Chapter – VI

Summary of Findings, Conclusions and Recommendations

6.1 Summary of the Thesis

The thesis projected a framework for customer satisfaction in mobile telecommunication industry in WCR region. It used the explosive mobile telecommunication industry as a case study. The area selected was West Central Indian region. The study tested the interrelationship of customer satisfaction with service quality attributes, customer care services, perceived value, customer loyalty (word of mouth-WOM) and overall satisfaction.

It also attempted to investigate whether there is any difference in network quality, perceived value, customer care services, customer loyalty and overall satisfaction of customers of four major telecommunication service providers in Rajasthan, Madhya Pradesh and Gujarat states of West Central Indian region. To conduct the study, four major GSM service providers selected in these states were BSNL, Airtel, Idea and Vodafone.

The research work attempted to emphasize the role of customers in showing the strategies and of service design. When a customer lodged a complaint, the real value of business will perhaps decline, because the expected future earning from that customer may go down. It may be questioned that a firm’s current sales and profit figures may not be the
most appropriate measure of success of their trade. If customers experience superior quality of service then they are likely to buy services from the service provider and advocate the service to others also. Alternatively, unsatisfied customers may move to other service providers and also based on their experience may also discourage other to use to the service. More significantly, these value transactions (creation or destruction) cannot be captured in basic financial analysis.

On the foundation of research, the parameters that develop the customer satisfaction can be prepared into the following categories:

- Mobile Network Quality
- Perceived Value
- Customer Care services
- Customer Loyalty

The main customer characteristics pertinent to the effectiveness of service quality attributes are the proper outdoor and indoor network coverage, no call drops, voice clarity during conversation, and proper services during roaming and communicated data speed for internet access. The attributes related to perceived value are low voice and data tariff, value for money top-ups, variety of tariff voucher to choose from as per specific individual needs. When it comes about customer care services, everybody wants world class services. Ideally there should be no queue, the problem should be heard patiently and should be disposed within specified pre determined time. The customer care executives should be polite enough and competent of answering the queries of customers.
This research also tried to find the customer loyalty aspect which incorporates word of mouth publicity (WOM).

The thesis discussed whether there exists any relationship among customers of three states of West Central India under study in respect of:

- Network Quality and Customer Satisfaction
- Perceived Value (Value for Money) and Customer Satisfaction
- Customer Care Services & Customer Satisfaction
- Customer Loyalty & Customer Satisfaction

The thesis further discussed whether there exists any difference in:

- Network Quality being provided by Mobile Telecommunication service providers in India. (State-wise then Operator-wise in a state)
- Perceived Value (Value for Money) being experienced by customers of Mobile Telecommunication service providers in India. (State-wise then Operator-wise in a state)
- Customer Care Services being experienced by customers of Mobile Telecommunication service providers in India. (State-wise then Operator-wise in a state)
- Customer Loyalty among Mobile Telecommunication service providers in India. (State-wise then Operator-wise in a state)
- Overall customers Satisfaction being experienced by customers of Telecom Service Providers in India.
The proposed conceptual study can be easily adopted by a broad range of industries for customer experience management (CEM), customer relationship management (CRM), strategic planning, resource allocation, and decision making processes.

6.2 Major Findings: From the research work undertaken following findings were observed:

6.2.1 General Findings:

1. The Tele density of India as on 31\textsuperscript{st} March,17 was 92\% with 1119.5 million subscribers.

2. The Broadband density of India as on 31\textsuperscript{st} March,16 was 18.8 \% with 102.49 million subscribers.

3. There are 26 Telecom circles in India with 13 service providers. Which are BSNL, Bharti Airtel, Reliance Telecom, Vodafone Essar ,Tata Indicom, Idea, Aircel, MTNL, Reliance Jio, Quadrant, Tele-ventures , Sistema Shyam, Uninor and Videocon.

4. Delhi License area stood at top with 253\% Tele-density while Bihar was at lowest with 60 \% only. (As on 31.03.2017)

5. As on 31.03.2017, Bharti Airtel stood at first position with 23.22 \% market share while Vodafone, Idea, BSNL and Reliance-Jio were at 2\textsuperscript{nd}, 3\textsuperscript{rd}, 4\textsuperscript{th} and 5\textsuperscript{th} position with relative market share of 17.51 \%, 16.35\%, 9.63 and 9.09\% respectively.

6. The new entrant Reliance-Jio pulled 9.09 \% of market share in a record time period of eight months only as on 31.03.2017
7. Presently 40% mobile phones are smart phones.

8. 30% Subscribers are from urban and 70% are from rural background.

9. In broadband penetration, Island was ranked first with 96% penetration while India was at 3rd position after China with 35% penetration.

10. The average data speed of South Korea was found highest with 26.7 Mbps while that of India was only 7.5 Mbps.

11. In case of broadband penetration, Maharashtra stood at first position with 27.1 million subscribers and Himachal was at lowest with 2.84 million customers.

12. Contribution of telecom sector revenue to gross domestic product (GDP) was 1.94% in 2014-15.

13. The market share of Vodafone was found highest in Gujarat at 27.40% (As on 31.03.17)

14. The market share of Idea was found highest in Madhya Pradesh at 33.0% (As on 31.03.17)

15. The market share of Bharti Airtel was found highest in Rajasthan at 31.00% (As on 31.03.17)

16. The BSNL was at 4th position in all the three states under study.

17. In the total sample of 1080 respondents 709 were male and 371 were female.

18. 42.3% respondents were in the age group of 16-25 years, 31.94% were in 26-40 age groups, 18.24% were in 41-55 age group and 7.50% were above 55 years age group.

19. 26.30% respondents had us MNP (Mobile Number Portability) option.

20. 52.56% respondents exercised MNP option first time due to poor network quality.
21. 62.34% respondents changed operator again due to poor network quality.

22. On selection criterion of service provider, 34.44% respondents gave preference to good network quality while 32.2% choose operator due to low internet data tariff.

23. When it was asked about purpose of having mobile connection, 48.06% replied that they use it for Internet, 27% use it for voice calls only and 24.72% use for both services.

24. In case average monthly expenditure, the expenditure of 39.26% was in between Rs 100-200, while that of 28.33% was in the range of Rs. 50-100. 18.15% respondents were paying Rs. 200-500/Month and only 14.26% were expending more than Rs.500/Month. Therefore service operators should focus on first three groups while developing tariff/marketing strategy.

25. 72.59% respondents told that they are getting information of various promotional plans/tariff changes timely and 27.41 denied from it. Here again operators should plan to reach 100% subscribers about their latest plans and tariff offerings.

6.2.2 Objective-wise Findings:

This part will discuss the conclusions drawn upon various objectives undertaken in this study. These are summarized as follows:

**Objective 1: To Understand the Mobile Telecommunication Market of India**

**Findings:** The journey of Indian telecommunication sector has been discussed and studied in detail in Chapter-1. It covers since telephone services were introduced in
Kolkata in 1881-82 to growth registered up to 31st March, 17 where telecom network has expanded from nil to 1.19 billion connections (both fixed & wireless).

