

Customer Apprehension for Service Quality in Telecom (With reference to Airtel and BSNL customers of Ajmer)

Dr.Pankaj Meel,

Associate Professor,

Department of Management Studies,

Vivekananda Global University,

Jaipur

Abstract:

Consumers are the souls of any commerce. Telecommunication being a service-oriented employment continuously puts preeminence to trace out methods of making consumers gratified and delighted. Diagnosing this import, this investigation was steered to delineate what makes customer apprehension towards service quality of Telecommunication Industry. Investigator cramped the study within Ajmer in Rajasthan. A well-ordered questionnaire contrived, reliant on erstwhile works, was disseminated among 100 customers (50 rural and 50 urban) for the study. A customer apprehension model was devised uniting variables taken from the wide-ranging evaluation of erstwhile literature. Those facets are call rate, VAS, advertisement, sales promotion, recharge facility. The model was substantiated using MS Excel, and traced out personal and market factors, perceived quality, perceived value and statistically weighty company image.

Keywords:Customer expectation, Customer perception, Service quality, Telecommunication

Introduction:

Telecommunication is one of the principal support services essential for the hasty progress of any developing country. The Indian telecommunication sector has continued to record extraordinary achievement throughout the year and has established as one of the decisive sectors that have been accountable for progress of the Indian economy. The hurried growth of the sector has been attached with proactive regulates and decisions taken by the Indian Government and active engrossment of the private sector. The profuse policies in the telecommunication sector have simplified easy access to telecom companies and a reasonable governing framework renders services to the Indian customers at inexpensive prices.

Review of Literature:

A research was carried out to know the role of corporate branding in mobile phone telecommunication along with different influencing factors involved in the purchase of mobile telephone connections. (D. Keith Denton (2002), corporate branding and customer's purchase preferences in mobile phone telecommunication). A questionnaire is used in order to investigate corporate branding and other influencing factors involved in purchase decision of the customers. Population selected for this study is "Students of Halmstad University", who are studying here. The analysis of this study reveals different set of results while making comparison between literature and empirical. Although extensive research exists on the

concept of customer retention and its measures and instruments, studies and research on how telecom service firms retain their customers remain limited. (Jessica Mascareigne, 2003, Customer retention: A case study of agencies in the telecom service sector) Hence, in this research how telecom service providers retain their targeted customers over time will be investigated through four case studies in the telecom service industry. (Tarun Narayan & Kristin Dunlap Godsey (2004), Designing for Extensibility in Indian Telecom Sector: An action research study of maximizing extensibility by means of design principles) This thesis presents an action research study on how a set of design principles applicable to object-oriented languages can be used to counteract code rot and consequentially enhance system extensibility. The study describes how these principles help supporting the system quality attributes of modifiability, qualities attributes correlate to extensibility. The study thus contributes by illustrating how a design science approach can be useful in action research. Service quality is essential to success in today's business environment.

Thomas Eugene (2004), a study of consumer apprehension of service quality based on price, outcome and information. This research involves an experiment which was designed to measure perceived service quality based upon the manipulation of pre-service encounter and the outcome of a service encounter. According to D. Mark (2005), service quality and consumer satisfaction has a strong correlation with each other. For telecom industry, it is essential to provide high quality services. "Even as wireless service providers make huge investments to keep pace with the rapid growth in subscriber numbers, poor quality of service is rapidly emerging as a concern," according to a Crisil Survey, 2007, Telecom Services Poor in India, India Economic Times. The number of base stations installed by Indian wireless operators is inadequate to provide high quality services to the growing number of mobile subscribers. "The operators are emphasizing more on expanding coverage to newer areas rather than increasing capacity in existing service areas," the report said, adding this could hurt long term plans of the service providers.

The telecom industry of today is characterized by hyper competition, convergence and constant change. Porter's theories encourage companies to choose whether to focus on differentiation, cost-leadership or focus. The more recent theory, the Blue Ocean Strategy, is however challenging companies market share from competitors and compete in "bloody red oceans", companies should create new untapped market space, "blue oceans". K.B.Ghosh & S.Basu (2008), Is it possible to make competition irrelevant in a hypercompetitive converging environment? :-A study of mobile content providers' competitive strategies in India). This theory is highly relevant in hyper competitive environments such as the mobile industry.

