



INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION AND MANAGEMENT

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CUSTOMER SWITCHING IN MOBILE INDUSTRY - AN ANALYSIS OF PRE-PAID MOBILE CUSTOMERS IN AP CIRCLE OF INDIA

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ABSTRACT

Indian mobile services market has grown leaps and bounds in the last five years and has attracted the telecom majors from across the world. The recent telecom policy changes have allowed more competition through licensing new operators in a circle. With Mobile Number Portability round the corner, it is expected that customer switching will surge. So, there is a need to understand the characteristics of customers and the factors that are prompting them to switch operator in order to effectively design strategies to retain customers. The present study employs discriminant function analysis and independent-samples t-test to identify the key differentiating factors that discriminate brand loyal customers from switchers among the mobile users in AP telecom circle of India. Satisfaction of customer with network access, call tariffs, customer care, network coverage and use of mobile for voice calls or MMS are found have strong discriminating power between the loyal customers and switchers. Mobile operators in India have to invest in network and technology to improve the coverage, connectivity and speed. Improvement in the quality of basic service – the voice calls will prove to be an excellent strategy for enhancing customer loyalty.

KEYWORDS

Customer switching, Brand loyalty, Discriminant analysis.

INTRODUCTION

India's telephone network is the 3rd largest in Asia and the 12th largest in the world. Today, India has 22 private companies providing cellular services in 18 telecom circles and 4 metro cities. Ever since their introduction, cellular services have shown a fair growth with the subscriber base crossing the 723 million mark at the end of November 2010. There are 528.8 million GSM subscribers and 197.8 million CDMA subscribers all over India. The Andhra Pradesh Telecom Circle is the largest among the 22 telecom circles in India with a total subscriber base of 45.35 millions. There are seven GSM service providers and two CDMA service providers in the circle. Table 1 presents the market share of the eight players in the circle as on 31st March 2010.

TABLE 1: MARKET SHARE OF MOBILE OPERATORS IN AP TELECOM CIRCLE AS ON 30TH NOVEMBER, 2010

Mobile Operator	No. of Subscribers	Market Share (Per Cent)
AIRTEL (GSM)	15,036,616	27.19
IDEA(GSM)	7,456,531	13.48
BSNL (GSM)	5,747,508	10.39
VODAFONE (GSM)	6,822,996	12.34
AIRCEL (GSM)	1,686,674	3.05
UNINOR (GSM)	1,736,507	3.14
Etisalat DB (GSM)	4,527	0.01
Videocon (GSM)	1,909	0.00
RELIANCE (GSM+CDMA)	7,972,339	14.42
TATA (CDMA)	8,656,057	15.65
TOTAL	55,304,531	100.00

Source: www.india-cellular.com

Indian mobile services market has grown leaps and bounds in the last five years and has attracted the telecom majors from across the world. The low penetration rate of mobile phones compared to other markets like China, Japan and European countries, vast potential in the form of growing affluent-middle-class population has made India a most favored destination for both mobile phone manufacturers and service providers. The recent telecom policy changes have opened gates for more competition through allowing more number of operators in a circle. This has added fuel to the competition in the cellular market bringing the call tariffs to the lowest in the world. The fierce competition among the cellular service providers resulted in numerous tariff plans, group plans, contracts (life long validity), and top-up plans. Today, an Indian mobile customer is overwhelmed with the competing offers and service packages from the competing operators.

Customer switching behavior damages the market share and profitability of the firms. Most of the times companies design competent strategies to attract new customers ignoring existing customers. Service marketers should know that retaining existing customers is crucial than acquiring new customers (Berry, 1980). Continuing customers increase their spending at an increasing rate and help in increasing operating efficiencies of the firm (Reichheld and Sasser, 1990).

Hence losing the existing customer will reflect loss from high-margin sector of the firm. Costs associated with acquiring new customer can add up to five times the cost of efforts that enable the firm to retain a customer (Peters, 1988).

Marketers often pay attention to identify the characteristics of the brand-loyal customers so that they can directly focus their marketing and promotional strategies on those consumers. Brand switching may occur in case of new product introduction and dissatisfaction on usual brand. Consumers can find a better substitute brand that can fulfill their needs. Some marketers will target on brand switchers because they think that brand switchers have higher market potential (Schiffman & Kanuk, 2000).

Increasing competition, entry of new players, promotion schemes and low switching cost are posing challenges to the survival of mobile operators in India. Customer retention has become a challenge for the mobile operators. In addition to that, the Telecom Regulatory Authority of India (TRAI) is in the process of finalizing the procedure for Mobile Number Portability (MNP) which will allow the customer to retain the same mobile number across the operators. This is expected to open floodgates for the customer switching in both pre-paid and post-paid segments. There is a need to understand the characteristics of customers and the factors that are prompting them to switch operator in order to effectively design strategies to retain customers to enhance profitability. This paper aims to explore the key discriminating factors between switchers and non switchers in the pre-paid segment.