**Objective 2: To understand the Service Quality Delivery Models**

**Findings:** The concept of Service quality and various service quality models were discussed in detail in Chapter-3. It included “Oliver’s (1993) Satisfaction Service Quality Model”, Grönroos Model, SERVQUAL Model developed by Anantharanthan Parasuraman et al. (1985) and SERVPREF Model given by Cronin and Taylor (1992). Further the concept of these models was used in research.

**Objective 3 : To understand the Relationship of Customer Satisfaction with each of:**

3 (a) Network Quality
3 (b) Perceived Value
3 (c) Customer Care Services
3 (d) Customer Loyalty

**3 (a) Discussion regarding Relationship in between Network Quality and Customer Satisfaction:**

Every customer who wants to avail mobile services, first search for quality of network being provided by service provider around his locality and work place. The prospective customer seeks help of friends, neighbours, relatives and retailers of various service providers in surrounding areas. To conduct these analysis 1080 samples were collected from the four major operators i.e. BSNL, Airtel, Vodafone and Idea in Rajasthan, Madhya Pradesh and Gujarat states. To extract fruitful information, 360 samples were collected which included 90 samples from each BSNL, Airtel, Vodafone and Idea operators. The result found from the statistical analysis is summarized as below:
Findings of Objective-3 (a) : Network Quality:

**Hypothesis:** $H_0$: There is no significant relationship between Network Quality and Customer Satisfaction among customers of different Mobile Telecommunication service providers in India.

**Result:** There is significant relationship between Network Quality and Customer Satisfaction among customers of Mobile Telecommunication service providers in India.

As mentioned above, to test this hypothesis, Spearman’s correlation analysis was applied. There were six items in this construct related to “Network Quality”. The 1080 respondents submitted their opinion regarding network quality on five point Likert Scale through structured questionnaire. In this scale, “1” represented ‘strongly disagree’ (the most unfavourable response to the statement) and “5” represented ‘strongly agree’ (the most favourable response to the statement). Further the average of all the six items was calculated of all the 1080 respondents. On application of Spearman’s Correlation analysis, SPSS V22 showed value of “$r$” = 0.765 which lies in between 0.6 to 0.8. Therefore it was concluded that there is “Strong Positive” relationship between “Network Quality” and “Overall Satisfaction”.

3(b) Discussions regarding Relationship in between Perceived Value and Customer Satisfaction:

This hypothesis tested relationship of perceived value with overall satisfaction of customer. The perceived value is nothing but it is facility/returns which a customer gets in terms of benefits by recharging his mobile phone by means of various Top-up
vouchers (To increase main balance), plan vouchers (To select per minute of per second plan etc.), special tariff vouchers (To avail reduced tariff for voice calls and various data packs). Various operators provide offers in different forms. It may be free minutes, free seconds, free data, free usage value, top up of main balance, free or differentiated calling in odd hours, reduced or free calling in CUG, friend and family calling facility and so on. With the help of this hypothesis, researcher tried to establish relationship between perceived value and overall Customer Satisfaction. This test was also conducted on all the 1080 samples collected in west central India region which included Rajasthan, Madhya Pradesh and Gujarat. The result extracted from this study is stated as below:

Findings of Objective-3 (b) : Perceived Value:

Hypothesis: $H_0$ There is no significant relationship between Perceived Value (Value for Money) and Customer Satisfaction among customers of different Mobile Telecommunication service providers in India

Result : There is significant relationship between Perceived Value (Value for Money) and Customer Satisfaction among customers of Mobile Telecommunication service providers in India.

The test was conducted using Spearman’s correlation analysis again and applied on 1080 samples collected across the three states of West Central India.

The calculated value of “$r$” was found 0.843. It lies in between 0.8 to 1.0. It shows that there is “Very Strong Positive” relationship between Perceived Value and Overall satisfaction.
3 (c) Discussion regarding Relationship in between Customer Care services and Customer Satisfaction:

This hypothesis analyzed relationship of customer care services with overall satisfaction of customers. Customer care services are nothing but different kind of services offered by all the operators to facilitate their customer when a customer approaches their call centre through a toll free number or IVRS (Interactive Voice Response System) to get information about various schemes, tariffs plans, MNP etc. Customer also approaches call centres for replacement of SIM (Subscriber Identity Module), duplicate SIMs, to know balance and validity, to get information about deduction in balance due to various reasons, to lodge complaint related to various services, activation of unwanted VAS etc.

To test this hypothesis, data collected from all 1080 samples were analyzed using SPSS V22.0 and Spearman’s correlation analysis was applied. The researcher reached on following conclusion:

**Findings of Objective-3 (c): Customer Care Services:**

**Hypothesis:** $H_{03}$ There is no significant relationship between Customer Care Services & Customer Satisfaction among customers of different Mobile Telecommunication service providers in India

**Result:** There is no significant relationship between Customer Care Services & Customer Satisfaction among customers of Mobile Telecommunication service providers in India.

In this case the correlation factor “$r$” calculated was found 0.38. It shows that there is “Weak” relationship between Customer Care Services and Overall satisfaction.
3 (d) Discussion Regarding  Relationship in between Customer Loyalty and Customer Satisfaction:

This hypothesis tests relationship of customer loyalty with overall satisfaction of customers. Customer loyalty is an intention that customer devote to a brand or a product. Service quality factors influences on customer loyalty. It is “an intended behaviour caused by the service and operation based loyalty as a repurchase intention and willingness to provide positive word-of-mouth”. Even after some deficiencies in service delivery, customers keep subscribing their existing company. The hypothesis is stated as below:

Result of Objective-3 (d) Customer Loyalty:

Hypothesis: H₀₄ There is no significant relationship between Customer Loyalty & Customer Satisfaction among customers of different Mobile Telecommunication service providers in India.

Result: There is significant relationship between Customer Loyalty & Customer Satisfaction among customers of Mobile Telecommunication service providers in India. The correlation factor “r” thus calculated was found 0.58. It lies in between 0.40-0.60 range. It shows that there is “Moderate Positive” relationship between Customer Loyalty and Overall satisfaction.

Objective 4: To study, Service Quality delivery levels, being delivered by GSM service providers to customers and it’s comparisons on four constructs mentioned as below:

4 (a) Network Quality
4 (b) Perceived Value

4 (c) Customer Care Services

4 (d) Customer Loyalty

4 (a) Network Quality: Analysis regarding Homogeneousness of Network Quality being delivered by Service Providers

Quality of Service (Q.o.S.) in cellular networks is defined as the capability of the cellular service providers to provide a satisfactory service which includes voice quality, signal strength, low call blocking and dropping probability, high data rates for multimedia and data applications etc. Quality especially pays when it comes to a mobile operator’s network. An operator with a reputation for providing a good-quality network will attract and retain subscribers. Network quality provides a true competitive differentiator. The challenge is that “quality” does not come quickly or easily. There are several steps a mobile operator needs to go through to improve network quality. Those steps start at the planning stage, continue with assessment of current performance, and include changes for both short- and long-term improvement of the network. The importance and the conclusion from overall study are discussed as follows:

Findings of Objective 4 (a)- Network Quality West Central India:

Hypothesis: $H_{05}$ There is no difference in Network Quality being provided by different Mobile Telecommunication service providers in India

Result: “There is significant difference in Network Quality being provided by Mobile Telecommunication service providers in India.”

As explained earlier, there were six questions to judge this construct in questionnaire. A respondent had to answer on five point Likert scale. First the average of all the six
questions was calculated for all the three groups (States). Now on these average scores, ANOVA test was applied and the calculated value of “F” was found 25.04 while table value of “F” (F_critical) was 3.00. The calculated value of “F “was higher than the table value of “F”. Therefore hypothesis was “rejected” and it was concluded that there is significant difference in network quality of mobile service providers in West Central Indian region. Now to determine which group differs, **Post-hoc test** was applied. Post-Hoc tests are designed for situations in which the researcher has already obtained a significant omnibus F-test with a factor that consists of three or more means and additional exploration of the differences among means is needed to provide specific information on which means are significantly different from each other discussed in Section 5.7.

A **Bonferroni Post-hoc** test revealed that Network Quality was statistically significantly different in all the three states as the p value was < .0167 in all the three groups ( p value .05/3= 0.167). **The network quality of Gujarat was found best in all the three states.**

To further test this hypothesis state wise, first, Madhya Pradesh state was selected. Initially all the four groups (i.e. four operators in MP) were examined. Thereafter, the test was applied on samples of customers of Rajasthan and Gujarat on similar pattern.

In Madhya Pradesh, Rajasthan and Gujarat, four operators under study were: BSNL, Airtel, Vodafone and Idea in each state. 90 samples were collected from customers of each operator. Thus total 360 samples were collected by researcher in each state. The study results state-wise were observed as below:
Findings of Objective 4 (a) State wise -Network Quality in Rajasthan MP and Gujarat States:

**Hypothesis:** $H_{05a}$ There is **no difference** in Network Quality being provided by Mobile Telecommunication service providers in Madhya Pradesh.

**Result:** There is **significant difference** in Network Quality being provided by Mobile Telecommunication service providers in Madhya Pradesh.

**Hypothesis:** $H_{05b}$ There is **no difference** in Network Quality being provided by Mobile Telecommunication service providers in Rajasthan

**Result:** There is **significant difference** in Network Quality being provided by Mobile Telecommunication service providers in Rajasthan

**Hypothesis:** $H_{05c}$ There is **no difference** in Network Quality being provided by Mobile Telecommunication service providers in Gujarat

**Result:** There is **significant difference** in Network Quality being provided by Mobile Telecommunication service providers in Gujarat

There were six questions to judge this construct in questionnaire. A respondent had to answer on five point Likert scale. First the average of all the six questions was calculated for all the four groups. Now on these average scores, ANOVA test was applied.

The calculated value of $F$ was found 19.86, which was higher than the table value of $F$ (2.62). As ANOVA results were significant, Post-hoc test was applied.
Result of Post-hoc test:

For applying Post-hoc test, the significance level set to $0.05/6 = 0.008$ (as six different groups were there). To determine which group differs significantly, the P value was compared to 0.08. It was concluded that Group-1(Airtel and BSNL), Group-4 (BSNL and Idea) and Group-5(BSNL and Vodafone) were having P value <0.008. Therefore it can be concluded that there is significant difference in Network Quality of these groups. In Other groups no difference was observed. The best service provider was found Idea in Madhya Pradesh.

Similarly in Rajasthan Network Quality was found significantly different among operators after analyzing through ANOVA. Therefore Post-hoc test was applied and it was concluded that there is significant difference in Network Quality of BSNL and Airtel only. Other groups do not have any difference. In Rajasthan the best service provider was found Airtel.

Again in the case of Gujarat, Network Quality was found significantly different among operators after analyzing through ANOVA. Using post-hoc test it was found that all the groups were having significant difference in Service Quality delivery. In Gujarat the best service provider was found Vodafone.

Analysis of Objective 4 (b) - Perceived Value:

Perceived value is defined as the result of the personal comparison between perceived overall benefits and the perceived costs paid by the customer (Zeithaml, 1988). Perceived value is the results or benefits customers receive in relation to total costs (which include the price paid plus other costs associated with the purchase). In simple terms, value is the
difference between perceived benefits and costs. However, what constitutes value appears to be highly personal, and may vary widely from one customer to another (Holbrook, 1994) (Zeithaml, 1988). Only the customer rather than a service provider can a product or service provided value and the concept of customer perceived value is perceived to be very subjective and personal (Parasuraman, Zeithaml, & Berry, 1985). In telecommunication terminology PV (Perceived Values) are facilities/returns which a customer gets in terms of benefits by recharging his phone by means of various Top-up vouchers (To enhance main balance), Plan vouchers (To select per minute of per second plan), and Special tariff vouchers (To avail reduced tariff for voice calls and various data packs).

**Findings of Objective 4 (b) - Perceived Value: In Case of West Central India:**

**Hypothesis:** H₀₆ There is **no difference** in Perceived Value (Value for Money) being experienced by customers of different Mobile Telecommunication service providers in India

**Result:** “There is **significant difference** in Perceived Value (Value for Money) being experienced by customers of Mobile Telecommunication service providers in India.”

From the SPSS V 22 outputs, $F_{CAL}$ was found 16.37 which was statistically significant at 5 % level as $F_{CRI}$ was lower than $F_{CAL}$. This shows that perceived value dimensions are significantly different in **West Central Indian region**. Similar results were found when tested state-wise (Inter operator). Hence Post-hoc test was applied. The results are summarized as under:
Post-hoc Test: In Case of West Central Indian Region

As the difference was significant, Post-hoc test was applied using SPSS. The test statistics showed that there was significant difference in Perceived Value while comparing attribute of MP and Rajasthan as well as Rajasthan and Gujarat. However no significant difference was found in perceived value of M.P. V/s Gujarat

Post-hoc Test: In Case of Madhya Pradesh

On application of Post-hoc test it was found that there is significant difference in perceived value attribute while comparing Airtel with BSNL, BSNL with Idea and BSNL with Vodafone. With combination of remaining groups no significance difference was observed.

Post-hoc Test: In Case of Rajasthan

It was found that there is significant difference in perceived value attribute while comparing Airtel with BSNL. With combination of remaining groups no significance difference was observed.

Post-hoc Test: In Case of Gujarat

Here it was found that there is significant difference in perceived value attribute while comparing BSNL with Vodafone. In other combination of remaining groups no significance difference was observed.
Analyses of Objective 4 (c) - Customer Care Services

In today’s digital world, the rules of customer engagement are changing. To continue acquiring and retaining customers, organizations need to recognize this and adapt to these new dynamics. The battleground for customers has never been so competitive and complicated. Three disruptive forces are combining to create a new contest which will result in fresh winners and losers:

- The rapid adoption of technology
- Changes in customer behavior
- Increasing competition

Together, these three market forces are exerting intense pressures on almost all industries. The digital disruption signals the need for a fresh customer service strategy. Service teams are being called upon to fulfil a greater purpose in the battle for customers. In light of above facts his hypothesis was developed for testing Customer Care Services. When a customer approaches call centre through a toll free number or IVRS(Interactive voice response System), different kind of services offered by all the operators to facilitate their customer to inform them various schemes, tariffs plans, MNP etc.

