A SUITABLE ICT POLICY FRAMEWORK FOR SRI LANKA - LICENSING, INTERCONNECTION AND SPECTRUM MANAGEMENT ASPECTS

Anuranga Wijesinghe

(118476K)



Degree of Master of Science in Telecommunication Engineering

Department of Electronics and Telecommunication Engineering

University of Moratuwa Sri Lanka

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Chaminda Anuranga Wijesinghe

(118476K)



A Dissertation submitted in partial fulfillment of the requirements for the degree of Master of Science in Telecommunication Engineering

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DECLARATION OF THE CANDIDATE AND SUPERVISOR

I declare that this is my own work and this dissertation does not incorporate any material previously submitted for a Degree or Diploma in any other University or Institute of higher learning without acknowledgement. I herewith confirm to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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The above candidate has carried out research for the Masters dissertation under my supervision.

Eng. Kithsiri Samarasinghe

Date

ABSTRACT

A Suitable ICT Policy Framework for Sri Lanka - Licensing, Interconnection and

Spectrum Management Aspects

World ICT industry is rapidly changing over time and most significant aspect that can be seen

is the convergence of telecommunications, broadcasting, IT and content. With this change in

technology as well as industry, regulation of them is becoming more and more important in

order to pass the maximum benefit to the general users. Regulation depends on policy towards

the industry, hence a strong policy stance is vital for any country to reap the real value of ICT.

In Sri Lankan context, regulatory convergence has not yet taken place. Also Sri Lanka has no

clear strategy on how to use ICT for its economic and social development. Moreover, Sri

Lankan ICT policy must be strengthen on addressing universal access and overcoming digital

divide.

A literature survey was carried out to identify what is policy, public policy formulation,

importance of ICT policy to a country and relationship between policy and regulation. ICT

policies and legislations of sefected countries were then examined Next, the expected benefits

for the Sri Lankan economy and society as a whole from the ICT Sector was looked at. Finally

a policy framework was recommended to Sri Lanka to achieve the long term goals. These

recommendations were also discussed and got validated from the Regulator.

Sri Lanka targets to achieve economic and social development through promoting ICT

industry. In order to achieve that industry must be regulated in a converged manner through a

single body, correct level of competition to be maintained and each sector to be regulated at

appropriate level. It is recommended that international standard to be followed in spectrum

allocation and bandwidths are given for research activities. Local interconnection must be

handled through regulatory intervention, while outside connections are also to be aggressively

looked at.

Keywords: ICT policy, regulation, policy formulation

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Table 1.1: Data revenue Vs. Voice revenue



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LIST OF ABBREVIATIONS

Abbreviation	Description
2G	2nd Generation
3G	3rd Generation
4G	4th Generation
ADSL	Asymmetric Digital Subscriber Line
BCN	Broadband Convergence Network
BPO	Business Process Outsourcing
CSCP	Civil Service Computerisation Program
DBNO	Digital Broadcast Network Operator
DVD	Digital Video Disk
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
EGO	External Gateway Operator
FDI	Foreign Direct Investments
GDP	Gross Domestic Product
GSMA	Global System for Mobile Association
IaaS	Infrastructure as a Service
ICT	Information and Communications Technology
ICTA	Information and Communication Technology Agency
IPTV	Internet Protocol Television
ISP	Internet Service Provider
IT	Information Technologyloratuwa, Sri Lanka.
ITU (A)	International Telecommunication Union tations
KPO 💮	International Telecommunication Union Knowledge Process Outsourcing Local Area Network
LAN	Local Area Network ac. IK
LTE	Long Term Evolution
MSC	Multimedia Super Corridor
NBN	National Broadband Network
NCB	National Computer Board
NITA	National Information Technology Agenda
PaaS	Platform as a Service
PEST	Political, Economic, Social and Technological
QOS	Quality of Service
TRCSL	Telecommunications Regulatory Commission of Sri Lanka
VOIP	Voice over Internet Protocol