SWAY OF CORRELATION BETWEEN COMPETITIVE ANALYSIS AND CUSTOMER SATISFACTION – A CASE STUDY OF VIZIANAGARAM TELECOM DISTRICT

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Abstract: Major players of telecom industry & year of establishment: The state owned Public sector unit Bharat Sanchar Nigam Limited (BSNL) recognized on 1-10-2000. Telecom Competitors Bharathi Airtel-1985, Reliance communication -1999,Vodafone - 2007, Idea cellular -1995, TATA communications-1986, Aircel-1999, Tata tele-services -1996, MTNL-1986, Reliance Jio commercially launched on 05-9-2016 and giving severe competition to all operators. Bharath Sanchar Nigam Limited is the oldest player in the telecom sector in India and they hold the pride of being the first to connect even remote villages through its telephone services. Vodafone Essar began its operations in the year 1994 and the company has operations all over India with more than 106.34million customers. Bharti Airtel is holding the direct position in India. The company Aircel has earned the status of the leading mobile operator in the state of Tami Nadu in India. The company has emerged as leader in the north Eastern states of India within a short period of its initiation. Reliance is one of the largest private sector companies in the information and telecommunication sector in India. Idea Cellular is a part of Aditya Birla Group and they are the leading GSM mobile service provider in India. They are offering both pre-paid and post paid mobile services. Tata Communications sway its domain expertise and advanced solutions across India as per the TRAI reports as on 31-12-2016.

Keywords: Major players, competition, pride, remote villages, Sway, GSM mobile, expertise, advanced solutions.

I. INTRODUCTION

Competitive analysis is absolutely necessary and important because rise of stiff competition in almost all sectors starting from electronics, automobiles, Telecommunication to FMCG s in the current day oligopoly situation. Some critical and continuous steps are to be followed by the company to outperform the competitor in some of the attributes to survive in the market and increase margin of sales. "Competitive analysis" is the means, to know the competitor and formulate strategy. The following are the main steps to be carried out by the organization to have effective competitive strategy over the competitors. (1)Identifying the actual competitor (2) Finding the own market share and that of the competitor.(3)Performing SWOT analysis to find the strengths & weaknesses of own with respect to competitor.(4) Planning strategies to outperform the competitor may be in terms of price, promotion and service pledge or customer penetration.(5)Defining the correct strategy to match that of the competitor by deciding contingency plan with respect to each of the competitors.(6)Implementing the planned strategy meticulously.(7) Following up each strategic plan by proper feed backs from the market.

Customer is the most important person in any business. He is not depending on the firm/provider but the firm/provider is depending on him to sustain business and have ultimate economic benefits. Various socio-economic factors are influencing his purchasing power and spending. Generally the mobile operators have been introducing the different schemes/plans keeping in view of the capacity of the consumer and his way of spending. Customer satisfaction level for BSNL products in Vizianagaram district is more due to featured reliability, credibility, attractiveness, responsiveness and empathy. Andhra Pradesh state consists of 11,694 towers whereas 243 towers are located in Vizianagaram district, due to which the service got improved with a low pricing structure of the state owned company. The state owned BSNL are sharing BTSs with other operators and other operators are sharing with BSNL to improve their cell coverage and services in Urban and some rural areas. The BTSs are provided by the all major Telecom companies in Nationwide, State wide and District wide. If observed in Nationwide and State wide Airtel leads the list whereas state owned BSNL leads the list in Vizianagaram District.⁽¹⁾

Review of Literature:

According to Oliver Stehmann the telecommunications industry is characterized by speedy modernization in the service and the transmission marketplace. The legally protected public or private monopolist does not have the same inspiration to foster innovation that would survive in a competitive situation.

Melody.W.H. points out a range of concerns for the telecom sector casing opposition as an important one. Competition is considered a more important factor than ownership in introducing efficiency.

N.M. Shanthi throws light on the factors that contributed to the enlargement of telecom sectors. The studies of a variety of create get by government in lieu of liberalization, privatization and de-monopolization initiatives. The trend is expected to continue in the segment as prices are falling as a result of competition in the segments. The beneficiaries of the competition are the consumers who are given a wide variety of services.

Pratibha A. Dabholkar reiterated that customer satisfaction and service excellence are both important tools for creating spirited advantage. However, there is a lack of consensus on whether the two are separate constructs and how they should be measured. The research presented a number of conceptualizations of customer satisfaction and service quality based on disconfirmation, a transactional versus global view and the inclusion of cognitive and/or affective factors.

