The formalisation of a national telecommunications strategic planning process (NTSPP) for the telecos: a case study of telecommunications in Thailand

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A Case Study of Telecommunications in Thailand

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by

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MSc (Assumption University, Thailand)

School of Information Technology and Computer Science

1997
"It is my judgement that no country, including my own, has yet achieved a fully effective scientific and technical information system. We are all on the road to development.... Modern information systems require high level planning.... It does not help a country to be part of the international apparatus, able to draw from the world's knowledge bank rapidly, unless it has a growing infrastructure able to use and exploit knowledge...."

Abstract

This thesis explores the relationships between a Telecommunications Strategic Planning Process (TSPP), the organisation and the environment for developing an understanding of the idea of a National Telecommunications Strategic Planning Process (NTSPP) in Thailand. The overall aim is to explore a new understanding of a NTSPP by providing the first detailed study of the strategic planning and practices of the Thai telecommunications industry during its first 42 years (1954-1996). It applies the Strategic Planning Process (SPP) principles to further the understanding of a NTSPP in Thailand. By using the SPP framework, this study develops a theoretical TSPP framework for analysing the underlying TSPP within the national telecommunications actors in Thailand. It also seeks to illustrate the limitations of the traditional strategic planning theory when applied to a new TSPP: The central thesis posited, is that to develop an understanding of the underlying TSPP that has occurred within the national telecommunications actors that have appeared to play a role in Thailand's NTSPP.

It is absolutely crucial to have a deep understanding about the relationships between a TSPP, the organisations, and the environment. It is argued that for a telecommunications strategic plan to be successful, at the organisational level and the national level, the understanding of these relationships is vital. One tacit assumption underlying the work reported here is that unless an appropriate TSPP can be inaugurated at the organisational level, a NTSPP can not succeed. At a more abstract level, the work reported here adopts a multiple theoretical approach (normative-descriptive), and also endeavours to consider whether the normative-descriptive dichotomy of the strategic planning theories are, in fact, a reasonable and useful paradigm for developing an understanding of a NTSPP from both theoretical and applied perspectives. Thus, the multidisciplinary process approach adopted is not intended to lead to a complete alternative theory, nor is it intended to be merely a synthesis.
The present study provides the first detailed insights for developing an understanding of a NTSPP in Thailand. One of the main outcomes has been to demonstrate that a NTSPP highlights the benefits of adopting a broad and evolutionary approach to a TSPP based on a multiple theoretical approach and also highlights the need for a multiple case study design approach for exploring the idea of a NTSPP in Thailand. For the practitioner, these findings also illustrate new possibilities for the development of a theoretically based TSPP, thus placing the organisational TSPP in a position to significantly and positively influence the future of a NTSPP in Thailand.
Acknowledgment

Firstly, I would like to express my appreciation to Professor Joan Cooper and Dr Robyn A. Lindley for their time and patience during my study at the School of Information Technology and Computer Science. Dr Lindley has not only acted as a supervisor but also as a mentor and friend throughout my period at the University of Wollongong. This research work would not have been completed without her assistance. I also would like to thank Dr Richard Joseph, Tony Dean, David Bomba, Dr Carole Alcock, and Dr Leon Dunn.

I would also like to thank the Rev. Bro. Dr. Prathip Martin Komolmas, Vice Chancellor of Assumption University of Thailand for providing financial support throughout my candidacy at the University of Wollongong. There is also no way of expressing adequately the helpfulness of the academics and students from other universities. Thanks to the senior executives of the participating organisations: the TOT, the CAT, the PTD, the MOTC, the MOST, the TDRI, the TT&T and others for providing useful comments and assistance.

At last, I would like to thank my parents, Reawadee Kiatpitukchai and Theresa V. Roldan for their appreciation and support, during the final stage of writing my thesis.
# Contents

| Declaration | i |
| Abstract | iii |
| Acknowledgment | v |
| Contents | vi |
| List of Figures | ix |
| List of Tables | xii |
| List of Acronyms | xiv |

## Chapter One
### Introduction and Background

1.1 Introduction 1
1.2 Brief history of the Thai telecommunications industry 2
1.3 The evolution of strategic planning theory and practice 14
1.4 Definition of the terms and integrated concepts 16
1.5 Background to a NTSPP research problem 19
1.6 Statement of a NTSPP research problem 24
1.7 Research aim and objectives 24
1.8 The expected contribution of this study 26
1.9 The conceptual framework of the study 27
1.10 A summary of the following chapters 32

## Chapter Two
### A Telecommunications Strategic Planning Process (TSPP)

2.1 An introduction to a TSPP 34
2.2 Theoretical background for a TSPP 36
   2.2.1 Understanding the relationships between a TSPP, the organisation, and the environment 37
   2.2.2 The SPP and the organisation 37
   2.2.3 The SPP and the environment 48
   2.2.4 The organisation and the environment 54
2.3 A framework for analysing influences on a TSPP 58
   2.3.1 Understanding the relationships between a TSPP, the government regulation, and the technological change 59
   2.3.2 A TSPP and the government regulation 59
   2.3.3 A TSPP and the technological change 62
2.4 Implications for developing an understanding of a TSPP 67
   2.4.1 The SPP and the normative-descriptive dichotomy 67
   2.4.2 The normative approach 69
   2.4.3 The descriptive disputes 71
2.5 Conclusions 73

## Chapter Three
### A National Telecommunications Strategic Planning Process (NTSPP)

3.1 An introduction to a NTSPP 74
3.2 Identification of NTSPP issues, pressures, and characteristics 75
   3.2.1 The objectives and importance of a NTSPP 79
   3.2.2 NTSPP problems, pitfalls, constraints, and uncertainties 80
3.3 A NTSPP theoretical planning and practice framework 81
   3.3.1 The establishment of an organisational TSPP framework 83
   3.3.2 Comparison of organisational and a NTSPP environment 85
3.4 A framework for analysing a NTSPP 87
   3.4.1 A NTSPP framework 87
   3.4.2 Critical NTSPP success factors 93
Contents

3.5 Conclusions 94

Chapter Four
Relationships and Roles of the Thai Telecommunications Players

4.1 Introduction to the Thai telecommunications regulatory environment 96
  4.1.1 Regulation by the TOT 98
  4.1.2 Regulation by the CAT 98
  4.1.3 Regulation by the PTD 99
4.2 The present position of the Thai telecommunications 101
  4.2.1 The TOT's status and major initiatives (1954-1996) 101
  4.2.2 The CAT's status and initiatives (1976-1996) 108
  4.2.3 Services development and status of the PTD (1886-1996) 111
4.3 Organisation and the regulatory structure of the Thai telecommunications 112
  4.3.1 The TOT's restructuring initiatives (1989-1996) 112
  4.3.2 The CAT's restructuring initiatives (1989-1996) 118
  4.3.3 Changes in the PTD's organisational structure (1991-1996) 122
4.4 Thai Government's recent initiatives 123
  4.4.1 The implementation plan of the TOT (1991-1996) 124
  4.4.2 Network expansion initiatives of the CAT (1991-1996) 132
  4.4.3 The seventh project of the PTD (1991-1996) 136
4.5 Strategic planning and practices at play in the Thai telecommunications 137
4.6 Results from the Thai telecommunications history 142
4.7 Conclusions 145

Chapter Five
The National Case Study: Methods in Design, Collection and Treatment of the Data

5.1 An introduction to a national case study 146
5.2 Appropriateness of a research method 147
  5.2.1 Types of research techniques 148
  5.2.2 The quantitative-qualitative paradigm of research 148
5.3 Case study design for a NTSPP in Thailand 151
  5.3.1 Case study research in Thailand 151
  5.3.2 The design of a national case study 153
  5.3.3 Units of analysis for a NTSPP 156
  5.3.4 Criteria for judging the quality of research design 156
5.4 Collection and sources of data 158
  5.4.1 Development of the interview instrument 160
  5.4.2 Sources of data for the study 162
5.5 Data analysis and display for a NTSPP 164
  5.5.1 Transcriptions of the recorded evidence 165
  5.5.2 Single case evidence analysis 165
  5.5.2 Cross case analysis 166
5.6 Limitations of the research 167
  5.6.1 Conceptual limitations 167
  5.6.2 Methodological limitations 167
  5.6.3 Data Collection limitations 168
5.7 Conclusions 168

Chapter Six
The Case Studies of the Thai National Telecommunications Players

6.1 Case I: The Case of the Telephone Organisation of Thailand (TOT) 169
  6.1.1 Evidence from the sources of data 170
  6.1.2 Findings of the TSPP at the TOT 171
Contents

6.1.3 Findings of the relationships of the TOT's TSPP with a NTSPP
6.1.4 Findings of the influences on the TOT's TSPP
6.1.5 Results from the findings
6.2 Case II: The Case of the Communications Authority of Thailand (CAT)
   6.2.1 Evidences from the sources of data
   6.2.2 Findings of the TSPP at the CAT
   6.2.3 Findings of the relationships of the CAT's TSPP with a NTSPP
   6.2.4 Findings of the influences on the CAT's TSPP
   6.2.5 Results from the findings
6.3 Case III: The Case of the Post and Telegraph Department (PTD)
   6.3.1 Evidences from the sources of data
   6.3.2 Findings of the TSPP at the PTD
   6.3.3 Findings of the relationships of the PTD's TSPP with a NTSPP
   6.3.4 Findings of the influences on the PTD's TSPP
   6.3.5 Results from the findings
6.4 Conclusions

Chapter Seven
A Cross Case Analysis of the TOT, the CAT, and the PTD
7.1 A cross analysis of the TSPP at the TOT, the CAT and the PTD
7.2 A cross analysis of the role of the TOT, the CAT and the PTD in NTSPP
7.3 A cross analysis of the environmental influences on the TSPP
7.4 A cross analysis of the Thai regulatory planning process for NTC
7.5 Transforming the organisational TSPP into a NTSPP
7.6 Conclusions

Chapter Eight
Synthesis of the National Case Study Findings
8.1 Theoretical analysis for the Thai telecommunications
   8.1.1 A synthesis of the Thai telecommunications operator's TSPP
   8.1.2 A synthesis of a Thai NTSPP
   8.1.3 The Thai telecommunications industry structure
8.2 International experiences of a NTSPP
   8.2.1 The NTSP in Canada
   8.2.2 The NTSP in the USA
   8.2.3 The NTSP in Brazil
8.3 Conclusions

Chapter Nine
Summary, Conclusions and Recommendations
9.1 Summary
9.2 Theoretical implications of the research
9.3 Research implications for the Thai practitioners
9.4 Recommendations for further research

Author's Publications (1995-1997)

References

Appendix A Research Questionnaire
Appendix B Notes on Interviewee Selection and Contact Details
6-26 The Office of the Director General's view on the problems of strategic planning and practices in Thailand 232
7-1 The steps for the TSPP at the MOTC 248
7-2 The respondents view on the GSP for a NTSP in Thailand 249
7-3 The conceptual framework for organisations and individuals involvement in NTC 261
8-1 The steps of the TSPP at the Telecom Canada (TC) 285
8-2 A hypothetical framework of the national telecommunications strategic planning and involvement processes in the United States 287
8-3 The structure of the Brazilian telecom industry 292
## List of Tables

1-1 A brief chronology of Thai telecommunications development 3
1-2 A brief chronology of the TOT's development (1954-1991) 5
1-3 A summary of the main private organisations which have been granted licences to develop major projects in Thailand (1987-1995) 12
1-4 A summary of Thailand's telephone forecast (1992-2001) 14
1-5 A brief summary of the trends of strategic planning (1880s-1980s) 16
1-6 A brief summary of the planning definitions 17
2-1 A summary of Steiner's views on the definition of formal strategic planning 43
2-2 A summary of Steiner's view on the applicability of the private sectors experiences to the non-profit organisations 45
2-3 A summary of the key findings on the relationships between the SPP and the organisation 49
2-4 A summary of the key findings on the relationships between the SPP and the environment 54
2-5 A summary of the basic differences and comparisons of public and private organisations 55
2-6 A summary of the key findings on the relationships between the organisation and the environment 58
2-7 A summary of the premises of the design school 69
2-8 A summary of Mintzberg's schools of thought and basic assumption 70
4-1 TOT's historical development chronology (1954-1996) 99
4-2 TOT's services and services under the development as of 1991 103
4-3 Telephone line growth in Thailand (1981-1993) 107
4-4 The CAT's services offering and future planning chronology 110
4-5 The TOT's service rendered performance by 1993 125
4-6  The TOT's objectives and policies set by the BOD and Top Management in 1993  127
4-7  A brief chronology of the CAT's services offering by 1993  135
4-8  A brief outline of the PTD's projects development (1992-1996)  137
4-9  Local administration system of Thailand  138
4-10 Different phases of ISDN development in Thailand (1987-2007)  140
5-1  Relevant situations for different research strategies  152
5-2  Case study tactics for four design tests  157
5-3  A summary of the strengths and weaknesses of six sources of evidence  159
9-1  A summary of the key original contribution of the research  298
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
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<td>American Telephone and Telegraph</td>
</tr>
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<td>APCN</td>
<td>Asia Pacific Cable Network</td>
</tr>
<tr>
<td>AMPS</td>
<td>Advanced Mobile Phone System</td>
</tr>
<tr>
<td>BTO</td>
<td>Build-Transfer-Operate</td>
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<td>British Telecom</td>
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<td>BOD</td>
<td>Board of Directors</td>
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<td>Communications Authority of Thailand</td>
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<td>Charoen Pokphand Group</td>
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<td>Centralised Switching Nodes</td>
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<td>CBT</td>
<td>Compania Telefonica Brasileira</td>
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<td>DIGP</td>
<td>Development and Information Gathering Process</td>
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<td>DATANET</td>
<td>Data Transmission Network</td>
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<td>Domestic Satellite Carriers</td>
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<td>Economic and Social Development Project</td>
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<td>EMS</td>
<td>International Express Mail</td>
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<td>ENTEL</td>
<td>Empresa Nacional de Telecommunicaciones</td>
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<td>Electronic Data Interchange</td>
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<td>The Established Common Carriers</td>
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<td>Goal Setting Process</td>
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<td>Group Switching Process</td>
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<td>International Database Access</td>
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<td>ITFS</td>
<td>International Toll-Free Telephone</td>
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<td>International Operator Direct Connection</td>
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<td>International Telecommunications Union</td>
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<td>IS</td>
<td>Information Systems</td>
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<td>Description</td>
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<td>International Radio Carriers</td>
</tr>
<tr>
<td>ICs</td>
<td>International Carriers</td>
</tr>
<tr>
<td>MOTC</td>
<td>Ministry of Transport and Communications</td>
</tr>
<tr>
<td>MOST</td>
<td>Ministry of Science and Technology</td>
</tr>
<tr>
<td>MAN</td>
<td>Metropolitan Area Network</td>
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<td>MIS</td>
<td>Management Information Systems</td>
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<td>MTC</td>
<td>Mobile Telephone Carriers</td>
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<td>NESDB</td>
<td>National Economic and Social Development Board</td>
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<td>NECTEC</td>
<td>National Electronics and Computer Technology Centre</td>
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<td>NTSPP</td>
<td>National Telecommunications Strategic Planning Process</td>
</tr>
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<td>NTSP</td>
<td>National Telecommunications Strategic Plan</td>
</tr>
<tr>
<td>NTC</td>
<td>National Telecommunications Commission</td>
</tr>
<tr>
<td>NEC</td>
<td>National Economic Council</td>
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<td>National Economic Development Board</td>
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<td>NTT</td>
<td>Nippon Telephone and Telegraph</td>
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<td>Network Evolution Plan</td>
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<td>NSP</td>
<td>Network Strategic Plan</td>
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<td>Network Strategic Planning Group</td>
</tr>
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<td>OCCs</td>
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<td>Post and Telegraph Office</td>
</tr>
<tr>
<td>PTD</td>
<td>Post and Telegraph Department</td>
</tr>
<tr>
<td>PAD</td>
<td>Packet Assemble Disassembly</td>
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<tr>
<td>PHS</td>
<td>Personal Handphone System</td>
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<td>RPSP</td>
<td>Review Process of a Strategic Plan</td>
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<td>RCCs</td>
<td>Radiocommunications Carriers</td>
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<tr>
<td>SPP</td>
<td>Strategic Planning Process</td>
</tr>
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<td>SPC</td>
<td>Stored Program Control</td>
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<td>SOEs</td>
<td>State Owned Enterprises</td>
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<td>State Railway of Thailand</td>
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<td>Senior Marketing Advisory Group</td>
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<td>TAC</td>
<td>Total Access Communication Public Company Limited</td>
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<td>TT&amp;T</td>
<td>Thai Telephone and Telecommunications Public Company Limited</td>
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<td>TSP</td>
<td>Telecommunications Strategic Plan</td>
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<tr>
<td>TSPP</td>
<td>Telecommunications Strategic Planning Process</td>
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<tr>
<td>TA</td>
<td>TelecomAsia Public Company Limited</td>
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<tr>
<td>TDRI</td>
<td>Thailand Development Research Institute</td>
</tr>
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<td>TOT</td>
<td>Telephone Organisation of Thailand</td>
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<td>Acronym</td>
<td>Description</td>
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<td>------------------------------------------</td>
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<td>TELEBRAS</td>
<td>The Brazilian Telecommunications Industry</td>
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<tr>
<td>TNS</td>
<td>Transmission Network System</td>
</tr>
<tr>
<td>TEM</td>
<td>Telecom Equipment Manufacturer</td>
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<tr>
<td>VANs</td>
<td>Value Added Networks</td>
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<tr>
<td>WU</td>
<td>Western Union</td>
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Chapter One
Introduction and Background

1.1 Introduction

Advances in telecommunications offer benefits from its products and services. These are crucial for both the economic and social development of a nation. To date, most developing nations are struggling to establish a National Telecommunications Strategic Process (NTSPP) for exploiting the strategic benefits through the proper use of telecommunications. This can be seen as one of the major driving forces for a NTSPP research.

The overall aim of this study is to explore the idea of a NTSPP in Thailand. It does this by analysing the Telecommunications Strategic Planning Processes (TSPP) within the Telephone Organisation of Thailand (TOT), the Communications Authority of Thailand (CAT), and the Post and Telegraph Department (PTD). A multiple case study design approach is used for developing an understanding of the underlying TSPP strategies among the Thai telecommunications players. It also addresses the research problems raised for a NTSPP research in Thailand.

This chapter provides a brief history of the telecommunications industry's development in Thailand. A brief overview of the strategic planning theories is provided. The definition
of some of the terms and integrated concepts used in this thesis are also given. A discussion of the background and statement of the problem, together with research objectives and expected contributions of the present study is given. A summary of the following chapters of the thesis is also concluded in this chapter.

1.2 A brief history of Thai telecommunications development

The Thai telecommunications development process began in 1869. A British company received permission to install and maintain a telegraph system for various provinces in Thailand. A connection was established from Penang in Malaysia but unfortunately, the British company could not complete the whole project. In 1875, the Thai Government assigned the Ministry of Defence to install a telegraph line from Bangkok to Samutprakarn (a fortress town near the Gulf of Thailand). By 1878, the Thai Government established a telegraph line of 46 km from Saranromya Palace in Bangkok and at the same time, a 32 km telegraph line from Bangkok to Bang-Pa-In Palace was also installed.

Thailand joined the International Telegraph Union in July 1885. However, in 1886, the telephone service was moved from the Ministry of Defence to the Post and Telegraph Office (PTO). In 1891, the PTO was split into separate departments for post and for telegraph (including telephone) and in 1897, the PTO was recombined as the PTD (Post and Telegraph Department). By 1930, most of the major cities and major towns in Thailand were linked with Bangkok, and, in some cases, directly with each other. The Thai government in 1945, ordered two exchanges (totalling 3500 lines) from the General Electric company to meet the demand for the basic telephone services (Charmonman, 1994). By 1978, Thailand had 146 telephone exchanges with 362,150 subscribers. In 1980, the TOT (Telephone Organisation of Thailand) estimated that only 25% of the population had access to telephone services in Thailand and by 1988, only thirty-six out of the seventy-three provinces in Thailand had telex services.
Communications infrastructure development has played a key role in the development of Thailand since the deployment of the first public telegraph service in 1875 (Charmonman, 1994). A brief chronology of Thai telecommunications development is provided in Table 1-1. Like most nations, Thailand's telecommunications history has been directed largely by the Government. At present, telecommunications infrastructure development is carried out by three organisations: the Post and Telegraph Department (PTD); the Telephone Organisation of Thailand (TOT) and the Communication Authority of Thailand (CAT). The PTD is responsible for policy rules and regulations, CAT for the operational and control of international services and the TOT for domestic telephone services. These three organisations are under the direction of the Ministry of Transport and Communications (CAT, 1993).

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>1875</td>
<td>First telegraph service</td>
</tr>
<tr>
<td>1881</td>
<td>First telephone service</td>
</tr>
<tr>
<td>1883</td>
<td>Postal &amp; Telegraph Department Established</td>
</tr>
<tr>
<td>1897</td>
<td>Postal &amp; Telegraph Departments combined to become the Post and Telegraph Department (PTD)</td>
</tr>
<tr>
<td>1931</td>
<td>First private citizens' radio station</td>
</tr>
<tr>
<td>1936</td>
<td>First long distance telephone service (to Tokyo)</td>
</tr>
<tr>
<td>1954</td>
<td>Telephone Organisation of Thailand (TOT) established</td>
</tr>
<tr>
<td>1963</td>
<td>First international telex services (to Japan)</td>
</tr>
<tr>
<td>1966</td>
<td>Thailand became a member of INTELSAT with 0.1 percent share</td>
</tr>
<tr>
<td>1971</td>
<td>First radio paging service</td>
</tr>
<tr>
<td>1972</td>
<td>First car phone installed</td>
</tr>
<tr>
<td>1976</td>
<td>Communications Authority of Thailand (CAT) established</td>
</tr>
<tr>
<td>1979</td>
<td>First facsimile transmission service</td>
</tr>
<tr>
<td>1984</td>
<td>Thailand's share of INTELSAT increased to 0.49 percent and GTE International was contracted to build an earth station near Bangkok</td>
</tr>
<tr>
<td>1991</td>
<td>Shinawattra was given a 8 year monopoly contract to launch ThaiSat for television, government and domestic communication needs, as leases expire on the other satellite systems</td>
</tr>
<tr>
<td>1991</td>
<td>TelecomAsia was given a 25 year concession for installing 2 million telephone lines for Bangkok Metropolitan Area</td>
</tr>
<tr>
<td>1991</td>
<td>TT&amp;T (Thai Telephone &amp; Telecom) was given concession for installing 1 million telephone lines for the rural areas</td>
</tr>
<tr>
<td>1995</td>
<td>Privatisation plan announced</td>
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Table 1-1. A brief chronology of Thai Telecom Development

(Lindley and Hossain, 1996)

Thailand has been engaged in a widespread industrialisation process since the latter half
of the twentieth century. Since then, Bangkok has become an important world city with regional offices of many international organisations. This has created tremendous demands for the development of a suitable infrastructure, including telecommunications (Charmonman, 1994). The Thai Government introduced the telephone and telegraph services into Thailand in 1875 and under Thai Laws and Regulations, Government agencies have had a monopoly on the telecommunications industry since then. However, changes occurred with the 1991 announcement of two new franchises—one for Bangkok and one for rural Thailand. The first Government Act in 1991 gave a twenty-five year concession to the TelecomAsia (a strategic partner of Nynex) to install two million telephone lines for the BMA (Bangkok Metropolitan Area). At the same time, a one million line concession was given to the TT&T (Thai Telephone & Telecommunications) for the installation of additional lines in rural Thailand (TelecomAsia, 1994). In November 1995, these concessionary contracts for telephone lines were increased by 600,000 lines for TA and 500,000 lines for TT&T.

1.2.1 The Telephone Organisation of Thailand (TOT)

The Telephone Organisation of Thailand (TOT), a state owned enterprise under the Ministry of Transport and Communications (MOTC), was established in 1954. Since then, TOT’s main objectives have been to operate and develop a national telephone services for the greatest benefits to the State and the public, and to carry out all business, relating to or beneficial for, telephone activities. The TOT is responsible for domestic services, international services to Laos and Malaysia and leased circuits for domestic point-to-point transmission of voice, telegraph, radio and television.

The TOT had only 4 exchanges at the time of its establishment with total assets of 50 million baht and 700 employees (TOT, 1991). In 1960, the Post and Telegraph Department (PTD) transferred 47 provincial telephone exchanges with approximately 9,700 lines to TOT. From 1964 to 1969, the MOTC transferred its long distance telephone networks to
TOT. From 1986 to 1991, the TOT introduced many new services and installations for increasing the efficiency of their networks and providing more reliable and cost effective services to their customers.

By 1993, the TOT had a capacity of 1,588,635 basic telephone lines at 204 exchanges in the metropolitan area. Of these 1,586,611 lines at 189 exchanges were operated solely by the TOT itself, and 105,000 lines at 15 exchanges were run as a private-sector joint venture. The TOT also had a capacity of 957,446 lines at 894 exchanges in the provincial areas, with a total of 2,540,081 lines at 1098 exchanges in Thailand by the end of 1993 (TOT, 1994). A brief chronology of the TOT's development is provided in Table 1-2.

---

Table 1-2. A brief chronology of TOT’s development (1954-1991)  
(Hossain and Cooper, 1996b)

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>The TOT was established with 4 exchanges, namely Wat Liab, Bang Rak, Sam Sen and Phloenchit, with 10,000 lines.</td>
</tr>
<tr>
<td>1960</td>
<td>The PTD transferred 10 provincial telephone exchanges with 1,600 lines and later another 37 provincial telephone exchanges with 8,100 lines to the TOT.</td>
</tr>
<tr>
<td>1964</td>
<td>The Ministry of Transport and Communications transferred its long distance telephone networks in the Central, Eastern, and Northeastern regions to the TOT.</td>
</tr>
<tr>
<td>1969</td>
<td>Northern and Southern long distance telephone networks transferred by the Ministry of Transport and Communication to the TOT.</td>
</tr>
<tr>
<td>1986</td>
<td>The TOT introduced NMT 470 MHz mobile phone services.</td>
</tr>
<tr>
<td>1990</td>
<td>The TOT introduced SPC Exchange System services.</td>
</tr>
<tr>
<td>1990</td>
<td>The TOT introduced Paging services.</td>
</tr>
<tr>
<td>1990</td>
<td>The TOT introduced a Data Transmission Network service (DATANET).</td>
</tr>
<tr>
<td>1990</td>
<td>Introduction of Toll-Free Call 088 services.</td>
</tr>
<tr>
<td>1990</td>
<td>The TOT invited the private sector to bid for the &quot;Three Million-Line Expansion Project.&quot;</td>
</tr>
<tr>
<td>1991</td>
<td>The TOT introduced the Public Card Phone service</td>
</tr>
</tbody>
</table>

---

1.2.2 The Communications Authority of Thailand (CAT)

The Communications Authority of Thailand (CAT), a State Owned Enterprise (SOE) under the MOTC, was established in 1976. The CAT's main objectives were to operate and improve the activities of the post and telecommunications system for the benefit of the State
and the public. The CAT also aimed at carrying out the business accompanying the activities of the post and telecommunications act (CAT Act., 1976). The CAT was responsible for the postal, telegraph, telex, telephoto and facsimile services, domestic radio-links, and, international leased circuits.

The CAT had 3,000 circuits of international telephone facilities at the beginning of its operation, but soon expanded to 9,000 circuits. At present, the CAT is at the stage of developing networks that aim at delivering: efficient postal and telecommunications services to people in all areas of the country; government objectives towards national development; and, to bring maximum benefits to the public (CAT, 1989). The CAT has also developed major plans and projects for increasing the efficiency of their services comparable with other countries and to keep pace with Thai economic growth in the future (CAT, 1993). The CAT's major Acts are as follows:

1. Project for the development of telecommunications business in specific economic areas (Teleport);
2. Project for expansion of the international telephone services of SPC system (ITSC IV);
3. Fibre optic submarine cable project;
4. Thai-Malaysia fibre optic submarine cable system;
and,
5. Thai-Vietnam-Hong Kong fibre optic submarine cable system.

1.2.3 Post and Telegraph Department (PTD)

The Postal and Telegraph Department was first established in 1883. In 1897, the Postal and Telegraph Department was combined and changed its name to the Post and Telegraph Department (PTD). The PTD is a Government department headed by the Director General and directed by the Ministry of Transport and Communications. The PTD is primarily
responsible for policy rules and regulations and, at present, is the sole regulator of radio communications activities in Thailand. Its secondary responsibility is to coordinate different projects related to postal and telecommunications development in Thailand and to oversee the concession agreement projects within the public and private sector (PTD, 1993).

The PTD is also actively involved in representing the Thai Government at an administrative level, dealing with the government's and organisations of foreign countries and international organisations in the area of post and telecommunication development (PTD, 1993). During the past few years, the PTD has actively participated in the national telecommunications infrastructure development process. In 1993, the PTD jointly with the TOT and the CAT, amended the Telegraph and Telephone Act of 1934 to facilitate the private sector's participation in the development process of Thailand's basic telecommunications infrastructure. The Deputy Director General and his Working Group actively participated in the process, and drafted the structure, rules and regulations for the future National Telecommunication Commission (NTC) which will be the future regulatory body of Thailand's telecommunications industry. The draft proposal for the establishment of a NTC was under revision by the Ministry of Transport and Communications and the Thai Cabinet in November 1996.

1.2.4 National Economic and Social Development Board (NESDB)

The National Economic and Social Development Board is a Government organisation headed by the Office of the Prime Minister. Thailand started its development planning in 1950 and established the National Economic Council (NEC) to undertake economic studies and to advise the government on general financial and economic matters. The council is divided into five sectors: agriculture, finance, commerce, industry and communication. In 1957, the World Bank Group visited Thailand to correct the shortcomings that resulted from a lack of clear and comprehensive national objectives. Following the recommendations of the World Bank, the Thai Government established the National Economic Development
Board (NEDB) in 1959. Later in 1972, the NEDB was renamed the National Economic and Social Development Board (NESDB) to emphasise social development in the National Development Planning Process (NESDB, 1994).

The NESDB is the central planning agency that draws up plans for the National Economic and Social Infrastructural Development and has already completed seven development plans. The Board is responsible for conducting the macro economic studies that recommend future actions to the State enterprises in Thailand. The NESDB is also responsible for the telecommunications infrastructure development planning processes and implementation practices. It is the duty of the NESDB to oversee whether the TOT's, and the CAT's strategic plans are in accordance with the NESDP. The NESDB also works closely with the Cabinet and the Budget Bureau in the approval process of the plans posited by the State enterprises.

The NESDB also plays a major role in setting national objectives' and long-term goals for the telecommunications infrastructure development planning process. For example, the overall telephone penetration in 1993 was about 5 lines per 100 people and the Seventh National Economic and Social Development Plan (1992-1996) aimed at expanding this telephone network to achieve a ratio of 10 lines per 100 people by 1996. Moreover, the National Economic and Social Development Planning Commissioner indicated that Thailand's telephone penetration ratio should be 25 lines per 100 population to be competitive with other developing Asian nations (TelecomAsia, 1994).

1.2.5 Private Sector Participation

At present, there are two major strategic aims that govern the evolution of Thailand's telecommunications services: The first, is to decrease the subscriber waiting list to a point where demand can be met in as short a time a possible. The second, involves a program of upgrading network infrastructure to optimise the flexibility and cost, and to increase the
range of services available (Lindley and Hossain, 1996a). To date, the privatisation of the National telecommunications services has not been a priority despite the announcement of its intention to do so. Rather, further centralisation of management planning and operational control have been the key strategies adopted to improve the overall approach to strategic planning to the year 2000 and beyond. Yet in noting this, and in view of the challenges to be highlighted in the proceeding sections, it is recognised that no single methodology is generally applicable for upgrading telecommunications infrastructure in a particular national setting (Hoshi, Yiannakou, Sanati and Ghazal, 1992). It is therefore essential that Thai agencies, responsible for the development of a National Telecommunications Strategic Plan (NTSP), establish clear policy guidelines and make preparations well in advance of the need. The announcement of plans to privatise telecommunications in March 1995 was the first step in that direction.

Collectively, the actions of previous Thai Governments have reflected a belief that the privatisation of telecommunications services is the best policy option to cope with the rapid economic growth of the country and as a passage to procure the large financial resources required to extensively develop the infrastructure and to keep pace with new technological developments. Yet, in practice Thai fixed-line telecommunications services are not expected to be privatised for several years. An explicit policy of the Thai Government is to strengthen TOT until it is ready to be able to compete commercially with private companies while still ensuring that it retains its role as the Nation's leading telecommunications service provider. To assist in achieving this aim, the specific policy objectives of the TOT can be summarised as follows (TOT Annual Report 1993):

(i) establish a base that will enable the TOT to compete in a competitive environment;

(ii) support of network expansion initiatives for the rapid expansion and modernisation of the network to meet social and economic demand;
and,

(iii) build up internal expertise and unity among the TOT employees.

Although committed to the expansion of public utilities and infrastructure, Thailand's previous Anand Government rejected the idea of privatisation on the basis that it could be used as a tool for politicians to profit through corruption during the bidding process. However, the Anand Government, shortly after it took power for the second time, decided to review the role of privatisation. It also reviewed the three-million-line telephone project granted by the TOT to the TelecomAsia, controlled by the Charoen Pokphand (CP) Group. This resulted in splitting the contract between two companies. These were the CP Group (since renamed TelecomAsia), to develop a two-million-line telephone network to service Bangkok, and the second was awarded to the Loxley-Jasmine consortium's Thai Telephone and Telegraph Company (TT&T) to provide an additional one million lines for the provinces. Telecommunications services are being made available in the metropolitan and provincial regions and access rates do not vary significantly throughout the country, even though the services may be provided by different companies or use different technologies. Unfortunately, the decision by the Government to review contracts already granted, has had the result of undermining trust in the private sector and in the Thai Government's ability to honour contracts (Chantranontwong, 1992).

The Chuan Government in 1995, has continued to accept the previous Government's "spirit of privatisation." It is also recognised by the Chuan Government that the underlying demands, trends and growth prospects need to be examined so that a major program of infrastructure development can be implemented to catch up with demand and to influence future socioeconomic growth development patterns and directions. According to the Deputy Prime Minister, Dr Amnuay, privatisation has now become an economic instrument for infrastructure development as well as the mechanism for a restructuring of management strategies to increase efficiency and to strengthen private leadership in the process of
Yet, despite the Chuan Government's efforts to work toward the development of policies that demand a greater input from the private sector, private investors are still not confident of the Government's capacity, to honour their contracts. Private telecommunications organisations in Thailand have also been encouraged to work towards the establishment of international telecommunications projects. Ventures with Cambodia and Laos have now begun and there are plans for joint ventures with nearby Myanmar and Vietnam. However, it should be noted that, although the Chuan Government has increased the number of opportunities by awarding more licences, it has not yet relaxed licensing conditions such as network build-out and investment requirements.

Over the past few years, the Thai Government has encouraged and developed successful initiatives for private participation through concessions as a way to speed up the network development process and the development of new services to meet growing subscriber demands (Oscar & Gandy, 1991). During 1992 and 1993, the Government allowed the private sector to co-invest with the TOT in basic telecommunications infrastructure development under the Build-Transfer-Operate (BTO) agreement. According to this expansion contract, TelecomAsia is responsible for building 2.6 million additional lines in the Metropolitan area and the TT&T is responsible for 1.5 million lines in the rural areas. However, other concessions were also given to value added services operations. A summary of some of the main concession agreements between the State and private telecommunications service providers is provided in Table 1-3.

1.2.6 The Future of Thai Telecommunications

Planning under conditions of complexity, uncertain economic forecasts, imperfect information and working under the changing views of political representatives, the present Thai Government has no alternative but to limit its longer term strategic planning to the
possible directions for future moves. These possibilities are not merely the result of processing information received from the environment within which they operate, they also involve interpreting information based on beliefs and historical factors. It is these possibilities that allow an organisation to envisage the future and therefore decide what actions are to be taken.

<table>
<thead>
<tr>
<th>Project</th>
<th>Investor</th>
<th>Years</th>
<th>Start</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2.6)M lines</td>
<td>TelecomAsia</td>
<td>25</td>
<td>1992/1995</td>
<td>TOT</td>
</tr>
<tr>
<td>(1.5)M lines</td>
<td>TT&amp;T</td>
<td>25</td>
<td>1993/1995</td>
<td>TOT</td>
</tr>
<tr>
<td>Satellites</td>
<td>Shinawatra</td>
<td>30</td>
<td>1993</td>
<td>MOTC</td>
</tr>
<tr>
<td>Paging</td>
<td>Shinawatra</td>
<td>15</td>
<td>1990</td>
<td>TOT</td>
</tr>
<tr>
<td>Data</td>
<td>Shinawatra</td>
<td>10</td>
<td>1990</td>
<td>TOT</td>
</tr>
<tr>
<td>Cellular</td>
<td>Hutchinson</td>
<td>15</td>
<td>1990</td>
<td>TOT</td>
</tr>
<tr>
<td>Paging</td>
<td>Pacific Telesis</td>
<td>10</td>
<td>1987</td>
<td>CAT</td>
</tr>
<tr>
<td>Cellular</td>
<td>TAC</td>
<td>15</td>
<td>1991</td>
<td>CAT</td>
</tr>
</tbody>
</table>

*Source: Shinawatra International*

**Table 1-3. A summary of the main private organisations which have been granted licences to develop major projects in Thailand**

*(Lindley and Hossain, 1996)*

Although not explicitly stated, the vision of Thailand's telecommunications future embodies the following elements. The first essential element of creating future strategic visions is the establishment of sufficient telephone lines so that supply can match demand in as short a time as possible. Second, the key force driving future competitiveness is the introduction of competition. Third, most financial, technological and human resources will be supplied by international firms which are encouraged to have a presence in Thailand through concessions. It is also anticipated that competencies relating to improved competitiveness and returns will also be delivered by cooperation with international telecommunications firms. Finally, and as a way of avoiding excessive reliance on foreign transnational corporations, the development of indigenous telecommunications firms is encouraged through the Government bidding processes favouring local tenderers.
To date, Thailand has not undertaken a comprehensive telecommunications sector reform approach. Instead, it has taken a series of tentative steps towards opening up the local telecommunications industry to private investment. However, because of the continued poor past performance of the CAT and the TOT, pressures for reform based on a privatisation policy have increased in recent years. The transition from the Government monopoly to the privatisation, is also supported by the experiences of other developing countries. In a report released by the World Bank, that synthesises of experiences of special relevance for Asia's developing countries, it concluded that Government support for monopolies, based on arguments of economies of scale and scope, is not a valid one (Smith & Staple, 1994). One of the main concerns it raises is the ability of the telecommunications sector of developing nations to keep pace with the region's growth and expansion. It is argued that many nations have already paid dearly for their limited attention to the telecommunications sector, and for the socioeconomic costs associated with apparent inefficiencies of State owned and operated telecommunication organisations. The inability to meet growing demands for the services of the Thai telecommunications industry, is recognised as a crucial problem which will impact on future economic growth of the country.

In Thailand there is also a widening gap between the rural and urban telephone penetration levels which the government needs to address. The rapid industrial growth and the centralisation of Thailand's work force is encouraging a heavy migration of people from rural to urban areas, such as Bangkok. Currently, the telephone penetration for the Bangkok Metropolitan Area (BMA) is about 50 lines per 100 population. However, the teledensity of rural Thailand is only 1.87 per 100 population. Bangkok City has become very important because it houses the headquarters of many regional and multinational companies, adding further to the growth in demand for metropolitan telephone services (Lindley and Hossain, 1996c). Thailand's estimated telephone forecast (1992-2001) provided in table 1-4, shows the significant impact of the current rapid urbanisation of the Thai population.
The preceding section has provided a brief history of the development of the Thai telecommunications industry. It has also provided an introduction to the present situation in relation to the major players' involvement in the national level planning processes. It has also been noted in the previous sections, that the regulatory and policy structure of the Thai telecommunication's industry needs immediate strategic attention for maintaining the development of a national telecommunications infrastructure. The next section, shifts its emphasis towards the evolution of the strategic planning theories presently in place.

<table>
<thead>
<tr>
<th>Year</th>
<th>Bangkok &amp; Surrounds</th>
<th>Provinces</th>
<th>Total (of Thailand)</th>
<th>Ratio (Bkk to rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Phones</td>
<td>No. of Phones per 100 pop.</td>
<td>No. of Phones</td>
<td>No. of Phones per 100 pop.</td>
</tr>
<tr>
<td>1992</td>
<td>2,228,482</td>
<td>26.70</td>
<td>935,643</td>
<td>1.88</td>
</tr>
<tr>
<td>1993</td>
<td>2,617,591</td>
<td>30.77</td>
<td>1,152,251</td>
<td>2.29</td>
</tr>
<tr>
<td>1994</td>
<td>3,037,120</td>
<td>35.00</td>
<td>1,436,128</td>
<td>2.82</td>
</tr>
<tr>
<td>1995</td>
<td>3,457,195</td>
<td>39.08</td>
<td>1,784,896</td>
<td>3.46</td>
</tr>
<tr>
<td>1996</td>
<td>3,882,864</td>
<td>43.10</td>
<td>2,237,042</td>
<td>4.28</td>
</tr>
<tr>
<td>1997</td>
<td>4,282,850</td>
<td>46.69</td>
<td>2,804,176</td>
<td>5.31</td>
</tr>
<tr>
<td>1998</td>
<td>4,651,164</td>
<td>49.86</td>
<td>3,491,939</td>
<td>6.53</td>
</tr>
<tr>
<td>1999</td>
<td>4,977,187</td>
<td>52.46</td>
<td>4,341,157</td>
<td>8.02</td>
</tr>
<tr>
<td>2000</td>
<td>5,262,714</td>
<td>54.52</td>
<td>5,343,206</td>
<td>9.77</td>
</tr>
<tr>
<td>2001</td>
<td>5,507,252</td>
<td>56.08</td>
<td>6,515,319</td>
<td>11.78</td>
</tr>
</tbody>
</table>

Source: TOT

Table 1-4. Thailand's Telephone Forecast (1992-2001)

1.3 The evolution of strategic planning theory and practice

The origin of the word "Strategy", is defined from the Greek *strategia* meaning an army leader (Pfeiffer, 1991). Bracker described it as term "to plan the destruction of one's enemies through the effective use of resources" (Bracker, 1980). On the other hand, Hart, a
well-known British military historian, suggested that "strategy" is the meaning of "generalship" and can be referred to as "the actual direction of a military force, as distinct from the policy governing its employment" (Hart, 1968. In: Pfeiffer, 1991). Chandler, in 1962, defined "strategy" as "the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals" (Chandler, 1962. In: Pfeiffer, 1991).

Interest in strategic planning and practices increased sharply during the 1880s. Two of its key dimensions have been identified: First, the required implements that were dependent on the planning, and second, an organisational structure that formalised the use of specialists, including planners, was the main driving force for the increase of strategic planning and practices. The turning point of strategic planning and practice for the adoption process of formal, long-range planning within complex organisations was the Franco-Prussian War and the U.S. Civil War (Pfeiffer, 1991). The accelerated development of administrative management, including the development of formal strategic planning models occurred during the 1880s.

In the US, 1890 was the pivotal point between the operation of businesses by owner-managers and by professional managers (Shuman, 1948. In: Pfeiffer, 1991). Accordingly, Hax and Majluf have divided the evolution of modern strategic planning into five principal stages: budgeting and financial control; long-range planning; business strategic planning; corporate strategic planning; and, lastly, strategic management (Hax & Majluf, 1984. In: Pfeiffer, 1991). A brief summary of these trends in strategic planning thought is provided in Table 1-5.

Despite the long history of strategic planning and practices, it has only become a standard part of management thinking and practice, in the business world for the past thirty-five years. However, it is only in the last ten to fifteen years, that strategic planning has become standard practice for a large number of public organisations (Bryson, 1995). Strategic
planning is rapidly developing in importance and has become a critical field of management. The strategic planning and the development of an appropriate implementation program for telecommunications infrastructure, is also a rapidly changing activity. For almost every nation, the difficulties of achieving a 'best fit' between anticipated demands for local and international public telecommunications traffic and infrastructure needed, and the available resources, requires a special consideration (Lindley & Hossain, 1996).

<table>
<thead>
<tr>
<th>Decade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880s</td>
<td>Development of administrative management techniques, including strategic planning</td>
</tr>
<tr>
<td>1890s-1930s</td>
<td>A production orientation stage focusing on budgeting and financial control</td>
</tr>
<tr>
<td>1930s-1950s</td>
<td>An operation-management orientation stage focusing on long-range planning</td>
</tr>
<tr>
<td>1950s-Present</td>
<td>A marketing orientation stage focusing on corporate strategic planning</td>
</tr>
<tr>
<td>1960s-1970s</td>
<td>&quot;Policy&quot; versus &quot;Strategy&quot;</td>
</tr>
<tr>
<td>1980s-Recent</td>
<td>Business Policy</td>
</tr>
</tbody>
</table>

Table 1-5. A brief summary of the trends of strategic planning

The section on the evolution of strategic planning and practices has provided a brief history into its development as a field of inquiry. As this thesis relies upon some of the key strategic planning concepts, it is necessary to define the main terms and integrated concepts that are to be used in the thesis.

1.4 Definition of the terms and integrated concepts

First, the 'act of planning' is explored for meaning. The word "Planning" is defined in many ways according to its context. Aaron Wildavsky, a political scientist concluded that in trying to be everything, planning has become nothing as it provides so many directions that the planner can no longer discern its shape (Wildavsky, 1973. In: Mintzberg, 1994).
Mintzberg (1994) states that the definition of planning also needs to be seen from both formal and operational perspectives. A summary of planning and its interpretations are provided in Table 1-6. The wide range of views on planning reflects the need for planning to be redefined for the purposes of this case study of telecommunications strategic planning. Here, planning is defined as the process of learning through configuration, analysis, critical examination of the process, and acting towards implementation.

<table>
<thead>
<tr>
<th>Definition</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>The futurity of present decisions</td>
<td>Drucker, 1959</td>
</tr>
<tr>
<td>Future directed decision process</td>
<td>Ozbekhan, 1969</td>
</tr>
<tr>
<td>To create controlled change in environment</td>
<td>Ozbekhan, 1969</td>
</tr>
<tr>
<td>The design of social system</td>
<td>Forrester, 1969</td>
</tr>
<tr>
<td>Planning comes from Latin planum &quot;means flat surface&quot;</td>
<td>Steiner, 1969</td>
</tr>
<tr>
<td>The design of desired future and of effective ways of bringing it about</td>
<td>Ackoff, 1970</td>
</tr>
<tr>
<td>Management</td>
<td>Dror, 1971</td>
</tr>
<tr>
<td>Policy making for public companies</td>
<td>Dror, 1971</td>
</tr>
<tr>
<td>An integrated decision structure</td>
<td>Schwendiman, 1973</td>
</tr>
<tr>
<td>Denotes thinking about future</td>
<td>Bolan, 1974</td>
</tr>
<tr>
<td>Means fitting together of ongoing activities into a meaningful whole</td>
<td>Gunsteren, 1976</td>
</tr>
<tr>
<td>Controlling the future</td>
<td>Weick, 1979</td>
</tr>
<tr>
<td>Decision making</td>
<td>Goetz, 1949. In: Steiner, 1979</td>
</tr>
<tr>
<td>Action laid out in advance</td>
<td>Sawyer, 1983</td>
</tr>
<tr>
<td>Future thinking</td>
<td>Mintzberg, 1994</td>
</tr>
<tr>
<td>The conscious determination of courses of action designed to accomplish purposes</td>
<td>Koontz, 1958. In: Mintzberg, 1994</td>
</tr>
<tr>
<td>Integrated decision making</td>
<td>Mintzberg, 1994</td>
</tr>
<tr>
<td>A formalised procedure to produce an articulated result, in the form of an integrated system of decisions</td>
<td>Mintzberg, 1994</td>
</tr>
</tbody>
</table>

**Table 1-6. A brief summary of planning definitions**

The concept of practice is also a term that needs to be defined. The word practice is derived from the Greek work 'praxis', used by Aristotle (Alexander, 1992: 3). Within the context of this research, the term "Practice" will be interpreted as: How the planners, in a particular situation and/or context, go about developing a strategic plan for their organisation. In adopting this view, it is crucial to look at the involvement and commitment of the executives in the development process of a strategic plan. The practice of the strategic planning process is then referred to as the 'act' of the executives. In his book, Alexander (1992: 3) argued that practice should be informed by theory. The importance of the
definition of practice therefore lies not only in the structure of the world and the environment, but also in explaining the actions of the planners.

Like the term "Planning," Strategic Planning also has a variety of definitions and is defined in many ways. The strategic planning concept originated in the mid 1960s (Mintzberg, 1994) and since then, it has been adopted by many different disciplines in diverse forms. Mintzberg raised the question about the relationship between strategy and planning and argued whether strategy making was simply a process of planning, or, at the other extreme, whether strategic planning was simply another oxymoron (Mintzberg, 1994). However, it was also defined as controlling in management. The term "controlling" however can mean many things and as such, may not have any particular meaning. There is also evidence suggesting that there are misconceptions about strategic planning and its development process in the public and private sector.

The strategic planning concept for this study however, is viewed as a consensus building process for maintaining the organisational coordination and cooperation and for sustaining the organisational competencies. It is evident from the management literature that organisational learning occurs with the planning process and in that respect, the process itself can be a major contributor to strategic planning. That is, it can be viewed as an ongoing process that follows an integrated approach to the decision making process.

It is in this context that Telecommunications Strategic Planning can be viewed as a comprehensive planning exercise involving a thorough investigation of the factors in the telecommunications function, then developing long-term strategies to effectively respond to the internal and external environmental forces which are conducive or inhibitive to the organisational planning process. The term telecommunications strategic planning process (TSPP), for the purposes of this study is referred to as the development of a TSP process. It deals with how to achieve this and how managers should develop a TSPP.
Environmental Analysis is defined as the process of studying the internal and external factors that are conducive or inhibitive to a NTSPP in Thailand. It looks at the external factors and their influence on the success of an effective organisational telecommunications planning process in Thailand.

It follows that a National TSPP might then be defined as the process of formulating national telecommunications objectives, defining strategies and developing policies to achieve them, and finally developing detailed plans of action to achieve the objectives (Foil and Freeza, 1985). However, for the purposes of the present study, the term is viewed as the process of development and is defined by the way a National Telecommunications Strategic Plan (NTSP) should be developed and practiced. This definition, by necessity, also includes the involvement of the telecommunications organisations concerned and their participation in developing a comprehensive NTSP.

1.5 Background to a Thai NTSPP research problem

At present, there is no evidence or clear indication of how to develop a comprehensive NTSP, that will bring an organisational TSPP to a national TSPP, for telecommunications infrastructure development in Thailand. It is observed from the case of Thailand that the process has never been a key consideration. However, the Thai telecommunications literature reveals that the strategic planning for Thai telecommunications infrastructure development is hampered, due to several environmental influences on the organisations TSPP and transforming it into a NTSP. It can be understood from considering Thailand’s Fifth and Sixth National Economic and Social Development Plans, that the Government seems to be unresponsive in meeting subscribers’ demands as well as failing to meet its target. The waiting lists for fixed lines includes approximately 1.8 million lines, with a waiting time of seven years (ITU, 1994).

The Thai Government has a policy to produce a five year plan for National Economic and
Social Development. The Fifth and Sixth plans were from 1982 to 1986 and 1987-1991 respectively. Government budget shortfalls and limited long-term strategic planning, have resulted in the delay, and then the postponement of the TOT's projects. Due to restrictions and budget constraints, the TOT was unable to complete some of the projects laid out in the Fifth (1982-1986) and Sixth (1987-1991) National Economic and Social Development Plan (Chularat, 1994).

In September 1992, there were approximately 1.8 million telephone lines for 54 million people, or 3.3 telephone lines per 100 population (TOT, 1993). In the Seventh National Economic and Social Development Plan (1992-1996), the Thai Government stated that the target was a coverage of 10 telephone lines per 100 population by the year 1996. However, due to Government budget shortfalls and the TOT's limited line expansion capacity (200,000 lines per year) the Government awarded concessions to two private companies, the TA and the TT&T, to installing 3 million telephone lines throughout the nation. According to the contract, the private sector's completion should be due by the year 1997 (Chularat, 1994). The Thai Government stated that its targeted telephone penetration is to be 10 lines per 100 population by 1996. However, the private sectors were asked to complete their part of the project by 1997.

Thailand had 1.8 million telephone lines in September 1992 and according to the Government's stated objectives, will require an additional 4.1 million lines or a total of 5.9 million lines, for 59 million people, by 1996. From the 4.1 million line installation target, the Government has already given 3 million line concessions to the private sector. The remaining 1.1 million lines, were left to the TOT for installation. Considering the TOT's track record over forty one years of operation (1954-1995) and Thailand's present telecommunications infrastructure, it was not be possible for the TOT to come up with a 1.1 million lines installation project by the year 1996. Due to the TOT's inability to access funds and new technology, the Thai Government in 1995, decided to give even this 1.1 million line concession to two private concessionaires (TelecomAsia, 1995). It can therefore be
argued that Thailand's telecommunication's infrastructure development planning is encumbered largely because of the lack of attention to strategic planning and practice.

There is also some evidence to suggest that there is a mismatch between the Seventh National Economic and Social Development Plan (1992-1996), and the TOT's Third Corporate Plan (1992-1996). In Thailand's Seventh National Plan, the Government's aim was to achieve a coverage of 10 telephone lines per 100 population, while the TOT's Third Corporate Plan aimed to have a national coverage of 8.75 telephone lines per 100 population (TOT, 1991 and 1993). At this stage, it is important to understand the reason for this apparent targeted telephone penetration gap between the Seventh National Economic & Social Development Plan and the TOT's Third Corporate Plan ending in 1996. The reasons for the apparent lack of participation between the Government’s planning division and their State Owned Enterprises (SOEs) needs to be sought.

It can be seen that unclear public policy and overlapping functions between the SOEs, the TOT, and the CAT are somewhat equivocal, and are repeatedly encumbering the basic telecommunications infrastructure development agenda. For example, the TOT and the CAT are acting both as service providers and as a regulators. The TOT is responsible for local telephone services and long distance services to neighbouring nations. The CAT is responsible for international telephone services and part of the local services as well. Due to the overlapping functions between these two enterprises, they often compete with each other for providing the services (TOT and CAT, 1991 and 1993). There seems to be a lack of cooperation between these two state owned enterprises, the TOT and the CAT, for planning a national telecommunications infrastructure development process. The Thai Government needs to develop clear policy guidelines to facilitate inter organisational co-operation and to build up unity between the TOT and the CAT employees.

Lack of sectoral planning is another reason for the low performance of the National Economic and Social Development plans as well. For example, there is no clear policy
distribution of the total telephone lines to be installed, throughout the nation in the Eighth National Economic and Social Development Plan (1997-2001). Furthermore, the Thai Cabinet accepted most of the proposals for telecommunications infrastructure development and planning set out by the TOT, except for the rural telecommunications infrastructure development plan (Bangkok Post, 1995). However, the cabinet indicated that the rural telecommunications infrastructure development proposal should be held back for the time being and no further clarifications of this decision have since been made.

Another factor is that the paradoxical revenue sharing agreements of concessionaires with the TOT, is creating chaos within the private sector. The Thai Government awarded concessions to the TA and the TT&T for installing 3 million telephone lines throughout the nation. TelecomAsia is at present engaged in installing 2 million lines in the BMA (Bangkok Metropolitan Area), whereas the TT&T is installing 1 million lines in rural areas. At present, TelecomAsia is sharing a revenue of 16% of the telephone service charge, while the TT&T is sharing a revenue of 43% of the telephone service charge with the TOT at the same time. Since the profits from rural subscriptions are supposed to be lower than the metropolitan area, it can be argued that the Government should give more incentives to the companies engaged in rural telecommunications infrastructure development.

The Thai telecommunications policy model also incorporates a complex and diverse combination of ownership and competition framework. At present, the key strategic objective for Thailand is the rapid modernisation and the expansion of their telecommunications networks. Thailand seems to be very responsive to adopting state-of-the-art technology. The opinion has been voiced that, developing countries like Thailand, are fortunate that they have lagged so far behind in the provision of basic telephone services in the sense that they can immediately adopt all the state-of-the-art technologies and a high level of services similar to those of developed nations (Lindley and Hossain, 1996). Technological leapfroggings can offer new opportunities, but it also presents some additional challenges that need to be recognised prior to new technology adoption. For
example, the adoption of the right technologies and better attention towards human resources development is required, when adopting new technologies.