Pursuant to a research conducted (Pankaj Meel, 2013, study of Customer apprehension for Quality in Telecom service-with reference to mobile customer of Airtel and BSNL in Rajasthan) for expansion of telecom services, an opposite marketing strategy is essential. This embraces effective product planning and development, appropriate pricing and advertising strategies as well as appropriate place strategy in the telecom sector. As an outcome, consumer poses challenges for business. These challenges will make telecom as an emergent area for magnetism and development of India in common and Rajasthan in specific.

Sampling Technique

In selecting the sample of one hundred (100) respondents, a stratified simple random sampling was used. This technique was chosen because the population consists for mobile networks for Rajasthan, each being a stratum. This was done by, first of all, identifying each of the two mobile telecom networks- BSNL and Airtel, within the target population as a stratum. Finally, a simple random method was used to select respondents for each of the mobile networks.

Data Collection Procedure:**Structured questionnaire**

According to many scholars, in the use of survey strategy, the main instruments used are self-administered/ interviewer administered or structured/ unstructured interviews and questionnaire or a combination of both. They further agree that generally the questionnaire can be used for descriptive or exploratory study, and must have a good layout, unambiguous questions, complete items, non-offensive but relevant items, logical arrangements of items, and ability to elicit willingness to answer in respondents. As a result, questionnaire was used.

Hypothesis testing

One sample T- test will be used to test the hypothesis with respect to mobile telecom network. A significance level of 0.05 will be chosen. Generally, this will be the procedure for testing the hypothesis:

The null hypothesis

Statistical test and significance level: One sample t-test, significant at 0.05

Calculated t-value:

Critical value: Confidence interval and p value

Decision rule: Null hypothesis should be rejected under two conditions: first, if the mean difference is significantly negative, and second, if the confidence interval between which the true mean lies in 95% is negative. Conversely, do not reject if the mean difference is significantly positive, or if the confidence interval includes a positive value- thus at least service quality is equal to expectation. Thus satisfied customers must have rated the service quality equal to or better than expectation or desire; for overall satisfaction, they must have rated their satisfaction with service quality as satisfied or very satisfied.

Measurement Instruments

T-Test

Likert Scale

Finding Measurement

Five point Likert scales will be used in the research. Then, assigned the number 1 to the most extreme “agree” response for backward-scored items, and assign successively larger numbers to each response up to the most extreme “agree” response. A five-point Likert scale will be used and assigned the following values to each type of response: “Strongly Agree” = 1; “Agree” = 2; “Neutral” = 3; “Disagree” = 4; “Strongly Disagree” = 5 Where frequency of usage of a service will be calculated, following values will be assigned to each type of response: “Never”=1, “Seldom”=2, “Often”=3, “Sometimes”=4 and “Always”=5.

Interpretation & Analysis of Data (Ajmer)

Where did you get the information of mobile services from?

Sources	Urban	%	Rural	%	Total
Advertisement(media)	22	44%	16	32%	38
Friends/Relatives	15	30%	20	40%	35
Company Outlets	6	12%	12	24%	18
Internet	7	14%	2	4%	9
Total	50	100%	50	100%	100

Source of Information

The table shows that majority of respondents have got the information from the company advertisements that is 44% in terms of urban area of Ajmer. 30% respondents got influenced by friends, 12% subscribers were having the bearing of company outlets and 14% have come to know about the mobile services through Internet whereas in terms of rural area of Ajmer, 32% respondents have got the information from the company advertisements. 40% respondents got influenced by friends/relatives, 24% subscribers were having the bearing of company outlets and 4% have come to know about the mobile services through Internet. Thus, Advertisements and Friends/Relatives are the most important factors through which respondents have come to know about mobile services.

Which service do you use? (In present)

	Urban	%	Rural	%		Urban	%	Rural	%
(A) Airtel	34	68%	29	58%	(B) BSNL	16	32%	21	42%
Prepaid	22	44%	19	38%	Prepaid	14	28%	14	28%
Post-paid	12	24%	10	20%	Post-paid	2	4%	7	14%
Total	34	68%	29	58%	Total	50	100%	50	100%

Type of Service (Prepaid/Postpaid) by existing Subscribers

The table highlights that majority of the respondents (68%) use Airtel followed by BSNL (32%) in urban area of Ajmer. 68% is comprised of 44% (prepaid) and 24% (post-paid) where as 32% is made up of 28 % (prepaid) and 4% (post-paid). Majority of the respondents (58%) use Airtel followed by BSNL (42%) in rural area of Ajmer. 58% is comprised of 38% (prepaid) and 20% (post-paid) where as 42% is made up of 28 % (prepaid) and 14% (post-paid).

