significant difference between prepaid and postpaid connection holders perception about lock in period in MNP process.

H028: There is no significant difference between individual and business connection holders perception about lock in period in MNP process.

H029: There is no significant difference between prepaid and postpaid connection holders perception about transaction charges for MNP process.

H030: There is no significant difference between individual and business connection holders perception about transaction charges for MNP process.

H031: Respondents across district will switch to another service provider in case they experience problem with current service provider.

H032: Respondents across district are used to current service provider but they can still switch.

H033: Respondents across district often think to switch from current cellular service providers.

H034: Respondents across districts are considering to change service provider within 3 months.

H035: Respondents across districts are considering to change service provider to use better mobile network.

H036: Respondents across districts are considering to change service provider to have better services as a customer.
H037: Respondents across districts are tempted to switch because of other service providers offer.

H038: Respondents across districts are planning to change service provider due to recommendation of friends and relatives they trust.

H039: Respondents across districts are planning to change service provider because of improper response to their queries/ problems.

H040: Respondents across districts are planning to change service provider because of dissatisfaction with services.

H041: Respondents across districts think that switching from current service provider to another service provider would be useful idea.

H042: Respondents across prepaid and post paid connections will switch to another service provider in case they experience problem with current service provider.

H043: Respondents across prepaid and post paid connections are used to current service provider but they can still switch.

H044: Respondents across prepaid and post paid connections often think to switch from current cellular service providers.

H045: Respondents across prepaid and post paid connections are considering to change service provider within 3 months.

H046: Respondents across prepaid and post paid connections are considering to change service provider to use better mobile network.

H047: Respondents across prepaid and post paid connections are considering to change service provider to have better services as a customer.
H048: Respondents across prepaid and post paid connections are tempted to switch because of other service providers offer.

H049: Respondents across prepaid and post paid connections are planning to change service provider due to recommendation of friends and relatives they trust.

H050: Respondents across prepaid and post paid connections are planning to change service provider because of improper response to their queries/problems.

H051: Respondents across prepaid and post paid connections are planning to change service provider because of dissatisfaction with services.

H052: Respondents across prepaid and post paid connections think that switching from current service provider to another service provider would be useful idea.

H053: Respondents across individual and business connections will switch to another service provider in case they experience problem with current service provider.

H054: Respondents across individual and business connections are used to current service provider but they can still switch.

H055: Respondents across individual and business connections often think to switch from current cellular service providers.

H056: Respondents across individual and business connections are considering to change service provider within 3 months.

H057: Respondents across individual and business connections are considering to change service provider to use better mobile network.
H058: Respondents across individual and business connections are considering to change service provider to have better services as a customer.

H059: Respondents across individual and business connections are tempted to switch because of other service providers offer.

H060: Respondents across individual and business connections are planning to change service provider due to recommendation of friends and relatives they trust.

H061: Respondents across individual and business connections are planning to change service provider because of improper response to their queries/ problems.

H062: Respondents across individual and business connections are planning to change service provider because of dissatisfaction with services.

H063: Respondents across individual and business connections think that switching from current service provider to another service provider would be useful idea.

3.5 SIGNIFICANCE OF THE STUDY

The study is of utmost significance for the following theoretical and practical concerns.

3.5.1 Theoretical Concern

1. Theoretically, the present study seeks to explore the extent to which the intention to switch towards Mobile Number Portability exist among customers of various cellular service providers in selected districts of Chhattisgarh.
2. The findings of the study may reveal various factors responsible for satisfaction and dissatisfaction on the part of respondents towards various services provided by different cellular service providers in the state of Chhattisgarh.

3. The findings of the study may reveal whether the respondents have proper awareness towards the process of Mobile Number Portability adopted by cellular service providers.

4. The study may examine the intention to switch towards Mobile Number Portability among the Pre paid and Post paid individual and business users in Chhattisgarh.

5. The study may analyse porting-in and porting-out trends of different cellular service providers in Madhya Pradesh and Chhattisgarh telecom circle.