The Thai Government has recently revealed its privatisation plans, it has been widely reported that the Thai Government is planning to privatise two of its national monopolies, the TOT and the CAT, by 1997. According to the National Plan, competition will be introduced in local services by October 1997 and liberalisation of national and international long distance services by October 2002 (Meakin, 1995). According to that plan, the TOT will be devided into a long distance company 'TOT1', and 'TOT2' will remain as a local service company. Similarly, the CAT will be divided into two parts. After separation, 'CAT1' will be responsible for international long distance services, while 'CAT2' will be acting as a local service provider (Meakin, 1995).

However, without the appropriate regulatory mechanisms this approach is unlikely to result in an even distribution of supply across geographical and customer groups. Furthermore, the whole proposal for breaking up the TOT and the CAT was reviewed by the Ministry and it was decided that the proposed Meakin model of privatisation would not be implemented. It is also well understood by the National Electronics and Computer Technology Center (NECTEC), that Thailand needs to tackle several weaknesses; service quality, unmet demand, network utilisation and especially, the telecommunications regulatory regime in order to get the most benefit from the privatisation plan (Thajchayapong, 1995). Based on the preceeding discussion, it can be argued that the Thai telecommunications industry's problems and drawbacks to the expansion plans are, in fact due to the lack of strategic planning, both at the organisation and national levels.

To date, there is no evidence of a comprehensive NTSP in the Thai telecommunications industry, rather there are steps being taken by the government towards the development of a NTSP. The development and implementation of a NTSP are at present, becoming a strategic necessity not only for a country such as Thailand, but also for other developing
nations.

1.6 Statement of a NTSPP research problem

The problem to be addressed by this study is stated as follows:

How can the need for a more formal telecommunications strategic planning process for the national telecommunications actors be better satisfied and integrated to support a national telecommunications strategic planning process in Thailand?

1.7 Research aim and objectives

It is against this backdrop that the work reported here aims to:

1. critically examine a National Telecommunications Strategic Planning Process (NTSPP) in Thailand;

2. explore the Telecommunications Strategic Planning Processes (TSPP) within the TOT, the CAT and the PTD;

3. analyse the relationship between the TSPPs and the three major telecommunications service providers in Thailand;

4. analyse the environmental influences on the TOT, the CAT and the PTD's TSPP;

5. determine the use of the TSPP of the TOT, the CAT and the PTD in a NTSPP;

6. examine the Thai NTSPP findings in the context of theory and practice;
7. identify the appropriateness of a Thai NTSPP in relation to the international discussions of other national NTSPP; and lastly,

8. using the outcomes of objectives 1 to 7, delineate the gap between the normative and descriptive aspects of the telecommunications strategic planning theories.

The objective of this NTSPP research is divided into two sections: primary and secondary. The primary objective of this thesis is focused on the development of an understanding of strategic telecommunications planning and practices in Thailand. It attempts to provide descriptive analysis by describing how Thailand's planning process started, the point to which it has evolved, and how Thailand’s TSPP relates to existing strategic planning process models and frameworks. Discussions and arguments about the constraints found in adopting a textbook 'strategic planning process' approach for the study of the Thai telecommunications planning process is explored, using a conceptual framework (refer to figures 1-1 and 1-2).

The secondary objective of the thesis is to examine the influences of the environmental factors on a NTSPP in Thailand. The thesis is based on an examination of the environmental analysis that have occurred in the process of developing an organisational as well as national telecommunications strategic plan, in order to foster a better understanding of the public telecommunication operator’s strategic planning processes. It also analyses the concerned telecommunications organisations' participation in Thailand’s NTSPP and practices.

By examining all of these factors, the thesis will present a case study of a NTSPP in Thailand. The focus of the research however will be on the TOT, the CAT and the PTD. Moreover, the research intends to raise awareness of the limitations of the traditional strategic planning process and will propose a descriptive telecommunications strategic planning framework for Thailand. Furthermore, the research investigates the possibility of
the transformation of the TSPP into a NTSPP in Thailand.

1.8 The Expected Contribution of this Study

The case study of a NTSPP research in Thailand provides the first detailed analysis of the TSPP of the Thai telecommunications industry during its first 42 years (1954-1996). It explores the theoretical justifications for Thailand's telecommunications strategic planning and practices in the light of the existing theories. The methods adopted for this study should lead a good solution for the process of uncovering the underlying TSPP at play among the national telecommunications players in the Thai telecommunications industry. However, international experiences of the TSPP are also drawn into this study for comparisons, similarities and differences in respect to a Thai NTSPP.

The expected contributions of the research are twofold: The first is the theoretical contribution in the area of telecommunications strategic planning research. The second is the practical contribution of the telecommunications strategic planning and practices of the three Thai telecommunications practitioners.

1.8.1 Theoretical contribution of the study

Chapter two provides the evidence that telecommunications strategic planning has not yet been established as a separate body from traditional strategic planning literature. However, King and Premkumar initiated strategic telecommunications planning concepts and have become two of the pioneers in telecommunications planning research literature. There is some evidence of research work in the area of telecommunications strategic planning but it lacks a theoretical basis. This study is one of the first to establish a theoretical basis for a NTSPP research. This is significant because there has not been any research done in this area, relating to the Thai telecommunications industry with any provision of discussions on international experiences with a NTSPP in Thailand.
The work reported here adopts a multiple theoretical approach for developing an understanding of the TSPPs at play among the Thai telecommunications players and also considers whether the approach adopted is in fact a useful paradigm for the present study. The adopted approach and analyses could be incorporated into the process of the development of a National Information Infrastructure (NII) and incorporating a Global Information Infrastructure (GII).

1.8.2 Research Contribution for Practitioners

The outcomes of the research will be of interest to the Thai Government in developing new policy plans for the telecommunications industry. The Thai telecommunications managers may also benefit from the research as it is aimed at uncovering the process of the development of a TSP and the roles of the major telecommunications operators that are evident from the research findings. Discussions drawn from the other NTSPPP will provide more insights into the Thai telecommunications practitioners. It is claimed here, that outcomes of this NTSPPP research will serve as a basis for the development of a national telecommunications planning policy in Thailand.

1.9 The Conceptual framework of the study

The conceptual framework of the study is developed through extensive review of past and current literature. The case of the Thai telecommunications industry highlights the fact that little attention has been given to the process of formulating a comprehensive Telecommunications Strategic Plan (TSP) and the establishment of a link between the factors involved: processes, roles and responsibilities, and environmental influences, which seem to be the major obstacles in the process of formulating a NTSP. However, current literature on strategic planning and practices lacks the theoretical approaches on how to develop and how telecommunications managers should go about the development of a TSP.
By looking at these process factors, this research intends to establish a link between the planning processes, roles and responsibilities and environmental influences. It puts forward the argument that a critical investigation into the environmental influences is also vital for the successful formulation and implementation of a NTSPP. This framework is based on supporting the central thesis, and finding possible explanations to solve a NTSPP research problem addressed in this study. The framework is conceptually based on four factors: the input, the process, the output and the organisational outcomes. The input factors deal with mission, objectives and strategies of the Thai telecommunications industry, the process factor deals with the strategic assessment of the environmental influences that were identified in the background to the problem. The process unit is analysed, aiming at establishing a link between the strategic planning processes, roles and responsibilities and environmental influences.

The conceptual framework of this present study, also provides a foundation for the descriptive analysis of each of the influences that have an effect on a NTSPP in Thailand. The output is with the outcome of the input and process and lastly, the expected organisational outcomes from the strategic process. However, a feedback loop is established in order for the organisation to be in a situation where it will be flexible enough to adopt to environmental changes whenever required. This study is not aimed at looking into the detail of the implementation practices and the feedback process rather, the main focus will be on the process of the development of a TSP. Furthermore, the organisational outcome unit can be a good measure for evaluating the planning effectiveness and will eventually provide feedback to the input unit. Figure 1-1 provides the conceptual framework for the study of a NTSPP in Thailand.
Figure 1-1. A Conceptual Framework for the Study of a National Telecommunications Strategic Planning Processes
The first step of the investigation commences by examining the TSPP among the national telecommunications players in Thailand. Second, is the roles and relationships of the above national telecommunications players (refer to figure 1-1) at the national telecommunications planning level. Third, is the analyses of the environmental influences on the TSPP among the national telecommunications players. Fourth, is on a NTSP by looking into the possibility of transforming the organisational TSPP into a NTSP. In doing so, it is argued that for a NTSP to be successful, the understanding of the organisational TSPP and its interactions is vital. This study has also considered the investigation of the TSPP within the TOT, the CAT and the PTD.

Furthermore, the conceptual framework for a NTSP is further delineated to provide an understanding and an analyses of the TOT, the CAT and the PTD's TSPP. The private sectors' TSPP is not studied in detail and only used to provide an analysis of their level of involvement in a NTSP in Thailand. However, it is understood, from the preliminary investigation of Thai telecommunications, that private sector organisations are still in the process of establishing a strategic planning department and a TSP will follow in the near future. Figure 1-2 provides the conceptual model that is delineated from a NTSP framework to understand the underlying TSPP at play among the major telecommunications organisations in Thailand. The framework that is applied to foster an understanding of the organisations, the TOT, the CAT and the PTD, are in fact, based on the assumption that a study of the organisations' TSPPs and other environmental influences on their TSPPs is vital for the successful formulation and implementation of both a TSPP as well a NTSP. Figure 1-2 provides the conceptual framework that is delineated from figure 1-1 and aims at developing an understanding on the TSPP within the TOT, the CAT, and the PTD in Thailand.
Figure 1-2. A Conceptual Framework For the Study of the Telecommunications Strategic Planning Process (TSPP) within the TOT, the CAT, and the PTD
Preliminary investigation of the strategic planning literature has shown that there is a lack of an established theoretical basis for the influences on the TSPP or the traditional strategic planning process. It is observed that public sector organisations face difficulty in relation to Government regulations and controls over the organisation's strategic planning processes. The same observation was made in the case of Thailand, where State Owned Enterprises (SOEs) and other Government organisations were required to submit their strategic plan to the Ministry concerned, the National Economic and Social Development Board, the Cabinet and the Budget Bureau. Telecommunications managers at present face tremendous challenges, due to the changing nature of telecommunications technology. It is believed that new technologies require a new way of managing and planning and also new strategies to maintain their compatibility with their adoption. Moreover, changes in the international marketplace have also put pressure on the organisation's TSPP.

1.10 Summary of the Following Chapters

This research is organised as follows:

Chapter 2 summarises the applicable literature and outlines the evolution and current status of strategic planning and practices for both the organisational TSPP and a NTSPP functions.

Based on the discussions on TSPP in chapter two, the theoretical constructs and approaches for a NTSPP are developed and explained in chapter 3.

Chapter 4 provides the historical background of the Thai telecommunications industry. It explores the relationships and roles of the major telecom players; the TOT, the CAT, and the PTD. This chapter also considers the significance of a NTSPP study of the Thai telecommunications industry.
Chapter 5 describes the research methodology. It discusses the adopted research approach and the development of the instruments and data collection for a national case study. This chapter also presents and describes the methods used in analysing the collected data from interview responses.

Chapter 6 provides three individual case studies of the national telecommunications players in Thailand. It provides the descriptive findings of the TSPP, roles in a NTSPP, and the environmental influences of the TSPP for the case of the TOT, the CAT, and the PTD.

Chapter 7 presents a cross case analysis of the TOT, the CAT, and the PTD. It analyses the TSPP, roles in a NTSPP, and the environmental of three telecommunications organisations in Thailand. However, this chapter also provides the analysis of the possible transformation of the TSPP into a NTSPP in Thailand.

Chapter 8 compares the actual TSPP as well as a NTSPP practices to the theoretical constructs and examines the factors and pressures that influence a NTSPP in Thailand. Moreover, this chapter compares the findings of a discussion of international experiences with findings from a NTSPP research in Thailand.

Chapter 9 provides the summary and conclusions derived from the research. It then provides the discussions on theoretical implications as well as the research implications for the Thai practitioners. Finally, recommendations for the use of the research results and further research are discussed.
Chapter Two
A Telecommunications Strategic Planning Process (TSPP)

Chapter one has provided an introduction and background for the study. The literature analysis of this chapter follows the structure of the conceptual framework that was presented in chapter one (refer to figures 1-1 and 1-2). In developing a theoretical framework for the present study and to examines the relationships between the SPP, the organisation and the environment, the existing literature on strategic planning and practices from different disciplines is reviewed.

2.1 Introduction to a TSPP

In order to have an understanding of a TSPP, it is necessary to look at the Strategic Planning Process (SPP) of traditional management. Dayson (1990: 3) argued, that the SPP is a management process involving consultation, negotiation and analysis that is aimed ensuring effective strategic decision making. Dayson, further indicated that ensuring the generation and formulation of strategic options is a key part of the SPP.

A review of the literature in the field of strategic planning and practice has revealed that the term 'SPP' has not been viewed from the development process. For example, Mintzberg (1994), Naylor (1980), Fahey (1989), Lorange and Vancil (1977), Butler...
(1996), and other researchers like Neumann (1994), Dyson (1990) and Higgins (1980) have put the emphasis on factor research rather than process research. However, there are also a few examples of factor research by Whittaker (1978), Radford (1980), Austin and Simoff (1985), Makridakis (1990), Lorange (1993), and others like Steiner (1979), King and Cleland (1987), Martin, DeHayes et al (1994), Boar (1993), King and Premkumar (1993). Based on the literature reviewed, it is evident that the SPP research in the past, has relied on the factors that are needed to be considered rather than the process of developing a strategic plan.

Mintzberg (1994) has provided a comprehensive and comparative analysis of what he considers to be the three most popular models for understanding the SPP. The three models are: The core design school model, the Ansoff model and the Steiner model. Critical examination of these three models of SPP however has provided an indication of their lack of emphasis on the development process (Mintzberg, 1994: 35-49). These models and processes are developed, based on the study of the contexts, that are different to the environments of South East Asia and particularly Thailand.

Bryson has also provided information about the SPP for public and non-profit organisations. It can be argued that Bryson's proposed model of strategic planning provides an excellent insight and established a basis for the process of the development of a strategic plan that should be considered in the SPP. Bryson's model for the SPP has suggested a ten step SPP and indicates that the first step of the SPP should be the initiation and agreement on a SPP (Bryson, 1995: 22-26, 47-64). To do this, Bryson provided an in-depth analysis of the involvement process and suggested a few measures that could be considered in the development process of a strategic plan for public and non-profit organisations.

Migliore et al has defined the SPP as a matching process of internal resources with external opportunities (Migliore, Stevens, Loudon, and Williamson, 1995: 22). However,
they further argue that a well-designed SPP is required for achieving a successful result of the strategic plan. This view is contrary to the view on the SPP of Stenier (1979). Steiner argued that the planning process is important, not the outcome of the plan. Moreover, experiences from the available literature on strategic planning and practices suggest that there are two "Ps" that need to be considered in strategic planning and practices (Migliore, et al 1995: 23). The first "P" is "product" and it should be in a written form in order to achieve effective implementation. The second is "process" involving input from as many groups as possible. The design of the process is seen as important and it may be that the best strategies result from the process of creative design (Schendel, 1978: 203).

In order to provide a meaningful analysis that may eventually serve for the theoretical development, SPP for the purpose of this study, is defined as the development process and considerations that need to be, and are, encountered by the strategic planners. Similarly, Telecommunications Strategic Planning Process (TSPP) is defined as the development process that occurs in a Telecommunications Strategic Plan (TSP).

2.2 The Theoretical Background for a Telecommunications Strategic Planning Process (TSPP)

To this date, there has not been much work done in the area of telecommunications that can foster the understanding of the relationships between a TSPP, the organisation, and the environment. An exhaustive research of strategic planning literature has proved that there is a lack of an established theoretical basis for the understanding of the relationships between the SPP, the organisation, and environment. This study is the first attempt to develop an understanding of this new ground by exploring those underlying factors that are deemed to be crucial for a TSPP to succeed. The study also raises critical questions about the relationships between the many actors involved and applies a TSPP concepts to understand the case of a NTSP in Thailand as revealed in chapter six of this thesis.
2.2.1 Understanding the Relationships between a TSPP, the Organisation and the Environment

The following sections examines and fills the apparent knowledge gap between theory and practice of strategic planning. The central thesis of this study is based on the assumption that unless an appropriate TSPP and a NTSP can be installed at the organisation and national level, a TSP as well as a NTSP can not succeed. However, it is also argued in the wide body of literature on strategic planning and practices that a thorough understanding of the processes involved is required in the design and implementation phase of a strategic plan. To summarise the emerging consensus in the literature, it can be argued that every failure of implementation is a failure of formulation (Mintzberg, 1993). Considering the sparse literature and pre established theoretical basis on understanding the relationships between a TSPP, the organisation and the environment, the following sections provide a critical examination of strategic planning literature and theories that explains relationships between the SPP, the organisation and the environment.

2.2.2 The Strategic Planning Process (SPP) and the Organisation

Every company, whether it is private or public, should have some kind of SPP. Naylor argued that the essence of a SPP is to provide a conceptual framework for the company's Chief Executive Officer (C.E.O). However, the process also needs to be understood by the line managers to enable them to make decisions that promote futurity of their company (Naylor, 1980:1).

Past studies indicate that most company's SPP exists only as unformulated ideas of the CEO. In relation to the formalisation of a SPP, Naylor (1980) claimed that the real issues are: The extent to which an organisation is required to formalise strategic planning, The managerial tactics to the formalisation process of a strategic plan, The managers organise strategic planning to fulfill the organisational mandate. In each these cases different
dimensions of strategic planning are dependent upon the acts and interpretations of the CEO's perception rather than a formal organisational document. In fact, much of the strategic planning literature suggests that the level of understanding of the formal strategic planning process between executives is very limited (Naylor, 1980: 55). However, it is important for the executives to understand the rationale behind strategic planning and what is involved in carrying out a plan. Every organisation is unique and there is no such thing as one particular planning process that can be fitted into one organisational context. This point is of special interest to this present study because the existing theories of strategic planning are based on the nature of industry and environment, which is different from the case of the Thai telecommunications.

It is also important for a firm to design the planning process and classify the involvement of groups in the process of review and development of a strategic plan (Naylor, 1980: 56). For example, findings on the strategic planning and practices suggested that planning in the US Government needs to use some of the techniques that corporations have developed to set goals, objectives and strategies. Naylor (1980) observed that national strategic planning in the US has never been tried by the United States Government (Naylor, 1980). Literature also suggests that in many companies, strategic planning is done without any consideration of how it will actually be used by senior management, and therefore, in most cases falls short under expectation.

Literature on the widely accepted theory of corporate planning suggests that corporate strategic planning relies largely on a time span of several years, top management's reassessment of the current strategy by looking for opportunities and threats in the environment, and by analysing the company's resources to identify its strengths and weaknesses (Vancil and Lorange, 1977: 22). Vancil and Lorange (1977) have also argued that strategic planning tends to be a less formal process in smaller companies. Most of the smaller company executives meet more frequently to resolve the strategic issues of the company and therefore, need no elaborate and formalised planning system (1977: 22).
Vancil and Lorange made a similar observation in relation to the large corporations, where the manager or executives meet on an ad hoc basis to evaluate strategic alternatives, however, they argued that large corporations offer a different setting for planning. This is likely, because in large corporations, many managers must be involved in decisions requiring more co-ordinated action and therefore, informal planning is almost impossible (1977: 23). Vancil and Lorange however, advanced the argument that the processes in undertaking planning for small or large organisations are essentially the same. It is also evident from the literature that planning process requires formal interaction among the managers at different times. In this regard, it can be understood from Vancil and Lorange's analyses that the formal approach is a way of organising the interaction among managers at different levels in the organisational hierarchy.

Vancil and Lorange initiated a three cycle process of strategic planning. To them, the first cycle of a formal planning process serves a dual purpose. The first is to develop a tentative set of agreements between corporate management and the division managers about the overall strategy and goals. The second is to provide a focus for more detailed planning in the next cycle (1977: 29) with a view to serve two purposes: the agreement between the division and the functional subordinates on the action programs to be implemented over the next few years and the functional manager's involvement in the long-range planning process. Lastly, the third cycle, which is more in the nature of an explanatory one and essentially deals with the allocation of resources and preparation of the division manager's proposal and forwarding it to the head office for formal approval (1977: 33-35).

In conclusion, Vancil and Lorange further argued that good strategic planning can take place only when the managers are creative thinkers. Furthermore, it is evident from the analyses that creativity can not be produced on a schedule (1977: 36), but this argument does not dismiss the need for formal strategic planning and its benefits. The formal strategic planning process is aimed at ensuring that the managers are spending some time by thinking strategically. Arguably, the formal strategic planning process can not guarantee
creative and good ideas, but it does reduce the risk and increases the odds sufficiently to yield a payoff (1977: 36). This view is also consistent with the problem of this present study and relates with the central thesis of the study posed in the chapter one.

Fahey's analyses of the SPP suggests that many companies top executives do not act in a rationale manner in the process of designing and implementing a strategic plan. The failure of adequate strategic planning in many organisations, can lead to the conclusion that the senior executives have a lack of concern about the importance of the divisional level manager's role in the planning process and thereby soft-sell the planning system within the organisation (Fahey, 1983. In: Fahey, 1989: 317). Markus argues that most of the executives have an instinctive understanding about where their company is heading and therefore tends to focus on operations rather than strategy (Markus, 1984. In: Fahey, 1989: 8). Markus's empirical investigation on the CEO's involvement in the SPP suggests that most of the executives spend 90-95% time on operations and only 5-10% on strategy.

Dysart argued that all effective strategic planning efforts share some common characteristics, regardless of the size of the firm (Dysart, 1989:305). The commonality of the SPP of large and small companies can be seen from the involvement of the CEO in the SPP. It is observed that a universal characteristic of a company is that, in firms of all sizes, a company's strategy virtually always reflects the CEO's personality (1989: 306). Dysart further argued that in any company, the CEO is ultimately responsible for developing, approving, and implementing the strategy. The difference between a large and small company is that the CEO of a large company has a large number of supporting staff and in a small company the CEO has a limited number of staff to support the strategy making and implementation processes.

Empirical studies, have identified four benefits in the introduction of a planning process to an organisation (Williamson, 1984. In: Fahey, 1989: 296). The first assumption, is that a planning system can help top managers' in establishing successful, accurate and
consistent information about the company's performance. The second is that a planning system can greatly help a company re-evaluate its strategies because of changes to the internal and external environments. The third is the derived assistance of the planning system, in the implementation of the strategy, through to the formulation and execution of action plans. Lastly, it is assumed that the planning system plays a critical role in the integration process of a company's different departmental functions and will help the top managers to coordinate the organisational activities. It can be seen from the above analyses that the planning process is important. The plan and a formal SPP can help the organisations to keep pace with the rampant environmental changes.

Observation of the industry practices literature reveals that the SPP in many large corporations falls short of expectations and raises doubts about the usefulness of SPP (Allaireand and Firsiratu, 1989). In practice, many factors contribute to these rather ambiguous outcomes. However, for the case of Thailand, it is revealed that environmental uncertainty in the telecommunications industry seems to be the major contributing factor continuing to produce unexpected outcomes of the TSPP and implementation practices. It is important to understand that a TSPP deserves more attention from, not only the theoretical perspective, but also from the viewpoint of practice. Steiner argued that it is not the plans that count "but the development of intellectual skills," a "thought...captured in an old maxim: 'Plans are sometimes useless but the planning process is always indispensable'" (Steiner, 1983). However, researchers such as Tweed (1990), Armstrong (1982), Hofer and Schendal (1978), Lorange (1979), Rue and Fulmer (1973), Grinyer and Norburn (1975) and Kulda (1980) have also emphasised the importance of the formalised SPP and its benefits to an organisation. It is important therefore to mention that a thorough understanding of the process will put the firm in a better situation when it faces a very uncertain and troubling environment. Process also deserves importance in organisational development, as managers learn through the process of developing a strategic plan. As it can be seen, a formalised SPP can aid in the process of the successful implementation of a strategic plan and reduce overlapping functions among the key decision makers in an
Steiner's (1979) analyses further suggests that a formal strategic planning system is organised and developed on the basis of a set of procedures. Formal strategic planning takes inputs from all levels of management and it is therefore necessary that managers at all levels inject their judgements and intuition into the planning process (1979: 10). Steiner further argues that there are two ways of discharging the strategic planning responsibilities: intuitive-anticipatory planning and formal systematic planning. Research shows that formal strategic planning can not be done without management intuition and if the planning process is correctly tailored, it will help managers to improve their intuition (1979: 11).

However, there are both advantages and disadvantages to the formal and intuitive-anticipatory planning process for the development and implementation of a successful strategic plan. The characteristics of the intuitive-anticipatory approach can be classified on the basis that it is the ideas of one person, the senior executive. As this type of planning is done by one person, it may or may not be in a written form and has a shorter time span and reaction time (1979: 8-9). The literature also suggested that there is no one way to design the SPP of an organisation. However, Steiner argued that every organisation is unique and carries some characteristics and should therefore be organised to fit those particular characteristics of that organisation (1979: 12). It is important therefore to note that a given formal planning system needs to be tailored to the specific context of the situation for meeting a particular organisational setting (Gilbert and Lorange, 1977: 37). Steiner has defined formal strategic planning from four different viewpoints (1979: 13). Table 2-1 summarises Stenier's viewpoints for formal strategic planning.

To Gilbert and Lorange (1977), a formal strategic planning process needs extensive revisions, negotiations, reviews and feedback from the other levels of management to finalise the plan. It can be therefore argued that a formal planning system can not be implemented without organisational commitment and agreement between the key planning
members. However, it is essential to have consistent input into the planning process for its successful development and implementation. Moreover, this consistency of input into the planning process can only be achieved through coordination and agreement between the executives involved.

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**Futurity of Current Decisions**

As planning deals with the futurity of the current decisions, strategic planning looks at the chain of cause and effect consequences over the time of an actual or intended decision that a manager is going to make.

**Process**

Strategic planning is a process. It begins with the setting of an organisation's aims, defines strategies and policies to achieve them, and develops a detailed plan of action to achieve these aims.

**Philosophy**

Strategic planning is an attitude, a way of life. It is more a thought process, on an intellectual exercise, than a prescribed set of processes, procedures, structures, or techniques.

**Structure**

A formal strategic planning system links three major types of plans: strategic plans, medium-range programs, and short-range budgets and operating plans.

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**Table 2-1. A Summary of Steiner's Views on the Definition of Formal Strategic Planning**

It needs to be taken into account that the planning process varies between organisations. Conceptually, all organisations, regardless of their cultural and industrial diversity, must possess some sort of planning process. As Lorange and Vancil (1977: 139) argued, a strategic planning system is nothing more than a structurally designed process that deals with the organisation and coordination of the activities of managers who carry out the planning. Furthermore, it is important to mention that the previous research in the area of strategic planning process provides an indication that there is no fixed and well-defined way to design a strategic planning system for an organisation. This can be more logical if industry structure and managerial practices are looked at globally. Lorange and Vancil argued that tailoring a SPP in a particular organisation's context is a crucial part of designing a workable strategic planning system for a particular setting. However, the formalisation of a SPP is still not well understood and carries ambiguity in it.
The design of a planning process requires a very high degree of attention to answer the question of how much formalisation is required. Research by Lyles and Lenz (1989) indicates that a very high degree of attention is required for the design of the planning process in keeping the planning alive (Lyles and Lenz, 1989: 325). It is observed from the literature that firms often try to structure the planning process more formally in an attempt to achieve greater efficiency and control (1989: 331). In this regard, Lyles and Lenz indicated that managers need to realise that if the planning process is too formal, it will lose touch with reality and will become isolated from the rest of the organisation (Lyles and Lenz, 1983, and Vecchiotti, 1983. In: Fahey, 1989: 320-331). Thomas (1983, In: Fahey, 1989: 331) argued that the formal planning processes have a strong tendency to focus on producing a slick presentation for the corporate officers or the board of directors. This places the format over the substance and Thomas referred to this as the 'kiss of death' (1989: 332). Thomas further argued that the formal planning process may be necessary to force people to act, but this is usually not the best way to persuade managers to act. So, the process should put the emphasis on what goes into the planning effort, not how quickly and impressively is the volume comes out of the effort (1989: 332). Managers are hired to anticipate and adapt the business to changes in the environment and the planning process of an organisation should therefore encourage this ability (1989: 334).

Findings suggest that the management procedures of non profit organisations are much more bureaucratic than the private sector organisations management procedure. In this regard, Steiner (1979: 323) observed that a non profit organisation's planning process is a much more difficult process than that of the private sector's. Steiner's analyses of public sector organisations has shown that the chains of command in non profit organisations are not as clear as they are in private industry. It is also observed, in the management literature, that the public sector's focus is not on the return of investment, market share, profits, sales and margins (1979: 322). Even in the study of the US public sector's strategic planning and practices, Steiner (1979: 326) observed that there is not enough strategic planning in the public sector. Steiner further argued that public sector organisations should take lessons
from the private sector organisations and especially in the case of the national strategic planning effort (1979: 335). Table 2-2 provides Steiner's view on benefits that can be gained from the private sector's planning and practices.

The primary benefit of the planning process is the process not the plan
Too much should not be attempted at once
Planning systems must be custom-made to suit the organisational context
Planners do not plan and planning is the line responsibility
Too much planning is done in the non profits without the acceptance of the line management responsibility
The climate of the organisation must be congenial to planning
There is no one good way of designing the strategic planning process for a particular organisation
The basic objective of planning is to develop appropriate strategies to adapt an organisation to its environment
There must be a strong commitment from the executives to planning
Excessive expectation of the outcomes of the planning should be avoided
Managers and planning staff must be experienced in planning
Every effort should be made to develop a few clear cut goals and to reduce confusion among the managers and top executives
Every effort should be made to keep the planning process as simple as possible

Table 2-2. A Summary of Steiner's View on the Applicability of the Private Sectors Experiences to the Non Profit Organisations

In his book, Radford states that the main purpose of strategic planning is to select future areas of activity and future courses of action for an organisation (1980: 4). Radford further argues that strategic planning is not necessarily concerned exclusively with matters that are "long-range" (1980: 4). The consequences of not following a process of strategic planning is documented in Radford's analyses (1980: 8), which suggests that the piecemeal decision making in General Dynamics (GD), resulted in a $425 million loss in its Convair 880 jet
transport program (Smith, 1966). Radford's research (1980: 8) concludes that loss occurs due both to lack of concern and attention to the strategy and policy framework established by a company to guide the decision making processes. The result of the GD's planning process suggests that there had been no attempt made toward the formalisation of the executive's involvement process in its SPP. Radford's observation of this company suggests that the various divisions made decisions independently and therefore, resulted in a severe financial loss (1980: 8). Although planning seems largely to be an intuitive and judgemental activity, it is evident that there is a role for formal analysis in support of the process (1980: 14).

Literature that relates to the relationship between the SPP and the organisation, has also been reviewed from information systems, management information systems and telecommunications systems for developing our understanding on the formalisation of a SPP in other disciplines. Radford (1978) indicated that most of the information systems lacked integration between the strategic planning, management control and operational control systems. However, it is observed from the literature that IS planning emphasise the process. It is recommended that each organisation should construct its own planning process to suit its particular environment, requirements, and management style (QED Information Sciences, Inc, 1989:56). Theoretically, strategic information planning is divided into three parts within the framework of an input-process-output function (King, 1988. In: Lederer and Gardiner, 1992: 76). Here, the process deals with a planning methodology that uses the input to create the output (Lederer and Gardiner, 1992:77). Lederer and Gardiner's framework suggests that process is an important aspect of the strategic planning and should be specifically designed to obtain good results from the input.

Earl's research has investigated the approaches to strategic IS planning and proposes that planners should put an emphasis on formal methods and principles of good practice (Earl, 1993). Earl's investigation into twenty seven companies suggests that the process of
planning and implementation have equal importance. However, in the management literature, Mintzberg also argues that "every failure of implementation, is by definition, a failure of formulation." Earl's analyses have provided indications that there are five different strategic information systems plans being practiced by these managers and company executives. Research further identifies that the organisational approach is the most effective one for these companies (Earl, 1993). It is observed that most of the planning literature on IS planning, MIS planning, and telecommunications planning are focused on commercial organisations and therefore written on the premise that strategic planning and its practice will aid the firm in the process of gaining a competitive advantage (Porter, 1993; Neuman, 1994 and Daniels, 1993). It has been noted in the preceding sections that public and private sector organisations develop their plans for different purposes. However, Flynn and Hepburn's case study of the UK metropolitan area provided the analysis of the Council's planning process. Their analyses from the case study evidence suggest that there is an absence of a business plan and lack of cost benefit analysis proposals for information technology. The case also provides indication that the council has adopted a political process of planning rather than a textbook strategic approach to planning. Past research has identified that there is an apprent knowledge gap between the theory of planning and the theory in planning.

The goal setting process should be considered as an integral part of the strategic planning system. The literature reviewed suggests that the goals setting process of a large corporation occurs at the divisional level. All the divisions are asked to formulate and propose tentative departmental goals to top management. Glibert and Lorange (1977: 86) have observed that divisional managers received explicit guidance from top management for its goal setting assessment at the Norton company. It is observed from the strategic planning of the different types of organisations that goal setting processes occur in a different fashion for each situation. For example, one of the controversial issues in the goal setting process is to deal with the question of divisional goal setting and the organisational goals setting process. However, a logical goal setting process should be directed towards
encouraging participation and interaction among the top and divisional level executives for an adaptive planning orientation. Research by Chakravarthy and Lorange (1993) has provided an indication of a participation and iterative goal setting process for all contexts. This was based on the assumption that productive interaction between top management and divisional managers in the objectives-setting step are vital to any organisation and its business units (1993: 95). Furthermore, the process may be directed by the corporate president's office with a number of inputs, or summaries of inputs, from the preceding planning cycle (1993: 39). It can be argued that a successful development and implementation of the organisational goal setting process will require a thorough understanding about the internal and external considerations of the organisation and maintenance of cooperation and alignment between the top and divisional level goals.

As a result of information from the review of literature, table 2-3 presents the summary of the key findings for understanding the relationships between the SPP and the organisation. The collective findings highlight the central problem to be addressed by this study is: The need for a more formal SPP for the telecommunications strategic planning functions of the major players can be better satisfied and integrated to support a NTSPPP in Thailand. However, these findings are also consistent with the conceptual frameworks (refer to figures 1-1 and 1-2) presented in chapter one of this thesis. These findings of the literature on the relationships between the SPP and the organisation are applied in this present study to develop an understanding on the TSPP and a NTSPPP in Thailand and discussed further in following sections of this thesis.

2.2.3 The Strategic Planning Process (SPP) and the Environment

In relationship to the formalisation of the SPP and the environment, where organisations interact, Naylor (1980) argued that formal planning does not play an important role in the managerial decision making process in a complete environmental certainty. So, it is likely that the high degree of risk and environmental uncertainty provides the rationale for formal
strategic planning rather than ad hoc planning employed by some senior executives.

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1. The SPP provides a conceptual framework to the CEO
2. The SPP is equally important to the public and private sectors
3. CEO's understanding on the SPP is very limited
4. Formalisation of the SPP is related to the size of the organisations
5. Creativity can not be produced on a schedule and does not dismiss the need for formal SPP
6. Executives spent more time with operation oriented planning than strategy oriented planning
7. Formalised SPP helps to integrate the different departmental functions and aids in the coordination process
8. Planning is learning rather than problem solving
9. Mixed support on the contribution of SPP to the organisational performance
10. Formalised SPP helps build a general consensus between the organisational players
11. The chain of command of non-profit organisations is not as clear as the chain of command of private sector organisations
12. A formal SPP supports intuitive and judgemental activity in organisations
13. Formalised SPP helps the transformation of TSSP into NTSPP
14. The goal setting process is an integral part of the SPP and encourages participation and interaction between the key organisational players

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Table 2-3. A summary of the key findings on the relationships between the SPP and the organisations

Kukalis's study the 'strategic planning systems in large organisations' investigated the relationship between planning systems and environmental characteristics. Based on Kukalis's analyses, it can be argued that in order to be effective, the designer of a strategic planning system should consider the specific situational settings of the firm. Furthermore, empirical investigation has also identified a positive relationship between the SPP and environmental uncertainty. In this regard, Kukalis argues that as the environmental complexity increases, the firm should be able to adopt a more flexible planning system, in order to catch up with the environmental complexity (Kukalis, 1991). In recent years, strategic planning system design is receiving increased attention in academic research.
Empirical studies have shown the necessity to establish a link between the characteristics of the SPP and the firm, and the organisational environment characteristics as well (Al-Bazzaz and Grinyer, 1980; Armstrong, 1982; Fredrickson, 1984; Fredrickson and Mitchell, 1984; Grinyer, Al-Bazzaz, and Yasai-Ardekani, 1986; Javidan, 1984; Lindsey and Rue, 1980; Lorange, 1979; and, McCaskey, 1974).

Several studies on strategic planning have defined the SPP as an explicit process for determining the firm's long-term objectives, procedures for generating and evaluating alternative strategies whenever required and a system for monitoring the planning outcomes after implementation (Armstrong, 1982; Capon, Farley, and Hulbert, 1987; and, Steiner, 1979). Furthermore, Lorange and Vancil state that a strategic planning system performs two major functions: development of an integrated, co-ordinated and consistent long-range plan of action, and facilitating long-term corporate adaptation to changes in its external environment (Lorange and Vancil, 1977). So, before the SPP is designed, the understanding of the external environment and its possible influences on the planning process needs to be taken into consideration by the strategic planning executives.

To date, the impact of the environmental influences and its complexities on strategic planning systems has not been investigated adequately. Kukalis therefore called for an investigation into environmental complexity and the strategic planning systems design. He hypothesized that environmental complexity influences the design of strategic planning systems and companies faced with less complex environmental influences will tend to employ a less flexible planning system. In situations where companies face volatile and very complex environmental influences, they will need to have a more flexible strategic planning system. If the environment is less complex, it may not be necessary to develop a complete environmental monitoring and forecasting capability (Kukalis, 1991). Kukalis's analyses further suggests that the environmental complexity imposes restrictions on how far ahead a company can plan. On the one hand, this complexity seems to increase the need for strategic planning, whereas on the other hand, it makes long-range planning more
difficult. In addition, King noted that an evaluation of strategic planning puts the emphasis on an overall assessment of environmental influences (King, 1984). It can be argued that strategic planning is an important activity in maintaining and improving the long-term health of an organisation. It should be viewed as a fundamental part of the national telecommunications infrastructure planning process through which the organisation's mission and vision will be formulated and the changing environment in which they are to be realised should be assessed as well.

The review process of a strategic plan is very important in order to maintain a good relationship between the SPP and the changes in the industry. Steiner (1979: 14) argues that strategic planning should be viewed as a continuous process. For maintaining the continuity and adapting to the internal and external changes, it is important for an organisation to consider the review process of its strategic plan seriously. Research by Steiner shows that most organisations review their strategic plans periodically, usually once a year. This review process of the strategic plan may eventually lead to organisational flexibility over the changing nature of the environment.

Strategic planning literature from the US suggests that comprehensive formal planning was first developed in the 1950s (Steiner, 1979: 21). At that time, there was a tendency for US companies to make written plans which were not rewritten until they became obsolete (1979: 21). Steiner in the previous section, argued that strategic planning was not a one time effort and it is important for an organisation to establish an appropriate review process to keep the plan alive, thus maintaining the relationships between the SPP and the environment. Previous research shows that the review process of a strategic plan assists an organisation in its next cycle of planning effort and aids in maintaining pace with rapid changes. This deserves even more attention for the case of telecommunications planning, where changes are rampant and environmental uncertainty is severe. Steiner observed that there are some common misconceptions about strategic planning and its duration. In his book, Steiner argues that strategic planning is not about the time frame of three or five
years planning and does not have a fixed time dimension (1979: 22). It is evident from Steiner's judgement that smaller companies tend to have much simpler and less formalised planning systems than larger organisations (1979: 33).

Steiner further argued that it is rare to find a large corporation anywhere in the world that does not have some type of systematic strategic planning system (1979: 35). In their book, Certo and Peter (1993: 36) argue that environmental analysis is concerned with the process of monitoring the environment in which organisations is to work at the identification of both present and future threats and opportunities that may influence the firm's ability to reach its goals. It can be seen that there is a need for an environmental analysis. This is essentially based on the general systems theory (1993: 36). Certo and Peter argued from the point of view of the general system theory that the organisations are considered to be open, rather than closed systems. Empirical evidence suggests that modern organisations are influenced by, and are constantly interacting with, the environment (1993: 36). Based on analyses of the organisation and its environment, it is important to note that environmental analysis is vital to success and maintaining the health of the organisation.

Strategic planning literature reveals that little attention has been given to establishing a link between a strategic planning system and environmental influences. However, several attempts were made by Lindsay and Rue, and Boulton and Franklin in the early 1980s. Lindsay and Rue however, failed to support the notion that the style of the planning process is related to the firm's size, and the level of uncertainty and increased environmental uncertainty leads to shorter or longer planning horizons depending on the size of an organisation (Lindsay and Rue, 1980). On the other hand, Boulton and Franklin argued that the completeness of the planning process is significantly related to the firm’s external environment. However, they failed to support this argument (Boulton, Lindsay, Franklin, and Rue, 1982). In the light of their analyses, it is necessary to show the impact of the firm and its environmental characteristics on SPP and to date, there is no indication
of any understanding of the link between the organisational performance and environmental influences (Kukalis, 1991).

The main purpose of an environmental analysis is to conduct an analysis of the organisation's present and future situations, in which it operates or will be operating. Research by Certo and Peter suggests that an environmental analysis essentially performs three different roles: The first is the *policy oriented role* and its purpose is to improve the organisational performance by keeping the top management aware of the major trends emerging in the environment (Certo and Peter, 1993: 38). However, Certo and Peter further argue that the *policy oriented role* of an environmental analysis is normally unstructured. Moreover, directions suggest that the relationship between the environmental analysis process and formal organisational planning is indirect and informal (1993: 39). The second is the integrated role of strategic planning, which puts an emphasis on the improvement of the organisational performance by making top management and divisional managers aware of the issues that arise in the organisation's environment. The role of environmental analysis is focused on the establishment of a link between corporate and divisional planning. The third is the *function oriented role* and this type of environmental analysis performs the function of improving the organisational performance of a company by providing environmental information concerning the effective performance of specific organisational functions. As the name implies, this type of role focuses on the function and tends to be undertaken to enhance the performance of a particular function or a major organisational activity at either the corporate or divisional levels (1993: 39).

These three roles of environmental analysis play different roles in SPP and the adaptation of one should depend on the organisation's internal and external environmental structure. Managers also need to understand under which environmental context their organisations are presently operating or will be in the future. Certo and Peter (1993: 54) argue that if environmental analysis is not linked to the SPP, the results of the analysis will be of little benefit to the establishment of the organisation's direction and future actions. In
summarising the preceding sections, the following key findings are identified for understanding the relationships between the SPP and the environment. Table 2-4 provides a summary of the key findings on the relationships between organisations and the SPP. However, these findings are consistent with the research problem investigated for this study and also contribute to the conceptual framework (refer to figures 1-1 and 1-2) for the study of a NTSPP research in Thailand.

1. Environmental uncertainty is considered to be the driving force behind a formalised SPP
2. Understanding of the environment and its influences is required for effective design and implementation of a SPP
3. The review process of a strategic plan aids an organisation in maintaining the relationship between the SPP and the changes in the industry
4. Strategic planning is not related to a time horizon
5. The relationships between environmental analysis and formal organisational planning are indirect and informal

Table 2-4. A summary of the key findings on the relationships between the SPP and the Environment

2.2.4 The Organisation and the Environment

Alexander argues that in public sector planning and practices, the environment is too bureaucratic. He sees the planner as the servant of the government and its elected officials (Alexander, 1992: 104). It is observed from Alexander's analyses on public sector planning and practices, that bureaucratic planning is more role oriented than process oriented and is not associated with any one style (1992: 104). Table 2-5 provides a brief summary of the differences between public and private sectors and highlight a comparison between the public and private sector management difficulties (Rainey, Backoff, and Levine, 1976. In: Caudle, Gorr, and Newcomer, 1991).
<table>
<thead>
<tr>
<th>Public</th>
<th>Vs</th>
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<tr>
<td>Less market exposure</td>
<td>More market exposure</td>
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<tr>
<td>More legal and formal constraints</td>
<td>Less legal and formal pressure</td>
<td>Less legal and formal pressures</td>
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<tr>
<td>High political influences</td>
<td>Less political influences</td>
<td>Less political influences</td>
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<tr>
<td>Coercive power of government</td>
<td>Less coercion from govt.</td>
<td>Less coercion from govt.</td>
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<tr>
<td>Emphasis on the public interest</td>
<td>Emphasis on the market</td>
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<tr>
<td>A more complex planning process</td>
<td>A less complex planning process</td>
<td>Less bureaucratic</td>
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<tr>
<td>Very bureaucratic in nature</td>
<td>Less bureaucratic</td>
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<td>Funding procedure is complex</td>
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Table 2-5. A summary of the differences and comparisons between public and private sector organisation

It is mentioned earlier that the literature on telecommunications planning and its practices, is at sparse. However, there are some published research papers like the national telecommunications planning in Brazil, is found useful. In addition, it is also observed that Brazil’s national telecommunications planning experiences can be a useful learning experience for developing countries, like Thailand. Strategic planning for the Brazilian Telecommunications Organisations (TELEBRAS), is based on the directives given by the Ministry of Communications. The strategic planning takes into account typical situational analysis of the social, political, economic and cultural aspects, strengths and the weaknesses of the organisation—which led them to the definition of global strategic objectives (Fiol and Ferrza, 1985). Brazil established a general boundary based on these situational analysis criteria covering: area of activity; construction and operation of networks; industrial relations; R & D; human resources, and economic and financial aspects. Because Brazil’s telecommunications industry was still undergoing changes, the five year plan was designed to be flexible enough to be updated, according to the circumstances and changes in the industry, whenever necessary. In Thailand's case there are indications that the political, the economic and the social values and institutions have not yet reached a stage of maturity, unlike most developed nations. It was also indicated in the chapter one (refer to the background to a NTSPP research problem) of this thesis that the MOTC in Thailand, is given the authority to provide guidelines and other necessary directives to the State Owned Enterprises (SOEs) as well as to the Government.
organisations involved in telecommunications activities in Thailand.

Bryson (1995) postulated that the leaders and managers of public enterprises must be effective strategists in order to fulfil their organisation's mission, meet their mandates, and achieve their targets in the years ahead (Bryson, 1995). However, although strategic planning has become the standard practice for the business world in the last thirty-five years, only in the last ten to fifteen years has it become standard practice for public organisations (Bryson, 1995). Bryson, in his book, 'Strategic Planning for Public and Nonprofit Organisations' suggested, that in assessing the organisation's external and internal environments' the planning team should explore the environment outside the organisation to identify both opportunities and threats. Moreover, it should also explore the internal environment to identify the strengths and weaknesses of the firm. Strategic planning focuses on achieving the 'best-fit' between an organisation and its environment (Bryson, 1995).

Bryson further argued, that public and nonprofit organisations must understand their external and internal environmental context in order to be able to respond effectively to environmental influences or changes. The word 'context' comes from the Latin for 'weave together', and that is exactly what an environmental assessment will do if it is well done. Bryson therefore put forward the argument that a comprehensive environmental assessment helps organisations to interweave their understanding and actions in such a way that organisational performance is enhanced (Bryson, 1995). The first part of an environmental assessment is to explore the environment outside the organisation in order to identify the opportunities and threats the organisation faces. Bryson suggests three main categories that might be monitored at this stage: (1) the extent of forces and trends; (2) key resource controllers; and (3) actual and potential competitors or collaborators and important forces that are affecting this competition and collaboration (Bryson, 1995).

However, the literature on public and private sector's goal setting process suggests that
the public sector's goal setting process is more bureaucratic in nature than in the private sector's organisations. For example, the private sector's organisations goal setting process is done internally, whereas it is observed that there is both internal and external involvement in the public sector's goal setting process. The goal setting process is considered to be one of the important aspects when designing a strategic planning system (Vancil and Lorange, 1976. In: Lorange and Vancil, 1977: 142). In practice, Vancil and Lorange made the observation that the corporate and divisional management should agree on the goals and the process of goal setting for an organisation (1977: 142). The corporate management also has the responsibility for the adaptation of divisional goals in the overall goals setting process of an organisation.

Strategic management research on environmental variation provides an indication that a central tenet of strategic management should be to maintain a proper alignment between organisations and the environment in which they correlate (Smith and Grimm, 1987). This argument is based on two principles. Firstly, the organisational dependency on the environment for resources (Aldrich, 1979; Pfeffer and Salancik, 1978); and secondly, developing and maintaining strategies for managing the organisational dependency (Thompson, 1967; Hofer and Schendel, 1978). Furthermore, the literature reveals that very little is known about the dynamic relationship between the variations of environmental influences and an organisation's strategic change (Smith and Grimm, 1987). It is also observed that most of the environmental studies of strategic management were conducted under a static environmental settings and therefore, have major flaws if they are to be adopted in a situation where there is a very uncertain environment (Mintzberg, 1973; Buzzell, Gale and Sultan, 1975; Hofer and Schendel, 1978; Miles and Snow, 1978; Miller and Friesen, 1978; Wissema, Van and Messer, 1980; Porter, 1980; and, Hambrick, 1983).

Considering the rapid changes in the telecom industry, it is argued that an appropriate planning system will put the firm in a flexible situation and will also help the planning executives in designing strategies for dealing with environmental uncertainty. The
following key findings are identified for providing an understanding of the relationships between the organisation and the environment. Table 2-6 provides a summary of the key findings on the relationships between an organisation and the environment with which it interacts. These findings however, are consistent as well with the research problem investigated in this study and also contribute to the conceptual frameworks (refer to figures 1-1 and 1-2) for the study of a NTSPP research in Thailand.

1. The public sector's planning is more *role oriented* than *process oriented*
2. A plan intended to be national, should take its input from the private sectors
3. The chain of command of public sector organisations is not as clear as it is in the private sectors
4. Strategic planning is a relatively new concept for the public sector
5. The higher the environmental uncertainty, the more formal the strategic planning process should be
6. The involvement of internal and external groups is evident in a public sector organisation's goal setting process

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**Table 2-6. A summary of the key findings on the relationships between the organisations and the environment**

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2.3 *A Framework for Analysing Influences on a TSPP*

Before developing a framework for analysing influences on a TSPP, it must be acknowledged that there has been little research in the area of telecommunications that can foster an understanding of the relationships between government regulation, technological changes and changes in the international marketplace. The strategic planning literature has also provided an indication of the lack of an established theoretical basis for understanding these relationships and influences on a TSPP.
2.3.1 Understanding the Relationships between a TSPP, the Government Regulation, and Technological Changes

It is important to understand the influences of government regulation, technological changes and changes in the international marketplace. It was indicated in chapter one that the conceptual framework for the study is formulated to foster an understanding of these influences (refer to figure 1-2). Later sections provide the theoretical background for the framework of analysing influences on a TSPP, which is applied to understand the case of telecommunications in Thailand.

2.3.2 A TSPP and the Government Regulation

In the case of Thailand, the preliminary investigation suggests that the strategic planning process of the national telecommunications players is very bureaucratic and involves several iterative processes. Similar observations were also made in the case of other developing nations, where the telecommunications industry structure is complex and involves several iterative processes in the development phase of a TSP.

Government regulation tends to play a major role in controlling and directing the SOEs and other public sector organisations. In a capitalist state economy, the government is the key factor in supplying and supporting policy decisions (Ham and Hill, 1993). There is a very high correlation between the SOEs strategic planning processes and the government. For example, most of the public sector organisations are required to submit their strategic plan to the ministry for the formal approval of the budget (Burkhart and Reuss, 1993: 47). The literature on public policy provides numerous definitions for regulation but most are restrictive in their focus. However, Michael Reagan offered a comprehensive definition, and stated that regulation 'a process or activity in which government requires or prescribes certain activities or behavior of the individual and institutions, mostly private but sometimes public, and does so through a continuing administrative process, generally

Government regulation is a severe problem in most of South East Asian countries where the government is struggling to achieve the establishment of a regulatory body for the telecommunications industry. As Burkhart and Reuss argued, the regulatory and legal environments require attention while the strategic plan is being created (1993: 48). The funding for SOEs is regulated by the Government and it is therefore, necessary to consider the role and motive of the government in a TSPP. As Prapak argued, in developing countries, the market is characterised by smallness in size, dependency on government policies, and the need for innovative ways to achieve the accelerated development of telecommunications that can then stimulate development of other sectors (Parapak, 1988: 542). Parapak's findings also indicate that the major challenges faced by developing countries are related to: the large gap between supply and demand for telecommunications services; equitability of distribution of services; improving the quality of services; the lack of technical expertise, and the capital and foreign exchange required for importation of telecommunications equipment (1988: 542).

Aines and Day’s analysis of national planning on the contrary, in the late 1970s, was focused on government as the major or coalescing force for national planning. It is observed from their analysis that national planning is the responsibility of central government and is not shared with groups in the private sectors (Aines and Day, 1975). However, in the late 1990s, Thailand and other southeast Asian developing nations fell into this category, where there seems to be a lack of participation, among the government and private sectors, for developing a national plan. Furthermore, Aines and Day argue that, any planning intended to be national in nature will obviously have to be accomplished as a team effort involving the Federal Government, State Governments, professional societies, commerce and industry, academia and other groups (Aines and Day, 1975). Moreover, they also argue that it is not universally agreed that governments should be the only participant involved in national planning. For example, in the United States, considerable
planning of information services takes place in the private sector.

Aines and Day's (1975) research work indicates that economic considerations, growing knowledge, international pressures and conflict mediation are the major forces conducive to national planning. Whereas, on the other hand, attitudes, lack of leadership, lack of common objectives, lack of public understanding, fear of government control, lack of standards, and competition among technologies are considered to be the major forces that inhibit national planning (Aines and Day, 1975). As a national planner, it is important to note that national planning is generally influenced by international development. Furthermore, an analysis of Zimmerman and Brimmer's (1981) study of national planning for data communications reveals that the national planning process for telecommunications in the United States is unique in many respects. National planning falls under the direct control of the Government and is therefore highly centralised in most countries (Zimmerman and Brimmer, 1981). However, government sectors play a major role in the telecommunications planning process through the functions of policy making, regulation, managing, using and purchasing, coordinating of public sector requirements, and supporting the key technological developments (Zimmerman and Brimmer, 1981). In the United States, the FCC (Federal Communications Commission), is its most important player, responsible for overseeing the interstate telecommunications industry through entry and rate regulation within the constraints of the Communications Act of 1934. Their analysis also suggested that a national planning strategy requires an overall assessment of the environmental influences on the telecommunications industry and the planning process should be flexible enough to respond to environmental changes quickly.

It is necessary to consider the link between government regulation and a TSPP for its successful implementation. Observation of the developing nation's telecommunications has revealed that the Government seldom regulates the SOEs and creates barriers to a TSPP. So, telecommunications planning among the SOEs is done in camera and therefore, falls short of expectation in the process of implementation. In the case of Thailand, the
preliminary investigation suggested that the regulatory structure of the telecommunications
industry is very complex and the national telecommunications organisations are acting both
as regulators and service providers. For example, the Thai Government's regulation
regarding the number of lines to be installed, places pressure on both the SOEs and the
private concessionaries in the phase of expanding the network while at the same time,
maintaining cost-effective and reliable services. Indications, provided by private company
executives, are that it will be difficult to create an economy of scale network if the
government continues to put emphasis on the specific number of lines to be installed in a
particular geographical location. The Thai government's rapid changes and irregularity in
the decision making process also creates pressure on an organisation's TSPP. Chapter one
has provided a brief introduction to the regulatory structure and the role of the national
telecommunications players. Observation reveals that there is no one particular regulatory
body at present in Thailand's telecommunications industry and the Thai Government is
planning to establish a regulatory body in the near future followed by the privatisation of
the National monopolies. Detailed analyses for understanding the roles and relationships of
the national telecommunications players will be provided in chapter four.