Which service do you use out of the following?

Statement	Never		Seldom		Often		Sometimes		Always		Unresponded		Total	
	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%
SMS	2	4%	2	4%	5	10%	9	18%	32	64%	0	0%	50	100%
Multimedia	11	22%	7	14%	7	14%	10	20%	14	28%	1	2%	50	100%
Internet/GPRS	10	20%	6	12%	7	14%	11	22%	16	32%	0	0%	50	100%
For STD Calls	2	4%	1	2%	4	8%	12	24%	31	62%	0	0%	50	100%
For local Calls	1	2%	1	2%	3	6%	10	20%	35	70%	0	0%	50	100%

Mobile Services used by Urban Subscribers

The table shows that 64% urban subscribers always use the SMS service and 4% users have never or seldom used SMS services. 14% users have seldom or often used Multimedia and 28% always put into action this service. In terms of using Internet/GPRS, 32% always use it whereas 12% seldom use this service. 62% always use STD Calling whereas 2% seldom use this service. Lastly, 70% respondents always use local calling whereas 2% never or seldom use local calling.

Statement	Never		Seldom		Often		Sometimes		Always		Unresponded		Total	
	Rur.	%	Rur.	%	Rur.	%	Rur.	%	Rur.	%	Rur.	%	Rur.	%
SMS	6	12%	8	16%	10	20%	12	24%	12	24%	2	4%	50	100%
Multimedia	20	40%	15	30%	6	12%	4	8%	5	10%	0	0%	50	100%
Internet/GPRS	28	56%	15	30%	3	6%	2	4%	0	0%	2	4%	50	100%
For STD Calls	2	4%	5	10%	8	16%	15	30%	20	40%	0	0%	50	100%
For local Calls	1	2%	1	2%	2	4%	6	12%	40	80%	0	0%	50	100%

Mobile Services used by Urban Subscribers

The table depicts that 24% rural subscribers always or sometimes use SMS service and 12% users have never used SMS services. 40% never used Multimedia and 8% sometimes put into action this service. In terms of using Internet/GPRS, 56% respondents never use it whereas 4% seldom use this service. 40% subscribers always use STD Calling whereas 4% never use this service. Lastly, 80% respondents always use local calling whereas 2% never or seldom use local calling.

Which factors will you consider while choosing Mobile Service provider?

Statement	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Unresponded		Total	
	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%
Brand Image	20	40%	15	30%	8	16%	5	10%	2	4%	0	0%	50	100%
Net. Connectivity	25	50%	12	24%	6	12%	4	8%	3	6%	0	0%	50	100%
Call Tariff	27	54%	15	30%	4	8%	2	4%	2	4%	0	0%	50	100%
Service Quality	25	50%	15	30%	5	10%	3	6%	2	4%	0	0%	50	100%
Reliability	15	30%	12	24%	9	18%	9	18%	3	6%	2	4%	50	100%
Advertisement	13	26%	12	24%	8	16%	8	16%	7	14%	2	4%	50	100%
Sales Promotion	18	36%	15	30%	5	10%	7	14%	5	10%	0	0%	50	100%
Availability & Recharge facility	24	48%	16	32%	4	8%	3	6%	3	6%	0	0%	50	100%

Customer Care	22	44%	15	30%	5	10%	4	8%	3	6%	1	2%	50	100%
Voice Clarity	26	52%	14	28%	3	6%	4	8%	3	6%	0	0%	50	100%
Transparency in Billing	18	36%	13	26%	8	16%	6	12%	3	6%	2	4%	50	100%
Dealer Services	19	38%	15	30%	6	12%	5	10%	4	8%	1	2%	50	100%
Mouth Publicity	22	44%	14	28%	5	10%	5	10%	4	8%	0	0%	50	100%
Friends/Relatives' Advice	23	46%	15	30%	5	10%	4	8%	3	6%	0	0%	50	100%