Findings of Objective- Customer Care Services: In Case of West Central India:

Hypothesis: $H_0$: There is no difference in Customer Care Services being experienced by customers of different Mobile Telecommunication service providers in India.

Result: “There is significant difference in Customer Care Services being experienced by customers of Mobile Telecommunication service providers in India.”
As done previously, this hypothesis was again tested for whole west central Indian region first which includes three states, four operators in each state and 360 samples from each state. In this case statistics showed $F_{CAL}=21.40$, $p=0.00$ which was statistically significant at 5 percent level as $F_{CRI}$ (Table value of $F$ 3.00) was lower than $F_{CAL}$. It indicated that “Customer Care Services” dimension is significantly different in West Central Indian Region in respect for four operators under study (i.e BSNL, Airtel, Vodafone and Idea). It means that customers of four major telecom operators are experiencing different customer care services. To further test this hypothesis state wise, first data of Madhya Pradesh was analyzed. All the four groups (i.e. four operators in Madhya Pradesh) were examined simultaneously that whether there is significant difference in customer care services of customers of four service providers (i.e. BSNL, Idea, Airtel and Vodafone). Thereafter, the test was applied on samples of customers of Rajasthan and Gujarat on similar pattern and the same results were noticed. Here also Post-hoc test was applied. The results are as under:

**Post-hoc Test: In Case of West Central Indian Region**

It was found that there is significant difference in Customer Care Services attribute while comparing **Rajasthan with Gujarat** and **MP with Gujarat**. No significant difference was found while comparing Rajasthan with Gujarat.

**Post-hoc Test: In Case of Madhya Pradesh**

It was found that there is significant difference in Customer Care Services attribute while comparing **Idea with Vodafone**. In other combination of remaining groups no significance difference was observed.
Post-hoc Test: In Case of Rajasthan

In this case, it was found that there is significant difference in Customer care services attribute while comparing Airtel with Vodafone, BSNL with Idea and BSNL with Vodafone. In other combination of remaining groups no significance difference was observed.

Post-hoc Test: In Case of Gujarat

Here again, it was found that there is significant difference in Customer care services attribute while comparing Airtel with Vodafone, Idea with Vodafone. In other combination of remaining groups no significance difference was observed.

Analysis of Objective-4 (d) - Customer Loyalty:

The main goal of every company is profitability and one method to get it for a company is to gain and maintain loyal customers. If a company invests resources to build customer loyalty without focusing on profitability it may lead to failure in long run. Customer loyalty becomes important for a company because it helps the company to build up an exit barrier for their customers. As we have studied earlier following are determinants of Customer loyalty:

1. Service Quality
2. Customer Satisfaction
3. Trust
4. Commitment
5. Switching Cost
6. Corporate Image
7. Service Recovery
8. Emotions
9. Communication

The aim of this hypothesis to test whether there is any difference in customer loyalty of customers of various telecom operators. The result was found as below:

**Findings of Objective-4 (d) - Customer Loyalty in West Central Indian Region**

**Hypothesis:** $H_{08}$ There is **no difference** in Customer Loyalty among different Mobile Telecommunication service providers in India

**Result:** “There is **significant difference** in Customer Loyalty among Mobile Telecommunication service providers in West Central India.”

This hypothesis was tested for west central Indian region. There are three states under study. As mentioned earlier, 360 samples collected from each state which formed sampling frame of 1080 samples.

The test statistics showed $F_{cal}=2.45$, $p=0.08$ was statistically insignificant at 5 percent level as $F_{cri}$ (Table value of F 3.0) was higher than $F_{cal}$. It indicated that there is no difference in “**Customer Loyalty**” dimension is in West Central Indian region among the customers of four major telecom operators. It means that customers of these telecom operators exhibit same “**Customer Loyalty**” Hence the hypothesis was rejected. Similar results were observed when tested state-wise. The post-hoc test was further applied. The results are summarized as under:
Post-hoc Test: In Case of West Central Indian Region

It was found that there is significant difference in **Customer Loyalty** attribute while comparing MP with Rajasthan and Rajasthan with Gujarat. In Gujarat V/s MP no significance difference was observed.

Post-hoc Test: In Case of Madhya Pradesh

It was found that there is significant difference in **Customer Loyalty** attribute while comparing **Airtel with BSNL**, **BSNL with Idea** and **BSNL with Vodafone**. In rest of the groups no significance difference was observed.

Post-hoc Test: In Case of Rajasthan

It was found that there is significant difference in **Customer Loyalty** attribute while comparing **Airtel with BSNL**, **Airtel with Idea** and **Airtel with Vodafone**. In rest of the groups no significance difference was observed.

Post-hoc Test: In Case of Gujarat

It was found that there is significant difference in **Customer Loyalty** attribute while comparing **BSNL with Vodafone** and **Idea with Vodafone**. In rest of the groups no significance difference was observed.

**Objective 5: To Measure and compare the Overall Satisfaction with the help of constructs mentioned in Objective 3**

**Analysis**: In mobile telecommunication language the overall customer satisfaction may be defined as:
“The customer’s feeling regarding the deliveries with respect to his or her expectations towards a company, product or service and the perceived performance of the company, product or service.”

To judge this hypothesis the average of all the five constructs was taken into account. These constructs are:

- PNQ (Perceived Network Quality)
- PV (Perceived Value)
- CCS (Customer Care Services)
- CL (Customer Loyalty)

Various hypotheses on these hypotheses have been already tested individually. To get the extract of all these four constructs an overall satisfaction hypothesis has been stated. To judge this hypothesis, average of all the 27 questions in has been taken into account.

From the study the researcher concluded that:

**Findings of Objective-5- Overall Customers Satisfaction Levels in West Central Indian Region**

**Hypothesis: H₀⁹** There is no difference in overall customers Satisfaction being experienced by customers of different Mobile Telecom Service Providers in India.

**Result:** “There is significant difference in overall customers Satisfaction being experienced by customers of Telecom Service Providers in India.”

Initially this hypothesis was tested for West Central Indian region where total 1080 samples were collected from these states (360 from each state). Using ANOVA Statistics it was observed that $F_{\text{CAL}}=33.51$, $p=0.00$ was statistically significant at 5 percent level
as $F_{cri}$ (Table value of $F$ 3.0) was lower than $F_{cal}$. It expressed that there is significant difference in “Overall Customer Satisfaction” among customers of four major telecom operators in West Central Indian region. Hence the hypothesis is rejected.

**Objective 6: Proposed Measures to be takes by service operators based on the study.**

**Findings:** The detailed proposed measures have been explained in following Section 6.3 in the form of recommendations.

### 6.3 Recommendations

In this part, the researcher tried to enlist recommendation revealed from this study to the mobile telecommunication companies and government agencies like Department of Telecommunications, TRAI etc.

With the passage of time, customers have become more challenging and technological developments have enhanced their expectations. Today customers have a number of choices and they don’t hesitate in switching services if a company is unable to deliver up to their expectations or is not offering aggressive rates and services as compared to the market. To make sure customer loyalty, telecom companies should pay concentration to the needs of their customers and try hard to fulfil them.

The final target of any telecom company is to get better the its performance and boost its market share. Though, after Indian mobile telecom is in 4G era, the telecom companies have to tackle with the new aggressive situation, and different 4G mobile telecom services are provided to customers. For telecom companies, this study can be used to find out what factors persuade on customer satisfaction and accordingly developing marketing strategy plans. In this study, it was found that perceived value, service quality, and
customer loyalty all affect the customer satisfaction. But research revealed customer care services do not lead to customer satisfaction.

Here are some tips which will improve service experience for customers.

6.3.1 Suggestions for Telecom Service Providers (TSPs):

Following suggestions are proposed for TSPs on various attributes:

(1) Regarding Network Quality Improvements:

(a) Measure and Evaluate Network Service Quality: One of the major reasons customers point out to stay loyal to their Telecom Service Provider is network's performance uniformity. Customers desire a network always available, without service disruption and fast enough. In order to sustain the preference of high-value customers, it’s vital to service providers understand what is the customer's feeling when using network services. It is essential to measure the level of network service quality customers experiences and to assure the network is always available and performing at its crest. Anywhere Anytime,. Having a convergent solution for all networks, customers and devices, that provides concurrent understanding of the impact of the network on customers' experience as well as optimizes time to resolve any outage, enable service providers to take actions to maintain customers’ loyalty and optimize network assets

(b) Investment Planning Optimization: Optimize deploying investment by mapping and benchmarking of network coverage, service performance and breakdown points.

(c) Gain Mobile Operational Efficiency: It decreases costs and optimize network availability and performance without expensive drive tests.

(d) Associate Customer Loyalty and Network Service Quality: It enhances customer satisfaction by observing problems before they impact customers.
(e) **Key Differentiators**: Following actions are proposed service providers

i. Widespread service and network performance watchdog;

ii. Only single performance Monitoring method for Fixed, Mobile and Convergent service Networks

iii. Optical Fiber Networks breakdown proof Monitoring features

iv. Speedy deployment of tests and measurements plans

v. Customer service simulation and Quality of Experience watchdog;

(f) **Innovate and Build Smarter Networks**: Network volume is expanding due to improved positioning and the rollout of 4G globally. Understanding how, when and where customers are using the telecom networks can lead to improved networks that mechanically accustom to high demands on the network. Suitable design could be used to check and examine network traffic data in real-time, thus optimizing routing and QOS while declining outings and enhancing customer satisfaction. These interpretations can also be used to optimize the sub standard network quality, coverage and operations over time.

(g) **Improvement in Overall Network Quality**: Based on the findings of this study telecom companies should emphasize on the development of quality of services, network coverage, service delivery and customer care services. These factors have the important relationship with customer satisfaction
(2) Suggested Improvements in Customer Care Services:

a. Strengthen Customer Service Skills

Initially, it’s important to ensure that customer service team has the correct skills for managing customers’ needs. Any of CRM software can’t balance for shortcomings in this area. Subsequent skills should be looking for in a customer service executive:

- **Empathy, patience and consistency**: Some customers will be very angry. Others will be full of questions and others will just be talkative. One should know how to handle all of them and offer the same level of service every time.

- **Adaptability**. Every customer is dissimilar, and some may even seem to change time-to-time. One must be able to handle shocks, sense the customer’s temper and adapt accordingly. This also includes a readiness to learn—providing high-quality customer service is a nonstop learning process.

- **Clear Communication**. Make sure to convey to customers exactly what is needed. Use genuinely positive language, stay joyful no matter what and never end a conversation without confirming the customer is pleased.

- **Work ethic**. Customers welcome a representative who will observe their problem through to its solution. At the same time, one must have good time management techniques and not spend too much time treating one customer while others are waiting. Be focused on targets to achieve the right balance.

- **Knowledge**. Finally customers rely on Customer care services for their information of product. Be informed adequate to respond to most investigation/queries and know where to turn if the queries become too exhaustive.
or technical to answer. Customers will be grateful for the sincerity and efforts to discover the correct answer.

✔ **Thick skin.** The customer’s always right? The skill to ingest one’s pride and accept fault or negative advice is crucial. Its role of customer care executive to stay the customer’s pleasure in mind.

**Empowering Employees:** It is necessary to take decisions and to allow them to take control of circumstances and assist them deal with the customer better. This also enhances the message and enhances **customer satisfaction** levels

**b. Improve Customer Interactions**

If staff has the essential skill set, that’s a good start. But they still need to narrate to customers. Here are some instructions for making sure customer service is both systematic and well received:

✔ Ask executives to try to identify common ground—like shared interests—with the customers they help. Having this point of understanding makes clash easier to defeat by humanizing the relationship, and it endears customers to executives (and ultimately company).

✔ Practice dynamic listening so customers feel heard. Clarify and repeat what the customers say to make sure know them. Understand and reflect their feelings by saying things like, “That must have troubled you” or “I can see why you feel hurt.”

✔ Confess your mistakes, even if we find out them before customers do. This develops trust and restores confidence. It also permits controlling the state of affairs, re-spotting the customer’s attention and resolving the issue.
Take notes after a problem is solved. Ensure the issue stays fixed and that customers were pleased with the service. Sending a mail, or even a feedback survey is an brilliant way to let the customer know company is still on their side.

c. **Enhance Customer Service Strategy**

Employees may have the skills and knowledge to interact with customers. But what organizational tactics can be engaged to please customers? Practice hands-on customer service by making customers happy before they come with problems. Here's how:

- **Get Personal.** Customers want to feel like they have contacted to real people, not bots and FAQs. Offer more than just mechanical email responses, and do not let the telephone prompts or website send them down a rabbit hole. Take full benefit of social media (such as Face book, Twitter and Instagram, Whatsapp etc.) and write responses when customers post on page. Post photos and articles on website. This shows to customers that real people are working on their behalf.

- **Be Available.** Part of the personal contact is making sure customers can reach Customer Care.

- **Provide Valid Treatment to Customers.** Consider deputing executives to specific customers so they can build a relationship. Offer VIP treatment for most excellent customers to let them know they are respected. What extraordinary services might customers like? Set up hub groups, interview customers, or conduct a survey to get thoughts.

- **Create Communities/Groups.** Customers will experience even more esteemed if we treat them as significant members of a community. Operator can bring
different customers together in various ways, including interactive websites, webinars, social media, trade shows and conventions.

d. Make Sure Representative are Engaged

One can have the most excellent customer service skills and the best training in the world, but if representative are checked out, it won’t affect at all. Betterment of employee engagement is a different way to make sure customers have a great experience. Disgruntled employees are unlikely to come forward with their problems, so consider an unidentified suggestion box or an employee engagement survey to see what makes your employees tick.

e. Give The Customers a Way to Provide Feedback

No matter how practical one is, the organization will by no means be able to get in front of each customer issue. To ensure to learn about the good, the bad, and the bad experience, customers have, create an easily reachable method for customers to give advice.

