



Short Communication

Subscriber Churning of Madhya Pradesh and Chhattisgarh Telecom Service Providers: A Gender Based Study

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Available online at: www.isca.in, www.isca.me

Received 2nd September 2016, revised 21st October 2016, accepted 1st November 2016

Abstract

Handling customer churn is of great worry to universal broadcastings service providers and as the market matures it is becoming a more severe problem. The importance of this research is to do a gender based study of Subscriber churning of telecom licensed service providers of Madhya Pradesh and Chhattisgarh. In this paper Analysis of Variance (ANOVA) is used on the sample size of 700 respondents. This will help the leading telecom operators like Idea, Airtel etc. to plan their promotion strategy well, develop their products by sensing the need of the Customer and to generate & maximize additional revenue.

Keywords: Churn, Telecom Sector, Service Providers, ANOVA.

Introduction

Subscriber churn adversely affects the telecom service providers because they lose a great deal of value premium, lessening revenue levels and a thinkable loss of recommendations from continuing service customers¹. In a broad perspective, churn is a standby for agitation or turnover. The term derives from a dairy technique that fallout to denote to something that is spinning over, either factually or symbolically. In a business setting especially for telecom sector, it generally refers to subscriber erosion². The concept of churn can be explained with the help of following equations:

Equation-1: Following is the equation of churn:
Net Churn (%) = Gross Churn (%) - New Adds (%)

Equation-2: Customer who decide to discontinue their contract with the subscribe provider called as churner. Scientifically, Churn rate can be deliberate as³:
Monthly Churn = $(C_0 + A_1 - C_1) / C_0$

Where C_0 , is the number of customers at the start of the month, C_1 , the number of customers at the end of the month, and A_1 , the gross new customers during the month.

Literature Review: A churn can be demarcated as the proportion of subscribers moving from a specific service provider⁴. The tendency of clients to discontinue business with a establishment in a assumed time period, is subscriber churn⁵. Customer churn is a prevalent degree of gone consumers. Telecommunication companies often drop treasured customers and, thus, profits⁶. Customer churn is also denoted as the stoppage of the customer to subscribe to a service⁷. Customers become “churners” when they terminate their contribution and transfer their trade to a competitor⁸. ‘Churn’ is a word derived

from change and turn⁹. Churn rate can be demarcated as the likelihood that a customer finishes the association with a business throughout a given time period¹⁰.

Objective: To do the gender based study of subscriber churn in the Telecom Sector of Madhya Pradesh and Chhattisgarh.

Hypothesis

H_0 : There is no significant effect of gender on the subscriber churning of Madhya Pradesh and Chhattisgarh telecom service providers.

Research Design and Sample: In this study, a convenient judgment sampling is used. Customers who were churned or about to get churn in near future are taken as sample to fill the questionnaire. A sample of 700 respondents was selected with the help of the sampling method. Also a positive interest and response was shown in filling questionnaire through face to face interview and e-mail.

Data Collection Source: Both primary and secondary sources are used. A structured questionnaire with the scale that is based on 7-point Likert scale is circulated.

Data Analysis Tool: Statistical measures such as Analysis of Variance (ANOVA) were used to interpret the data. The tools were applied through Statistical Software SPSS.

Reliability Analysis – Scale (Cronbach’s Alpha): The data was examined using SPSS software version 20 to study the factors responsible for subscriber churning of Madhya Pradesh and Chhattisgarh telecom service providers. Value of Cronbach’s alpha as 0.948 which is closer to value 1.00. So we

can proceed for further analysis with 700 numbers of respondents and 44 numbers of questions.

different reasons like cost, services, promotional strategy, value added benefits, network coverage so on and so forth.

Table-1
Reliability Statistics

Cronbach's Alpha	N of Items
.948	44

Results and Discussion

A one-way ANOVA was conducted to explore the impact of gender on the subscriber churn. Participants were divided into two groups male and female. The Table-2 shows that there were 551 male and 149 female respondents with mean value 3.1833 and 3.4365 respectively. As per Table-3, the calculated value of $F(1, 698) = 6.538$ at 5 % level of significance. Since the p -value is 0.011 ($p < 0.05$), it reject the null hypothesis. It further states that there is some effect of gender on the subscriber churn at 5% significance level. It reveals that male and female employees churn from the current service providers due to

Conclusion

Being an “Unethical” service provider can make subscriber both male and female to switch to other service provider. There is intense competition in our telecom sector and while companies fight for market share, it is the male consumers and females consumers that are made to suffer through deceptive techniques. Operators need to be fair in their operation and commitment. They should sense the need of both the gender and make plans separately and effectively for both of them. If the customer has opted for any product or service, it is his/her right to enjoy the benefit committed by the operator and nothing else. There are times when value added services are activated on to the subscriber’s number without his/her consent and then billing takes place which is totally “unethical and unlawful billing” practice. Service providers need to seriously take care of situation which arises due to unfair pricing, charging issues, and non-transparent or hidden charging then only the telecom sector can grow.

Table-2
Descriptive – Gender

Subscriber Churn								
	N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Male	551	3.1833	1.0489	.04473	3.0954	3.2712	1.39	6.77
Female	149	3.4365	1.15308	.09446	3.2499	3.6232	1.16	5.80
Total	700	3.2372	1.07684	.04070	3.1573	3.3171	1.16	6.77

Table-3
ANOVA – Gender

Subscriber Churn					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.522	1	7.522	6.538	.011
Within Groups	803.033	698	1.150		
Total	810.555	699			

References

1. Asser J.R. and Lovelock C. (1992). Zero Defection: Quality Comes to Services. *Managing Services, Marketing, Operations and Human*.
2. Tech Tarket Corporate (2005). What Is. TechTarket Corporate, <http://searchmobilecomputing.techtarget.com>. [Accessed on 1/Sep/2007].
3. Jahanzeb S. and Jabeen S. (2007). Churn Management in the Telecom Industry of Pakistan: A Comparative Study of Ufone and Telenor. *Journal of Database Marketing & Customer Strategy Management*, 120-128.
4. Kanniappan S. (2014). How to Reduce Churn in a Telco Industry. *Happiest Mind Technologies*, 2-6.
5. Chandar M., Laha A. and Krishna P. (2006). Modeling Churn Behavior of Bank Customers Using Predictive Data Mining Techniques. *National Conference on Soft Computing Techniques for Engineering Applications*.
6. Almana A.M., Aksoy M.S. and Alzahrani R. (2014). A Survey on Data Mining Techniques in Customer Churn Analysis for Telecom Industry. *International Journal of Engineering Research and Applications*, 4(5), 165-171.
7. Mattison R. (2005). *The Telco Churn Management Handbook*. Oakwood Hills, Illinois: XTT Press, USA.
8. Richeldi M. and Perrucci A. (2002). Churn Analysis Case Study, Enabling End-User Datawarehouse Mining. Contract No.: IST-1999-11993, Telecom Italia Lab.
9. Lazarov V. and Capota M. (2007). Churn Prediction. *Business Analytics Course*, 1-5.
10. Flordal P. and Friberg J. (2013). Modeling Customer Lifetime Value in the Telecom Industry. Master's thesis submitted to the Department of Production Management, Lund University, 16.