

A Comparative Study of Marketing Strategies of 4G Service Providers in Bhopal Division

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Abstract

The object of this paper is to study the marketing strategies viz. pricing and promotion adopted by the selected cellular service providers in Bhopal division of Madhya Pradesh state. In this paper we compared and evaluated the marketing strategies related to the 4G services of selected service providers BSNL, Reliance JIO, Vodafone Idea and Bharti Airtel.

Keywords: *Marketing Strategies, Pricing, Promotion, 4G Services.*

1. INTRODUCTION:

Independence brought a revolution in the telecom industry and in the economic development of India. Deregulation has transformed the entire sector of the telecommunication industry. With the introduction of private players, it has evolved from a single player market to a multiplayer market. The challenge for these independent players is to pause their power and raise awareness about their organization. They are supported by a well-designed marketing strategy in assessing customer empathy. Through this they were able to gain a large share of the market.

The growth in the number of mobile phone players has altered customer expectations. Today customers have the luxury to choose according to their needs and hopes, capture their preferences and enjoy high interactive capabilities. It works very well to meet customer expectations by providing basic services and additional quality services.

By studying their own internal abilities and current market conditions, the four selected companies namely BSNL, Reliance JIO, Vodafone

Idea and Bharti Airtel have improved their sales and marketing strategies. Through this process, cellular service providers can pull their marketing and sales strategy to their competitive advantage with a unique marketing strategy.

2. OBJECTIVE OF THE STUDY:

The objective of the study is to compare and evaluate the marketing strategies viz. pricing and promotion related to the 4G services adopted by selected service providers in Bhopal division.

Methodology:

Research Design:

The study has employed both descriptive and exploratory research design.

Sampling design:

200 respondents; samples are selected in Bhopal division of Madhya Pradesh state, 50 from BSNL, 50 from Reliance JIO, 50 from Vodafone Idea, and 50 from Bharti Airtel subscribers for the purpose of the study. Primary data was collected using structured questionnaire. Secondary data has been collected from books, internet, magazines and journals. Collected data is tabulated. For testing of

hypothesis Chi-Square test^[5] were used with the help of SPSS^[8] and MS-Excel^[11].

Hypothesis:

H01: There is no significant difference among the pricing strategies of 4G services adopted by different service providers.

H02: There is no significant difference among the promotion strategies of 4G services adopted by different service providers.

3. LITERATURE REVIEW:

Kalra Siddharth (2018)^[2] studied on "To Study the Impact of JIO on the Indian Telecom Industry through their Marketing Strategies". In this paper author found out how JIO's marketing strategies affected consumers in the Indian telecom sector and what major strategies consumers chose and attracted network attention. This article also discusses the reactions of competitors to this result and the pricing strategies they have submitted to compete in the market.

Pawan Kalyani (2016)^[3] studied on "An Empirical Study on Reliance JIO Effect, Competitor's Reaction and Customer Perception on the JIO's Pre-Launch Offer". In this paper, the author analyzes JIO offers and those offered by competitors such as Vodafone, Airtel and BSNL. They know what marketing strategy Reliance JIO has chosen to capture the market and what. This can be done as seen after the launch of Reliance JIO.

Pawar, S. S. (2017)^[4] studied on "Impact of Advertising on Sales of Airtel Broadband Services". To increasing the sales volume of Airtel services, major role of promotional strategies are studied by the author in this paper.

Ramesh R. (2019)^[6] studied on "Marketing Strategies of Cellular Services - A Comparative Study". The papers discuss the marketing mix

strategies adopted by selected service providers in selected cities of Telangana district. In this paper the author compares the marketing strategies followed for chosen mobile services and observes the marketing strategies for 4G services for chosen service providers.

Turka Dimple (2018)^[7] studied on "Comparative Analysis of Marketing Strategies of BSNL and Airtel". In this paper, the researcher analyzed two major service providers in the country, namely Airtel and BSNL. The marketing strategies of the two companies are learned for different reasons. The results of the Reliance JIO between the two companies make the research credible and attractive.

4. LIMITATIONS OF STUDY:

This study is limited to the Bhopal division of Madhya Pradesh State and it is based on the primary data collected from the selected districts. Respondent's answers from the questionnaire as a major limitation.

5. DATA ANALYSIS AND INTERPRETATION:

5.1 Pricing Strategies:

Hypothesis:

H01.1: There is no significant difference among the pricing strategies of 4G services adopted by different service providers.

Ha1.1: There is a significant difference among the pricing strategies of 4G services adopted by different service providers.