Review of literature reveals a variety of reasons for which the customers switch between brands. Customer switching in banking industry has highlighted perception of service quality as main reason (Rust and Zahorik, 1993). In insurance industry, overall dissatisfaction of the insured (Crossby and Stephens, 1987) is found to be the reason for switching. Retail stores loose their customers due to service encounter failures (Kelly, Hoffman, and Davis, 1993). Brand name (Aaker, 1996), price (cadogan & Foster, 2000), promotion (Czerniawski & Maloney, 1999), and service quality (Mittal & Lassar, 1996) are the factors that stimulate brand loyalty. Customers' reasons for switching services were classified into eight general categories – pricing, inconvenience, core service failure, service encounter failure, response to service failure, competition, ethical problems, and involuntary switching (Susan M. Keaveney, 1995). Customer switching is industry specific, limits the generalization and need to adopt broader perspective (Berry and Parasuraman 1993)

Time or money constraints, lack of alternatives, switching costs or habit may also affect loyalty (Bitner 1990). Convenience, price and availability might enhance customer satisfaction and ultimately effect behavioral intentions (Cronin and Taylor 1992).

Jungmi Oh, Susan S. Fiorito (2002) applied multiple discriminant analysis to identify the significance of buying behavior, self-image, and demographics for profiling brand loyal customers and non-brand loyal customers. Tanniru Rao (2007) employed discriminant analysis to test the possible use of brand loyalty for market segmentation. Consumer's shopping patterns, general characteristics of the product usage, and the element of price in purchase decision are taken to discriminate between loyal and disloyal groups.

RESEARCH METHODOLOGY

The present study employs the methodology adopted by Mei-mei Lau, Man-tsun chang, et. al. (2006) to explore the brand loyalty behavior on sportswear and examine the key brand loyalty factors. Discriminant function analysis and independent-samples t-test were performed to identify the key differentiating factors that discriminate brand loyal customers from brand switchers among the mobile users in AP telecom circle of India. 1000 respondents from 10 cities of three regions of State of Andhra Pradesh, India were interviewed through a structured, pre-test questionnaire by the student enumerators during a two month period starting from January 2010. Care was taken to see that the sample represented all socio, economic and demographic groups of mobile customers. The trained student enumerators were instructed to meet approximately equal numbers of loyal customers as well as switchers.

FACTORS CONSIDERED FOR THE STUDY

The following factors have been considered for the study as they are likely to impact customer switching behavior in the mobile industry.

Customer demographics - variables like age, gender, income, occupation and education influence the information processing, attitude, purchase decision and thereby extent of loyalty. Hence, these factors were included for analysis.

Purpose of mobile - whether personal or work related. If the mobile is for personal use there is a chance that the customer may switch as it causes minimum disturbance when due to change in the mobile number. In case of work related use, the inconvenience due to mobile number change may be substantial and discourage the customer from switching.

Use of mobile - for voice calls, SMS, MMS and accessing internet. Usage pattern reflects the involvement of a customer with the mobile phone and may also the switching behavior.

Usage rate - monthly bill. A heavy user may be more interested in exploring the alternatives to minimize the overall cost and may be likely to switch on identifying more suitable plans than a low user.

Investment on the mobile handset – customer preference for low-end, medium range or high-end mobile phone depicts his interest toward mobile phone as a means of self expression and keen interest in the value added services. Hence, this may discriminate loyal and disloyal customers.

Customer Satisfaction - towards various service quality parameters such as network coverage, network access, call tariffs, customer care (Call Center), recharge options, disturbance due to promotional calls and promotional messages from the operator.

RESULTS AND DISCUSSION

The sample comprises 53 per cent loyal customers who have never changed their mobile service provider and 47 per cent switchers. 68 per cent of the switchers changed their mobile operator once, 23 per cent twice and 9 per cent thrice and more.

TABLE 2: STRUCTURE MATRIX

Factor	Function
Satisfaction with Network Coverage	0.611
Satisfaction with Call Tariff	0.532
Satisfaction with Network Access	0.376
Satisfaction with Customer Care	0.344
Used for accessing internet ^a	0.314
Satisfaction with offers ^a	0.280
Used for Voice Calls	-0.266
Satisfaction with VAS ^a	0.247
Satisfaction with recharge options ^a	0.246
Used for MMS	0.237
Satisfaction towards promotional calls ^a	0.218
Usage rate ^a	0.115
Age	-0.714
Education ^a	0.740
Used for SMS	-0.062
Purpose of Mobile	0.055
Income ^a	0.054
Occupation	-0.045
Investment on mobile device ^a	0.043

Note: Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions. Variables ordered by absolute size of correlation within function.

