IMPACT OF CDMA NETWORK IN RURAL AREAS OF SRI LANKA

By

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The Dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Business Administration.

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December 2006

DECLARATION

"I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any University to the best of my knowledge and belief it does not contain any material previously published, written or orally communicated by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations"

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ABSTRACTION

Demand for the telecommunication and Information Communication Technology are increasing in the world since those are directly contribute to the communication among people and the development of the economy. To enhance the telecommunication service facility throughout the country, specially in rural areas, the TRC introduced CDMA technology to fixed operators namely Lanka Bell, Sri Lanka Telecom and Suntel by assigning three year targets to each operator separately.

The research topic "Impact of CDMA network in rural areas of Sri Lanka" will assess activities come under CDMA technology with regards to Fixed Operators, TRC, Government and Customers. The study will analyze successfulness, improvements made so far and problems with regards to introduction of CDMA technology in rural areas. Further, the study will identify problems / barriers in relation to the implementation of telecommunication facilities except technological barriers encountered for faster expansion of rural areas. To identify the barriers, "communication regulatory and subscriber connecting process" module was developed and analyzed. CDMA statistics relating to five rural district will be analyzed and such data will be compared with CDMA statistics of Colombo district.

The results of research would include the following.
- Overall Assessment of introduction of CDMA technology in Sri Lanka
- Analyzes of subscriber and data usage growth
- Improvement of rural area coverage with regards to selected five districts selected.
- Problems / barriers encountered at present, for faster growth of CDMA connectivity in rural areas
- Recommendations / suggestions to overcome the barriers / problems in order to achieve faster growth in rural areas.

The outcome of the research can be used by various authorities to support expansion of telecommunication service in the country. The barriers & suggestions identified in the study can be used to improve faster telecommunication growth.

ACKNOWLEDGEMENT

I take this opportunity to express my sincere gratitude to those who assisted and guided me in carrying out this study. This dissertation would not have been possible without their support and encouragement.

Specially, I thank my research supervisor Mr. Kithsiri Samarasingha for his very vital directions given to me for to selection of this topic, guidance and encouragement extended in completing the research project for my MBA. in Information Technology.

I thank the lecturers of this MBA program for the knowledge given by them which was very much helpful in conducting this research.

I thank the Department of Computer Science and Engineering, the Department of Management of Technology, the Department of Electronic and Eelecommunication of the University of Moratuwa for conducting this program.

I thank Mr. Helasiri Rantunage, Dupty Director Spectrum Management TRC, Mr. S. Gunananda, Assistant Director Inter Operatorbility TRC, Mr. Vasantha TRC , Mr.L. Chandra Assistant Manager Network Planning Site acquisition Dialog for assisting me a lot in collecting the required information for the research.

I thank my colleagues in the MBA program specially Priyanga and Ramesh, for supporting and encouraging me in this context.

I would also be grateful to my Father and my brother for guidance and encouragement extended to me.

Finally, I wish to pay tribute to my wife for her sacrifice during this period to complete this task and for the strength and courage given to me.

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LIST OF ABBREVIATIONS

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ICT	Information Communication Technology
IT	Information Technology
CDMA	Code Division Multiple Access
TRC	Telecommunication Regulation Commission of Sri Lanka
WLL	Wireless Local Loop
SLT	Sri Lanka Telecom
3G	Third Generations
GDP	Gross Domestic Production
PC	Personal Computer
PHS	Personal, Handheld Services
DECT	Digital Enhance Codeless Technology
GHz	Gigga Hertz
LOS	Line of sight

Chapter 2

GPS	Global Positioning System
TIA	Telecommunications Industry Association
2G	Second Generation
USA	United States of America
MHz	Mega Hertz
RF	Radio Frequency
MOS	Mean Opinion Score
SMS	Short Messaging System
CLI	Caller Line Identification
IP	Internet Protocol
NTT	Nippon Telegraph and Telephone Communication – Japan
ADSL	Asymmetric Digital Subscriber Line
NGN	Next Generation Network

IPTV	Internet Protocol Television
SDI	Synchronous Digital Interface
ICTA	Information and Communication Technology Agency of Sri Lanka
CEO	Chief Executive Officer
VMS	Voice Mail Service
CNI	Calling Name Identification Presentation
CRBT	Colour Ring Back Tone
BOI	Board of Investment
MOT	Ministry of Telecommunication
M1	Milestone 1
M2	Milestone 2
M3	Milestone 3
A1	Area 1
A2	Area 2
A3	Area 3
ATM	Automated Teller Machine
MC	Municipal Council
UC	Urban Council
ITU	International Telecommunication Union
VAT	Value Added Taxes
ISP	Internet Service Provider
VGKs	'Vishva Gnana Kendras'
MTCs	'Sarvodaya' Multipurpose Tele Centres'

Chapter 4

UDA	Urban Development Authority
CEA	Central Environment Authority
CAA	Civil Aviation Authority
CEB	Ceylon Electricity Board
MDA	Mahaweli Development Authority
DS	Divisional Secretariat