Girish Taneja & Neeraj Kaushik conducted a study on "Customers perception towards Mobile service providers: An analytical study" aims to deduce the factors that customers make out to be the most important while utilizing the services of a mobile service provider. Shirshendu Ganguli conducted a study on "Drivers of Customer Satisfaction in Indian Cellular services Market "in which he

discussed the impact of service excellence and features on customer satisfaction from the cellular users' viewpoint.

I. Competitive analysis:

a. Competitive Advantage:

In this dimension the respondents are asked about whether BSNL maintains service excellence to all products, strategies, reasonable pricing, promotional activities, billing, customers loyalty and service, concentration on family segment and other benefits. Nearly 82% of the respondents are in affirmative opinion that connectivity is the main aspect of competitive advantage of BSNL products over the other networks. Overall more than 60% of the respondent's perception is that the above aspects of the BSNL provide competitive advantage of its products over the other networks.

b. Pricing:

Under this parameter it consists of customers feeling about BSNL pricing, its accessibility and comparison with other company prices. It also covers pricing strategy, pricing according to demand, acceptability by segment of customers, unlimited services at reasonable price, prepaid & postpaid services and internet services.

The pricing is based on expenditures incurred, competitors pricing and demand fluctuations. Majority (70%) of the respondents is agreeing with the statement and the P-value shows 0.288. More than $3/4^{th}$ of the respondents have positive opinion about the given statements nearly 10-17% of respondents have not shared their views and less than 10% of respondents disagree with the decided statements.

c. Promotional programs:

It consists of availability of information to customers, promotional activities and programs, maintaining public relations, requirement of promotional activities for prepaid products and internet services, promotion through advertizing and sales promotion, sufficient level of promotional activities to face competition, best positioning etc. For the dimension "Promotional Programs", the correlation coefficient value(-0.011) is negative which reveals that lower age group respondents have given little bit more positive opinion than the upper age group but as per the p-value0.806 it is not significant and exhibits that Promotional programs are highly essential to reach the public. It should be organized in such a way that, it not only attracts the customers but it also provides complete information to customer.

d. Connectivity:

Here the researcher considered several factors like Connectivity in rural areas, connectivity according to package, free without any disturbance, duration of solving problem at minimum level etc., BSNL is better in rural areas, 66% of the respondents are agreeing that connectivity varies according to the package used by the customers. P-value0.444 greater than 0.05 indicates most of the customers are satisfied with customer care service and duration of solving the problem of connectivity by BSNL.

The average value of the dimension of Connectivity is found to be less implying the less positive opinion of the respondents towards the connectivity, so it is better that the towers should be placed in adequate areas to provide good connectivity to all customers.⁽²⁾

The average opinion score of the prepaid customers for the dimension "Connectivity" is greater than post-paid customers but the difference is not statistically significant where as for the remaining dimensions, the response given by the post-paid customers is little bit more positive.

e. Others:

- About Mobile service providers Reliance Jio is leading all other operators with 17115 towers and Reliance is least in the list with 2219 in Andhra Pradesh and in Vizianagaram District. Some of the Private operators are not following the radiation norms. Basically radiation is two types' ionized radiation and non-ionized radiation. Non-ionized radiation is not dangerous. In order to gratify the needs of this increasing demographic, cellular providers are erecting more towers. Without more towers we would not be able to present polite reception and uninterrupted services.
- The state owned BSNL are sharing BTSs with other operators and other operators are sharing with BSNL to improve their cell coverage and services in Urban and some rural areas. The BTSs are provided by the all major Telecom companies in Nationwide, State wide and District wide. If observed in Nationwide and State wide Airtel leads the list whereas state owned BSNL leads the list in Vizianagaram District.
- As regards to the telecom operator wise & year wise marketing expenditure, BSNL Vizianagaram district spends more than Airtel. The amount is spent mostly on staff rather than ads and promos. In 2016 Reliance Jio has incurred very high expenditure compared to all other operators.
- It is observed that all operators have shown year on year increase in revenues where as State owned BSNL has recorded increase from 2010-11 to 2012-13 but started declining from 2013-14 to 2015-16.
- It is found that BSNL has very wide reach to customers with maximum Customer Service Centers, Distributors and Retail outlets (1753), staff when compared to any other telecom operators in Vizianagaram District.
- All telecom operators in Vizianagaram district having more opportunity to improve their services as found from Tele-density status as on 31-12-2016. The Tele-density of India is 85-33, as compared to that of Andhra Pradesh state 82.37 and 32.57 in Vizianagaram District.
- Regarding revenue /sales &prepaid post paid connections details of Telecom Providers in Vizianagaram District shows BSNL leads the market in sales but it is next to Airtel in sales revenue. Though Airtel leads in sales revenue it is next to BSNL in sales. This might be due to pricing strategy of BSNL.
- From the introduction of Mobile number portability BSNL has better PO/PI ratio in 2010-11, 2011-12. But later on the PO/PI ratio has increased during the years 2012-2016. Again after implementation of good schemes and continuous network augmentation the PO/PI ratio has decreased during 2016-2017.