2.3.3 A TSPP and the Technological Change

Rapid changes in the technological environment adds some additional challenges for the
public and private telecommunication operators. The transition of switching, the integration
of voice and data communication and the use of digital transmission have changed the
complexion of the operators and made the analysis of technological factors a very critical
component of the telecommunications planning process (Premkumar and King, 1990).
However, it can be argued that technology forecasting, and technology adoption, will
become an important management issue due to the rapid advances in telecommunications
and computer technology.

In both an economic and social sense, the growing competitiveness at the local, national
and international levels is such that it is not only essential to have telecommunications now, but to have it provided at a lower cost, higher speed and with greater reliability and security than ever before (Spence, 1988: 83). Hubbard argued that telecommunications managers are confronted with a variety of challenges when planning for the use and implementation of new or expanded telecommunications applications and technologies (Hubbard, 1988: 121). Hubbard's research has identified five essential steps for telecommunications planning: business strategy, applications analysis, technology analysis, schedules and budgets, and, organisational review.

It is evident from Hubbard's analyses that telecommunications management must first focus on understanding the business strategy as defined by corporate and functional management and how it relates to telecommunications activities. The output for this step includes telecommunications mission statements, goals and objectives for the future, and criteria for evaluating telecommunications projects. Telecommunications management and users must determine how telecommunications will be used by each business function within a firm. In the technology analysis step, telecommunications management must assess if changes to existing equipment are needed to satisfy business objectives or to meet new application requirements. Changes to the network topology, switch upgrades, or the use of new provider services would be included in this section of the plan. A schedule and budget needs to be developed for the specific applications and technology plans developed in the previous steps. Staffing changes, budget constraints, and the purchase equipment lead times must all be taken into consideration. The final step is to develop organizational plans that support the new technology and help meet the proposed schedules.

Observation of the telecommunications industry also indicates that telecommunications managers face challenges in the planning and implementation of new business applications that are not yet fully defined or understood. Thus, it is not clear which technology best suits the application. In some cases, the new technology is the driving force that makes the new application feasible. In any case, there are many applications and technology issues
that must be resolved before plans for the future can be drawn up (Hubbard, 1988: 122-123). In particular, these challenges are even more severe for the managers of the Asia Pacific region, where the network expansion is unstructured and occurs in an irregular fashion.

The existing literature on the Asian telecommunications industry has provided meaningful insights into the challenges for the Asia Pacific region. In his research, Saga (1988: 653) indicated that two major problems need to be solved when addressing issues of international telecommunications in the Asia Pacific region toward the 21st century. The first problem is to narrow the disparity in the telecommunications field between the advanced and the developing countries. The second problem is to construct an Integrated Services Digital Network (ISDN), the state-of-the-art telecommunications infrastructure, for information and communications in the 21st century (Saga, 1988: 654). In 1983, the International Telecommunications Union (ITU) established a committee to study the disparity in the telecommunications structure between advanced countries and developing countries. This committee issued a report in January 1985, titled 'The Missing Link', and set the goal that all the people in the world should be within easy reach of a telephone by the early part of the 21st century (Saga, 1988: 655).

The technological change and corporate strategies need to be seen to be operating on a variety of geographical scales: global, regional and national. The emergence of strategic alliances between companies is a key component of the emerging internationalization of production. An OECD report (1992) has pointed out that international interfirm agreements have become a major focus for internationalisation strategies in the 1990s, even among firms that are competitors. Nynex has targeted the East Asian region because of the region's high economic growth, low telephone penetration and its need for expertise in building and operating telecommunications systems. Nynex is involved in Thailand, with an 18.5% shareholding in the TelecomAsia joint venture with the Charoen Pokphand (CP) Group, which is a major Thai-based agribusiness firm. TelecomAsia has a contract to
install two million digital lines in Bangkok. Nynex has provided management and technical staff, established training centres and research and development centres, and has also applied a computerised network management system.

Advances in satellite technology and the results of recent research now make it both economically feasible and justifiable to provide the benefits of telecommunications to all segments of society. In this regard, Hudson (1990: 167) argued the implications of these new services for national and regional development. Access to information is key to many development activities including agriculture, industry, shipping, education, health, and social services. However, evidence suggests that advances in the telecom technologies and its business applications, requires a more comprehensive approach to planning for the TSPP. It is observable that technological innovation plays a major role in the telecommunications industry. For example, the cost of an installed telephone circuit today, in terms of a line connected to some form of a local exchange switch, ranges between US$800 and US$1,200. A decade ago that number would have been US$5,000 and within the next decade it should drop even more. Digital concentrators can link small terminals to a group of 10 to 100 "party-line" telephones and can bring high-quality, efficient, long-distance telephone, and low-speed data services to isolated areas (Hudson, 1985: 4).

Technical assistance, effective overall communications planning for user needs and training, are key and interrelated elements that will need to be strengthened vigorously over the next decade, if the overall goal of rural communications development is to be achieved (1985: 6).

Many countries in the Asia-Pacific region are now seeking low-cost, high-speed telecommunications through satellite links. For them, such services are vital for raising the productivity of their farms and factories and for generating investment and employment in their electronics industries (Jassuwalla, 1986: 31). In most LDCs, the telecommunication services are a public monopoly because the price of some services can be subsidised at the cost of others. This trend is no longer sustainable because it is an artificial monopoly that
does not have a single output. Bandwidth demand has a variety of uses. It becomes difficult to sustain an artificial monopoly, so that newer technologies make it incumbent on the Least Developed Countries' (LDC) governments to remove the monopolies (1986: 39). Jassuwalla argues that the integration of telecommunications and computer technology will be the most important and revolutionary technological development of the twentieth century.

The marriage of computers and telecommunications is the most exciting technological development in this century (Jassuwalla, 1986: 68). Technological development and the convergence of the computer and telecom, are considered to be driving forces behind the comprehensive planning practices of telecom organisations. Despite this, there is evidence suggesting that the lack of a comprehensive TSPP in an organisation will result in operational inefficiency. This is due to a lack of concern about the compatibility of the technologies utilised by organisations, and perhaps, the lack of a comprehensive TSPP for the national telecommunications players.

For many of the developing countries, one central problem is how to ensure that the existing telecommunications infrastructure incorporates new technical developments efficiently to satisfy the demands of urban users, while at the same time maintaining the provision for more "traditional" services, telex, High Frequency (HF) and single side band radio for example, where such services are the most effective, and sometimes the only service available to many rural users. (Ogden and Jussawalla, 1994: 421). Network planning in developing countries, designed to optimise technically and economically the conversion of existing telephone networks from analog to digital technology and the planning of new digital voice and data networks, will bring about financial, operational, and economic benefits and increase the customers service provision (Pietrogrande and Rizzoni, 1994: 575).

Advanced telecommunications networks and services are essential to both commercial
and social development. The competitive service provider has an important role to play in the evolution and growth of global telecommunications (Spence, 1994: 625). According to 1984 report, 'The Missing Link,' the Independent Commission for World-Wide Telecommunications Development of an expanded world telecommunications network would benefit both developing and industrialised countries. The process of improving and expanding networks in developing countries will create a major market for telecommunications equipment. A more comprehensive world system will increase international traffic to the advantage of the operators. In order to get the most out of the technological developments and its application on the provision of the cost-effective and reliable communication services, the organisation will be required to make a paradigm shift towards more comprehensive planning processes for a TSPP.

2.4 Implications for Developing an Understanding of a TSPP

Given the wide range of examples on the strategic planning and practices literature, there is evidence of two schools of thought: normative and descriptive. The “Normative Approach” to strategic planning and practices can be classified as one which relies on the assumption of how the strategic planning ought to be or should be done. However, “Descriptive Approach” on the other hand, is focused on strategic planning as a “Process” and looks at how the planning is done in a particular context. Moreover, normative theories of planning that stand alone without the basis or input of the descriptive theories, will lack the touch of reality. It is important to understand that the descriptive theory will provide prescriptions in formulating the normative theory.

2.4.1 The SPP and the normative-descriptive dichotomy

Alexander argued that there is no single agreed upon definition of planning theory, nor is there any consensus on what it includes (1992: 4). He further argued that planning theory can address a whole range of issues which can be grouped as: definitional,
substantive, process, and normative (1992: 7). It is evident from the strategic planning literature that the core of the planning theory is the planning process. The planning process is largely descriptive rather than normative and deals with the issues of how and what to plan. This applies both to those involved in the planning for an organisation or at the national level. It is revealed from Alexander's analyses on the planning theory that it is important for researchers and practitioners to keep a clear distinction between the descriptive and normative aspects of planning theory. The descriptive aspect of planning theory is focused on the findings of the planning practices in an organisational context. However, the descriptive aspect of theory should be passed through an evaluative filter to arrive at normative prescriptions (1992: 8). The clear distinctions of the dichotomy of planning and actual practice can be seen from the planning process and how it is accomplished and then to answer how it should be for arriving at a normative prescription.

Makridakis, in his book argued that a theory can be descriptive, normative, and predictive (1990: 12). The descriptive theory, Makridakis considers, attempts to describe a phenomenon, event, function, or job (1992: 12). The development of a descriptive theory is aimed at explaining how organisations become bureaucratic and how the CEO makes decisions. The normative theory is aimed at describing how things ought to be under ideal conditions. Lastly, the predictive theory, aimed at not only explaining or describing the past but also predicting the future (1992: 13-14). Alexander further argued that descriptive and normative theories are important as it provides insights that can help managers understand themselves and their organisations by studying and explaining the past (1992: 14).

Strategic planning theory can be seen from two viewpoints: the normative and the descriptive. A large number of studies and theoretical development are based on the descriptive approach to strategic planning. However, the descriptive theory of strategic planning has to be passed through the normative filter to be worthwhile. This study adapts a multiple approach to strategic planning. The theoretical development and background are
presented from a normative perspective and later, the case study findings provide the
descriptive views of the telecommunications strategic planning and its processes among
the national telecommunications players in Thailand. Moreover, the synthesis of the
research has considered and compared the normative and descriptive findings for the
purpose of developing an understanding of a NTSPP research.

2.4.2 The Normative Approach

This section discusses two normative models: Mintzberg’s design school of thought and
Bryson’s model. Some other popular normative models are also briefly discussed.

The Design school model fundamentally relies on the belief that strategy formation is a
process of conception, that is, the use of a basic idea to design a strategy and place
emphasis on the establishment of a fit between the external and internal organisational
factors (Mintzberg, 1994: 36-39). In this design school model, external appraisal is based
on looking at the threats and opportunities in the environment and strengths and
weaknesses of the organisation for the internal appraisal. It then looks at the key success
factors in the process of external and distinctive competences in the process of the internal
appraisal for the creation of a strategy. In the process of the evaluation and choice of
strategy, the school focuses on the social responsibility on one side and managerial values
on the other side, and lastly, leading towards the implementation of the strategy. Table 2-7
provides a brief summary of the premises of the design school (Christensen, 1982. In:

1. Strategy formation should be a controlled, conscious process of thought
2. Responsibility for the process must rest with the CEO: THE strategist
3. The model of strategy formation must be kept simple and informal
4. Strategies should be unique: best ones result from a process of creative design
5. Strategies must come out of the design process fully developed
6. The strategies should be made explicit and, if possible, articulated
7. Once strategies are fully formulated, they must be implemented

Table 2-7. A Summary of the Premises of the Design School
**Process**, is also seen as a key actor in Mintzberg’s design school of thought (Mintzberg, 1994: 42). In the case study chapter (chapter six), each of the organisation’s TSPP is explored and an explanation is provided with regard to the applicability of the existing schools of thought in the organisation’s SPP. Its existence in the overall Thai telecommunications management practices is also discussed. Table 2-8 provides a brief summary of Mintzberg’s schools of thought and their basic assumptions on the strategy formulation (Mintzberg, 1994:2-4).

<table>
<thead>
<tr>
<th>Design Planning</th>
<th>Strategy making is an informal process of conception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positioning</td>
<td>A formal process and CEO be the key actor in the strategy making process</td>
</tr>
<tr>
<td>Cognitive</td>
<td>Focus on the content of strategies more than the processes</td>
</tr>
<tr>
<td>Entrepreneurial</td>
<td>Considers what happen in a human head that tries to cope with the strategy</td>
</tr>
<tr>
<td>Learning</td>
<td>Strategy making as the visionary process of a strong leader</td>
</tr>
<tr>
<td>Political</td>
<td>Finds strategy to emerge in a process of collective learning</td>
</tr>
<tr>
<td>Cultural</td>
<td>Focuses on conflict and the exploitation of power in the process</td>
</tr>
<tr>
<td>Environmental</td>
<td>Focuses on the collective, cooperative dimension of the process</td>
</tr>
<tr>
<td>Configurational</td>
<td>Strategy making is a passive response to external forces</td>
</tr>
<tr>
<td></td>
<td>Puts all the other schools into the contexts of specific episodes in the process</td>
</tr>
</tbody>
</table>

Table 2-8. A Summary of Mintzberg’s Schools of Thought and Basic Assumptions on Strategic Planning Process

This design school model is based on providing a framework to the executive officers to the design process of a strategic plan. As this model deals largely with how executives should be developing a strategic plan, is in fact, falls under the normative approach to strategic planning for this present study. Ashby’s law of requisite variety suggests that the control approach to strategic planning rests upon the question, “What a firm should be able to do?”. This question calls for a far more sophisticated approach to strategic planning in which the concept of variety is invoked. Furthermore, this new concept will require addressing a set of questions that eventually differs from the questions used to find a single
forecast of a future environment.

It is argued by researcher like Chakravarthy that the main concern for a strategic plan in a volatile, troubling, and rapidly changing environment should deal with a proper assessment of the environment upon which the strategic plan must rest (Chakravarthy, 1982; Ruefli and Sarrazin, 1981; Aharoni, Maimon, and Seger, 1978; and, Mintzberg, 1978). To describe this issue further, it is necessary to look at the work by Cyert and March who actually observed that managers “avoid the requirement that they correctly anticipate events in the distant future by using decision rules emphasising short-run reaction to short-run feedback rather than anticipation of long-run uncertain events” (Cyert, 1963. In: Burton and Obel, 1986).

The focus of the thesis is on the public telecommunications infrastructure planning and practices and it is necessary to give a brief background of public vs private planning and the differences in strategic planning concepts for these two types. Strategic planning applies not only to the commercial enterprises which operate competitively in the private sector for profit, but also to the public sector organisations which operate in a non-competitive environment with government funding. Notably, the private sector measure of profit has a public sector equivalent to its cost-effectiveness. Furthermore, a private sector organisation evaluates threats presented by their competitors, whereas the government organisation’s focus is on the constraints rather than the threats in their planning process (Finkelstine, 1989).

2.4.3 The Descriptive Disputes

It was indicated at the beginning of this section (refer to section 2.4.1) that the strategic planning theories can be classified as both normative and descriptive. It is evident from Alexander’s argument that the descriptive aspect of planning theory and its findings has to pass through an evaluative filter to arrive at normative prescriptions of how planning is to
be done (1992: 8). In his book, Alexander (1992: 59) further argued, that the real theories of planning can be the descriptive models which describes observed behaviour. The emphasis of this study is on the multiple theoretical approach of the strategic planning theories. It is believed that these approaches are necessary due to the lack of an established basis about the strategic planning and practices in the Thai telecommunications industry.

Descriptive theories in management are common and in his book, Makridakis (1990: 12-13) identifies eight descriptive theories. Makridakis’s analyses concluded the ideas of Henri Fayol (1841-1925); Frederick Taylor (1856-1915); Alfred Sloan (1875-1966); Elton Mayo (1880-1949); Chester Barnard (1886-1961); Alfred Chandler (1918-); Herbert Simon (1916-); and Peter Drucker (1909-). It was noted from the strategic planning literature that these researchers observed a particular phenomenon over a period of time and proposed a descriptive theory in the management disciplines. Between 1874 and 1878, Fredrick Taylor worked in a pump manufacturing company and observed that poor management is due to the poor relations between the workers and managers (Sheldrake, 1996: 13). Taylor’s system of task management was developed while working at Madvale Steel. During this research, Taylor put forwarded the argument of systematic management. The essence of his central thesis was that management can be made into an exact science, and especially the routine and repetitive tasks that go into an organisation over time (Makridakis, 1990: 13).

Similarly, Chandler observed the organisation and its structure and put forward a descriptive argument: an appropriate structure needs to be installed for the successful formulation and implementation of the strategy (Makridakis, 1990: 13). It is important to recognise that a descriptive theory plays an important role in the process of making a normative prescription. It can be argued that neither the normative or the descriptive theory can stand alone. If the theory is proposed based on the normative approach, it will fall short under the expectations and loosens touch with reality. On the other hand, if the strategic planning theory is descriptive in nature and does not take into account the normative approach, it loses the touch with theoretical development. Considering these, this study adopts a multiple approaches for exploring the underlying national telecommunications
strategic planning processes in Thailand.

2.5 Conclusions

This chapter has presented a selective literature review on the strategic planning and practices and the other strategic concepts that are of relevance to this study. The significance of the study can be seen from the central thesis of this NTSPP research addressed as: unless an appropriate TSPP and a NTSSP can be installed both at the organisational and at the national level, a TSP and a NTSP can not succeed. The next chapter follows the development of the theoretical construct based on this selected literature review.
Chapter Three

A National Telecommunications Strategic Planning Process (NTSPP)

Chapter two provided a review of the relevant literature on a Telecommunications Strategic Planning Process (TSPP). Relationships between a TSPP, the organisation, and the environment for developing an understanding of current telecommunications planning and the directions for the future and the influence of the external environment on a TSPP was also considered. This led to a rationale for adopting the multiple theoretical approach by providing the normative-descriptive dichotomy of strategic planning theories for a present NTSPP research. On the basis of the developed understanding on a TSPP, chapter three aims to provide the theoretical background for developing an understanding on a NTSPP research in Thailand.

3.1 An Introduction to a NTSPP

To date, there has been little emphasis placed on a comprehensive NTSPP in South East Asian countries. It can be seen however, from examining the existing practices that the developing nations' governments have initiated steps towards the restructuring of their telecommunications sectors. A lack of emphasis on a comprehensive telecommunications strategic planning effort is evident (Lindley and Hossain, 1996a). A NTSPP for the purpose of the present study, is defined as: the involvement of the concerned
telecommunications bodies in the planning process for formulating national telecommunications objectives, defining strategies and policies to achieve them, developing a detailed plan of actions to achieve these objectives, and most importantly, the transformation of an organisational TSPP into a NTSPP.

The aim of this chapter is to develop a theoretical framework for a NTSPP in Thailand. First, there is a need to identify NTSPP issues, pressures, and characteristics. The objectives and importance of a NTSPP research will be explained in this chapter, together with the planning problems, constraints, and uncertainties. The second is the development of a NTSPP theoretical planning framework for analysing telecommunications in Thailand. The focus is on the identification of the key NTSPP planning and practice issues; the organisational strategic planning framework and the transformation possibility; the roles of SOEs and government organisations in a NTSPP; and lastly, the establishment of the link between individual organisational and national planning. A framework describing the implications for the study of a NTSPP in Thailand is also considered.

3.2 Identification of NTSPP Issues, Pressures, and Characteristics

The literature review that was presented in the previous chapter disclosed several useful sources that can be taken into consideration for identifying a NTSPP planning and practice issues. In the Brazilian study, Fiol and Ferraz (1985) argued that a telecommunications plan, to be national, should consider and approve the network expansion plans, types of equipment to be used, operation and maintenance policies, rates, etc.

However, in most developing nations it is observed that the lack of central policies and guidelines have resulted in a disorderly expansion of the telecommunications networks. In Brazil's telecommunications system, a lack of central planning has resulted in the use of incompatible equipment by the telecommunication companies. Fiol and Ferraz (1985)
argued that this kind of situation leads to improvisations that are detrimental to the quality of services (Fiol and Ferraz, 1985). The national telecommunications planning process for Brazil was based on three phases: The first was the usual strategic planning process; the second was the operational planning centred at the national enterprises; and the last was the planning process in each subsidiary of the TELEBRAS (Fiol and Ferrra, 1985). Figure 3-1 shows the factors that were identified by Fiol and Ferrza for the situational analysis in the national telecommunications planning process for Brazil.

Figure 3-1. Situational Analysis factors for Brazil’s Telecommunications Planning Process

Anies and Day's (1975) research on the US national level planning was focused on the Federal government as the major or coalescing force for national planning. However, when the South East Asian telecommunications industry is considered, it could be argued that Anies and Day's (1975) analyses is also applicable to Thailand. It is evident from their analyses that the US national planning in 1975, was emphasising the responsibility of the
central government and this was not shared with groups in the private sector at that time (Aines and Day, 1975). However, in the late 1990s, Thailand and other South East Asian developing nations are at the developmental stages of the US planning practices. In particular, it is observed for Thai telecommunications there is lack of participation among the government and private sector in developing a national plan, and this has been documented as the background to a NTSPP research problem (section 1.5). Furthermore, it can also be argued that any planning intended to be national, has to be accomplished as a team effort involving: the federal government, state governments, professional societies, commerce and industry, academia, and other groups (Aines and Day, 1975). Moreover, they have also argued that it is not universally agreed that only governments should be involved in national planning.

Observations fn US planning also reveal that there has been a shift towards private sector participation since the 1980s. An analysis of Zimmerman and Brimmer’s (1985) study on national planning for data communications reveal that the national planning process for telecommunications in the US is unique in many respects, in comparison with other nations. In most countries, the national planning falls under the direct control of the government and is therefore highly centralised (Zimmerman and Brimmer, 1981), and the government sector also plays a major role in the telecommunications planning process through its functions of policy making, regulation, managing, using and purchasing, coordinating of public sector requirements, and supporting the key technological developments (Zimmerman and Brimmer, 1981).

In the US, the FCC (Federal Communications Commission) is the most important player, responsible for overseeing the interstate telecommunications industry through entry and rate regulation within the constraints of the Communications Act of 1934. Zimmerman and Brimmer’s analyses also suggested that national planning requires an overall assessment of the environmental influences over the telecommunications industry and the planning process should be flexible enough to respond to the environmental changes
quickly. This requires planning methodologies, which need to be developed for dealing with the environmental changes in the telecommunications industry. Chapter two provided Stenier's assumption on the strategic planning process and the uncertainty in the environment. It was also suggested from the literature reviewed, that an organisation needs to adapt a comprehensive TSPP for dealing with the rapid environmental changes effectively.

There is empirical research suggesting that: the rapid changes occurring in the telecommunications technology; uncertainty in the industry due to deregulation and flooding of the market with new suppliers and products; increasing environmental complexity due to the technological leapfrogging; uncertainty with respect to the ISO-OSI standard and its impact on the industry, and, the critical roles of telecommunications function in the daily operation of the business are the major driving forces of the comprehensive strategic planning in the telecom industry (Cash and Konsynski, 1985; and, Clemens and McFarlan, 1986). Premkumar and King’s (1990) empirical research has identified several forces that are considered to be the major driving forces of the TSPP. Figure 3-2 provides the driving forces and importance of the strategic telecommunications planning.

**Figure 3-2. The Driving Forces Towards Comprehensive Telecommunications Strategic Planning**
Some of the above mentioned forces are taken into consideration in developing the conceptual framework for the study of a NTSPP in Thailand (refer to figure 1-1), and delineated to a TSPP at the organisational level (refer to figure 1-2).

3.2.1 **The Objectives and Importance of a NTSPP**

To date, a *comprehensive NTSPP* in both developed and developing nations is unusual. It is observed from Zimmerman and Brimmer's analysis on the national planning for data communication in the US that a regulator body, the FCC (Federal Communications Commission), plays a major role in the national planning for telecommunications. However, countries such as Thailand, illustrate the high degree of confusion among the SOEs and other private concessionaires because of the lack of insight into government regulations. Moreover, the Ministry of Transport and Communications (MOTC) seems to be largely unsuccessful in the process of providing appropriate guidance to the SOEs and other concerned government and private concessionaires with regard to the telecommunications development. The theoretical construct therefore, a NTSPP is proposed with the following five objectives:

1. To avoid overlapping functions and developments among the SOEs and other concerned telecommunications bodies;

2. To help ensure that a strategic planning process exists at each of the organisational level concerned with telecommunications development;

3. To provide a foundation for coordinated development of consistent, comprehensive, organisational as well as NTSPP;

4. To provide guidelines for and direction to continuing planning development
studies and projects;

and,

5. To explore the possibilities of the transformation of organisational TSPP into a NTSPP in Thailand.

3.2.2 NTSPP Planning Problems, Pitfalls, Constraints, & Uncertainties

Theoretically, a NTSPP is not different from an organisational TSPP. It was suggested in chapter two that the private sector's planning practice is less bureaucratic than the public sector's, and that the private sector is playing a significant role in most nations' telecommunications development. So, it is therefore important to consider the role of the private sector in the development of a NTSPP. The private sector's presence and involvement in a NTSPP is considered in Thailand to be rather limited.

In Thailand the major problem at the national planning level, can be seen as a lack of coordination and cooperation among the national telecommunications players. Previous research suggests that the lack of cooperation among the Thai national telecommunications players, is due to the overlapping functions among the State Owned Enterprises (SOEs). It is also evident however, that the MOTC, has also failed to provide appropriate policy and planning guidelines to the SOEs. This has resulted in delays to project completion and irregular expansion of the national networks for creating the economy of scale needed for the existing telecommunications network. The problems associated with a NTSPP are summarised as:

1. Failure to develop a comprehensive national planning platform for telecommunications players;
2. To date, there is no regulatory body to oversee the planning process;

3. The role of the Ministry of Transport and Communications needs to be readdressed and strengthened;

4. Lack of participation from the private sector organisations in the national planning process;

5. Failure to transform the organisational TSPP into a NTSPP;

6. Failure to use the plan as a guideline to national telecommunications development;

and,

7. Failure to set up rules and regulations to use the plans as standards for measuring managerial performance, both at the organisational and the national level.

These aforementioned issues can provide the rationale and urgency for establishing a NTSPP theoretical planning and practice framework.

3.3 A NTSPP Theoretical Planning and Practice Framework

Setting the strategic objectives and achieving them is extremely difficult, due to the complexity of the SOEs, public sector organisations and its environment. It is observed from the US national planning process that the private sectors play a major role in the national telecommunications development planning practices. However, national planning in the US also represents a very high degree of involvement from the academic consultants,
State Governments and others. Considering these involvements, it can be argued that a formal planning process helps to minimise the difficulties of coordination and cooperation, and therefore provides a framework for the key players to act upon.

To arrive at national strategies for telecommunications planning and practice, multiple constructs and components, which are interrelated, must be taken into consideration. The constructs deal with issues such as: key NTSPP planning and practice issues; comparisons between domestic and international environments; the goals setting process for NTSPP; the role of SOEs and the other government organisations in NTSPP; the role and involvement of the private sector and other concerned bodies; NTSPP process; and, the linkage between organisational and national planning process. Figure 3-3 provides an overall NTSPP framework. However, a comprehensive descriptive framework is also proposed in this study in order to facilitate the understanding and transformation process for developing a NTSPP (refer to figure 1-1).

Figure 3-3. A Transformation Framework for a NTSPP

<table>
<thead>
<tr>
<th>SPP</th>
<th>Telecommunications Planning Process</th>
<th>TSPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisations</td>
<td>National Strategic</td>
<td>Telecommunications</td>
</tr>
<tr>
<td>Mission</td>
<td>Planning Objectives</td>
<td>Planning Objectives</td>
</tr>
<tr>
<td>Objectives</td>
<td>Planning Constraints</td>
<td>Planning Constraints</td>
</tr>
<tr>
<td>Strategy</td>
<td>Planning Design</td>
<td>Planning Design</td>
</tr>
<tr>
<td>Other Strategic Attributes</td>
<td>Strategies</td>
<td>Strategies</td>
</tr>
</tbody>
</table>

NTSPP

National Planning Objectives
Planning Constraints
Planning Design Strategies

National Strategic Telecommunications Planning Process
3.3.1 The Establishment of an Organisational TSPP Framework

From a macro or strategic perspective, a NTSPP must be focused and support the organisational TSP. There should be a conceptual relationship and integration between the organisation and a NTSPP. Figure 3-4 provides the conceptual relationships and integration possibility of the concerned telecommunications organisation's planning into the national planning processes. It is argued, in the thesis, that for a NTSPP to work effectively, the establishment of an organisational TSPP framework is required.

Figure 3-4. A Conceptual Relationships and Integration Process Framework for a NTSPP

It can also be argued that the planning process framework will aid in the transformation of the organisational TSPP into a NTSPP. Since participation from the organisational level planning is crucial for a NTSPP, it is important to have a clear understanding on the roles of each individual organisation and can be understood as: the level of organisational involvement in a NTSPP; establishment of a NTSPP framework for overseeing the overall
coordination and cooperation among the players and assigning appropriate responsibility for the overall process of a NTSP. Chapter four of this thesis explores the roles and relationships of the national telecommunications players from a historical perspective, with a view to developing an understanding about the present status of a NTSP in Thailand.

Strategic planning and practices in the public sector suggests that most executives and planners face tremendous challenges for dealing with the environment. However, in reality, there may never be full organisational cooperation and coordination, but the planning process will still be of assistance in aiding this process by reducing confusion and biases among the key players. It is observed, from the literature, that telecommunications strategic planning is relatively a new area of research with very limited literature available (Premkumar and King, 1990; Doubleday, Robert, and Walsham, 1983; and, Probert, 1981), and there is therefore, a lack of established theoretical basis on the TSPP, which could be incorporated into a NTSP.

There is however, a high degree of similarity on the nature of the Information Systems (IS), the Management Information Systems (MIS), and the telecommunications planning process, which provides a good basis for this research. IS and MIS planning processes have three components: input, process, and output. Premkumar and King argued that these components can also be considered as components for the strategic telecommunications planning process (Premkumar and King, 1990: 448; King, 1978). In the context of IS and MIS planning, many researchers emphasise the importance of the linkage (Henderson and Sifonis, 1988; King, 1978; and, Premkumar and King, 1990) and the various methodologies that have been developed (Premkumar and King, 1990). The literature reveals that there has not been much emphasis on establishing a link between the environmental factors and the organisational performances. Stanwick and Pleshko argued that the examination of the relationship between characteristics of the environment, formalised planning, and organisation structure, along with their resultant effects on the individual firm's performance has so far been neglected by the researchers (Stanwick and Pleshko, 1995). The IS and MIS planning literature however, suggests that strategic
planning is not only designed to answer 'What a firm should do', but it should also be viewed as 'What a firm should be able to do'. So, under the dynamic and uncertain changing environment, it is necessary to develop new organisational approaches built upon, and which evolved from, the basic functional organisation (Burton and Obel, 1986).

It is observed that, in Thai telecommunications, there is a lack of concern about a NTSPP and the transformation of the concerned telecommunications organisations' TSPP into a NTSPP. Thai telecommunications planning process and implementation practices have never been disclosed and there is no indication of planning practices or any relationship with the models and theories of planning. It is observed from the wide body of strategic planning literature that this is now the time to rethink the traditional approaches to planning and initiate a multiple approach for providing a useful paradigm for the TSPP as well a NTSPP.

### 3.3.2 Comparison of Organisational and NTSPP Environment

The similarities and/or differences between the organisational and NTSPP environment must be understood if the strategic planning is to be successful at the national level. The organisational environment is more flexible than a national environment and less bureaucratic in nature. It is also important to acknowledge that national planning to be successful, requires the active participation of all organisations involved. Based on the exhaustive literature search presented in chapter two, it is evident that to date, there has not been much emphasis on the holistic approach to a NTSPP, particularly in the Thai context. It is likely that national strategic planning of any kind requires the involvement of both the private and public sector organisations, and perhaps participation from the research institutes as well.

In developing a NTSPP framework, ten steps strategic planning cycle proposed by Bryson has been normatively adopted. Bryson's book on strategic planning for public and
non profit organisations has provided useful insights and a useful review on the nature of
the strategic planning processes and its key elements. The Bryson model was chosen as a
foundation for a NTSPP framework with the four assumptions listed below. However,
these assumptions are consistent with the definition of the term and the problem of this
study provided in chapter one. These assumptions are also consistent with the conceptual
frameworks (refer to figure 1-1 and 1-2), and the theoretical background of the TSPP as
well.

1. it is based on the assumption of the private sectors planning principles and its
applicability in the public sectors;

2. the emphasis on the Bryson model is on the process of developing a strategic plan;

3. the nature of the national planning is based on the assumption that the private and
public sectors should be actively involved in the process (see Anies and Day, 1975; and
Zimmerman and Brimmer, 1981);

4. the Bryson model provides the indication that a reasonably structured and formalised
strategic planning process helps the organisations gather the information necessary for the
formulation of an effective strategy (Bryson, 1995: 8).

It was argued in the preceding chapters that a NTSP, to be successful, requires an
overall cooperation and coordination among the decision makers and the participating
organisations. Achieving these is not an easy task and requires much time and effort for all
concerned parties to arrive at an agreement. Better planning and control mechanisms should
be developed, that can supports a NTSP. When the Thai telecommunications industry
structure is considered, it can be argued that a comprehensive strategic planning process is
required at present per se, to avoid the chaos among the players and to sustain the growth
of the telecommunications industry. The initiation of the formal strategic planning process,
where major contributors will meet and discuss the problems, constraints and other factors in relation to a NTSPP, can aid in the process of reducing the chaos among the parties concerned. The comprehensive TSPP will eventually establish a basis for a NTSPP, as proposed above. The roles and relationships of the national telecommunications players and their relationships with a Thai NTSPP is explored in chapter four of this thesis.

3.4 A Framework for Analysing a NTSPP

The preceding section provided the rationale for adapting Bryson's model for a NTSPP. It can be argued that the initiation and agreement on a strategic planning process is designed to facilitate an initial agreement among the key internal decision makers or opinion leaders about the overall strategic planning effort and main planning steps (Bryson, 1995: 47; Steiner, 1979). The proceeding sections are aimed at analysing the ten steps strategic planning cycle that is adopted from Bryson's (1995) model and applied to build a NTSPP constructs. Later sections provide the description of a NTSPP framework. Moreover, these basis principles and the process cycle were used both for analysing the organisational and national level TSPP. Figure 3-5 provides a theoretical framework for analysing a NTSPP.

3.4.1 A NTSPP Framework

In the preceding section, it was argued that for a NTSP to be successful, the existence of the TSPP at the organisational level is vital. The first step towards a NTSPP is therefore, be the initiation and agreeing upon, need for a NTSPP. In initiating the process, it is extremely important to form a national telecommunications planning committee to oversee the whole process. The process of the first cycle follows several steps, ranging from the organisational level planning, regulatory planning and the integration of these into an overall national telecommunications strategic planning framework. To facilitate the task of developing the initial agreement among the key decision makers, Bryson (1995: 57) proposed eleven steps are, taken into consideration, with the assumption of facilitating the
initiation and agreement of a NTSP.

**Figure 3-5. A Theoretical Framework for Analysing a National Telecommunications Strategic Planning Processes (NTSPP)**
Research shows that the support and commitment of the key decision makers is vital for the success of an organisation's strategic planning effort (Olsen and Eadie, 1982; Bryson and Roering, 1988; Nutt and Backoff, 1992; Schein, 1992. In: Bryson, 1995: 23). Similarly, the involvement of the key decision makers outside the organisation needs to be included for the success of public programs, especially if the implementation of those programs involves interest groups and organisations (McGowan and Stevens, 1983; Goggin, Bowman, Lester, and O'Toole, 1990. In: Bryson, 1995: 23). Considering this, stakeholder analysis plays a vital role in the formulation and the effective implementation of a NTSPP.

To Bryson, the formal and informal mandates of an organisation consists of the organisational procedures and various 'musts' that it confronts (1995: 26). Bryson's research shows that few members of any organisations have ever read the relevant legislation, ordinances, charters, articles, and contracts that outline the organisation's formal mandate. Bryson's analyses identified three fundamental strategic planning errors: The first is not knowing what they must do, therefore they are unlikely to do it. The second assumption is that managers may believe that they are more tightly constrained in their actions than they actually are. The third assumption is based on the argument that managers may assume that if they are not explicitly told to do something, they are not allowed to do it (1995: 26). The national telecommunications mandate requires the involvement and understanding of all the participants involved, if it is to be successful.

In clarifying the national telecommunications mission and values, it is important to conduct the stakeholder analysis. According to Bryson, a stakeholder is defined as any person, group, or organisation that can place a claim on an organisation's attention, resources, or output or is affected by the output (1995: 27). Considering this definition, it is vital to consider the factor in clarifying the national telecom mission and values in leading to a successful implementation of a NTSPP. Bryson further argues that attention to the stakeholders is crucial to the success of the public and non-profit organisations (1995: 27).
Research suggests that the stakeholder analysis in a strategic planning process forms the basis for organisational development and aids in the process of developing a mission statement. Bryson's findings on the stakeholder analysis suggests that it helps develop a consensus and reduces the chaos among the major participating individuals in an organisation.

The preceding sections indicated that the formulation and implementation of a telecommunications strategic plan, either at the organisational or national level, requires an understanding of the environmental influences on the TSPP as well as a NTSPP. Assessment of the environment is important not only at the internal but also at the external levels that influence organisations' TSPP. As Bryson argued, an internal assessment is necessary to identify strengths and weaknesses of the organisation and similarly, the external assessment is also crucial for the identification of opportunities and threats to an organisation. It can be argued therefore that a NTSPP to be successful, requires a through understanding of the major participants, their roles, capabilities and the changes in the international marketplace that has major influences on the TSPP. These factors are considered in the conceptual framework of the study (refer to figure 1-1), and are also elaborated in providing a profound analyses of a NTSPP in Thailand. It is also argued that the formulation and implementation of a NTSPP requires a through understanding of the organisations and its participation. However, those external factors that are conducive and inhibitive to a NTSPP are also addressed in this study. When Bryson's view is taken into consideration, it can further be argued that a logical assessment of the internal and the external environment of a NTSPP should follow some of the following patterns.

Identification of the strategic issues of a NTSPP follows two distinctive patterns: the organisational and the national level strategic issues. However, appropriate responsibility should be assigned, both at the organisational and the national level, for the process of identifying the strategic issues concerning telecommunications development planning practices. In his research, Bryson argues that the identification of the strategic issues is at
the heart of the strategic planning process (1995: 104). Previous research has also suggested that the strategic issue is a fundamental policy question and challenges affecting the organisation's mandates, mission, and values etc (1995: 104). Those steps or processes needed for dealing with the strategic issues concerning a NTSPP should be adopted. Empirical evidence suggests that an organisation initiates the development of a strategy to deal with the issues discussed in the preceding sections. As organisations vary not only in size, but also in terms of management attitudes, it is also essential to understand the driving forces of managerial behaviour that have a significant impact on the organisation's TSPP (1995: 33).

The literature on strategic planning theories suggest that the nature of the private and public sector organisations and their implementation processes of strategic plans follow different paths. It is revealed from past studies that the review of a strategic plan, in the public sector is very bureaucratic in nature, more so than in the private sector. The review and adaptation process of a national plan requires more participation and involvement of all the concerned bodies that are participating in a NTSPP. Considering the level of involvement and bureaucratic nature of the Thai telecommunications industry, it can be argued that a comprehensive TSPP will be required to facilitate the process of policy control for a NTSPP. The comprehensive NTSP is not aimed at forcing planners to come to a decision within a certain time limit, rather it is argued that formalisation will be required in developing a general consensus among the organisational as well as the national telecommunications planners.

In the phase of establishing an effective vision, Bryson suggests that two aspects will need to be taken into consideration: First, is the establishing of an organisational vision and second, is the establishment of a national vision for telecommunications development. At this point, it should also be recognised that there should be a certain level of organisational cooperation and coordination established for the successful formulation and implementation of a NTSPP. The implementation process of a NTSP should be taken into consideration in
the formulation stage. It can be argued that a formulation of a NTSP without forethought about its implementation, is a sure formula for failure. However, in this regard Mintzberg (1994: 25. In: Bryson, 1995: 34), put forward the argument that "Every failure of implementation is, by definition, also a failure of formulation." So, the development of an effective implementation process should be taken into consideration by the executives in the formulation phase of a telecommunications strategic plan. In the process of establishing an effective organisational and national vision for the development of the national telecommunications infrastructure, the organisation will be required to develop a description of what it should be, once it has successfully implemented its strategies and achieved its full potential (Bryson, 1995: 35). Researchers such as Taylor and Nanus described this as the organisation's "vision of success" (Taylor, 1984; Nanus, 1992: 189-224. In: Bryson, 1995: 35). However, organisational psychologists (Locke, Shaw, Saari, and Latham, 1981), management theorists (Kouzes and Posner, 1987, 1993; Senge, 1990; Nanus, 1992; Kotter, 1995) and others (Ouchi, 1981; Peters and Waterman, 1982) have argued, that though the importance of the development of an effective organisation vision has long been recognised, very few organisations have established one (Bryson, 1995: 35).

It is noted in the previous section that the formulation should consider the implementation of a TSP and therefore, be a part of a NTSP. Bryson (1995: 36) also argued that the development of a strategic plan is not enough, it should also consider how it is to be implemented. If Bryson's basic assumptions into a NTSPP considerations needs to be considered and taken into account. The effective implementation at the national planning level requires several interrelated steps and process aiming at building a general consensus among the key individual and organisational players. Collectively, the important assumptions that should be taken into consideration in the process of an effective implementation of a NTSPP are: the present level of cooperation among the major participants and their level of participation will need to taken into consideration. The method of achieving this, will need to be examined. The establishment of a general
consensus among the participating organisations. In short, raising all these questions are absolutely necessary, if is to proceed with the successful implementation of a NTSPPP and therefore, should be raised in formulation phase of a NTSP.

It was argued in the preceding sections that \textit{strategic planning is not an end in itself, rather it is an ongoing process}. The telecommunications industry (both locally and globally) is looked at, it is evident that changes are rapid and the industry is largely uncertain. These uncertainties are even more serious in the case of South East Asian countries, where governments, to date, have yet to propose a comprehensive plan of action to guide the future of the telecommunications industry. Considering the changes, it is clear that the review process of a TSP is important for maintaining the pace with the rapid changes in the telecommunications industry. Bryson (1995: 37) argued that the strategic planning process should not only be examined, but tailoring will also be necessary from time to time, to improve the next round of strategic planning.

\textbf{3.4.2 Critical NTSPPP Success Factors}

The theoretical background of the present study is presented and discussions about different models and processes were also provided in the previous chapter. The literature has not indicated, nor has any attempt been made within a NTSPPP to consider the possible transformation of the organisational TSPP into a NTSPPP. This aim can be achieved through three interrelated processes: development of an overall NTSPPP: showing the relationships and integration of the concerned bodies in the planning processes, and lastly, the analyses of a TSPP at each of the national telecommunications organisations. To elaborate this issue further, it should be mentioned that three areas were identified from the existing literature and this can be used as the basic consideration for a NTSPPP. The first, is the explication of the organisation's TSPP, second, the methodologies for further explication and validation of the organisation's TSPP and lastly, the transformation of the organisational TSPP into a NTSPPP.
Several factors have been taken into account for the development of a Thai NTSPP model (refer to figure 1-1). Extensive in-depth interviews were conducted among the organisational planners and some from the Ministry of Transport and Communications (MOTC). This model will be the first attempt to initiate the possibility of the organisational TSPP transformation into a NTSPP for the Thai telecommunications industry. In order to have a successful NTSP, it is important to explore the underlying TSPP at play with a descriptive view.

3.5 Conclusions

The above analyses of different bodies of literature gives an indication of fostering strategic planning research for national telecommunications planning. It is expected that over the next three to four years there will be significant changes in the world’s telecommunications industry and it is necessary for developing nations like Thailand to prepare well in advance in order to cope with the technological, political and regulatory changes in the national and international telecommunications. This chapter has examined the literature to determine the nature of a NTSPP, and has provided a framework for analysing a NTSPP. The result has been the development of the normative framework for a present NTSPP research in Thailand.

Based on the above analyses, this research seeks to provide a better understanding about a NTSPP in Thailand. The influences of the environmental factors and its presence in the planning process have also been explored. Lastly, the study provided some theoretical evidence and integrated concepts of strategic planning currently practiced in Thailand’s telecommunications industry. Different national experiences of a NTSPP and implementation practices were also discussed with regard to the findings from the Thai telecommunications industry.

In order to focus on the telecommunications industry in Thailand, it is necessary to look at the history of the Thai telecommunications industry for exploring the roles and
relationships of the national telecommunications players. The analysis of the Thai telecommunications history and its development presented in chapter four, provides a basis for the identification of the key issues and also for outlining the significance of the present study.
Chapter Four
The Roles and Relationships of the Thai Telecommunications Players

Chapter three examined the literature on a TSPP for the development of theoretical framework for a present NTSPP research in Thailand. The importance of the roles and relationships of the major players were identified in the preceding chapters (chapters one, two and three). A rationale for exploring the roles and relationships of the national telecommunications players, which is considered to be vital for the developing an understanding of a NTSPP, was also given in chapter three. This chapter explores the present position of the Thai telecommunications in relation to the national telecommunications players: the TOT, the CAT and the PTD. The changes in the organisation and regulatory structure and its relationship with the organisation's TSPP will also be explored in this chapter. However, the roles of these three players in a NTSPP are also discussed.

4.1 An Introduction to the Telecommunications Regulatory Environment of Thailand

Telecommunications in Thailand continues to rely upon a complex set of policy guidelines and regulations shared among several government agencies and government owned service providers under a monopoly law (Hossain and Lindley, 1997). Under the
existing telecommunications regulatory regime, the Ministry of Transport and Communications (MOTC) has control of certain aspects of the domestic telecommunications industry. Thai telecommunications industry represents the result of a very high degree of uncertainty from the regulatory environment. The TOT, a State Owned Enterprise (SOE) under the MOTC, was established in 1954. At the time of its development, the TOT's main objectives were two fold: to operate and develop national telephone services for higher benefits to the state and the public and, to carry out all business relating to, or beneficial to, telephone activities in Thailand.

The Communications Authority of Thailand (CAT) was created in 1976 (CAT ACT. 1976). This separated it from the Post and Telegraph Department (PTD) and enabled to act as a SOE. At the beginning of its establishment, the CAT's responsibility was three fold: to provide domestic and international postal services; to provide international telecommunication services, and lastly, to provide domestic telegraph and telex services. The CAT also operates radio telephone services, HF and UHF radio telegraph service, maritime mobile radio service, VHF radio service, VHF radio mobile service and radio paging (Kruatrachue, 1991:165). The CAT also plays an active role, both as a regulator of local and international telecommunications services, and as a key service provider in the domestic telecommunications market. The CAT has maintained its authority to regulate and control the international telephone market, as well local and long distance telex and telegram services under the CAT Act of 1976. Under the Radio Communications Act of 1955, the PTD retains its authority to regulate radio communications.

The PTD was founded in 1886 with the sole responsibility over the country's telephone and postal services (Charavejasarn, 1994:6). Two acts are enforced by the PTD: the Telegraph and Telephone Act B.E. 2477 (1934); and, the Radio Communication Act B.E. 2498 (1955), however, since then there have been significant changes in the Thai telecommunications industry. The PTD's regulatory authority has been reduced since the establishment of the TOT in 1954 and the CAT in 1977 (Charavejasarn, 1994:7).
Establishment of the TOT and the CAT took over the PTD's operation of the domestic telephone services, international telephone, postal, telex, telegraph and money order services (Charavejasarn, 1994:7). All three organisations are responsible for the national telecommunications development of Thailand and are directed by the MOTC. It is also required by the Thai Government that all the SOEs and government organisations, cooperate and follow the planning guidelines from the National Economic and Social Development Board (NESDB).

### 4.1.1 Regulation by the Telephone Organisation of Thailand

The TOT, a State Owned Enterprise (SOE) under the MOTC, was established in 1954. At that time, the TOT's main objectives were two fold: to operate and develop national telephone services for the greatest benefits of the state and the public, and, to carry out all business relating to, or beneficial to, telephone activities in Thailand. The TOT had only 4 exchanges at the time of its establishment with a total asset of 50 million bath and 700 employees (TOT, 1991). In 1960, 47 provincial telephone exchanges with an estimated 9,700 lines were transferred to the TOT by the PTD. During 1964 to 1969, the long distance telephone networks were also transferred to the TOT by the MOTC. The TOT introduced many new services and installations for increasing the efficiency of their networks and providing more reliable and cost effective services to customers from 1986 to 1991. Table 4-1 provides a brief introduction to the TOT’s historical development and additional services provision from 1954 to 1996.

### 4.1.2 Regulation by the Communications Authority of Thailand (CAT)

The Communications Authority of Thailand (CAT) was separated from the PTD to act as a State Owned Enterprise in 1976 (CAT ACT. 1976). At the beginning of its establishment, the CAT’s responsibilities were to: provide the domestic and international postal services; provide international telecommunication services, and lastly, provide the
domestic telegraph and telex services. The CAT currently also operates radio telephone services, HF and UHF radio telegraph service, maritime mobile radio service, VHF radio service, VHF radio mobile service and radio paging (Kruatrachue, 1991:165). Since its establishment, the CAT has been involved in telecommunications and provided the international long distance services as well as introducing the value added services in the Thai telecommunications industry. The Thai Government's intention to privatise the CAT reveal, that it also awarded concessions to private sectors for the provision of value added telecommunication services.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>The TOT was established as a state owned enterprise for providing the basic telephone services throughout the nation</td>
</tr>
<tr>
<td>1960</td>
<td>The Post and Telegraph Department transfered 47 exchanges with 9,700 lines to the TOT</td>
</tr>
<tr>
<td>1964</td>
<td>Long distance telephone networks in the Central, Eastern, and Northeastern regions were transferred to the TOT by the Ministry of Transport and Communications (MOTC)</td>
</tr>
<tr>
<td>1969</td>
<td>Long distance telephone networks in the Northern and Southern regions were transferred by the Ministry of Transport and Communications to the TOT</td>
</tr>
<tr>
<td>1986</td>
<td>Introduced the NMT 470 MHz Mobile Phone service</td>
</tr>
<tr>
<td>1989</td>
<td>Introduced ISDN to Bangkok and other major cities on a trial basis</td>
</tr>
<tr>
<td>1990</td>
<td>Introduced the Special SPC Exchange System Services</td>
</tr>
<tr>
<td>1990</td>
<td>Introduced Paging Services</td>
</tr>
<tr>
<td>1990</td>
<td>Introduced the NMT 900 MHz Mobile Telephone Service</td>
</tr>
<tr>
<td>1990</td>
<td>Introduced the Data Transmission Network Service (DATANET)</td>
</tr>
<tr>
<td>1990</td>
<td>Introduced the Toll Free Call 088 services.</td>
</tr>
<tr>
<td>1990</td>
<td>Invited the private sector to bid for &quot;Three Million-Line Expansion Project&quot;</td>
</tr>
<tr>
<td>1991</td>
<td>Introduced the Public Card Phone Service</td>
</tr>
<tr>
<td>1992</td>
<td>Granted 25 years two million line's installation concession in the Bangkok Metropolitan Area (BMA) to the TelecomAsia (TA)</td>
</tr>
<tr>
<td>1993</td>
<td>Granted 25 years one million line installation concessions in the rural areas of Thailand to the Thai Telephone and Telecommunications (TT&amp;T)</td>
</tr>
<tr>
<td>1995</td>
<td>Granted concession of 600,000 lines installation concession in the BMA to TelecomAsia</td>
</tr>
<tr>
<td>1995</td>
<td>Granted 500,000 lines installation concession to the TT&amp;T for the rural telecommunications infrastructure development</td>
</tr>
<tr>
<td>1996</td>
<td>Preparation is underway for the privatisation of the TOT</td>
</tr>
</tbody>
</table>

Table 4-1. TOT's Historical Development Chronology (1954-1996)

4.1.3 Regulation by the Post and Telegraph Department (PTD)

At present, the PTD is responsible for the control and management of the radio
frequencies. It regulates and coordinates domestic communications via satellite and represents the Thai telecommunications at international seminars and meetings. The PTD is also responsible for the study of the advanced telecommunications technologies and prepares proposals for the government's consideration. The responsibility for the overall planning and coordination of telecommunication affairs in Thailand is also its responsibility (Pairojana, 1991:284).

The PTD, is a government organisation under the control of the MOTC. At present, its responsibilities are to: manage and control of the radio frequency, regulations and coordination of the domestic communications via satellite through integrated ground stations (Charavejasarn, 1994:5). Currently, the PTD is also acting as a central agency for the overall planning and coordination of the telecommunications activities in Thailand. Besides all these, the PTD is also responsible for the study of the advanced telecommunication technologies and preparing the proposals for the government consideration.

However, the TOT, the CAT and the PTD are responsible for the national telecommunications development of Thailand under the direction of the MOTC. It was also indicated in the preceding sections that the Thai Government requires all the SOEs and government organisations, to cooperate and act upon the planning guidelines from the NESDB. Figure 4-1 provides the conceptual framework of the Thai telecommunications regulatory structure. The shaded lines of the conceptual framework represents the equivocal relationships and the darker lines represent distinct relationships. The regulatory structure of Thai telecommunications represents a high degree of involvement from different levels. All these organisations eventually have to submit their TSPs to the Budget Bureau and the Thai Cabinet for a formal approval. It is evident from the Thai telecommunications industry that, the roles and relationships of these national telecommunications players are rather ambiguous, and this is one of the major impediment towards the successful formulation and implementation of a NTSPP in Thailand.
4.2 The Present Position of the Thai Telecommunications

It can be learned from the Thai telecommunications history that the MOTC in the past, has failed to provide guidelines and policy mechanisms, for directing the Thai telecommunications industry. To date, the roles of Thailand's national telecommunications players, is not a clear one for a NTSPP. The relationships among the three national telecommunications players in a NTSPP, is also not clear. These are the major issues considered, in relation to exploring the present position of the Thai telecommunications, since its development (1886-1996).

4.2.1 TOT's Status and Major Initiatives (1954-1996)

The TOT's first act towards the move from a SOE to act as a private services provider, was to give a twenty-five year concession to the TA (TelecomAsia Corporation) for the
installation of 2 million lines for the BMA (Bangkok Metropolitan Area). At the same time one million line concessions to the TT&T (Thai Telephone & Telecommunications) was also granted for developing the rural telecommunications infrastructure in Thailand (TA, 1994). This three million line expansion is being implemented under private concession "Build-Transfer-Operate" (BTO) schemes by the MOTC. Therefore, the TOT does not have to build the expansion, and as a part of the concession it will receive 16% of the revenues from the TA and 43% of the revenues from the TT&T. Currently, there are approximately 24 telecommunications concessions in operation in Thailand (Asian Comm, 1995).

4.2.1.1 Status of the TOT as of 1991

This section provides a discussion about the TOT’s actions and outcomes from 1991. Four actions were identified from the literature for judging the status of the TOT by the year 1991: telephone services, policy, major projects, and future projects.

Telephone Services

During the fiscal year (FY) 1991, the TOT installed regular telephone services to new subscribers nationwide totalling 153,001 lines, an increase over the established annual target by 1,961 lines, or 1.29% over the target. Thus, the TOT has been able to install more telephone lines than the set target for 4 consecutive years. As a result, the number of lines connected total 1,553,160, an equivalent of 2.6 lines per 100 population. The average actual service capacity to cope with the public demand was 63% of the FY 1991's demand.

During the FY 1991, the demand for cellular mobile telephone services remained higher than estimated due to a continuous and strong economic growth in Thailand. In 1991, the annual increase in the TOT's cellular mobile telephone subscribers amounted to 39,036. Of there, 12,352 subscribers used the 470 MHz system and 26,684 subscribers used the 900
MHz system. The total of Cellular Mobile Telephone subscribers since TOT introduced this service, stood at 79,198 lines. From the total, 42,712 subscribers used the 470 MHz system and 36,486 used the 900 MHz system. The TOT introduced special leased lines and Circuit, Multi Access and Key Telephone, Direct Inward Dialling (DID), and Multi Access Exchange as a part of the Second Corporate Plan of TOT (1987-1991). However, due to the fast growing demand and the TOT's insufficient capital fund, it decided to give concessions to the private sector to invest in and operate some of these services. Table 4-2 provides an overview of the TOT's available services and services under development as of 1991.

---

**Services Already Available**

- Special Services SPC Exchange System
- Toll Free Call 088
- Mobile Coin box
- Data Transmission Network (DATANET)
- Paging Services
- Telepoint
- Card Phone

**Services Under Development**

- Integrated Services Digital Network (ISDN)
- Videotex
- Teleport
- Teleconference
- Trunk Mobile Telephone

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**Table 4-2. The TOT's services and services under development as of 1991**

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**The TOT's Policies as of 1991**

By the year end 1991, the TOT had policies to improve the telecommunications infrastructure situation in Thailand. The policies were to: improve the implementation process of telephone services expansion to be able to cope—efficiently and rapidly cope up with actual public demand; arrange simple, convenient and quick system of rendering
telephone services to the public such as application for installation, relocation and transfer of telephones, including reporting of faults and inconvenience and any abnormal circumstances concerning telephone services, and urgently expedite the relief of cable pairs and telephone line shortages.