Factors considered by Urban Customers while choosing Mobile Service provider

The table shows there are several considerations for choosing mobile service provider in urban area. 40% urban respondents strongly agree with brand image as the important consideration whereas 4% strongly disagree. For network connectivity 50% respondents strongly agree with it as the important consideration whereas 6% strongly disagree. 54% respondents strongly agree with tariff call whereas 4% strongly disagree. 50% respondents strongly agree with service quality as the important consideration whereas 4% strongly disagree. 30% respondents strongly agree with reliability as the important consideration whereas 6% strongly disagree. 26% respondents strongly agree with advertisement as the important consideration whereas 14% strongly disagree. 36% strongly agree with sales promotion as the important consideration whereas 10% strongly disagree. 48% respondents strongly agree with availability and recharge facility whereas 6% strongly disagree. 44% strongly agree with customer care as the important consideration whereas 6% strongly disagree. 52% strongly agree with voice clarity as the important consideration whereas 6% strongly disagree. 36% strongly agree with transparency in billing as the important consideration whereas 6% strongly disagree. 38% strongly agree with dealer services as the important consideration whereas 8% strongly disagree. 44% strongly agree with mouth publicity whereas 8% strongly disagree. Lastly 46% strongly agree with friends/ relatives' advice as the important consideration whereas 6% strongly disagree.

Statement	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Unresponded		Total	
	Rur.	%	Rur.	%	Rur.	%	Rur.	%	Rural	%	Rural	%	Rural	%
Brand Image	21	42%	16	32%	6	12%	4	8%	2	4%	1	2%	50	100%
Net.Connectivity	24	48%	15	30%	4	8%	3	6%	4	8%	0	0%	50	100%
Call Tariff	14	28%	16	32%	8	16%	5	10%	6	12%	1	2%	50	100%
Service Quality	18	36%	15	30%	6	12%	6	12%	4	8%	1	2%	50	100%
Reliability	8	16%	13	26%	11	22%	10	20%	5	10%	3	6%	50	100%
Advertisement	9	18%	14	28%	6	12%	12	24%	8	16%	1	2%	50	100%
Sales Promotion	15	30%	16	32%	6	12%	6	12%	5	10%	2	4%	50	100%
Availability & Recharge facility	20	40%	18	36%	5	10%	5	10%	2	4%	0	0%	50	100%
Customer Care	15	30%	12	24%	7	14%	7	14%	7	14%	2	4%	50	100%
Voice Clarity	18	36%	17	34%	5	10%	6	12%	3	6%	1	2%	50	100%
Transparency in Billing	10	20%	14	28%	8	16%	10	20%	8	16%	0	0%	50	100%
Dealer Services	13	26%	12	24%	9	18%	10	20%	4	8%	2	4%	50	100%
Mouth Publicity	26	52%	12	24%	6	12%	4	8%	2	4%	0	0%	50	100%
Friends/Relatives' Advice	29	58%	13	26%	4	8%	2	4%	2	4%	0	0%	50	100%

Factors considered by Rural Customers while choosing Mobile Service provider

The table shows there are a lot of considerations for choosing mobile service provider in rural area. 42% urban respondents strongly agree with brand image as the important consideration whereas 4% strongly disagree. In terms of network connectivity 48% respondents strongly agree with it as the important consideration whereas 6% disagree. 32% respondents agree with tariff call as the important consideration whereas 10% disagree. 36% respondents strongly agree with service quality as the important consideration whereas 8% strongly disagree. 26% respondents agree with reliability as the important consideration whereas 10% strongly disagree. 28% respondents agree with advertisement as the important consideration whereas 12% are neutral. 32% respondents strongly agree with sales promotion as the important consideration whereas 10% strongly disagree.

40% respondents strongly agree with availability and recharge facility as the important consideration whereas 4% strongly disagree. 30% respondents strongly agree with customer care as the important consideration whereas 14% are neutral, disagree and strongly disagree. 36% respondents strongly agree with voice clarity as the important consideration whereas 6% strongly disagree. 28% respondents strongly agree with transparency in billing as the important consideration whereas 16% strongly disagree and neutral. 26% respondents strongly agree with dealer services as the important consideration whereas 8% strongly disagree. 52% respondents strongly agree with mouth publicity as the important consideration whereas 4% strongly disagree. Lastly 58% respondents strongly agree with friends/ relatives' advice as the important consideration whereas 4% disagree and strongly disagree each.

Network Quality

How far do you convince with the factors of service quality?