3.5.2 Practical Concern

Following will be practical concern of the study:

1. Practically the study will be of much importance to Marketing/sales managers who are involved in selling and promotion of mobile connections and different value added services in cellular industry.

2. The results of the study will enable the practicing managers of the cellular companies under study to focus their adequate attention on various network related factors and customer related factors influencing customers towards MNP.
3. It will help companies to formulate a more realistic managerial policy after knowing causes of customers’ dissatisfaction with various cellular services.

4. It will help them understand various factors because of which customers' intention is formulated to avail Mobile Number Portability even they are satisfied with cellular services of their cellular service provider.

5. Findings of the study will enable the cellular service providers to formulate suitable strategy to attract and retain customers.

6. The study may provide due insights to future researchers to understand process of Mobile Number Portability, reasons behind availing Mobile Number Portability, and factors responsible for formation of intention to switch towards Mobile Number Portability in selected districts of Chhattisgarh in particular and entire Chhattisgarh state in general.

3.6 DELIMITATIONS OF THE STUDY

While conducting the study the researcher faced some practical issues that might influence the results, conclusions and generalizations of the study:

1. Generalization of the study is subject to reliability and validity of the research instrument and methods of data collection.

2. The reliability of the results of the study depends on accuracy of data provided by the sampled respondent.

3. Present study was delimited to awareness of customers about Mobile Number Portability, satisfaction/ dissatisfaction towards
Mobile Number Portability, intention to switch towards Mobile Number Portability, and porting-in and porting-out trends of customers with respect to Mobile Number Portability.

4. The data with respect to porting-in and porting-out trends was available only circle wise. Madhya Pradesh and Chhattisgarh states are in same telecom circle so the researcher was not able to study and analyse porting-in and porting-out trends for the state of Chhattisgarh.

5. There are large number of factors that influence the customers towards Mobile Number Portability but the study was confined up to factors/ reasons responsible for “intention to switch.” Post switching behavior and satisfaction was not studied by the researcher.

3.7 THE POPULATION

There are 15, 29,415 mobile phone users as per the Census of India 2011 statistics and they represent 27.2% of total household population in the state of Chhattisgarh. The total number of mobile phone users constitute the population for the purpose of the study in general and in particular the target population consist of mobile phone users of selected districts of namely Ambikapur, Bilaspur, Durg, Jagdalpur, Jashpur, Kanker, Mahasamund, Mungeli, Raipur and Rajnandgaon.
3.8 SAMPLE

For drawing the sample from the population the multistage sampling was used. There are five revenue divisions in the state of Chhattisgarh. At the first stage, ten districts (two from each revenue division) were purposively selected. In stage two, one tehsil was selected from each selected district. Data was collected from both pre-paid and post-paid customers having either individual or business connection in first stage from district headquarters and in second stage from tehsil headquarters. To identify the sampled respondents, simple random sampling will be used for the purpose of the study. In total 600 respondents from ten districts were covered for the purpose of the study.

3.9 COLLECTION OF DATA

The data was collected with the help of a questionnaire prepared for the purpose of the study. In majority of the cases the researcher visited personally visited to drop the questionnaire to the respective respondents in their office, shop, place of business, and home. It was promised to them that data shared by them will be used for academic purposes only. Filled questionnaires were collected later on from them. Some of the respondents sent it by post. Since data was collected from ten districts from the state of Chhattisgarh, it took almost 7 months to collect the data completely.

3.10 QUESTIONNAIRE

The researcher developed a structured questionnaire according to the objectives of the study and administered as per sample plan.
3.10.1 Design

The questionnaire was designed as per the research objectives to enable the researcher to collect necessary data related with satisfaction / dissatisfaction of customers towards their present cellular service providers, awareness about Mobile Number Portability, intention to switch towards Mobile Number Portability. Questions were framed in simple, easy to understand language avoiding technical words so that respondents may have clear comprehension about the questions.