f. Comparison of BSNL Andhra Pradesh and Vizianagaram postpaid prepaid connections year wise:

The prepaid and postpaid connections of BSNL in Andhra Pradesh have shown a rising trend only in Vizianagaram Dist. Prepaid connections have increased from 2011-12 to till 2013-14 and thereafter declined from 2014-15 to 2016-17. From December -2013 to December – 2016 for four years, Bharti Airtel leads in no of connections and State owned BSNL is in third position. But the latest entrant Reliance Jio turned the tables and stood first in mobile data usage in 2016. This enormous data usage recorded by Reliance Jio may be due to free data offering. But the above table depicts that the usage of mobile data has increased year by year for every operator.

g. Competitive Analysis by Network in Vizianagaram district:

There is similar passion on all aspects related to "Competitive Analysis". The dimension. "Promotional Programs", the correlation coefficient value(-0.011) is negative which reveals that lower age group respondents have given little bit more positive opinion than the upper age group but as per the p-value it is not significant.

All the correlation coefficient values are very close to Zero which exemplifies all the age group people are opined almost similar to each on these aspects. Whereas for the dimension "Pricing", the other network customers have given more significant positive opinion than BSNL-⁽³⁾

- 1. Age of the respondents has no significant impact on dimensions related to the factor competitive analysis.
- 2. There is no significant relation between numbers of years of association with current network and all the dimensions related to the factor competitive analysis.
- 3. Male respondents have given diminutive positive opinion than female respondents but the difference in not significant. Thus Gender has no impact on the response on Competitive Analysis.
- 4. Except for the dimension connectivity, for the remaining all the dimensions the respondents who were using Post-Paid SIMs have given little bit more positive opinion than the Pre-Paid customers but the difference in their mean opinion scores are not statistically significant. Thus, Type of connectivity has no impact on the entire dimension related to the Competitive Analysis.
- 5. The respondents who completed their graduation Education have given significantly more optimistic opinion than the remaining two categories followed by under graduate and Post-Graduation in all the dimensions related to the Competitive Analysis. Thus Educational qualification has an impact on Competitive Analysis.
- 6. The average opinion score of other network respondents is greater than BSNL in all the aspects like competitive advantage, promotional programs and connectivity. Whereas the difference is significant in case of pricing dimension.

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II. Customer satisfaction:

Customer satisfaction level for BSNL products in Vizianagaram district is more due to featured reliability, credibility, attractiveness, responsiveness and empathy. Andhra Pradesh state consists of 11,694 towers whereas 243 towers are located in Vizianagaram district, due to which the service got improved with a low pricing structure of the state owned company.⁽⁴⁾

a.Nature of products:

This dimension discussed about easy accessibility, products that are designed according to the expectations and needs associated with well versed tangibles, takes customers perceptions and understanding into consideration, support services, type of schemes, prepaid & post-paid products.70-75% of the total respondents have positive opinion regarding the nature of the products provided by BSNL which indicates most of the customers are satisfied with the products provided by BSNL. To cover remaining people BSNL should reach different corners and provide awareness of various services.

b. Availability of Product:

Here it covers various factors like availability of BSNL products to all segments, channels for customers in getting products, availability of different variety of products. Whether it is a government firm or a private firm the main factor that attracts the customers is availability of network. 80% of respondents have positive opinion that connectivity of BSNL service is good because of the presence of towers in large number and good infrastructure.

Mean value of this factor indicates 3.8682 and SD .53229 indicates presence of BSNL staff in the every rural exchange which are situated in every nook and corner of the Vizianagaram district to let the customers avail of variety of BSNL products.

c. Prepaid mobile services:

This parameter discussed wide range of prepaid services offered by BSNL, preference by customers, coupons provided by BSNL, SMS offers, Talk time offered with different coupons. Prepaid connections have increased from 2011-12 to till 2013-14 and have been declined from 2014-15 to 2016-17. But postpaid connections are in rising trend only in Vizianagaram District. More number of respondents have positive opinion regarding the wide range offers, pricing, recharge coupons provided, SMS offers, talk time offered, connectivity, of the BSNL hence it will be helpful for the BSNL to maintain the customers.

d. Prepaid internet services:

This factor contains the elements like BSNL's prepaid internet services are satisfactory or not, service pricing is satisfactory or not etc...

BSNL got third position in mobile data usage up to 2016. But Reliance Jio changed total scenario due to free data offering. SD shows .50443 and Mean value 3.9046 which exhibits Customer satisfaction with service provided stands as a plus point for BSNL to compete against other private services. BSNL broadband provide prepaid internet services, prepaid internet services is comparatively good when compared to other private service providers.

e. Postpaid services for Mobiles:

Even though there are three postpaid plans for all telecom operators viz., 149 plan, 225 plans and 325 plans. Out of 1.000 Initial .631 indicates extraction value in communalities. But on an average 1/5th of the respondents have no opinion statement which indicates either it might be using prepaid services instead of postpaid services so they are unaware or else they are not having any knowledge about the services provided by BSNL.

f. Mobile Number Portability:

This dimension discusses portability process is simple, awareness on portability process, extend proper assistance, reason for portability, motivated away from portability depending upon the reason, possible strength to customer rather a threat to companies, company should well be aware of its existence in the market.

Port out /Port In ratio has increased during the years 2012-2016. Later it decreased during 2016-17 by the implementation of good schemes and un-interrupted network. Here r-value indicates -0.064 and p-value 0.159 which indicates service provided by different networks as well as the offers available help the customers to select and change the network through portability whereas for the telecom business it may be a risk because it may drop the customers.

Average scores and the standard deviation of each and every factor of Competitive Analysis among BSNL & other Telecom Service providers for MNP are 3.95 which are greater than other dimensions.

g. Reasons for mobile number portability:

It consists of various factors like motivation through promotional activities, dissatisfaction with post purchase services, more number of packages, motivation with word-of-mouth communication, specific service provided, proper internal marketing, customer care services, less connectivity & talk time, absence of pre-purchase counseling and frequent call drops.

h. Others:

a. Customer Satisfaction correlation analysis with age factor:

Except for the dimension "Reasons for mobile number portability", the p-values of all the dimensions are greater than 0.05, the level of significance i.e., age has no impact on these dimensions. Thus, whatever may be the age of the respondents they have opined in a similar passion on all these aspects related to factor "Customer Satisfaction".⁽⁵⁾

b. Customer Satisfaction correlation analysis with Gender:

Except for the two dimensions "Prepaid mobile services" and "Postpaid services for mobiles", the male respondent response is higher than the female respondents whereas for these two dimension female respondents are little more positive response than male respondents but the difference is not statistically significant at 5% level.

Further, for the dimensions, "Availability of Product", "Prepaid internet services", "Mobile portability" and "Reasons for mobile number portability", the male respondents' reaction is drastically higher than the female respondents i.e., for these dimensions male respondents have given significantly more positive response when compared with female respondents.

c. Customer Satisfaction correlation analysis with type of connection with Type of product:

Mean opinion score of the postpaid customers is positive than the prepaid customers for all the dimensions related to the factor "Customer Satisfaction". Further, for the three dimensions i.e., "Prepaid internet services", "Postpaid services for mobiles" and "Mobile portability", the p-value of the student t-test is less than 0.05, the level of significance which designates that for these three dimensions the mean score of postpaid customers is significantly higher than prepaid customers at 5% level of significance. Further, the mean scores for all the dimensions are approximately nearer to "4" i.e., agreeing level.

d. Customer Satisfaction correlation analysis with Education:

The respondents who are having the graduation as their qualification have given significant positive opinion than under graduate and post-graduation respondents. The p-value exemplifies that the difference in the opinion among the three categories are statistically significant.

e. Customer Satisfaction correlation analysis with Type of Network:

The mean score of Other network (3.912) is significantly greater than BSNL(3.836) at 5% level of signifiance. Since the p-value is less than 0.05 i.e., for the factor customer satisfaction analysis the other network customers have given more optimistic opinion than the BSNL customers. The free data given by Jio is only 1GB/ day and the data tariff is Rs. 303 /- for 28 days at 1 GB/ day. But in BSNL, it is Rs. 249 /- per month for unlimited broadband data. The customer can enjoy the BSNL landline at just Rs. 49 /- per month through which the calls are unlimited free to any network during Sundays and in night calling from 9 pm to 7 am and the following reasons illuminated to the Customer satisfaction.⁽⁶⁾