The operations of the TOT in the FY 1991 strictly adhered to two main policies: the TOT operation policy lay down by the Board of Directors presided over by General Issarapong Noonpakdi on April 10, 1991, and the policy of the TOT's Second Corporate Plan (1987-1991). The policy of the TOT's second corporate plan had five aims: to expand the services in terms of quantity, coverage and application as well as improve the service quality and apply suitable technology to effectively and quickly meet the public demand; to promote a strong public image of the TOT as well as build good relationships with the private sector and contribute to social and public welfare in order to create positive public attitudes towards the TOT; to restructure the TOT's organisation and readjust the management, operations, regulations to be more commercially-oriented so as to improve the efficiency and service; to effectively manage the TOT's financial performance at all levels, improving bill collection as well as reduce the operation cost and increase the profit at the appropriate level corresponding to the expansion, and to encourage the private sector's participation in the TOT's projects in accordance with the government's policy so as to minimise the TOT's investment burden as well as to meet the growing demand for more services.

The Major Projects Undertaken by the TOT

Two major acts of the TOT are identified as its major initiatives to expedite the telephone project expansion. In the FY 1991, the TOT had 123 plans and projects. Two of the major projects were, the Economic and Social Development Project of the TOT 1984-1992 (ESDP 1984-1992), and, the Urgent Telephone Expansion Project (1989-1992).

According to the ESDP (1984-1992) project initiatives, the TOT had a target to increase
the nationwide telephone lines by 1,057,000, with an investment budget of 44,107 million baht. The fast growing economic and social condition in Thailand during the course of implementation, however, has caused the demand for telephone and telecommunication services higher. In order to satisfy the growing demand, the TOT adjusted its work plan by increasing the number of telephone lines in the project using the same investment budget. At that time, the TOT anticipated an installation of a total of 1,360,263 telephone lines nationwide. By the end of FY 1991, it installed 1,045,271 telephone lines, or 76.8% of the overall targeted project. Similarly, the Urgent Telephone Expansion Project (1989-1992) called for an additional 207,300 lines with a budget of 8,955 million baht, and this resulted in stress on the comprehensive extension of telephone lines and cable pairs in the main areas. By the year 1991, the TOT had installed 22,528 telephone lines of the target from the Urgent Telephone Expansion Project, or 22.3% of the overall project by the end of FY 1991.

The Future Projects of the TOT

The TOT had drawn its Third Corporate Plan for the fiscal year 1992-1996 with three main policies: The first was to expand the basic telephone line services to meet public demand. In order to achieve this, the TOT targeted to install the rural long distance public telephone at every tamboon nationwide. It also aimed at improving the service quality and the introduction of new telephone services in response to new demands arising from the social and economic development of the country. The second, is the management of developing the TOT's information system and data processing.

The preceding policies were aimed at continuing the TOT's leadership in telecommunications by supporting the research and development of new telecommunications technology, and encouraging the private sector's participation in the TOT's projects and operations, especially those in which the TOT is financially constrained. The third, is ensuring the smooth operations of it's implemented projects.
However, the TOT developed operation plans with specific objectives and directions in order to achieve a smooth operation. Figure 4-2 provides the categorisation factors that were considered by the TOT for developing the operation plan.

**Figure 4-2. Categories of the TOT’s Operation Plan**

4.2.1.2 The TOT’s Performance by the Year End 1991

At the end of 1991, there were only 1.5 million telephone lines throughout the country, or 2.7 lines for 100 people. Table 4-3 provides the phone line growth of the Thai telecommunications from 1981 to 1993. The TOT has been a pioneer in introducing many more advanced telecommunications services to meet the growing demand for fast and effective communications and to boost the country’s rapid economic growth. In short, the TOT has been and continues to be, the leader in telecommunications for the benefit of the state and the public.

Over the years, the TOT has continuously introduced many new services, providing fast, effective and inexpensive communication to the public. These services include Special SPC Exchange System Services, Toll-Free Call 088 Service, NMT 470 MHz and 900
MHz Mobile Phone Services, Paging Services, Data Transmission Network Services (DATANET), Public Card Phone Service and Telepoint Service. To develop the telecommunication system further in Thailand, the TOT took an initiative by transforming its existing Integrated Digital Network (IDN) into the Integrated Services Digital Network (ISDN) in 1993.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Lines</th>
<th>Lines per 100 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>389,000</td>
<td>0.80</td>
</tr>
<tr>
<td>1986</td>
<td>798,000</td>
<td>1.50</td>
</tr>
<tr>
<td>1991</td>
<td>1,500,000</td>
<td>2.70</td>
</tr>
<tr>
<td>1993</td>
<td>2,068,636</td>
<td>3.30</td>
</tr>
</tbody>
</table>

Table 4-3. Telephone Line Growth in Thailand (1981-1993)

4.2.1.3 The TOT’s Situation and Declaration as of 1993

Recently the TOT has declared its intention to upgrade and extend its telephone networks for accommodating Thailand’s growing subscribers demand. In 1993, subscriber demand for telephone lines in Thailand was 1.8 million lines with a waiting time of 6 months to 7 years (ITU, 1994). The TOT declared its intention to change this situation and took the following steps for improving the implementation process of telephone services expansion to be able to cope, efficiently and rapidly, with the actual public demand (TOT, 1991). The TOT had three aims: to arrange simple, convenient and quick system for rendering telephone services to the public such as: application for installation, relocation and transfer of telephones; to report faults and inconveniences about any abnormal circumstances concerning telephone services, and to urgently expedite the relief of cable pairs and telephone line shortages.

Due to the rapid economic and social boom over the last decade countries such as Thailand have faced a rapid increase in demand for basic infrastructural services including
telecommunications facilities and telephone lines. Considering the cost involved in the expansion of telephone lines to meet the huge demand, the Board of Directors of the TOT, with the approval of the MOTC and the Thai Government, made a decision to allow the private sector to co-invest with TOT in some services (TOT, 1993). Furthermore, the TOT officials acknowledged that telephone services need to be expanded and new telecommunications services ought to be introduced for coping with Thailand's growing and unmet public telephone demand.

**4.2.2 The CAT's Status and Major Initiatives (1976-1996)**

In April 1983, the CAT began to offer international database access (IDAR) services in Thailand. At the beginning of its operation, the CAT had only ten subscribers at that time, but throughout the years this has increased to more than 100. The CAT is a state owned enterprise but it operates like a private company (Charmonman, 1991:205). In 1984, the CAT constructed a main station at Sriracha and a substation along the Gulf of Thailand. The CAT began providing mobile telephone 800 MHz and paging services in 1986 through licensing them to a second provider (Charmonman, 1991:209). In addition to this, the CAT also offered circuits to the telex subscribers to use teleprinters to send and receive domestic and international telegraph messages. Moreover, thirty-six of the seventy-three provinces in Thailand had telex services by the year 1988. At that time, the demand for telex and telegraph services were relatively high. In order to satisfy the demand for the services, the CAT also installed its own lines to serve its telex users.

The CAT's mission statement (1989) is to develop and expand of its communications network, and to provide efficient postal and telecommunications services to people in all areas of the country and from all walks of life (CAT, 1989). By applying new and appropriate technology, the CAT can cater for customers' increasing demand for fast and efficient services, such as THAIPAK and FAXCOM services. The CAT is committed to maintaining its rates at a reasonable level in order to serve the Thai Government's
objectives of national development and to bring maximum benefits to the public. Currently, the CAT is offering services that will provide a better facility to their customers. These facilities are In-Flight Phone Service, the CAT Executive Telecard International, Videoconference Service, International Television Service via Satellite, Cellular 800 MHz., THAIPAK Service, Inmarsat Service, Credit Card Phone Service, International Express Mail (EMS), International Toll Free Telephone (ITFS), International Operator Direct Connection and High Speed Data Service.

4.2.2.1 Setting Up a TNS and CNCC

The CAT's achievements are improving, and the following list shows its operation of new services. The CAT has set up the Transmission Network System (TNS) and Communication Network Control Centre (CNCC) for the International Telephone Services. It had 1,000 circuits of International Telephone Switching Centres (ITSC IV) in Hat Yai and 8,000 circuits of International Telephone Switching Centres (ITSC V) in Bangkok. It has also built 560-Mbps Optical Fibre Submarine Cables System joining Thailand, Vietnam and Hong Kong, and the Optical Fibre Submarine Cables System in the Asia Pacific linking Guam, Korea, Japan, Taiwan, Hong Kong, Philippines, Singapore, Indonesia, Malaysia and Thailand. The CAT has set up Satellite Communication Earth Stations in Bangkok and provincial areas for maintaining the communication via the satellites named Intelsat, Palapa and Asiasat. The CAT's services enable the global communication and facilitate investment in business, industries and international trade and technological competition.

4.2.2.2 Major Plans and Projects

The CAT has developed major plans/projects for increased efficiency to make its services comparable with those in other countries and compatible with Thailand's economic growth in future. First, is the project on the development of the telecommunication
business in a specific economic area (Teleport). This project is aimed at supporting the development of the Eastern Seaboard for turning it into an important economic area. The CAT has set up an SPC (ITSC III) International Telephone Switching Centre with a capacity for 3,000 circuits at its earth station in Si Racha. This exchange serves as an International Gateway to help lower the congestions of international traffic that enters through gateway at Bangkok.

4.2.2.3 CAT's Services Offering

Notably, the CAT invited the private sector to jointly participate in the Digital Display Paging, Digital Display and Alphanumeric Paging, Alphanumeric Display Paging Service, Cellular Radio Communication System (World Phone), communication service by the use of small satellite earth stations (VSAT), and trunked mobile radio communication system. Considering the demand for the telecommunication services and also looking at the global changes in the telecom industry's services offering, the CAT is planning to take some major initiatives. Over the years, the CAT has developed technologically advanced systems for catering the fast and efficient communication for the benefit of the Thai people. Table 4-4 provides a brief chronology of the CAT's services offering and future development planning from 1989 to 1996.

1989-1995 The CAT established International Transit Switching Center SPC II (ITSC II) for allowing 3,000 circuits to improve the handling of overseas calls for the CAT
1991-1995 Development of Teleport for Laem Chabang and Mad Ta Put Special Economic Zone
1992-1994 Optical Fibre Submarine Cable Project (Phase I)
1992-1994 Joint ownership project of the South-east Asian-Middle East-Western Europe Optical Fibre Submarine Cable System (SEA-ME-We2)
1992-1995 INMARSAT Mobile Communications System
1992-1996 Establishment of Bulk Mail Centers
1992-1996 Establishment of the second Metropolitan Mail Center and Regional Mail Centers

Table 4-4. The CAT's Services Offering and Future Planning Chronology (1989-1996)
The PTD took major initiatives for the development of new projects for telecommunications development in Thailand. The major acts of the PTD during the seventh national economic and social development plan (1992-1996) are ten fold. The first is the work plan for the establishment of the communications information system for management. The PTD took this project with the objective in establishing communications information system for management in order to compile and collect updated communications data with desired correctness (PTD, 1992:69). The second is the work plan for the improvement or modernisation of the Radiocommunications Act 1955. This project was aimed at keeping in pace with the rapid technological advancement that are being developed for the benefit of the national development. It encompasses the review of the radiocommunications act and laws, Ministerial rules, Ministerial announcement and related Ministerial regulations in relation to the telecommunications development in Thailand.

The third is the work plan project for the improvement of the quality and efficiency of the communications personnel. This was aimed at providing opportunities to all the telecommunications personnel to upgrade and improve their knowledge of radiocommunications’ principles. The fourth was the utilisation of the computer-aided system in the radio frequency management and operation. For this, the PTD established a complete computerised system of radio frequency management through the improvement of hardware of the existing computer system at the Central Processing Unit (CPU).

This was also linked with terminal workstations that made the system more sufficient with the developed software systems (PTD, 1992:69). The fifth was the establishment of a project that enabled the PTD to establish the frequency and time standards centre. It provides the calibration services for the government and private sector and the upgrading of the centre to a regional centre for frequency and time standards. The sixth project was
aimed at establishing the system of automatic monitoring and radio direction-finding with remote control in the greater Bangkok metropolis. This project improved, as well as increased, the full capacity and efficiency of monitoring and direction-finding of radio signals in the capital by setting a non human automatic monitoring and radio direction-finding system (PTD, 1992:70).

4.3 Organisation and Regulatory Structure of the Thai Telecommunications

Privatisation of the telecommunications sector is under way in many developed and developing nations. It is observed, however, that the transition from public monopoly to privatisation has taken different directions. For example, the Thai Government declared its intention to privatise two of its national monopolies, the TOT and the CAT, long before some other developing nations but was not successful in the privatisation process. Argentina however, was successful in privatising the ENTEL (national monopoly) but failed to liberalise its telecommunications market. Privatisation is a very complex issue and the term 'privatisation' can have a different meaning for different countries (Hills, 1986). In general, the term 'privatisation' can be defined as the sale of a Government asset (Landau, 1996). The following sections provide an analysis of the TOT, the CAT and the PTD's restructuring acts.

4.3.1 TOT's Restructuring Initiatives

There have been tremendous changes in the TOT's organisation structure over the last few years. Three organisation charts of the TOT are presented here for providing a background about the changes that have occurred during the period 1991 to 1994. This information has been extracted from the TOT's annual reports of 1991, 1993, and 1994. However, the annual report before 1991 is not available for the case site and 1994 annual report is the latest publication of the TOT. Figure 4-3, 4-4, and 4-5 provides three different

Figure 4-3. Organisation Chart of the TOT (1991)

The Board of Directors of TOT

Managing Director

Bureau of General Affairs

Bureau of Operations

Bureau of Engineering and project

Office of the Corporate Affairs

Office of Internal Audit

Office of Corporate Planning

Office of Deputy Managing Director

1

2

3

DA

DTN

DE

DSS

DPM

(DA= Department of Admin.; DTN= Dept. of Telecom Network; DE=Dept. of Eng.

DF= Dept. of Finance; DSS= Dept. of Subscriber Services; DPM= Dept. of Project Management; DHR= Dept. of Human Resources; CP= Corporate Planning)
Figure 4-4. Organisation Chart of the TOT (1993)

(DA= Department of Admin.; DTN= Dept. of Telecom Network; DE=Dept. of Eng.

DF= Dept. of Finance; DSS= Dept. of Subscriber Services; DPM= Dept. of Project Management; DHR= Dept. of Human Resources; CP= Corporate Planning)
Figure 4-5. Organisation Chart of the TOT (1994)

(The DA = Department of Admin.; DTN = Dept. of Telecom Network; DE = Dept. of Eng.
DF = Dept. of Finance; DSS = Dept. of Subscriber Services; DPM = Dept. of Project
Management; DHR = Dept. of Human Resources; CP = Corporate Planning)
Three organisational charts of the TOT are presented above. In 1994, the TOT added two new divisions to its organisational chart in order to expedite and oversee the privatisation and local telephone concession processes. The Thai Government's initiatives towards privatisation of the TOT are summarised below.

4.3.1.1 Restructuring Initiatives of the TOT

Meakin's study on the privatisation of telecommunications in Thailand calls for an investigation about the possibilities of privatisation and restructuring of the TOT. His report on the privatisation of the TOT and the CAT was focused on the public fixed wired telephony that accounts for 60-80% of the overall Thai telecommunications market (Meakin, 1995:2). The study reported that the demand for basic telephony will be around 15 million lines by the end of the seventh national economic and social development plan (1992-1996). According to this proposed study, the TOT and the CAT will be separated into TOT1 and TOT2, and, CAT1 and CAT2. However, case site investigation revealed that this proposal was rejected and the present Government is considering the privatisation of the TOT and the CAT as a whole.

Considering the long history of the TOT, it can be argued that not much development has occurred in the basic telecommunications infrastructure in Thailand. It is observed from the history of Thai telecommunications that the overall national telephone penetration is very low in comparison with other newly industrialised nations. Furthermore, the history of the TOT has provided very little background about the strategic planning and practices for the telecommunications infrastructure development in Thailand. There is also a lack of emphasise of the level of sectoral planning approaches for the national telecommunications infrastructure development. It is also evident that there is a lack of attention given to the development of the rural telecommunications infrastructure. The diverse historical development and background of the TOT with this lack of emphasis gives rise to the need for an exploratory investigation of the TSPP at the TOT.
For a contrast to the Thai experience, it would be useful to examine the British Telecom (BT) and the Nippon Telephone and Telegraph's (NTT) privatisation process. The privatisation process at BT was accomplished first through the sale of 51% of BT shares but not transferring the managerial control. Second, was the creation of a private monopoly, and lastly, the creation of a quasi-governmental regulatory agency (Hills, 1986). However, the privatisation of the NTT in Japan was managed differently. In the process of privatisation, the NTT was transformed from a public corporation to a special government agency with shares still owned by the government (Hills, 1986).

It is useful, for this study, to examine the reasons for developing nations to shift towards privatisation for a national monopoly. Looking at the telecommunications sector in most developing nations, it is clear that general failure of governments to efficiently and effectively manage the sector has forced telecommunications entities to aggressively move towards privatisation (Landau, 1996). Looking at the theoretical perspective of the privatisation of national monopoly, it can be argued that monopoly is more likely to be tolerated in the case of extensive infrastructure development, where the focus of the government will be to develop the basic telecommunications infrastructure (Houghton, Mansfield, and Joseph, 1994). Liberalisation may occur in the case of intensive infrastructure development, where the concern is to provide more value added services to subscribers in a cost effective manner.

Privatisation of the TOT is underway and the TOT has already recruited external consultants to conduct a feasibility study of the telecom market and for the possible organisational restructuring (Charoenphol, 1995). The Thai Government was successful in the process of partial liberalisation of their telecommunications market, but repeatedly failed to privatise two of their state owned enterprises (SOEs). Landau argued that privatisation of the telecom monopoly sector requires multi-tasking processes and proper allocation of the activities to the appropriate centre of organisational activity (Landau, 1996). Thailand is planning to establish an independent regulatory authority called NCC for controlling the
fair participation in the local market. The Thai Government will be required to set up an independent regulatory body that will be free from the political pressure. Revenue sharing agreements, ownership and control issues, need to be reassessed by an independent statutory body.

The Thai telecommunications infrastructure planning and practices are somewhat equivocal and are repeatedly encumbering the basic telecommunications infrastructure development agenda. For example, the revenue sharing agreement between the TOT and the two private concessionaires is misleading and, in fact, may affect the foreign investment in the future, for not having a clear revenue sharing policy with the local partner in Thailand. It is also observed from international practice that most governments provide a subsidy to the companies involved in developing the rural infrastructure. But this seems to be the opposite case for Thailand. The TT&T, which has the rural contract receives no subsidy from the Thai Government. There are no tax incentives or financial benefits for the TT&T (Hossain and Cooper, 1996b).

4.3.2 CAT's Restructuring Initiatives

By looking at the CAT's organisation charts, it is evident that the CAT did not have any corporate planning division until 1993. The CAT's planning activities were undertaken by the Economic and Finance division until the year 1989 (CAT, 1989), when there was a policy and planning division directed under the Vice President of Economics and Finance at that time. It is observed that the there have been significant changes in the CAT's organisation structure by 1993. The CAT was originally restructured from the PTD in 1977 (TDRI, 1993). It was identified by the Thailand Development Research Institute (TDRI) that the CAT must strengthen its organisation, so that it could position itself in a competitive market in the near future (TDRI, 1993). The TDRI report also pointed out that the present corporate planning sub-division should be separated from the corporate planning division (1993). The TDRI's report suggested that the CAT's planning process
lacked overall organisation integration and cooperation and therefore, the planning process needs to be re-drafted.

The CAT's 1993 annual report reveals that the CAT established a policy and corporate planning division which was directed by the Executive Vice President of Economic and Marketing at that time. Moreover, the 1993 annual report also indicated that a telecommunications planning division existed at that time. This was directed by the Executive Vice President of Telecommunications (CAT, 1993). The CAT's 1994 organisation chart is similar to the 1993 chart. Figure 4-6, 4-7 and 4-8 provides the CAT's organisation chart and relative differences over the years. The organisation charts in relation to the telecommunications activities of the CAT are presented here.

**Figure 4-6. The Organisation Chart of the CAT as of 1989**
Figure 4-7. The Organisation Chart of the CAT as of 1993
Figure 4-8. The Organisation Chart of the CAT as of 1994
4.3.3 Changes in the PTD's Organisation Structure

The PTD is internally divided into eight divisions/offices. First, is the office of the secretary. This office is responsible for the overall operations concerning: the departments; administration and secretariat work on finance; accounts; budgets, and office supplies etc. It also acts as a public relations body for the functions of the department. It is the responsibility of this department to oversee the communications Acts and the legal affairs concerned with contract agreements with the private sector and for the joint venture projects (PTD, 1992:61). Second, is the international relations division. The primary responsibility of this department is to look at the activities of international organisations of Posts and Telecommunications. This division also plays a vital role in organising the meetings and conferences with other international organisations. Third, is the technical and planning division. The aim of the division is three fold: to develop system and technology; to give views on policy; and, to measure the tariff for the postal services (PTD, 1992:62). Fourthly, is the radio frequency management division. This division is responsible for the radio frequency management and allocation of frequency to various communications service providers. In this regard, the responsibility of the PTD is three fold: to render technical coordination; the registration of the frequencies allocated to International Frequency Registration Board (IFRB); and lastly, is the inspection of the technical specifications of radio communications tools and equipment.

The fifth is the radiocommunications licensing division. It performs the responsibility in issuing the radiocommunications licenses and the radiocommunications operating certificates. This is done in accordance with the Thai radiocommunications' laws (PTD, 1992:62). The sixth is the radio monitoring and inspection division. This division is in charge of the planning and following-up monitoring and inspection of technologies. It also looks after the unauthorised actions and usages of the radiocommunications' frequencies throughout the nation. The seventh division is the office of the civil communications with a responsibility to study, analyse, research and follow-up satellite communications
technologies. Lastly, is the office of the telecommunications technology. The Office of the Telecommunications Technology is responsible for the study of electronic technologies and performs research in the area of the development of the communications technologies. It is also responsible for setting up the standards and technical specifications of the radiocommunication's equipment and communications accessories.

The Telegraph and Telephone Act of 1934 gave the PTD of the MOTC the authority to oversee the telecom sector in Thailand (Charavejasarn, 1994:5). Under the Radio Communications Act 1955, the PTD was given the authority to manage and allocate the radio frequency spectrum in Thailand. Under this act, the responsibility of the PTD was three fold: to install, operate and maintain telegraph and telephone in locations where the MOTC considers appropriate; to install cables on posts; underground or underwater in relation to the activities of establishing the telegraph or telephone communication network, and lastly, to receive, stores, transmit and deliver messages and undertake all sorts of activities in relation to the telegraph or telephone services in Thailand (Charavejasarn, 1994:7).

4.4 Thai Government's Recent Initiatives

To date, the Thai Government has initiated several strategies for the reduction of the telephone waiting lists and to effectively respond to the changes in the international marketplace. The TOT, the CAT, and the PTD have initiated several projects for responding to the Thai government's declaration on the expansion and improvement of the telecommunications network across the country. The PTD has also served in the process of establishing the National Telecommunications Commission (NTC), a future independent regulatory authority in Thailand. Furthermore, the PTD's executives have actively participated in the process of changing and redrafting the existing Thai telecommunications law.
In the Seventh National Economic and Social Development Plan (1992-1996), the Thai Government declared its intention to move towards privatisation. At that time, the Government had specified three objectives with respect to the TOT's telephone line expansion (TOT, 1993): to increase the overall telephone penetration to 10 telephone lines per 100 by the end of the seventh plan; to develop the domestic and international telecommunication services up to the level of international standard; and, to develop the digital communication network that will enable Thailand to compete effectively in the world marketplace.

4.4.1 The Implementation Plan of the TOT (1991-1996)

Over the past few years, the TOT has been actively involved in the development of the nation's basic telecommunications infrastructure and in the provision of more reliable services. Table 4-5 provides a brief outline of the TOT's services and rendered performance for 1993. Considering the TOT's telephone line expansion capacity and operating results over the past 40 years, the Thai Government took the initial step towards privatisation by granting BTO (Build-Transfer-Operate) contracts to two private concessionaires for expediting the metropolitan and rural telecommunications infrastructure development process. The concession contracts were given to the TA and the TT&T for installing 2 million lines throughout the nation. The two major reasons for granting contracts to the private sector were: the TOT's telephone line expansion could not sustain the rapid economic growth, and the Thai Governments' ceiling on international borrowing (TOT, 1993).
Line Capacity

The TOT had a total capacity of 2,540,081 lines at 1,098 exchanges (an increase over the previous year of 380,080 lines and 222 exchanges).

Line Connected

The TOT installed 419,910 basic telephone lines for subscribers throughout the country, an increase of 141,442 over 1992. Of the new lines, 388,937 were direct the TOT installations, while 30,973 were from TelecomAsia Public Company Limited. The TOT connected a total of 2,215,865 as of Sept. 30, 1993. These were divided 1,414,242 lines for the metropolitan area and 801,623 lines for provincial areas. In 1993, the TOT was able to respond to 53.96% of the real demand, while total lines connected amounted to 3.78% lines per 100 people in the country.

Public Telephones

The TOT allocates some of its basic telephone line capacity for use as public telephones, served at low price of only 1 baht per call. In 1993, the TOT installed 5,731 additional lines for public telephones, bringing the total to 36,730 lines of which 19,849 are in the metropolitan area and 16,881 in the provinces. Public telephone capacity amounted to 0.6 lines per 1,000 people.

Cellular Mobile Phone

The TOT installed 120,776 mobile phone lines, of which 91,041 were for the metropolitan area and 29,735 lines for the provinces. From the first lunch of mobile phones up to Sept. 30, 1993, a total of 254,837 lines has been put into use 192,475 in the metropolitan area and 62,362 in the provinces. Of the total 49,526 lines under the 470 MHz system and 205,311 are under the 900 MHz system.

Rural Long-Distance Public Telephone

Aims to distribute telephone services as basic telecommunications to serve the rural population in accordance with government policy. It is a continuation from the Second Corporate Plan (1986-1991), under which rural long-distance public telephones were installed at 1,171 locations, bringing the nationwide total to 3,514 lines. In the Third the TOT Corporate Plan (1992-1996), the TOT aims to install 22,500 lines at 4,500 locations throughout the country. Up to now, the TOT has completed 94% of the sub-stations and expects to open bidding to select the company that will provide transmission equipment within the first quarter of 1994.

Table 4-5. The TOT's 1993 Service Rendered Performance

4.4.1.1 TOT's Responsibilities for the year 1992-1996

According to the Seventh National Economic and Social Development Plan (1992-
1996), the TOT had the responsibility to achieve certain objectives, in relation to the communications infrastructure development that directly involved the operation of the TOT. These are classified into four general areas: to expand the telephone lines sufficiently for all applications for telephone installations to be satisfied by the end of the Seventh Plan; to increase the average ratio of telephone subscribers to a ratio of 10:100 by the end of the Seventh Plan; to develop the domestic and international telecommunication services to the international standard, and to develop the digital communication network that enables Thailand to compete effectively in the world markets. However, the period of the Seventh National Economic and Social Development Plan (1992-1996) corresponds to the TOT's third corporate plan (1992-1996). At the same time, the TOT had targeted to fulfill four objectives in its third corporate plan (1992-1996). Their objectives were as follows:

1. By the end of 1996, the TOT planned to expand the telephone numbers with an average ratio to population as follows: 40 per 100 in Bangkok metropolitan areas; 3.8 per 100 in provincial areas; and, 8.75 per 100 populations nationwide.

2. Develop the telephone and telecommunications networks to the digital systems with not less than 95% of the stored program control (SPC) telephone exchanges and not less than 90% of the digital transmission system by the end of 1996.

3. Introduce the Integrated Services Digital Network (ISDN) for commercial use in Bangkok and major cities by 1993 and expand to nationwide in the future.

4. Conduct studies and closely follow modern technologies to continuously introduce more services to the public throughout the duration of the Third Plan.

The TOT is a government agency responsible for providing telecommunication services to the total population of Thailand. Its tasks have been increasing over the years due to Thailand's economic growth. It has faced major challenges since the government set a goal
to expand the basic telephone network to six million lines by 1996 and to 12 million lines by 2000. The Thai Government has aimed to expand telephone services, to the tamboon (district) level, by the year 1996 and to the village level by 2000, and this will include the provision and addition of new services according to demand. In 1993, the TOT had certain objectives and operation policies that were set by the Board of Directors of the TOT and the top management. Table 4-6 provides the TOT’s objectives and policies set by the BOD and top management in the year 1993.

**Objectives**

To establish a base that will allow the organization to have a leading role in the country’s telecommunication services amid competition with the private sector.

To expand sufficient, quality and modern services to meet the economic and social demand.

To build up unity in the organization.

**Policies**

To strengthen the TOT until it is ready to commercially compete on business terms with private companies and maintain its role as the country’s leading agency in telecommunication services.

Study and re engineer the organization into a business-oriented enterprise.

Prepare the TOT for re engineering through launching new services and upgrading the human resource.

Develop the financial and investment system as the guided line of under a TOT corporate plan laid out.

Restructure the organization to increase flexibility by applying a short line of command and reviewing existing by laws that may obstruct any future operation.

Improve the service carried out by the TOT and those jointly operated with private concessionaries to create a favourable public impression of the organisation.

Strengthen the organisation unity and team work by selected measures.

Table 4-6. The TOT’s Objectives and Policies set by the BOD and Top Management in 1993
4.4.1.2 Major Initiatives by the TOT

In order to achieve the above objectives, the TOT took major initiatives to cope with Thailand's growing demand for basic telephony and other related services. It has been shown in the preceding sections that the TOT's major emphases were three fold: service and production, maintenance and finance and investment. However, in order to develop and upgrade the network in Thailand, the TOT planned to expand the services and introduce new telecommunications services. These aims were partially accomplished by speeding up project implementation to effectively accomplish them as scheduled, and improvements to the expansion plans.

In order to upgrade the quality of services and quickly enhance a positive public attitude towards the provision of services, the TOT took several steps for maintaining telephone equipment by: setting measures to lessen service breakdown, stressing preventive maintenance, improving network capacity, reducing repair and maintenance time and planning a maintenance system that corresponds to the expansion of the services. The next step was to maintain the financial status at a level that would permit smooth operations' and be sufficient for investment in telephone service expansion to cope with public demand. At that time, the TOT has set up several measures for economical operations namely: control over the investment growth rate which would ensures the increase in revenues, and improve the collection of accounts and those in arrears.

4.4.1.3 TOT's Additional Telephone Lines Installation and Concession

In the TOT's third corporate plan (1992-1996), it aimed to install 22,500 lines at 4,500 locations throughout the country. Up to now (1996), the TOT has completed 94% of the sub-stations and expects to open bidding to select the company that will provide transmission equipment within the first quarter of 1994. In addition to this, the TOT also introduced several new projects and services for meeting the growing demand and
accomplishing the government's stated target. The TOT began a test service for SPC in 1989 and by Sept. 30, 1993, was providing full services. Total lines for all services amounted to 36,926, of which 28,714 were for metropolitan subscribers and 8,212 for those in the provinces. Service rendered amounts to 11.39% of a service capacity totalling 323,938 lines, a decrease of 50,408 lines from the previous year.

The TOT (1989) granted a concession for the project to Shinawatra Paging Co. Ltd., which then began operating the service in 1990, under the Phonelink trademark. Another concession was awarded to Hutchison Telecommunication (Thailand) Co. Ltd in 1990. The TOT (1990) also began a pilot project for the 088 toll-free call service in the metropolitan area with an expectation of 100 lines. By 1993, subscribers totalled 116. This was well above the targeted figure of 100 lines. In the same year, there were also subscribers in 3,000 ports and this project was given to Shinawatra Telecommunication Co., Ltd. on April 11, 1990. As a result, by Sept. 30 1993, there was a total of 251,535 sets of pagers under subscription, of which 190,037 sets belonged to Phonelink and 61,503 to Hutchison Pagephone.

The TOT gave a 10-year concession for the installation of Telepoint to The Advance Information System Co. Ltd. in 1990. The telepoint services offered by the concessionaires commenced in May 1991. Between May 1991 and Sept. 1993 a total of 3,941 sets has been installed, of which 1,097 were in the metropolitan area and 2,848 in the provinces. Telepoint is a one-way wireless telephone service on which only outgoing calls may be made. It is compact and portable and usually used with a pager. In 1990, the TOT awarded Fonepoint (Thailand) Co. Ltd. a 10-year concession and service were begun in 1991. By the end of 1993, the company had installed 2,405 base stations and there were 4,728 handsets under subscription.

ISBN (Integrated Satellite Business Network), is a satellite telecommunication system for sending and receiving data and voice signals setup for users outside the conventional
telephone network. Acumen Co. Ltd. was awarded the concession by the TOT on March 20, 1991, and commenced operations in June 1991. As of September 1993, there were 214 sub-stations under subscription, of which 154 were for data communication and 60 for telephone services. Common Base Radio Telephone, a high-capacity telecommunication system in which members of a group can talk to each other or make individual calls on the conventional telephone system commercial operation. Radiophone Co. Ltd., a joint venture between the CP Group and Jasmine International Co. Ltd., were awarded a 15-year concession by the TOT in 1992. At that time, there were two group of users with 180 mobile sets.

4.4.1.4 Improvement of the Quality of Services

In order to improve the quality of services, the TOT expedites the fault clearance, repair, and complaints handling procedure. In the FY 1993, the average monthly actual fault rate, in the metropolitan area was 3.32% of telephone lines in service. This was well inside the year's target of an average not exceeding 4%. In the provinces, the average monthly fault rate was 4.18%, also within the year's target of 5%. In the metropolis, 92.35% of telephone repairs were completed within one day after the request was received, which was above the targeted performance. In the provinces, the figure was 72.99%, well below the target of 85%. 41,559 telephone line subscribers filed complaints with the TOT about the services in 1993.

Over the years, the TOT has also developed the alternate networks for supporting the new services to the business community. In 1993, the TOT prepared a project to install a spare transmission system for the main route nationwide. The system will support all new services for the business sector at the international level. The permission for this operation was granted in 1995. It is due for completion of the system due in 1997 at a total investment of 1,890 million baht.
The TOT, in cooperation with the State Railway of Thailand, installed an optical fibre cable of about 3,000 km along the four main railway routes nationwide—north, northeast, east and south. This contract was granted to Comlink Co., Ltd. from Canada with a 20-year concession period. The TOT had 1,430 circuits of which 717 were already in service at the end of Sept. 1993. The submarine optical project of the TOT aimed at building an alternative network for communications in the southern part of Thailand. The TOT granted a 20-year concession to Jasmine Submarine Telecommunication Co. Ltd. in 1991 for building this alternative network. By 1993, the company had completed the project work valued at 2,940.26 million baht. In addition to that concession, the TOT again awarded a 15 year concession for this project to Acumen Co. Ltd in 1991 for the domestic satellite project and the work was completed in May 1992. At present it provides 10 service stations offering 1,080 circuits.

The existing TOT network in the Bangkok Metropolitan Area will eventually comprise 61 digital and 35 crossbar local exchanges on completion of the TOT’s 6th Development Plan. There are also 10 tandem exchanges of which 6 are SPC digital switches and 4 are crossbar switches. The TOT has already established a practice of using remote concentrators, accommodated in customers’ premises in order to provide network access for large concentrations of customers’ lines in specific locations. The TOT invested 1,083 million baht to develop a telephone network able to develop further to be an integrated system digital network and to provide 5,000 telephone lines each in Laem Chabang and Mab Ta Phud. This was scheduled to be completed in December 1993. The Mab Ta Phud project was to be completed in April. In October 1990, the TOT initiated deregulation moves which permitted the private sector to participate in a joint venture to operate a NMT 900 MKz mobile phone system on the build-transfer-operate basis. In 1991, the Total Access Communication (TAC) was awarded a 17 year concession to operate Band B of the AMPS 800 cellular network from the CAT.

A major constraint is the country’s outdated telecommunications laws that keep these
services as a state monopoly. Telecommunications growth is the key pointer to the economic and social growth of a country. Thailand has about two million telephone lines in use for 60 million population—roughly about 3 phones for 100 population—far behind the 1 per 10 ratio in developed countries. By the end of the Seventh National Economic and Social Development Plan in 1996, five million phones will be in use and this will increase the ratio of phones to population to 1 per 10. Considering Thailand's per capita income of 75,000 baht (US$ 3,000), as forecasted by the Seventh Plan by the National Economic and Social Development Board, the demand for telephone service may rise to as high as 10-12 million, which means Thailand will still be short of telephone service. The Charoen Pokphand Group's telephone project has been trimmed from its original three million lines nationwide to two million lines in Bangkok. The Anand Government broke a one-million-line network into a second project for which the tender was later won by the Loxely consortium. According to the Transport and Communications Minister Vinai, "privatisation of telecommunications services is the only way to cope with the rapid economic growth of the country."

### 4.4.2 The Network Expansion Initiatives of the CAT

The CAT took major initiatives for the expansion of projects on International Telephone Services of SPC System (ITSC IV). This project calls for the expansion of the capability of the International Telephone Switching Centre of the CAT in Bangkok (Bang Rak). This project was, however, aimed at satisfying the users' needs adequately in the near future. The new system also replaced the old SPC I, which was approaching the end of its service life. Under this project, the CAT increased the international telephone circuits by 10,000 circuits. Moreover, the CAT will have 16,000 international telephone circuits by the year 1998 (CAT, 1993).

The CAT introduced the Fibre Optic Submarine Cable Project for the long-term procurement of the international telecommunications signal media through submarine cables. This project is a continuation of the 1st and the 2nd phases of the construction of
the fibre optic submarine cable network for the Asian Pacific region (Asia Pacific Cable Network: APCN). This has established the links between Thailand, Malaysia, Singapore, Indonesia, the Philippines, Hong Kong, Taiwan, Korea and Japan. This procurement of circuits (FLAG) was established with other fibre optic networks to support APCN for enabling it to communicate with countries in Europe, the Middle East and the Asia Pacific region.

4.4.2.1 Operation of the Modern Public Services

The CAT operates many modern public services to meet its requirements and to accommodate the growth in international business and tourism. It also reinforce its effort to become a telecommunication and financial centre in this region. The services that are offered by the CAT are two fold: Videoconferencing Service; and, Frame Relay Service. The services involves the communication of data via Public Networks and are ideal for networks that establish the connection of main frame or LAN system (LAN-to-LAN connection).

This service has helped the CAT to save expenses on pairlines because contacts between users can be made simultaneously by using a single local line. The CAT introduced Metropolitan Area Network Service (MAN) for responding to users of service who are located at different localities in the metropolis or large cities. This service has also been designed for better transmission where the rate of receiving-transmission of data is high and where speed is needed in communication and known as Bandwidth on Demand. It has provided users with convenience and greater economy than the use of Leased Circuit or Private Network.

4.4.2.2 Electronic Data Interchange Service

Electronic Data Interchange Service (EDI) was introduced by the CAT with the aim of modernizing its telecommunications apparatus, in order to keep pace with advanced technology and boost the performance of the existing system to meet the demand for
various types of telecommunication services. It procured tools and supplies adequately and timely, speeded up expansion of communication networks, and provided a complete range of basic and supplementary services of standard quality for the purpose of fostering many national development projects.

Services contemplated by the CAT include: DATEL, a service for transmission of data and faxes through front end switching equipment. This service is suitable for the users who wish to dispatch a small amount of data at an economical price. Another is AUDIOTEX, which serves the supplementary services to the international telephone. Users can request certain information from data bases through the normal international telephone system. Countries in which AUDIOTEX is in use are the United States of America, Australia, Hong Kong, etc. TELEX TO PACLINK service is another form of service to supplement the telex service. Users of the telex service can send information from a telex machine through an automatic link system of the CAT to Paclink throughout the country. The CAT has also introduced radio communications systems for Taxi services.

4.4.2.3 Established Links with Other Countries

The CAT has developed its networks to establish links to the other countries. This has placed Thailand in a larger international role comparable with other developing countries. In 1993, the CAT expanded its network of international telephone exchanges and network of Fibre Optic Submarine Cable System. This move was to develop the telecommunications systems, which are used parallel to telecommunications via satellite. The task, which was undertaken as a part of the co-operation with other ASEAN countries in creating regional stability was tantamount to elevating the efficiency of the Thailand's telecommunication services to a level comparable with those in other developing countries. In this case, work commenced on the construction of two Fibre Optic Submarine Cables Systems, i.e., the Thai-Malaysia Fibre Optic Submarine Cable System and the Thai-Vietnam-Hong Kong system.
For Thai-Malaysia Fibre Optic Submarine Cables System, the CAT had carried out construction of an Fibre Optic Submarine Cable System from Thailand (Phetchaburi) to Malaysia (Kuan Tan). The domestic system from Phetchaburi to Laem Chabang (Si Racha) included the setting up of the system that links Phetchaburi with Nonthaburi and Bang Rak with Nonthaburi. The construction of Thai-Vietnam-Hong Kong Fibre Optic Submarine Cables System is under the co-operation of four countries. This includes Thailand, Vietnam, Hong Kong and Australia. A memorandum of understanding on the joint construction of this system has already been signed. It is a Fibre Optic Submarine Cable System of 560 Mbps, the equivalent of 7,560 telecommunications circuits of 64 Kbps. Table 4-7 provides a brief outline of the services offered by the CAT.

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satellite</td>
<td>A major earth station at Sriracha connects with INTELSAT satellites located above the Pacific and Indian Ocean Submarine Cable CAT uses these cables in combination with satellites to maximise the efficiency of its international network</td>
</tr>
<tr>
<td>International</td>
<td>The CAT is providing fast, convenient links around the world</td>
</tr>
<tr>
<td>Telephone Call</td>
<td>This can be used for overseas call services with added convenience and at special rates</td>
</tr>
<tr>
<td>CAT Executive</td>
<td>Is a Packet Switched Service for reliable, fast, flexible and cost-effective transport of information</td>
</tr>
<tr>
<td>Telecard</td>
<td>CAT provides X.25 service with a speed of 2400, 4800, 14400 bps, 19.2 kbps, 64 kbps to the subscribers</td>
</tr>
<tr>
<td>X.25 Service</td>
<td>CAT provides the asynchronous service for accessing the network via a packet assembly disassembly (PAD) for asynchronous start-stop devices over dial-up or dedicated lines (speed: 1200, 2400, 9600 bps)</td>
</tr>
<tr>
<td>X.28 Service</td>
<td>The CAT is using the X.32 service to provide backup for the X.25 service ports (Speed: 2400, 9600 bps)</td>
</tr>
<tr>
<td>X.32 Service</td>
<td>CAT provides X.25 service with a speed of 2400, 4800, 14400 bps, 19.2 kbps, 64 kbps to the subscribers</td>
</tr>
<tr>
<td>Cellular 800</td>
<td>The CAT provides AMPS (Advanced Mobile Phone System) at a frequency of 800 MHz</td>
</tr>
<tr>
<td>Video Conference</td>
<td>The CAT offers Video conferencing services to the business customers for 24 hours a day</td>
</tr>
</tbody>
</table>

Table 4-7. A Brief Outline of the CAT's Services Offering
The CAT has formulated and implemented its plans by establishing a modern basic domestic as well as international communication service network. It is aimed at ensuring the quality of services as well as meeting the demand for the nation (CAT, 1994). In order to achieve this aim and meet the demands for the value added services, CAT took major initiatives. The CAT's action is two fold: first, the satellite telecommunications system, and second, the submarine telecommunications cable system. In order to have close cooperation with the private sector organisations, the CAT offered opportunities to the private companies for a joint investment and administration of many of the new projects (CAT, 1994).

4.4.3 The Seventh Project of the PTD

The PTD's seventh project serves the radio monitoring and inspection stations. It provided improvements to the efficiency of the regional and provincial radio monitoring and inspection stations. It also expanded the PTD's scope of activities to cover more areas in the major cities in which the services of the telecommunications are in great demand. It also facilitated the PTD to control the uses of the radio frequency spectrum in accordance with the law and regulations in Thailand. The PTD's eighth project was aimed at establishing a radiocommunications training centre. In the ninth and tenth projects, the PTD was able to establish a standards specification and testing centre and also the project on the trunked radio system for the civil governmental sectors. Table 4-8 provides a brief outline of the PTD's project developments during 1992 to 1996.

4.4.3.1 Involvement with the Private Sectors

The PTD is also involved in the concession of the projects on Thailand's satellite communications. The PTD has been coordinating with other countries in the "THAICOM" satellite network projects since 1991. In 1992, the PTD performed the duties of collecting the data of the Northeastern and the Northern region of Thailand. The project was delayed due to the lack of personnel. In order to expedite the data gathering, the PTD hired
temporary employees to help in this project.

Project 1  Work Plan for the Establishment of the Communications Information System for Management
Project 2  Work Plan for the Improvement or Modernisation of the Radiocommunications Act 1955
Project 3  Work Plan for the Improvement of the Quality and Efficiency of the Communications Personnel
Project 4  Utilisation of the Computer-aided System in Radio Frequency Management
Project 5  Establishment of the Frequency and Time Standards Centre
Project 6  Establishment of the System of Automatic Monitoring and Radio Direction-Finding with Remote Control in Greater Bangkok Metropolis
Project 7  Establishment of the Radio Monitoring and Inspection Stations
Project 8  Establishment of a Radiocommunications Training Centre
Project 9  Establishment of a Standards Specifications and Testing Centre
Project 10 Project on the Trunked Radio System for Civil Governmental Sectors

Table 4-8. A Brief Outline of the PTD's Projects Development during 1992-1996

In accordance with the Radiocommunication Act 1955, the PTD has the authority to issue, revoke or suspend radiocommunications' licenses. The PTD granted licences totalling 1,061,741 during 1992 (PTD, 1992:81). In 1993, the PTD jointly, with the TOT and the CAT, were instrumented in having the Telegraph and Telephone Act, the TOT Act 1954 and the CAT Act 1976 ammended. The draft of the amendments was submitted to the MOTC for consideration (PTD, 1993: 69).

4.5 Strategic Planning and Practices at Play in the Thai Telecommunications

The TOT established its corporate planning division in the early 1970s. Since then, the TOT has actively participated in the organisation and national telecommunications planning processes and developed a corporate plan for the organisation. At present, the TOT has declared and submitted its fourth corporate plan (1997-2001). This has been developed in accordance with the recommendations from the national economic and social development
planning board, and is incorporated into the eighth national economic and social development plan of Thailand (1997-2001). Over the years, the TOT has also undertaken some major initiatives to provide basic access to rural Thailand. Three factors were identified from the literature on the rural telecommunications planning in Thailand and the TOT's role: geographic, a local administration system, and, current telecommunications projects (Srestasathiem, 1991:53).

Geographic consideration is important for the planning of rural telephony in Thailand. The area of Thailand is about 520,000 sq. km and 25% of this is mountainous and covered with rainforest. Thailand is divided into four main geographical regions: northern, central, north-eastern, and southern. Most of the northern region of Thailand is mountainous and covered with forests. The central and north-eastern regions are mostly plain. Lastly, the southern region, is mostly covered with mountains and has long sea borders as well as islands (Srestasathiem, 1991:53). In 1991, the TOT had installed public telephone lines at 1,813 villages and planned to expand these to the provision of 3 telephone to each village by the year 1992. Table 4-9 provides the formation of the local administration in Thailand.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provinces</td>
<td>73</td>
</tr>
<tr>
<td>Districts</td>
<td>748</td>
</tr>
<tr>
<td>Villages</td>
<td>6,853</td>
</tr>
<tr>
<td>Sub-Villages</td>
<td>62,373</td>
</tr>
</tbody>
</table>

Table 4-9. Local Administration System of Thailand

The TOT's TSPP for the rural telecommunications infrastructure development in Thailand was undertaken in 15 stages (Srestasthiern, 1991:54): selection of districts; study of the geography and terrain; selection and arranges frequency; route planning and study of the maps; selection of the sites; plan for the building of the tower; selection of the radio equipment; consideration about the power supply system; reliability and maintenance factors; economic aspect comparison; field surveying; path designing; determining the
telephone services; determining the rural telephone traffic, and lastly, determining the service costs to the subscribers.

The shift towards a rural telecommunications infrastructure development process are provided above. The TOT selected villages with 5,000 inhabitants and developed the survey instrument with an emphasis on: 30% for society; 20% for security; 15% for economics; 15% for the techniques; and lastly, 15% for the benefit. However, there is no indication or clarification made on these types of selection procedure. For the study of the geography and terrain, the TOT considered the areas and their nature for the radio-relay system concerning radio wave propagation (Srestasthiern, 1991:55). In considering stage three, the TOT put the emphasis on selecting and arranging the frequency for the rural telephony. However, other factors were also considered on an ad hoc basis and a detailed field survey was conducted to see the economical, technological and other facilities in order to the TOT's expansion possibility. During 1991, the TOT was serving rural area with public telephones (local and long distance calls) for about 3,000 villages. Moreover, according to the TOT's third corporate plan and the seventh national economic and social development plan (1992-1996), it was planned to control the remaining villages with the basic telephone accessibility by the year 1996.

The TOT has laid long term plans that will develop the telephone and communications network, making Thailand the centre of telecommunications in the region. Such a plan consists of three important projects, namely: the Integrated Services Digital Network (ISDN) Project; the Domestic Satellite Telecommunications Project, and the Optic Fibre Projects. ISDN is a sophisticated telephone network that enables transmission not only of clearer voice but also any other form of information possible, such as computer data or visual image, via a pair of telephone lines. By linking telecommunication equipment with a pair of telephone lines, users may receive various types of services. For example, Video Conference, Telebanking Services. In brief, ISDN will revolutionise the traditional concept of what a telephone is for, changing the telephone lines to the main arteries of modern
business. Table 4-10 provides the different phases of converting the telephone network into ISDN in Thailand.

The TOT is planning to introduce the satellite telecommunications into service throughout the nation. This will also make the TOT able to provide ISDN services, nationwide. The TOT consequently gave a 15-year concession to the Acument Company to lease transponders of the Indonesia satellite "PALAPA" and to construct and complete this project within 1992. The ten ground based satellite telecommunications stations are in Bangkok, Chiang Rai, Chiang Mai, Phitsanulok, Khon Khen, Nakhon Ratchasima, Rayong, Surat Thani, Phuket and Hat Yai, with the ground station at the TOT's Training Centre in Nontaburi as the centre of satellite telecommunications network. Construction of three ground stations at the TOT's Training Centre, in Surat Thani and Hat Yai was completed in 1991. Since then, the TOT has also undertaken two important Optical Fibre Cable Projects, namely Railway Optical Fibre Cable Project and Submarine Optic Fibre Cable project.

<table>
<thead>
<tr>
<th>Year Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989-1992</td>
<td>Introduce a trial service of ISDN in Bangkok and major cities</td>
</tr>
<tr>
<td>1993-1997</td>
<td>Make the ISDN service available in Bangkok and major cities</td>
</tr>
<tr>
<td>1998-2002</td>
<td>Expand the Narrow Band ISDN service to cover other cities. In Bangkok discontinue the analogue network as well as introduce the Broad Band ISDN service</td>
</tr>
<tr>
<td>2003-2007</td>
<td>Integrate the nationwide data and communication networks into the ISDN. Introduce the Universal Band ISDN to Bangkok area</td>
</tr>
<tr>
<td>2007</td>
<td>Make the Universal Band ISDN available</td>
</tr>
</tbody>
</table>

Table 4-10. Different Phases of ISDN Development in Thailand (1987-2007)

The TOT and the State Railway of Thailand (SRT) have granted a 20-year concession to Comlink Co., Ltd, to install, within 5 years, an optical fibre network along the railway for a total distance of 3,000 km, covering four railway routes in the North, Northeast, East
and South. On April 8, 1991 Comlink installed the first optical fibre cable at Pachee Railway Junction and expected to complete the project in less than 5 years. When the project becomes operational, there will be 40,000 long distance circuits available, serving all major provinces throughout the country. The SRT also uses some circuits for the development of its own communications network to improve its traffic control, internal communication, and on-line ticket sales.

The TOT planed to install the optical fibre cable for a total distance of 1,200 km, starting from the eastern coast at Chonburi, Sattahip and Rayong connected to the Southern coast starting from Prachub Kirikan, Chumporn, Surat Thani, Nakorn Srithammarat, Songkla and Narathiwat. It has also granted a 20 year concession to Jusmin International Co. Ltd. to invest 4,000 million baht for this project. When the project becomes operational, there will be additional 8,000 long distance digital circuits. It will also enable the TOT to connect its telephone network with neighbouring countries, specially with the optical fibre cable networks of Malaysia and Singapore. Major modern communication services provided by the TOT include the NMT 470 MHz and NMT 900 MHz mobile telephone networks and the nationwide paging services, the one-way wireless phone Telepoint service, and the rural long distance public telephone service.

The CAT also performs the function of the regulator for the international and other value added telecommunications services in Thailand. By law and under the CAT Act, 1976, it has the sole right to operate and regulate these services. With the recent declaration of the privatising of the TOT and the CAT, the Thai Government intends to separate the right to act both an operator and service provider. The CAT gave several concessions to improve the telecommunication services and to satisfy the unmet demand with the approval from the MOTC. It is observed that there have been significant changes in the CAT's organisation structure after the government's declaration to privatise the SOEs in Thailand. The CAT took aggressive steps in its organisational restructuring and is trying to make the organisation structure flexible enough to compete with private organisations in the near
The PTD has actively taken part in discussion on possible reform of the Thai telecommunications in the future. It has offered short courses to the personnel of other government organisations', State Owned Enterprises and private companies. This was aimed at creating an awareness and understanding of the telecommunications industry in Thailand. In 1993, the PTD took part in the formation of the International Telecommunications Union (ITU) representative office in Bangkok. The PTD also plays a major role in representing the Thai telecommunications in the international meetings and conferences.

4.6 The Results of the Thai Telecommunications History

On the basis of the exploration of the Thai telecommunications industry and also the development and services offering a chronology of the national telecommunications players, it can be argued that very little evidence exists for the initiation of the TSPP among the TOT, the CAT, and the PTD. Literature on corporate planning of the SOEs suggests that it was required by the Thai government that every SOEs and other government organisations carry out some kind of strategic planning and practices.

This chapter has provided a detailed analyses of the roles and relationships of Thailand's national telecommunications players during its first 110 years (1886-1996). The historical analyses of the TOT revealed that there has been tremendous changes in the Thai Government's policy for immediate network expansion, which serves to cater for the telephone demand for the rapidly growing economy. Findings suggested that the paradoxical revenue sharing agreement between the private concessionaries are considered to be one of the major impediments for future foreign investment into the Thai telecommunications market. The Thai Government, now needs to develop better policy mechanisms to accommodate the private sector for the development of telecommunications.
During 1991, the Thai Government failed to provide an adequate response to the growing subscribers demand for telecommunications services in Thailand.

Previous studies of the Thai telecommunications, suggests that the TOT's planning is more in the nature of an action than a strategic plan, and may, rely on using strategic planning for solving immediate problems. Moreover, the TOT's second corporate plan provides an indication about improving the management procedures and the organisation structure, but fails to support this policy. Historical analyses of the TOT also suggests that it has undertaken too many projects, and provides very little evidence on the completion of these projects on time. However, a similar observation was made with regard to the TOT's telephone expansion plan by the year 1991, which in fact, failed to meet the expected target by 23.2% of the total installation. Furthermore, the TOT has also failed to meet its targeted telephone expansion for the urgent telephone expansion project by 77.7%. It is evident from the TOT's history, that the emphasis is more on the introduction of new products and services, than the expansion of the network for the benefit of the Thai population.

The historical background of the Thai telecommunications suggests that the CAT has not played as significant role as the TOT, for the development of the basic telecommunications infrastructure in Thailand. The CAT was established with the aim of providing efficient postal and telecom services throughout the nation. The preceding sections have identified that the introduction of the CAT's new technology for providing business solutions, has helped Thailand facilitate investment in business, improved international trade and brought technological competition into the market. However, the new services of the CAT were aimed at incorporating the services of the TOT and its existing telephone exchanges. The CAT has also invited the private sectors, to jointly participate in the value added telecommunications service market in Thailand.

