Chapter 5
Findings, Observations and Recommendations

5.1 Introduction
5.2 Summary of research findings
5.2.1 Findings from individual questions
5.2.2 Outcome of Hypothesis testing
5.2.3 Result from model creation
5.3 Key findings
5.4 Observations
5.5 Recommendations
5.6 Implications
5.1 Introduction

In the previous chapter, Chapter 4, data analysis and interpretation were discussed. The objective of this chapter is to discuss the conclusions and implications of the findings of the data analysis from the preceding chapter. Summary of the preceding four chapters is discussed briefly below.

In the first chapter, titled “Introduction”, background of research topic is presented along with the justification for conducting the research. A brief history of telecommunication in India and its present state is also discussed in detail. Concepts of brand loyalty and its factors in the mobile industry are also discussed along with the market structure and dominant players. The primary aim of the chapter is to develop the foundation for the research.

The second chapter titled “Literature Review” examines the theoretical background to the research problems. Available literatures related to the research topic are reviewed in following three groups; Indian mobile industry, influence of brand and brand loyalty and study papers on some mobile service providers operating in India. The outcome of Chapter 2 is the development of a set of research hypotheses.

In the third chapter research methodology used in the research is discussed in detail. The chapter highlights the research approaches used in the study. In addition the chapter explains step by step the method through which the thesis has been constructed. Major sub topics discussed in chapter 3 include details of data collection, sample size, research tool used etc.

The fourth chapter of the thesis presents the outcome of data analysis and tests all the hypotheses framed earlier. For data analysis, IBM Statistical Package for the Social Science (SPSS) version 21 was used.

5.2 Summary of research findings

This section elaborates the summary of the findings of this research study. The section is further divided into three sub sections. The first section explains the findings of individual questions, the second subsection explains the outcome of the hypotheses testing and the next subsection discusses the outcome of the model.
5.2.1 Findings from individual questions

Findings on Mobile usage pattern

The subscriber’s mobile usage pattern has been evaluated through nine different questions. Following are the key findings of this sub-section:

- It is observed that BSNL is used by 135 (21.8%) respondents, followed by Vodafone 120 (19.4%). Tata Docomo and Idea have the least number of subscribers among the respondents.
- Vodafone is preferred and used by majority respondent as their second mobile connection/number.
- From the sample it is seen that most of the respondent is using mobile phones for a period of 4 to 8 years (28.2%).
- Most subscribers (188 or 30.3%) are continuing with their present mobile service provider for a period of two to five years.
- 26.1% subscriber said BSNL was their earlier mobile service provider.
- From this question we observe that majority (397 or 64%) subscribers preferred to switch their service providers. Idea and Reliance have a considerable larger number of subscribers willing to switch in future.
- Response from subscribers indicates that majority (223 or 36%) do not want to change their present mobile service provider and have responded to the ‘No switch’ option in the questionnaire. Airtel and Vodafone have got the highest number of switch in (port in) preference.
- The reasons for which switching tendencies are seen have been identified from extensive literature review and on interaction with experts in this field. A sizable percentage of the respondent (36%) have not shown switching intention. High tariff (18.1%) and Poor Network (16.5%) are seen to be the most important factors for switching. Mean and Std. Deviation is 1.66 and 1.628 respectively. It is also observed that Reliance subscribers have mentioned poor customer care as the major reason for switch. Majority subscribers of Tata Docomo and Idea have mentioned poor network as reason for switch.
- Network quality is the reason majority subscribers have identified as the reason for continuing with the same brand. It is also observed that most respondent of Vodafone and Airtel have mentioned that they will not switch because of good network. BSNL subscribers have given importance on tariff.

Findings on Network Quality

Subscriber’s perception regarding network quality is assessed through four different parameters, viz; network quality within city, network quality outside city, network congestion and disconnection during call. Key findings of this sub-section are listed below:

- It is observed that majority of the respondents (224 or 36.1%) strongly agree that network strength is good. Only a very small number of respondent (1%) have marked
their response as strongly disagree. Vodafone subscribers in particular have strongly agreed that the company provides good network connectivity within city limits.

- 60% respondents have given a positive opinion that network strength is good, even outside city and in metro stations/lifts” majority. The Std. Deviation and Mean value is 1.236 and 3.61 respectively. Vodafone and Airtel subscribers have strongly agreed that the network connection outside the city is good. Whereas subscribers of Idea has marked network connection outside the city poor.

- 39.8% respondent has agreed and 32.9% have strongly agreed that network does not have congestion and connects in a short time. The mean value is 3.94 and the Std. Deviation is .981. Subscribers of Vodafone strongly agreed that the network doesn’t have congestion. Vodafone is closely followed by Airtel and Reliance.