^a This variable not used in the analysis.

Stepwise discriminant analysis was used in this study to generate a discriminant function between the two groups of customers – the switchers and loyal customers. Variables were added and removed based on Wilk’s Lambda. The discriminant loadings were reported under structure matrix in Table 2, and the factors were ranked from highest to lowest by the size of the loadings – indicating their discriminant power.

Then the independent variables were screened by the stepwise procedure, and the variables found significant were included in the function. Variables - age, occupation, used for voice calls, used for SMS, used for MMS, purpose of mobile, satisfaction with customer care, satisfaction with network coverage, satisfaction with call tariffs and satisfaction with network access were included for the discriminant function. All the variables were highly significant at the level of $p < 0.000$. The discriminant function was highly significant at $p < 0.000$.

Classification results indicated that 85.5 per cent of the respondents were correctly classified into two groups. The accuracy for loyal customers is 83.8 per cent whereas 87.4 per cent of the switchers were accurately classified. Classification accuracy is very good.

The standardized canonical discriminant coefficients shown in Table 3, indicate that customer satisfaction towards call tariffs and network coverage have highest discriminating power as they have the higher absolute values of function coefficients.

TABLE 3: STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS OF TWO GROUPS ACCORDING TO THE DISCRIMINATING FACTORS

Factor	Standardized Canonical Discriminant Function Coefficients
Age	-.117
Occupation	-.283
Used for Voice Calls	-.294
Used for SMS	-.241
Used for MMS	.160
Purpose of mobile	.225
Satisfaction with Customer Care	.306
Satisfaction with Network Coverage	.477
Satisfaction with Call Tariffs	.591
Satisfaction with Network Access	.332

Independent-samples t – test was used to examine the difference between means of variables for the two groups – the loyal customers and switchers. This test is performed to confirm the findings from discriminant function analysis. It is observed that six variables namely, used for voice calls, used for MMS, satisfaction with customer care, satisfaction with network coverage, satisfaction with call tariff, satisfaction with network access shown significant differences among the two groups at 95 per cent level of confidence. Table 4 summarizes the results of independent-samples t-test. The other variables had insignificant differences. Hence, it is concluded that satisfaction levels towards network access, call tariffs, customer care, network coverage and use of mobile for voice calls or MMS have the strong discriminating power between the loyal customers and switchers.

TABLE 4: RESULTS OF INDEPENDENT SAMPLES TEST

Factor	Group Means		t-value	Sig. (2 tailed)
	Loyal Customers	Brand Switchers		
Age	3.01	2.76	2.313	0.210
Occupation	1.20	1.12	1.400	0.162
Used for Voice Calls	3.91	3.64	7.948	0.000
Used for SMS	2.43	2.28	1.919	0.055
Used for MMS	0.45	0.85	-7.275	0.000
Purpose of mobile	1.29	1.34	-1.713	0.086
Satisfaction with Customer Care	2.13	2.75	-10.449	0.000
Satisfaction with Network Coverage	1.81	2.90	-18.589	0.000
Satisfaction with Call Tariffs	1.83	2.91	-16.590	0.000
Satisfaction with Network Access	2.16	2.85	-11.424	0.000

It is found from the results of independent samples t-test that customers who use their mobile mostly for voice calls only are less likely to switch. The loyal customers are found to be relatively more satisfied with network coverage, call tariffs, customer care services, and network access. The customers who generally use their mobile phones for sharing MMS are found to be more likely to switch. This seems obvious as MMS service requires sophisticated and costly mobile

device as well customers who perceive mobile as an entertainment gadget are more likely to involve in active search for better service and price offers and may also have an attitude for variety seeking. Customer in this segment is more likely to switch than a plain-vanilla customer who uses mobile for just voice calls.

CONCLUSIONS

Switching is quite high in the pre-paid customer segment due to low switching costs and competitive tariff plans. With entry barriers easing and mobile number portability around the corner, there is a high probability for switching especially in the pre-paid segment. As network coverage, tariff plans, service play a vital role in retaining customers; the mobile operators should employ a number of strategies to manage the challenges.

New levels of customer interaction at various stages are necessary to ensure customer intimacy and loyalty. Providing information on different plans, value added services, provision and activation of additional services, and customer friendly environment at all points of interaction are necessary to ensure customer delight.

Network coverage and access are the key factors that influence the customer retention. Hence, investment in network and technology should go on to improve the geographic coverage, seamless connectivity and speed. Improvement in the quality of basic service – the voice calls will prove to be an excellent strategy for enhancing customer loyalty.

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