Over the years, the PTD has also played a significant role in the development of the Thai telecommunications infrastructure. The PTD introduced the Communications Information
Systems (CIS) for compiling and collecting updated data with the desired correctness. Previous analyses also suggest that the PTD has played a significant role in improving and modernising the radiocommunications Act 1955. Considering the changes in the telecommunications industry, the PTD introduced training programs for its staff, with a view to upgrading and improving their understanding of radiocommunications principles. It also has assisted the Thai Government by taking the initiatives to upgrade the frequency and time standards for radiocommunications in Thailand. Finally, the PTD is responsible for, and acts as a central agency, representing Thai telecommunications in the international marketplace.

When the Thai Government's decision to privatise the TOT and the CAT are considered, these SOEs have taken initiatives to restructure the organisations, to be able to compete with the private sector. In this regard, the TOT and the CAT have taken a piecemeal approach to restructure the organisation, with a view to improve the management procedure and to be able to compete with the private sectors. However, the restructuring initiatives of the TOT and the CAT were withheld due to the bureaucratic nature of the Thai telecommunications and also for the lack of support and direction from the MOTC. Unlike the TOT and the CAT, there has not been any dramatic changes in the PTD's organisation structure. To date, there is no indication of establishing a corporate or strategic planning division at the PTD under the direct control of the technical planning division.

The Thailand Development Research Institute (TDRI) in 1993, has identified that it is now time for the CAT to rethink its TSPP and make it more compatible with the current growth of the industry as well as changes in the international marketplace. Preliminary investigation on the strategic planning and practices among the Thai telecommunications players has suggested that it is now time for the Thai telecommunications to take a step towards a comprehensive NTSPP, so that it can avoid the chaos among the major players and sustain the economic development of the nation.
To date, there is no such evidence of a comprehensive NTSPP in the Thai telecommunications industry, rather there are steps taken by the government towards the development of a NTSPP. The development and implementation of a NTSPP is, becoming a strategic necessity not only for Thailand, but also other developing nations. The rapid changes in the regulations in the local and international arena, the rapid advancement of the telecommunications technologies and the uncertainty in the standards, and international pressure for the network expansion is not only putting the pressure on the local telecommunications players, it is also making it difficult to cope with these competing changes.

4.7 Conclusions

This chapter has provided the exploration of the roles and relationships of the national telecommunications players and its development since 1886. It can be observed from the analyses that very little relationship exists among the national telecommunications players and this is therefore, one of the major impediment towards the formulation and implementation of a NTSPP. However, it can also be seen from the analyses that strategic planning and practices among these players is minimal. Observation also suggests that there is no comprehensive TSPP at the organisational level or a NTSPP at the national level. This gives an indication and rationale for analysing the TSPP in practice among the national telecommunications players, which then can be transformed into a NTSPP.

The study approach needed to be adopted for this NTSPP research was indicated in the previous sections. Chapter five provides the design of a national case study. It also provides the data collection protocol and the treatment of the data, which is used in chapter six for analysing the case studies of the national telecommunications players in Thailand.
Chapter Five
A National Case Study: Methods in Design, Collection and Treatment of the Data

The theoretical background of the study on a TSPP for the national telecommunications players is provided in chapter two. A framework for analysing the case for a NTSPP in Thailand was proposed in chapter three. Chapter four also suggested the importance of adopting a multiple case approach for designing a national case study on a NTSPP in Thailand. It is evident from a study of Thai telecommunications, that a national case study design, is, a useful paradigm of research for exploring the idea of a NTSPP in Thailand.

5.1 An Introduction to a National Case Study

Chapter five explains the methodology, and design for the case study of a NTSPP in Thailand. This is accomplished through five inter-related steps: The first uses a case study as a research methodology. The second is the case study research design for the study of a NTSPP. The third is a description of the collection and sources of the data. The fourth is the development of the interview instrument, and the last is the data analyses for the single and multiple case studies. Finally, limitations of the research from conceptual, methodological, and data collection viewpoints are also presented in this chapter. The data collection for the national case study is accomplished through the use of three different methods. The use of multiple sources of data collection is essential as the study aims at
analysing the TSPP of the national telecommunications players in Thailand, that is, embedded in the case study of a NTSPP in Thailand.

5.2 Appropriateness of a Research Methodology

A qualitative research design is appropriate for conducting an exploratory and descriptive research. The next subsection provides a detailed explanation of the qualitative and quantitative research methods. It also provides discussions about the methodology used in this thesis. A detailed explanation of the particular methodology adopted for this present study is also provided. This study has applied a single data collection period for exploring the underlying TSPP at play among the national telecommunications players. Franz and Robey (1987: 211) argued that this kind of study is necessary where the researcher believes that the concepts relevant to the research question(s) have not been investigated sufficiently to devise hypothesis tests about the variable relationships. It is indicated in the preceding chapters that this study is the first attempt towards the development of an understanding of the TSPP and a NTSPP in the Thai telecommunications.

The reasons for conducting a multidisciplinary social research approach has two basic aims. It assists researchers to explore a new topic, describe a social phenomenon, or explain why something occurs in certain ways. It is observed that studies can have multiple purposes, both to explore and to describe, but one purpose usually predominates (Neuman, 1991:18). Figure 5-1 provides the approaches to the social research.

**Figure 5-1. Approaches to Social Research**

- Exploratory
- Descriptive
- Explanatory
5.2.1 Types of Research Techniques

Much has been written on the nature and types of different research techniques in the large body of sociological literature. This section aims at providing a critical view of both qualitative and quantitative analysis. A brief overview of the nature and distinguishing factors of these two methodologies and their applicability for a particular research design is discussed. Figure 5-2 provides the types of research techniques and their subtypes.

Figure 5-2. Types and Subtypes of Research Techniques

5.2.2 The Quantitative-Qualitative Paradigm of Research

A quantitative study deals with the collection of data in a numerical form. Theories are used deductively and placed towards the beginning of the plan for the quantitative research (Creswell, 1994:87). The objective of a quantitative research is to test a theory, rather than take steps towards the development of a theory. The existing theory then becomes a framework for the study and extending or advancement of the theory is by collecting data to test it. Figure 5-3 provides a deductive mode of research in a quantitative study (Cresewell, 1994: 88)
Qualitative research on the other hand, deals with the data in the form of words or pictures. It is observed from the literature that conducting qualitative research into management, information systems, and management information systems is growing. This is necessary, due to the lack of a established theoretical basis on the above areas, which could guide researchers for a theory testing method, such as that described in the preceding section. In qualitative research, the researcher does not begin with a theory to test or verify certain phenomenon. Contrary to quantitative research, qualitative research is a process of inductive thinking and a theory may emerge during the data collection and analysis phase of the research (Creswell, 1994:94-94). Figure 5-4 provides the inductive mode of research in a qualitative study (Creswell, 1994: 96). Qualitative research largely relies on the interpretive and critical approach to social science (Neuman, 1991: 322). It is also observed from the inquiry into management literature that, the current research of a qualitative method, in management and or organisations has significant implications for practicing managers (Hitt, 1995). This technique gives great freedom to practicing managers to comment on their management practices.

This study is largely exploratory in nature aiming to explore the idea of a TSPP as well a NTSP of the telecommunications industry in Thailand. The qualitative technique has provided a good basis for exploring the idea of a TSPP and a NTSP, as well as describing
the environmental influences on a TSPP. It then looks at the possibility of transforming the organisational TSPP into a NTSPP in Thailand. In the case of the Thai telecommunications industry, it is evident that there has not been any work done in the area of strategic planning and practices and particularly in the telecommunications industry.

Figure 5-4. The Inductive Mode of Research in a Qualitative Study

This study has looked at the possibility of a theoretical development for forming a basis for a NTSPP research in Thailand. Towards this aim, the previous sections have identified advantages and disadvantages of both the qualitative and quantitative research techniques. It is also evident for social science research methodology that the qualitative approach tends to form the basis for a theory from certain observations about a social phenomenon. Because, of the circumstances of the Thai telecommunications industry, an exploration of the telecommunications strategic planning is first required at the organisational level before a study on a NTSPP is began. Considering these factors, a purely qualitative study technique is adopted for the purpose of the present study. The following section will provide an analysis of the case study methodology, which is adopted from Robert Yin (1994) for developing an understanding of a NTSPP in Thailand.
5.3 Case Study Design for a NTSPP in Thailand

The aim of this section is to provide a background of the case study research. This approach is adopted as a research methodology to further understand the need for a NTSPP in Thailand. It provides an analysis of the case study as a research methodology focusing on the basic assumptions, their usefulness, and appropriateness in relation to this study.

5.3.1 Case Study Research in Thailand

The primary aim of this study is to explore a possible NTSPP in Thailand. For the purpose of this present study and to further the understanding of both the TSPP and a NTSPP, this study adopts a multiple case study approach. A case study, is a single entity or phenomenon ("the case") bounded by time and activity. The researcher using this method proceeds to collect the required data by using a variety of sources and data collection procedures (Merriam, 1988 and Yin, 1989).

Case study research can be based on looking at one particular case or many cases that may aid in the process of a theoretical generalisations. In the process of conducting a multiple case study, the same data collection instrument for the study of the TOT, the CAT and the PTD are used. The purpose of this, is the development of a theory about the observed phenomenon for Thai telecommunications. A 'case' has been defined as a phenomenon of some sort occuring in a bounded context and is in effect the unit of analysis. The case can be one or several (Miles and Huberman, 1994:25).

Sarantakos argued that the case study can be seen as one type of exploratory study and can be helpful as an avenue of exploration (Sarantakos, 1995:115). The case study has been a common research strategy in psychology, sociology, political science, business, social work, and planning (Yin, 1983). Case studies are also found in economics, in which the structure of a given industry, or the economy of a city or a region, may be investigated by using a case study design (Yin, 1994:3). A case study focuses mainly on exploration,
description, or explanation of a social phenomenon and it is the preferred strategy when "how" or "why" questions are being posed (Yin, 1994:1). Table 5-1 provides the relevant situations for different research strategies (Yin, 1994:6).

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Form of Research Question</th>
<th>Requires Control over Behavioral Events</th>
<th>Focuses on Contemporary Events?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>How, Why</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey</td>
<td>Who, What, Where, How Many, How Much</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Archival Analysis</td>
<td>Who, What, Where, How Many, How Much</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History</td>
<td>How, Why</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Case Study</td>
<td>How, Why</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>


Table 5-1. Relevant Situations for Different Research Strategies

The case study is one of the several ways of conducting social science research. Other ways include experiments, surveys, histories, and the analysis of the archival information. Each of these strategies differs tremendously depending on three situations: the type of research question(s) posed in the study; the researcher's control over the actual behavioural events investigated, and, the focus on the contemporary events (Yin, 1994:1). Case study was selected for this study because this NTSPP research is largely exploratory and deals with 'how' questions. The research has no control over the behavioral events within the Thai telecommunications, and lastly, this study is the first attempt to uncover the strategic planning and practices among the national telecommunications players in Thailand for the first 110 years of its development (1886-1996).

What a case study does represent is a research strategy, to be linked to an experiment, a
history, or a simulation, which may be considered as an alternative research strategy but in fact, none of these strategies are linked to a particular type of evidence or method of data collection (Yin, 1981:59). Notably, a case study is far from only being an exploratory strategy (Yin, 1994:3). Yin further indicated that the evidence for a case study may come from six sources: documents, archival records, interviews, direct observation, participant observation, and physical artifacts (Yin, 1989).

Robert Yin (1994) suggested how to judge the quality of research designs. It is important to show the internal validity for explanatory or casual studies, but not for descriptive or exploratory studies. Internal validity deals with establishing a casual relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from illegitimate relationships (Yin, 1994). These issues are further expanded in relation to this present study and provided in the later sections of this chapter.

5.3.2 The Design of a National Case Study

The preceding section has identified cases that need to be investigated for the purpose of exploring a NTSPP in Thailand. It was indicated in chapter one that this study seeks to explore how the need for a more formal SPP for the telecommunications strategic planning functions of the major players can be better satisfied and integrated to support a NTSPP in Thailand. An exploratory investigation of the industry which has aided the process of shaping the research design is also presented here. This section also provides a conceptual design of the methodological framework for the purpose of this study.

5.3.2.1 Exploratory Investigation of the Thai Telecommunications

Several visits were made to identify the key personnel and organisations that the major contributors to a NTSPP in Thailand. Early investigation indicated that the TOT, the CAT, the PTD, and two other private concessionairers—TelecomAsia (TA) and Thai Telephone and Telecommunication (TT&T) are the major and only organisations involved in the public
telephone infrastructure planning and practices.

It presents three in-depth case analyses: the TOT, the CAT and the PTD. However, a cross case analysis is provided for the successful generation of the theory that can actually provide the direction of the Thai telecommunications planning and practices. It then explores and describes the relationships of the findings within the existing theories and models of the management practices. In this way, the exploratory investigation phase has helped to shape the research design and provided a good basis for case selection.

5.3.2.1 Case Study Design for a NTSPP Research

A research design is an action plan for moving from, here the initial research question to there the possible answers to the research question (Yin, 1994:19). A research design will therefore, aid researchers to conduct a study, collect data, analysis the relevant data in a systematic way for achieving the desired results. Nachmias & Nachmias defined the research design as a plan that "guides researchers in the process of data collection, analysis, and interpretation of the observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation. The case research design also defines whether the obtained interpretations can be generalised to a larger population or to different situations (Nachmias & Nachmias, 1992. pp. 77-78. In: Yin, 1994. pp. 19-20).

The research design can also be seen as a "blueprint" of the research and should deal with at least four problems: what questions to study, what data are relevant to the research questions, what data to collect, and how to collect and analyse the data (Borum, 1991 and Philliber, Schwab, and Samsloss, 1980. In: Yin, 1994:20). Robert Yin (1994) suggested five steps for the case study research design: the study's questions; its propositions (if any); its units of analysis; the logic linking the data to the propositions; and, the criteria for interpreting the findings. Whether to study a single case or multiple cases and its usefulness in theory generation, is again a controversial issue. Figure 5-5 provides the research design
framework adopted and extended from Yin's (1994) original methodology.

**Figure 5-5. A Research Framework for the study of a National Telecommunications Strategic Planning Process (NTSPP) in Thailand**

5.3.3 *Units of Analysis for a NTSPP*

The aim of this study is to analyse the three organisations connected with telecommunications to provide a case for a NTSPP in Thailand. The units of analysis for this study are: the organisation, the TSPP, and the environment. However, other units are also analysed in relation to the influences on the TSPP. Chapter two provided the theoretical background for the purpose of understanding the organisation, the TSPP, and the environment for the TSPP. A framework for analysing the influences and understanding the relationships between the forces in relation to the TSPP were also
discussed in chapter two. It was indicated in chapter four that a NTSPP is under consideration by the three main organisations: the TOT, the CAT, and the PTD. However, all three organisations are under the umbrella of the MOTC.

The cases considered here, are the TOT, the CAT and the PTD. Robert Yin (1994), suggested in regard to the design of the multiple cases or the units of analysis, that each unit should have its design and analysis. For the purpose of this study, the same research design and data collection instrument was used for all three cases. The same measurement was considered with the assumption that a cross case analysis will provide invaluable input for theory generation about the Thai telecommunication planning and practices.

5.3.4 Criteria for Judging the Quality of Research Design

Robert Yin (1994) suggested that four tests should be established to judge the quality of the empirical social research. Table 5-2 provides the four widely used tests for judging the quality of the case studies. However, for the purpose of this study, there is the consideration of construct validity, external validity, and reliability. Internal validity seems to be inappropriate for the purpose of this present study, since it deals with establishing a causal relationship and the nature of the study is an explanatory one.

The construct validity of this research was accomplished through two interrelated steps: The first using multiple sources of evidence and the second the establishment of a chain of evidence. The external validity of this research was established by the replication logic in the multiple case studies. Lastly, the reliability of this research was achieved through the use of the case protocol and the development of the case study database. However, construct validity and reliability occurred during the phase of data collection and composition. The external validity occurred during the design phase of the research.

Blumer argued that validity, in a qualitative research, is achieved not through manipulation of variables, but rather through their orientation towards, and the study of,
empirical research (Blumer, 1979). Robert Yin suggested several tactics for dealing with validity issues and argued that internal validity is concerned with casual or explanatory case studies and this logic is inapplicable to descriptive or exploratory studies (Yin, 1994). In order to show the internal validity, explanation-building tactics should be adopted where the goal is to analyse the case study by building an explanation about the case which will eventually lead to some significant theoretical propositions (Yin, 1982).

<table>
<thead>
<tr>
<th>Tests</th>
<th>Case Study Tactic</th>
<th>Phase of Research in Which Tactic Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct Validity</td>
<td>Use multiple sources of evidence</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>Establish chain of evidence</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>Have key informants review the draft case study report</td>
<td>Composition</td>
</tr>
<tr>
<td>Internal Validity</td>
<td>Do pattern-matching</td>
<td>Data analysis</td>
</tr>
<tr>
<td></td>
<td>Do explanation building</td>
<td>Data analysis</td>
</tr>
<tr>
<td></td>
<td>Do time-series analysis</td>
<td>Data analysis</td>
</tr>
<tr>
<td>External Validity</td>
<td>Use replication logic in multiple case studies</td>
<td>Research design</td>
</tr>
<tr>
<td>Reliability</td>
<td>Use case study protocol</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>Develop case study database</td>
<td>Data collection</td>
</tr>
</tbody>
</table>


Table 5-2. Case Study Tactics for Four Design Tests

This study only looks at the possibility of the logical iterative process for formulating the theoretical and practical statements. It can be argued that this should be used for all types of qualitative study in the process of building a statement. The logical iterative sequence of a statement building is provided in figure 5-6.
5.4 Collection and Sources of Data

This study uses multiple sources of data collection methods for the purpose of exploring a NTSPP in Thailand. Robert Yin (1994: 80) suggested six sources of evidence and three underlying principles for the data collection. Table 5-3 provides the sources of data for the case study research with its strengths and weaknesses.

The research for this thesis commenced with a literature search covering the strategic planning & practices from an international context and also the historical development of strategic planning. Annual reports of all major public telecommunications enterprises and organisations in Thailand and some other countries were reviewed during the research process. Industry journals, academic journals, newsletters, and conference proceedings were also reviewed from several disciplines: telecommunications; strategic management and planning; MIS planning; IS planning; IT (Information Technology) planning; organisational and policy science, and other planning related journals were reviewed from the period of 1970-1996.
<table>
<thead>
<tr>
<th>Source of Evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>Stable-can be reviewed repeatedly, Unobtrusive-not created as a result of the case study, Exact-contains exact names, references, and details of an event, Broad coverage-long span of time, many events, and many settings</td>
<td>Retrievability-can be low, Biased selectivity, if collection is incomplete, Reporting bias-reflects (unknown) bias of author, Access-may be deliberately blocked</td>
</tr>
<tr>
<td>Archival Records</td>
<td>Same as the above, Precise and Quantitative</td>
<td>Same as the above, Accessibility due to privacy reasons</td>
</tr>
<tr>
<td>Interviews</td>
<td>Targeted-focuses directly on the case study topic, Insightful-provides perceived causal inferences</td>
<td>Bias due to poorly constructed questions, Response bias, Inaccuracies due to poor recall, Reflexivity-interviewee gives what interviewer wants to hear</td>
</tr>
<tr>
<td>Direct Observations</td>
<td>Reality-covers events in real time, Contextual-covers context of event</td>
<td>Time-consuming, Selectivity-unless broad coverage, Reflexibility-event may proceed differently because it is being observed, Cost-hours needed by human observers</td>
</tr>
<tr>
<td>Participant-Observations</td>
<td>Same as direct observations, Insightful into interpersonal behaviour and motives</td>
<td>Same as direct observations, Bias due to investigator's manipulation of events</td>
</tr>
<tr>
<td>Physical Artifacts</td>
<td>Insightful into cultural features insightful into technical operations</td>
<td>Selectivity, Availability</td>
</tr>
</tbody>
</table>

*Source: Yin, 1994:80*

**Table 5-3. Six Sources of Evidence: Strengths and Weaknesses**

The major data collection was completed in 1996. The primary data for this study were collected from the case study sites through the in-depth interview with the senior executives of the public telecommunications operators in Thailand. Some of the interviews with the
private concessionaires were also conducted with two underlying assumptions. The first was to show the applicability of the study to the private sector's TSPP, and the second was to monitor their participation in a NTSPP.

Twenty-one interviews were conducted among the executive officials from the TOT, the CAT, the PTD, the MOTC, the MOST, the NESDB, the TDRI (Thailand Development Research Institute) and the TT&T. Each of the interviews lasted for about 100 minutes. However, there were some limitations to gaining access to a large number executives. Some were reluctant to give any interviews on the topic. A detailed explanation of the development of interview instrument is provided in a later section.

5.4.1 Development of the Interview Instrument

Interview research is the basic methodology adopted for this study. Interviewing as a research method can be seen from two perspectives, conducting the interview, and interpreting the interview (Scheurich, 1995: 239). Bogdan and Biklen (1982) described the interview as a purposeful conversation, usually between two people, directed by one in order to get the required information (In: Scheurich, 1995: 239). Patton (1990) thought that the purpose of interviewing is to find out what is in or on someone else's mind (In: Scheurich, 1995: 240). Agian, Lincoln and Guba (1985) described an interview as simply a conversation with a purpose (In: Scheurich, 1995: 240).

The prime goal of the interview is to obtain information relevant to the purpose, and to collect this information with maximum reliability and validity. The relevance can be seen by looking at the questions and its relationship with the factors considered at the theoretical background of the research and the contribution of the interview data to each of these factors (Sudnam, 1983). The interview instrument for the case study was developed through several iterative processes. A wide body of literature concerning the strategic planning and practices, management information systems, information systems and
telecommunications journal papers was reviewed extensively. The instrument was
developed in order to collect relevant information from the case study sites. Two main steps
were taken into consideration at this stage, development of the interview instrument, and
the pre-testing of the interview instrument. A full copy of the interview instrument is
provided in appendix A.

In-depth open ended interviews were conducted with the senior executives who are
involved in strategic planning for telecommunications in Thailand. The organisation's top
executives or corporate planners interviewed were from: the TOT, the CAT, the PTD, and
the MOTC. Other interviewees include volunteers from academia, private sector
organisations, research organisations involved in Thai telecommunications, and a key
executive from the MOST (Ministry of Science and Technology) was also interviewed. The
open ended or focused interview methods are applied in the research with two underlying
assumptions. The first is the social science research method that supports the focused
interview approach which provides useful information when the study is largely, by nature,
exploratory. The second is the assumption that the researcher is aiming to establish a
common logical ground and description between the factors of investigation (Sarantakos,
1995:177-200). The questionnaire developed for the interview is a combination of
structured and unstructured questions. Structured questions are used only at the very
beginning of the interview. The interview method was chosen as the major primary data
collection tool. The following assumptions were taken into consideration when choosing
the interview as a major primary data collection tool.

1. Interviews in the qualitative research will provide a better understanding for
exploring a case to a NTSPP in Thailand;

and,

2. The method was chosen with a view to give access to the personal views and
planning practices of the Thai telecommunications managers;
However, answers to structured questions are not the aim of the interview, rather a focused interview approach was used. The main differences between the focused interview with the semi-structured or structured is its open-ended nature. The focused method gives more freedom to the interviewee for answering the questions (May, 1993: 76-101). At the initial stage of the interview, structured questions were posed only to get an overall feeling of the strategic planning and practices of the case sites. The aim was to make the interviewee confident about the interview process (Bradburn and Sudman, 1980: 175-200; Sudman and Bradburn, 1983).

Most of the questions in the interview were derived from possible problems of a NTSPP, as stated in chapter one of this thesis. In order to show reliability and maintain validity, the interview questions were further subdivided into factors that the conceptual (refer to figure 1-1 and 1-2) and the theoretical framework originally proposed in chapter one and two of this study. However, questions related to the influences on the TSPP are further explored during the data collection phase. The interview instrument was pretested among the academics in the Department of Information and Communication Technology and their valuable comments were taken into consideration. Some Ph.D. students from different disciplines were also asked for their comments on the interview instrument.

5.4.2 Sources of Data for the Study

The preceding section has provided an introduction about the source of the primary data collection. However, for the purpose of collecting the secondary data on the exploration of a NTSPP, the following sources are also considered during the study period.

5.4.2.1 Documentation

Several documents were collected related to the case study during the study period. Some of the documents were available from the internet resources site: Asian Business Online, Business Daily, Bangkok Post etc. During the site visits every effort was made to
obtain access to the organisation's annual reports, corporate plans, and other related documents for the case study. Documentation is a popular practice in the case study body of literature. Moore and Yin (1983) have examined several R&D projects through the collection and analysis of the different documents collected from the case sites (Yin, 1994:82). It is also suggested by Moore and Yin that documents collection and analysis should be incorporated with other sources of case study data collection.

5.4.2.2 Archival Records

Some of the archival records like organisational records, lists of names of the executives involved in the decision making process were collected during the site visits. These archival records can be used in conjunction with other sources of information in producing a case study and are often used for both quantitative and qualitative evidence (Yin, 1994:83).

5.4.2.3 Direct Observation

Direct observation of the case study sites was made during the field visits for collecting the evidence. Some of the relevant behaviours and environmental conditions were observed during the data collection phase. Such observations serve as yet another source of evidence in a case study (Yin, 1994:86). Observations were made for the sites and later formed a basis for casual activities. Most of the observations were made during the interview phase and, can thus be classified as a part of the informal observations for the purpose of this study.

5.4.2.4 Other Sources of Evidence

A network of contacts from Academia, Industry, and Government was established within Australia, Thailand and other countries. The documents were collected from as many possible sources as were accessible. These were letters, memo, announcements, written
reports, proposals, progress report, formal studies or evaluations of the same 'site' under study, newspaper clippings and other articles which appeared in the mass media were reviewed throughout the study.

During the field trip for conducting the study in Thailand, an effort was made to access possible subscriber records, organisational records, maps and charts, other relevant survey data from the case study organisations' internal libraries or through other possible sources. Some of the government reports about telecommunications infrastructure planning have already been reviewed and further contact was established in Thailand for accessing some of this material from the MOTC, the TOT, the CAT and the PTD. Annual reports of the IT2000 plans from different countries were reviewed through the WWW resources (Singapore, Thailand, China, Japan, Denmark, South Africa, USA etc). Several documents regarding the sectoral plan of telecommunications development and planning reports from different sources were already collected through the United States online information services.

Regardless of all this, three underlying principles were also used for the data collection for the case study of the national strategic telecommunications planning process in Thailand. Yin (1994:90) suggested that the benefits from the six sources of evidence can be maximised by following three principles of data collection: using multiple sources of evidence; creation of a case study database, and maintaining a chain of evidence.

5.5 Data Analysis and Display for a NTSPP

There are strategies suggested by Miles and Huberman (1994) for the purpose of exploration and description of a single and multiple case studies. However, this section provides the argument that the data analyses and display technique of a single and cross case study should differ in their nature and practices. The aims of this section are three folded: to provide a brief view of the transcription of the recorded evidence and other
documentary evidence found from the cases as well as from the direct observation; to introduce the single case study analysis and data display method; and lastly, a cross case analysis and data display methods.

5.5.1 Transcriptions of the Recorded Evidence

In-depth interviews were conducted on the site during the primary data collection phase. The transcription process was started at a very early stage of the data collection. There were approximately 2100 minutes of recorded interviews at the end of the whole interview process and all these were transcribed into a text format. Other documentary evidence such as annual reports, corporate planning documents, organisation charts, national planning guidelines and some report from the MOST and the MOTC were also collected at that time. Moreover, handwritten notes were taken during the interview session, these are the interviewers observations at the time of the interview.

5.5.2 Single Case Study Analysis

Single case study analysis and data display are performed through several interrelated steps. After the transcription of the recorded data, the interviewer complied all the executives' views into a case study database. Cognitive maps are formulated for the purposes of analysing the cases of the TOT, the CAT and the PTD, which are essentially based on the collected data and the interviewer's interpretation of the collected data. A cognitive map provides the display of the interviewee's representation of concepts about a particular domain and the relationships among them are also shown (Miles and Huberman, 1994:134). Miles and Huberman suggested that this method is associated with the descriptive text. Cognitive mapping was accomplished through the transcriptions of the recorded interviews and phrases in the interviewee's own words. Cognitive maps are the outcomes of the clues and key comments that were generated during the interview and observation process at the case site.
5.5.3 Cross Case Analysis

Miles and Huberman argued that the aim of the multiple case analysis is to increase the theoretical generalisation and reassurance of the events in one well-observed setting is not wholly idiosyncratic (Miles and Huberman, 1994:172). Cross case analysis was selected in order to deepen the understanding of the TSPP among the participating organisations and describing the possibility of transforming this organisation’s TSPP into a NTSPP. The case oriented approach is applied to provide the cross case analysis of the TOT, the CAT, and the PTD. However, it is seen that a value oriented approach is rather irrelevant for this study, where a large sample is expected to cover the ground of analysis (Ragin, 1987. In: Miles and Huberman, 1994:174).

The case oriented approach puts the main emphasis on the case as a whole, looking at configurations, associations, causes, and effects within the case and later, turns to a comparative analysis of a number of cases (Ragin, 1987. In: Miles and Huberman, 1994:174). By adopting this approach, this study looks for three kinds of evidence: the underlying similarities and constant associations; comparisons of cases with different outcomes; and finally, the formation of a more general explanations (Miles and Huberman, 1994:174). This strategy provides a good basis for finding specific, concrete, historically-grounded patterns common to small sets of cases (Ragin, 1987. In: Miles and Huberman, 1994:174).

The major background to this type of analysis is that the findings often remain distinctive but pretend to great generality (Ragin, 1987. In: Miles and Huberman, 1994:174). Robert Yin (1984) suggested that a replication strategy for analysing the case evidence. This can be accomplished through the development of a theoretical framework and collection of data from the cases based on that framework. For this study, all the primary data were collected from the interviewing process and the instrument was developed on the basis of the conceptual frameworks (refer to figure 1-1 and 1-2) and the theoretical background (refer to section 2.2).
5.6 Limitations of the Research

There are three groups of limitations to the study: conceptual, methodological, and data collection.

5.6.1 Conceptual Limitations

There are three conceptual limitations. First, the validity of the implementation planning process is not studied specifically. It is beyond the scope and financial resources of the present study to research this issue. No detailed comment can be offered on the issue of the implementation practices. Second, the behavioural aspects of the implementation practices are not studied fully. For example, in this study, the perceptions of the management on the implementation process are rather ambiguous. No attempt was made to analyse the executives cultural background and its relationships with the TSPP from the organisational behavioural perspectives. Third, no attempt was made to define the Thai culture and its impact on management practices. The culture and its relationship with the management practices would need to be formed as a separate study.

5.6.2 Methodological Limitations

The main methodological limitations are related to the case study approach used, the data collection techniques, and the qualitative data analysis techniques. First, the sources of the data are very limited, and much of the data are not in English. There is very limited literature on the TSPP as well as a NTSPP and very little on the management practices for the telecommunications industry in Thailand. It is also observed from the case study sites that the TSPP as well as a NTSPP and its implementation documents are not yet documented. The interview method was therefore selected to uncover some of the management practices and receive opinions from the Thai telecommunications industry executives. There are certain limitations on the data analysis and display and it was difficult to adopt a particular methodology for the purpose of this study. Some of the techniques that are used for the single and multiple case analysis and data display indicate certain
5.6.3 Data Collection Limitations

There were certain limitations on the data collection and gaining access to the key executives. First, the author was refused permission by the executives from the TA to conduct in-depth interviews. The TA is a private concessionaire and actively involved in the development and installation of public fixed wired lines on a BTO (Built-Transfer-Operate) basis. Four to five attempts were made before leaving Australia and while at the site but the company executives refused each request to provide an interview. Second, it was not possible to interview large numbers executive from the TOT, the CAT and the PTD.

5.7 Conclusions

This chapter has described the overall research methodology used in this study. Various activities such as the sources of data collection, development of the interview instrument, and treatment of the data were discussed. Furthermore, this study emphasised the use of primary sources of data obtained through personal and phone interviews, and document analysis. The interview technique is used in this study as a mean of obtaining the responses from the case sites. The results are assessed both analytically and synergistically. The theoretical constructs on a NTSP, developed in chapter three, will be compared by the findings of the case studies presented in chapter six. The cross case analysis of the TOT, the CAT, and the PTD, in relation to their TSPP, roles in a NTSP, and environmental influences of the TSPPs are presented in chapter seven. The comparison of the actual TSPP as well as a NTSP and the theoretical TSPP and a NTSP is provided in the synthesis of a national case study findings, which is presented in chapter eight.
Chapter Six
The Case Studies of Thailand's National Telecommunications Players

Chapter four explored the roles and relationships of the national telecommunications players in Thailand. Based on the analyses of chapters (one, two, three and four), the rationale for this present study of the Telephone Organisation of Thailand (TOT), the Communications Authority of Thailand (CAT) and the Post and Telegraph Department (PTD) is to explore the idea of a NTSPP in Thailand. Chapter five suggests the research framework for the study of a NTSPP in Thailand (refer to figure 5-5). Detailed NTSPP research methodology and design is provided in chapter five. Considering the preceding chapters, the aim here is to provide the analyses of the actual TSPP of the national telecommunications players in Thailand.

6.1 Case I: The Case of the TOT

The case study of the TOT is aimed at: exploring the TSPP which has already occurred at the TOT; relationships or usages of TOT's TSPP in a Thai NTSPP; and the environmental factors influencing the TSPP at the TOT. At this stage, it is necessary to provide the background of the evidences of data that are used for analysing the TOT's case.
6.1.1 Evidence from the Sources of Data

The evidence is categorised into three sections: documentary evidence, interviews with the informants, and other sources.

6.1.1.1 Documentary Evidence

This phase of data collection occurred at a very early stage of the research and followed several steps. First, several journal articles and selected papers were reviewed for information about the telecommunications industry in Thailand. Second, the annual reports of the TOT (1989, 1991, 1993, and 1994) were periodically reviewed. Third, the organisation charts, the TOT Act. (1954), and the TOT's 4th corporate plan (1996-2001) was also reviewed. Lastly, several documents were reviewed from the NESDB with regard to the telecommunications infrastructure development planning and practices. Moreover, some of the papers from the APT (Asia Pacific Telecommunity), Thai telecommunications conferences were also reviewed during this period.

6.1.1.2 Interviews with the Informants

The interview method was selected as the primary data collection tool for this study. Face to face interviews with 5 top level strategic planning executives were conducted at the case study site. Each of the interviews lasted for approximately 100 to 120 minutes. The interview was unstructured and the interviewees were free to answer and comments on each question. Slight change to a very few questions occurred during the interview period. All of these interviews were recorded and later transcribed into the text format for the purpose of analysing the evidence and writing the TOT case report.

6.1.1.3 Other Sources

Every effort was made for direct observation at the case site. This occurred both during
the interview period and at the case site visits. Besides the interviews with the TOT executives, several other interviews were conducted among the key people in the Thai telecommunications industry and used in later for a cross case analysis.

6.1.2 Findings of the TSPP at the TOT

The aim of this section is to explore the TSPP at the TOT. This aim is achieved through asking how TSPP is conducted at the TOT. It serves two kinds of analysis: exploring the TSPP at the TOT; and describing the theoretical justifications of the TOT's TSPP. In order to explore the TSPP at the TOT, it is crucial to look at the following three distinct patterns:

a) findings of the development and information gathering process of the TOT's TSP;

b) findings of the goal setting process of the TOT's TSP;

and,

c) findings of the review process of the TOT's TSP.

Some introductory questions were asked at the beginning of the interview session on the TOT's TSPP. The evidence from the data that were collected at the TOT case site suggests that the TOT has been involved in the TSPP and its TSP is usually reviewed annually. It was found at the case study site that, five separate offices were involved in the responsibility of the process of review of the TOT's TSP: Corporate Planning Office; Management Steering Committee; Top Level Planning that is under the authority of the TOT's 18 committee senior executives; directors of different departments, and lastly, the external consultants. Furthermore, the TOT has also to submit its TSP to the MOTC for approval. This approval process of a TSP consists of several organisational and processes. The Thai Government has a policy of a five year NESDP and this is under the control of
However, it is required by the MOTC that the TOT's TSP should match and follow the same target as set by the NESDB for the national plan and per se—should be approved by MOTC. Figure 6-1 provides the review process of the TOT's TSP, and its involvement with the other concerned bodies.

**Figure 6-1. The Review Processes of the TOT's TSP**

6.1.2.1 Findings of the Development and Information Gathering Process of the TOT's TSP

Indications provided in chapters one and two about the assumptions that are taken into
consideration for exploring the TSPP at the TOT (refer to figure 1-2). The first is the consideration of the development and information gathering process of the TOT's TSP. This section reports the findings from the in-depth interview with the senior executives from the TOT.

Findings suggest that the TOT has been dynamically involved in the process of developing a TSP. The TOT's steps for a formal TSPP is based on six interrelated steps: forecasting results; the quality and quantity of the telephone lines and services; technology analysis; human resources analysis; organisational analysis, and, financial analysis. However, with regard to the process of gathering the information for developing a TSP, the TOT usually looks at the two key factors, market trends and technological trends (Phiromswad, 1996: in-depth interview). Figure 6-2 provides the Office of Special Senior Advisor's view on the steps for the TOT's TSPP and the most important factors of information gathering.

Figure 6-2. Office of Special Senior Advisor's View on the TOT's TSPP and information gathering process

Findings from the Office of the TOT's Local Concession Department, suggests that the
steps for a formal TSPP depends on the issue concerning and is a combination of three steps: the project study; information gathering, and, the evaluation of alternatives (Yongcharoen, 1996: in-depth interview). The TOT gathers information mainly on three factors for the process of developing a TSP; market trends; financial factors, and technological trends. Figure 6-3 provides the steps for the TOT’s TSPP and information gathering process.

**Figure 6-3. Office of Local Telephone Concession's View on the TOT's TSPP and information gathering process**

Findings from the Office of Corporate Affair suggests that the steps for the formulation and information gathering processes of a TSP is five fold: project studies; information gathering; evaluation of alternatives; project selection criteria; and setting financial objectives. It is evident from the TOT case study that there is very little evidence suggesting TOT’s information gathering in the process of formulating a TSP (Pientam, 1996: in-depth interview). However, findings also suggests that the TOT superficially looks at the following: market trends; financial factors; domestic competition; regulatory issues;
technological trends; political trends; labour market; socio-cultural factors, and foreign competition. It has not taken any initiative in the past, for collecting relevant information for a TSPP. Moreover, it is indicated by the Office of Corporate Affairs that there is a lack of sense of the importance of gathering information on the labour market. At this time, the TOT's plan is towards privatisation, so all these factors are even more important for gathering information for the development of a TSP (Pientam, 1996: in-depth interview). Figure 6-4 provides the view of the Office of Corporate Affair's view on the steps of the TOT's TSPP and information gathering process.

**Figure 6-4. Office of Corporate Affair's View on the TOT's TSPP and Information Gathering Process**

The Office of Corporate Policy and Planning suggests that the steps towards the
development of the TOT's TSP are: evaluation of alternatives; setting financial objectives, and, searching for opportunities. Five factors in relation to the information gathering process of the development of the TOT's TSP came out of the interview process. It is evident from the TOT case study that it looks at: market trends; domestic competitors; regulatory issues; technological trends, and foreign competition. Figure 6-5 provides the Office of Corporate Policy and Planning's view on the steps for the TOT's TSPP and information gathering process.

Figure 6-5. Office of Corporate Policy and Planning's View on the TOT's TSPP and Information Gathering Process

The Office of Privatisation Affairs at the TOT suggests ten steps for the formal TSPP that are to be initiated by their organisation. Study of the case site provides an indication that planning within the 39 departments of the TOT, is very minimal and not well integrated into the organisational TSPP. However, with regard to information gathering for the
formulation of a TSP, the Office of the Privatisation Affairs responded that the first organisational act is to make people understand what kind of information is important for developing a TSP and what can be accomplished through continuous training and retraining of the personnel (Charoenphol, 1996: in-depth interview). Figure 6-6 provides the Office of Privatisation Affair's view on the steps for the TOT's TSPP and information gathering process.

Figure 6-6. Office of Privatisation Affair's View on the TOT's TSPP and Information Gathering Process

It has been learnt from the above analyses of the descriptive findings of the development and information gathering processes of TOT's TSP, that the TOT has failed to establish a formal TSPP and may be, there is no intention of doing so. Findings also indicate that
there are great inconsistencies among the views of the TOT executives about a TSP for
their organisation. It has also been suggested that the TOT's TSPP is not well integrated
with the functions of the department within the organisation. However, it was argued in
chapter two that there is a relationship between organisational size and its TSPP. The
descriptive findings suggest that there is no relationship between the formalisation of the
TSPP and the organisation's size. Normatively, it was argued in chapter two that the larger
the organisation, the higher the degree of formalisation of a TSPP. The TOT case findings
on the development and information gathering for a TSP, is more informal and less
comprehensive.

6.1.2.2 Findings of a Goal Setting Process (GSP) of the TOT's TSP

It was argued in chapters two and three that a GSP, is vital for maintaining the
organisation's status with the changes in both the internal and external environment. This
section provides an analysis of five factors in relation to the TOT's TSPP. First, it is
identified from the case study site that the TOT's qualitative goals are five fold: improving
the quality of services; improving customer relations; provision of services; improving the
industrial relations, and last, the expansion of the telephone network. Second, the
quantitative goals of TOT are three fold: market expansion; increase telephone penetration,
and expansion of the rural telephony. Third, is the GSP of the TOT. The case study also
reveals that a GSP of the TOT's TSP is highly bureaucratic and it involves both the internal
and external organisation in TSPP. It was pointed out earlier in this chapter that the TOT's
TSP should be compatible with the NESDP of Thailand. In this regard, the NESDB and
the MOTC plays a major role in the goals setting of the TOT's TSPP. Moreover, the Thai
Government sometimes requires the TOT to use external consultants for their technical
plans and also for demand forecasting (Phiromswad, 1996: in-depth interview). Figure 6-7
provides the internal and external involvement of a GSP for the TOT's TSP.
Interview findings from the Office of Local Concession suggests that the goals for the TOT's TSP is two fold: First, is the TOT's qualitative goals which are aimed at improving customer relations, and, becoming a leader in the Thai telecommunications market. Second, the quantitative goals of the TOT are also two fold: first, an increase in the telephone penetration, and, an improvement to the quality of lines and services and this is the responsibility of the concerned units for these goals setting at the TOT. However, it is revealed that the goals for the TOT's TSP are set by the Board of Directors of the TOT (Yongchareon, 1996). Figure 6-8 provides the Office of Local Telephone Concession's view on the TOT's GSP for a TSP.
The main purpose of the TOT's TSP is to use the plan as a guideline for setting up the aims and evaluating the outcomes of the organisation. The TOT's TSP serves two overall goals: to have better control, and, to achieve the target with effective procedures and with the proper control. Three factors were identified from the interview about the organisational goals of the TOT's TSP, decide on the factors that deserve importance; define the objectives; missions; goals and strategies to achieve these, and lastly to decide the priority of the task to be implemented.

An analysis of the five factors in relation to the TOT's TSPP is provided in this section. First, is the identification of the TOT's qualitative goals of a TSP. Findings from the interviews reveals that the TOT's qualitative goals are four fold: improving the quality of services; provision of services; expansion of telephone network, and lastly be a leader in the market. However, to be a leader in the market is considered as a future qualitative goal of the TOT (Pientam, 1996: in-depth interview). Second, the quantitative goals are aimed at: market expansion; net revenue, and increased telephone penetration. The Office of Corporate Affairs indicated a strong view towards the market expansion and commented that "every sector of the market should be expanded and it should not only be considered for the privileged groups, but also for the rural areas" (Pientam, 1996: in-depth interview).

Third, the GSP of the TOT's TSP consists of three groups or bodies--the Board of Directors, the CEO and the Senior Managers, and the MOTC. So, the TOT's GSP of a TSP can be classified as--internal and external. However, it was revealed from the NESDB that the TOT's goals should be a part of the NESDP. In this regard, MOTC acts as an adjuster in the goals setting process of the TOT's TSP. Figure 6-9 provides the Office of Corporate Affair's view on the involvement of the TOT's GSP of a TSP.

Findings indicate that the main purpose of the TOT's TSP is three fold: to use it as a guideline; to be a domestic leader in the market, and, to be able to compete in this region. However, four considerations came out of the interview process with regard to the TOT's overall goals of a TSP. According to the Office of Corporate Policy and Planning, the
TOT's overall goals are: to have a plan; to have better control; to solve the problems, and lastly, to serve the NESDP (Vichitcholchai and Kruanetra, 1996: in-depth interview).

**Figure 6-9. Office of Corporate Affair's View on the Goals Setting Process of the TOT's TSP**

The TOT's overall goals of the TSP are five fold: to use it as a guideline; to integrate the departments; use it for a continuous projection; review the national plan of telecommunications development, and lastly, provide input to MOTC's ten year plan (Charoenphol: in-depth interview). It is important to note that the TOT is using a TSP for continuous projection for the expansion of the telecommunications project. However, the TOT's expansion has always been regarded as an integral part of the NESDP. Moreover, the TOT's TSP has also provided significant input to the MOTC's ten year master plan for telecommunications infrastructure development in Thailand. Findings from the interview reveal that a NTSP in Thailand, is centred around the TOT's TSP and related data that comes from the TOT. There should be an integration of not only the departments, but also the integration of the TOT's and the CAT's forecast of traffic capacity and usage is required as well. The TOT's TSP also serves the CAT in the process of developing its TSP. The CAT does obtain some information from the TOT, so that it can plan the requirements of its number of channels etc. Evidence suggests that the inter organisational coordination was not clear a few years ago and this encumbered the basic
telecommunications infrastructure development process (Charoenphol, 1996: in-depth interview). For example, the CAT was unable to provide channels for certain areas and later this problem was solved by coordination.

The Office of the Privatisation Affairs suggests that the TOT's overall goals of a TSP are four fold: to have a plan; the process itself; to have better control, and lastly, to solve the problems. It is evident from the collected data that the TOT's TSP covers both the internal and external aspects. The TOT's organisational goals are seven fold: privatisation of the TOT; identify future actions; provide more meaningful cooperation; decide upon which factors are important; define objectives, mission, goals and strategies to achieve these, and lastly, overall organisational coordination and cooperation. It is also indicated by the Office of the Privatisation Affairs that the goals are set by the 'bottom up' process. This is done in two phases: internal and external. The TOT's Corporate Planning Division and Board of Directors are involved in the internal GSP. However, the TOT also has to submit its targeted goals of a TSP to the NESDB and the MOTC, for final approval. These two external organisations are responsible for scrutinising the aims and objectives of the TOT, so that it matches the national objectives and goals.

In concluding, the theoretical background of a TSPP suggests the importance of a GSP. It was suggested in chapter two that a logical GSP should be directed towards encouraging participation and interaction among the top and divisional executives. The interaction and participation of different levels of executives is aimed at ensuring an effective participation in a GSP and also to build a general consensus among the key decision makers in the organisation. Looking at the GSP of the TOT, it is evident that the TOT failed to establish a formal GSP and therefore, the result is organisational chaos. It is also observed in the case of the TOT, that the organisational planners involved in setting goals for their organisations' TSP, are not well versed about the involvement process of other concerned bodies. This may lead to the conclusion, that the TOT has no formal TSPP in place. The consequences of not following a formal TSPP, has been documented in the preceeding
6.1.2.3 Findings of the Review Process of the TOT's TSP

The responses from the in-depth interview in relation to the TOT’s TSPP are presented here. An interview with Phiromswad, a Senior Executive Vice President of the TOT’s Corporate Planning and Policy Office reveals that the TOT’s TSPP must have interaction with other concerned bodies in Thailand. At first, the review of a TSP is done internally and research identified, following the internal group's involvement in the review process of the TOT’s TSP. The review process of the TOT’s TSP is two fold: internal and external. The following section provides discussions about the internal and external involvement in the review process of the TOT’s TSP. Each of the following sections provides five views of the respondents and a summary is provided at the end of this section with a conclusion about the responses on the TOT’s TSPP. Figure 6-10 provides the Office of the Special Senior Advisor’s view on a review process of the TOT’s TSP.

**Figure 6-10. Office of Special Senior Advisor's View on the Responsibility for the Review Process of the TSP**

The internal and external groups involvement are identified in relation to the TOT’s review process of a TSP. Internally, it is the responsibility of the three groups: the
Corporate Planning Office, Managing Director and the Board of Directors of the TOT. The Corporate Planning Office looks at the internal and external environmental changes and develops a detailed plan of action. The next step is to propose this plan to the Managing Director and the Managing Director will eventually present this plan to the Board of Directors (BOD) for the approval. Once it is approved by the BOD, the next step is to submit the plan to the MOTC for formal approval. Findings suggest that the Corporate Planning Office is responsible for the review process of the TOT's TSP. The Office of the Corporate Affairs indicates that the TOT's Management Steering Committee, Top Level Management Committee, and the Directors of departments are responsible for the review process of a TSP at the TOT (Pientam, 1996: in-depth interview). According to the Office of Corporate Affairs, the responsibility of the top level management plan is on 18 executives that include, the Senior Executive Vice President and the Executive Vice President as well as the President. However, 39 directors of different departments are also involved for this review process at a broader level. Figure 6-11 provides the view of the Office of the Corporate Affairs on the responsibility of the review process of the TOT's TSP.

**Figure 6-11. Office of Corporate Affair's View on the Responsibility for the Review Process of the TOT's TSP**

![Diagram of the review process](image)

Findings suggest that the TOT's TSP is based on: the short term plan; medium term plan, and long term plan. The long term plan is done from the macro perspective with the
The TOT's TSP is revised annually and it maintains a sliding scale of planning (Charoenphol, 1996: in-depth interview). At first, the plan covers five years with a macro objective. The TOT executives review the plan yearly and move the plan ahead by one year. According to Office of the Privatisation Affairs, this is one of the best ways to see the continuous relationship between the medium term and immediate plan (Charoenphol, 1996: in-depth interview). Findings about the review process of the TOT's TSP indicate that the Corporate Planning Office is responsible for the process of review.

The above sections on the TOT's TSP have uncovered the processes and provided discussions in relation to the TSPP. A number of themes that emerge from this analysis suggest that strategic planning is an action rather than a process to the TOT. There is a very little emphasis on the formal approach for the TOT's TSPP. The responses from the five different interviews provided an indication of great inconsistencies in the executives views on strategic planning. The findings also suggest that the TOT executives are also not well informed about their own process of review of the TSP and that the involvement in relation to this. However, there were a few factors in relation to the TSPP which were identified by the respondents, but a very little relationship was found with regard to their information gathering process. At the outset, three main factors were identified from this stage of case study findings: inconsistency among the TOT's executives actions and views about the TSPP; heavy reliance on the informal method of TSPP, and lastly, a lack of concern about the information gathering process for developing a TSP.

There are several impediments to the TOT's TSPP. One major concern is the external involvement to this process. It is noticed from the case study that the external involvement is eventually impeding the TSP at this organisation. However, some of these arguments can be supported by the comments that were received from the interview with the Office of Corporate Affairs and the Office of Privatisation Affairs. The Office of Corporate Affairs indicated that the process of the TOT's TSP should look into more details for the information gathering processes. On the other hand, the Office of Privatisation Affairs also
provided critical comments on the TOT's TSPP. Findings indicate that it is necessary to make people understand the significance of a TSP and ensure that the required data will be collected in the information gathering process. Charoenphol further indicated however, that this aim can be achieved through training and retraining of the employees and creating an awareness of the importance of the TSPP. On the basis of these findings, it can be argued that the TOT executives such as Charoenphol, believe that there is no comprehensive planning and information gathering process that supports the development of a TSP. On the other hand, it is also evident that the TOT's human resource needs to be trained and retrained to deal with these competing issues.

6.1.3 Findings of the Relationships of the TOT's TSPP with a NTSP

The aim here is to explore the relationships of the TOT's TSPP with a NTSP in Thailand. It does this by:

a) findings of the TOT's involvement in a Thai NTSP;

b) findings of the TOT's level of cooperation with other telecommunications players;

and,

c) findings of the laid down process of the TOT's TSPP.

6.1.3.1 Findings of the TOT's Involvement Process in a Thai NTSP

The TOT has had the sole monopoly over the basic telephone services since its establishment. With respect to this, the TOT has been playing a major role in the Thai telecommunications industry and provides a NTSP framework for the MOTC (Phiromswad, 1996: in-depth interview). As a part of its role in the Thai
telecommunications industry, the TOT also has to follow the instruction given by the NESDB. The TOT has to receive the policy guidelines from the MOTC, the Thai Cabinet, and also from the Ministry of Finance (MOF) for the process of developing a NTSSPP for Thailand.

It is evident from the findings that the TOT's role in a NTSSPP are mainly focused on providing national telecommunications planning framework and set objectives for the national infrastructure development planning and practices. In regard to a NTSSPP, the TOT receives cooperation mainly from three concerned bodies: the PTD; the NESDB, and the MOTC. All three of these organisations help the TOT in terms of the regulation and policy support and setting of mutual national objectives.

The TOT is playing a consultative role in a NTSSPP in Thailand. Evidence suggests that TOT provides guideline to the national planners and sets up co-ordinated goals and objectives for the telecommunications in Thailand (Pientam, 1996: in-depth interview). In the NTSSPP, the MOTC acts an 'middle man' for transforming a TSPP into a NTSSPP and proposes this plan to the Thai Cabinet for formal approval. The Minister also discusses the issues related to the telecommunications developments project proposal with the TOT officials before presenting the package to the Cabinet. The TOT usually sends the input in terms of the related data and information about the telecommunications development for a NTSSPP. The TOT is also responsible for analysing the future trends for the market demand as well as the recent technological developments. In this regard, the TOT plays an important role in a NTSSPP in Thailand. Figure 6-12 provides the view of the Office of Corporate Affairs in relation to the TOT's involvement in a NTSSPP.

With regard to the role of the TOT in a NTSSPP, the TOT's aim is five fold: provide a NTSSPP framework; set objectives; provide guidance to the national planners; set up co-ordinated goals and objectives, and, follow the requests given by the NESDB. Evidence found in the TOT case site suggests that the TOT's TSP has now emphasised a more non-technical and in concept of the whole infrastructure development aspects for the nation
(Charoenphol, 1996: in-depth interview). In the National Economic and Social Development Plan (NESDP), the TOT provides significant input in terms of data and concepts to the NESDB. In the process of developing a NTSP, the TOT's inputs are used by the NESDB for their five year NESDP. Moreover, the TOT's telephone expansion plan has always been regarded as a part of the NESDB's five years national plan (Charoenphol, 1996: in-depth interview).

**Figure 6-12. Office of Corporate Affair's View on the TOT's Involvement Process in a NTSP**

It is essential to discuss some examples of the TOT in order to have a clearer picture of its role in a NTSP. A NTSP is basically centred around the TOT. It has the sole monopoly of the entire domestic telecommunications and whatever plan is developed for the Thai telecommunications, it passes through the TOT. Indications were found from the Office of the Privatisation Affairs responses that whatever the private sector is providing today was based on whatever the TOT had planned before. Because of the monopoly nature of the industry, the TOT could not meet and expand the telephone requirements for the nation and invited the private sector to participate under the Build-Transfer-Operate (BTO) agreement.

6.1.3.2 *Findings of the Level of Cooperation with other Telecommunications Organisations*

According to the Office of Corporate Policy and Planning, the TOT usually receives the
expected cooperation from the other concerned telecommunications bodies in Thailand. Findings suggest that the TOT receives three kinds of cooperation from the other concerned bodies. The first, the planning guidelines from the NESDB. The second, regulation and policy guidelines and supports from the MOTC. The MOTC however, also provides assistance or guidance to the TOT for implementing its TSP, and lastly, financial support from the Ministry of Finance (MOF). As a State Owned Enterprise, the TOT's funding comes through the MOF, which provides the financial support for the TOT to guarantee the finance for their budget.