With the help of following variables, above stated hypothesis has been proved:

- (i) Best Pricing for Pre-Paid (for 28 days)
- (ii) Best Pricing for Post-Paid (for 01 month)
- (iii) Best Pricing for Internet/Data (1.5 GB/day for 28 days)

5.1.1 Best Pricing for Pre-Paid:

Service Providers	N	Price	Degree of Freedom	Chi-Square (Calculated)	Chi-Square (Tabular)
BSNL	50	159	3	51.664	7.82
Reliance JIO	50	249			
Vodafone Idea	50	299			
Bharti Airtel	50	298			

Total	200				
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(Table -1: Comparison for Best Pricing for Pre-Paid)

As the number of the mobile service providers considered for analysis is four, therefore degree of freedom will be 3. The table value of chi-square at 0.05 significance level at 3 degrees of freedom is 7.82, which is less than the calculated value 51.664. After comparing both the values, we

can conclude that there is a significant difference found among the service providers about best pricing for Pre-Paid offers. The Pre-Paid offer in terms of pricing offered by BSNL was found to be far better than other service providers.

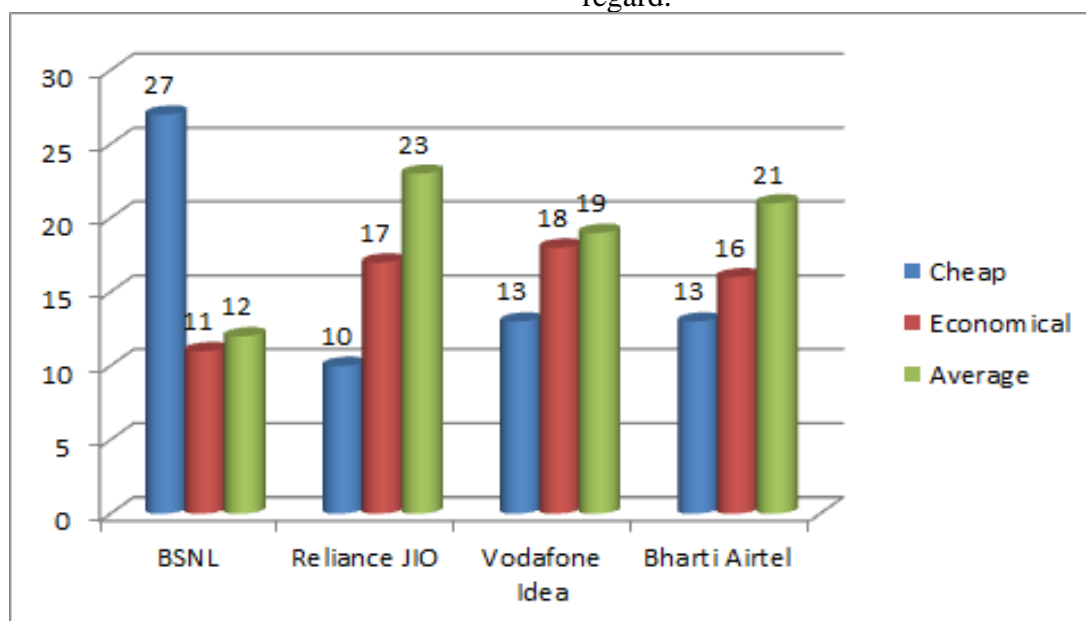
Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Cheap	Count	27	10	13	13	63
	%	54%	20%	26%	26%	31.5%
Economical	Count	11	17	18	16	62
	%	22%	34%	36%	32%	31%
Average	Count	12	23	19	21	75
	%	24%	46%	38%	42%	37.5%
Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -2: Respondents opinion regarding Best Pricing for Pre-Paid)

Analysis results as indicated in the table reflects that the highest 54% of BSNL followed by Bharti Airtel (26%) and Vodafone Idea (26%) and the least 20% belonged to Reliance JIO reacted positively which means that customers do get affected by the best pricing for Pre-Paid being offered.

In case of economical opinion, the highest percentage was of Vodafone Idea (36%) followed by Reliance JIO and Bharti Airtel.

Only 37.5% percent of respondents have a average opinion about the deal while the highest 46% percent belonged to Reliance JIO in this regard.



(Figure-1: Showing Respondents opinion regarding Best Pricing for Pre-Paid)

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O – E	(O – E) ²	$\frac{(O - E)^2}{E}$
1	27	15.75	11.25	126.5625	8.035714
2	10	15.75	-5.75	33.0625	2.099206
3	13	15.75	-2.75	7.5625	0.480159
4	13	15.75	-2.75	7.5625	0.480159
5	11	15.5	-4.5	20.25	1.306452
6	17	15.5	1.5	2.25	0.145161
7	18	15.5	2.5	6.25	0.403226
8	16	15.5	0.5	0.25	0.016129
9	12	18.75	-6.75	45.5625	2.43
10	23	18.75	4.25	18.0625	0.963333
11	19	18.75	0.25	0.0625	0.003333
12	21	18.75	2.25	5.0625	0.27
			Total		$\chi^2 = 16.632$

(Table -3: Calculation of Chi-Square with respect to Best Pricing for Pre-Paid)

The calculated value of chi-square is = 16.632

Degree of freedom is = $(C - 1) \times (R - 1) = (4 - 1) \times (3 - 1) = 6$

Significance Level = 0.05

Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 16.632. After comparing both the values, we can conclude that there is a significant difference

found among the service providers about best pricing for Pre-Paid offers.

