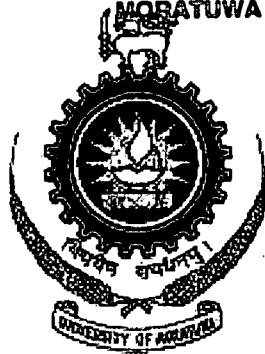
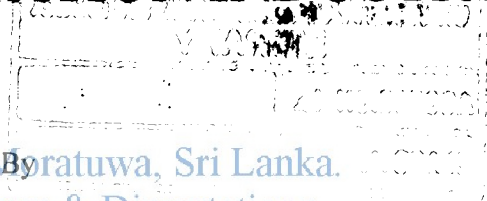


LIBRARY
UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA

LB/DOA/21/2011



PROACTIVE CHURN MANAGEMENT IN SRI LANKAN MOBILE TELECOMMUNICATION INDUSTRY



University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk
S. C. Gamage

Supervised By

Dr. Udaya Kahangamage

This thesis was submitted to the Department of Mechanical Engineering of the University of Moratuwa in partial fulfilment of the requirements for the Degree of Master of Engineering in Manufacturing Systems Engineering

Department of Mechanical Engineering

University of Moratuwa

Sri Lanka

November 2009
University of Moratuwa



96395

96395

621 "09"


621.7(043)

96395

DECLARATION

This Dissertation paper contains no material which has been accepted for the award of any other degree or diploma in any University or equivalent institution in Sri Lanka or abroad, and that to the best of my knowledge and belief, contains no material previously published or written by any other person, except where due reference is made in the text of this Dissertation.

I carried out the work described in this Dissertation under the supervision of Dr. Udaya Kahangamage.

Signature :  Date : 18.03.2010

Name of Student : S. C. Gamage

Registration No : 05 / 8639



University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

J Signature ***UOM Verified Signature*** Date : 18.03.2010

Name of Supervisor : Dr. Udaya Kahangamage

ABSTRACT

Churn is the gross rate of customer loss during a given period. In other words, churn is a measure of the number of subscribers who leave or switch to another carrier's service. The frequent migration of customers is in a way a threat to mobile operators as the expense on customer acquisition is greater than retention. On the other hand, for any operator it is difficult to maintain a steady growth in the market without maintaining the existing customer. Due to profound competition, controlling churn rate is becoming a challenge to mobile operators and identifying reasons for Churn is an even greater challenge as it is highly dependent on the values, culture, attitudes and perception of the different segments.

As an extension to the literature review, for the research project, a survey was carried out, using a questionnaire, evaluated across various demographic factors (Age, Education level, Monthly income, Gender, etc.), to identify the main causes for retention or churn from one network in Sri Lankan context. The questionnaire was distributed among a selected sample of mobile subscribers and the responses were used for the analysis. Strategies that can be used to minimize churn rate were identified based on the feedback received for the questionnaire and by looking at the best practices available in the region. Finally, a model was developed to prioritize the influencing factors (Tariff, Coverage, Brand, VAS and QoS) to measure the overall customer satisfaction in the Sri Lankan mobile industry context (explained under Discussion of Findings). Also a study was carried out to check whether there is any relationship with demographic factors and influencing factors for churn. Finally, suggestions are provided for Sri Lankan mobile operators to build strategies to minimize churn.

As the conclusions of the research, it can be stated that Sri Lankan subscribers are highly price sensitive and majority of customers who have churned from one network to another is due to lower tariff rates offered by the latter. Further, it can be identified that features for different packages are not being properly directed to a target audience or a segment. Therefore, it is necessary to build new products or packages after cautious analysis of interests of different segments.

ACKNOWLEDGEMENT

It is with great pleasure I take this opportunity to convey my sincere thanks to the Department of Mechanical Engineering, University of Moratuwa, Sri Lanka for giving me the opportunity to participate in the Master of Engineering in Manufacturing Systems Engineering Course. I am very much pleased that I was able to conduct my Masters Degree in the same University which I attended for my Bachelor's Degree.

I would like to convey my special gratitude towards Dr. Udaya Kahangamage (Senior Lecturer, Department of Mechanical Engineering) for providing me with valuable supervision and support.

I would also sincerely thank late Dr. Wathugala (former course coordinator) for guiding me in the special studies subject & the research project.

Finally, I would like to extend my gratitude towards all the lecturers, my batch mates and all the others who helped me for this research project.