There were indications from the respondent that there was a degree of lack of cooperation in this process. Interview findings revealed that the TOT does not receive much cooperation from the CAT. The reason behind this rivalry between the TOT and the CAT may be a reflection of the Thai Government's lack of focus on the assigned responsibility to these two organisations. For example, the TOT and the CAT have some conflicts of interests in offering their services. Comments were received in the interview with the Office of Local Telephone Concession in Thailand about these conflicts. The CAT gave concession to the LENSO Company for the international coin box without consultation with the TOT and now LENSO is requesting the coin box telephone numbers from the TOT (Yongchareon, 1996: in-depth interview). Moreover, it is the responsibility of the TOT to assign the coin box numbers and the TOT had already negotiated this issue with their existing concessionaires. So, when these confused situations arise conflicts in revenue sharing agreement create rivalry between these two SOEs in Thailand.

Findings from the Office of Corporate Affairs suggest that the TOT usually receives the expected cooperation from the other concerned telecommunications organisations in Thailand. The TOT mostly receives the policy and planning guidelines from the MOTC and from the NESDB. However, the MOF also provides the funding support to the TOT for developing and implementing different projects. Furthermore, the planning activities at the TOT help to identify strength and weakness of the organisation, evaluate the user's requirements, and recommend future actions to be taken by the TOT.
In the process of developing a TSP, the TOT usually receives the planning guidelines from the NESDB. The TOT also shares and receives expertise from other concerned telecommunications bodies in Thailand. From the MOTC, the TOT receives regulation and policy support. As a SOE, the TOT also receives financial supports from MOF. The Office of the Privatisation Affairs indicated, that in the past, there was very little cooperation in the planning activities among the telecommunications organisations in Thailand. At present, there is much more interaction among the TOT, the CAT, and the PTD. The PTD is now responsible for representing the Thai telecommunications in international organisations and serves as a government representative at conferences. For example, whenever the TOT plans to join international activities such as a joint venture (BTO), the PTD will act as a government representative and serve as a negotiator of the new project. However, the project implementation is under the control of the TOT and the CAT. There are some conflicts among the TOT and the CAT and this is because of the government's pays little attention on setting clear guidelines to these organisations. There is also some lack of understanding and cooperation among the TOT and the NESDB. Evidence suggests that the NESDB lacks the expertise in the telecommunications area and sometimes creates barriers to the TOT's TSPP and implementation practices.

6.1.3.3 Findings of the Laid Down Process of the TOT's TSPP

Two major impediments to the TSP as well as NTSP, were evident from the case of the Thai telecommunications industry. These are the political and business influences. The political influences are found to be very dominant in the Thai telecommunications industry. Thai telecommunications history also indicates that rapid changes in the government and conflicts among interest groups have always been a major contributors for encumbering the TSP as well as a NTSP in Thailand. On the other hand, business influences create indirect pressures on the SOEs for rapid expansion and meeting the required demand.

In relation to the problems of TSP as well as NTSP, three factors were identified in this case study. First, is the political influence that is very dominant in the Thai
telcommunications industry and many projects are eventually created by the interest groups. For example, the Personal Handphone Network (PHN) was not in the plan and the project was presented without warning. Another example that was raised by the respondent, was the public office coin box telephone in rural areas. Second, is too frequent revision. This is due to the rapid changes in the government and this eventually brings much uncertainty in the TOT's TSP. Last, is the rivalry situation among the SOEs: the TOT and the CAT.

It was identified from a interview with the Office of the Corporate Affairs that four factors are considered as problems for the TSPP. The factors are: an unpredictable environment; political influences; business influences, and the frequent revisions to the planning. The TOT executives are concerned with the rapid changes in the government and eventually these changes bring uncertainty to the policy and make the TOT's TSPP and implementation practices much more critical. Moreover, some of issues came out of the interview on the problems of a TSPP as well as a NTSP in Thailand. These are three fold: political influences; inadequate published data, and too frequent revisions. Lack of information for developing a TSP and rapid changes in the government are the major impediments to the development and implementation of a successful TSP (Vichitcholchai and Kruanetra, 1996: in-depth interview). The Office of the Privatisation Affairs mentioned that the problems of TSPP in Thailand are four fold: government procedure; the concept of project completion on time; human resources at the planning level, and that strategic planning concept is still new to the Thai telecommunications industry (Charoenphol, 1996: in-depth interview). Figure 6-13 provides procedures for laid down the TSPP for the Thai telecommunications industry.
Figure 6-13. A Framework of the Procedure Laid Down of the TSPP in the Thai Telecommunications Industry

1. TOT's Strategic Plan
   - Propose

2. Ministry of Transport and Communications (MOTC)
   - Approval (Takes 1 to 1 1/2 yrs)

3. Budget Bureau

4. Ministry of Finance

5. National Economic and Social Development Board (NESDB)
   - # Takes time because of their lack of expertise in telecom

6. Know the Financing Sources

7. MOF sends a team to review the project
   - # The process takes 3 to 4 months

8. TOT starts procurement
   - # Takes about a year at least

9. Protest from the Cabinet/ Others about the claim of unfair bidding

10. Start to investigate (everything will be hold up)

11. Final Approval

12. The TOT starts the project in the last year
The TOT's TSPP and its relationship with a NTSPP are presented above. There are four factors identified from the above sections with regard to the TOT's involvement process with a NTSPP in Thailand. The first is the evidence suggesting that the TOT is responsible for providing the data and other inputs concerning the telephone expansion to the NESDB. In this respect the TOT's TSP not only serves as a national telecommunications planning guideline, but also makes a significant input to a NTSPP. The second is the experience from different national levels of planning for telecommunications. It is observed, in the case of Thailand that there is a great tendency to use foreign models and especially those from the very well developed nations. In this regard, the research identifies four major impediments: first, the differences of the culture and style of management practice between these nations; second, the Thai environment is seemingly different to those nations'; third, very little evidence has been found about the awareness of the developing nations' telecommunications planning and practices, and last, is the procedure laid down to the TSPP in the Thai telecommunications industry. There is no doubt about the TOT's significant contribution to the Thai telecommunications industry and because of the heavy bureaucratic procedure of TSPP, the TOT in the past, was unable meet the target and the appropriate demand for Thailand. This analysis calls for an investigation of the environmental analysis of the Thai telecommunications, especially the TOT.

6.1.4 Findings of the Influences on the TOT's TSPP

At the outset, it is important for organisations to understand the internal and external context for responding to environmental changes and uncertainty. The Telecommunications industry is considered to be a rapidly changing one with many uncertainties in government policies, regulations and technological standards. The expansion of a telecommunications network with a lack of insights in the technological standards and foreseeable developments can be very expensive. This calls for, and places a heavy emphasis on the organisations to conduct a thorough investigation of the internal and external environment.

The first interview findings from the Office of Corporate Policy and Planning of the
TOT suggests that two areas of environmental factors are most important for the TSPP of the Thai telecommunications industry. The first is the public policy. Office of the Special Senior Advisor indicated that the National Development Plan (NDP) should be coordinated with the other sectoral plans and it is important to have a clear public policy that eventually helps at the organisational level policy formulation. Looking at the case of the Thai telecommunications, it can be argued that there is a mismatch between the national and the organisational level planning. Evidence suggests that public policy in Thailand is not clearly defined and creates conflict and mismatch among the concerned telecommunications bodies. The second is the adoption of the technology and it is observed in Thailand that this stage of their technological development and 'know how' has not been reached.

The reasons to considering these factors in the TOT's TSPP are four fold. The first is that economic trends are an important measure for the demand for basic telephony and other value added services forecasting. The second is that the technology trend was considered because of the rapid technological advancement, the decrease in the cost of services offering, and most importantly, the standards that are to be adopted for the Thai telecommunications industry. The third is that the TOT is a SOE and is obliged to fulfil the national interests and goals. In this regard, public policy is very important to the TOT's TSPP. The last is the competition, because Thailand will allow competition in the telecommunications market in the near future, and it is important for the TOT to prepare well in advance for this event.

The second interview findings from the Office of Local Telephone Consession revealed that three areas of strategic planning and practices are considered to be most important for the Thai telecommunications industry. The first is regulation. It can be argued that the SOEs are under the control of the Thai Government and the projects therefore have to be approved by the Government. In this regard, Government regulation is playing a major role in the process of approving the TOT's TSP. The second is political pressure and this is very severe in the case of Thai telecommunications. The political interest groups usually
put pressure on the organisation's TSPP by raising issue of unfair bidding (Yongcharoen, 1996: in-depth interview). This may eventually cause delay in the process of the TOT's project implementation. Lastly, is government intervention. It has been mentioned before that the TOT's TSP has a significant input into the NESDP and much of the time the Thai Government intervenes the TOT's TSPP and its implementation practices.

The findings from the Office of Corporate Affairs (OCA) suggest that five areas of strategic planning and practice are considered to be the most important for the Thai telecommunications industry. The first is public policy. It was indicated by the OCA that to date, there is no clear public policy with regard to the telecommunications development in Thailand. The second is regulation. At present, there is no specific responsibility of regulation and therefore, whatever regulation Thailand has at present, is not even adequate for effective strategic planning control. The existing telecommunications laws have become obsolete but the Government is planning to revise them. The third and fourth are the political pressures and the Government intervention, which has some importance. Lastly, skilled human resources, evidence suggests that this is very important for the Thai telecommunications industry both on the planning and technical aspects of the telecommunications management.

In order to deal with the environmental changes effectively, the TOT took several environmental factors into consideration in its TSPP. Evidence suggests that public policy and regulation are considered to be the most important environmental factors to the TOT. Industry structure and competition are considered to be less important, at this moment. It can be argued from the interview findings that it is now more important to look for close cooperation between the public and private sector telecommunications organisations. It is observed that the Thai telecommunications industry growth is very rapid with many inconsistencies and unclear alignments in the public policy and regulation. Telecommunications seems to be expanding very quickly not only in Thailand but also to the neighbouring countries. The Thai Government therefore, declared its intention to
privatise their SOEs. As a result, it is now even more important for the TOT to study the competition factors in the process of environmental analysis.

The fourth interview findings from the Office of Corporate Policy and Planning suggests that four areas of strategic planning and practice are considered to be the most important for the Thai telecommunications industry. These are: public policy; political pressure; Government intervention, and Government policy. For example, the Thai Government pushed through the Personal Handphone System (PHS) to the TOT and this project was not even in the plan (Vichitcholchai and Kruanetra, 1996: in-depth interview). It is evident from the Thai telecommunications that the political interest groups influence the Government to create certain telecommunications projects for their own benefit. Since the TOT is the operator as well as service provider in the Thai telecommunications market, the executives of the TOT have shown dissatisfaction about this kind of Government action and the lack of notifying the TOT well in advance for additional and changes to the agreed plans.

The TOT has considered several aspects of telecommunications development as the key environmental factors for developing a TSP. However, Office of the Corporate Policy and Planning also indicated that the organisation structure of the TOT is very bureaucratic and there are too many executives. It can be concluded that the TOT's organisation structure is not flexible enough to compete in the future with the private sector. To date, most of the TOT's TSPP and its implementation practices are function oriented rather than customer oriented.

The findings from the Office of Privatisation Affairs suggest that there are certain areas that can be considered to be most important to strategic planning and practice for the Thai telecommunications industry. These are four fold: first, is the shortage of skilled human resources; second, is the criterion for project expansion; third, is the management procedure coupled with effective structural change, and last, is the financing issue of the telecommunications development. However, the organisational factors should be the key
environmental factors for developing a TSP (Charoenphol, 1996: in-depth interview). Evidence suggests that it is now time for the Thai telecommunications managers to be able to use the plan effectively. This can be achieved through training and retraining the attitudes of top management involved in the TOT's TSPP. It is also becoming a strategic necessity to introduce the program of education for organisational development. Indications also suggest that there is a lack of understanding and reluctance among the executives to use the plan as a guideline in the decision making processes.

On the basis of the above analyses of the environmental analysis in the TOT's TSPP, it can be generalised that there are inconsistencies among the executives views on the environmental analysis for the TSPP. By looking at the findings and the figures on different aspects of the environmental analysis on the TSPP, there are many preconceived views and acts that are dominant among the Thai telecommunications managers. However, it is gathered from the findings that there is also some observed inconsistencies of the views and the actions among the TOT's executives in the process of the formulation of a TSP. The TOT case report on environmental analysis provides an indication of the uncertainty in the telecommunications market. The Government policy is not clear and this eventually puts pressure on the organisations' TSPP. At present, there is no regulatory body in the Thai telecommunications industry and most of the respondents are unaware of the Thai Government's plans for future establishment of the regulatory institution to oversee the public and private sector's participation in the telecommunications market.

6.1.5 Results from the Findings

The case study of the TOT is reported above. The descriptive approach has helped to understand the relationships of the organisation, the TSPP and the environment. Chapter two provided the normative approach for understanding the relationships between the TSPP, the organisations, and the environment. The case study findings of the TOT has also highlighted the role of the TOT in Thailand's future NTSPP. An analysis of the
environmental factors and its influences on the TOT's TSPP is also provided here, which is also consistent with the theoretical framework for analysing the influences on the TSPP.

The findings have also highlighted the need for a multiple theoretical approach for developing an understanding on the TSPP. It is observed from strategic planning literature that the public sector's strategic planning is more role-oriented than a process. Steiner's (1979) argument in chapter two, indicates that the formalisation of a SPP depends on the organisational size, the products and services its offers, and the environment in which it interacts. The normative findings suggest that the organisational complexity in offering diversified products and services as well the environmental uncertainty, has an impact on the organisational TSPP. Steiner argued that the higher the environmental uncertainty, the more formal a SPP should be. Further, it is also evident from the findings of chapter two that the larger the organisation, the more formal a SPP should be.

The TOT case findings have enabled these claims to be dismissed and the descriptive approach has shown that there are no direct relationships between the TSPP, the organisation, and the environment. The findings of the TSPP at the TOT has provided insights into understanding how the TSPP is actually practiced by the Thai telecommunications managers. The findings also revealed that there is no general consensus among the key planners at the TOT. The interaction across the organisation and its various departments are unclear and perhaps, the roles of the senior executives of the departments are also not specified or clear.

Similarly, the GSP of the TOT's TSP has also provided indications of an unclear chain of command and the involvement of both internal and external decision makers. The descriptive approach for the case study of the TOT suggests that it has failed to establish a GSP. Research also reveals that the goals of the TOT are not clearly stated nor explicitly formulated. However, Alexander (1992) made similar observations on the public sector's GSP and argued that the government organisations lack direction on by whom and how the GSP should be done. The TOT case findings have provided similar observations. The
corporate planners are unsure about their own GSP and their involvement in the TSPP. There is no evidence of consensus among the TOT's corporate planners for the GSP. Theoretically, the GSP is an integral part of the overall SPP and Vancil and Lorange (1976) argued that both the corporate and divisional management should agree on the goals and the process of goal setting for the organisation.

It was argued in chapter two, that the review process of a TSP is vital for maintaining good organisational health and keeping pace with the environmental changes (Steiner, 1979). Findings indicate that the TOT now needs to establish a procedure and assign responsibility to the appropriate department or groups for the process of review of the TSPP. However, due to the bureaucratic nature of the Thai telecommunications industry, a formalised TSPP is seen as even more important for developing a general consensus of both the internal and external planners.

The findings on the TOT's roles and relationships of the TSPP with a NTSPP in Thailand, have suggested similar inconsistencies among the corporate planners at the TOT. However, it is evident that the TOT has a significant input to the NESDB and its NESDP. Regardless of the inconsistencies among the respondents, this study revealed that the TOT is responsible for providing all data related to the telecommunications demand and network expansion to the NESDB and the MOTC. In doing so, the TOT provides guidance for the formulation and implementation of the national telecommunications objectives and planning framework to the NESDB and the MOTC. The TOT is also responsible for analysing the technological developments as well as the future trend of the international and local telecommunications market.

The descriptive findings on the TOT's role suggests that its TSP is becoming more non-technical than previously. In the past, the TOT's TSPP relied on the technical aspect of the telecommunications development in Thailand and therefore, provided very little input into the non-technical aspect of the overall national telecommunications development. In the past, the TOT's TSP was focusing more on the technical aspects of planning, and had a
little emphasis on the socioeconomic aspects of the TSP (Charoenphol, 1996: in-depth interview). The overall findings on the TSPP suggest that there are many preconceived views, which can lead to make a generalisation about the Thai telecommunications planning practices. It can be argued the TSPP at the TOT, never really materialised, not only because of environmental influences, but also for the inconsistency in the TSPP.

It can be generalised from the TOT case report that the process has never been a key concern for the development of a TSP and there are many inconsistencies among the executives' views towards the development of a TSP and its implementation practices. Due to the bureaucratic nature of the SOEs, strategic planning in the public sector organisation, requires more attention to the planning processes. In order to have a successful TSP, it is necessary to have a consistent process of action upon which the strategic plan can be based (Bryson, 1995:47; Charoenphol and Pientam, 1996: in-depth interview). This should be the first step for developing a TSP. The descriptive findings of the TOT's TSPP therefore suggests that it is now time for the TOT to develop and introduce, a formalised TSPP for developing a consensus among their key planners and integrate the departmental functions. All these findings have contributed to the central theme of this thesis which, is that, the TSPP follows the TSP. This means that unless a TSPP can be installed, the TSP can not succeed.

**6.2 Case II: The Case of the CAT**

The case study of the CAT is aimed at: exploring the idea of a TSPP which is in place at the CAT; relationships or usages of the CAT’s TSPP in a Thai NTSP, and, the environmental factors influencing the TSPP at the CAT. However, before examining the CAT, it is necessary to provide the background from the evidence of data that have been used for analysing the CAT case report.

**6.2.1 Evidence from the Sources of Data**

The evidence is categorised into three different parts: documentary evidence, interviews
with the informants, and other sources.

6.2.1.1 Documentary Evidence

This phase of data collection occurred at a very early stage of the research and follows several steps. First, journal articles and selected papers were reviewed for information about the telecommunications industry in Thailand. Second, the annual reports of the CAT (1989, 1993, and 1994) were periodically reviewed. Third, organisation charts, the CAT Act. 1976. Last, several documents were reviewed from the NESDB with regard to the telecommunications infrastructure development planning and practices. In addition to these, some of the papers from the APT (Asia Pacific Telecommunity), and Thai telecommunications conferences were also reviewed.

6.2.1.2 Interviews with the Informants

For the purpose of the primary data collection, the interview method was selected as the primary data collection tool. Face to face interview with 5 top level strategic planning executives were conducted at the case study site. The first interview was conducted on a one to one basis but the second interview was conducted among a group of four executives from the Corporate Planning, Telecommunications Planning, Engineering and Project Planning Divisions. Each of the interviews lasted for approximately 100 to 120 minutes. The interview was unstructured and the interviewees were free to answer and comments on each question. All of these interviews were recorded and later transcribed into the text format for the purpose of analysing the evidence and writing the CAT case report.

6.2.1.3 Other Sources

Every effort was made for direct observation at the case site. This occurred during the interview period and at the case site visits. Besides the interview with the CAT executives, several other interviews were conducted among the key executives in the Thai telecommunications industry and used in chapter seven for presenting a cross case
6.2.2 Findings of the TSPP at the CAT

The aim of this section is to explore the idea of a TSPP at the CAT. This aim is achieved through asking how the TSPP is conducted at the CAT. It serves two kinds of analysis: exploring the idea of a TSPP at the CAT; and describing the theoretical justifications of the CAT's TSPP. In order to explore the idea of a TSPP at the CAT, it is crucial to look at the three distinctive pattern:

a) findings of the development and information gathering process of the CAT's TSP;

b) findings of the goal setting process of the CAT's TSP;

and,

c) findings of the review process of the CAT's TSP.

6.2.2.1 Findings of the Development and Information Gathering Process of the CAT's TSP

The case study suggests that the CAT's TSPP are based on the attention of six interrelated steps. However, the respondent indicated that the CAT's first step towards the development of a TSP is to gather information that is necessary and will be used in the process of developing a TSP for the organisation. The six interrelated steps for developing the TSP of the CAT are: information gathering; evaluation of alternatives; project studies; coordination of planning; project selection criteria, and lastly, the forecasting result. Moreover, the CAT also takes several steps for gathering information for developing a TSP. The steps for the information gathering are four fold: market trends; financial considerations; regulatory environment; and lastly, the technological environment. Figure
6-14 provides a framework of the steps for the CAT's TSPP and information gathering processes.

**Figure 6-14. Office of Telecommunications Planning's View on the CAT's TSPP and Information Gathering**

The CAT also has considered the environmental factors; economic, political, and instructions from MOTC. Findings suggest that the CAT has considered the output of its previous plan and considered it as an input for upgrading the planning and practices. The CAT has taken steps to make its TSP more reliable and feasible within the rapidly changing environment. It has developed a yearly action plan and makes significant inputs into the TSP and its implementation practices. However, the CAT also looked at several factors in the industry for the information gathering processes of the development of a TSP. The information gathering processes of the CAT's TSP are five fold. Figure 6-15 provides a
The above analysis suggests that the CAT has failed to establish a formal TSPP and perhaps, does not intend to do so. Findings suggest that there are many inconsistencies among the views of the CAT executives about the TSP for their organisation. It has also suggested that the CAT's TSPP is not well integrated with the functions of the departments within the organisation. However, it was argued in chapter two that there is a relationship between organisational size and its TSPP. The descriptive findings suggest that there is no relationship of the *formalisation* of the TSPP and the organisation's size. Normatively, it was argued in chapter two that the larger the organisation, the higher the degree of
formalisation of the TSPP. The CAT case findings on the development and information gathering for a TSPP is somewhat informal and less comprehensive.

6.2.2.2 Findings of a Goal Setting Process (GSP) of the CAT's TSP

It is identified from the CAT case site that the CAT's qualitative goal of a TSP is to improve the quality of the services. Second, the quantitative goals are two fold: to expand the market, and, to increase the net revenue. Third, is the question of the responsibility of the concerned bodies in a GSP of the CAT's TSP. It can be observed from the CAT case site that there are both internal and external involvements from different telecommunications bodies in a GSP for the CAT's TSP. Figure 6-16 provides the Office of Telecommunications Planning's view about the GSP of the CAT's TSP.

Figure 6-16. Office of Telecommunications Planning's View on Goals Setting Processes of the CAT's TSP

Findings also suggest that the CAT's goal for a TSP is based on meeting the proposed requirements of the national economic and social development plan and the necessary directions from the NESDB. It was also indicated in the TOT case report that the Thai Government requires SOEs goals of a TSP to be co-ordinated with the government's five year NESDP. The CAT's Board of Directors are responsible for the GSP and submit their
plan to the MOTC for approval. The MOTC is also responsible for the process of review and to have consult with the NESDB for final approval.

Findings from the Office of the Corporate Planning suggests that the CAT's organisational goals of a TSP are five fold: to identify future actions; to provide more cooperation; to decide which factors deserve importance; to provide a framework or boundary to work within; to define objectives, mission, goals and strategies to achieve these, and lastly, to have overall organisational coordination or cooperation. Indications were given, in the interview process, about the CAT's qualitative goals. Moreover, the CAT's qualitative goals are three fold: to improve customer relations; to provide services to the customers, and lastly, to improve the industrial relations. The CAT usually calls for meetings or discussions among its important clients to hear their views on the services in order to improve customer relations. On the other hand, the CAT's quantitative goals are two fold: to expand the market, and, to increase the net revenue. It was observed from the findings that the guidelines for the CAT's quantitative goals come from the MOTC. Notably, as a SOE, the CAT is required to fulfil the obligation and policy guidelines forwarded by the MOTC.

It is evident from the study of the CAT that there are both internal and external involvements in the process of the CAT's goal setting for the development of a TSP. The involvements are two fold: first, is CAT's Board of Directors, and second, is the involvement of the MOTC. The MOTC is responsible for providing the policy guidelines to the CAT in relation to the Thai Governments' objectives and goals for the telecommunications development in Thailand. In order to fulfil the government requirements and meet the growing need of the subscribers, the CAT took major initiatives and steps in the process of developing a TSP. The steps that are taken into consideration by the CAT are ten fold. In order to develop and implement a successful TSP, the CAT has analysed its past and present planning practices and analysed the previous results.
The theoretical background of a TSPP suggests the importance of the GSP for a TSP. It was suggested, in chapter two, that the logical GSP should be directed towards encouraging participation and interaction among the top and divisional executives. The interaction and participation of different levels of executives is aimed at ensuring an effective participation in the goal setting processes and also to build a general consensus among the key decision makers in the organisation. Looking at the goal setting processes of the CAT, it is evident that the CAT has failed to establish a formal GSP and therefore, the result is organisational chaos. These observations are similar and consistent to the case of the TOT. It is also observed in the case of the CAT that the organisational planners involved in setting goals for their organisations' TSPP, are not well versed about the involvement process of other concerned bodies in this regard.

6.2.2.3 Findings of the Review Process of the CAT's TSP

The CAT has had a long involvement with development of a TSP which is reviewed annually. Interview findings indicate that there are both internal and external groups responsible for the process of review of the TSP. The involvement is four fold: the CAT's Top Management; the Corporate Planning Division; the Board of Directors of the CAT, and lastly, the MOTC and the NESDB for final approval. Figure 6-17 provides the Office of Telecommunications Planning's view for the process of review of the CAT's TSP.

Interview findings from the Office of Corporate Planning indicate that the CAT's TSP is reviewed annually. This can be called a rolling plan (Singhaseni, 1996: in-depth interview). Findings suggest that the CAT's Corporate Planning Division and the top management are responsible for the review process of a TSP. However, it can be observed that the Corporate Planning Division is responsible for making the proposal to the top management in this regard. There is no indication found from the interview with the respondents, in relation to the external group's involvement in the process of review of the CAT's TSP.
6.2.3 Findings of the Relationships of the CAT's TSPP with a NTSPP

The aim here is to explore the relationships of the CAT's TSPP with a NTSPP in Thailand. It does this by:

a) findings of the CAT's involvement in a Thai NTSPP;

b) findings of the CAT's level of cooperation with other telecommunications players;

and,

c) findings of the laid down process of the CAT's TSPP.
6.2.3.1 Findings of the CAT's involvement in a Thai NTSP

Three factors were identified with regard to the CAT's role in a NTSP. First, the CAT is involved in providing guidance to the national planners in relation to telecommunications infrastructure development in Thailand. Second, the CAT actively takes part in the process of setting up coordinated goals and objectives with the NESDB for the development of Thailand's five year NESDP. Last, the CAT is also responsible for submitting its TSP to the MOTC for formal approval. Furthermore, the MOTC submits the CAT's TSP to the NESDB to make sure that there is a match between the Thai Government national objectives and goals and the CAT's objectives and goals with regard to the telecommunications development in Thailand.

Four factors were identified from the findings in relation to the CAT's role in a NTSP. First, the CAT has participated in setting the objectives at the national level; second, it has provided guidance to the national planners; third, is the setting up of coordinated goals and objectives; and lastly, the CAT has also provided feedback for a NTSP. Inspite of all these activities, the CAT is also a service provider and an operator in the Thai telecommunications market. Under the CAT Act. 1976, the CAT has the right to regulate the international long distance telephone services. The CAT has provided help to the MOTC to develop policy with regard to the telecommunications infrastructure planning and practices in Thailand. Figure 6-18 provides a framework of the CAT's involvement process in a NTSP.

6.2.3.2 Findings of the CAT's level of cooperation with other telecommunications players

In the process of developing a TSP and setting up coordinated national goals and objectives, the CAT receives cooperation from the other concerned telecommunications bodies in Thailand. The CAT receives the assistance from the MOTC in terms of group
discussions and regulation and policy support. The CAT is also working hand in hand with the NESDB in the process of setting up mutual goals and objectives to meet the target of the Thai Government's national plan for the telecommunications infrastructure development. The Office of Telecommunications Planning indicated that the planning activities have helped the CAT to decide upon matters that are vital for achieving the organisational goals. First, the planning activities at the CAT helped to identify the strengths and weaknesses of the organisation. Second, the planning activities provided potential input for recommending the future actions of the CAT. Lastly, it provided guidelines to the CAT for identifying the required projects to meet the objectives suggested or required by the MOTC and also the NESDB.

Figure 6-18. A Framework of the CAT's Involvement Process in a NTSPP

In the process of the CAT's involvement in a NTSPP, the CAT has received cooperation from the MOTC, the MOF and also from the NESDB. Findings suggest that the CAT receives three kinds of cooperation: planning guidelines; group discussion; regulation and policy support, and lastly, financial support. As a SOE, the CAT is required to submit its yearly budget to the government because it requires the approval of the Thai Cabinet.
There are certain problems in the process of formulating and implementing a NTSP in Thailand. Two factors were identified from the interview: the overlapping functions and the lack of expertise. It was observed from the interview that the CAT executives showed dissatisfaction about the NESDB's actions and its lack of experiences and knowledge about the telecommunications planning and practices. The NESDB therefore requires certain aspects of the TSP to be changed without even knowing the details of the situation of the CAT or the CAT's TSPP. Indications were given in the interview about the bureaucratic procedure of the TSPP and implementation practices. It was observed from the CAT case site that this involvement process raises too many questions and that the CAT needs to clarify them. It is regarded as a time consuming process by the CAT executives and delays the project implementation. It is the Thai Government's requirement that the strategic plan should match the government's five year NESDP. In this regard, it is required, by the Government, that the NESDB should be involved in the process of the review of the CAT's TSP.

6.2.3.3 Findings of the laid down process of the CAT's TSPP

With regard to the problems of strategic planning and practices in Thailand, the interview findings suggest that there are three factors which need strategic attention. First, is the problem of the environmental unpredictability and planners at the CAT do not know what are the future plans of the Thai telecommunications industry. Second, is the availability and inadequacy of the published data that provides the direction or guidelines for the requirements of the nation. Lastly, is the matter of privatisation and liberalisation of the Thai telecommunications industry. The Thai Government is planning to privatise the SOEs and eventually liberalise the telecommunications market in the near future.

At present, the Government is in the process of formulating a regulatory body that be responsible for the telecommunications industry in future. The case site visit revealed that the planners at the CAT are not well versed about the future of the telecommunications
industry. Below is a comment that was made by Jorphochaudom, an Executive Director of the Telecommunications Planning and Development Department of the CAT on this matter. It was revealed from Jorphochaudom's comment that SOEs such as the CAT face difficulties in the development process of its TSP because they do not have enough and certain guidelines from the Thai Government.

"CAT knows the acts and process of the Ministry of Transport and Communications in developing the Master Plan for the telecommunications development in Thailand. CAT executives have no idea whether this plan will be implemented and whether the Thai Cabinet will approve or recommend significant changes in the Master Plan" (Jorphochaudom, 1996: in-depth interview)

The problems of the strategic planning and practices for the Thai telecommunications are four fold: political influences; too much paperwork; too frequent revisions, and lastly, the nomination of the CAT's Board of Directors (BOD) by the politicians. It is apparent from the case site that the political influences often disrupt all the planning activities of the CAT. The Government did not have a clear focus for the establishment of the CAT and the TOT. It is also apparent that the Thai Government did not clarify the roles and responsibilities of the two SOEs—the TOT and the CAT at the time of its establishment. The overlapping functions of the TOT and the CAT are due to the lack of policy guidelines and assigned responsibility of these two organisations. Another problem of the strategic planning and practices in Thailand is the Government's decision making processes. Singhaseni from the Office of Telecommunications Business Development indicated that the Thai Government should make decisions and the decisions should be fair for all the concerned telecommunications bodies in Thailand.

It is evident from the CAT case study that there is no formal procedure for the development processes and implementation practices of the strategic planning at the national level. It is also observed from the case study of the CAT that it has input into a NTSPP, but it lacks in the process of bringing the organisational TSPP to a national TSPP
or NTSPP. It was observed too, that there is very little interaction among the telecommunications organisations in Thailand. Filed investigation suggests that the Thai telecommunications environment has tremendous influences on the organisational level planning processes. At this stage, it is important to consider the influences of the environment on the CAT's TSPP.

6.2.4 Findings of the Influences on the CAT's TSPP

At the outset, it is important for organisations to understand the internal and external context for responding to the environmental changes and uncertainty. It is indicated in the TOT's report that the telecommunications industry is considered to be a rapidly changing one with uncertainty in government policies, regulations and technological standards. However, it is also true that an ad hoc expansion of a telecommunications network with lack of insights in the technological standards and foreseeable developments can be very expensive. This calls for, and puts heavy emphasis on the firm, to conduct a thorough investigation of the internal and external environment in the development processes of a TSP. Considering these facts, the aims of this section is to analyse the influence of the environmental factors on the CAT's TSPP.

Two emerging factors are identified as being the most important for the Thai telecommunications industry. The first is the regulation of the telecommunications industry in Thailand. It is observed that the Thai Government is planning to privatise and eventually liberalise the telecom industry in Thailand. It is therefore, important that the policy makers establish a regulatory body to oversee the telecom industry in future. However, at present, the regulation is under the control of four different organisations, the TOT, the CAT, the PTD, and the MOTC. The involvement of all these organisations is not only creating chaos among the service providers, but also disrupting the organisation's TSPP. Thailand is now therefore, in the preparation process of liberalising the telecommunications industry and the CAT has to predict the future actions and processes in its strategic planning.
The second is the technology adoption for the Thai telecommunications industry for certain projects. It is observed that Thai telecommunications does not have its own technology and has to depend on the transfer of foreign technology. However, some of this state of the art technology may not provide the expected solution for a country such as Thailand. In this regard, a rigorous technology adoption process is required for looking at the appropriateness of the technology in different sectors of Thailand's telecommunications industry. The CAT has looked also at two key environmental factors for developing a TSP. These are: technological trends, and regulations. According to the respondent, these factors are most important for the Thai telecommunications industry.

There were several factors identified from a group interview with the executives from Engineering, Project Management and Corporate Planning Division, these are: public policy; regulation; technology adoption, and, skilled human resources. The public policy in relation to telecommunications is important as the MOTC's Master Plan provides the direction to the CAT's TSPP and implementation practices. The CAT has also to cope with the technological developments and adopts the particular technology that will fit and fulfil the needs of the organisations objectives for the provision of services and meeting the government's stated objectives. However, the human resources skills need to be upgraded and Thailand at present, has a shortage of qualified telecommunications professionals and engineers.

It is observed from the CAT's case site that there is a less emphasis on the study of the organisational factors and the CAT's executives view that it is necessary to have a clear focus in the organisational factors for the development processes of a TSP. Furthermore, evidence suggests that considerations of each of these factors depend on changes in the government. Regulation is required for providing a fair share between the concerned telecommunications bodies. It is also evident that the telecommunications environment in Thailand, is very uncertain and the SOEs have not received any clear policy guidelines from the MOTC, in relation to the future actions of the Thai Government. This has created
difficulty among the organisational planners for maintaining a formal TSPP and the alignment of the environmental factors with the CAT's planning activities. However, the CAT has recruited the KTT (Krung Thai Thanakit)-a Government consulting agency to study the internal and external environmental factors for the development process of the CAT's TSP (Chaiyabutr, Singhaseni et al, 1996: in-depth interview).

6.2.5 Results from the Findings

The findings from the case study of the CAT is reported above. The descriptive approach has helped to understand the relationships of the TSPP, the organisation, and the environment. Chapter two provided the normative approach for understanding the relationships between the TSPP, the organisations, and the environment. The case study findings of the CAT has also highlighted the role of the CAT in Thailand's national telecommunications infrastructure development planning and practices. Furthermore, an analysis of the environmental factors and its influences on the CAT's TSPP is also provided here, which is also consistent with the theoretical framework for analysing the influences on the TSPP.

The findings have highlighted the need for multiple theoretical approaches for developing an understanding on the TSPP. It is observed from the strategic planning literature that the public sector's strategic planning is more role-oriented than a process. Similar observations were made in the case of the TOT and the CAT, where the strategic planning is considered to be more role-oriented than process-oriented. Steiner's (1979) argument that was presented in chapter two, indicates that the formalisation of a SPP depends on the organisational size, the products and services it offers, and the environment in which it interacts. The normative findings suggest that the organisational complexity in offering diversified products and services, and as well the environmental uncertainty, has an impact on the organisational planning process. Steiner argued that the higher the environmental uncertainty, the more formal SPP should be. Further, it is also evident from
the findings of chapter two that the larger the organisation, the more formal the SPP should be.

Like the TOT’s, the CAT’s case findings has dismissed these claims and the descriptive approach helped in understanding that there is no direct relationships between the TSPP, the organisation, and the environment. The findings of the TSPP at the CAT have provided insights into understanding how the TSPP is being practiced by the Thai telecommunications managers. Findings also revealed that there is no general consensus among the key planners at the CAT, which is also consistent with the findings from the TOT. The interaction across the organisation and its various departments are unclear and perhaps, the roles of the senior executives of the departments are also unspecified or unclear.

Similarly, the GSP of the CAT’s TSP has also provided the indication of an unclear chain of command and the involvement of both the internal and external decision makers. However, findings suggest that the CAT’s GSP is less bureaucratic than the TOT, though the TOT and the CAT are SOEs and operate under the control of the MOTC. The descriptive approach for the case study of the CAT suggests that like the TOT, the CAT has also failed to establish a formal GSP. Research also reveals that the goals of the CAT are not clearly stated nor explicitly formulated. However, Alexander (1992) made similar observations on the public sector’s GSP and argued that public sector organisations lack the ‘who and how’ by which the GSP should be conducted. The CAT’s case findings have provided similar observation to the TOT’s, where the corporate planners are unsure about their own GSP and the related involvement. There is no evidence of consensus among the CAT’s corporate planners for the GSP. Theoretically, the GSP is an integral part of the overall SPP and Vancil and Lorange (1976) argued that both the corporate and divisional management should agree on the goals and the process of goals setting for the organisation.
It was argued in chapter two that the review process of the strategic plan is vital for maintaining good organisational health and keeping pace with the environmental changes (Steiner, 1979). Similar inconsistencies were observed to those in the preceding sections with regard to the review process of the CAT's TSPP. The review process is even more of a strategic necessity, if the changing nature of the telecommunications industry is to be considered. Findings indicate that the CAT now needs to establish a procedure and assign the responsibility to the appropriate department or groups for the process of review of the TSPP. However, due to the bureaucratic nature of the Thai telecommunications industry, a formalised TSPP is even more important for developing a general consensus of both the internal and external planners.

When the CAT's roles and relationships of the TSPP with a NTSPP in Thailand, are considered, the findings have suggested similar inconsistencies among the corporate planners at the CAT. However, it is evident that the CAT has a significant role in bringing new technology and providing new business applications to the Thai subscribers. Regardless of the inconsistencies among the respondents, this study revealed that the CAT is responsible for providing international telephone, telex, and postal services to Thailand. Over the years, the CAT has also incorporated projects for accommodating the growing demand for telecommunications services, which helped the NESDB and the MOTC, to serve and meet the national interest. In doing so, like the TOT, the CAT also provides guidance for the formulation and implementation of the national telecommunications objectives to the NESDB and the MOTC.

This report on the case study of the CAT has provided the descriptive findings of the TSPP, its involvement in a NTSPP, and the influences of the environmental factors at the CAT's TSPP. Findings indicate that there is a certain inconsistency among the actions and views of the CAT executives in the development process of the CAT's TSP. It can be generalised from the CAT case study that strategic planning at the CAT is considered to be an action rather than a process. Findings from the case study site reveal that there is no
significance of a *formalised approach* to strategic planning at the CAT. It was identified in chapter two that telecommunications planning requires a more formal oriented approach, due to the uncertainty in government regulation, technological advancement and standards, and the changes in the international marketplace, it has also become a strategic necessity to adapt a more formalised method of the TSPP. This is required not only for the purposes of organisational learning but also for coping with the dynamic nature of the telecommunications industry, where the changes are rampant and uncertainty is evident. Bryson indicated that the process should be correct and be accepted by the key executives involved in planning before any organisation discuss about a strategic plan (Bryson, 1995).

**6.3 Case III: The Case of the PTD**

The case study of the PTD is aimed at: exploring the TSPP which has already occurred at the PTD; relationships or usages of the PTD’s TSPP in a Thai NTSPP; and the environmental factors influencing the TSPP at the PTD. At this stage, it is necessary to provide the background of the evidences of data that are used for analysing the PTD's case.

**6.3.1 Evidence from the Sources of Data**

The evidence is categorised into three different sections: documentary evidence, interviews with the informants, and other sources.

**6.3.1.1 Documentary Evidence**

This phase of data collection occurred at a very early stage of the research and followed several steps. First, several journal articles and selected papers about the telecommunications industry in Thailand were reviewed. Second, the annual reports of the PTD (1993, and 1994) were scanned. Lastly, several documents were reviewed from the
NEASDB with regard to the telecommunications infrastructure development planning and practices. In addition to these, some of the papers from the APT (Asia Pacific Telecommunity), and the Thai telecommunications conferences were also reviewed.

6.3.1.2 Interviews with the Informants

The interview method was selected as the primary data collection tool. Face to face interview with three top level strategic planning executives were conducted at the case study site. The first interview was conducted on a one to one basis and the second interview was conducted among a group of four executives from the Technical Planning and Policy, Telecommunications Planning, and Engineering. Each interview lasted for about 100 to 120 minutes. The interviews was unstructured and the interviewees were free to answer and comment on each question. Some slight changes to a very few questions occurred during the interview period. All of these interviews were recorded and later transcribed into the text format for the purpose of analysing the evidence and reporting on the PTD case study.

6.3.1.3 Other Sources

Every effort was made for direct observation at the case site. This occurred both during the interview period and at the case site visits. Besides the interview with the PTD executives, several other interviews were conducted among the key executives in the Thai telecommunications industry. These are used in chapter seven for the cross case analysis of Thailand's national telecommunications players.

6.3.2 Findings of the TSPP at the PTD

The aim of this section is to explore the TSPP at the PTD. This aim is achieved through asking how TSPP is conducted at the PTD. It serves two kinds of analysis: exploring the
TSPP at the PTD; and describing the theoretical justifications of the PTD's TSPP. Notably, the response for the review process of a TSP is the same for all three interviews. The respondents indicated that their views will be similar to those of Charavejasarn, the Director of Technical and Planning Division at the PTD. In order to explore the TSPP at the PTD, it is necessary to look at the following three factors:

a) findings of the development and information gathering process of the PTD's TSP;

b) findings of the goal setting process of the PTD's TSP;

and,

c) findings of the review process of the PTD's TSP.

6.3.2.1 Findings of the development and information gathering process of the PTD's TSP

The PTD's steps for the process of developing a TSP are five fold: project studies; information gathering; evaluation of alternatives; project selection criteria, and, setting financial objectives. Apparently, the different divisions of the PTD are responsible for the project studies and form working parties to discuss the issues related to new project development. The PTD's information gathering for the development of a TSP is five fold: market trends; financial considerations; regulatory environment; technological environment; political trends and input from the international organisation--the World Trade Organisation (WTO) and ITU. Figure 6-19 provides the Office of Technical and Planning Division's view about the steps for the development and information gathering processes of a TSP.
Findings from the interview with the Office of Foreign Policy on Telecommunications suggests that the PTD considers five different steps for the process of developing a TSP: information gathering; evaluation of alternatives; coordination of planning; search for opportunities, and strategies to close the gap. The PTD is also involved in the development and implementation process of the Master Plan for the Thai telecommunications development. Once the Master Plan is approved by the MOTC, the PTD will be responsible for the process of reviewing of the pertinent laws and regulations. For example, the PTD reviewed the commitment of the Build Transfer and Operate (BTO) projects that were awarded to the TA and the TT&T by the TOT. Evidence suggests that the PTD’s information gathering process encompasses six interrelated factors: market trends; domestic competitors; regulatory environment; technological environment; socio cultural factors, and
lastly, foreign competition. Figure 6-20 provides the Office of Foreign Policy on Telecommunications views on the development and information gathering processes of a TSP.

**Figure 6-20. Office of Foreign Policy on Telecom's View of the PTD's TSPP and Information Gathering Processes**

Similarly, interview findings from the Office of the Deputy Director General suggest that the considerations for the development process of the PTD's TSP is six fold: project studies; information gathering; evaluation of alternatives; forecasting results; coordination of planning with other organisations, and lastly, locating of resources. However, the PTD's information gathering process is five fold: market trends; regulatory trends; technological trends; socio cultural factors, and, the development of telecommunications in the international marketplace. Figure 6-21 provides the Office of the Deputy Director General's view on development and information gathering processes of the PTD's TSPP.
The above analysis suggests that the PTD has failed to establish a formal TSPP and perhaps, has no intention of doing so. Findings suggest that there is an enormous number of inconsistencies among the views of the PTD executives about a TSP for their organisation. It has also suggested that the PTD's TSPP is not well integrated with the functions of the department within the organisation. However, it was argued in chapter two, that there is a relationship between organisational size and its TSPP. The descriptive findings suggest that there is no relationship of the formalisation of the TSPP and the organisation's size. It was argued in chapter two that the larger the organisation, the higher the degree of formalisation of the TSPP. The PTD case findings on the development and information gathering for a TSP are less formal and comprehensive. These observations
are also consistent with the findings from the TOT and the CAT's development and information gathering processes for a TSP.

6.3.2.2 Findings of the goal setting process of the PTD's TSP

Five factors were identified in relation to the PTD's overall goals of a TSP. The PTD's five fold overall goals of a TSP are: to have a plan; the process itself; to have better control; to solve the problems, and lastly, to introduce new projects for the development of Thai telecommunications. The guidelines for the PTD's TSP are based on the National Economic and Social Development Plan (NESDP) and instructions from the MOTC. Moreover, the PTD has developed an action plan that is based on the NESDP. The PTD sometimes develops its own plan and submits it to the MOTC for formal approval. Interview findings suggest that the organisational goals of the PTD's TSP are five fold: to identify future actions; to provide more cooperation; to decide which factors deserve performance; to define objectives, mission, goals and strategies to achieve these, and lastly, to provide overall organisational coordination and cooperation.

The interview responses suggest that the qualitative goal of the PTD is to improve the quality of telecommunications related services in Thailand. The quantitative goals of the PTD are two fold: to improve the law and regulations, and, to improve own its management. The improvement of the laws and regulations are necessary to allow other organisations to work more efficiently and provide better and cost effective services to the subscribers. Furthermore, there are three internal groups involved in the PTD's goal setting processes (GSP) of a TSP. First, it is the responsibility of the working party for advancing ideas for the goals setting at the PTD. Second, is the involvement of the senior management or representatives from other departments. Lastly, are the directors of the PTD from different departments. It is also required that the report should be submitted to the Director General of the PTD for the final approval after the goals are set. However, there is no evidence to suggest the involvement of the external committee in the process of the
PTD's goals setting.

In concluding, the theoretical background of a TSPP suggests the importance of a GSP. It was suggested in chapter two, that a logical GSP should be directed towards encouraging participation and interaction among the top and divisional executives. The interaction and participation of different levels of executives is aimed at ensuring an effective participation in the goal setting processes and building a general consensus among the key decision makers in the organisation. Looking at the goal setting processes of the PTD, it is evident that the PTD failed to establish a GSP and therefore, this resulted in organisational chaos. It is also observed in the case of the PTD that the organisational planners involved in setting goals for their organisations' TSPP, are not well versed about the involvement process of other concerned bodies. These observations are consistent with the findings of the TOT's and the CAT's GSP.

6.3.2.3 Findings of the review process of the PTD's TSP

The TSP of the PTD is performed under the Technical and Planning Division and is reviewed annually. Findings suggest that there is an internal and external group involvement in the process of review of the PTD's TSP. The Director General of the PTD is primarily responsible for the process of review of a TSP. However, the PTD is also responsible for submitting its TSP to the MOTC and the Thai Cabinet for the process of review (Charavejasarn, 1996: in-depth interview). Figure 6-22 provides the views of the Office of Technical and Planning about the process of review of the PTD's TSP. There is no significant evidence of a corporate or strategic planning department at this organisation. It is also observed from the case study of the PTD that there is both internal and external involvement in the PTD's TSPP. There seems to be a lack of understanding about a TSP and its processes among the PTD executives. Theoretically, the TSPP is not well established at this organisation and this may eventually encumber the organisation's strategic planning and practices. For example, interview findings provide indications of
three different considerations from the PTD's executives involved in the development and information gathering processes of a TSP.

**Figure 6-22. A framework for understanding the Process of Review of the PTD's TSP**

6.3.3 Findings of the Relationships of the PTD's TSPP with a NTSPP

The aim here is to explore the relationships of the PTD's TSPP with a NTSPP in Thailand. It does this by:

a) findings of the PTD's involvement in a Thai NTSPP;

b) findings of the PTD's level of cooperation with other telecommunications players;

and,

c) findings of the laid down process of the PTD's TSPP.

6.3.3.1 Findings of the PTD's involvement in a Thai NTSPP

Four factors were identified from the research with regard to the role of the PTD in a NTSPP in Thailand. First, the PTD's primary role is to provide assistance and guidance
for the public and private sectors participation in fostering the development of Thailand's telecommunications infrastructure development processes. Second, the PTD has been actively involved in the study of the establishment of the future regulatory body in Thailand. The Deputy Director General of the PTD has already drafted the report on setting up a regulatory body and submitted it to the MOTC for formal approval. Third, the PTD also took part in the process of providing guidance to the national planners for the development of telecommunications in Thailand. Lastly, the PTD's responsibility to follow the instructions forwarded by the NESDB.

It was noted in the previous two cases reports that all the planning activities of the SOEs and other government organisations should be compatible with the five year NESDP for Thailand. In this regard, the role of the PTD is to co-operate and co-ordinate the goal setting and other activities with the NESDB and the MOTC for matching a NTSP and the organisational TSPP. Figure 6-23 provides a framework of the PTD's role in the national telecommunications planning and practices.

**Figure 6-23. The PTD's Role in a NTSP**

Five factors were identified as the role of the PTD in a NTSP from the Office of Foreign Policy on Telecommunications. The first, is the responsibility of the PTD in the provision of guidance at the national level planning. Second, the PTD is also responsible for providing the feedback to the MOTC and the NESDB in the process of developing a NTSP. Third, the PTD is responsible for managing the national radio frequency. Fourthly, is the representation of the Thai government in the International Post and Telegraph
Organisation. Lastly, the PTD is also taking part in the negotiation process of regulation and joint venture contracts in the international negotiation forum. Figure 6-24 provides the Office of Foreign Policy on Telecommunications view of the PTD's role in a NTSPPP. However, it is revealed from the Office of the Deputy Director General on Telecommunications Regulation that the PTD provides the national planning framework to the MOTC and the NESDB. The PTD has also participated in the national telecommunications objectives setting and provided feedback for a NTSPPP.

**Figure 6-24. Office of Foreign Policy on Telecommunications View of the PTD's Role in a NTSPPP**

<table>
<thead>
<tr>
<th>Provide Guidance to the National Planners</th>
<th>Provides Feedback</th>
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<tr>
<td>National Telecommunications Planning and Practices</td>
<td></td>
</tr>
<tr>
<td>Negotiate in the International Negotiation Forum</td>
<td>Representation in the International Post and Telegraph Organisation</td>
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<tr>
<td>Management of Radio Frequency</td>
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6.3.3.2 Findings of the PTD's level of cooperation with other telecommunications players

The PTD, in the past, has received the expected co-operation from the TOT, the CAT, Telecommunications Association of Thailand (TCT), the MOTC and also from the NESDB for the development and coordination of the planning activities at the organisational and national level telecommunications planning. When the issues of co-operation are examined, the PTD received planning guidelines from the NESDB and the MOTC. The PTD also had group discussions about planning and the problems with telecommunications development in Thailand from the TOT, the CAT and the TCT. It is also noticed that the PTD receives
regulatory and policy support from the MOTC and co-ordinates the process of setting mutual goals at the national level planning.

The PTD has received the expected cooperation from the other government and SOEs in the process of the participation for developing a strategic plan at the organisational and national level. For example, the PTD is the sole provider of the radio frequency allocation and management in Thailand. In this regard, the PTD has cooperated with the TOT and the CAT in the provision and concession of several value added telecommunications services by assigning the frequency to the SOEs. The PTD received planning guidelines and group discussions from the MOTC and the NESDB in the process of the development of a TSP. The PTD also received cooperation in terms of sharing expertise and consultation of technical advice from the TOT and the CAT. The MOTC also has provided policy and regulatory support to the PTD as a guideline for the development of a TSP. The Ministry of Finance (MOF) is responsible for the provision of the financial support for the PTD. The TOT and the CAT also have a responsibility to inform the PTD about the intention of the services offering.

6.3.3.3 Findings of the laid down process of the PTD's TSPP

When the problems of the strategic planning and practices in Thailand are examined, it can be seen that there is evidence which suggests that too much paperwork sometimes disrupts the planning activities (Charavejasarn, 1996: in-depth interview). An additional problem is that the government organisations are not well funded from the MOF or by the Budget Bureau. There is also a high level of bureaucracy in the PTD which is encumbering the planning and practices at the organisational level. The PTD has to submit its TSP to the MOTC and the NESDB for formal approval. This formal procedure sometimes creates delay in project planning and implementation practices. Figure 6-25 provides a framework for understanding the formal process of the TSPP at the PTD.
Four emerging themes were identified with regard to the problems of the strategic planning and practices from the Office of the Foreign Policy on Telecommunications. These are: political influences, too much paperwork, too frequent revisions and impractical planning tools (Chitraswang, 1996: in-depth interview). The political influences in Thailand are very volatile and sometimes disrupt all planning activities. It is also observed that there is too much formality and the telecommunications industry is largely bureaucratic in nature. This bureaucratic procedures is delaying the strategic planning and implementation practices in Thailand. Frequent revisions in the government plan are also creating uncertainty in the organisational level strategic planning and, this is affecting the national telecommunications infrastructure development agenda.

The planning tools that are used in the Thai telecommunications industry have not been adopted to the local situation. There are many preconceived ideas and actions that have been imported from the developed nations' strategic planning and practices. Findings suggest that the strategic telecommunications planning and practices at the national level
became the responsibility of the PTD's work because the PTD has the responsibility of revising the existing telecommunications law in Thailand. The PTD is also responsible for attending the AFTA and the APEC meetings and often faces problems about not knowing the Thai Government's views about the telecommunications industry development. For example, the Thai Government has been planning to privatise the SOEs since 1986, but the PTD still has no information about when and how this will occur. If privatisation occurs in Thailand, the PTD has to change its commitment to the BTO (Build-Transfer-Operate) projects.

Observation suggests that the strategic planning and practices at the PTD are monitored by the Planning Division as well the Director General. The Planning Division at the PTD is responsible for proposing the plan as a report to the Director General. It is also the responsibility of its Planning Division to record the activities that each department or division has conducted and evaluate whether it is up to the expectation of the PTD's formal goals for a TSP (Cursripituck, 1996: in-depth interview). It is revealed from the interview findings that five factors can be regarded as problems of the strategic planning and practices in Thailand. Figure 6-26 provides the Office of the Deputy Director General's view about the problems of the strategic planning and practices in Thailand. Thailand's political situation is seen to be volatile and unstable and this instability brings about the uncertainty in the strategic planning and implementation practices. However, business influences also play a major role in the disruption of the strategic planning and practices in Thailand. For example, influential business leaders play a large role in Thai politics and exert pressure on the organisations on those matters that will benefit their own interests.

Four major findings were identified in this section with regard to the PTD's role in a NTSPP. First, is the PTD's telecommunications planning model and its relationship in a NTSPP. Three in-depth interview findings suggest that there is significant idea gap among the executives involved in the PTD's TSPP. It is evident from the above sections that there are many preconceived actions and ideas that are predominant in the PTD's TSPP. For
example, three different views were identified with regard to the PTD's experiences on the different national telecommunications planning experiences. Second, is the PTD's role in a NTSPP in Thailand. Research reveals that there are also enormous differences in the responses of the PTD executives in this regard. However, it can be seen from the three different views of the senior executives that the PTD is actively involved in a NTSPP. The primary role of the PTD is to study the regulatory processes. The Thai Government has declared its intention to privatise and eventually liberalise the telecommunications markets in the future. The PTD is responsible for the study of the future regulation process and looked at different national regulatory experiences for drafting the informal version of the National Telecommunications Commission (NTC), the future regulatory body in Thailand. It must keep the possibility of privatisation within its calculations.

**Figure 6-26. The Office of the Director General's View on the Problems of Strategic Planning and Practices in Thailand**

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Political Instability  Business Influences

The Problems of Strategic Planning and Practices

Impractical Planning Tools  Too Frequent Revisions  Too Much Paperwork
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Third, is the relationship of the PTD's TSPP with a NTSPP in Thailand. It is revealed from the findings that a TSP of the PTD should be co-ordinated with the Thai Government's five year NESDP. Considering this, the PTD is responsible for coordinating and setting up mutual objectives and goals that match with the NESDP. As a government organisation, the PTD also has to submit its TSP to the MOTC and the NESDB for formal approval. It can be seen from the above that the PTD's TSPP have an impact on a NTSP. Lastly, is the problem of the strategic planning and practices and the coupling of the organisational TSPP with a NTSPP. It is observed that in the Thai telecommunications
industry, the involvement process is very bureaucratic and seldom impedes the organisational and national telecommunications infrastructure development planning agenda.