Questionnaire was divided into two parts. Part 1 was containing 6 questions related with demographics of the respondents like sex, age group, marital status, educational qualification, occupation, and monthly income. Part 2 was having 20 questions designed to study satisfaction with cellular services, awareness about process of Mobile Number Portability, intention to switch towards Mobile Number Portability. Questions were of likert scale, multiple choice, dichotomous, ranking type.

3.10.2 Pre-Testing

The questionnaire was pre tested on fifty customers (25 from Raipur city and 25 from Durg city). On the basis of pre-testing results the researcher modified the language and wording of the questionnaire with the help of subject experts to finalize it for use in the present study.

3.11 TECHNIQUES OF DATA ANALYSIS

The researcher analysed the collected data through percentage method, garraets ranking method and analysis of variance. Garraets ranking
method was used to analyse the ranking given by respondents about preferred cellular service provider and about process of MNP. Analysis of variance was used to analyse respondent’s satisfaction with cellular service providers, perception about MNP and intention to switch towards MNP.

3.12 PROFILE OF SAMPLED RESPONDENTS

<table>
<thead>
<tr>
<th>Particular</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>434</td>
<td>72.3</td>
</tr>
<tr>
<td>Female</td>
<td>166</td>
<td>27.7</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 20 years</td>
<td>87</td>
<td>14.5</td>
</tr>
<tr>
<td>21-30 years</td>
<td>326</td>
<td>54.3</td>
</tr>
<tr>
<td>31-40 years</td>
<td>110</td>
<td>18.3</td>
</tr>
<tr>
<td>41-50 years</td>
<td>51</td>
<td>8.5</td>
</tr>
<tr>
<td>Above 50</td>
<td>26</td>
<td>4.3</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td><strong>MARITAL STATUS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>296</td>
<td>49.3</td>
</tr>
<tr>
<td>Unmarried</td>
<td>304</td>
<td>50.7</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td><strong>EDUCATIONAL QUALIFICATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>111</td>
<td>18.5</td>
</tr>
<tr>
<td>Graduate</td>
<td>289</td>
<td>48.2</td>
</tr>
<tr>
<td>Post Graduate</td>
<td>164</td>
<td>27.3</td>
</tr>
<tr>
<td>Professionally Qualified</td>
<td>36</td>
<td>6.0</td>
</tr>
<tr>
<td>OCCUPATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Student</td>
<td>180</td>
<td>30.0</td>
</tr>
<tr>
<td>Govt. Service</td>
<td>121</td>
<td>20.2</td>
</tr>
<tr>
<td>Business</td>
<td>148</td>
<td>24.7</td>
</tr>
<tr>
<td>Professional</td>
<td>83</td>
<td>13.8</td>
</tr>
<tr>
<td>Others</td>
<td>68</td>
<td>11.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>600</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MONTHLY INCOME</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Rs 10,000</td>
<td>237</td>
<td>39.5</td>
</tr>
<tr>
<td>Rs 10001-50,000</td>
<td>262</td>
<td>43.7</td>
</tr>
<tr>
<td>Rs 50001-1,00,000</td>
<td>74</td>
<td>12.3</td>
</tr>
<tr>
<td>Above Rs 1,00,000</td>
<td>27</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>600</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cellular Service Availed</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Paid Service</td>
<td>448</td>
<td>74.7</td>
</tr>
<tr>
<td>Post Paid Service</td>
<td>152</td>
<td>25.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>600</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Connection</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>425</td>
<td>70.8</td>
</tr>
<tr>
<td>Urban</td>
<td>175</td>
<td>29.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>600</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of SIM Used</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>364</td>
<td>60.7</td>
</tr>
<tr>
<td>Two</td>
<td>213</td>
<td>35.5</td>
</tr>
<tr>
<td>Three</td>
<td>14</td>
<td>2.3</td>
</tr>
<tr>
<td>Four or More</td>
<td>9</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>600</td>
<td>100</td>
</tr>
</tbody>
</table>