IMPORTANCE- PERFORMANCE ANALYSIS OF TELECOMMUNICATION INDUSTRY

Diksha Naik Gaonkar

Master of Commerce Student, Department of Commerce, Goa University, Taleigao Plateau,
Goa – 403206, India. Email: diks16naikgaonkar@gmail.com

Subhash Kizhakanveatil Bhaskaran Pillai

Dean, Faculty of Commerce and Management Studies, Professor, Department of Commerce, Goa
University, Taleigao Plateau, Goa – 403206, India. Email: subhash@unigoa.ac.in

Jick Castanha

Master of Commerce Student, Department of Commerce, Goa University, Taleigao Plateau,
Goa – 403206, India. Email: jickcas@gmail.com

Ling-Chen Chang

Associate Professor, Department of Tourism and Leisure, College of Tourism & Hospitality, Hsing Wu
University, No. 101, Sec.1, Fenliao Rd., LinKou District, New Taipei City 24452, Taiwan R.O.C.
Email: 107014@mail.hwu.edu.tw

Ruey Feng Chen

Assistant Professor, Travel Management Department, College of Tourism & Hospitality, Hsing Wu
University, No. 101, Sec.1, Fenliao Rd., LinKou District, New Taipei City 24452,
Taiwan R.O.C. Email: chenrayfong@gmail.com

ABSTRACT

Customer satisfaction helps to retain the customer which leads to success of the business. In this paper, attempt was made to measure the satisfaction level of the customers using services provided by the mobile network providers. Study was carried out by conducting survey among 200 respondents with a usable questionnaire of 193 having a response rate of 96.5%. Respondents demographic profile was analyzed to see whether there is any significant difference exists between the place of residence using Chi-square test. Exploratory Factor Analysis (EFA) was carried out to identify various factors influencing while purchasing SIM card. Using 23 statements based on SERVQAL model was also administered to find out the satisfaction level among the respondents with the help of Importance-Performance Analysis (IPA). Result revealed that only income among the demographic variables is significance for both locations. Seven factors were identified which influence the buying behaviour viz., Payment, Customer care, Price related factor, Additional services, Technical factor, Promotional and Other factors. Finally, customers are not happy with the services provided by the mobile network operators as 16 statements have negative gap and also 11 statements are significant. Thus, study reveals very low service quality of the telecommunication industry in Goa and needs serious efforts before the existing service provider's customer base shift to another high level quality service provider.

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1. INTRODUCTION

The Indian market of mobile network providers is growing rapidly due to low traffic, various availability of new scheme, falling handset price, etc. India is the second largest market of mobile network providers in the world and there is intense competitionamong existing players. In such a competitive market, customer satisfaction becomes a keyissue. Telecommunication services are classified into two broad categories i.e. fixed line and mobile communicationservices. A mobile service provider is a company that offers transmission services to users of wireless device (Smartphone's and tablet PCs) through radio frequency (RF) signals rather than through end-to-end wire communication.

Cell phones have become indispensable for people and moved beyond their fundamental role of communication. They have become a major source for gaming, getting information, shopping, banking and much more. India is the biggest market for telecom service provider. Hence competition is huge for acquiring market. Because of the competition, large numbers of options are available for customer for selecting or choosing the service provider. Also frequency of changing the service provider has also increased. Since the Indian mobile phone operator market is overcrowded, customers have many choices of mobile phone operator.

Thus, in this paper an attempt is made to study the consumer behaviour, viz., the customers of mobile service users in the state of Goa and the services provided by various mobile service providers. The main focus of the paper is to (1) identify whether there is any significant difference exists among the consumers and their place of residence with the help of Chi-Square Test, (2) explore and identify various factors which influences the buying behaviour at the time of choosing the mobile service providers using EFA, and finally (3) to measure the satisfaction level of the consumers based on SERVQUAL Model there by identifying the gap existing in the services provided using IPA Matrix, hence making this study unique. Therefore, present study fills the gap by addingvaluable knowledge to the existing literature, new perspectives, and presentspossibilities for consideration. The paper offersvaluable inputs for different stakeholders of telecommunication industry; various mobile service providers, the academic institutions,academicians, government, andalso NGO's in the region under study.