6.3.4 Findings of the Influences on the PTD's TSPP

It is important for organisations to understand the internal and external context for responding to environmental changes and uncertainty. The telecommunications industry is considered to be changing rapidly, and coping with many uncertainties in the government policies, regulations and technological standards. The unconsidered expansion of a telecommunications network which lacks insights into the technological standards and foreseeable developments, can be very expensive. This calls for, and puts a heavy emphasis on the organisation to conduct a thorough investigation into the internal and external environment in the development processes of a TSP. Considering these issues, the aim of this section has been to analyse the influence of the environmental factors on the PTD's TSPP.

Two areas of strategic planning and practices were identified from the Office of Technical and Planning that are considered to be most important for the Thai telecommunications industry. The first is a public policy. It can be seen that there is a lack of policy guidance from the concerned bodies involved in the national level planning. The second is regulation, because this has to be considered in the organisation's TSPP. The organisational TSPP have been suffering due to the lack of regulatory focus of the Thai Government. However, it can be seen that Thailand will liberalise its telecommunications market within the next three or four years and open it to international competition which will eventually occur in the Thai telecommunications market.

Six factors were identified as important environmental factors from the Office of the Foreign Policy on Telecommunications. Those are, public policy, regulation, technology adoption, political pressure, government intervention, and skilled human resources. It is
observed in the case of the Thai telecommunications industry, that government intervention is creating chaos among the telecommunications bodies involved in the Thai telecommunications market. For example, the foreign equity participation is actually 49% and the MOTC has instructed the PTD to lower it to 40%. This kind of behaviour is creating chaos among the investors and the PTD has to deal with it.

However, technological trends are considered to be an important issue for the rapid advancement in the interconnection technology and standards and its impact on the network services provision, with a significant drop in the cost of the services. Public policy is also considered to be an important aspect of the environmental analysis. It is evident that Thailand has not yet reached the stage of setting rules and regulations for generating the consumer feedback regarding the issue of pricing. The issuing of regulations is underdeveloped in the Thai telecommunications industry and creating uncertainty and chaos among the SOEs and also the private concessionaires. Chitraswang, from the Office of Foreign Policy on Telecommunications, suggests that there should be some measures to protect the interest of the Thai population and allow the service providers to operate efficiently.

The Office of the Deputy Director General on Regulation suggests that four factors are considered to be important for the Thai telecommunications industry. These are, regulation, political pressure, public policy and skilled human resources. However, regulation is one of the most important factor at this moment. The Thai Government is planning to privatise the SOEs and eventually liberalise the telecommunications industry. Thailand is still in the process of looking at different options and processes for making a regulatory decision. Human resources in Thailand need to be upgraded or staff retrained to deal with the new advancements in the telecommunications hardware and software.

It is seen from the findings that to date, there is no clear policy for the telecommunications development in Thailand. The instability of the Thai politics and rapid
changes in the government, is repeatedly encumbering the basic telecommunications infrastructure development agenda. Shifts in the government’s policies brings uncertainty in the planning processes and implementation practices. It is observed that a new government usually has new directions and requires the revision of a TSP of the telecommunications sector.

6.3.5 Results from the Findings

At present, the PTD is left with the radio frequency management and the representation of the Thai telecommunications in the international markets. However, the PTD also serves as a secretariat of the MOTC for co-ordinating and co-operating the joint venture telecommunications projects and also in a NTSPP. The PTD holds the right to regulate the mobile 800 MHz and 900 MHz systems that are concessioned by the TOT and the CAT. However, three factors were identified in relation to the findings in the case study of the PTD of the strategic planning and practices for telecommunications development in Thailand.

First, the PTD case reveals that the development of a TSP is the concern of the department of Technical and Planning Division. There is no indication or existence of a strategic planning or corporate planning division or department. Three different views and actions were generated during the interview regarding the processes of developing a TSP at the PTD. It is evident that there is no formal procedure of the TSPP at this organisation, and it depends, instead on the executives preconceived actions and views during the development process of a TSP. The process of review of the PTD's TSP is found to be less bureaucratic than the TOT's and the CAT's. Moreover, there is still internal and external involvement in the process of review of the PTD's TSP.

The second is the role of the PTD in a NTSPP. The case study revealed that the PTD is responsible for the radio frequency management, to study the regulatory processes and
provide guidance at a NTSPP. The PTD is acting as a representative of the Thai Government in the international telecommunications market and at conferences. The respondents at this level also provided three different views about the PTD's involvement in a NTSPP. It was indicated by the respondents that the Thai Government in the past, failed to provide proper guidance and future directions for the government and the SOEs. Lastly, is the consideration of the environmental analysis at the PTD's TSPP. It is observed that there is no significant comprehensive approach for the environmental analysis in the development process of a TSP. The formal agreement on the procedure of the development of a TSP among the executives is lacking at this organisation.

The descriptive approach has helped in understanding the relationships of the TSPP, the organisation, and the environment in the case of the PTD. Based on the findings, it is evident that all three organisations (the TOT, the CAT and the PTD) share common characteristics about the TSPP. The normative approach for understanding the relationships between the TSPP, the organisations, and the environment is provided in chapter two. The case study findings of the PTD has also highlighted the possible role of the PTD in Thailand's NTSPP. For example, the PTD at present, is in the process of assisting the MOTC for establishing NTC-a future telecommunications regulatory agency of the Thai telecommunications industry. Furthermore, an analysis of the environmental factors and their influences on the PTD's TSPP is also provided here, which is also consistent with the theoretical framework for analysing the influences on the TSPP.

This study has provided the very first descriptive analyses of the PTD during its first 113 years (1883-1996). The findings have also highlighted the need for a multiple theoretical approach for developing an understanding of the TSPP. It is observed from strategic planning literature that the public sector's strategic planning is more role-oriented than a process, and similar observations are made for the case of the PTD. Steiner's (1979) argument in chapter two, indicates that the formalisation of a SPP depends on the organisational size, the products and services it offers, and the environment with which it
interacts. The normative findings suggest that the organisational complexity in offering diversified products and services and as well the environmental uncertainty, has an impact on the organisational planning process. Steiner (1979) argued that the higher the environmental uncertainty, the more formal a SPP should be. Further, it is also evident from the findings of chapter two that the larger the organisation, the more formal a SPP should be.

The PTD case findings have dismissed these claims and the descriptive approach has helped in the understanding that there is no direct relationship between the TSPP, the environment, and the organisation. The findings of the TSPP at the PTD has provided insights into understanding how the TSPP is being practiced by the Thai telecommunications managers. The findings also revealed that there is no general consensus among the key planners at the PTD. The interactions across the organisation and its various departments are unclear, nor are the roles of the senior executives of the departments specified or clear.

Similarly, a GSP of the PTD's TSP has also provided an indication of an unclear chain of command and the involvement of both the internal and external decision makers. The descriptive approach for the case study of the PTD suggests that the PTD has failed to establish a GSP and the research also reveals that the goals of the PTD are not clearly stated nor explicitly formulated. These observations are consistent with the findings of both the TOT and the CAT case studies. However, Alexander (1992) made similar observations of the public sector's GSP and argued that the public sector organisations also lack the 'who and how' a GSP should be performed. The PTD case findings have provided similar observations, where the corporate planners are unsure about their own GSP and their involvement related to this. There is no such evidence of consensus among the PTD's corporate planners for a GSP. Theoretically, a GSP is an integral part of the overall SPP and Vancil and Lorange (1976) argued that both the corporate and divisional management should agree on the goals and the process of goals setting for the organisation.
It was argued in chapter two, that the review process of the strategic plan is vital for maintaining good organisational health and keeping pace with the environmental changes (Steiner, 1979). The PTD case findings suggest that it has failed to establish a review process for its TSP and its involvement related to this review. The review process is even more of a strategic necessity in the case of Thailand, because of the changing nature of the telecommunications industry. Findings indicate that the PTD now needs to establish a procedure and assign the responsibility to the appropriate department or groups for the process of review of a TSP. However, due to the bureaucratic nature of the Thai telecommunications industry, a formalised TSPP is even more important for developing a general consensus between the internal and external planners.

It is evident that the PTD has a significant input to the NESDB and its NTSP. Study also revealed that the PTD is responsible for the regulations of radiocommunications activity in Thailand. The PTD has the power to grant radiocommunications licences to the organisations involved in the offering of services. The PTD has also the responsibility to negotiate the concession agreements between the TOT, the CAT and the private sector. The PTD is also involved in representing the Thai telecommunications industry in the international marketplace.

### 6.4 Conclusions

This chapter has been focused on the case studies of the TOT, the CAT, and the PTD. On the basis of the analysis of the telecommunications in Thailand, the main conclusions suggest that there is no formal procedure of the telecommunications industry's planning and its practices. It is believed that a NTSP would require a more formalised approach to strategic planning in order to have a comprehensive process for building the consensus among the national telecommunications organisations and other key players. The formal approach to organisational TSPP will aid in the processes of transforming the organisational TSP into a NTSP. Looking at the present structure of the Thai
telecommunications industry, it can also be argued that the industry will be chaotic after the privatisation of the telecommunications industry. The rapid advancement of the telecommunications technology and the rapid changes in the global marketplace will require certain level of organisational competence in order to be able to deal with the future changes.

A formalised approach to the TSPP will be required for maintaining the role of the organisation and dealing the future uncertainty. A formalised TSPP is required to be adopted at the organisational level and only then, there will it be possible for a transformation to a NTSP to be achieved. The next chapter will provide a cross case analysis of the TOT, the CAT, and the PTD.
Chapter Seven
A Cross Case Analysis of Thailand's National Telecommunications Players

Chapter six provided the case studies of Thailand's national telecommunications players. Based on the reported findings of chapter six, chapter seven provides a cross case analysis of these national telecommunications players in Thailand. The descriptive findings of the SPP for the establishment of a regulatory body, a National Telecommunications Commission (NTC), is provided here. This chapter has also endeavoured to consider the transformation of the actual TSPP into a NTSPP in Thailand. The rationale for writing a cross case analysis was given in chapters four, five (refer to figure 5-5), and six. Five additional interviews were conducted in order to add additional views on a NTSPP. The respondent's were from the MOTC, the MOST, the NESDB, the Thailand Development Research Institute (TDRI), and the Thai Telephone and Telecommunications (TT&T). Each of the five in-depth interview sessions lasted for approximately 100 to 120 minutes. These data will be used here in addition to the TOT, the CAT and the PTD case reports for generating a theoretical basis and justifications for a NTSPP in Thailand.

7.1 A Cross Analysis of the TSPP at the TOT, the CAT, and the PTD

It is observed from the Thai telecommunications industry that no formal procedure of a NTSPP has been adopted for the national telecommunications carriers or regulators.
Rather, it is the actions and views of the executives that are dominant in the TSPP. It is evident that the Thai telecommunications industry's TSPP are very bureaucratic in nature. It can be argued that a formal or agreed upon TSPP may aid in the process of developing a successful consensus among the telecommunications strategic planners for countering some of the bureaucratic procedures.

The investigation of the TSPP within the TOT, the CAT and the PTD provides a descriptive analyses of the telecommunications planning and practices in Thailand. On the basis of the analyses, it is evident that the national telecommunications' players in Thailand, have never initiated any steps towards the development of a formalised TSPP. It is noticed that the MOTC has also failed to provide proper strategic planning control mechanisms to the national telecommunications players, and this has resulted in chaos among the telecommunications organisations concerned in Thailand. All three case studies suggest consistency among the executive's actions and views but they lack co-ordination and co-operation within the departments of the organisation. This situation puts pressure on the Thai Government to initiate a NTSPP in Thailand. This study therefore, investigates how the TSPP is conducted within the TOT, the CAT and the PTD.

Interviews with the TOT executives about the development and information gathering process of a TSP suggests that there are a number of views about the steps that are needed for the development of a TSP. This may lead to the opinion that there is no established formal procedure of the steps that have been taken in the development and information gathering process of a TSP. The Office of the Corporate Affairs furthermore has provided its view by stating that:

"The TOT doesn't gather any information for the development process of a TSP, rather it takes the outside information as an input to the planning process" (Pientam, 1996: in-depth interview)
This view is also confirmed by the Office of the Privatisation Affairs:

"It is important for the TOT to understand the need for information gathering and how it will be used in the development process of a TSP. This is also important for the people to understand how to collect the right information" (Charoenphol, 1996: in-depth interview)

These findings may lead to the conclusion that the TOT does not have a well-established procedure for gathering information for a TSP. Rather, it is the informal actions and views of the executives that are playing the significant role in the development and information gathering process of a TSP.

The findings on CAT in this regard provide a mixed view of the executives for the steps that are considered necessary in the development and information gathering process of a TSP. The same observations in the TOT are also made for the CAT in regard to the steps for the process of the development of a TSP. However, one of the comments by Jorphochaudom with regard to the steps for the development of a TSP, has identified a significant difference from the views that were gathered from the TOT’s executives. The Office of Telecommunications Planning indicated:

"The first step that the CAT has considered towards the development process of a TSP is to gather information that is necessary and will be used in the process of developing a TSP" (Jorphochaudom, 1996: in-depth interview)

The same observations were also made for the case of the PTD. It becomes evident from the three case reports that there is a lack of formal procedure for the process of development and information gathering of a TSP among Thailand’s key national telecommunications players. Conclusions derived from the findings of the executives
views on the TOT's TSPP revealed that there is no formal procedure of the development of a TSP at this organisation. Thus it can be generalised from the exploration of the TOT's TSPP that strategic planning is an action rather than a process for the TOT. There is very little emphasis on the process, or on the development of a formalised approach for the TOT's TSP. The responses from the different interviews also provide an indication of the inconsistencies in approaches to strategic planning where many preconceived actions and views dominate in the TSPP.

In brief, the following issues were identified from this stage of the case study findings: inconsistency, among the TOT's executives' actions and views about the TSPP, and a lack of concern about the information gathering process for developing a TSP. Finally, it was observed that there are impediments to the TOT's TSPP. One major concern is external involvement in the process. It can be gathered from the interviews that external involvement is impeding the TSPP at this organisation. Some of these arguments are also supported by the comments received from the interviews with the executives from the Office of the Corporate and Privatisation Affairs. Pientam, from the Office of the Corporate Affairs, indicated that the process of the TOT's TSP should look in more detail at the information gathering processes. On the other hand, Charoenphol from the Office of the Privatisation Affairs, provided critical comments on the TOT's TSPP. Findings indicate that it is necessary that the significance of a TSP is understood, to ensure that the required data will be collected in the information gathering process. However, Charoenphol argued that this aim can be achieved through training and retraining employees which will create an awareness of the importance of the TSPP.

The case study on the TSPP at the CAT suggests that there are many preconceived actions and views of the executives which are playing vital roles in the TSPP. On the other hand, inconsistencies are also observed among the executives' actions and views towards the TSPP. Similar observations were made at the TOT. Yet, the TOT has adopted a more dynamic planning approach than the CAT to the relationship among these two
organisations' TSPP. It can be gathered that the TSPP at the CAT are less bureaucratic than those at the TOT. It is also evident from the CAT case study on the TSPP that there is no formal procedure or framework for its TSPP.

However, from the case study of the PTD, it is observed that its TSP, is under the direction of the Technical and Planning Division. There is no corporate or strategic planning department in this organisation. It is also observed from the case study of the PTD that there is both internal and external involvement in the PTD's TSPP. There seems to be a lack of understanding about strategic planning and its processes among the PTD executives. The TSPP is not well established at this organisation and this may eventually be an encumberance to the organisation's strategic planning and practices. For example, interview findings provide an indication of three different considerations from the PTD's executives involved in the development and information gathering processes of a TSP.

It is evident from the above analysis that none of these three organisations have a formal TSPP. All three organisation's TSP are based on different actions and views of the executives involved in the TSPP. Comparisons reveal that the TOT's TSPP are more bureaucratic than the CAT's and the PTD's. Apparently, a formal approach will be required in the future for maintaining a fine alignment between the organisational and national TSPP for effectively formulating and implementing a NTSPP. There will be a major change in the Thai telecommunications industry in 1997 when the government is planning to privatise, and eventually liberalise, its telecommunications industry for the provision of a more affordable and better quality telecommunications services to subscribers. Considering the present situation of the Thai telecommunications industry, it can be generalised that a significant change is required in the Thai telecommunications planning practices for coping with the future changes in the industry as well as maintaining Thailand's socioeconomic development goals.

Findings from the interviews on the TOT's GSP also provides an indication of the
inconsistencies among the executives' actions and views. Similar kinds of observations were made in terms of the TOT's quantitative and qualitative goals for a TSP. There are also inconsistencies among the executives' opinions in the quantitative and qualitative goals of the TOT. This leads to questions about the organisations planning and practices and the appropriateness of the development of a TSP. It is evident from the case of the TOT's GSP that this organisation has not yet established a formalised procedure on the GSP of a TSP. It was argued in the theoretical background (refer to chapter two) that strategic planning should be viewed as a process of action and views of the executives. However, the findings on the Thai telecommunications management practices provide an indication that strategic planning and practices are the informal actions and views of the executives. It is also evident that some of the executives have classified the quantitative goals of the TOT to increase the net revenue. These findings are also consistent with the goals of the Thai Government's five year NESDP, where the Thai Government's actions can be criticised for building the telecommunications infrastructure with a lack of emphasis on the concept of universal service obligation. If the strategic planning and practices in the public sector and its goals, are looked at, it can be gathered from the existing strategic planning theories that most of the public sector organisations operate with a government subsidy and are thus, required to make a social contribution. Considering this, the opposite is true in the case of the TOT.

Observations on the CAT's GSP indicate that there are both internal and external involvements. All the respondents shared the same views about the goal setting process of the CAT's TSP. However, there are some inconsistencies among the executives' opinions with regard to the quantitative and qualitative goals of TSP. All the respondents have provided an indication that one of the CAT's quantitative goal is to increase the net revenue. In this instance, the same argument that was posed for the TOT is applicable here (refer to the preceeding section). There are similarities between the findings in the GSP of the TOT and the CAT. It is evident moreover, that the SOEs are also responsible for matching their goals with the goals of the NESDB. The findings on the GSP of the TOT
and the CAT’s TSP provides an indication of the bureaucratic procedure of the Thai telecommunications industry. The CAT case study indicates that it has adopted a more formal approach to the GSP than the TOT. On the other hand, the PTD’s findings on the GSP has indicated that there is involvement of three internal groups. The GSP of PTD’s TSP is less bureaucratic than the TOT’s or the CAT’s. There is no indication of the involvement of external groups in the GSP of the PTD. The goals of the PTD’s TSP are set at the departmental level through the formation of working parties and usually submitted to the Director General for formal approval. On the contrary, the GSP of the TOT and the CAT is very bureaucratic in nature and requires the involvement of external groups from the MOTC and the NESDB.

The review process of the TOT’s TSP is observed to be very bureaucratic in nature. There is also evidence to suggest the involvement of internal and external groups in the review process of the TOT’s TSP. However, it is evident from the analysis of the review process of the TOT’s TSP that there is a significant amount of variation among the executives’ views of the review process of the TOT’s TSP. This can lead to a theoretical generalisation that strategic planning and practices for the process of review of the TOT’s TSP are the executives’ personal actions and views and not the process of actions and views. It is also noticed from the TOT case that there is no formal established procedure for the process of review of the TOT’s TSP. Findings on the process of the review of the CAT’s TSP also provides mixed support about the process of internal and external involvement. The same observations are made on the TOT’s review process of a TSP which revealed inconsistencies among the executives actions and views towards the review process of TSP. However, the CAT’s findings lead to the conclusion that the review process of a TSP is less bureaucratic in nature than those of the TOT.

It was also observed from the CAT case study that the organisational structure is less bureaucratic and more flexible than the TOT’s. Further, a new concept that came out of the process of the review of the CAT’s TSP, was one that the executives referred to as a
'rolling plan'. This rolling plan is performed every year with an emphasis on the appropriateness of the TSP with changes in the internal and external environment. The critical examination of the findings on the review process of the CAT's TSP provides an indication that there is no formalised procedure of the process of review of a TSP. The inconsistencies and different actions and views of the executives play a major role in the review process of a TSP.

Findings from the case study on the review process of the PTD's TSP provides an indication that the review process of a TSP at the PTD is not as comprehensive as the TOT's and the CAT's. It is noticed that regardless of the long history of the PTD, the TSPP is under the control of the Technical and Planning Department. However, the same observations at the TOT and the CAT were made in the case study of the PTD in relation to the involvement process of the review of the PTD's TSP. The PTD case studies has identified the involvement of both internal and external groups in the review process of the PTD's TSP. The difference between the findings of the PTD and the other two SOEs is the internal involvement process. For the case study of the TOT and the CAT, there is a very high level of internal involvement in the review process of a TSP.

However, the internal involvement of the review process of the PTD's TSP is less bureaucratic than the TOT and the CAT. The Director General is responsible for the internal process of review of the PTD's TSP. It is the primary responsibility of the Director General to review the TSP and submits it to the MOTC and the Thai Cabinet for formal approval. Furthermore, it is not possible in the case of the PTD to provide any indication about the inconsistencies among the executives actions and views towards the process of review of a TSP. During the process of the second and third interview, the respondents refused to share their views about the process of review of PTD's TSP. The second and third interview respondents provided an indication that the comments on the review process of a TSP should be the same as the first interview. Some additional interviews were conducted among the executives from the MOTC, the MOST, the NESDB, the TDRI and
the TT&T for gathering their views about the TSPP within the TOT, the CAT and the PTD. The purpose of these additional interviews were to ensure the internal validity of the outcomes reported here. The interview findings with Tiancharoen from the MOTC, indicated that the Thai Government started to develop a master plan for the national telecommunications infrastructure development last year. Before this five year master plan, the MOTC developed a ten year master plan for the development of telecommunications in Thailand. The initial proposal was rejected by the Thai Cabinet. However, the TDRI is at present, responsible for the study of the development of a telecommunications master plan for Thailand. The respondent suggested that this is refereed to as a NTSP for the Thai telecommunications infrastructure development.

The MOTC is responsible for the development of a NTSP for telecommunications as well as transportation. The overall national telecommunications development goals are under the authority of the MOTC, the NESDB and the TOT (Tiancharoen, 1996: in-depth interview). The MOTC took five major steps into consideration for the formal TSPP. However, the Minister of the MOTC is responsible for giving the ultimate policy guidelines for a TSP. Figure 7-1, provides the views of the respondent about the steps that are taken into consideration for the development of the MOTC's formal TSPP.

**Figure 7-1. The Steps for the TSPP at the MOTC**

It is evident from the interview findings from Vongpanitlerd, that the TDRI is at present working with the MOTC for the development of a five year NTSP for telecommunications
development in Thailand. According to the respondent, this five year NTSP will focus on the liberalisation of the telecommunications industry in Thailand (Vongpanitlerd, 1996: in-depth interview). It is evident from the responses that this national plan for telecommunications development will be the first for Thailand. Figure 7-2 provides the respondent's view on the involvement of the GSP for a NTSP. Notably, the telephone interview findings with Waneesabut from the NESDB, provide an indication that the NESDB only oversees whether the organisational TSPP is according to a NTSP for the telecommunications infrastructure development in Thailand. The NESDB is not responsible for any kind of detailed study on the telecommunications development in Thailand and does not provide any planning guidelines to the TOT, the CAT and the PTD (Waneesabut, 1996: telephone interview). It can be understood from the NESDB findings that it only suggests some comment on the rural telecommunications development in Thailand and has the responsibility to check whether the projects of the concerned telecommunications bodies are on schedule.

**Figure 7-2. The Respondent's View on the GSP for a NTSP in Thailand**

The findings on the TSPP in the case study of the TOT provide an indication that the
strategic planning is an act rather than a process for the executives of the TOT. There are sufficient preconceived views and actions shown in the TOT case study to make a generalisation about the Thai telecommunications management practices. It can be seen from the case study that the TSPP at the TOT can be classified as an informal approach to strategic planning. It is understood also from the TOT case study that the process has never been a key concern for the development of a TSP and there are many inconsistencies among the executives' actions and views towards the development of a successful TSP and implementation practices. Due to the bureaucratic nature of the SOEs, strategic planning in the public sector organisation needs a great deal of attention in the planning processes. In order to have a successful TSP and implementation practices, it is necessary to have a consistent process of action upon which a TSPP should be based (Bryson, 1995:47; Charoenphol and Pientam, 1996: in-depth interview), and which should be the first step for developing a TSP.

Findings from the CAT case study indicates that there are certain observed inconsistencies among the actions and views of the CAT executives in the development process of the CAT's TSP. It can be generalised from the case study that strategic planning at the CAT is considered to be an action rather than a process. However, it was argued in the preceding sections that telecommunications planning requires a more process oriented approach. This is required not only for the purposes of the organisational learning but also for coping with the dynamic nature of the telecommunications industry where change is constant and the resultant uncertainty is evident. Bryson indicated that the process should be correct and accepted by the key personnel involved in planning before an organisation considers the strategic plan (Bryson, 1995). The findings for the case study of the CAT however provided very little indication of this aspect of their planning activities.

The case study revealed that the PTD is responsible for the radio frequency management, and also for the study of the regulatory processes in order to provide guidance at the national level of telecommunications planning. The PTD is acting as a
representative of the Thai Government in the international telecommunications market and conferences. The respondents at this level, also provided three different views about the PTD's involvement in a NTSPP. It was indicated by the respondents that the Thai Government in the past, has failed to provide sufficient guidance and direction for the government and the SOEs. In order to have a sound and effective NTSP, the transformation of the organisational TSPP into a NTSPP will be required. On the basis of the present research findings, it is evident that the Thai telecommunications industry is not well directed and there has been no attempt made for its transformation or to construct a NTSPP in Thailand. The transformation can be made only after there is a formal process of the development for a organisational TSP. The multiple theoretical approaches (normative-descriptive dichotomy) to strategic planning will aid the telecommunications policy makers in Thailand to develop a clearer picture about the possibilities for the development of a national telecommunications infrastructure.

7.2 A Cross Analysis of the Role of the TOT, the CAT, and the PTD in a NTSPP

The TOT's findings on the level of involvement at a NTSPP, indicate that the TOT is responsible for the provision of a NTSP framework to the MOTC. In this regard, the interview findings suggest that the TOT provides significant input about the data required to develop a NTSP to the MOTC and the NESDB. It is also evident from the findings that, the TOT seldom assists the MOTC in setting up co-ordinated national telecommunications planning objectives. However, Charoenphol from the Office of the Privatisation Affairs, indicated that the TOT's previous TSP was more of a technical nature and lacked the socio economic objectives of the national development as a whole. With regard to this, Charoenphol stated:

"The TOT's TSP is now emphasising more and more on the non-technical nature and in the concept of the whole infrastructure development aspects for the whole nation" (Charoenphol, 1996: interview)
A similar observation was made for the CAT with regard to its involvement at a NTSP. There is only one difference between the TOT and the CAT, and that is, the CAT does not provide any input to the MOTC in term of data related to the telecommunications development in Thailand. Besides this, both organisations have the responsibility to act as service providers and regulators in the Thai telecommunications market. Moreover, as a government organisation, and under the Radio Communications Act, the PTD is also responsible for the regulation of the radio communications activities in Thailand. Regardless of the co-operation and co-ordination at a NTSP, the PTD is also responsible for representing Thai telecommunications in the international marketplace. At present, the PTD is in charge of the process of study to the establishment of a future regulatory authority in the Thai telecommunications industry.

It is observed from the case of the TOT that there are inconsistencies among the executives' views with regard to the level of cooperation at a NTSP. The same observation is made for the CAT and the PTD. However, it is evident from the findings on the three case studies that the organisational interaction among the telecommunications organisations is minimal. This may be one of the major impediments to the organisational TSPP transformation into a NTSP. It is apparent from this examination that the Thai telecommunications industry represents a very complex regulatory structure and the assigned responsibility of the SOEs, are unclear. Yongchareon, from the Office of Local Telephone Concessions, indicated that the TOT does not receive the expected level of cooperation from the CAT. This may be the reason for both the telecommunications operators offering the same telecommunications related services and lead to the questioning of the Thai Government's ability to assign appropriate responsibility to the TOT and the CAT. In the PTD, the executives have shown dissatisfaction about the TOT and the CAT's involvement process with the PTD. The PTD executives argued that the TOT and the CAT executives are not co-operative in the co-ordination, and usually send its lower level executives for discussions involving a NTSP with the PTD.
The involvement of politicians in the planning and implementation process is considered to be a hinderance to effective organisational interaction. Some of the executives from the TOT indicated that political party leaders sometimes create new projects for their own benefit and assign the responsibility to a certain company without any discussion with the TOT. These actions, are creating chaos among the telecommunications service providers and operators in the Thai markets and this may become worse after privatisation. The involvement of the NESDB with the TOT, the CAT, and the PTD's TSPPs are somewhat equivocal and is repeatedly encumbering the national telecommunications infrastructure development agenda. In this regard, Charoenphol stated that:

"The NESDB lacks the expertise in the telecommunications area and sometimes creates the red tapes to the TOT's TSPP and its implementation" (Charoenphol, 1996: interview)

Charoenphol from the Office of the Privatisation Affairs, has also indicated that the level of cooperation in the past was very minimal, but there have been improvements lately. The above comment of Charoenphol's was also confirmed by the executives of the CAT. Singhaseni, from the Office of Telecommunications and Business Development, has indicated the same views in regard to the NESDB's involvement in the CAT's TSPP. The respondent stated:

"The NESDB seldom requires that certain aspects of a TSP of the CAT need to be changed, without even knowing the details of the situation of the CAT or the TSPP of the CAT" (Singhaseni, 1996: interview)

The findings of the involvement process of the PTD indicate that sometimes the MOTC, the TOT, and the CAT does not inform the PTD of their future intentions about the provision of services or market expansion. The PTD has therefore faced great difficulties in representing the Thai telecommunications industry in the international marketplace. All these analyses provide indications that the Thai Government has largely failed to establish a formal procedure of the involvement and level of cooperation, by assigning the appropriate
responsibility to the above telecommunications organisations. The Thai Government therefore should establish a set of rules and procedures for assigning the appropriate responsibility to these organisations for the development process of a NTSP for Thailand.

It is confusing that Charoenphol, from the Office of the Privatisation Affairs, has given as his view, that there is a responsible unit for the monitoring the strategic planning and practices at this organisation. It can also be seen from the TOT that the monitoring process of the TOT's TSP is very bureaucratic in nature and there is both internal and external involvement. This analysis of the TOT provides an indication that there is no formal monitoring process of a TSP. All the respondents have shared different views on the benefits and the monitoring process and this can lead to generalisations that the organisation has not yet established a formal process for the strategic planning and practices.

It is observed in the case study of the Thai telecommunications industry that the strategic planning and its implementation practices cover a formal procedures and bureaucratic involvement. The TOT case study revealed that political influence is responsible for most of the problems in strategic planning and practices in Thailand. It is evident from the history of Thailand that politics play a major role in industry and there has always been frequent changes in the government's involvement. Changes in the government bring uncertainty among the organisations' strategic planning and practices. One of the important issues that came out of the case study of the TOT, is the frequent changes to the plan. Whenever changes occur in the government, there will usually be a significant change in an original NTSP and this creates trouble among the organisations' planning and practices. Charoenphol indicated, that most important is the concept of project completion. The government procedures of Thai telecommunications industry has to be taken into consideration for the strategic planning and practices. In this regard, Charoenphol stated:
"The concept of strategic planning is very new to the Thai telecommunications industry and human resources at the planning level needs to be trained" (Charoenphol, 1996: interview)

Jorphochaudom, from the CAT's Office of Telecommunications Planning indicated, that the Thai Government has not yet established a clear policy to guide the telecommunications industry in Thailand. The lack of understanding and lack of information about future government actions are the major problems of the strategic planning and practices in the Thai telecommunications industry. The case study for the PTD provides an indication that government organisations in Thailand are not well funded by the MOF. The procedure of the government funding process is very bureaucratic and involves many processes. This entrenched bureaucratic procedure of the Thai telecommunications is repeatedly creating delays in project completion. Chitrasawang from the Office of Foreign Policy on Telecommunications, argued that there are many ideas brought from the western concept of management. It is evident that the case of western management is certainly different than Thailand and western concepts need to be modified or validated into the Thai context before adopting them.

The TOT's TSPP and its relationship with a NTSP, indicated that there are four factors identified from the TOT case study in relation to its involvement at the national level of telecommunications planning. First, evidence suggests that the TOT is responsible for providing the data and other inputs concerning the telephone expansion to the NESDB. In that respect the TOT's TSP not only serves as a national planning guideline, but also makes a significant contribution to a NTSP.

It is observed that in Thailand that there is a great tendency to use foreign models and especially those from the well developed nations. In this regard, the research identifies four major impediments: first, the differences of the culture and style of management practice between these nations; second, the Thai environment is seemingly different from those...
nations; thirdly, very little evidence has been found about the awareness of the developing nations' telecommunications planning and practices; and lastly, is the entrenched procedures of the TSPP in the Thai telecommunications industry. There is no doubt about the TOT's significant contribution to the Thai telecommunications industry but because of the heavy bureaucratic procedure of the TSPP, the TOT in the past, was unable meet the target and the appropriate demand for Thailand.

The CAT's TSPP and its relationship with a NTSPP suggests that there are some inconsistencies among the executives' views and actions towards the roles and processes of the CAT of a NTSPP. It can be argued that there is no formal procedure for the development processes and implementation practices of the strategic planning at the national level. It is also seen from the case study of the CAT, that it has input at the national level planning, but the process of bringing the organisational TSPP to a NTSPP is lacking. Observations suggest that there is very little interaction among the telecommunications organisations in Thailand.

The CAT's role in a NTSPP suggest that it would provide guidance on the value added services requirements and provision of services. The CAT also has already provided and developed advanced telephone networks systems for the benefit of the Thai population. As a SOE, the CAT has the responsibility to submit its TSP to the MOTC and the NESDB. It is required by the Thai Government that all the government's organisations TSP should be co-ordinated with the five year NESDP. In this regard, the CAT's TSP would have obvious input into a NTSPP.

In relation to the role of the PTD in a NTSPP in Thailand, three major findings in regard to the PTD's role at a NTSPP are suggested. First, is PTD's role in a NTSPP in Thailand. Research reveals that there is also an enormous number of differences in the responses of the PTD executives in this regard. However, it can be seen from the three different views of the senior executives that the PTD is actively involved in providing guidance into a
NTSPP. The primary role of the PTD is the study of the regulatory processes. The Thai Government has declared its intention to privatise the telecommunications industry in future. In this regard, the PTD is responsible for the study of the future regulation process and looking at different national regulatory experiences for drafting an informal version of the National Telecommunications Commission (NTC), the future regulatory body in Thailand.

Third, is the relationship of the PTD's TSPP with a NTSPP in Thailand. It is revealed from the findings that a TSP of the PTD should be to conform to the Thai Government's five year NESDP. Considering this, the PTD is responsible for coordinating and setting up mutual objectives and goals that match the NESDP. As a government organisation, the PTD also has to submit its TSP to the MOTC and the NESDB for formal approval. It can be seen from the above that the PTD's TSPP has an impact on a NTSP. Lastly, is the problem of the strategic planning and practices and coupling the organisational level planning with the national telecommunications planning. It is observed from the case studies that the involvement process is very bureaucratic and seldom affects the organisational and national telecommunications infrastructure development planning agenda.

Some additional views were gathered from the MOTC and the Thailand Development Research Institute (TDRI). The MOTC particularly looked at the Federal Communications Commission's (FCC) models and processes for the study of the establishment of a NTC in Thailand. The MOTC also looked at the models and processes from OFTEL, AUSTEL and NTT and KDD for making future regulatory decisions for Thailand. According to the Office of Communications Sub-Division of the MOTC, the PTD is, at present, using some of the models and processes from the NTT and the KDD of Japan. Vongpanitlerd from the TDRI, however suggested that there is no one particular model that is being used at present in the Thai telecommunications industry.
Findings from the interview with Vongpanitlerd suggest that the Thai telecommunications industry is at present suffering from lack of insight and proper planning knowledge in the area of telecommunications. Most of the Thai telecommunications organisations have not reached a stage of maturity at the planning level and some of the planning is done at the very lowest level without proper measurement or processes (Vongpanitlerd, 1996: in-depth interview). It can also be learnt that there is no planning done in a systematic way for telecommunications development in Thailand. It was indicated by Vongpanitlerd that the Thai telecommunications managers do not really look at the models and processes from the developing nations and sometimes are also unable to get hold of the published materials (Vongpanitlerd, 1996: in-depth interview).

The findings on the three organisations' roles in a NTSP revealed that the TOT, the CAT and the PTD are each responsible for the submission of their TSP to the MOTC and the NESDB. The two SOEs in Thailand are acting as service providers and regulators. The PTD are also acting as a regulator for radiocommunications in Thailand. It is observed from the case study of the Thai telecommunications that there are many overlapping functions among SOEs and the other Government organisations responsible for the development of a NTSP. The overlapping functions and unclear government policy on the roles of these organisations can be considered to be major impediments for a NTSP.

7.3 A Cross Analysis of the Environmental Influences on the TSPP

The key environmental considerations of the case studies of the TOT, the CAT, and the PTD is presented in chapter six. This section aims at the examination of the relationships among the three different organisations' environmental analysis in the process of developing a TSP. The TOT case study has provided an indication of many preconceived views of the executives about the environmental considerations for the development process of a TSP.
To date, there is no regulatory body for Thai telecommunications. The present regulatory structure is very complex and contains a wide level of involvement. Charoenphol from the TOT has indicated that one of the most important environmental factors that the TOT should consider is management procedure. It is also important for the TOT to develop a flexible planning framework for the Thai telecommunications environment. The case study on the CAT also provided similar indications with regard to the environmental analysis and the similar variations among the executives' views were also observed for the case of the CAT. Furthermore, it can be seen from the CAT case study that there are the similar inconsistencies among the executives' views towards the consideration of the environmental analysis process.

It is evident from the case studies that there is a lack in the adoption and practice of a descriptive approach at these organisations. However, the CAT executives also viewed regulation as one of the important environmental factors for the development process of a strategic plan. The findings of the case study of the PTD also represent the same observations as the TOT and the CAT. Theoretically, all three organisations' actions and views towards the development process of a TSP are similar. This may lead to a theoretical generalisation that a comprehensive TSPP does not exist in the case of the Thai telecommunications industry. It is also evident from the three case studies that the strategic planning and practices is done in an informal way and there is a lack of evidence to suggest a formal oriented approach for a NTSPP in Thai telecommunications industry.

By looking at the analysis on different aspects of the environmental analysis on the TSPP, evidently there are many preconceived views and actions that are dominant among the Thai telecommunications managers. However, it can also be seen from the analysis that there are some observed inconsistencies in the views and actions among TOT's executives in the process of the formulation of a TSP. The same observations are made for the case of the CAT as the TOT, and there are similarities in the processes of the environmental analysis for the development of a TSP at the CAT. It is learnt from the CAT case study that
there is no formal or process oriented approach for conducting the environmental analysis. Looking at the case of the TOT and the CAT, it can be generalised that strategic planning is an action rather than a process among the Thai telecommunications practitioners. The CAT case study revealed that the organisation is more flexible than the TOT's and its emphasis is more on increasing of the net revenue.

Considering the different views and actions of the executives about the environmental analysis, it can be generalised that there is no formal procedure of the environmental analysis at the PTD. Due to the convergence and uncertain nature of the Thai telecommunications industry, it will be necessary to view and adopt a more formal approach of environmental analysis with an emphasis on the process. It was also argued in the theoretical background chapters (refer to chapter two and three) that a formalised approach will aid in maintaining a fine alignment between the environmental factors and the organisation's overall TSPP and integrating with a NTSPP.

7.4 A cross analysis of the Thai Regulatory Planning Processes for NTC

A National Telecommunications Commission (NTC) is expected to act as a regulator for the Thai telecommunications by October 1997. In-depth interviews were conducted on site for the study of the establishment of a NTC. Considering the involvement and the present telecommunications law, it was also deemed necessary to conduct in-depth interviews with senior executives from the other major participating bodies. These included executives from the MOTC, the TOT, the CAT, and the PTD. The following section presents the summary findings of the views expressed by the 21 senior executives who were interviewed about the planning and practices for the establishment of a future NTC.

Interview findings suggested that the MOTC is responsible for issuing the policy guidelines to the SOEs. However, the MOTC is also actively involved in controlling the TOT and the CAT (Tinacharoen, 1996: in-depth interview). At the time of investigation,
the MOTC was looking at the models of OFTEL, AUSTEL, and FCC, to assist in choosing a model for the establishment of a NTC in Thailand. Findings revealed that a NTC will be comprised of 15 persons representing different organisations. Figure 7-3 provides the conceptual framework showing how the organisations and the individual's involvement in a NTC will work in practice. However, Tinacharoen also indicated, that the overall picture of a future NTC and its involvement process is not clear. It became evident at the interview that for a NTC to act effectively and efficiently, it had to be established as an independent body and to operate within the laws governing the Thai telecommunications industry as a whole. The guidelines, rules and regulations for the operations control, will be the most important responsibility of a future NTC. However, a NTC will also act as a regulator for protecting the subscribers from unfair pricing and service complaints. It will also be the responsibility of a NTC to operate under the existing law and to provide appropriate guidance and feedback to the telecommunications service providers in Thailand. The case study of Thai telecommunications suggests that a NTC should be able to regulate to protect rural development programs and that it should not be centred around profit making and economic benefits regulation.

**Figure 7-3. The conceptual framework of organisations and individual's involvement in NTC** (Hossain and Lindley, 1997)

The background study of the TOT has suggested that under the present telecommunications law and regulations, the TOT has the authority to act both as a service providers and regulators for the local telephone exchanges and also the connections to the
neighbouring countries. Findings from the TOT revealed that the MOTC is, at present, looking at the FCC and the Ministry of Post and Telegraph (MPT) of Japan for their experiences on regulations and how these models or processes are applicable to the Thai telecommunications (Charoenphol, 1996: in-depth interview). The TOT findings also provide an understanding of how the Thai Government will establish the regulatory framework required. The findings also suggest that a NTC, for the first few years, will have to depend on the TOT's expertise. A NTC will be required to have an understanding of the control process, and also have to understand the concept of control. To Charoenphol, the best control mechanism, is to have a minimal control and allow the concerned organisations to make certain decisions. In the past, the concerned telecommunications organisations in Thailand could exercise very limited control over their own decisions making. This was due to the Thai Government's control policy, which restricted the participating organisations from exercising their own decision making.

Clearly, Thailand is well on the way to establishing an independent regulatory body for the telecommunications industry. The TOT findings suggest that it is the preference of the TOT executives to have a similar regulatory structure such as the FCC. However, it is still unclear to the TOT executives as to how the regulatory body will perform and which models and processes are under consideration. With regard to the roles of a future NTC, the TOT executives suggested that a NTC should be able to set tariff structures, set rules and regulations for market entry, and provide service guidelines for telecommunications operators in Thailand. To date, the picture of a NTC's roles is not clear and perhaps, the TOT executives are also still unsure about the Thai Government's intention towards them (Phiromswad, 1996: in-depth interview).

Looking at the present regulatory structure for the Thai telecommunications industry (figure 4-1), it is evident that the concepts of regulation and regulator are still not clear. This is creating ambiguity among the operators and regulators alike (Cusripituck, 1996: in-depth interview). It was also revealed that Thailand is at present, looking at AUSTEL for a
making a regulatory decisions. Cusripituck indicated that Thailand will set up a commission and also a special advisory committee such as that established by AUSTEL (Cusripituck, 1996: in-depth interview).

The above sections on NTC's strategic planning have served to highlight some of the issues and processes currently influencing the establishment of a NTC. It is also clear from the findings that most of the executives interviewed were not well informed about the regulatory planning processes (RPP) required for a NTC to operate successfully. In summarising, three main factors were identified as influencing the outcome: inconsistency among the executives views about the regulatory planning process; a lack of understanding of the present regulations and how a NTC will be established, and its expected role in the Thai telecommunications industry.

In the theoretical background (chapter two), it was stated that the strategic planning literature covers a wide range of preconceived actions and strategic concepts. By looking at the findings on the regulatory planning process for the establishment of a NTC, it is evident that there is no formal method or process adopted for developing a general consensus, or to determine how a NTC will be established. It is rather the actions and views of the executives that are considered to be informal and diverse and are deemed to be dominant in Thailand's regulatory planning processes. It is observed from a NTC that the process is not a key concern for the development of a strategic plan and there are many inconsistencies among the executives about the required actions and views towards the development of a successful strategic plan and implementation program. Due to the bureaucratic nature of the SOEs, strategic planning in the Thai public sector needs to focus more on the planning processes. In order to have a successful strategic plan and implementation, it is also necessary to have a consistent process of action upon which the strategic plan should be based (Bryson, 1995 and Charoenphol, 1996: in-depth interview). This should be the first step for developing a strategic plan.
On the basis of the exploration of a TRPP, it is concluded that very little evidence can be found to shed further light on understanding the theory of planning (normative approach) and theory in planning (descriptive approach). However, it is believed this present work has demonstrated that there is a need to adapt a multiple approach to strategic planning and practice. The normative-descriptive dichotomy model for strategic planning and practice has provided some insights into the Thai telecommunications planning practice. In general, the strategic planning and practice for the Thai telecommunications planning might be considered to be a set of informal actions performed by the senior executives. This is despite the complexities of the current telecommunications regulatory regime. The advancement of the telecommunications technologies, changes in government regulation and policy, and changes in the international market place, all demand a far more sophisticated approach to strategic planning. A comprehensive approach to a TRPP is required not only for building consensus among the key decision makers, but also to facilitate cost effective and reliable networks expansion capabilities. It has also been observed that the expansion of networks in rapidly developing economies is asymmetric, with a lack of compatibility in the interconnection equipment as well as other hardware, this can in fact, hinder the telecommunications organisations in its efforts to create network economies of scale. The end result can be seen from the cost, quality, reliability, and accessibility of the telecommunications services. Considering the consequences for the Thai telecommunications industry in particular, it is argued that it is now time for the Thai government to develop new policy mechanisms, which may in fact, aid in the consensus building process.

7.5 The Transformation of the Organisational TSPP into a NTSPP

The findings on the TSPP in the case study of the TOT provide indications that the strategic planning is an action rather than a process for the executives of the TOT. It can be shown from the case study that the strategic planning processes at the TOT can be classified as an informal approach to strategic planning and practices. It is evident from the
TOT case that the process has never been a key concern for the development of a TSP and there are many inconsistencies among the executives actions and views towards the development of a successful strategic plan and implementation practice. Due to the bureaucratic nature of SOEs, strategic planning in the public sector organisation needs a lot of attention on the planning processes. In order to have a successful TSP and implementation practices, it is necessary to have a consistent process of action upon which the strategic plan should be based (Bryson, 1995:47; Charoenphol and Pientam, 1996: in-depth interview). This should be the first step for developing a TSP.

The case study mentioned above of the CAT has explored the TSPP, the CAT's involvement in a NTSSP, and the environmental analysis that is conducted by the CAT in the development process of a TSP. Findings indicate that there is certain observed inconsistency among the actions and views of the CAT executives in the development process of the CAT's TSP. It can be generalised from the case report that strategic planning at the CAT is considered to be an action rather than a process. It is also revealed from the case study site that there is no significant formal approach to strategic planning at the CAT. It was identified in chapter two that telecommunications planning requires a more formal approach. This is required not only for the purposes of the organisational learning but also for coping with the dynamic nature of the telecommunications industry where it is evident, that the changes are rapid and uncertain. Bryson indicated that the process should be correct and be accepted by the key executive involved in planning before an organisation could contemplate a strategic plan (Bryson, 1995). The findings of the case study of the CAT provide very little indication of this aspect of planning activities.

It is evident from the historical background that the creation of the TOT and the CAT was designed to take over the telegraph and telephone services and regulation functions from the PTD. At present, the PTD is left with the radio frequency management and representation of the Thai telecommunications in the international market. However, the PTD also serves as a secretariat of the MOTC for co-ordinating and co-operating in the
joint venture telecommunications projects and also in the national telecommunications planning and practices. The PTD holds the right to regulate the mobile 800 MHz and 900 MHz systems that are concessioned by the TOT and the CAT.

The development of a TSP at the PTD is under the control of the Technical and Planning Division. There is no indication of the existence of a strategic planning or corporate planning division or department. It can be argued from the case of the PTD that there is no formal procedure of a TSPP at this organisation. Rather it depends on the executives preconceived actions and views during the development process of a TSP. The process of review of the PTD's TSP is found to less bureaucratic than the TOT's and the CAT's. There is however still internal and external involvement in the process of review of the PTD's TSP.

The case study revealed that the PTD is responsible for radio frequency management, and also for the study of the regulatory processes in order to provide guidance for a NTSSP. The PTD is acting as a representative of the Thai Government in the international telecommunications market and at conferences. The respondents at this level also provided three different views about the PTD's involvement in the national telecommunications planning processes. It was indicated by the respondents that the Thai Government in the past, failed to provide proper guidance and direction for the future of the government and SOEs.

In order to have a sound and effective NTSSP, the transformation of the organisational TSPP into a national perceptive will be required. On the basis of on the research and the findings, it is evident that Thai telecommunications industry is not well directed and there has been no attempt made for the transformation to a NTSSP in Thailand. The transformation can be made only after there is formal process of the development of the organisational strategic plan. The formal oriented approach to strategic planning will aid the telecommunications policy makers in Thailand to have a clear picture about the possibility of the development of a national telecommunications infrastructure through the formal
approaches to strategic planning.

### 7.6 Conclusions

This chapter has provided a cross case analysis of the TOT, the CAT and the PTD. However, some additional views are also used in this study, in order to develop an understanding of a NTSPP in Thailand. On the basis of the analysis of the telecommunications industry in Thailand, the main conclusions suggest that there is no formal procedure of the telecommunications industry's planning and practices and this will eventually be an encumberance to a NTSPP agenda as well as creating chaos among the key telecommunications players. It is believed that a NTSPP would require a more formal approach to strategic planning in order to have a comprehensive process for building a consensus among the national telecommunications organisations and other key players. Looking at the present structure of the Thai telecommunications industry, it can be argued that the industry may be in chaos after the privatisation and liberalisation of the telecommunications industry in Thailand. The rapid advancement of the telecommunications technology and the rapid changes in the global marketplace will require a certain level of organisational competence in order to be able to deal with the future changes.

This cross case analysis has demonstrated the need for a formalised NTSPP oriented approach which will be required for maintaining the role of the organisation and dealing with future uncertainty. The next chapter (eight) is aimed at providing a synthesis of the findings on a NTSPP in Thailand. Chapter eight provides a comparison between a theoretical TSPP and a NTSPP (presented in chapters two and three) and the actual TSPP and a NTSPP for the case study of the Thai telecommunications. This chapter also has considered the discussions of a NTSPP from an international perspective.
Chapter Eight

Synthesis of the National Case Study Findings

A design for a national case study was suggested in chapter five. Based on the methods, data collection protocol and the day analyses process, chapter six provided a descriptive analyses of the national telecommunications players in Thailand. In particular, chapter six analysed the TSPP within the TOT, the CAT and the PTD. A cross case analysis of the findings from the case studies on the national telecommunications players was discussed in chapter seven. Chapter seven also discussed the possibility of the transformation of the organisational TSPP into a NTSP in Thailand.

On the basis of the findings from the preceding chapter, chapter eight provides the synthesis of the national case study findings. A comparison on the actual TSPP and a NTSP with a theoretical TSPP and a NTSP is also provided. Observation from international experiences suggest that different nations are taking different steps towards the development of their national telecommunications infrastructure. Considering this, chapter eight provides a brief discussion of the international experiences and compares them with the findings for a NTSP for the Thai telecommunications industry.

8.1 Theoretical Analysis for the Thai Telecommunications

It is observed from the Thai telecommunications industry that there are no formal
procedures of the TSPP for the national telecommunications carriers and regulators. It is rather the actions and views of the executives that are dominant in the TSPP. The theoretical background of a TSPP presented in chapter two argued, that most of public sector organisations are not very consistent with the SPP. Chapter six showed similar observations, where it was observed that the Thai telecommunications operators are not well versed with their own TSPP. It is evident from the case of the Thai telecommunications industry that strategic planning and practices are very bureaucratic in nature. It can be argued therefore that a formal or agreed upon TSPP may aid the process of developing a successful consensus among the strategic planners for countering some of the bureaucratic procedures.

The investigation into the TSPP within the TOT, the CAT and the PTD provides a descriptive analyses of the telecommunications planning and practices in Thailand. On the basis of the analyses, it is evident that the national telecommunications players in Thailand, in fact, have never initiated any steps towards the development of a comprehensive TSPP. It is also noticed that the MOTC has failed to provide adequate strategic planning control mechanisms for the national telecommunications players, and this has resulted in chaos among the concerned telecommunications organisations in Thailand. All three case studies suggested inconsistencies among the executives' actions and views with a lack of coordination and cooperation within the departments of an organisation. This situation applies pressure on the Thai Government, to initiating a NTSPP in Thailand. The later sections synthesise the actual TSPP and NTSPP practices with a theoretical TSPP and a NTSPP practice constructs.

The case studies reported have also explored the underlying TSPP forces among the Thai telecommunications players. Theoretical analysis suggests that this study adopts a multiple theoretical approach (normative-descriptive dichotomy) for exploring TSPP within the TOT, the CAT and the PTD to develop the understanding of a NTSPP research in Thailand. However, the overall findings do not dismiss the normative approach, rather it
provides the rationale for adopting a multiple theoretical approach for a NTSPP research. It is evident from the findings that the theories of planning (normative approach) and the theories in planning (descriptive approach), are essential for developing an understanding of a NTSPP. It can be further argued that neither the normative nor the descriptive approach, is a stand alone theory and, the development of normative theory, without the consideration of the descriptive theory, maybe a sure formula for failure. Alexander (1992) and Makridakis (1990) have made similar theoretical observations in their research. The following sections provide a comparison between the normative and descriptive TSPP, which may in fact, serve to predict the future of the strategic planning for the national telecommunications planning.

8.1.1 A Synthesis of the Thai Telecom Operator's TSPP

The theoretical background has presented the argument that a SPP is aimed at providing a conceptual framework for the company's Chief Executive Officer (CEO). It is also important to consider, that to have successful planning and implementation, the process needs to be passed through the line managers (Naylor, 1980: 1). Naylor observed that the level of understanding of a formal SPP among executives is very limited (1980: 55). Similar observations were made for the Thai telecommunications industry, where the executives have shown a similar level or very limited understanding of a formal TSPP. Vancil and Lorange (1977: 22) observed that strategic planning tends to be less formal and a continuous process in smaller companies and more formal in a larger companies. However, theThai case study findings do not provide any insight into the relationships between the size of an organisation and its TSPP.

Fahey's analyses on the strategic planning suggested that most of the organisations' executives do not act in a rationale manner in designing and implementing the strategic planning (1989: 317). Thai case studies findings have found similar observations. Fahey also observed that most of the organisations' executives lack of concern in soft selling the planning system to the divisional managers has resulted in failure. The case study of the
Investigations into the Thai telecommunications industry suggests that most senior managers have an assumption that a implemented planning system will help solve all the strategic problems of their organisations. These observations were also indicated in similar findings by Willaimson (Willaimson, 1984), who further indicated that the best way to introduce a planning system is to introduce a planning calendar. The planning calendar will aid in the process of introducing the staff commitment to a planning process (Williamson, 1984). The Thai case study findings justify that it is now time for establishing a formalised process of TSPP in an organisation. The aim of a formalised planning process is not to force managers to think, but to provide a framework with which the managers can act in a more coordinated manner.