Statement (Urban)	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Unresponded		Total	
	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%	Urb.	%
Net.Connectivity	25	50%	12	24%	4	8%	5	10%	4	8%	0	0%	50	100%
Call Rate	28	56%	10	20%	5	10%	5	10%	2	4%	0	0%	50	100%
VAS	16	32%	12	24%	8	16%	5	10%	4	8%	5	10%	50	100%
Advertisement	15	30%	11	22%	12	24%	6	12%	4	8%	2	4%	50	100%
Sales Promo.	16	32%	12	24%	11	22%	6	12%	4	8%	1	2%	50	100%
Recharge Facility	28	56%	14	28%	5	10%	2	4%	1	2%	0	0%	50	100%
Customer Care	20	40%	18	36%	6	12%	3	6%	2	4%	1	2%	50	100%
Voice Clarity	20	40%	15	30%	9	18%	4	8%	2	4%	0	0%	50	100%
Transparency in Billing	9	64%	2	14%	0	0%	2	14%	1	7%	0	0%	14	100%
Dealer Services	25	50%	15	30%	3	6%	3	6%	3	6%	1	2%	50	100%
Roaming	15	30%	14	28%	9	18%	8	16%	3	6%	1	2%	50	100%

Factors of Service Quality (Urban)

The table highlights that while dealing with network connectivity in urban area, 50% respondents strongly agrees with this variable whereas 8% respondents strongly disagree over these variable. 56% respondents strongly agree over call rates and only 4% respondents

strongly disagree. 32% respondents strongly agree in terms of value added services as one of the factors of service quality and 8% strongly disagree with it. While dealing with advertisement as one of the factors of service quality, 30% respondents strongly agree whereas 8% strongly disagree in terms of the same. 32% respondents strongly agree with sales promotion whereas 8% strongly disagree in terms of the same. 56% respondents strongly agree with availability and recharge facility whereas 2% strongly disagree. 40% respondents strongly agree with customer care services whereas 4% respondents strongly disagree over the same variable. Transparency in billing has cropped up very significantly. 64% subscribers strongly agree and 0% respondents are neutral over this variable. 50% subscribers strongly agree whereas 6% strongly disagree. Eventually in terms of roaming facility, 30% respondents strongly agree whereas 6% strongly disagree.

Statement (Rural)	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Unresponded		Total	
	Rur	%	Rur.	%	Rur.	%	Rur	%	Rur	%	Rur.	%	Rur.	%
Net.Connectivity	10	20%	8	16%	10	20%	10	20%	11	22%	1	2%	50	100%
Call Rate	14	28%	13	26%	9	18%	8	16%	4	8%	2	4%	50	100%
VAS	2	4%	8	16%	7	14%	12	24%	13	26%	8	16%	50	100%
Advertisement	10	20%	14	28%	10	20%	6	12%	5	10%	5	10%	50	100%
Sales Promotion	10	20%	14	28%	12	24%	7	14%	5	10%	2	4%	50	100%
Recharge Facility	20	40%	12	24%	12	24%	5	10%	1	2%	0	0%	50	100%
Customer Care	9	18%	10	20%	10	20%	8	16%	9	18%	4	8%	50	100%
Voice Clarity	13	26%	12	24%	15	30%	6	12%	4	8%	0	0%	50	100%
Transparency in Billing	9	53%	4	24%	2	12%	2	12%	0	0%	0	0%	17	100%
Dealer Services	10	20%	9	18%	15	30%	6	12%	5	10%	5	10%	50	100%
Roaming	5	10%	5	10%	12	24%	11	22%	11	22%	6	12%	50	100%

Factors of Service Quality (Rural)

The table highlights that while dealing with network connectivity in rural area, 20% respondents strongly agree with this variable whereas 22% respondents strongly disagree. 28% respondents strongly agree over call rates and 8% strongly disagree. Only 4% respondents strongly agree in terms of VAS and 26% strongly disagree with it. While dealing with advertisement 28% respondents agree whereas 10% strongly disagree in terms of the same. 28% respondents agree with sales promotion whereas 10% strongly disagree. 40% respondents strongly agree with availability and recharge facility whereas 2% respondents strongly disagree. 20% agree and are neutral each with customer care services whereas 16% respondents disagree. 30% respondents are neutral whereas only 8% strongly disagree in terms of the voice clarity. 53% subscribers strongly agree and 0% strongly disagrees over this variable. 30% subscribers are neutral whereas 10% strongly disagree. Eventually in terms of roaming facility, 24% are neutral whereas only 10% strongly agree and agree each.