2. LITERATURE REVIEW

2.1 Background

The present study reviewed the existing literature available on customer satisfaction in telecommunication industry. Keyword used to find the research paper include telecom services,telecommunication, mobile network,mobile services in India, etc. various source was used for collecting these papers from Emerald full text, Science direct, JSTOR, SSRN and Google scholars. Present study collected and analyzed 50 research papers published during the period of 1995-2016. Literature review provided basic answer for three fundamental questions, i.e., research gap with respect to the study carried out in telecommunication study; source and methods of collecting data used in those studies; and finally various toolsand techniques used for analyzing the data. The results of literature review show that, 63% of research work has been carried out during the year of 2010- 2015, majority (36%) of the paper have been published by one and two authors. Though 48% research work is carried out in India, no research paper has been carried out in the state of Goa.Majority of the research work were empirical in nature (53%), using primary data (51%)collected through offline questionnaire (58%) with a sample size of 50-200 (43%). Based on this information, present study was conducted using

structured offline questionnaire administered to 200 respondents across the state of Goa based on convenience sampling. With respect to techniques used for data analysis were EFA (15%) and t-test (11%).The present study also used Exploratory Factor Analysis, and added two additional techniques, viz., Chi-Square Test and IPA Matrix. Since no study has been carried out with respect to the telecommunication industry service providers and assessed their customer satisfaction using the IPA Matrix, makes the present study unique. Subsequent section will provide the informations regarding the development of research questions and related hypothesis, followed by the analysis and discussion, finally the conclusion.

2.2 Customer Profiling

Customer perception is the process to assess how customers perceive services, how they assess, whether they have experienced quality service and whether they are satisfied or not. Customer perception is directly related to customer expectation. Due to the dynamic nature of expectation, perception of any person may also shift over time, person, place or culture. Customers perceive service in terms of the quality of the service and how satisfied they are overall with their experiences (Gupta, 2015).Consumer preferences / profiling is used primarily to mean to select an option that has the greatest anticipated value among a number of option by the consumer in order to satisfy his/her needs or desire. Preferences indicates choices among neutral or more valued option available. The preference of the customer is the result of their behaviour they show during searching, purchasing and disposing the products (Rajpurohit and Vasita, 2011).

Person who uses the services of the mobile network provider is their customer. It must be remembered that all customers do not require all the services, i.e., miss call alerts, news alerts, etc. Since services are used by the customers, studying their behaviour and socio-economic background is very important as all customers does not require all services. Different customers have different needs and thus demographic profiling of the customer provide an insight whether there are any significant different exits between the customer residing in different localities, hence the development of the first Research Question (*RQ 1*) and the first Hypothesis (*H₁*);

> **RQ 1**: Is it possible to identify the demographic profile of customers using services provided by mobile network operators in the state of Goa
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> > *H₁: There is no significant difference exists between the Location among the customers with respect to Gender, Age, Education, Income, Marital status and Occupation.*

2.3 Factors Affecting Buying Behaviour

It is really important for the marketers of Mobile Phone Operators to understand and analyze the preferences of customers. Study showed consumer behavior in respect to the three factors, Price, Quality and Promotion determine the purchase behavior of consumer (Singh, Chawla, Singh and Pal, 2015) and the price of any product or service also determines the buying behavior and intentions of customers. It was also seen that customers prefer cheaper prices than the products high quality. This is because of low income levels and also several other alternatives wherein they are able to find the desired product at a cheaper price. There is an association between social influence, price, economy and beliefs to understand this specific mentality of customers.

Kim (2004) revealed that the customer satisfaction towards mobile service provider is strongly supported by call quality, value-added services and customer support, and also found that these factors are very important while choosing a service operator. Customers generally make their choice of amobile service provider by considering five factors: connectivity, coverage, tariff, value added services and customer care. These factors cannot be neglected because in telecommunications industry the four critical factors – customer care services, call rates, promotion and availabilities, are the most important factors considered by customers before utilizing the services of a Mobile Service Provider.

Vijay and Krishnaveni (2016) revealed that majority of the respondents have given top preference to service quality, value added service and customer care service and least preference to promotional offers in preferring the network service providers. Present study tried to identified the factors considered by the users, which were identified taken past studies as base. Thus, the following Research Question (**RQ 2**) was developed.

> **RQ 2**: Is it possible to identify the factors considered by the users while purchasing the mobile network.

2.4 Customer Satisfaction

Customer satisfaction generally means customer reaction to the state of fulfillment, andcustomer judgment of the fulfilled state (Oliver, 1997). There are many benefits for a company from a high customer satisfactionlevel. It heightens customer loyalty and prevents customer churn, lowers customers' pricesensitivity, reduces the costs of failed marketing and of new customer creation, reduces operating costs due to customer number increases, improves the effectiveness of advertising, and enhances business reputation. Kim et al (2004) indicated in their study that satisfaction may be assessed by acustomer's rating of the brand, which is based on all theencounters and experiences of the customer with thebrand.

or a long term relationship to sustain between a company and its customers, customer satisfaction is an important factor. Turel and Serenko (2006) also stated that there is a positive relationship between perceived quality and person's satisfaction, and also leads to loyalty. Lin and Wang (2006) alsoworked on the relationship between service quality, customer satisfaction and loyalty in mobile commerce. In theirmodel, perceived value and trust have positive influence on customer satisfaction, and then influence customer loyalty.While perceived value and trust have significant effect on service quality, the effect on satisfaction will also beindirectly effective. Kuo (2009) found that service quality has positive effect on both perceived value andcustomer satisfaction, while perceived value has a positive effect on customer satisfaction in mobile services.

Customer expectation depends on personal needs, prior experience and their perception about the service. In order to retain the customer, the telecom industry / mobile network providers must analyze and fill the gap between the customer expectation and perception. Thus, the gap analysis using IPA is performed based on five dimension of SERVQUAL, viz., tangibles, reliability, responsiveness, assurance and empathy. The following Research Question (**RQ3**) and Hypothesis (**H₂**) was developed;

> **RQ 3**: Is it possible to identify the level of satisfaction of the users of mobile network.

> *H₂: There is no significant difference exists between what the customer perceived*
>
> *and experienced with respect to services provided by the mobile network providers.*

3. Methodology

The purpose of the study was to investigate customer's perception towards different mobile service providers in Goa. The study was carried out from December 2016 to March 2017. Using convenience sampling, a structured questionnaire was administered to 200 respondents. The total usable responses were 193 with a response rate of 96%. The data was collected from students, businessman, employed and unemployed people and also from housewives.

The data was collected using a structured questionnaire which was divided into three parts. The *first*part tried to assess the respondent's demographic information, i.e. Gender, Age, Education, Marital Status, Income, Occupation and Location. The *second* part related to various factors considered by subscribers while purchasing the SIM card.Here, 27 statements were extracted from past research and respondent were asked to rate the extent to which they strongly disagree (1) to strongly agree(5) with each statement on a 5-point Likert's scale. The *third* part deals with satisfaction level of subscribers towards services provided by mobile network providers. Here, 23 statements were designed using SERVQUAL model and respondent were asked to identifywhat was their expectation before purchasing the particular service and what they experiencedafter purchasing the service on a 5 point Likert's scale, 1 for strongly disagree and 5 forstrongly agree. Chi-square test is used to find out the answer for first research question, where association between location and demographic characteristics was carried out to see whether there is any significant difference exists between consumers of mobile service providers with respect to the location of stay. For second research question exploratory factor analysis (EFA) was carried out to find out the motivational factors while choosing mobile service providers. And, finally importance-performance analysis (IPA) was carried out to find the answer for final research question. IPA allows to measure the gap between the expectation and experience to assess whether customers are satisfied with the services provided by mobile network providers.

4. ANALYSIS AND DISCUSSION

4.1 Demographic Profile

In this section a cross tabulation of customer's demographic variables is performed with that of location, i.e., North Goa and South Goa is being carried out to see if there exists any significant difference among the customers across the state of Goa. **Exhibit 1** shows that majority of the respondents belong to female category (52.8%) with respect to North Goa whereas male category (60%) are more in case of South Goa.In both the cases, age profile indicates the majority falls under 20-29 years of age (56.5% for North Goa and 68.2% for South Goa). Majority of the respondents are having college education (71.3% for North Goa and 75.3 for South Goa). In case of marital status, majority are coming under unmarried category (69.4% for North Goa and 78.8% for South Goa). Majority of the respondents falls under the category of middle and lower income category (88% for North Goa and 95.3% for South Goa). With respect to occupation, two categories respondent are students (31.5% for North Goa and 42.4% for South Goa) and also falls under employed category (62.9% for North Goa and 54.1% for South Goa).

Exhibit 1: Demographic Profile of Customers (N=193)

Demographic Characteristics		χ2 value (p)	Location			
			North Goa		South Goa	
			#	%	#	%
Gender	Male	3.117 (0.078)	51	47.2	51	60.0
	Female		57	52.8	34	40.0
Age	Up to 20	4.972 (0.290)	23	21.3	17	20.0
	20 – 29		61	56.5	58	68.2
	30 – 39		17	15.7	7	8.2
	40 – 49		5	4.6	3	3.5
	50 and Above		2	1.9	0	0.0
Education	Up to 10th	6.209 (0.286)	10	9.3	12	14.1
	Up to 12th		24	22.2	20	23.5
	Graduation		53	49.1	44	51.8
	Post-Graduation		19	17.6	8	9.4
	Doctoral		2	1.9	0	0.0
	Professional		0	0.0	1	1.2
Marital Status	Married	2.152 (0.142)	33	30.6	18	21.2
	Unmarried		75	69.4	67	78.8
Annual Family Income	Less than Rs. 1 Lakh	13.181* (0.001)	42	38.9	55	64.7
	Rs. 1 Lakh – Rs. 5 Lakhs		53	49.1	26	30.6
	More than Rs. 5 Lakhs		13	12.0	4	4.7
Occupation	Student	3.120 (0.682)	34	31.5	36	42.4
	Own Business		16	14.8	13	15.3
	Employed (Govt.)		31	28.7	18	21.2
	Employed (Private)		21	19.4	15	17.6
	Unemployed		2	1.9	1	1.2
	Housewife		4	3.7	2	2.4

Source: Primary data   ** Significant at 0.05*

Though it is seen that except with respect to gender, both North Goa and South Goa respondents are having same characteristic features, but based on Chi-square test result it can be concluded that except for annual family income (χ^2= 13.181, p= 0.001), all other demographic variables (gender, age, education, marital status and occupation) are insignificant, hence the formulated hypothesis (*H1*) of RQ1 that "*There is no significant difference exits between location among the customers with respect to Gender, Age, Education, Income*, Marital status and Occupation*" is accepted, with an exception of annual family income, which clearly corroborates with similar studies carried out earlier (Gupta, 2015; Rajpurohit and Vasita, 2011), which can be used effectively by the mobile service providers in the state of Goa while revising their strategic marketing plans. The subsequent section tries to identify the influencing factors which are considered by the customers while selecting the mobile service providers.

4.2 Factor Analysis

A total of 27 motivational factors were identified based on earlier studies (Singh, Chawla, Singh and Pal, 2015; Rajput, 2012; Kim, 2004; Sandhir, 2004; Neeraj and Girish, 2007; Vijay and Krishnaveni, 2016)andcustomers are requested to identify these statements and an EFA was carried out. The result of the analysis was grouped into seven factors using an Eigen value cut off at 1.0 (**Exhibit 2**). The overall reliability of 27 variables gave a satisfactory value, which is considered as acceptable (α = 0.890). Individual factor reliability was also found acceptable, and named as**(F1) p**ayment related(α = 0.731),**(F2)** customer care related(α = 0.729),**(F3)**price related(α = 0.718),**(F4)**additional services related(α = 0.6600),**(F5)**technical related(α = 0.663),**(F6)**promotional related(α = 0.558)and**(F7)**others (α = 0.542).Though **F6**and**F7**resulted in less than 0.80 Cronbach's alpha, these two factors are also being considered for analysis as these are crucial for assessing the significance of purchase behaviour. KMO measure of Sampling Adequacy showed 0.830 which indicates that the data is sufficient for exploratory factor analysis. The 7 factor explained 58.98% of the total variance which is considered as acceptable.

The first critical factors which are considered most important by the customer's while choosing mobile service providers were falling under technical related (**F5**), which are having the highest loading. The other factor in the order of merit which influences more is the customer care related (**F2**), payment related (**F1**), price related (**F3**) and additional services related (**F4**). The least important factor for the customers is the promotional related (**F6**) and others (**F7**). Among the 27 variables, most critical variable customers consider as the most influential one is "***people you know being in same network***" (26th statement of Exhibit 2) with a loading of 0.871, this may be due to the fact that the age old marketing strategy of "words of mouth" still holds true, hence making every mobile service provider to ensure that they are focusing on providing full spectrum of services to the existing customers so that it leads to complete satisfaction among the customers. This is in fact crucial because customers will have some expectations before choosing any mobile service provider and if their expectations are not realised or experienced at a later stage after purchasing, customer base shifting takes place from one service provider to the other in anticipation of better services. Hence it is equally important that customer satisfaction is measured on a regular basis before the customer shifts their base, which is being analysed in the next section.

Exhibit 2: Factor Analysis

FACTOR ANALYSIS (α =0.890, n=27)	F1	F2	F3	F4	F5	F6	F7
F1- Payment (α =0.731)							
1. Less monthly charges (postpaid services)	.695						
2. After sale technical support	.684						
3. ISD tariff plans	.570						
4. Availability of 3G/4G plans at lower rate	.496						
F2 - Customer Care (α =0.729)							
5. Helpline facility		.725					
6. Warranty		.678					
7. Quick response to customer complain		.676					
8. Brand image		.533					

	F1	F2	F3	F4	F5	F6	F7
9. Availability of various Offers and schemes		.432					
10. Availability of service center		.408					
F3 - Price Related (α =0.718)							
11. Availability of value added service at reasonable price			.712				
12. Reasonable Calling charges			.642				
13. Price is cheaper as compared to other service provides			.633				
14. Network converge of service provider			.516				
F4 - Additional Services (α =0.660)							
15. Missed call information, bonus card, etc				.655			
16. Availability of combo pack (postpaid service)				.649			
17. Reasonable and low data plan				.520			
18. Facility of making online billing				.474			
F5 - Technical Factor (α =0.663)							
19. Initial subscription cost					.769		
20. Voice call clarity (echo, background noise)					.701		
21. Easy availability of recharge voucher					.509		
22. Easy Process of purchase and activation of service					.438		
F6 - Promotional (α =0.558)							
23. Network connectivity (call to 3rd party at first)						.693	
24. Level of advertisement and promotion						.647	
25. Companies participation in charity						.556	
F7 - Other factors (α =0.542)							
26. People you know being in same network							.871
27. Profitability of the company							.483
KMO Measure Of Sampling Adequacy	0.830						
Eigen Value	7.312	1.897	1.674	1.370	1.309	1.226	1.138
Number of items	4	6	4	4	4	3	2
Variance Explained	27.08	7.028	6.199	5.072	4.849	4.540	4.214
Total Variance Explained	58.98%						

*Source: Author's own compilation based on primary data*

4.3 Importance Performance Analysis

As it is evidenced from the earlier EFA that customer satisfaction is critical for maintaining the existing customer base as well as capturing the potential and prospective customers in future also. Keeping this point in mind, in this section an attempt is made to find out the present status of the customer satisfaction among the mobile users in the state of Goa. Though there are many methods developed for assessing the service quality and satisfaction; viz.; IPA Matrix, SERVQUAL, SERVPERF, and HOLSAT; in this section IPA Matrix is used.

The original importance performance analysis (IPA) developed by Martilla and James (1997) suggested that customer satisfaction can be measured by the difference between a consumer's expectation of a product or service and his/her actual experienced after service delivered, based on the importance given and performance resulted by using various services offered by the mobile service providers. The result is then plotted in a two-dimensional grid having four quadrants (**Joppe et al., 2001, Kozak and Nield, 1998; Pizam and Ellis, 1999; Ryan, 1995**). Following analysis shows the result shown in four quadrants named as A, B, C, and D; where variables falling under A needs to be taken care of while assessing customer satisfaction (**Exhibit 3**).

Exhibit 3: Importance-Performance Matrix
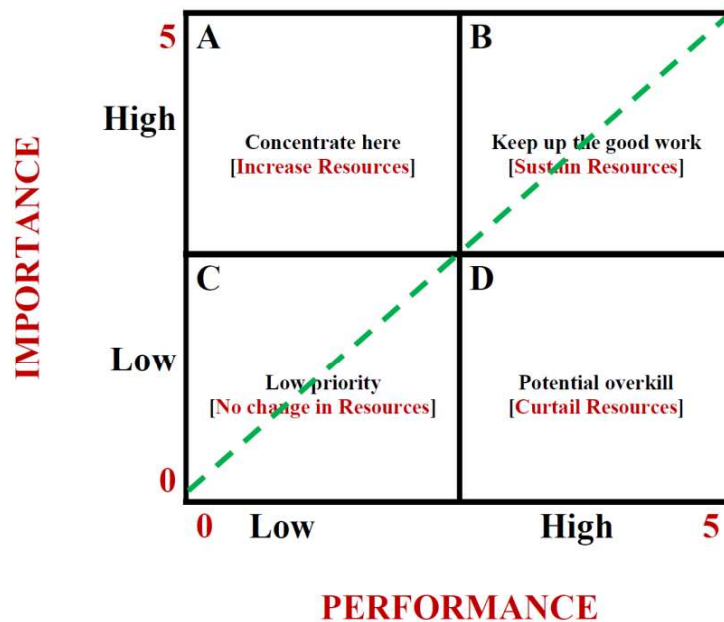
Source: Importance-Performance Matrix (Chen, 2014)

The modified IPA matrix (Abalo et al. 2007, Deng, 2007; Azzopardi and Nash, 2013; Chen, 2014) also used in the present study where the matrix is diagonally divides in to two, the upper side above the diagonal line (shown as A, which needs more concentration) and the lower side below the diagonal line (shown as B, potential over kill).Here, importance performance analysis is carried out to find out the customer satisfaction with respect to services provided by mobile network operators.

Exhibit 4: Importance Performance Analysis

Variables	Importance (I)	Performance (P)	Gap (P-I)	P	Original	Diagonal
1. Pamphlets/ catalogues are good and easy to understand	3.24	3.56	0.32	.001*	D	B
2. Easy to communicate with knowledgeable employees	3.50	3.51	0.01	.874	D	B
3. Customer service centers are located at convenient places	3.53	3.35	-0.18	.034*	C	A
4. Easy to reach the appropriate employee	3.76	3.38	-0.37	.000*	A	A
5. Company always keep up their promise	3.58	3.53	-0.04	.560	B	A
6. Customers problem are solved sincerely	3.60	3.39	-0.20	.033*	A	A
7. Company provides its services right the first time	3.60	3.35	-0.24	.008*	A	A
8. Provides its services at the time they promised to do so	3.52	3.52	0.00	.100	D	B
9. Employees are always willing to help customers	3.38	3.61	0.22	.056	D	B
10. Employees gives prompt services to customers	3.52	3.43	-0.09	.302	C	A
11. Employees usually avoid using technical jargon	3.47	3.59	0.11	.239	D	B
12. Employees are never busy to respond to customers request	3.54	3.32	-0.21	.021*	C	A
13. Employees provides accurate and reliable information	3.73	3.40	-0.32	.000*	A	A
14. Employees have knowledge to answer customer questions	3.70	3.48	-0.22	.020*	A	A
15. Employees have ability to convey trust and confidence	3.77	3.51	-0.25	.008*	B	A
16. Employees have technical knowledge to solve problems	3.54	3.41	-0.12	.135	C	A
17. Company gives customer individual attention	3.69	3.66	-0.03	.754	B	B
18. Their operating hours are convenient to all customers	3.63	3.47	-0.16	.078	A	A
19. Company provides 24 hours customer care services	3.74	3.48	-0.26	.004*	A	A
20. Company provides customize offers and schemes	3.65	3.60	-0.05	.583	B	B

Variables	Importance (I)	Performance (P)	Gap (P-I)	P	Original	Diagonal
21. Excellent company should have less installation problems	3.38	3.40	0.02	.794	C	A
22. It should have less technical and hardware problems	3.68	3.50	-0.18	.035*	B	A
23. It should have less signal problems	3.50	3.59	0.08	.416	D	B

*Source: Author's own compilation based on primary data*

Results of IPA are obtained in the form of Original IPA as well as Diagonal IPA, the result of which is given in the following **Exhibits 4** and **5**. In the original IPA, the entire matrix is divided into four quadrants. These quadrants are named as follows, **Quadrant A**is termed **'*Concentrate here'*** and elements in it are rated very important, but the level of satisfaction is rated below average therefore action/efforts & resources are required here. It is a critical area for research allocation with the goal being to achieve customer satisfaction. **Quadrant B**is termed **'*Keep up the good work*'** and elements in it are considered most important and satisfaction level is above average and mobile network providers must work as well as continue to invest resources to maintain quality of these areas. **Quadrant C**is termed*Low Priority*and elements in it are rated least important and the level of satisfaction is below average**.** Usually nothing is done about this area until some point when respondents begin to view this area as more important**. Quadrant D**is termed **'*Possible Overkill*'** and elements in it are rated above average on satisfaction, but are rated below average on importance and usually the areas require no action or improvement and no further investment of resources. The findings will indicate the areaswhere customers are satisfied and also provides those areas which requireimprovement on priority basis. The modified IPA (Abalo et al., 2007, Deng, 2007, Azzopardi and Nash, 2013, Chen, 2014) diagonally divides the elements under study into two, those above diagonal comes under *Category A* (more concentration is required) and those below the diagonal comes under *Category B* (Low Priority).

The overall reliability statistics of all the 23 statements is acceptable with respect to **importance** (0.945) and **performance** (0.897). The complete result of the IPA is shown in **Exhibit 4 and 5,** which clearly showed the satisfaction level of the users. Of the total 23 variables; only 7 are in Quadrant A; 5 are in Quadrant B; 5 in C and 6 are in Quadrant D. If the Gap is verified in detail (**Exhibit 4 and 5**), 16 out of 23 variables gap is negative, which indicates customers are not happy with the services provided by the telecom. This clearly shows that the mobile service operators need to focus on improving service quality in order to maintain or sustain the existing customer base and also for attracting potential customers.

The result of the modified IPA Matrix shows that almost 15 variables out of 23 are falling under area above the diagonal line (named as A), clearly indicating the sad state of the existing customers of mobile service providers. Complete dissatisfaction is seen among the customers, but still they continue to use the mobile services provided by various players. The only option available for the customers is switching over between service providers either by exercising mobile number portability (MNP) wherein they migrate from one service provider to another one by keeping the same mobile number allotted, or simply stop using the existing number ad going for a new connection with a new service provider with a new number.

This is a clear indication that almost all the mobile service providers (both the government owned and private players) are taking customers for granted assuming that whatever service quality is provided to the customers, they are going to remain with them. Even if few customers move away, other customers moving away from different service providers come for the service. In fact, this is what is being happening, customers are keeping on moving from one to the other to the other as and when they feel the service provided is not satisfying their requirements. This is in fact a serious case of violating customer rights; i.e.; not providing the promised services, but customers feel that there is no point in going for litigation as it takes time for them to get justice in the existing legal system prevailing in India. Another striking issue with respect to getting a new connection in any state in India is that customer has to wait for one to two days for getting the connection activated, which is quite time consuming specially for those people who comes to India as tourists from other countries. Where as in most of the other countries, by providing the passport and visa copy, mobile connectivity is activated instantly, which is completely opposite and the services are almost provided as promised also.

Exhibit 5: Importance Performance Matrix (Original and Modified Grid Analysis)
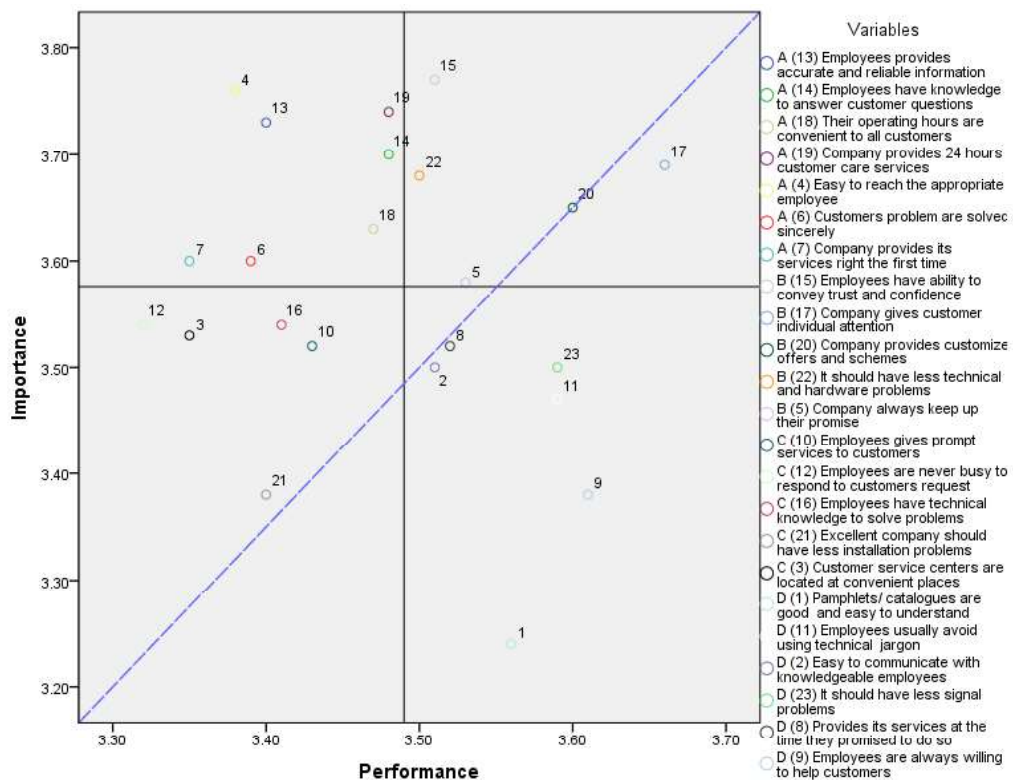
5. CONCLUSION

Telecommunication industry in India has been growing at very fast speed during last two decades, wherein the two categories of services provided in India are fixed line and mobile communication service. Though fixed line came before but still in existence but now a day's mobile communication service is gaining more importance. The demographic profile of the customer base in Goa is almost

identical, except there is significant difference exists with respect to income level. Customers choose to have the mobile service provider closer to their location. Study also revealed that the customers consider technical related aspect as the most crucial factor while deciding about which service provider to be selected. The least importance is given to promotional schemes provided. One of the most crucial variable which customers consider is the word of mouth from the known people using the mobile services. Customers feels that satisfied customers recommendation will always be good rather than blindly following promotional schemes offered from time to time, as most of the customers do not believe in the promotional offers given by the mobile service providers. This in a way is true as the satisfaction level of customers with respect to the mobile service provided in the state of Goa is very poor. Though the original IPA Matrix shows only 7 variables out of 23 SERVQUAL variables as unsatisfactory, 16 of the gap values are negative which clearly indicating the bad service quality provided by the mobile operators. To verify the status again, modified IPA Matrix was prepared which resulted in an increase from 7 to 15 variables out of 23 SERVQUAL variables falling under unsatisfactory category which needs to be taken care of by the mobile service providers. The sad state of the service provided by the mobile service operators is reflected in the study, which needs to be taken care of either by the government or by the regulatory agencies of mobile service else it becomes very clear that a new player will capture all the market share by providing the basic quality service to the existing customers. One such case already taken place when the Reliance Jiocommercially launched its services on 5 September 2016. Within the first month, Jio announced that it had acquired 16 million subscribers. This is the fastest ramp-up by any mobile network operator anywhere in the world. Jio crossed 50 million subscriber mark in 83 days since its launch, subsequently crossing 100 million subscribers on 22 February 2017. By October 2017 it had about 130 million subscribers (Wiki, 2018), and by now it must have crossed 160 million subscribers which makes Jio the largest migration from free to paid services in history (Khan, 2017). If the existing service providers are not taking care of the quality of services, more and more such entry of quality service providers can be seen which will ultimately benefit the customers.

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