It was argued in the theoretical background (chapter two), that top management must use a formal SPP as a support to formulate strategic choices (Gilbert and Lorange, 1977). The Thai findings also suggest very little evidence of top management's involvement in the TSPP. Furthermore, Lorange and Vancil (1977) argued that a strategic planning system is aimed at building coordination among the planners in an organisation. The Thai findings revealed that there is very little similarity and coordination among the organisational plans, and there is therefore, sufficient time to introduce a formal TSPP among the national telecommunications players. Review of the existing literature for developing an understanding on organisations and their SPP has helped form the conclusion that formalisation of a SPP, is important for the initiation of strategic planning in an organisation. It was also argued in the preceding chapters that a SPP provides a conceptual framework to the CEO. The evidence of the Thai national telecommunications players
suggests that there is a lack of concern and attention on the development of a conceptual framework for a TSPP, and this is one of the major impediments to the process of building a general consensus among key organisational players. However, the theoretical background of a TSPP also suggests that the CEOs understanding of their organisation’s SPP is very limited and the Thai study findings show this lack of understanding of the CEO of their TSPP.

Theoretically, the formalisation of a TSPP is related to the size of an organisation. Lorange and Vancil argue, that the larger the organisation, the greater the formalisation of the TSPP should be (Lorange and Vancil, 1977). However, descriptive findings of the TSPP within the TOT, the CAT and the PTD, reveal that there is no direct relationship between the organisational size and its TSPP. It is evident that Thai telecommunications managers spent more time in operation-oriented than strategy-oriented planning. Empirical evidence suggests that executives spent more time in operation than strategy-oriented planning and similar observations were made for the case of the TOT, the CAT and the PTD. It was argued in the theoretical background that there is a relationship between the level of environmental uncertainty and the degree of formalisation of the SPP in an organisation.

The Thai case studies do not provide any indication of this. However, the Thai telecommunications industry is shown to be very uncertain and Naylor argues that the uncertainty increases the chances that the organisation will introduce a formal strategic planning process (Naylor, 1980). Kukalis's investigation also suggests that there is a relationship between the environmental uncertainty and the organisational strategic planning process. Kukalis (1991) also argues that a firm is more likely to introduce a flexible planning system for effectively responding to the environmental changes. Contrary to this, the Thai case study findings do not provide any indication of the relationships between the environmental uncertainty and the TSPP, as Naylor and Kukalis do. The theoretical background of the TSPP has provided an analyses with Kukalis's research (1991), where
he hypothesised that environmental complexity influences the design of the strategic planning systems, and managers tend to introduce a flexible strategic planning system in this situation.

What this study has achieved, is to demonstrate that very little relationship exists between environmental uncertainty and the formalisation of the TSPP. Theoretically, environmental uncertainty is considered to be a major driving force for the formalisation of the SPP. Steiner (1976) argued that the higher the environmental uncertainty, the more formal the SPP should be. However, the descriptive findings of the Thai telecommunications players presented in the findings section of chapter six, have demonstrated that there is no understanding on the formalisation of the TSPP in relation to the volatile environment of the Thai telecommunications. Strategic planning theories also suggest that understanding the environment and its influence requires an effective design and implementation of the TSPP. On the basis of this, the Thai case studies revealed that the executives have very limited understanding of both the internal and external environments, in which they interact.

The theoretical background on the TSPP, indicates that strategic planning in the public sectors is more bureaucratic in nature than in the private sector. It was indicated in the theoretical background (chapter two) that public sector planning is more a role, than a process (Alexander, 1992). The complexity of the public sector organisations and its interactions with the environment, calls for a more formal approach to strategic planning and practice. Several studies have identified that public sector planners do not see the importance of strategic planning under this environmental situation. The Thai case study findings have also presented similar observations and therefore, the planning has never been integrated with the overall management process of the organisation. Theoretically, it was argued that a plan intended to be national, should consider the involvement of the private sector. The Thai case study reveals that private sectors participation, is rather limited in Thailand's telecommunications industry development planning and practices.
Findings of the normative strategic planning literature suggest that the chain of command in the public sector, is not as clear as the private sector. The descriptive findings of the national telecommunications players in Thailand are consistent with the normative findings.

8.1.2 A Synthesis of a Thai NTSPP

For the purpose of this present study, the actual NTSPP is classified as a descriptive NTSPP. Similarly, a theoretical NTSPP is classified as a normative NTSPP. Normative approach to strategic planning theories has been defined as the approach or models that are prescriptive and deal with 'how it should be'. The descriptive approach however is defined as the approach or models that deal with 'how it is' in a particular context. It was argued in chapters two and three that neither of these theories are in a 'stand alone' situation. Therefore, this study has adopted a multiple approach for justifying and initiating the theoretical generalisations about the Thai telecommunications. Makridakis (1992) argued, that a management theory, to be of great value, should consider three levels of theoretical approaches: normative, descriptive, and predictive. So, this study has initiated the first attempt to explore the idea of a NTSPP for the Thai telecommunications and look at it from a multi level of strategic planning theories.

This section compares the descriptive NTSPP practices with a normative NTSPP theoretical construct structure. Anies and Day's (1975) research identified that attitudes, lack of leadership, and lack of common objectives are the major inhibiting factors of national planning in the US. The case studies of the national telecommunications players in Thailand, also suggest similar patterns as the major inhibiting factors towards a NTSPP practices. Chapter three has identified the issues relating to the successful formulation and implementation of a NTSPP. Looking at the case studies in Thailand, it can be argued that the government has failed to direct its telecommunications organisations' addressing these issues. One of the major objectives of a NTSPP, identified in chapter three is to avoid overlapping functions among the national telecom players. The Thai case study findings have suggested that the MOTC failed to introduce planning and policy control mechanisms (Charoenphol, Yongcharoen, and Vongtipanitlerd, 1996: in-depth interview).
The MOTC has also failed to ensure that the TSPP exists at each of the national telecommunications organisations and there never took any initiative towards the transformation of the organisational TSPP into a NTSPP. Though some of the private sector organisations such as the TA and the TT&T are involved in the national telecommunications development, the ambiguity in the national policy and clear guidelines on ownership and control, is in fact, repeatedly encumbering the private sector's participation in a NTSPP. The theoretical background identified the establishment of an organisational TSPP as one of the key NTSPP planning and practice issues.

Looking at the Thai case study findings, it is evident that the organisational TSPP does not exist among the national telecommunications players. This section further synthesises the normative NTSPP constructs with the descriptive NTSPP constructs. The theoretical NTSPP (refer to figure 3-5) construct was developed from John Bryson's ten step strategy cycle processes (1995). According to the normative NTSPP construct, the first step towards a NTSPP should be the initiation and agreement upon a NTSPP. On the basis of this, the Thai case findings suggested that no steps have been taken towards the initiation and agreement not only for a NTSPP, but also for an organisational TSPP.

The second normative consideration of a NTSPP is the identification of the national telecommunication mandates. The formal and informal mandates are defined as organisational procedures and various 'musts' that the organisation confronts (Bryson, 1995: 26). Bryson argued, that most of the managers spent very little time on reading the relevant information concerning their organisations. It is further observed from Bryson's analysis that most of the managers make three fundamental mistakes: not knowing what they must do; believe that they are more tightly constrained in their actions than they actually are; and assuming that if they are not explicitly told to do something, they are not allowed to do it (1995: 26). A similar patterns of problems among the Thai telecommunications planning and practices was observed here. The case study on the national telecommunications players in Thailand, revealed that the concerned
telecommunications players including the MOTC, have very little to do with stakeholder analysis. To Bryson, a stakeholder is the person, group, or organisations, who may in fact, have a claim on an organisation's attention, resources, or output or is affected by the output (Bryson, 1995: 27).

Several factors were identified in the process of assessing the external and internal environment for the formulation and implementation of the TSPP. Common factors that are inhibitive to the TSPP as well as a NTSP in Thailand are: the public policy, regulation, and the technological changes. It is also argued by several academic researchers that the rapid advancement of telecommunications technology is creating new challenges for the organisational planners. Telecommunications network planning now requires a more comprehensive planning approach, because the existing studies have identified that irregular and poor planning of the network can be very expensive. The majority of the respondents indicated, in regard to public policy, that to date, Thailand has not established a clear policy guideline for the national telecommunications infrastructure development planning practices. At present, the Thai Government is taking several steps to solve the nation's immediate problems, with a view to foster economic growth and foreign investment.

The background of the problem indicated, that due to the lack of policy guidelines, the SOEs and the private concessionaires are having difficulties in expanding and maintaining their telecommunications networks. The study also has investigated the regulatory factors of the Thai telecommunications. It is evident from the investigation that to date, there is no formal regulatory body for the Thai telecommunications industry. The study therefore, on the establishment of a future regulatory body was an exploratory one only. Thailand is on the way to establishing the National Telecommunications Commission (NTC), the future regulatory authority. However, the exploratory investigation has provided indications of similar inconsistencies in the opinions of the major participants involved in the process of its establishment (Hossain and Lindley, 1997).
Thailand's regulatory planning process was also been looked at in the preceding chapter (section 7.4), because it applies the strategic planning concepts for understanding the involvement and pressures of establishing a NTC. Findings suggest that the MOTC and the PTD is also involved in this process. What the exploration suggests, is the inconsistency among the participants in the regulatory planning process. The executives from the TOT and the CAT, in fact, possess very little insight into the establishment of a NTC.

To date, the Thai Government have not initiated any formal procedures for formulating strategies to deal with these problems. At present, it is more responsive to the reduction of waiting lists and the rapid expansion of the telecommunications network. In order to avoid chaos among the players, the Thai government now needs to rethink and establish a lateral approach towards the telecommunications industry development. The case study reports reveals that the transformation of the organisational TSPP into a NTSPP in Thailand, needs a more formalised approach to strategic planning and practice and only then, can the transformation and implementation can be successful.

8.1.3 The Thai telecommunications industry structure

Chapter four explored the roles and relationships of the national telecommunications players in Thailand. On the basis of the analyses of chapter four, it is evident that the Thai telecommunications industry represents a very high degree of ambiguity not only in the TSPP, but also the regulatory structure. The present regulators of the Thai telecommunications are the TOT, the CAT, the PTD, the MOTC, and the NESDB. All of these regulators represent different types of regulation, the TOT for example, regulates the local telephone and connections to the neighbouring countries, the CAT regulates the international and other long distance calls. By law, the PTD has the authority to regulate the radiocommunications activity in Thailand (eg. mobile telephony).
All these three organisations are eventually directed by the MOTC. The NESDB has the authority to oversee the operations of these three national telecommunications players, judging whether they are in accordance with the Thai Government's five year NESDP or not. Observation on the Thai telecommunications industry also suggest the involvement of the Ministry of Finance, the Budget Bureau, and the Thai Cabinet. This complexity and undefined involvement among different government organisations, is in fact, impeding the planning and implementation practices of the national telecommunications players (explanation was provided in chapter four and six).

Research findings suggest that there is very little on the role of the NESDB in a NTSPP in Thailand. Most of the respondents to the case studies have shown conflicting answers due to the NESDB's lack of understanding on the planning and implementation of the telephone networks. The interviewees from the TOT, the CAT and the PTD indicated that the NESDB does not provide any guidance on how to integrate the TSPP with a NTSPP and rather, creates unnecessary formal procedures in the formulation and implementation of these organisations TSPP. This claim can be confirmed by the telephone interview with the NESDB's Director of Information Infrastructure. Findings from the interview with Dr. Wesenbut suggested that the NESDB does not have the human resources to deal with the telecommunications planning and practices.

The interviewer's face to face interview with Tinacharoen, the Chief of Communications Sub Division of the MOTC, has revealed that the MOTC also lacks expertise on telecommunications planning practices. It can be argued that due to the lack of understanding on telecommunications planning and practices, the MOTC has failed to provide sufficient guidance to the national telecommunications players and this has resulted in chaos and conflicting interests among the major telecommunications players. This claim has already been confirmed in the preceding chapter, where the Thai telecommunication executives also gave similar comments.
8.2 International Experiences of a NTSPP

Here, is presented a brief discussion on the strategic planning and practices within Telecom Canada, United States and Brazil. However, no detailed comments can be made about their NTSPP and its practices. This section only aims at giving an international comparison with the Thai findings. It presents the similarities and differences of telecommunications planning and practices to the findings from the Thai telecommunications.

8.2.1 The NTSPP in Canada

Telecom Canada is an association of nine Canadian telecommunications network carriers and one satellite carrier. It is identified by Joseph, that the decision making processes at Telecom Canada flows from the Board of Directors (BOD). The BOD at the Telecom Canada consists of the senior officer, and the Chief Executive Officer (CEO). This BOD's responsibility is three fold: to determine policies; to provide overall direction; and to ensure that the member company interests and concerns are reflected in Telecom Canada's decision and action (Joseph, 1991:186).

Telecom Canada initiated formalised planning approaches to cater for nationwide telecommunications services. Planning for the Canadian telecommunications industry is done at the organisational level by the nine telecommunications network carriers. These companies provide the nationwide telecommunications services through coordinated efforts of Telecom Canada. The overall co-ordinated planning processes for the provision of telecommunications services are channelled through the Telecom Canada's central staff organisation (Joseph, 1991: 186). It is observed from the Canadian telecommunications planning practices, that there is a fine alignment of the relationships among the nine carriers. This is also reflected in the relationships and accommodation of different interests as well as the cooperative nature of the working relationships between the members.
The literature of the Canadian telecommunications reveals that the network planning process is considered to be an important part and well integrated with the strategic planning practices. Joseph's investigation suggests that the network planning process is under the department of the Network Development and Operations. Three key planning processes were identified from the literature on Telecom Canada, network evolution planning, network strategic planning, and fundamental, current and technical planning. Telecom Canada has also considered that the network evolution planning (NEP), is the logical starting point for the network planning process. The network evolution plan of the Telecom Canada is designed for developing and evaluating the possible network evolution path from the short to long term (Joseph, 1991: 186).

The network evolution plan at the Telecom Canada was developed through the futuristic studies and predictions. This includes a well-formulated research compiling and summarising the opinion of hundreds of experts from the member companies (Joseph, 1991: 186). It is aimed at producing one or more scenarios that the Telecom Canada should posses by specified times in the future and provide meaningful options to the strategists. The development process of the scenarios for the Telecom Canada was aimed at ensuring that the internal and external views and considerations of the telephone network development are taken into account. Three important factors are identified from the literature on the Telecom Canada on the importance of a long range conceptual views on the network development.

The first is the complexity of the modern telecommunications networks. It can be argued that it is not possible for only one person to keep track and have the detailed up-to-date knowledge about the technological advancement. So, the scenarios are designed for synthesising these through the process of gathering the collective expertise of the member companies and support for the strategic decision making process. The second is the medium to long term technological capabilities. This requires a substantial amount of commitment and mistakes can be very costly for the organisation as well as for the national telecommunications infrastructure. As much awareness as possible, is therefore required
for the development of new technological capabilities. Lastly, the long range conceptual view is aimed at providing the planners a sense of direction for their plans in the overall strategic planning processes (Joseph, 1991: 187). Considering this, it can be argued that most of the developing nations are facing acute challenges and have failed to provide the cost-effective and reliable telecom services (Hobday, 1990).

Joseph argued that the network evolution plan is an important aspect of the network strategic plan, which facilitates the development of the strategic thrusts. This, eventually drives the fundamental, technical and current planning activities in Telecom Canada. These planning activities are the core of the Telecom Canada's network planning process that generates implementable projects, plan and technical guidelines for the organisation. It is also important for the organisation to identify the need for the strategic planning. The next section provides an emphasis of the view on the need for the strategic planning at the Canadian Telecommunications industry.

Canadian Telecommunications is referred to as one of high achiever in the world telecommunications industry (Joseph, 1991: 187). Observation on the Canadian telecommunications literature reveals that it has a highly advanced and well-managed network infrastructure. At present, the telecommunications services are offered at an affordable price in the Canadian telecommunications market. The strategic planning and practices at the Telecom Canada have gained in importance due to the advancement and convergence of the technology and the rapid changes in the telecommunications market structure. However, technological advancement is creating new opportunities for the affordable and high quality services provision. This also brings some additional challenges to the telecommunications service providers. The new technology requires new ways of planning and making the adopted technology more compatible with the existing core network infrastructure and systems. The need for the strategic planning at the Telecom Canada is well recognised at the highest level.

It was argued in chapter two that the rapid advancement of the telecom technologies,
requires a high level planning. The irregular expansion and incompatible equipment usage can be the impediment towards the operation and implementation of a successful network. For example, Michael Hobday's (1990) investigation on Brazil's telecommunications industry provides useful insights, where some of these problems were addressed, and the need for a more formalised approach to the TSPP at the organisational and national level are shown.

The Board of Directors (BOD) of Telecom Canada recognises the need for the strategic planning for sustaining the organisational development and maintaining a competitive position in the Canadian market. The overall strategic planning at Telecom Canada is based on attention of two kinds of planning, the development of the network strategic plan (NSP), and a strategic marketing plan. These two plans are the coordinated components of Telecom Canada's overall TSP. Telecom Canada's TSPP suggests that every member company was involved in the planning process. Joseph indicated that two working groups were formed in order to accomplish the goal of the strategic planning process. These are the network strategic planning group (NSPG), and the senior marketing advisory group (SMAG). The NSPG were given the responsibility to decide on the issues related to the next development and operations for the next decade. On the other hand, the SMAG had the responsibility to conduct the market survey for the identification of the subscribers demand and align them with the network strategic plan. The last step of the strategic planning at Telecom Canada was the format of the development process of a TSP.

Indications were found in the literature, that the format for the development of a strategic plan is as important as the plan itself. Joseph's research reveals that this is standard practice for most of the North American telecommunications companies (Joseph, 1991: 187). The total corporate acceptance and commitment to plan must be reinforced by the development format of the strategic plan with an emphasis of generating the sense of personal ownership. Telecom Canada has adopted a standard practice of the development format of the strategic plan, in which the working group meets to discuss, at every stage of the strategic planning process (Joseph, 1991: 187). Figure 8-1 provides the steps of the TSPP
at the Canadian telecommunications industry.

**Figure 8-1. The Steps of the Telecom Strategic Planning Processes (TSPP) at Telecom Canada**

The experiences reported in the preceding sections have provided an understanding about the TSPP at Telecom Canada. It also presents an understanding of the Canadian telecommunications industry structure, which is well designed and each player has been
assigned to perform the roles and responsibilities as prescribed by Telecom Canada. The planning exercise by Telecom Canada also provides an understanding on how each of the major player's TSPP is integrated into an overall NTSP. The findings on the discussions of the TSPP at Telecom Canada is consistent with the theoretical background of this study, presented in chapter two. Strategic planning principles have been well accepted by staff working at Telecom Canada. This has helped the different levels of management to develop its own TSP for fulfilling the mandate given by the corporate planning division.

In conclusion, the study on the Thai telecommunications revealed that there is no significant divisional level strategic planning in the process of the development of the overall strategic plan for the organisation. There is also no indication that the steps that Telecom Canada considered in the process of developing a TSP and building a consensus among the key decision makers. The strategic planning at Telecom Canada is also done through gathering the actions and views of the executives as well as the divisional level planners. It can be seen that the strategic planning at Telecom Canada that the initiation of a TSP was done through the process of agreement by the executives. It is also observed from the Canadian case that the organisation structure of the overall telecommunications industry is more formalised and the appropriate roles of the individual players are assigned. The Thai telecommunications industry represents a very high level of involvement and the roles and responsibilities are not yet properly assigned. The Canadian experience has identified that there a formal and well-established procedure for the decision making process, whereas the Thai telecommunications industry has not yet established this kind of procedure.

Additionally, Telecom Canada has initiated a formalised planning approaches to cater for the telecommunications services to the nation and this has not been occurred in Thailand, nor has the Thai Government maintained or established any process for maintaining the alignment between the major telecommunications carriers and regulatory institutions. The case study of the Thai telecommunication industry provides an indication that strategic
planning and practices have not yet been adopted as a standard approach and the MOTC have failed to provide adequate direction and corrective measures to the organisations involved in the Thai telecommunications industry.

The Canadian experience indicates that it is important for the telecommunications service providers and operators to create as much awareness as possible in relation to the development of new technological capabilities. However, the Thai case study certainly does not provide any indication of this. Evidence on the strategic planning and practices of Telecom Canada suggests the importance of the identification of the need for strategic planning at the departmental and eventually organisational level. Through the well-established process of the development of a strategic plan, Telecom Canada has gained the capability to manage a highly advanced and well-managed telecommunications network.

At Telecom Canada, the need for strategic planning and practices were recognised as important by the Board of Directors (BOD) for sustaining the organisational development and maintaining a competitive position in the Canadian market. Furthermore, Telecom Canada has also established a working party to oversee and decide the issues related to the development of a TSP. It is observed that in Thailand, there is no established process or approach for the development of a TSP, rather it is the informal actions and views of the executives that are playing a pivotal role in the establishment of the TSPP as well as a NTSPP for the overall Thai telecommunications industry.

The case of the strategic planning and practices at Telecom Canada has provided indications that the consideration of a development format of a TSP is a standard practice for most of the North American Telecom companies, but, there is no such indication of this sort of standard practice among the organisations involved in the Thai telecommunications industry. It is evident from the literature that the concepts of the strategic planning and practices at Telecom Canada are well accepted by the corporate executives as well as the working party. However, this kind of acceptance of the concepts for the strategic planning
and practices has not yet been adopted by the Thai telecommunications management executives. This view about strategic planning and practices can be seen from the significant variations among the executives actions and views that were gathered during the interview process. If the Thai cultural factors are to be considered, it can be argued that the Thai culture is very informal in nature and perhaps the formalisation of the TSPP as well as a NTSPP has never been a consideration for the cultural variations as can be observed for the case of Telecom Canada.

8.2.2 The NTSPP in the USA

It is evident from the literature that the national telecommunications planning for the United States is unique in many respects. Observation on the US NTSPP revealed that the US has adopted a sectoral approach to the development of its national telecommunications infrastructure. Each of the US states has its own planning for the development of that particular zones' telecommunications infrastructure. The planning documents from the state level are eventually considered and integrated for the development process of a NTSP.

The US telecommunications industry is divided into three major components: the telecommunications common carrier (telephone and telegraph); cable TV, and broadcast (TV and Radio). However, the overall US telecommunications industry is again divided into three major categories: local facilities and services; long-distance facilities and services, and the equipment industry ((Zimmerman and Brimmer, 1981: 6). The telecommunications common carrier industry in the US is divided into three components: the established common carriers, other common carriers; international carriers; mobile telephone companies, and telecommunications equipment manufacturers. Moreover, the American Telephone and Telegraph (AT&T), independent telephone companies and the Western Union (WU) are included in the category of the established common carriers.

The specialised common carriers (SCC), value added networks (VANs), and domestic satellite carriers (Domsats) belong to the other two common carriers. The international
record carriers (IRCs) and the Communications Satellite Corp (Comsat) are included in the international carriers. All the radio communications carriers (RCCs) are under the mobile telephone companies. Lastly, is the telecommunications equipment manufacturers which includes the terminal and switching equipment manufacturers. Figure 8-2 provides a hypothetical framework of the national telecommunications planning structure in the United States.

Figure 8-2. A Hypothetical Framework of the National Telecom Strategic Planning and Involvement Processes in the US

In the middle of the 70s, Anies and Day put forward the argument that any kind of planning intended to be national, should consider a team effort involving the federal government, state governments, professional societies, commerce and industry, academia,
and other groups. It is observed from the literature on national planning in the US that considerable amount of planning activities takes place in the private sector and the government alone is not involved in the national planning processes (Anies and Day, 1975: 5). However, observation from the literature on the developed and developing nations telecommunications industry suggests that national planning falls under the direct control of the government and is therefore highly centralised in nature (Zimmerman and Brimmer, 1981: 4). In the US, national planning it is the responsibility of the federal and the state governments to establish the broad goals, policies, and procedures through to respective legislature and regulatory processes. The uniqueness of the US practice can be seen from the actions of the government to leave the ownership, operation, and management of telecommunication facilities and services to the private sector (Zimmerman and Brimmer, 1981: 4).

A brief discussion on the study of the US telecommunications industry structure and strategic planning is provided in the above sections. It is observed in the US telecommunications industry that it is a more formal approach of strategic planning and practices at the organisational and national level. However, the organisational level planning and practice eventually contribute to the process of a NTSPP. On the other hand, the Thai case study represents a high degree of informal involvement in the organisations' TSPP and also the NTSPP. The overall organisational level strategic planning and practice for the Thai telecommunications are done in an informal way. This section is aimed at providing a comparison on the discussions of the US telecommunications planning and practices with the findings of the Thai case.

By looking at the structure of the US telecommunications industry, it is revealed that the US government has adopted a process for the development of a strategic plan for the development of a national telecommunications infrastructure. The structure and roles of the organisations in the US telecom are defined at the national level and expected to develop a sectoral level planning for each of the states. In the case of the Thai telecommunications
industry, the government has largely failed to assign proper roles and responsibilities to the state owned and government organisations to carry out the national mandate forwarded by the MOTC.

It is observed from the discussions on the US telecommunications industry that national planning for the telecommunications follows the involvement process of different bodies from different sectors. In order to maintain the cooperation and coordination, the US government has directed all sectoral organisations to develop its state level planning. The state level planning is then taken into consideration in the NTSP, however, for the case of Thailand, the involvement process of different groups in the development of a NTSP is rather nominal. To date, there is no significant practice of a sectoral telecommunications planning in Thailand. Furthermore, it is also evident that the Thai Government has assigned formal roles and responsibilities to develop the sectoral plans and then transformed these into a NTSP.

The US telecommunications infrastructure planning and practices are also observed to be more formalised. It is required that each state should develop its own telecommunications planning and development models and processes. The sectoral approach can be a good measure for bringing the state level planning into a national level telecommunications planning and policy development (Parker and Hudson, 1992: 113, 139; http://calvino.alaska.net/~apac/ 2001.html; gopher://bric.berkeley.edu:2234/0/Infra). For Thailand, it is evident that the government has not yet taken any sectoral approach for telecommunications development (Lindley and Hossain, 1996). The Thai telecommunications planning and practices are still concentrated on only the large metropolitan network development and most of the development is Bangkok based.

To efficiently exploit the long-term strategy for the telecommunications development, the Thai Government will be required to identify and coordinate both the metropolitan and rural developments of telecommunications infrastructure. It will also be required by the
Thai government to separate the roles of the regulator and services provider and provide clear long-term direction to the telecommunications bodies in Thailand. At present, the observation on Thai telecommunications revealed that the participation of the private sector and other concerned bodies in a NTSPP are minimal. The reasons for these wide differences between the Thai telecommunications and the US telecommunications industry can be seen from three viewpoints. The first is the industry structure, and for the case of the US, appropriate roles and relationships have been established for maintaining organisational and national co-ordination and co-operation. The second is the difference between the culture and its influence on the Thai management practices. The third is the regulatory environment of the Thai telecommunications, which is seemingly different from the regulatory environment of the US. For example, in the US, FCC has the authority and in power to control and provide policy control mechanisms to guide the US telecommunications industry. For the case of Thailand, the Thai Government is still in the process of formalising its regulatory environment and planning to establish the National Telecommunications Commission in the near future. However, in order to maintain and continue to provide appropriate telecommunications services, the TSPP in Thailand needs to be looked at and a proper participation of different bodies in the TSPP will be required. The next section provides a discussion about the comparison of the Thai findings with the NTSPP in Brazil.

8.2.3 The NTSPP in Brazil

Telecommunications services in Brazil were supplied by the member companies with over 800 public utility companies holding franchises for operating telecommunications network up to the 1960s (Goransson, 1991: 59). However, of the 800 public utility companies, most are privately owned with government control over the telephone tariffs. On August 27, 1962, the Brazilian Telecommunications Law (Law 4117) was approved and lead to the restructuring of the telecommunications services sector.
The Brazilian Telecommunications Company (EMBRATEL) was formalised in 1965 (Law 4117). The Ministry of Communications was established in 1967. At that time EMBRATEL was involved in the operation of the long-distance national and international telecommunications traffic. Compania Telefonica Brasileira (CTB), the largest national telephone company in Brazil, was nationalised shortly after the creation of the EMBRATEL. Later the EBRATEL took over the shares of the largest telephone company in Brazil, Compania Telefonica Brasileira (CTB). Figure 8-3 provides the structure of the Brazilian Telecommunications industry. The Brazilian government took aggressive steps for the development and rapid modernisation of the telecommunications infrastructure. Goransson identified three components that the Brazilian government initiated for the development process of the national telecommunications infrastructure (Goransson, 1991: 73). The first component of the national strategy relied on the achievement of obtaining control over the telecommunications service sector. The national authorities achieved control over the development sector of the telephone expansion, coordination and design by controlling the service sectors.

It is also observed from the literature that the implementation of telecommunications industrial policy in Brazil, was an outcome of the procurement power of the companies under the TELEBRAS' supervision (Goransson, 1991: 73). The regulation of the producers of the telecommunications equipment was the second component of the national strategy. Goransson's analysis indicates that Brazil adopted two different approaches to this problem. The first was the government's intention to allow the foreign companies to remain in the market under certain conditions and increased control. The second was the initiative aimed at the development of the local technology by giving it preference over the foreign technology (Goransson, 1991: 73).
The development of an R&D infrastructure was the third component of the Brazilian telecommunications industry development strategy. The literature revealed that there was hardly any kind in capability of the research and developments of the telecommunications sector before the 1960s. In 1972, the TELEBRAS was created and at the same time it started to support the development of human resources in the field of telecommunications. The Brazilian national Center for Research and Development in telecommunications (CPqD) was created between 1972 and 1976 for supporting the development of the R&D infrastructure rather than aiming at achieving the results in terms of marketable products (Goransson, 1991: 75). Lastly, the third phase was aimed at the development of the R&D capability of the industry to enable it take over most of the R&D tasks that were performed by CPqD (Goransson, 1991: 77). This strategy was adopted in order to provide a more flexible research environment to the CPqD to move into a high risk R&D and advanced
technological support.

Fiol and Ferraz (1985) provided indications that the TSPP at the Brazil's national level is divided into three phases: the first is the usual SPP; the second is the operational level planning centred around TELEBRAS, and lastly, is the planning that is conducted mainly in each subsidiary (Fiol and Ferraz, 1985: 231). The strategic telecommunications planning in Brazil is directed by the Ministry of Communications. Literature revealed that strategic planning in the Brazilian telecommunications industry takes the situational analysis into account for the process of the development. It is identified from the literature that the situation analysis in Brazilian telecommunications industry is four fold: social, political, economic and cultural aspects; and, strengths and weakness of the organisation. These factors in the situational analysis lead the telecommunications in Brazil, to a definition of global strategic objectives. The NTSPP in Brazil, involves the discussion and debate between the member companies and other concerned groups and is only updated under certain circumstances. The phase is the yearly operational level planning.

A brief summary of Brazil's NTSPP reveals that Brazil took a dynamic step towards its national telecommunications development. Similar observations were made from the discussions on the structure of the Brazilian telecommunications sector with regard to the findings in Thailand. The Brazilian Government initiated a strategic vision for the national telecommunications development through the development and creation of the human resources as well as the development of the nation's technological capability. However, comparing these with the detailed findings from the Thai telecommunications industry provides an indication that Thailand is still in the process of its early telecommunications development. It can be argued for Thailand that the government has not initiated any formal steps for assigning the appropriate responsibility to its SOEs or the government organisations with regard to telecommunications development.

The results of these actions and views are reflected in the present chaos among the
telecommunications industry's planning and practices. Even though the practice of strategic planning is present at the organisational level, the Thai Government has largely failed to initiated any step towards the transformation of the organisational TSPP into a NTSPP. There is no evidence of the existence of the social goals and provision of the appropriate telecommunications services to the rural Thailand. It can also be argued that the Thai Government has failed to initiate any sorts of organisational integration and coordination in the development process of the national telecommunications infrastructure plan.

8.3 Conclusions

This chapter has compared the actual TSPPs of the TOT, the CAT, and the PTD and a NTSPP practices with the theoretical construct that is proposed in chapter two and three. The material was based on three case studies as well as the material extracted from the cross case analysis. The comparison of the theoretical and actual constructs has suggested that a theoretical TSPP as well as a NTSPP can assist developing countries like Thailand, in developing and implementing a NTSP. This chapter has also provided a brief discussion of the international comparison of the telecommunications strategic planning and practices.

It is evident from the analysis that both Canada and US took a sectoral approach towards the national telecommunications development. Telecommunications planning in these two countries is performed at the organisational level, to the fulfilment of the national telecommunications objectives. The sectoral approach has forced the strategic planners at the national level to integrate and coordinate all the organisational and state level requirements and responsibilities for the development of an overall NTSP. This approach is absent in Thai telecommunications. Thailand is only, at present, in the process of setting up its future regulatory authority for formalising the cooperation and coordination among the future players in the market.

The comparisons of the strategic planning with the Telecom Canada and Thailand provide an indication that the Canadian model is more formalised and comprehensive than
the Thai one. The Canadian models also consist of the detailed plan for the network development and the marketing plan. In order to prepare the strategic plan at the Telecom Canada, the practice has been to integrate and align the network planning and market with the overall organisational TSP. There is no indication or steps for the Thai telecommunications in this regard.

The development of the telecommunications network requires a formal planning approach and this should be aligned with the organisation's strategic plan. The irregular network expansion can be expensive for the service providers and eventually will affect the subscribers. This kind of experience is found in Brazil. The experiences from the Brazil's telecommunications planning and practices indicate that the government took a strategic view for the human and technological capability development for the telecommunications industry. There has not been any formal step taken into consideration by the Thai Government for the human resource development. The overall limitations in relation to a national comparison for the telecommunications are: the lack of completed literature at both the organisational and national level telecommunications planning processes; the difficulty in gaining access to the telecos TSPP and its development processes; and, economic, political and cultural difference among these nations and its management practices.
Chapter Nine
Summary, Conclusions, and Recommendations

9.1 Summary

In the theoretical chapters (chapters two and three), it was argued that the concept of a TSPP and a NTSPP is at the core of the success of a TSP and a NTSP. It is also important to restate that the central thesis of this present study, is based on the assumption that unless an appropriate TSPP can be installed at the organisational level, a NTSP at the national level cannot succeed. In order to justify the central thesis of the study, a national case study design has been proposed, which is adopted from that of Robert Yin and assumptions are considered thereafter for developing an understanding of a NTSPP in Thailand. The research has demonstrated the need for a multiple case study design for a NTSPP, by providing a descriptive analyses of the TOT, the CAT and the PTD.

The present study also has demonstrated the need to adopt a multiple theoretical approach for developing an understanding of the theory of planning and the theory in planning for the telecommunications industry in Thailand. The theoretical background of this study also provided the understanding of the relationships between a TSPP, the organisations and environment, which are embedded in the analysis of a NTSPP in Thailand. The synthesis of normative-descriptive dichotomy of strategic planning theories, suggests that it is now time for countries like Thailand and academic researchers to view strategic planning as a
consensus building process. On the basis of the synthesis of the national case study findings, the pragmatic working model, described in chapter 8, which is the formal outcome of this research, clearly meets the requirements of the research objective and provides a comprehensive answer to the basic research question of: Whether a more formal TSPP for the national telecommunications actors satisfies and integrates the support for a NTSPP in Thailand.

On the basis of the extensive literature review in the areas of TSPP, as well as the interpretation and analysis of the case study data, it is evident that the normative-descriptive dichotomy of strategic planning theories and its approaches, is in fact, a useful paradigm of this present study on a NTSPP. Taken into the conceptual (figure 1-2) and the theoretical considerations, chapter six has analysed: the TSPP within the TOT, the CAT, and the PTD; the roles of the TOT, the CAT, and the PTD in a NTSPP, and the influences of the environmental factors within the TOT's, the CAT's, and the PTD's TSPP. Chapter seven has also provided a cross case analysis of the TOT, the CAT, and the PTD. Based on the analyses of chapter six, chapter seven has synthesised the influences of the environmental factors for a NTSPP in Thailand. Findings also suggested that the influences on the TSPP of the SOEs (TOT and CAT) and the PTD are rather confusing and the TOT seems to work under a more bureaucratic pressure than the CAT or the PTD.

The final outcome also suggested the need to adopt a more formal TSPP for the telecommunications strategic planning functions of the major actors in Thailand. It was also argued in chapter two, three, four, and six that unless a formal TSPP can be installed at the organisational level, a NTSPP cannot succeed. The synthesis of a national case study findings also considered the telecommunications planning and practices from an international perspective, with a view to identify the similarities of the TSPP and a NTSPP with the findings from the Thai telecommunications. International discussions on Telecom Canada, US and Brazil's NTSPP suggest the need for a more formal TSPP and a NTSPP approach. The key original contribution of this present study is summarised in table 9-1.
1. First attempt for the initiation of the concepts of a Telecommunications Strategic Planning Process (TSPP) and a National Telecommunications Strategic Planning Process (NTSPP) in the body of the strategic planning literature.

2. First attempt for developing an understanding of the telecommunications organisations, a TSPP, and the environment.

3. First attempt to develop an understanding of a NTSPP from both a theoretical and an applied perspective.

4. First attempt to provide the historical development of the Thai telecommunications for analysing the roles and relationships of the national telecommunications actors during its first 110 years (1886-1996).

5. First attempt to use Robert Yin's framework as a research methodology for developing our understanding on the national case study design for a NTSPP in Thailand.

6. First attempt to analyse TSPP within the TOT, the CAT, and the PTD and transformation of the TSPP into a NTSPP in Thailand.

7. First attempt to developing an understanding of both a TSPP and a NTSPP, using a broader framework of normative-descriptive dichotomy of strategic planning theories.

Table 9-1. A Summary of the key original contribution of the research

9.2 Theoretical Implications of the Research

The findings of the research have suggested that it is urgently required of the telecommunications planners to give a high priority to the establishment and operation of the TSPP at the organisational level and also to integrate the TSPP with a NTSPP in
Thailand. The study approach used can be applied for other developing countries, where the government largely has failed to establish a process for the development of a national telecommunications infrastructure.

The theoretical implications of this study can be seen from the viewpoints of the descriptive, normative, and predictive findings and assumptions. This research has also addressed the concern of how to develop a TSPP and how the TSPP is being developed. The result of the normative and descriptive findings of a NTSPP research has suggested that there is a growing necessity to consider the TSPP as a consensus building process. It has been argued that consensus is the key to the successful formulation and implementation of the TSPP and a NTSPP. An organisation or nation's TSP, without a clear focus on the aspect of consensus building, is a sure formula for failure.

The descriptive findings on the TSPP as well as a NTSSPP suggested that the national telecommunications players in Thailand, do not posses a formalised TSPP at their organisational levels. The descriptive findings of a NTSSPP in Thailand, suggested that the Thai Government largely failed to initiate and agree upon a NTSSPP contents and cycle process. This is due to the lack of cooperation and coordination among the players involved in a NTSSPP. However, it is also observed that the TOT, the CAT and the PTD also failed to establish a procedure or an approach for the TSPP.

If the Thai telecommunications industry structure is examined, it will be seen that the MOTC, has failed to establish a national telecommunications planning and practice guidelines nor does it soft sell it to the national telecommunications players. The results can be seen from the irregular expansion of networks, high cost of services provision, and the chaos among the players in Thai telecommunications market. The Thai telecommunications industry represents a very high degree of confusion and rivalry among the national telecommunications players. It is argued here that all of this is the result of the lack of concern of the strategic planning and practices in the Thai telecommunications. So, the
descriptive findings have suggested that a lack of concern about the formal planning mechanisms can be very expensive and increases the chaos among the major participants, which may in fact, hinder the national telecommunications planning and practices.

Chapter eight has provided the synthesis of the normative and descriptive findings on a NTSPP. Chapter two defined the normative approach as to how it should be, and the descriptive approach as to how it is, in a particular context. The outcomes of this present study have shown very little relationship between the normative and descriptive findings of the dichotomy of the strategic planning and practices. On the basis of the comparison of the normative-descriptive dichotomy of strategic planning and practices, it can be argued that there will be changes in the strategic planning and practices in future. It is predicted that the future of the strategic planning is chaotic at least for Thai telecommunications. The outcomes of this study suggest that the strategic planning is essentially a consensus building process and considers this new definition to be a useful paradigm of research that may in fact, keep the strategic planning alive by producing the desired outcomes through the consensus building process.

The outcome of this study also has provided a methodological approach that can form a basis for the development of the National Information Infrastructure (NII). It was argued in chapters two and three, and as well, in chapters six and seven that the telecommunications network planning and management requires a high level planning activities and now in this age of information infrastructure, where the need for a more formalised approach is demanded for keeping up to date with the rapid advancement of the telecommunications technologies and standards, changes in the government policy and regulation, and also changes in the international marketplace.

It is argued that the NII planning and implementation, to be successful, requires the use of more compatible equipment and standards, and also the participation of the players from the case study. It can be justified that unless the organisations are able to establish or develop an approach for the TSPP, the transformation will be difficult and the result
chaotic among the players, which will hinder the development and implementation of the NII. The problems of the planning and implementation of the NII, in fact, will be the major impediment towards the integration of the NII and incorporating with the Global Information Infrastructure (GII).

What the present study has achieved, is to provide the first detailed insights into the understanding of a NTSPP for Thailand. The normative-descriptive dichotomy adopted as a theoretical organiser and, which emphasises the role of the organisations, has also served to highlight the need for a multidisciplinary approach to develop our understanding of a NTSPP in Thailand. One of the main outcomes has been to demonstrate that a NTSPP provides a case in point, highlighting the benefits of adopting a broad and evolutionary approach to the TSPP and based on a multiple theoretical framework. For the practitioner, these findings also illuminate new possibilities for the development of a theoretically informed TSPP, thus placing the organisational TSPP in a position to significantly and positively influence a future NTSPP in Thailand.

9.3 Research Implications for the Thai Practitioners

The analyses of chapter six and seven suggest that it is now time for a country such as Thailand, to made strategic planning and practices a high priority. The research has highlighted the lack of consensus at the organisational as well as a NTSPP in Thailand and suggests that the Thai Government should essentially consider the introduction of the strategic planning and practices, both at the organisational and national level, to effectively build consensus among the organisational planners and the other national planers in Thailand.

The study also suggests that the MOTC, now needs to develop some kind of control mechanisms for these organisations as well as the key national planning agencies related to telecommunications. The research has identified that some government organisations play a very small role in the telecommunications planning process and therefore, create
unnecessary barriers for the successful formulation and implementation of both the TSPP and a NTSPP in Thailand. The normative NTSPP framework, will serves as a useful guideline for the successful formulation and implementation of a NTSPP in Thailand. However, the theoretical and the methodological approach of this present study, may serve as a useful paradigm of research for the development and implementation to other developing nations' NTSPP.

It is important to recognise that a descriptive theory plays an important role in the process of making a normative prescription. Neither the normative or the descriptive theory can stand alone. If the theory is proposed based on the normative approach, it will also fall short of its expectations and loose touch with reality, and theoretical development. Considering these, this study has demonstrated that a multiple theoretical approach (normative-descriptive dichotomy) of strategic planning research, is a useful paradigm of a NTSPP research. Based on the existing theories of strategic planning and its practices, it is concluded that there is place for the formalisation of a NTSPP. This is essential for maintaining a consistency of the TSPPs among the national telecommunications actors, and also for exploiting the competitive advantages through the effective use of telecommunications. In order to understand how a NTSPP would operate in practice, and also to advance the theoretical development for a NTSPP, it is evident that the normative-descriptive dichotomy of strategic planning theory and its understanding, will bridge the apparent knowledge between the theory of strategic planning and the theory in strategic planning.

It is also observed for the case of the Thai telecommunications that the government has not yet initiated a formalised procedure for the national actors roles and their relationships for the development of a national telecommunications infrastructure. Rather, evidence suggests that the Thai Government's concern is more in nature of finding solutions for the immediate problems by initiating the urgent projects. The MOTC has largely failed to provide a strategic planning framework as a control mechanisms for maintaining an overall
co-ordination and co-operation among the national telecommunications actors. It can however be argued that the basic telecommunications infrastructure is vital for the NII concept. It can also be seen that the complexity in government regulation, the rapid advancement of telecommunications technologies and the changes in the international marketplace requires a more formalised planning for exploiting the strategic benefits from the products and services it offers (Hossain and Lindley, 1997b). On the basis of the Thai case studies, it can be concluded that the concept of the NII and incorporation of the GII, can only be initiated, when we can have a NTSPP framework that supports as a backbone for the future developments of the NII as well as the GII.

9.4 Recommendations for Further Research

The aim of this present study was to explore a NTSPP for Thailand. The author would like to indicate that many of the models and framework cannot be empirically tested or validated. However, in the conduct of the research, several areas for additional research were uncovered.

The conceptual framework for a NTSPP (figure 1-1) can be applied to other developing nations' telecommunications planning and practices. Figure 1-2 on the conceptual framework for the study of the TSPP can be validated through empirical studies. The empirical work required for showing the relationships between the factors of the TSPP are considered in the figure 1-2. The theoretical framework for a NTSPP can be applied to other developing nations for developing an understanding of the TSPP and a NTSPP. The research has not considered the cultural factors and its influences on the TSPP. This limitation was discussed in the methodology of chapter five. Further research therefore will be required on the role of Thai culture and the relationships between the strategic planning. Moreover, the implementation practice is not looked at in detail.

It is beyond the scope of the research to look at these implementations. Further research will be required on the implementation of the TSPP and a NTSPP. The normative-
descriptive dichotomy of strategic planning and the theoretical constructs can be applied to the implementation on a NTSPP, not only in Thailand, but also in other developing nations. The present theoretical approach (chapters two and three) can also be applied to other industry and disciplines. For example, the theoretical background of the relationships between the SPP, the organisations, and the environment can be applied to sectors like health, transportation, manufacturing etc.

It is important to recognise that a descriptive theory play an important role in the process of making a normative prescription. Neither the normative or the descriptive theory can stand alone. If the theory is proposed based on the normative approach, it will also fall short under the expectations and looses not only touch with reality, but also looses the touch with theoretical development. Considering these, this study has demonstrated that a multiple theoretical approaches (normative-descriptive dichotomy) of strategic planning research, is a useful paradigm of a NTSPP research. Based on the existing theories of strategic planning and its practices, it is concluded here that there is place for the formalisation of a TSPP for an organisation. This is essential for maintaining a consistency of planning processes of the individual departments with an organisation, and also for exploiting the competitive advantages through the effective use of telecommunications. It is also argued throughout this study that in order to understand how TSPP and NTSPP is occurring in practice, and also to advance the theoretical development for the TSPP and a NTSPP, it is evident that the normative-descriptive dichotomy of strategic planning theory and its understanding proposed, will bridge the apparent knowledge gap between the theory of strategic planning and the theory in strategic planning.
Author's Publications (1995-1997)


Journal Publications


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Pietrogrande and Rizzoni, 1994: 575


Pientam, O. Executive Vice President. Office of the Corporate Affairs. The Telephone Organisation of Thailand. Face to face interview by Liaquat Hossain.


Vancil and Lorange, 1977


Interview Records

School of Information Technology and Computer Science
Centre For Informatics Research (CIR)
The University of Wollongong, Northfields Avenue
NSW 2522 Australia

Time Interview

AM
PM

Interview No.
Date:
Duration: (mins)

Started

Name: ____________________________

Position: _________________________

Division: _________________________

Organisation: _____________________

Address: _________________________

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The major parts of the interview questions is divided into five phases:

Phase 1. Introductory Questions
Phase 2. Strategic Planning Questions
Phase 3. Environmental Analysis Questions
Phase 4. Public Policy, Regulation, and Technology Adoption Questions
Phase 5. Organisational Interaction and Concluding Questions

Phase One: Introductory Questions

1. First I would like to get a general idea about your organisation’s strategic planning and practices.
   1.1 Do you have a strategic/formal plan?
      [ ] Yes [ ] No

   1.2 How often is the plan revised/reviewed?
      [ ] Annually _______________________________________________________________
      [ ] Biannually _______________________________________________________________
      [ ] Quarterly ______________________________________________________________
      [ ] Monthly ______________________________________________________________
      [ ] Others? ______________________________________________________________

   1.3 Who is/are responsible for the process of review of strategic planning?
      [ ] Top Management
      [ ] Corporate Planning Division
      [ ] Management Steering Committee
      [ ] Others?

2. What types of strategic planning process is/are conducted by your organisation?
   [ ] Financial Planning
   [ ] Forecast-Based Planning
   [ ] Externally Oriented Planning
   [ ] Others?

3. What is/are the main purpose of the strategic plan(s) in your organisation?
   [ ] As a guideline
   [ ] To integrate the departments
   [ ] To control the departments
   [ ] Others?

4. What is/are the overall goals of your organisation’s strategic plan(s)?
   [ ] Have a plan
   [ ] The process itself
   [ ] Have a better control
   [ ] To solve the problem
   [ ] Others?
5. What is/are the organisational goals of your organisation’s strategic plans?

- [ ] Help to identify future actions
- [ ] Provide more cooperation
- [ ] Help to decide which factors deserve importance
- [ ] Provide a framework or boundary to work with
- [ ] Define objectives, mission, goals and strategies to achieve these
- [ ] Overall Organisational co-ordination or cooperation
- [ ] Others?

6. What is/are the qualitative goal(s) of your organisation?

- [ ] Improved quality
- [ ] Improved customer relations
- [ ] Improved teamwork
- [ ] Provision of service
- [ ] Improved industrial relations
- [ ] Expansion of telephone network
- [ ] Be a leader in the market
- [ ] Others?

7. What is/are the quantitative goal(s) of your organisation?

- [ ] Market expansion
- [ ] Net revenue
- [ ] Increase telephone penetration
- [ ] Others?

8. By whom are the goals set?

- [ ] CEO
- [ ] Board of Directors
- [ ] Outside committee
- [ ] CEO & Senior Managers
- [ ] Suggestion by the staff, supported by Managers and endorsed by the CEO
- [ ] Ministry?
- [ ] Overseas consultant
- [ ] Others?

9. To what extent was your organisation successful in achieving the organisation’s qualitative goals?

- [ ] Significantly above what is set
- [ ] Above what is set
- [ ] As what is set
- [ ] Below what is set
- [ ] Significantly below what is set
10. To what extent was your organisation successful in achieving the organisation’s quantitative goals?

[ ] Significantly above what is set ________________________________
[ ] Above what is set ________________________________
[ ] As what is set ________________________________
[ ] Below what is set ________________________________
[ ] Significantly below what is set ________________________________

11. About how much of your office time is devoted to thinking by yourself on strategic issues concerning the company?

[ ] Less than 10% ________________________________
[ ] 10% to 25% ________________________________
[ ] 26% to 50% ________________________________
[ ] 51% to 75% ________________________________
[ ] More than 75% ________________________________

12. About how much of your office time is spent in discussing strategic issues concerning the company?

[ ] Less than 10% ________________________________
[ ] 10% to 25% ________________________________
[ ] 26% to 50% ________________________________
[ ] 51% to 75% ________________________________
[ ] More than 75% ________________________________

**Phase Two: Strategic Planning Questions**

13. Do you or your organisation happen to look at other national telecommunication’s planning models and processes to help make decisions?

[ ] Yes [ ] No

14. If yes, what kinds of model(s) is/are being currently used in your organisation? Why do you use that particular model?

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15. In your opinion, how important do you think an awareness of different national experiences is for strategic planning?

[ ] Provide guidelines
[ ] Lessons can be learned
[ ] Can be aware of standard technology adoption in those countries
[ ] Provide building blocks for planning
[ ] Others?

16. What is the role of your organisation in national telecommunications infrastructure planning and practice?

[ ] Provides National Planning Framework
[ ] Set Objectives
[ ] Provide guidance to national planners
[ ] Sets up coordinated goals and objectives
[ ] Provide feedback
[ ] Follow instructions given by NEASDB (National Economic & Social Development Board)
[ ] Others?

17. Do you usually receive the expected cooperation from the other government and state owned enterprises involved in the telecomm industry?

[ ] Yes [ ] No

18. If yes, what sorts of cooperation do you receive?

[ ] Planning guidelines
[ ] Group discussion
[ ] Sharing expertise
[ ] Setting up mutual goals
[ ] Regulation & Policy Support
[ ] Financial Support
[ ] Expertise & Industry Input
[ ] Others?

19. If no, what seems to be the problem?

[ ] Political pressure
[ ] Lack of cooperation
[ ] Overlapping functions
[ ] Conflicts of interest
[ ] Lack of Expertise
[ ] Time
[ ] Others?
20. How do the planning activities in your organisation help you to decide upon the strategic matters? (Strategic matters refer to the factors that are vital for achieving organisational goals)

[] Identify Strengths & W ________________________________
[] Provides Feedback ________________________________
[] Evaluate User Requirements ________________________________
[] Recommend Future Actions ________________________________
[] Provide Policy Guideline ________________________________
[] Analyse Present Planning Practices ________________________________
[] Analyse Appropriateness of the Technology Adoption ________________________________
[] Others?

21. In your view, who monitors or oversees the strategic planning and practice at this organisation?

[] CEO ________________________________
[] Organisational planners ________________________________
[] External committee ________________________________
[] PTD (Post & Telegraph) ________________________________
[] Ministry? ________________________________
[] Others?

22. In your own view, what is/are the organisational benefits derived from the strategic plan in your organisation?

[] Purpose and Direction ________________________________
[] Plan as a Guide ________________________________
[] External Awareness ________________________________
[] Pro-activity ________________________________
[] Reactivity ________________________________
[] Timely Strategies ________________________________
[] Shared Values ________________________________
[] Team Spirit ________________________________
[] Others?

23. In your opinion, what is/are the problem(s) of strategic planning and practices in Thailand? Please explain why.

[] Environment Too Unpredictable ________________________________
[] Political Influences ________________________________
[] Business Influences ________________________________
[] Inadequate Published Data ________________________________
[] Too Much Paperwork ________________________________
[] Too Frequent Revisions ________________________________
[] Impractical Planning Tools ________________________________
[] Too Much Rivalry ________________________________
[] Does Not Foster Entrepreneurship ________________________________
[] Others?
24. What is/are the step(s) taken into consideration by your organisation for the formal strategic planning process that occur?

[ ] Project Studies
[ ] Information Gathering
[ ] Evaluation of Alternatives
[ ] Project Selection Criteria
[ ] Setting Financial Objectives
[ ] Forecasting Results
[ ] Co-ordination of Planning
[ ] Search for Opportunities
[ ] Gap Analysis
[ ] Strategies to Close the Gap
[ ] Locating Resources
[ ] Others?

25. In your own view, what is/are the factor(s) considered by your organisation for gathering information for developing strategic plans?

[ ] Market Trends
[ ] Financial
[ ] Domestic Competitors
[ ] Regulatory
[ ] Technological
[ ] Political Trends
[ ] Labour Market
[ ] Suppliers
[ ] Socio-Cultural
[ ] Foreign Competitors
[ ] Others?

Phase 3. Questions on Environmental Influences

26. What are the areas of strategic planning and practice considered to be most important for the Thai telecommunications industry? Please explain, why these factors are so important.

[ ] Public policy
[ ] Regulation
[ ] Technology adoption
[ ] Organisational interaction
[ ] Political pressure
[ ] Government intervention
[ ] Skilled human resources
[ ] Others?

27. What are the key environmental factors taken into consideration when a strategic plan is being developed by your organisation? Why do these factors deserve such importance in Thailand?

[ ] Demographic changes
[ ] Economic trends
[ ] Technological trends
[ ] Public policy
[ ] Regulation
[ ] Industry structure
[ ] Competition
[ ] Organisational factors
[ ] Others?
28. What is/are the methodologies used to assess the complexity of the environmental factors which are taken into consideration in this organisation in the planning process? (Complexity refers to the number of factors and elements of the environment involved in the planning process)

[ ] Conduct environmental assessment
[ ] Monitoring changes in the industry
[ ] Whenever there is need/problem
[ ] Situational based
[ ] Others?

29. What are the perceived environmental factors taken into consideration by your organisation over the last 3-5 years? (Uncertainty refers to the extent to which the organisational planners perceive unpredictable changes in their internal/external environment)

[ ] Public policy
[ ] Regulation
[ ] Uncertainty of HW & SW
[ ] Political changes
[ ] Business Influences
[ ] Organisational restructuring
[ ] Changes in the international marketplace
[ ] Others?

30. How does your organisation plan to cope with the future environmental changes for strategic planning and practices? Is there any resistance? If so, please explain why?

[ ] Conduct research in advance
[ ] Identification of shortcomings
[ ] Reconceptualise strategic planning
[ ] Develop internal expertise & coop.
[ ] Develop a flexible planning framework
[ ] Recruit external consultants
[ ] Others?

31. What environmental factor(s) is/are out of the control of planning activities in your organisation?

[ ] Economic Changes
[ ] Technological Advancement
[ ] Government Regulation
[ ] Uncertainty of Stds.
[ ] Funding Alternatives
[ ] Too many buyers & Suppliers
[ ] