

 <p>ISSN NO. 2320-5407</p>	<p>Journal Homepage: - www.journalijar.com</p> <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)</p> <p>Article DOI: 10.21474/IJAR01/4515 DOI URL: http://dx.doi.org/10.21474/IJAR01/4515</p>	 <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407</p> <p>Journal homepage: http://www.journalijar.com Journal DOI: 10.21474/IJAR01</p>
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RESEARCH ARTICLE

A STUDY ON CUSTOMERS UTILIZATION OF MOBILE PHONE SERVICES WITH SPECIAL REFERENCE TO KANYAKUMARI DISTRICT.

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Manuscript Info

Manuscript History

Received: 18 April 2017
Final Accepted: 20 May 2017
Published: June 2017

Key words:-

Customers, Loyalty, Mobile phones and Statistical analysis.

Abstract

Mobile phones have become a necessity in human life. This is due to technological advances that allow people to communicate with each other anywhere and at any time. Mobile phone communication is a piece of equipment for the valuable use of people. The service providers are facing challenges, not only from the competitors, but also from their customers. The customer's expectations and facts of the mobile phone service are also growing at the other hand. In this research article to assess the customers loyalty towards mobile phone services with appropriate statistical techniques.

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Introduction:-

The telecommunications sector in India was liberalized in the early 1990s. Attack of private as well as foreign direct investment in the sector started afterwards. The mobile telecommunication service providers need to make customer satisfaction a strategic priority. The impact of service quality attributes on customer value, satisfaction, and loyalty. Brand loyalty is the company's major goal sets for a branded product. It is now become consumer's priority in making a purchase towards particular brand/service. Giddens and Hoffman (2010) stated that brand loyalty does exist because of consumers start to realize that the brand offers the right product features, images, conditions, quality, and at the right price. This becomes the new buying habit among the consumers recently. The object of the current research is the mobile telecommunication services in Kanyakumari District, Tamilnadu, India, in which the mobile telecommunication service customers will serve as unit analysis. In this paper mainly focused on customers' loyalty towards service rendered by mobile phone telecommunication.

In addition, some other factors contributing to customer loyalty include customer relationships management strategies, corporate image, communication, and complaint handling. Zins (2001) posits that corporate image of the service provider is, along with service quality and customer satisfaction, a powerful and illustrative component for explaining future customer loyalty. Nguyen and Leblanc (2001) demonstrate that corporate image relates positively with customer loyalty in three sectors (telecommunication, retailing and education). The same relationship is demonstrated for Danish postal services and by Juhl et al (2002) for the Danish food retailing sector. As pointed out above, corporate image stems from all of a consumer's consumption experiences, and service quality is a function of these consumption experiences. Hence, antecedents of customer loyalty and customer perception about service quality directly affect the perception of corporate image.

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Objectives of the study:-

- To study the degree of loyalty on mobile phone users
- To identify the key factors with which the customers evaluate the mobile phone services
- To investigate the relationship between commitment and the resulting loyalty

Methods and Materials:-

It was an empirical study done undertaken at Kanyakumari District, Tamilnadu, India, in June 2016-December 2016. This study carried out under unknown population comprised of seven hundred and sixty three people have taken as respondents by using simple random sampling technique of the above mentioned area. A pre-designed questionnaire was used to collect the data. The questionnaire had various segments comprising; socio-demographic factors (gender, age, marital status, etc.), Purpose of using Mobile phone service, Media Exposure, Source of information about service provider, Variables influencing to choose service provider, Consumer expectations, Service Quality of Service Provider, Overall attitude towards service provider and Loyalty towards service provider.

Reliability analysis allows us to study the properties of measurement scales and the items that make them up. The Alpha (Cronbach) model is based on the average inter-item correlation. The results are presented in suitable hypothesis with relevant interpretations.

Hypothesis:-

There is no significant difference between the individual items in the scale.

The Table 1.1 describes the results of ANOVA, sources of variations, sum of squares, degrees of freedom, mean sum of squares, F value, p value and its significance on the individual items.

Table 1.1:- Analysis of Variance for individual items in the scale

Sources of variation		Sum of Squares	df	Mean Square	F	Sig
Between People		355.43	49	7.254	16.451	0.000
Within People	Between Items	1808.16	74	2.014		
	Residual	5385.57	3626	24.435		
	Total	7193.73	3700	1.485		
Total		7549.16	3749	1.944		

At 5% level of significance

It is found from the Table 1.1 that the hypothesis is rejected (Significant) because p – value less than 0.05. It is concluded that there exists significant differences between the individual items in the scale. The number of cases are 50, Number of items are 75 and the coefficient of Alpha is 0.80 (i.e. 80%).

Statistical tools for the study:-**Cluster Analysis:-**

This procedure attempts to identify relatively homogeneous groups of cases based on selected characteristics, using an algorithm that can handle large numbers of cases. However, the algorithm requires specifying the number of clusters. We can specify initial cluster centres if we know this information.

Analysis of variance (ANOVA):-

It is a statistical method used to test differences between two or more means. This technique is called "Analysis of Variance" rather than "Analysis of Means." As we see, the name is appropriate because inferences about means are made by analyzing variance for research.

Discriminant Analysis:-

Discriminant analysis is a statistical technique which allows the study of the differences between two or more groups with respect to several variables simultaneously and provides a means of classifying any object/individual into the group with which it is most closely associated and to infer the relative importance of each variable used to discriminate between different groups.

Results of the study:-**a Cluster analysis for personal factors associated to utility of mobile phone service:-**

Null Hypothesis (H_0): Personal factors associated on the utility of mobile phone service don't influence the clusters. The Table 1.1 describes the results of ANOVA for each personal classification on the utility of mobile phone service considered.

Table 1.1:- Details of Analysis of Variance (ANOVA)

Personal factors connecting to utility of mobile phone service	F	p-value	Significant / Not Significant
Gender	3.62	0.03	S
Age	8.92	0.00	S
Education	0.12	0.89	NS
Occupation	8.30	0.00	S
Personal Income	0.61	0.55	NS
Marital status	10.47	0.00	S
Size of family	0.09	0.91	NS
Number of family members (earning)	52.79	0.00	S
Monthly family income	2.28	0.10	NS
Usage of mobile phone	2.80	0.06	NS
Current mobile service provider	745.24	0.00	S
Number of years in current service	16.57	0.00	S
Type of service provider	1.46	0.23	NS
A1	15.15	0.00	S
A2	25.29	0.00	S
A3	5.34	0.01	S
A4	48.39	0.00	S
A5	55.04	0.00	S
A6	39.35	0.00	S
A7	162.27	0.00	S
A8	31.88	0.00	S
A9	39.32	0.00	S
A10	36.67	0.00	S
A11	42.76	0.00	S
A12	49.93	0.00	S

From the above Table 1.1, we conclude that the entire variables are influencing the clusters except few cases in the utility of mobile phone service related variables.

The Table 1.2 describes the results of final clusters for each personal factor of respondents on the utility of mobile phone service is considered.

Table 1.2:- Final cluster centres

Personal factors connecting to utility of mobile phone service	Cluster		
	1	2	3
Gender	1.46	1.54	1.43
Age	3.07	3.13	2.66
Education	2.52	2.49	2.46
Occupation	2.95	2.67	2.99
Personal Income	2.88	2.8	2.79
Marital status	1.42	1.44	1.28
Size of family	2.09	2.08	2.06
Number of family members (earning)	2.07	2.44	1.68
Monthly family income	2.46	2.49	2.36
Usage of mobile phone	2.66	2.75	2.57

Current mobile service provider	3.79	6.24	2.57
Number of years in current service	2.56	2.12	2.58
Type of service provider	1.23	1.2	1.17
A1	3.32	3.22	3.77
A2	2.57	2.78	3.28
A3	3.37	3.69	3.46
A4	2.84	3.72	3.97
A5	2.37	3.14	3.43
A6	3.32	4.12	4.35
A7	1.95	3.49	3.8
A8	2.05	2.71	2.67
A9	1.99	2.78	2.68
A10	2.05	2.79	2.75
A11	2.01	2.87	2.71
A12	2.4	3.08	3.35

The cluster analysis transparently reveals that the samples are classified into 3 heterogeneous groups with respect to personal profile and various aspects of perception on influencing in utility of mobile phone service of the respondents. The first cluster is grouped based on their opinion relating to not important with various levels of perception on influencing in utility of mobile phone service are fall under the Gender (Female), Age (25-30 Years), Education (UG), Occupation (Business), Income (Rs.10,001-Rs.15,000), Marital status (single), Family size (3-4), Number of earning members per family (2), Monthly family income (Rs.20,001-Rs.30,000), Mobile phone usage (6-9 years), Current service provider (Vodafone), Usage of current service provider (4-6 years) and Type of service (Prepaid) of the respondents.