Significant correlations are found in the respondents' overall view of the best-priced Pre-Payment by service providers. In other words respondents' view of offering the best prices for Pre-Paid depends on the company they were in. The majority of respondents have a good idea about how the best pre-Paid price offers may affect their provider selection.

5.1.2 Best Pricing for Post-Paid:

Service Providers	N	Price	Degree of Freedom	Chi-Square (Calculated)	Chi-Square (Tabular)
BSNL	50	399	3	85.959	7.82
Reliance JIO	50	199			
Vodafone Idea	50	399			
Bharti Airtel	50	399			
Total	200				

(Table -4: Comparison for Best Pricing for Post-Paid)

As the number of the mobile service providers considered for analysis is four, therefore degree of freedom will be 3. The table value of chi-square at 0.05 significance level and on 3 degrees of freedom is 7.82, which is less than the calculated value 85.959. After comparing both the

values, we can conclude that there is a significant difference found among the service providers about best pricing for Post-Paid offers. The Post-Paid offer in terms of pricing offered by Reliance JIO was found to be far better than other service providers.

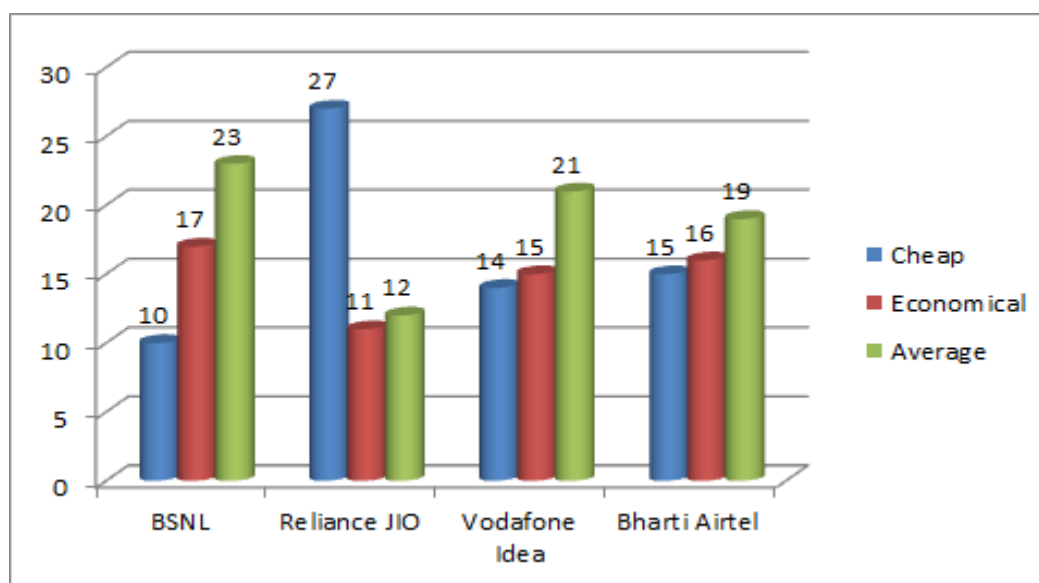
Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Cheap	Count	10	27	14	15	66
	%	20%	54%	28%	30%	33%
Economical	Count	17	11	15	16	59
	%	34%	22%	30%	32%	29.5%
Average	Count	23	12	21	19	75
	%	46%	24%	42%	38%	37.5%
Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -5: Respondents opinion regarding Best Pricing for Post-Paid)

Analysis results as indicated in the table reflects that the highest 54% of Reliance JIO followed by Bharti Airtel (30%) and Vodafone Idea (28%) and the least 20% belonged to BSNL reacted positively which means that customers do get affected by the best pricing for Post-Paid being offered.

In case of economical opinion, the highest percentage was of BSNL (34%) followed by Vodafone Idea and Bharti Airtel.

Only 37.5% percent of respondents have average opinion about the deal while the highest 46% percent belonged to BSNL in this regard.



(Figure-2: Showing Respondents opinion regarding Best Pricing for Post-Paid)

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O - E	(O - E) ²	$\frac{(O - E)^2}{E}$
1	10	16.5	-6.5	42.25	2.560606
2	27	16.5	10.5	110.25	6.681818
3	14	16.5	-2.5	6.25	0.378788
4	15	16.5	-1.5	2.25	0.136364
5	17	14.75	2.25	5.0625	0.34322
6	11	14.75	-3.75	14.0625	0.95339
7	15	14.75	0.25	0.0625	0.004237

8	16	14.75	1.25	1.5625	0.105932
9	23	18.75	4.25	18.0625	0.963333
10	12	18.75	-6.75	45.5625	2.43
11	21	18.75	2.25	5.0625	0.27
12	19	18.75	0.25	0.0625	0.003333
				Total	$\chi^2 = 14.831$

(Table -6: Calculation of Chi-Square with respect to Best Pricing for Post-Paid)

The calculated value of chi-square is = 14.831

Degree of freedom is = $(C - 1) \times (R - 1) = (4 - 1) \times (3 - 1) = 6$

Significance Level = 0.05

Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 14.831. After comparing both the values, we can conclude that there is a significant difference

found among the service providers about best pricing for Post-Paid offers.

Significant correlations are found in the respondents' overall view of Post-Paid's best pricing offers by their service providers. In other words respondents' view of offering the best prices for Post-Paid depends on the company they own. The majority of respondents have a good idea about how the best price offers for Post-Paid can affect their provider selection.

5.1.3 Best Pricing for Internet/Data:

Service Providers	N	Price	Degree of Freedom	Chi-Square (Calculated)	Chi-Square (Tabular)
BSNL	50	153	3	29.751	7.82
Reliance JIO	50	199			
Vodafone Idea	50	249			
Bharti Airtel	50	248			
Total	200				

(Table -7: Comparison for Best Pricing for Internet/Data)

As the number of the mobile service providers considered for analysis is four, therefore degree of freedom will be 3. The table value of chi-square at 0.05 significance level and on 3 degrees of freedom is 7.82, which is less than the calculated value 29.751. After comparing both the

values, we can conclude that there is a significant difference found among the service providers about best pricing for Internet/Data offers. The Internet/Data offer in terms of pricing offered by BSNL was found to be far better than other service providers.

Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Cheap	Count	29	21	10	13	73
	%	58%	42%	20%	26%	36.5%
Economical	Count	11	16	17	18	62
	%	22%	32%	34%	36%	31%
Average	Count	10	13	23	19	65
	%	20%	26%	46%	38%	32.5%

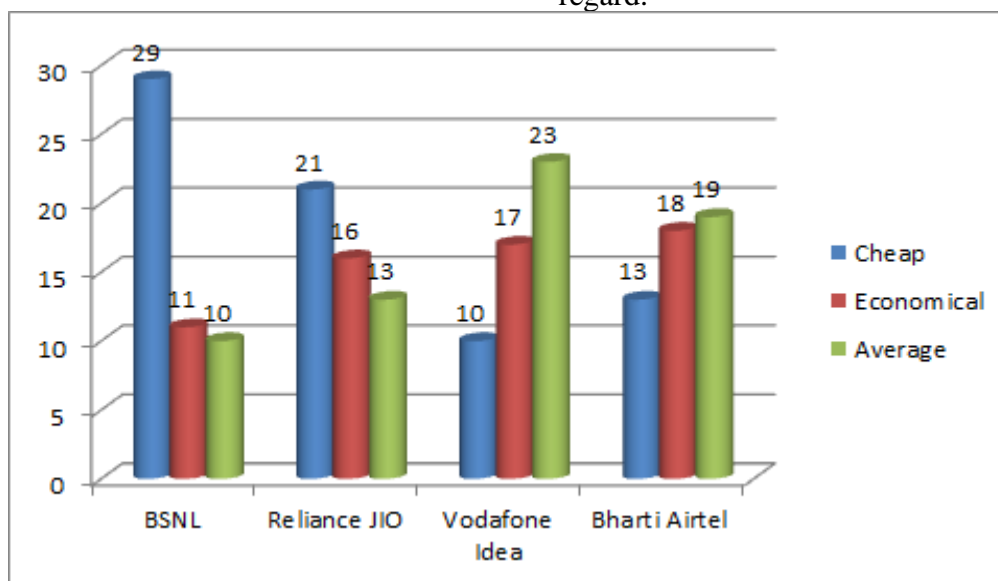
Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -8: Respondents opinion regarding Best Pricing for Internet/Data)

Analysis results as indicated in the table reflects that the highest 58% of BSNL followed by Reliance JIO (42%) and Bharti Airtel (26%) and the least 20% belonged to Vodafone Idea reacted positively which means that customers do get affected by the best pricing for Internet/Data being offered.

In case of economical opinion, the highest percentage was of Bharti Airtel (36%) followed by Vodafone Idea and Reliance JIO.

Only 32.5% percent of respondents have average opinion about the deal while the highest 46% percent belonged to Vodafone Idea in this regard.



(Figure-3: Showing Respondents opinion regarding Best Pricing for Internet/Data)

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O - E	(O - E) ²	$\frac{(O - E)^2}{E}$
1	29	18.25	10.75	115.5625	6.332192
2	21	18.25	2.75	7.5625	0.414384
3	10	18.25	-8.25	68.0625	3.729452
4	13	18.25	-5.25	27.5625	1.510274
5	11	15.5	-4.5	20.25	1.306452
6	16	15.5	0.5	0.25	0.016129
7	17	15.5	1.5	2.25	0.145161
8	18	15.5	2.5	6.25	0.403226
9	10	16.25	-6.25	39.0625	2.403846
10	13	16.25	-3.25	10.5625	0.65
11	23	16.25	6.75	45.5625	2.803846
12	19	16.25	2.75	7.5625	0.465385
			Total		$\chi^2 = 20.180$

(Table -9: Calculation of Chi-Square with respect to Best Pricing for Internet/Data)

The calculated value of chi-square is = 20.180
Degree of freedom is = $(C - 1) \times (R - 1) = (4 - 1) \times (3 - 1) = 6$

Significance Level = 0.05

Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 20.180. After comparing both the values, we can conclude that there is a significant difference found among the service providers about best pricing for Internet/Data offers.

Significant correlations are found in respondents' perceptions regarding the provision of the best Internet/Data pricing by their service providers. In other words respondents' view of offering the best prices for Internet/Data depends on the company we are in. The majority of

respondents have a good idea about how best Internet/Data pricing offers can affect their choice of service provider.

5.2 Promotion Strategies:

Hypothesis:

H02.1: There is no significant difference among the promotion strategies of 4G services adopted by different service providers.

Ha2.1: There is a significant difference among the promotion strategies of 4G services adopted by different service providers.

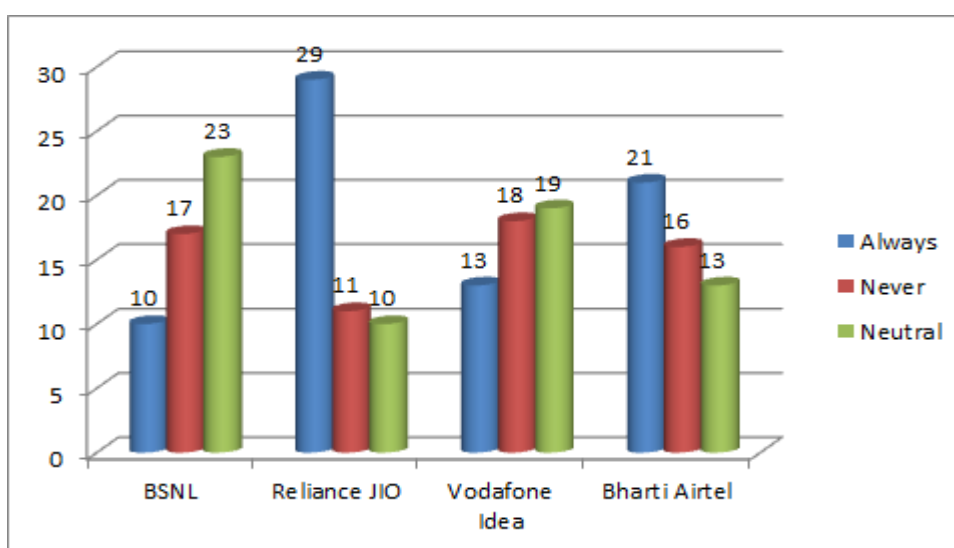
With the help of following variables, above stated hypothesis has been proved:

- (i) Advertising
- (ii) Events
- (iii) Public Relations
- (iv) Direct Marketing

5.2.1 Advertising:

Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Always	Count	10	29	13	21	73
	%	20%	58%	26%	42%	36.5%
Never	Count	17	11	18	16	62
	%	34%	22%	36%	32%	31%
Neutral	Count	23	10	19	13	65
	%	46%	20%	38%	26%	32.5%
Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -10: Respondents opinion regarding Advertising)



(Figure-4: Showing Respondents opinion regarding Advertising)

Analysis results as indicated in the table reflects that the highest 58% of Reliance JIO followed by Bharti Airtel (42%) and Vodafone Idea (26%) and the least 20% belonged to BSNL said always to the above mentioned fact.

In case of neutral opinion, again the highest percentage was of BSNL (46%) followed by Vodafone Idea and Bharti Airtel.

Only 36% of Vodafone Idea has a negative opinion about the impact of advertisement on their customer followed by BSNL and Bharti Airtel in this regard.

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O – E	(O – E) ²	$\frac{(O - E)^2}{E}$
1	10	18.25	-8.25	68.0625	3.729452
2	29	18.25	10.75	115.5625	6.332192
3	13	18.25	-5.25	27.5625	1.510274
4	21	18.25	2.75	7.5625	0.414384
5	17	15.5	1.5	2.25	0.145161
6	11	15.5	-4.5	20.25	1.306452
7	18	15.5	2.5	6.25	0.403226
8	16	15.5	0.5	0.25	0.016129
9	23	16.25	6.75	45.5625	2.803846
10	10	16.25	-6.25	39.0625	2.403846
11	19	16.25	2.75	7.5625	0.465385
12	13	16.25	-3.25	10.5625	0.65
				Total	$\chi^2 = 20.180$

(Table -11: Calculation of Chi-Square with respect to Advertising)

The calculated value of chi-square is = 20.180

Degree of freedom is = (C – 1) × (R – 1) =
(4 – 1) × (3 – 1) = 6

Significance Level = 0.05

Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 20.180. After comparing both the values, we can conclude that there is a significant difference

found among the service providers about advertising.

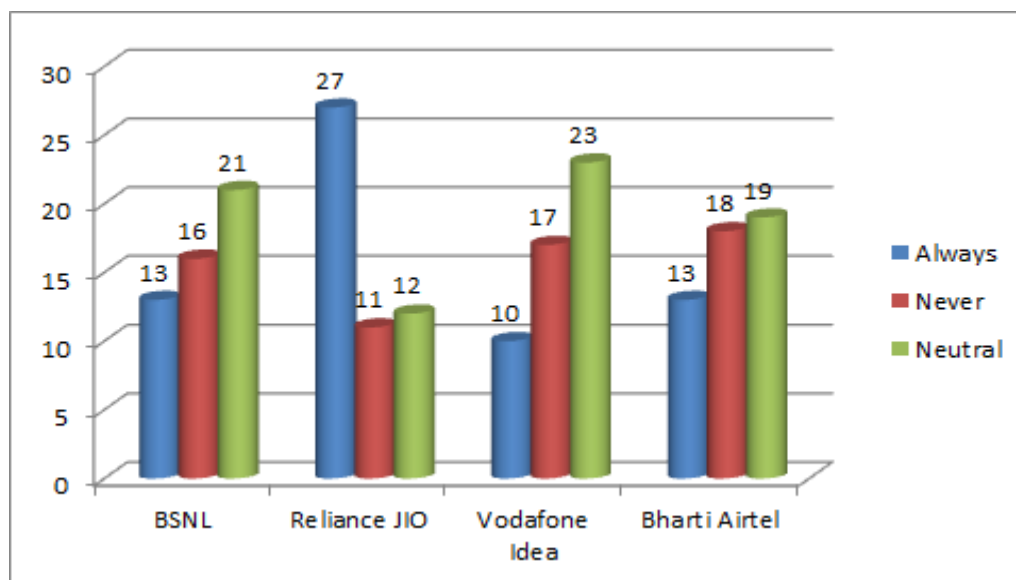
Significant correlations are found in respondents' perceptions of the impact of advertising and service providers, in other words respondents' perceptions of the impact of advertising depend on their own company. The majority of respondents have a positive opinion about the impact of the advertising offered by service providers on their customers.

5.2.2 Events:

Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Always	Count	13	27	10	13	63
	%	26%	54%	20%	26%	31.5%
Never	Count	16	11	17	18	62
	%	32%	22%	34%	36%	31%
Neutral	Count	21	12	23	19	75
	%	42%	24%	46%	38%	37.5%

Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -12: Respondents opinion regarding Events)



(Figure-5: Showing Respondents opinion regarding Events)

Analysis results as indicated in the table reflects that the highest 54% of Reliance JIO followed by BSNL (26%) and Bharti Airtel (26%) and the least 20% percent belonged to Vodafone Idea reacted positively which means that publicity events do affect their respondents positively.

In case of neutral opinion, the highest percentage of Vodafone Idea (46%) followed by BSNL and Bharti Airtel.

Only 31% percent of respondents have a negative opinion in this regard, while the highest 36% belong to Bharti Airtel followed by other service providers.

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O – E	(O – E) ²	$\frac{(O - E)^2}{E}$
1	13	15.75	-2.75	7.5625	0.480159
2	27	15.75	11.25	126.5625	8.035714
3	10	15.75	-5.75	33.0625	2.099206
4	13	15.75	-2.75	7.5625	0.480159
5	16	15.5	0.5	0.25	0.016129
6	11	15.5	-4.5	20.25	1.306452
7	17	15.5	1.5	2.25	0.145161
8	18	15.5	2.5	6.25	0.403226
9	21	18.75	2.25	5.0625	0.27
10	12	18.75	-6.75	45.5625	2.43
11	23	18.75	4.25	18.0625	0.963333
12	19	18.75	0.25	0.0625	0.003333
			Total		$\chi^2 = 16.632$

(Table -13: Calculation of Chi-Square with respect to Events)

The calculated value of chi-square is = 16.632
Degree of freedom is = $(C - 1) \times (R - 1) = (4 - 1) \times (3 - 1) = 6$
Significance Level = 0.05
Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 16.632. After comparing both the values, we can conclude that there is a significant difference

found among the service providers about publicity events.

Significant relationships are found in respondents' general perceptions of the usefulness of public events by service providers. In other words respondents' perceptions of the usefulness of public events depend on the company they attended. The majority of respondents have a positive view of the usefulness of public events conducted by their service providers.

5.2.3 Public Relations:

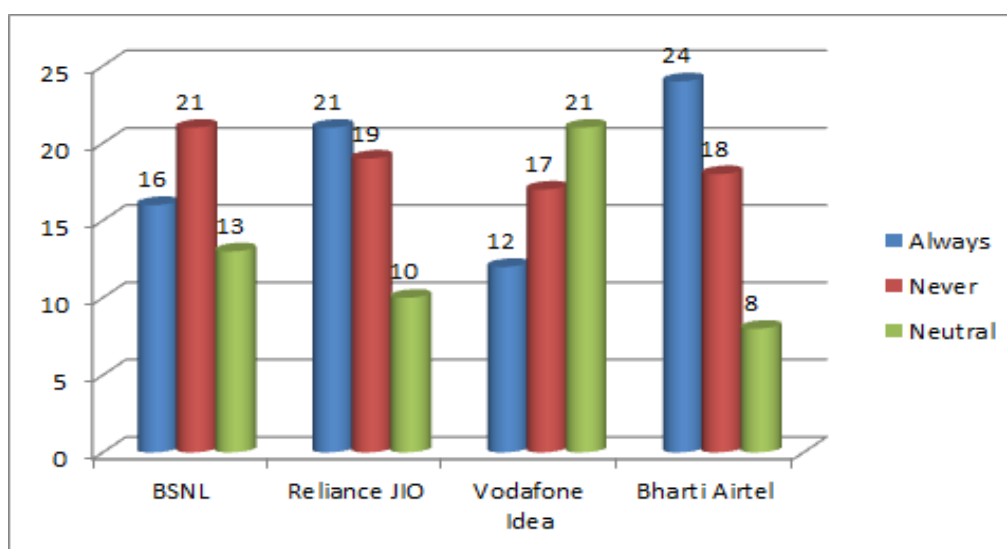
Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Always	Count	16	21	12	24	73
	%	32%	42%	24%	48%	36.5%
Never	Count	21	19	17	18	75
	%	42%	38%	34%	36%	37.5%
Neutral	Count	13	10	21	8	52
	%	26%	20%	42%	16%	26%
Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -14: Respondents opinion regarding Public Relations)

Analysis results as indicated in the table reflects that the highest 48% of Bharti Airtel followed by Reliance JIO (42%) and BSNL (32%) and the least 24% belong to Vodafone Idea says always to in the above matter.

In case of neutral opinion, the highest percentage of Vodafone Idea (42%) followed by BSNL and Reliance JIO.

Around 37.5% do not have a positive opinion about the Public Relations. Highest among them were BSNL users (42%) followed by others.



(Figure-6: Showing Respondents opinion regarding Public Relations)

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O - E	(O - E) ²	$\frac{(O - E)^2}{E}$
1	16	18.25	-2.25	5.0625	0.277397
2	21	18.25	2.75	7.5625	0.414384
3	12	18.25	-6.25	39.0625	2.140411
4	24	18.25	5.75	33.0625	1.811644
5	21	18.75	2.25	5.0625	0.27
6	19	18.75	0.25	0.0625	0.003333
7	17	18.75	-1.75	3.0625	0.163333
8	18	18.75	-0.75	0.5625	0.03
9	13	13	0	0	0
10	10	13	-3	9	0.692308
11	21	13	8	64	4.923077
12	8	13	-5	25	1.923077
				Total	$\chi^2 = 12.648$

(Table -15: Calculation of Chi-Square with respect to Public Relations)

The calculated value of chi-square is = 12.648

Degree of freedom is = $(C - 1) \times (R - 1) =$

$(4 - 1) \times (3 - 1) = 6$

Significance Level = 0.05

Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 12.648. After comparing both the values, we can conclude that there is a significant difference

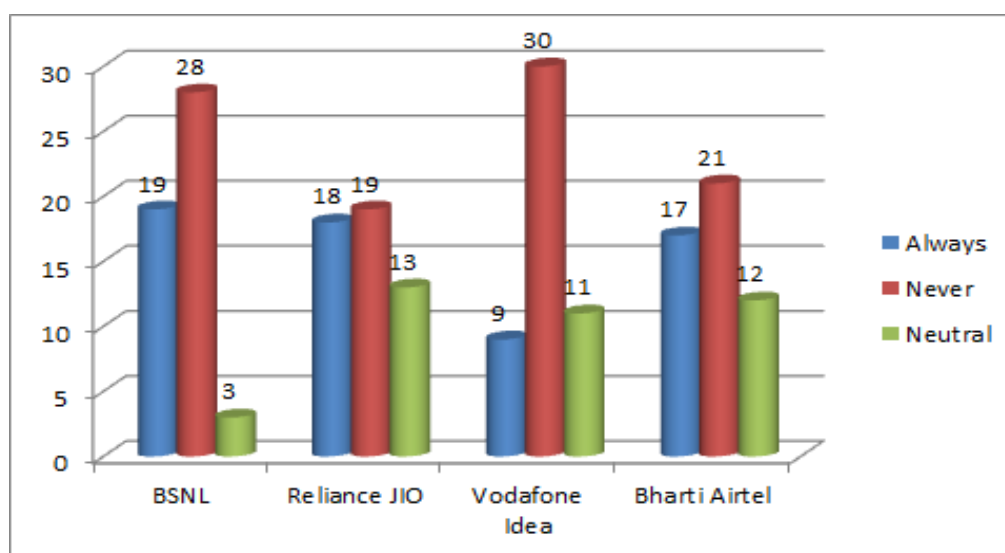
found among the service providers about Public Relations.

Significant relationships are found in respondents' perceptions of the usefulness of Public Relations by their service providers. In other words respondents' view of public relations depends on the company to which they were affiliated. The majority of respondents have a positive view of the use of Public Relations conducted by their service providers.

5.2.4 Direct Marketing:

Respondents opinion		Service Providers				Total
		BSNL	Reliance JIO	Vodafone Idea	Bharti Airtel	
Always	Count	19	18	9	17	63
	%	38%	36%	18%	34%	31.5%
Never	Count	28	19	30	21	98
	%	56%	38%	60%	42%	49%
Neutral	Count	3	13	11	12	39
	%	6%	26%	22%	24%	19.5%
Total	Count	50	50	50	50	200
	%	100%	100%	100%	100%	100%

(Table -16: Respondents opinion regarding Direct Marketing)



(Figure-7: Showing Respondents opinion regarding Direct Marketing)

Analysis results as indicated in the table reflects that the highest 38% of BSNL followed by Reliance JIO (36%) and Bharti Airtel (34%) and the least 18% percent belonged to Vodafone Idea reacted positively which means that Direct Marketing do affect their respondents positively.

In case of neutral opinion, the highest percentage of Reliance JIO (26%) followed by Bharti Airtel and Vodafone Idea.

Around 49% do not have a positive opinion about the Direct Marketing and their service providers. Among them the highest were Vodafone Idea users (60%) followed by others.

Calculation of Chi-Square:

SN	Observed Frequency (O)	Expected Frequency (E)	O – E	(O – E) ²	$\frac{(O - E)^2}{E}$
1	19	15.75	3.25	10.5625	0.670635
2	18	15.75	2.25	5.0625	0.321429
3	9	15.75	-6.75	45.5625	2.892857
4	17	15.75	1.25	1.5625	0.099206
5	28	24.5	3.5	12.25	0.5
6	19	24.5	-5.5	30.25	1.234694

7	30	24.5	5.5	30.25	1.234694
8	21	24.5	-3.5	12.25	0.5
9	3	9.75	-6.75	45.5625	4.673077
10	13	9.75	3.25	10.5625	1.083333
11	11	9.75	1.25	1.5625	0.160256
12	12	9.75	2.25	5.0625	0.519231
				Total	$\chi^2 = 13.889$

(Table -17: Calculation of Chi-Square with respect to Direct Marketing)

The calculated value of chi-square is = 13.889

Degree of freedom is = $(C - 1) \times (R - 1) = (4 - 1) \times (3 - 1) = 6$

Significance Level = 0.05

Table value of Chi-Square = 12.592

Here, the table value of chi-square at 0.05 significance level at 6 degrees of freedom is 12.592, which is less than the calculated value 13.889. After comparing both the values, we can conclude that there is a significant difference found among the service providers about Direct Marketing.

Significant relationships are found in respondents' perceptions regarding direct marketing by service providers. In other words respondents' opinion about direct marketing depends on the company that belonged to them. The majority of respondents have a positive view of the usefulness of Direct Marketing driven by its service providers.

6. CONCLUSION:

1. The null hypothesis H01.1 that there is no significant difference among the pricing strategies of 4G services accepted by different service providers is rejected as the analyses of above stated variables relating to pricing strategies of telecom service providers exposed that subscribers of different companies has significant difference in their opinions.

Some of the respondents opined positively about that the pricing strategies being accepted by their service provider, others were having negative opinion. Therefore, due to having significant differences in opinion with regard to pricing strategies

being accepted by their service providers, the alternate hypothesis Ha1.1 is accepted.

2. The null hypothesis H02.1 that there is no significant difference among the promotion strategies of 4G services accepted by different service providers is rejected as the analyses of above stated variables relating to promotion strategies of telecom service providers exposed that subscribers of different companies had significant difference in their opinions. Some of the respondents opined positively about that the promotion strategies being accepted by their service provider, others were having negative opinion. Therefore, due to having significant differences in opinion with regard to promotion strategies being accepted by their service providers, the alternate hypothesis Ha2.1 is accepted.

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