Whether it’s an email survey sent directly from CRM tool, a phone survey at the end of a service call, or a form on the “Contact Us” wall of website, developing means for customers to give inputs makes it convenient for learning what needs enhancement. It also helps keep sad customers from expressing their anger on highly visible places like companies social media pages.

f. Be Consistent: Regular service spans across all touch points to make sure rapid resolutions and customer satisfaction. Customers also anticipate steadiness in service across all channels of communication so ensure that all customer data is matched for enhanced customer support.
g. **Do Investment in Main Concern Areas:** Telecom companies must increase their investments in providing a immense customer experience, to improve declining customer loyalty in the days to come.

h. By increasing its single-view customer profile approach, it can be pointed the untimely signs of churn as the brand works to reengage and transform detractors into promoters.

i. **Identify Key Customers and Minimize Risks:** In line to reduce churn rates, service providers can begin to better understand who of their customer’s influencers are and what their needs are. Considering who the influencers are within large social networks can provide important information. If one of these influencers switches, it could cause a chain effect. Collective billing analysis, call-drop analysis and emotion analysis of their customers it can give service providers the options to bring down churn rates by knowing what is going to happen. Extrapolative analytics can systematically warn when action is necessary to stop a customer from going to the competitor by offering a custom-made deal just in time.

j. **Judgment Making Inputs:** The study can be applied as a tool for decision-making to enable organizations, and to allow researchers to relate customer satisfaction to organizational profitability.

k. **Promise of Committed Services:** Relying upon the findings of this study regarding service quality construct, service providers should concentrate on the promise of service quality, customer care services and perceived value improvement. These three
proportions of service quality have the significant relationship with customer satisfaction.

1. **Competitive Pricing:** Relied on the conclusions of this research regarding Perceived Value construct, service providers should focus on how to offer good telecom service with a logical price, how to make customer feel worth selecting their company compared with other telecom operators.

6.3.2 **Recommendations for Government agencies TRAI/DOT:**

(1) **Retain New Mobile Broadband Users**

Mobile broadband users tend to churn frequently because most of the new users using pre-paid mobile services are either trying out internet for the first time, or are churning from another service. TRAI can proceed with its plan to extend validity of prepaid data packs from 90 days to 365 days to answer this, and can take additional steps to support new broadband internet users. A policy for allowing free data services without going against the main beliefs of net neutrality is a likely approach.

IT industry institution NASSCOM has recommended that TRAI should give full freedom to apps and service providers to choose on how they offer free data. Operators gave a number of mobile plans to TRAI that can support new users, without the need for service providers to offer nil rated schemes. These comprise offering a slower data rate for free, and free minimum subscriptions, where a inadequate amount of data is available for free at first, the consumer has to pay for additional usage.

(2) **Improvement in Backhaul Networks**

Backhaul networks channels the traffic from mobile and wireless broadband users to the countrywide backbone. Development in optical fiber optic and microwave backhaul
networks will go a long way in offering a better internet broadband service for all. There is a want for regulations to allow for the growth of backhaul networks at a community level, at the city planning stage, and when it comes to construction of buildings. Highways, drains, roads and rail services can comprise ducts for telecom use, in addition to spaces for towers in the planning phase. Presently, only access to fire safety, water and electricity services are assigned, not access to the internet services.

Right of entry to backhaul networks is time consuming and requires a variety of permissions from local bodies, which can be a more smooth procedure. Development projects also often interrupt the fiber cables laid for backhaul networks. Regular digging and bad planning can direct to more cuts and re-attachments than recommended per length of cable. Efficient planning of such projects can go a long way in improving both wired and wireless broadband connectivity.

(3) Use Cable Service Providers

Making digital cable service providers is acting as a channel in increasing broadband dispersion. Service providers have engaged with local cable service providers to use their understanding of the local/urban and rural features to set up telecom network. Local cable service providers can be associated to deliver last mile connectivity, that too with homemade equipment. Though, cable service providers are regulated mostly by the Ministry of Information and Broadcasting, and not by the Department of Telecom (DoT). This is a difference of interest and a lost opportunity as the MIB has little interest in broadband penetration. TRAI is in initial stage when it comes to start broadband over cable services, and of infrastructure division of telecom service providers and internet service providers with cable operators.
(4) Using Digital global Transmission in Rural Areas

Digital global transmission is an important way to provide big rural areas to the internet services. Live video can be provided to numerous screens, data can be sent to various devices from a single location at the same time, and there is capability to broadcast to moving devices. The public data sender can open up UHF bands to be used by business service providers. Diverting regular television content in rural areas from analog transmitters to digital global transmitters will bring in spectrum for other uses.

(5) Encouraging Virtual Network Operators

The administration has just framed guidelines for virtual n/w operators based on recommendations by TRAI. These will have the capability to resell spectrum, with or without value creation, which will enhance the competition and decrease the tariff for the end user. VNOs can give services from more than one operator, and merge these services for the end user. As this is a novel type of service, the Deptt. Telecom. can ensure that virtual n/w operators can operate free of any abrupt steps by the administration that are popular measures taken to "defend customer interest". Potentially, mobile manufacturers can also float virtual n/w operators to offer telecom services directly to customers.

(6) Convergence of telephonic and broadband networks

Voice and data connections can be offered under a mono license to stop duplication of networks. This will permit for Telcos to propose their services as over the top applications, finishing the impasse and competition with such services. TRAI's consultation paper on VOIP (Voice over IP) services discussed the issues of interconnection, charges, allocation of phone numbers and access to emergency services.
Such a meeting will also give a rise to the Business Process Outsourcing sector, which at present has to replicate their efforts to create infrastructure for voice and data services.

(7) **Regulate Mobile Towers in Urban Areas**

One of the major reasons for call drops and QoS issues is the random treatment given to mobile towers by local bodies. Central and Local bodies have to be approached separately for licensing formalities. There are no normal rates for urban projects such as residential/commercial building complexes, malls or stadiums to pay telecom service providers, which can be legitimately regulated. Emission doubts lead to random note of towers as and when the local populations get agitated.

These actions comprise sealing of towers, physical dismantling, disconnection of electricity supply. Once a tower is dismantled it can take up to 1-2 years for it to be changed. These hurdles can be addressed suitably with the accomplishment of a single national policy for telecom infra in municipal areas, along with policy that allow better use of this infrastructure. In one direction in which the present infrastructure can be used more cost-effectively is to allow for infrastructure sharing between Telecos.

(8) **Infrastructure sharing for ISPs**

DoT permitted active infrastructure sharing between telecom operators. The same location cannot have so many cell towers operational, which are no less than not aesthetic additions to the environment, even if a banana tree is more emission generating. An imitated fence is created as only a few operators can work in some areas, and this can revolutionize with infrastructure sharing. This will ensure maximum use of available resources. In municipal areas, infrastructure sharing stops TSPs from entering into
agreements with developers, and then installs the infrastructure that is mainly appropriate to only one operator.