Network Connectivity

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.735	1.038	34		Airtel	2.724	1.436	29	

BSNL	2.625	1.576	16	-2.058	BSNL	3.600	1.281	21	-2.268
		P Value		0.04504			P Value		0.027868

P value for Network Connectivity

In this table, the researcher anticipates that the null hypothesis is that there is no difference in average network connectivity between Airtel and BSNL for urban area. The p value from is 0.045042, at 48 d.f, which is smaller than 0.05 (5 % confidence level). Therefore, the researcher has to reject the null hypothesis in favor of an alternative hypothesis that there is a significant difference in average network connectivity of these two mobile service providers whereas in rural area of Ajmer, null hypothesis is “there is no difference in average network connectivity between Airtel and BSNL for rural area.” The p-value output is 0.027. Therefore, the researcher decides to reject our null hypothesis in favor of an alternative that there is an actual difference in average network connectivity between Airtel and BSNL for rural area.

Call Rate

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.647	1.026	34		Airtel	2.074	1.152	29	
BSNL	2.313	1.356	16	-1.742	BSNL	3.000	1.272	21	-2.641
		P Value		0.208727			P Value		0.011122

P Value for Call Rate

In the above table, null hypothesis is that there is no difference in average call rate between Airtel and BSNL for urban area. The p value is 0.208727, at 48 d.f, which is greater than 0.05. Therefore, the researcher accepts the null hypothesis in favor of an alternative hypothesis that there is a no significant difference in average call rate of these two mobile service providers. While in rural Ajmer the null hypothesis is “there is no difference in average call rate between Airtel and BSNL” The p-value here is 0.011. Therefore, the researcher rejects our null hypothesis in favor of an alternative that there is significant difference in average call rate between Airtel and BSNL for rural area.

Value Added Services

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.906	1.011	34		Airtel	3.269	1.227	29	
BSNL	3.308	1.380	16	-3.629	BSNL	4.188	1.014	21	-2.892
		P Value		0.002035			P Value		0.005737

P Value for Value Added Services

In urban area of Ajmer the null hypothesis is “there is no difference in average value added services between Airtel and BSNL for urban area.” The p-value here is 0.002. Therefore, the researcher decides to reject our null hypothesis in favor of an alternative: that there is significant difference in average value added services between Airtel and BSNL for urban area. In the above table the p value is 0.005737, at 48 degree of freedom, which is less than 0.05. Therefore, the researcher rejects the null hypothesis in favor of an alternative hypothesis that there is significant difference in average value added services of these two mobile service providers.

Advertisement

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	2.182	1.167	34		Airtel	2.407	1.284	29	
BSNL	3.000	1.317	16	-2.124	BSNL	2.889	1.197	21	-1.362
		P Value		0.03885			P Value		0.179556

P value for Advertisement

In the table, the null hypothesis is that there is no difference in average advertisements between Airtel and BSNL for urban area. The p value is 0.0385, at 48 degree of freedom, which is less than 0.05. Therefore, the researcher has to reject the null hypothesis in favor of an alternative hypothesis that there is significant difference in average advertisements of these two mobile service providers. For the rural area, the p-value is 0.179556. Therefore, the researcher decides to accept our null hypothesis in favor of an alternative that there is no significant difference in average advertisements between Airtel and BSNL in rural area.

Sales Promotion

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	2.029	1.071	34		Airtel	2.357	1.202	29	
BSNL	3.200	1.327	16	-3.088	BSNL	3.050	1.203	21	-2.011
		P Value		0.003345			P Value		0.04996

P value for Sales Promotion

In urban area of Ajmer null hypothesis is there is no difference in average sales promotion between Airtel and BSNL for urban area. The p-value output from our test here is 0.003or 0.3%. Therefore, the researcher decides to reject our null hypothesis in favor of an alternative: There is significant difference in average sales promotion between Airtel and BSNL for urban area. In the above table the null hypothesis is that there is no difference in average sales promotion between Airtel and BSNL for rural area. The p value from our test is 0.04996, at 48 degree of freedom, which is less than 0.05. Therefore, the researcher rejects the null hypothesis in favor of an alternative hypothesis that there is significant difference in average sales promotion of these two mobile service providers.

Availability and Recharge Facility

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.647	0.967	34		Airtel	2.069	1.112	29	
BSNL	1.750	0.901	16	-0.368	BSNL	2.143	1.082	21	-0.236
		P Value		0.714491			P Value		0.814437

P value for Availability and Recharge Facility

In the table, the null hypothesis is that there is no difference in average availability and recharge facility between Airtel and BSNL for urban area. The p value from our test is 0.714491, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average availability and recharge facility of these two mobile service providers. In rural area of Ajmer, null hypothesis is that there is no difference in average availability and recharge

facility between Airtel and BSNL for rural area. The p-value is 0.814437. Therefore, the researcher decides to accept our null hypothesis in favor of an alternative. There is no significant difference in average availability and recharge between Airtel and BSNL for rural area.

Customer Care Services

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.909	1.026	34		Airtel	2.731	1.317	29	
BSNL	2.063	1.144	16	-0.457	BSNL	3.250	1.445	21	-1.301
		P value		0.649732			P value		0.199469

P Value for Customer Care Services

In the table, the null hypothesis is that there is no difference in average customer care services between Airtel and BSNL for urban area. The p value from our test is 0.649732, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average customer care services of these two mobile service providers. In terms of rural Ajmer, the p value is 0.199469, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average customer care services.

Voice Clarity

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.759	1.072	34		Airtel	2.808	1.468	29	
BSNL	2.381	1.495	16	-1.310	BSNL	3.391	1.343	21	-1.136
		P value		0.196431			P value		0.261597

P value for Voice Clarity

In the table, the null hypothesis is that there is no difference in average voice clarity between Airtel and BSNL for urban area. The p value is 0.196431, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average voice clarity of these two mobile service providers. In terms of rural area of Ajmer, the p value is 0.261597, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average voice clarity of these two mobile service providers.

Transparency in Billing

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	2.000	1.414	12		Airtel	1.500	0.671	10	
BSNL	1.000	0.000	2	2.449	BSNL	2.286	1.278	7	-1.490
		P Value		0.030649			P Value		0.1620

P value for Transparency in Billing

In the table 6.27, the null hypothesis is that there is no difference in average transparency in billing between Airtel and BSNL for urban area. The p value is 0.030649, at 12 d.f, which is

less than 0.05. Therefore, the researcher has to reject the null hypothesis in favor of an alternative hypothesis that there is significant difference in average transparency in billing of these two mobile service providers. In terms of rural area of Ajmer, the p value is 0.1620, at 15 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average transparency in billing of these two mobile service providers.

Dealer Services

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.576	0.740	34		Airtel	2.429	1.178	29	
BSNL	2.438	1.580	16	-2.077	BSNL	3.176	1.248	21	-2.141
		P Value		0.043177			P Value		0.037381

P value for Dealer Services

In the table, the p value from test is 0.043177, at 48 d.f, which is less than 0.05. Therefore, the researcher has to reject the null hypothesis in favor of an alternative hypothesis that there is significant difference in average dealer services of these two mobile service providers. In terms of rural area of Ajmer, the p value from our test is 0.037381, at 48 d.f, which is less than 0.05. Therefore, the researcher has to reject the null hypothesis in favor of an alternative hypothesis that there is significant difference in average dealer services of these two mobile service providers.

Roaming Facility

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.759	1.072	34		Airtel	2.808	1.468	29	
BSNL	2.381	1.495	16	-1.310	BSNL	3.391	1.343	21	-1.136
		P Value		0.19643			P Value		0.261597

P value for Roaming Facility

In the table, the null hypothesis is that there is no difference in average roaming facility between Airtel and BSNL for urban area. The p value is 0.19643, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average roaming facility of these two mobile service providers. In rural area of Ajmer, the null hypothesis is there is no difference in average roaming facility between Airtel and BSNL for rural area. The p-value is 0.261597. Therefore, the researcher decides to accept our null hypothesis in favor of an alternative: There is no significant difference in average roaming facility between Airtel and BSNL for rural area.

Are you satisfied with your service provider in totality?

Strongly Satisfied		Moderate Satisfied		Satisfied		Little Satisfied		Strongly Unsatisfied		Total	
Urban.	%	Urban.	%	Urban.	%	Urban.	%	Urban.	%	Urban.	%
19	38%	15	30%	9	18%	5	10%	2	4%	50	100%
Rural	%	Rural	%	Rural	%	Rural	%	Rural	%	Rural	%
12	24%	11	22%	13	26%	8	16%	6	12%	50	100%

Satisfaction with Service Provider in Totality

Table highlights that in terms of urban area, 38% respondents are strongly satisfied, 30% are moderately satisfied, 18% are merely satisfied, 10% are little satisfied and only 4% are strongly unsatisfied with their service provider in totality whereas in terms of rural area, 24% respondents are strongly satisfied, 22% are moderately satisfied, 26% are only satisfied, 16% are little satisfied and only 12% respondents are strongly unsatisfied with their service provider in totality.

Satisfaction with service provider

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	1.971	1.043	34		Airtel	2.483	1.221	29	
BSNL	2.438	1.273	16	-1.279	BSNL	3.000	1.380	21	-1.372
		P value		0.207046			P value		0.176442

P value for Satisfaction with Service Provider

In the table, the null hypothesis is that there is no difference in average satisfaction between Airtel and BSNL for urban area. The p value is 0.207046, at 48 d.f, which is greater than 0.05. Therefore, the researcher has to accept the null hypothesis in favor of an alternative hypothesis that there is no significant difference in average satisfaction of these two mobile service providers. In rural area of Ajmer the null hypothesis is there is no difference in average satisfaction between Airtel and BSNL for rural area. The p-value is 0.176442. Therefore, the research decides to accept our null hypothesis in favor of an alternative: There is no significant difference in average satisfaction between Airtel and BSNL for rural area.

Will you use the present service provider in future?

Surely		Probably		Can be		Probably Not		Surely Not		Total	
Urban	%	Urban	%	Urban	%	Urban	%	Urban	%	Urban	%
18	36%	13	26%	12	24%	5	10%	2	4%	50	100%
Rural	%	Rural	%	Rural	%	Rural	%	Rural	%	Rural	%
17	34%	14	28%	10	20%	4	8%	5	10%	50	100%

Use of present service provider in future

The table shows that in urban area of Ajmer, 36% respondents will surely use, 26% respondents will probably use, 24% can use, 10% will not probably use and 4% respondents will not surely use the present service provider in future while in rural area, 34% respondents will surely use, 28% respondents will probably use, 20% can use, 8% will not probably use and 10% respondents will not surely use the present service provider in future.

Usage of present service provider in future

Urban	Mean	Std.Dev	N	T TEST	Rural	Mean	Std.Dev	N	T TEST
Airtel	2.088	1.067	34		Airtel	1.966	1.033	29	
BSNL	2.438	1.273	16	-0.951	BSNL	2.810	1.435	21	-2.298
		P Value		0.346369			P Value		0.025962

P value for use of present service provider in future

For the urban area, null hypothesis is “there is no difference in average usage of present service provider in future between Airtel and BSNL for rural area.” The p-value output from our test here is 0.346369. Therefore, the researcher decides to accept our null hypothesis in favor of an alternative: that there is no significant difference in average usage of present service provider in future with other service provider in urban area. In the above table, the null hypothesis is that there is no difference in average usage of present service provider in future between Airtel and BSNL for rural area. The p value from our test is 0.025962, at 48 degree of freedom, which is less than 0.05 (5 % confidence level). Therefore, the researcher has to reject the null hypothesis in favor of an alternative hypothesis that there is significant difference in average usage of present service provider in future with other service provider in rural area.

Conclusion

It can be settled that service operators should create an emotional relationship with the customers through innovative plans and enhance their service quality, better connectivity and goodwill with customers because customers always want more from their operators. And ultimately, this emotional relationship influences a customer's choice over Mobile Service Provider. Consumers prefer prepaid plans and all most every consumer treat their mobile phone as a necessity. They generally use their mobile phone for their personal use and for both incoming and outgoing calls. The study reveals that Airtel and BSNL are the prominent mobile phone service providers among consumers followed by Vodafone and others.

It is summed up from the study of Rajasthan that urban consumers are aware about the services offered by their mobile phone operators rather than rural areas. The final conclusion of this study is that generally customers are only satisfied with service quality delivered by mobile telecom networks in Rajasthan or that their satisfaction is considerably low or average. The research also reveals that consumers are less satisfied with the services offered by their mobile phone operators with differences in different regions of Rajasthan. Sometimes, consumers face problems of poor voice clarity, call drop and poor network and their satisfaction with the services offered to them is just. The significant development in this field in the past ten years shows that there is a very bright scope for expansion and modernization in cellular area with a very short span of time. Thus, mobile phone service providers have to understand the ever changing preferences and the behavior of consumers constantly in order to serve them better and satisfy them. In this age of ever increasing competition, it is very important for mobile phone operators to keep a constant eye on preferences and behavior of their consumers in order to capture the large untapped market both in rural and urban areas of Ajmer.

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