The second cluster is grouped based on their opinion relating to moderate with various levels of perception on influencing in utility of mobile phone service are fall under the Gender (Female), Age (25-30 Years), Education (UG), Occupation (Salaried), Income (Rs.10,001-Rs.15,000), Marital status (married), Family size (3-4), Number of earning members per family (3), Monthly family income (Rs.20,001-Rs.30,000), Mobile phone usage (6-9 years), Current service provider (Reliance-Geo), Usage of current service provider (2-4 years) and Type of service (Prepaid) of the respondents.

The third cluster is grouped based on their opinion relating to important with various levels of perception on influencing in utility of mobile phone service are fall under the Gender (male), Age (20-25 Years), Education (Upto HSC), Occupation (Business), Income (Rs.10,001-Rs.15,000), Marital status (single), Family size (3-4), Number of earning members per family (2), Monthly family income (Rs.10,001-Rs.20,000), Mobile phone usage (3-6 years), Current service provider (Airtel), Usage of current service provider (4-6 years) and Type of service (Prepaid) of the respondents.

Discriminant analysis of personal variable (Gender) on level of utility of mobile phone service:-

We looking at the Wilk's 1 statistic along with chi-square statistic and we test the following hypothesis:

Null Hypothesis (H₀): The Discriminant analysis is not valid..

Table 1.3:- Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	Degrees of freedom	p-value
1	0.92	43.26	12	0.00

Wilk's 1 is very high (0.92) and significance (0.000) is less than 0.05, so we reject the Null hypothesis, implying that the discriminant analysis is valid.

The linear discriminant function is

$$D = -0.30A1 - 0.14A2 + 0.57A3 + 0.10A4 - 0.18A5 - 0.16A6 - 0.04A7 - 0.10A8 - 0.30A9 + 0.20A10 + 0.62A11 - 0.14A12 - 0.80$$

The following Table 1.4 and Table 1.5 show the group means of each of the independent variables identified and coefficients of canonical discriminant function respectively.

Table 1.4:- Group means of each of the independent variables.

S.No	Utility of mobile phone services	Mean value	
		Male	Female
1	Security (A1)	3.65	3.31
2	SMS (A2)	3.04	2.93
3	Official (A3)	3.34	3.68
4	Touch with friends and Relatives (A4)	3.63	3.67
5	Symbol of Status (A5)	3.14	3.04
6	Convenience (A6)	4.15	3.97
7	Low Cost (A7)	3.38	3.31
8	Passion (A8)	2.53	2.65
9	STD Calls (A9)	2.53	2.57
10	Dissatisfaction with land line (A10)	2.54	2.70
11	Multipurpose (A11)	2.47	2.74
12	Easy to contact (A12)	3.05	3.00
Eigen Value		0.08	% of Variance
Cumulative %		100	Canonical Correlation
			100
			0.29

Among the variables of utility of mobile phone services under study which is Official (A3) followed by Multipurpose (A11) are substantially important variables in discriminating between groups namely 'Male' and 'Female' in the study of customer loyalty towards mobile phone services of people with special reference to Kanyakumari District.

Conclusion:-

The results obtained in this study accept the model and hypotheses proposed therein. The results of the study showed that the variables of utility of mobile phone services under study which is Official (A3) followed by Multipurpose (A11) are substantially important variables in discriminating between groups namely 'Male' and 'Female' in the study of customer loyalty towards mobile phone services. This research, however, evaluated the variables influencing customer loyalty of phone services in the context of Kanyakumari District. The findings of the cluster analysis showed that the variables utility of mobile phone services also have significant between them. The service quality had the strongest total affect on customer loyalty. These results suggest that customer loyalty is most significantly affected by the high quality service. It can thus be concluded that service quality can translate into customer satisfaction but it cannot translate into customer loyalty through customer satisfaction.

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