Permitting Internet Service Providers to share infrastructure would bring down the expenditure of providing services to new and distant locations, as well as decrease the cost for the last user. This is relevant in areas with low population where services by multiple broadband providers are not possible.

(9) **Availability of Spectrum**

The DoT can do a lot of work for offering a long term planning to TSPs of which spectrum will be provided when, forward of making these spectrum bands available for use. Providing the spectrum for license before the auction actually happens can make certain a rapid roll out. The administration can offer inventive for the effective use of spectrum for the service providers. The Department of Telecom can decrease the load on the telecom sector by permitting the TSPs to pay for the spectrum with a pay-as-you-earn payment methodology.

(10) **To Encourage Telecom Service Providers**

To setup mobile towers, the cost of infrastructure leads heavy costs, and there are different ways available by which government can lessen the financial burden on telecom service providers. The government/local body’s influence can be minimized, instead of multiple levies and duties being charged. There can be a single point of contact for licenses and clearances which require numerous submissions for various agencies. Govt. can offer subsidies for importing of equipment needed for betterment of broadband infrastructure. The government can ensure to support funding for telecommunication projects, and alternative sources of such funding.
Another probable way to support internet broadband growth is to subsidize the electricity/power made available to telecom service providers. Another step, Department of Telecom can take is to ensure TRAI is transparent about the terms when imposing new regulations. TRAI newly introduced a term known as Closed Electronics Communications Network, which seems to be a kind of intranet on which nil rated schemes are allowed. On the other hand, it has not responded to industry looking for clarification on the directives. All these actions can bring down tariffs for the customers.

6.4 Research Limitations

Some of the major limitations of this study are mentioned below which the researcher has come across when accomplishing the process to complete this research. From the study of “Service Quality & Customer Satisfaction in Mobile Telecommunication in India (With Special Reference to West Central India)”, it appeared that there are some limitations discovered in the following:

1. The research area, the data collection only focused on customers in West Central Indian region in three states (i.e. Rajasthan, Gujarat and Madhya Pradesh). It would have the impact on the accurate of study and cannot represent the actual attitude of the whole Indian mobile consumer.

2. Only one district from each state was selected which may further affect the accuracy of results.

3. Only four operators (i.e. BSNL, Idea, Vodafone and Airtel) were considered for this study which may further affect the results.

4. The sampling groups come from various backgrounds, which may cause an effect on the questionnaires. Some respondents understood the questionnaires and some
respondents needed more explanations. All of these may impact on the accuracy of the answer given.

5. Due to complexity of survey size was kept limited to 1080 which is directly related to accuracy of results.

6. Sometimes respondents show hurried behavior and don’t answer carefully. Therefore, their answers may distort the results.

6.5 Suggestions for Future Research

The review of literature enabled that there is very limited research in the area of service delivery-customer satisfaction in India particularly in West Central India region. Based on the research, the subsequent propositions have been prepared for future research:

1. This study only focuses on the customers in West Central India and does not include the customers in other part of country. Therefore, the next research for the person who is interested in this issue can focus more on the other parts, such as, Northern India, Southern India, Eastern India etc or whole country. Alternatively in West Central India, some other geographical areas/Districts can be selected for study.

2. This study only focuses on Indian customers. Therefore, the next research for the person who is interested in this issue can focus more on foreigners visiting India. When foreigners travel to India, some might stay for a long time for work or
study, or some may stay for a short time for enjoyment. They will make the ISD calls; so this issue is significance focusing on.

3 This study only focuses on some main variables (Network Quality, Perceived value, Customer Care Services and Customer Loyalty) relating to customer satisfaction. There might be other variables affecting customer satisfaction and behavioral intentions. Therefore, future researcher may examine more on variables relating to customer satisfaction and behavioral intentions in using mobile telecommunications service for deeply understanding.

4 A strong insinuation to identify exciting attributes within mobile telecom service by benchmarking. For example, just Vodafone has added a new feature to its services which enables subscribers to transfer their money by their mobile phone using “M-Paisa” App.

5 The new attribute should be considered by a new metric which can influence other customer attitudinal and behavioral variables.

6. Recently Reliance Jio entered into the market using 4G technology. It is offering were free voice and data facility till 31st December, 16. This company can also be considered in future researches as it attracted 12% market share within a very short period.

7. The case studies could have been extended to other segments of industry such as healthcare, manufacturing, airlines, transportation, hotel, tourism, transportation, metros, amusement etc.
8. A cross cultural examination to recognize the role of culture in customer behavior can considerably benefit service providers particularly within service attributes plan and customization, as most of service providers are multinational.

9. Similar study may be conducted for foreigners who visit India for relatively longer period. They can provide better insight and comparison with their home countries.

10. In this research only four major operators were studied. In further research, remaining operators or all the operators can be considered for study.