- In response to the statement “Line does not get disconnected during conversation” 38.4% have strongly agreed and 24.8% have agreed in favour of the statement. The mean value is 3.76 and Std. Deviation is 1.241. Further, it is observed that Reliance and Airtel have received good feedback regarding this statement. Majority of subscribers of BSNL have on the other hand, disagreed to the statement.

**Findings on Tariff Rates**

Subscriber’s perception regarding tariff is studied, assessed through nine different parameters. In this subsection subscriber perception regarding local/STD ISD etc. are analysed. Cross tabulation analysis further illustrated the preferences of subscribers using the services of different mobile service providers. Key findings of this sub-section are listed below:

- In response to the statement “Local tariff charges are quite reasonable” 39% (245) respondents have agreed and only 11.6% respondent has strongly agreed to the statement. 20.8% respondent has disagreed to the statement. Most subscribers of BSNL feel that the local tariff is reasonable. On the other hand a majority of Vodafone subscribers are of the reverse opinion.

- A majority of the respondent (247 or 39.8%) has agreed that STD and ISD tariff charges are quite reasonable. The mean and Std. Deviation is 3.42 and 1.043 respectively. Tata Docomo subscribers have responded strongly in favour of the statement. Whereas Airtel, Vodafone and BSNL subscribers have disagreed that STD/ISD rates are reasonable.

- To the statement “Roaming tariff charges are quite reasonable”. 25% have disagreed to the statement, 36.3% are neutral and 24.2% have agreed. The Mean and Std. Deviation are 3.19 and 1.020 respectively. Subscribers of Airtel agree that roaming tariffs are reasonable. Most of Reliance network users, however disagreed to this statement.

- In response to the statement “Great top up plans available, helps customize my service”, majority respondent have exhibited satisfaction by marking their response as agreed (38.1%) and strongly agreed (33.9%). The calculated mean is 3.96 and Std. Deviation is .976. Tata Docomo and Airtel subscribers have indicated satisfaction to the statement. Subscribers using the services of BSNL have disagreed to the statement.
• It is observed from the questionnaire that recharge points are accessible and available at convenient locations is endorsed by majority of the respondents. The mean and SD are 4.32 and .88 respectively. Subscribers of Vodafone and Airtel have marked their satisfaction.

• In the present study in response to the statement- “Incoming call charges while roaming are low” 31% subscribers have disagree and 34.7% have marked neutral in the questionnaire. Majority subscribers of both Airtel and Vodafone are dissatisfied. BSNL subscribers have given neutral remark and Tata Docomo have received the most positive response.

• Most respondent have said that they do not agree to the statement “Outgoing call charges while roaming is low”. 31% are neutral, 31% disagree and 2.9% strongly disagree to the statement. The Mean and SD are 3.09 and 1.052 respectively. The subscribers of Tata Docomo are very happy with the tariff of outgoing calls made while roaming outside home network. All the subscribers have either agreed or strongly agreed to the statement. In contrast, majority of subscribers of Airtel, Vodafone and BSNL have disagreed to the statement.

• Most of the respondents are unanimous that mobile service providers provide attractive promotional offers. Promotional offers include special season offers, festival discounts, free night hour to own/different network, etc. The observed Mean and SD value of the following table is 3.67 and 1.235 respectively. Subscribers of Tata Docomo, Airtel and Vodafone have agreed/ strongly agreed that the company provides great promotional offers. However majority of BSNL subscribers have strongly disagree, disagree or marked neutral response to the statement.

• From the respondents’ feedback regarding rate in own network (i.e. when a subscriber makes a call to another person using the same network) it is observed that majority has either strongly agreed or agreed that tariff rates are low. A mean of 4.24 and S.D of .835 is calculated. We observe that all the subscribers of all the mobile network agree or strongly agree that rates in own network are low. A few subscribers of BSNL however, have either strongly disagreed, disagreed or given neutral opinion.

Findings on Value Added Service

VAS or Value-Added Services is a popular term in telecom industry term which includes all the services beyond standard voice calls. A questionnaire has been administered on respondents with four questions on value added service. Aspects like unique VAS, VAS charge, free apps access and ISD Schemes are evaluated in this sub-section.

• Majority of the subscribers have agreed (36.9 %) and strongly agreed (29.5%) that VAS is unique and in sync with social happenings. A mean of 3.75 is calculated with S.D of 1.128. Airtel, Vodafone and Reliance subscribers have given positive feedback. But most subscribers of BSNL have disagreed or strongly disagreed.

• From the survey result, it was observed that subscribers agree and strongly agree that the VAS charges are low. A mean value of 3.69 and Std Deviation of .93 is observed. Cross tab analysis between Primary Mobile and VAS Charge showed that majority of the respondent (265) of the various mobile service providers agree to the statement.
Only a major number of BSNL subscribers, however, have responded as “Disagreed” or “Neutral” in response to the statement.

- Most of the respondent however disagree (51.9%) and strongly disagree (8.2%) that free apps access offers are provided by their mobile service provider. The mean value calculated is 2.49 and SD is .88. Some subscribers of Idea, Airtel and Reliance have agreed that they receive such offers.

- It is observed that majority of the respondents agree that schemes for making low charge ISD to UK/USA/Gulf etc. are available. A mean value of 3.51 is observed with SD of .97. Subscribers using Vodafone, Reliance, Idea and Airtel network agree that ISD schemes offered are good. A few subscribers of Airtel, Reliance and Vodafone have strongly agreed with the statement.

**Findings on Data Service Quality**

To understand the subscriber’s perception regarding data service/ internet experience, a set of six questions is framed. Data regarding net speed, data charge/cost, ease of data plan change, free download, data card quality and data expense.

- From the survey, it was observed that opinions regarding internet experience are mixed. Although the mean value is 3.52, there are a substantial number of subscribers unhappy with internet speed. 22.1 % has expressed that they disagree that the net speed is good and 21.9% has expressed a moderate satisfaction with net speed. Subscribers of Airtel, Vodafone and Idea have agreed or strongly agreed. Tata Docomo users have marked either disagree or neutral regarding net speed but most BSNL users have disagreed to the statement.

- A large percentage of subscribers do not feel that the data charge is low. 35.5% of the subscribers have disagreed and 37.3% are neutral. A mean value of 2.87 collaborates to the observation. Subscribers of Tata Docomo agree that the data tariffs are low but most subscribers of BSNL, Airtel and Vodafone disagree that data charges are low.

- In response to the research question “Interchanging between data plans are very easy” it is observed that a major percentage i.e. 42.4 % agree. A mean of 3.48 is calculated with a Std Deviation of 1.05. It is observed that majority of Vodafone users (60) strongly agree. Majority of Reliance subscribers however have disagreed to the statement.

- Although 33.7% disagreed that Free Download offers are given, 35.6% agreed that such offers are provided by their mobile operators. A mean value of 3.05 and SD of 1.04 is calculated. Most of the subscribers of Tata Docomo have agreed to the statement but most subscribers of BSNL have disagreed.

- Most of the respondents agreed that the data card supplied by mobile service providers is of good quality. A mean of 3.64 and Std Deviation is calculated. Maximum subscribers of Tata Docomo and Reliance have strongly agreed that the data card is of good quality.

- Majority of the subscriber keep their mobile internet expense low. 53.1% of the subscribers spend between Rs 100- Rs 500 with only 6.7% spending more than Rs 500. Only few subscribers of Vodafone, Reliance, BSNL and Airtel having a data
expense of more than Rs 500. BSNL has a big subscriber in the less than Rs 100 range.

Findings on Customer Service Quality

Data on seven variables are analysed in this sub-section to evaluate subscriber perception regarding customer care service quality. Factors like skill, behavior or promptness of answering a call etc are evaluated.

• It is observed that 31.5% of the respondents acknowledge that customer care executive’s behavior is good. The mean value is 3.36 and SD 1.07. On cross tabulation between Primary Mobile and Customer Care Executive’s Behaviour, we observe that majority of Vodafone subscribers have strongly agreed that the customer care behavior is good. BSNL subscribers; however have disagreed (54) followed by Reliance (40). Majority of Airtel subscribers have agreed (60) that customer care behavior is good.

• It is observed that 25.2% respondent is of neutral opinion regarding skill of customer care executive. A comparatively larger percentage (27.7%) however, has agreed that customer care executives are skilled to handle their queries. Calculated mean and Std Deviation are 3.19 and 1.24. Vodafone and Airtel subscribers have given positive feedback regarding their mobile service providers, but BSNL has received poor feedback from their subscribers.

• Majority (45%) of the respondent feels that they will not make call to customer care if it is chargeable. A mean value of 2.5 is calculated with Std Deviation of 1.21. Vodafone users have strongly agreed that they will still call customer care even if it is charged.

• Majority of the respondents (28.7%) agrees to the customer care executives are prompt in answering the call. Calculated mean and SD value are 3.01 and 1.19 respectively. Subscribers of Vodafone strongly agree that customer care executives are prompt in answering their calls. BSNL and Reliance subscribers have strongly disagreed or disagreed in this matter.

• Majority of the respondents strongly agrees that IVR Quality is good. Most of the subscribers using Airtel and Vodafone strongly agree to the statement. But BSNL users have either strongly disagreed or disagreed.

• Majority of the respondent has a positive opinion about their mobile service provider’s website. 39.8% agree and 22.3 strongly agree that website is user-friendly and informative as well as updated. A mean score of 3.63 is observed along with SD of 1.09. It is observed that most of Airtel users strongly agree that the company website is user-friendly, informative as well as updated. BSNL however, have received poor feedback as most of the company’s users have either strongly disagreed of disagreed.

• Most of the respondents disagreed that exclusive stores of mobile service providers are located nearby or are of any major use to them. A mean of 2.97 is thus observed with SD of 1.20. On further analysis, it is observed that Vodafone, Reliance and Airtel have received good response. Idea and BSNL have received poor feedback.
Findings on Media Communication

To understand the effectiveness of media and the perception regarding the mobile service provider’s commercials four questions are framed and administered. Key findings are listed below:

- In response to the question “The brand matches my lifestyle and social status” a majority (41.3%) subscribers agreed and 18.7% strongly agreed. A mean of 3.60 and SD of 1.01 is calculated. Majority of subscribers using the services of Vodafone and Airtel feel that the brand matches with their life style.
- More than fifty percent of the respondent disagree that they have chosen the brand as friends/relatives are on the same network. A mean of 2.91 is calculated with Std Deviation of 1.00. However majority of BSNL subscribers have agreed to this statement, followed by Vodafone.
- In response to the question- “The commercials creates a lasting image about the brand” 28.2% strongly agree and 26.3% agree. A mean of 3.23 and SD of 1.52 is calculated. Subscribers using the services of Vodafone, Idea and Airtel strongly agree that the commercials create a lasting image about the brand. BSNL receives the poorest feedback in this area followed by Tata Docomo.
- More than twenty eight percent respondent’s belief that the mobile service providers keep their commitments as communicated through advertisements. A mean of 3.06 and Std Deviation of 1.20 is calculated. Subscribers of Airtel strongly agree that the advertisements are truthful as the brand delivers what is shown in advertisements. BSNL and Tata Docomo are perceived by subscribers of failing to keep advertisement brand commitment.

Findings on Respondents Demographic Details

Five variables regarding respondent’s demographics are listed below:

- Out of a total 620 respondents 325 (52.4%) are male and 295 (47.6%) are female.
- In the present study it is observed that there are 144 (23.2%) respondent in the age bracket of ‘less than 20 years’. In the age group 20 – 44 years there are 351(31.1% + 25.5%) respondents.
- More than half of the respondents are service holders and are employed.
- In the present study there are 461(74.4%) respondents residing in an urban location and 159 (25.6%) residing in rural location.
- Majority (42.3%) of the sample occupy the 2 lakh to 5 lakh per annum income bracket.

5.2.2 Outcome of Hypothesis Testing

1. The ANOVA table above shows the F test value under 3 degrees of freedom (df) is 3.216. As the Sig. value is 0.022 (p< .05), we can reject the null hypothesis and accept the alternate hypothesis. Therefore we can conclude that - Subscribers experience of network quality has a significant effect on brand loyalty. The bar graph and table
illustrates respondent’s views regarding network quality of their mobile operators. It is observed that subscribers of Vodafone, Airtel and Reliance are highly satisfied with the network quality. BSNL and Idea has received a comparatively less score.

2. The ANOVA table from the analysis shows the F test values along with 2 degrees of freedom (df) and significance of 0.012. As the Sig. value is 0.012 and less than .05. Therefore null hypothesis is rejected and alternate hypothesis accepted - The tariff charged for local calls has a positive effect on brand loyalty. In response to the question that tariff charges are quite reasonable most of the respondents using Tata Docomo, Reliance and Vodafone agree. But some of the respondents using Airtel and Vodafone exhibited dissatisfaction regarding the tariff charged by their respective operators.

3. The ANOVA table above shows the F test value under 4 degrees of freedom (df) is 25.779. As the Sig. value is 0.000 (p< .05), we reject the null hypothesis and accept the alternate hypothesis. Therefore we can conclude that - The promotional offers have a significant effect on brand loyalty. In response to the question whether the various promo offers based on price and VAS are attractive most of the respondents using Tata Docomo, Reliance, Idea and Vodafone respond positively. Respondents’ using the service of BSNL however has given a poor score.

4. The ANOVA table above shows the F test values along with 4 degrees of freedom (df) and significance of 0.000. As the Sig. value is less than .05, we can reject the null hypothesis and accept the alternate hypothesis that - The Company’s CRM strategy has a significant effect on brand loyalty. In response to the question regarding CRM; respondents using Vodafone and Airtel have given an excellent score but BSNL subscribers have given a poor score regarding CRM.

5. The ANOVA table above shows the F test values along with degrees of freedom (df) and significance of 0.000. Given that p<.05, we can reject the null hypothesis and accept the alternate hypothesis that - The subscribers perception regarding brand positioning/image has a positive effect on brand loyalty. Most of the respondents using Vodafone strongly agree that the brand image is excellent (colour coded yellow). Subscribers of Airtel Reliance and Idea also moderately agree regarding the brand image.

6. The ANOVA table above shows the F test value under 4 degrees of freedom (df) is 12.104. As the Sig. value is 0.000 (p< .05), we can reject the null hypothesis and accept the alternate hypothesis. Therefore, we can conclude that - The customer care executive competence has a positive effect on brand loyalty. The response recorded shows that Vodafone and Airtel subscribers are highly satisfied with the performance of the customer care executive. However, subscribers of BSNL and Reliance do not feel that customer executives are competent.

7. The ANOVA table above shows the F test values along with 4 degrees of freedom (df) and significance of 0.001. As the Sig. value is less than .05, we can reject the null hypothesis and accept the alternate hypothesis that - Subscribers experience with data/internet service has a significant effect on brand loyalty. We observe that Airtel, Vodafone and Idea have received good feedback. Reliance, BSNL and TataDocomo has received a average score.
8. Table value of chi-square for 18 degree of freedom with 95% level of significance is 28.87 which is lower than the calculated chi square value which is 386.566. This shows that the null hypothesis should be rejected and alternate hypothesis accepted. Further the significance value is .000 (p < .05) and so null hypothesis is rejected. It shows that there is a significant difference in the attitude of subscribers towards network quality of different mobile phone service providers.

9. The Chi square test shows that there is a significant difference in the attitude of subscribers towards tariff of different mobile phone service providers. Here the calculated value of Chi-square is greater than the table value for 12 degree of freedom at 95% confidence level and so null hypothesis is rejected and alternate hypothesis is accepted.

10. The Chi square test in the above table shows there is a significant difference in the attitude of subscribers towards Value Added Services (VAS) of different mobile phone service providers. Table value of chi-square for 18 degree of freedom with 95% level of significance is 28.87 which is lower than the calculated chi square value which is 361.423. This shows that the null hypothesis should be rejected and alternate hypothesis accepted. Further the significance value is much less than the .05 and so null hypothesis is rejected. It shows that there is a significant difference in the attitude of consumers towards value added services (VAS) of different mobile phone service providers.

11. Above table shows the probability value is less than 0.05 and so null hypothesis can be rejected. With above result of chi square test, we can thus confirm that there is a significant difference in the attitude of subscribers towards data quality different mobile phone service providers. And so the null hypothesis H0 is rejected and the alternate hypothesis H1 is accepted with 95% confidence level.

12. The Chi square test revealed that there is a significant difference in the attitude of subscribers towards CRM of different mobile phone service providers. Here the calculated value of Chi square, 478.227 is greater than the table value of 36.42 for 24 degree of freedom and so null hypothesis is rejected and alternate hypothesis is accepted at 95% confidence level.

13. The Chi square test shows that there is a significant difference in the attitude of subscribers towards brand image of different mobile phone service providers. At 95% confidence level the calculated value of Chi-square is greater than the table value for 24 degree of freedom and so null hypothesis is rejected and alternate hypothesis is accepted. The probability value is also less than 0.05 so we can accept the Hypothesis H1 and reject Hypothesis H0 at 95% confidence level.

5.2.3 Result from Model Creation

Prior to determining the factors influencing customers’ intentions to stay with their present mobile service provider, it is necessary to establish the associate variables significance. Based on the literature review and interaction with experts and veterans from the telecom industry the factors and associate variables were identified. Associate variables significance to loyalty is analysed through the development of the models.
Table 5.1: Significant factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Associate Variable</th>
<th>Significant/ Not Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Quality</td>
<td>Network in City</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Network Outside city</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Network Congestion</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Disconnection</td>
<td>Significant</td>
</tr>
<tr>
<td>Tariff rates (call charges)</td>
<td>Local Tariff</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>STD/ ISD Tariff</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Roaming Tariff</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Top up schemes</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Recharge Point</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Incoming Roaming Tariff</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Outgoing Roaming Tariff</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Promotional Offer</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Call Rate in Own Network</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Value Added Service</td>
<td>Unique VAS</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>VAS Charge</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Apps Access</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>ISD Schemes</td>
<td>Significant</td>
</tr>
<tr>
<td>Data Service Quality</td>
<td>Net Speed</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Data Charge</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Plan Change</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Free Download</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Data Card quality and tariff</td>
<td>Significant</td>
</tr>
<tr>
<td>Customer Service Quality</td>
<td>Customer Care executive Behaviour</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Customer Care Executive Skill</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Attitude towards Paid Call to customer care</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Response Time</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>IVR Quality</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Website</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Exclusive Stores</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Media communication</td>
<td>Brand Match With Lifestyle</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Friends Use Same Network</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Advertisement Brand Image</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Advertisement Brand Commitment</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

5.3 Key findings

Following are the key findings of the study:

i) From the overall mobile usage pattern of sample respondents residing in the survey area of Hooghly district illustrates that BSNL is having a large subscriber base, whereas Vodafone is preferred as the second mobile service provider. It is observed that majority subscribers preferred to switch their service providers in future. Idea and Reliance have a considerable larger number of subscribers willing to switch in future.

ii) High tariff and poor network are seen to be the major factors for switching. Reliance subscribers have mentioned poor customer care as the major reason for switch. Majority subscribers of Tata Docomo and Idea have mentioned poor network as reason for switch.

iii) Most of the respondents have given a positive opinion that network strength is good even outside city and in metro stations/lifts” majority. Vodafone and Airtel
subscribers have strongly agreed that the network connection outside the city is good. Whereas subscribers of Idea has marked network connection outside the city poor.

iv) Subscribers of Vodafone strongly agreed that the network dose not have congestion and subscribers of Reliance and Airtel strongly agree that call drop during conservation does not occur. However majority of subscribers of BSNL communicated that they regularly experience call drop or disconnection.

v) Most subscribers of BSNL feel that the local tariff is reasonable. On the other hand a majority of Vodafone subscribers are of the reverse opinion. In the case of STD/ISD tariff rates however Tata Docomo subscribers agree that the rates are reasonable whereas Airtel, Vodafone and BSNL subscribers feel the tariffs are high.

vi) Regarding promotional offers subscribers of Tata Docomo, Airtel and Vodafone have agreed/ strongly agreed that the company provide great promotional offers. However majority of BSNL subscribers have strongly disagree, disagree or marked neutral response to the statement.

vii) Majority of the subscribers agree that VAS is unique and in sync with social happenings. Airtel, Vodafone and Reliance subscribers have given positive feedback. But most subscribers of BSNL have disagreed or strongly disagreed. From the survey result it was observed that subscribers agree and strongly agree that the vas charges are low but BSNL subscribers responded that VAS charges are not low.

viii) From the survey it was observed that opinions regarding internet experience are mixed. Subscribers of Airtel, Vodafone and Idea have a positive opinion regarding the speed of internet but most BSNL users are dissatisfied. A large percentage of subscribers do not feel that the data charge is low. Subscribers of Tata Docomo agree that the data tariffs are low but most subscribers of BSNL, Airtel and Vodafone disagree that data charges are low. It is observed that majority of the respondents acknowledge that customer care executive’s behavior is good. In particular we observe that majority of Vodafone subscribers have strongly agreed that the customer care behavior is good. BSNL subscribers however have disagreed followed by Reliance. Regarding ability or skill of the customer care executive, Vodafone and Airtel subscribers have given positive feedback but BSNL has received poor feedback from their subscribers.

ix) Majority of subscribers using the services of Vodafone and Airtel feel that the brand matches with their life style. More than fifty percent of the respondent disagree that they have chosen the brand as friends/relatives are on the same network. However majority of BSNL subscribers have agreed to this statement, followed by Vodafone.

x) In response to the question- “The commercials creates a lasting image about the brand” 28.2% strongly agree and 26.3% agree. Subscribers using the services of Vodafone, Idea and Airtel strongly agree that the commercials create a lasting image about the brand. BSNL receives the poorest feedback in this area followed by Tata Docomo. Subscribers of Airtel strongly agree that the advertisements are
truthful as the brand delivers what is shown in advertisements. BSNL and Tata Docomo are perceived by subscribers of failing to keep advertisement brand commitment.

5.4 Observations

**Significant Observations regarding Network Quality:**

As noted in Chapter 4, network quality has a proven influence on customer satisfaction. The data shows that better network quality within or outside city limits with no congestion and disconnection between conservation results in reduced switching behavior among subscribers. It is observed from the above table titled “Result from model creation” that subscribers give more importance to the network quality outside the city along with network congestion (line busy) and call drop (disconnection). It was found out that for subscribers network quality within city limits is not significant as they feel that by default the service provider will provide better network strength as population density is more. From hypothesis-1, it is proved that there is a positive association between network quality and brand loyalty. This corroborates to the research findings of Wang et al (2004). Likewise in another study done by NECTEC on subscribers in Thailand, it was observed that mobile network quality is an important factor for their subscribers (Thuvasethakul, 2008).

**Significant Observations regarding Tariff rates (call charges):**

Kotler and Armstrong (2010) explained price as the sum of wealth charged by the producer and it is the money given by customers in return of the product or service. However, customers have strong connotations to price (Herrmann and Xia, 2007). Price fairness refers to the customer perception on satisfaction towards the price and whether it is reasonable or justifiable (Xia and Monroe, 2004). In another study by Bolton et al (2000), it was observed that loyalty is significantly influenced by price. This relation is further confirmed by Lommeruda and Sorgard (2003), in their paper that in situations where products are undifferentiated like in mobile telecommunication, price becomes important in enforcing the willingness to stay and not switch their service providers. To understand subscriber’s perception regarding tariff, nine variables were analysed in the current study. From hypothesis-2 we can confirm that there is a positive association of price/tariff rates with reducing switching tendency of consumers. It is further found that out of the nine variables only four are significant viz. local tariff rates, STD/ISD rates; availability of convenient location of recharge point and price based promotional offers.

**Significant Observations regarding Value Added Service:**

The findings of consultancy firm Deloitte illustrate how mobile value added services can be used in India for economic and social growth in areas like basic health and education (Deloitte, 2011). In the present study four variables are studied. From hypothesis-10, we observe that there is a significant difference in the attitude of consumers towards VAS of different mobile phone service providers. Out of the four variables, three that are significant
are- Unique VAS, Apps Access and ISD Schemes. We observe from the findings that majority subscribers of Airtel, Vodafone and Idea have good opinion about the VAS of their individual mobile service operators.

**Significant Observations regarding Data Service Quality:**

With the popularity of smart phones and internet enabled mobiles, subscribers expect uninterrupted and good connectivity at all times. Any interruption or fall in data speed is as critical as an interruption in voice services. Subscribers use data service for a variety of online activities earlier done through a computer like email, YouTube, Facebook, App Store, downloads etc. For technological reasons and number of subscribers logged, network conditions constantly fluctuate and two subscribers even under the same base terminal station or mobile tower can have a different browsing experience. At any particular moment, some percentage of subscribers on the network can experience poor network because of dynamically changing network conditions (Citrix, 2008). From the findings of hypothesis-7 we observe that there is a positive association of subscriber’s mobile data service with brand loyalty. Five variables were studied to analyse subscriber’s perception towards data/internet service. Three variables- data charge/tariff, free downloads offered and quality of the data card provided was found to be significant.

**Significant Observations regarding Customer Service Quality:**

According to Turban (2002), customer service can be understood as those service provided by a company to support customers and resolve their product related problems. It can be further explained as a provision created by the producer for its customers to provide service before, during and after a purchase. From the findings of hypothesis -4, we can confirm that there is a positive association of CRM (Customer Relationship Management) strategies with consumers (subscribers) brand loyalty behavior. From the testing of hypothesis 6 we also conclude that there is a positive association of customer executive’s competence with brand loyalty.

**Significant Observations regarding Media Communication/Brand Image:**

From hypothesis-5, we observe that the subscriber’s perception regarding brand positioning/image has a positive effect on brand loyalty. Subscribers have a tendency to choose and continue with the mobile service provider which has a good image. Subscribers perception regarding brand image of the mobile service providers are analysed through four parameters viz. brand match with lifestyle, friends use the same network, advertising creates lasting image about brand and brand keeps commitment conveyed in commercials. It is observed from further analysis that brand match with lifestyle and advertising creates lasting image about brand are found to be significant. Loyalty is observed to be more among those mobile subscribers having a positive brand image about their mobile service providers. The research findings are consistent with the conclusion drawn from other research work that brand image contributes to customer loyalty (Anisimova, 2007). Therefore, we can conclude that a mobile service provider needs to continually promote positive brand/corporate identity
through various promotional activities. Communications should be realistic and positioning strategies should be consistent with the target segment selected. For a service firm one of the seven ‘Ps’, physical evidence consisting of the tangible elements involving to the physical environment is used to develop a positive image (Nguyen and Leblanc 2001). Although elements like network quality and tariff rates are important, proper branding strategies bring certain feeling or intangible association and trust towards the brand (Lau and Lee, 1999).

5.5 Recommendations

It has been observed that satisfaction level is different among subscribers of different mobile service providers. Majority subscribers of one particular mobile telecom company can be unhappy about tariff rates while for others, subscriber dissatisfaction can be because of poor network quality.

Recommendations for mobile service providers:

- With multiple mobile service providers operating in the same telecom circle and with government policy on number portability retaining subscribers have become extremely crucial for a service providers survival and profitability. The sector itself is attractive, even with low average revenue per user (ARPU) and increased operational cost in the form of license fees etc, solely because of an ever increasing huge subscriber base, second only to that of China globally. Service providers should remain aware and responsive to the dynamic market forces. Continuous monitoring of subscriber feedback has become important and service providers should implement proactive strategies in this regard.
- Data speed and connectivity experience have become extremely important with the proliferation of data enabled smart phones and the rising popularity of “Apps” or mobile applications. Mobile service providers should try to increase the net browsing experience of subscribers at the same time keep the price competitive.
- As mobile experience varies company wise among the different factors, mobile service operators should develop individualised preferences to customise service experience.
- For operators which are perceived by their subscribers’ as charging higher tariff or delivering lower network signal strength should look into those matters.
- Lastly, mobile service providers should identify the factor or combination of factors for developing loyalty strategies.

Recommendations for the government and regulatory authority:

- Mobile telecommunication is a fast growing industry capable of direct and indirect employment generation. Government should introduce policy changes which will benefit the industry in attracting better talent as well as encourage the industry to expand.
• Regulatory agencies are required to play more pro-active role in establishing the statutory standards, regarding creation of better rural infrastructure, as it was observed from the survey that network quality reduces in rural locations.
• It is also recommended that the government can adopt different strategies to encourage foreign direct investments in the industry so as to create development of other related industry like handset manufacturing, mobile application/software, content development, education, m-wallet etc.
• Policy and role of different government agencies like DoT, TRAI, Telecom Disputes Settlement and Appellate Tribunal (TDSAT) etc should be simple and non-competitive.

Recommendations to subscribers:

• Mobile subscribers can play very crucial role in setting their own ethical standards regarding how to react during low service quality. Mobile service providers maintain and monitor several touch points and feedback system to check if subscribers are satisfied. Without switching mobile service provider a subscriber should take recourse of such ways to solve individual problems. The government also has several such mechanisms in place which can be utilised.
• Unlike tangible goods where every single piece can be identical, in case of service product such is not the case. At times subscribers need to be tolerant and review the physical environment, time or location of the mobile usage.
• As mobile telecommunication is a high technology industry, which is forever in the R&D mode, service blackouts or rather grey-outs can occur. Most of these events may not be intentional or attributed to the mobile service operators lack of non-performance.
• As the demand for bandwidth continuously fluctuate throughout the day/night cycle, subscribers can shift some of their mobile activities specially related to data or internet to non peak hours like between 8 PM to 9AM.

5.6 Implications:

There may be the implications of the research findings at different levels like the government and regulatory authorities, subscribers or consumers and mobile service providers for their respective role improvement for the overall betterment of the industry.

Implications for government and regulatory authorities:

The observations from the current study may provide some specific inputs about the possible interventions for establishing stability and growth for the industry, employment and improved connectivity across India.
Implications on subscribers:

The current research findings may also provide a highly reliable guideline to the subscribers or opinion leaders of the industry to understand the present scenario of the industry regarding loyalty and brand switching orientation.

Implications for mobile service providers:

Moreover, the research observations may have the implications for mobile service providers to prepare their strategic roadmaps for establishing their greater control and understanding over brand switching by subscribers. Mobile service providers may also modify their tactical plans to maximise their reach among subscribers of different categories by adopting segment wise action plans and to develop their key agenda to become more responsible in delivering subscriber satisfaction.

Implications on academic research:

Finally, the research report can be further referred for future research to analyse several questions, which may remain answered due to certain practical limitations of the current research such as analysis of the different socioeconomic and psychological priorities of different categories of subscribers in influencing loyalty behaviour. Moreover, any further research in extension of current research findings will surely be a valuable addition to the existing domain of knowledge on changing trends and scenario of the mobile telecommunication industry.

Therefore, the current research can open many new aspects of dynamic thinking, intellectual pursuit and collective action, not only for the betterment of subscriber’s mobile service experience, but also for the industry and society in general.