University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk



S. C. Gamage
Department of Mechanical Engineering,
University of Moratuwa,
Sri Lanka.

Table of Contents

Abstract.....	2
Acknowledgement.....	3
Table of Contents.....	4
List of Figures.....	5
List of Tables.....	6
Nomenclaturé.....	6
CHAPTER 1 : Introduction.....	9
1.1 Sri Lankan Mobile Telecommunication Industry.....	9
1.2 Problem Statement.....	10
1.3 Research Objectives.....	10
1.4 Scope of the Project.....	11
1.5 Definition of Churn.....	11
1.6 Types of Churn.....	12
1.6.1 Unavoidable Churn.....	12
1.6.2 Involuntary Churn.....	12
1.6.3 Voluntary Churn.....	12
CHAPTER 2 : Overview on Sri Lankan Mobile Telecommunication Industry.....	16
2.1 Major Milestones of Sri Lankan Mobile Telecommunication History.....	16
CHAPTER 3 : Managing Churn.....	24
3.1 Minimizing Involuntary Churn.....	24
3.2 Minimizing Voluntary Churn.....	24
3.3 Strategies used by Sri Lankan mobile telecommunication operators to minimize Churn.....	25
3.3.1 Strategies for Voluntary Churn.....	25
3.3.2 Strategies for Involuntary Churn.....	27
3.3.2.1 Credit alerts using automated processes & systems.....	27
3.4 Strategies used by Asia Pacific mobile telecommunication operators to minimize Churn.....	27
CHAPTER 4 : Research Methodology.....	31
4.1 Sample Selection :.....	31
4.2 Calculating the sample size :.....	31
4.3 Hypothesis.....	32

4.4 Conceptual Model.....	32
4.5 Questionnaire Design : Aspects and Variables.....	33
4.6 Transformation of each aspect in to the questionnaire	34
CHAPTER 5 : Survey Outcome	37
5.1 Initiation.....	37
5.2 Assignment of Numerical Values for the Demographic Factors.....	37
5.3 Mean, Median, Mode and Standard Deviation of Responses.....	38
5.4 Analysis	39
CHAPTER 6 : Discussion of Findings	48
6.1 Possibility of Retaining the Customers without Churn	48
6.2 Methods to Minimize Churn based on Customer Feedback.....	49
6.3 VAS against Churn	51
6.4 Introduction of Loyalty Programs.....	53
6.5 Hypothesis Testing	54
CHAPTER 7 : Conclusion and Recommendations	56
7.1 Issues and Challenges	57
References.....	58
Annexure.....	59
9.1 Survey Questionnaire.....	59



University of Moratuwa, Sri Lanka
 Electronic Theses & Dissertations
www.lib.mrt.ac.lk

List of Figures

- Figure 1.1 : Growth in Mobile Telecommunication Market in Sri Lanka
- Figure 1.2 : Main Possible Causes for Voluntary Churn
- Figure 2.1 : Distribution of Market Share – 2009 Q1
- Figure 2.2 : Annual Growth in Subscriber Base
- Figure 2.3 : Annual Churn Rate and ARPU
- Figure 2.4 : Annual Growth Rate
- Figure 2.5 : Annual Churn Rate and ARPU
- Figure 2.6 : Annual Growth
- Figure 2.7 : Prepaid and Postpaid subscriber Distribution in Sri Lankan Mobile Market
- Figure 3.1 : Subscriber growth in the region
- Figure 3.2 : Regional Churn Comparison
- Figure 5.1 : Prepaid distribution
- Figure 5.2 : Postpaid distribution
- Figure 5.3 : Package type Vs Type of work
- Figure 5.4 : Average Monthly Usage – Postpaid
- Figure 5.5 : Average Monthly Usage – Prepaid
- Figure 5.6 : Breakdown of satisfaction on current call charges with average usage
- Figure 5.7 : Satisfaction with outgoing free minutes
- Figure 5.8 : Level of consideration about the brand name
- Figure 5.9 : Recommendation of current operator to a third party Vs Level of consideration about the brand name
- Figure 5.10 : Level of importance for day to day activities
- Figure 5.11 : Level of importance of mobile number as an identity
- Figure 5.12 : Level of importance of mobile number if they used the connection for a business
- Figure 5.13 : Level of importance of mobile number with network stay
- Figure 5.14 : Variation of SMS usage with age
- Figure 6.1 : Ability to retain in the network
- Figure 6.2 : Reasons for churn
- Figure 6.3 : Outgoing free minutes availability for long stay customers
- Figure 6.4 : Level of satisfaction regarding information provided for services
- Figure 6.5 : Level of satisfaction regarding complaint made



University of Moratuwa, Sri Lanka
Electronic Theses & Dissertations
www.lib.mru.ac.lk

Figure 6.6 : VAS usage

Figure 6.7 : Reasons for low VAS usage

Figure 6.8 : Consideration about the loyalty schemes

Figure 6.9 : Reason for not considering about the loyalty schemes

Figure 6.10 : Level of impact of influence factors for Churn – Tariff Rates Vs QoS

Figure 6.11 : Level of impact of influence factors for Churn – Coverage Vs VAS

List of Tables

Table 2.1 : Subscriber figures of Mobile Telecommunication Market in Sri Lanka

Table 5.1 : Assignment of Numerical Values for the Demographic Factors

Table 5.2 : Mean, Median, Mode and Standard Deviation of Responses

Nomenclature

MNP	- Mobile Number Portability
ETACS	- Extended Total Access Communication
AMPS	- Advanced Mobile Phone Service
ARPU	- Average Revenue per User
DAPMS	- Digital Advanced Mobile Phone Service
EDGE	- Enhanced Data Rates for GSM Evolution
GPRS	- General Packet Radio Service
GSM	- Global System for Mobile Communications
MMS	- Multimedia Message Service
PRBT	- Personalized Ring Back Tone
QoS	- Quality of Service
SIM	- Subscriber Identity Module
3G	- Third Generations in mobile communication