11. More samples can be collected from different socio-economic/geographic territories if time and budget permit.


**Table-6.1 Summary of Findings (Result of Hypotheses)**

<table>
<thead>
<tr>
<th>SN</th>
<th>Hypotheses</th>
<th>Test Applied</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H01 There is no significant relationship between <strong>Network Quality</strong> and <strong>Customer Satisfaction</strong> among customers of different Mobile Telecommunication service providers in India</td>
<td>Spearman’s Rank Correlation Coefficient</td>
<td>“Strong Positive”</td>
<td>There is <strong>significant relationship</strong> between <strong>Network Quality</strong> and <strong>Customer Satisfaction</strong></td>
</tr>
<tr>
<td>2</td>
<td>H02 There is no significant relationship between <strong>Perceived Value</strong> (Value for Money) and <strong>Customer Satisfaction</strong> among customers of different Mobile Telecommunication service providers in India</td>
<td>Spearman’s Rank Correlation Coefficient</td>
<td>“Very Strong Positive”</td>
<td>There is <strong>significant relationship</strong> between <strong>Perceived Value</strong> (Value for Money) and <strong>Customer Satisfaction</strong></td>
</tr>
<tr>
<td>3</td>
<td>H03 There is no significant relationship between <strong>Customer Care Services &amp; Customer Satisfaction</strong> among customers of different Mobile Telecommunication service providers in India</td>
<td>Spearman’s Rank Correlation Coefficient</td>
<td>“Weak”</td>
<td>There is <strong>no significant relationship</strong> between <strong>Customer Care Services &amp; Customer Satisfaction</strong></td>
</tr>
<tr>
<td>4</td>
<td>H04 There is no significant relationship between Customer Loyalty &amp; Customer Satisfaction among customers of different Mobile Telecommunication service providers in India</td>
<td>Spearman’s Rank Correlation Coefficient</td>
<td>“Moderate Positive”</td>
<td>There is <strong>significant relationship</strong> between <strong>Customer Loyalty &amp; Customer Satisfaction among customers</strong></td>
</tr>
<tr>
<td>5</td>
<td>WCI Region</td>
<td>ANOVA ( F-Test) Then Post-Hoc Test</td>
<td>Rejected</td>
<td>A Bonferroni post-hoc test revealed that <strong>Network Quality</strong> was <strong>significantly different</strong> in all the three states as the p value is &lt; .0167 in all the three groups (p value .05/3= 0.167). The <strong>Network Quality</strong> was found the <strong>best in Gujarat</strong>. MP and Rajasthan stood at 2nd and 3rd position</td>
</tr>
<tr>
<td>6</td>
<td>Madhya Pradesh State</td>
<td>ANOVA ( F-Test) Then Post-Hoc Test</td>
<td>Rejected</td>
<td>Therefore it was concluded that there is <strong>significant difference</strong> in <strong>Network Quality</strong> of BSNL and Airtel, BSNL and Idea as well as BSNL and Vodafone. In other groups no difference was observed.</td>
</tr>
<tr>
<td>7</td>
<td>Rajasthan State</td>
<td>ANOVA ( F-Test) Then Post-Hoc Test</td>
<td>Rejected</td>
<td>It was concluded that there is <strong>significant difference</strong> in <strong>Network Quality</strong> of BSNL and Airtel only and other groups do not have any difference in Rajasthan state</td>
</tr>
<tr>
<td>8</td>
<td>Gujarat State</td>
<td>ANOVA ( F-Test) Then Post-Hoc Test</td>
<td>Rejected</td>
<td>All the Groups except Group No.2 are having P value &lt; 0.008. Therefore it can be concluded that there is <strong>significant difference</strong> in <strong>Network Quality</strong> all the operators except Airtel V/s Idea</td>
</tr>
<tr>
<td>9</td>
<td>WCI Region</td>
<td>ANOVA ( F-Test) Then Post-Hoc Test</td>
<td>Rejected</td>
<td>H06 There is <strong>significant difference</strong> in <strong>Perceived Value</strong> (Value for Money) being experienced by customers of different Mobile Telecommunication service providers in India</td>
</tr>
<tr>
<td>10</td>
<td>Rajasthan State</td>
<td>ANOVA ( F-Test) Then Post-Hoc Test</td>
<td>Rejected</td>
<td>On further application of Post-hoc test it was found that there is <strong>significant difference</strong> in perceived value attribute while comparing Airtel with BSNL. With combination of remaining groups no significance difference was observed.</td>
</tr>
<tr>
<td></td>
<td>Gujarati State:</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject or Acceptance</td>
<td>Notes</td>
</tr>
<tr>
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<tr>
<td>11</td>
<td>$H_{06c}$ There is no difference in Perceived Value (Value for Money) being experienced by customers of Mobile Telecommunication service providers of Gujarat state.</td>
<td></td>
<td>Reject</td>
<td>On further application of <strong>Post-hoc test</strong> it was found that there is <strong>significant difference</strong> in perceived value attribute while comparing <strong>BSNL</strong> with <strong>Vodafone</strong>. In other combination of remaining groups no significance difference was observed.</td>
</tr>
<tr>
<td>12</td>
<td>$H_{07}$ There is no difference in Customer Care Services being experienced by customers of different Mobile Telecommunication service providers in India</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject</td>
<td>On further application of <strong>Post-hoc test</strong> it was found that there is <strong>significant difference</strong> in Customer Care Services attribute while comparing <strong>Rajasthan</strong> with <strong>Gujarat</strong> and <strong>MP with Gujarat</strong>.</td>
</tr>
<tr>
<td>13</td>
<td>Madhya Pradesh State $H_{07a}$ There is no difference in Customer Care Services being experienced by customers of Mobile Telecommunication service providers in Madhya Pradesh</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject</td>
<td>On further application of <strong>Post-hoc test</strong> it was found that there is <strong>significant difference</strong> in Customer Care Services attribute while comparing, <strong>Rajasthan</strong> with <strong>Gujarat</strong> and <strong>MP with Gujarat</strong>.</td>
</tr>
<tr>
<td>14</td>
<td>Rajasthan State: $H_{07b}$ There is no difference in Customer Care Services being experienced by customers of Mobile Telecommunication service providers in Rajasthan</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject</td>
<td>On further application of Post-hoc test it was found that there is <strong>significant difference</strong> in Customer Care Services attribute while comparing <strong>Idea</strong> with <strong>Vodafone</strong> only. In other combination of remaining groups no significance difference was observed. In case of <strong>MP State</strong>: It was found that there is <strong>significant difference</strong> in Customer Loyalty attribute while comparing <strong>Airtel with BSNL</strong>, <strong>BSNL with Idea</strong> and <strong>BSNL with Vodafone</strong>. In rest of the groups no significance difference was observed.</td>
</tr>
<tr>
<td>15</td>
<td>Gujarat State $H_{07c}$ There is no difference in Customer Care Services being experienced by customers of Mobile Telecommunication service providers in Gujarat State</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject</td>
<td>On further application of Post-hoc test it was found that there is <strong>significant difference</strong> in Customer Care services attribute while comparing <strong>Airtel with Vodafone</strong>, <strong>Idea with Vodafone</strong>. In other combination of remaining groups no significance difference was observed. In case of <strong>Rajasthan State</strong>: It was found that there is <strong>significant difference</strong> in Customer Loyalty attribute while comparing <strong>Airtel with BSNL</strong>, <strong>BSNL with Idea</strong> and <strong>BSNL with Vodafone</strong>. In rest of the groups no significance difference was observed. In case of <strong>Gujarat State</strong>: It was found that there is <strong>significant difference</strong> in Customer Loyalty attribute while comparing <strong>MP with Rajasthan</strong> and <strong>Rajasthan with Gujarat</strong>.</td>
</tr>
<tr>
<td>16</td>
<td>$H_{08}$ There is no difference in Customer Loyalty among different Mobile Telecommunication service providers in India</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject</td>
<td>In case of <strong>MP state</strong>: It was found that there is <strong>significant difference</strong> in Customer Loyalty attribute while comparing <strong>Airtel with BSNL</strong>, <strong>BSNL with Idea</strong> and <strong>BSNL with Vodafone</strong>. In rest of the groups no significance difference was observed. In case of <strong>Rajasthan State</strong>: It was found that there is <strong>significant difference</strong> in Customer Loyalty attribute while comparing <strong>Airtel with BSNL</strong>, <strong>Airtel with Idea</strong> and <strong>Airtel with Vodafone</strong>. In rest of the groups no significance difference was observed. In case of <strong>Gujarat State</strong>: It was found that there is <strong>significant difference</strong> in Customer Loyalty attribute while comparing <strong>BSNL with Vodafone</strong> and <strong>Idea with Vodafone</strong>. In rest of the groups no significance difference was observed.</td>
</tr>
<tr>
<td>17</td>
<td>$H_{09}$ There is no difference in overall customers Satisfaction being experienced by customers of different Mobile Telecom Service Providers in India.</td>
<td>ANOVA (F-Test) Then Post-Hoc Test</td>
<td>Reject</td>
<td></td>
</tr>
</tbody>
</table>
References