- 1. Higher age groups have given negative response on the dimension "Reasons for mobile number portability", whereas lower age group has given positive response on the same dimension. Thus age has impact on this particular dimension whereas for the remaining dimensions age has no significant impact on opinions on all the dimensions related to the factor Customer Satisfaction.
- 2. With regard to the variable "number of years of association", it can be concluded that more number of years of association of the respondents have given little bit negative opinion whereas as less number of years of association opined little bit positive opinion on all the aspects related to the customer satisfaction. Further, the result is significant only for the dimensions "Prepaid internet services" and "Reasons for mobile number portability".
- 3. With regard to the variable gender, the dimensions such as "Availability of Product", "Prepaid internet services", "Mobile portability" and "Reasons for mobile number portability", male respondents have given significantly more positive response when compared with female respondents. Whereas, for the remaining dimension gender has no impact.

	Network	n	Mean	SD	T-Value	P-Value	Decision
	BSNL	240	3.845	0.456			NS
Nature of products	Other	240	3.86	0.524	-0.33	0.741	
	BSNL	240	3.849	0.480			NS
Availability of Product	Other	240	3.887	0.580	-0.80	0.426	
Prepaid mobile services	BSNL	240	3.84	0.546	-0.98	0.327	NS

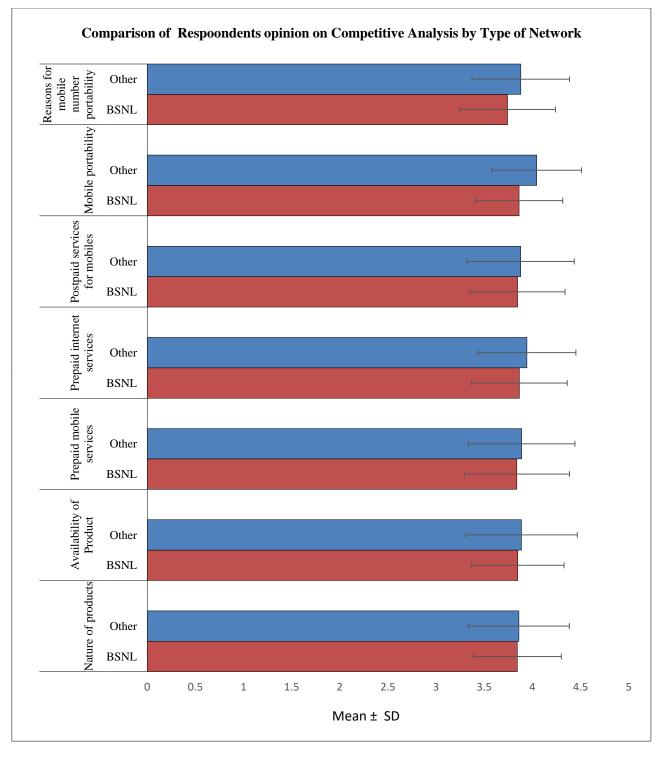
Table 1 showing comparison of Respondents opinion on Competitive Analysis by Type of Network of BSNL & other private operators in Vizianagaram district

	Other	240	3.889	0.553			
	BSNL	240	3.865	0.498			NS
Prepaid internet services	Other	240	3.944	0.508	-1.73	0.084	
	BSNL	240	3.847	0.493			NS
Postpaid services for mobiles	Other	240	3.879	0.556	-0.66	0.512	
	BSNL	240	3.863	0.453			S
Mobile portability	Other	240	4.045	0.465	-4.34	0.000	
Reasons for mobile number	BSNL	240	3.743	0.496			S
portability	Other	240	3.880	0.506	-3.00	0.003	

Explain table no.1 Except for the dimensions, "Mobile Number Portability" and "Reasons for mobile number portability", The mean scores of BSNL network as well as other networks for all the dimensions are similar to each other i.e., there is no significant difference in opinions between BSNL and Other networks at 5% level of significance. Whereas for these two dimensions, the other network customers have given more significant positive opinion than BSNL at 5% level of significance as the p-value of these two dimensions is less than 0.05, the level of significance.

Graph 1 showing comparison of Resp<mark>ondents opinion on Competitive Analysis by Type of Network of BSNL & other private telecom service providers in Vizianagaram district</mark>





The graphical representation is shown above as a multiple error bar diagram.

Conclusion:

BSNL is facing severe competition from private operators. The schemes offered from the private operators are very similar and innovative in serving the customers. It is significant to identify the change in view of the customers of private operators in comparison to the BSNL customers. Hence the present study aims at identifying the reasons for customer satisfaction in both public and private sectors along with some of the factors which makes the BSNL to compete with the private operators in the market especially in Vizianagaram District.

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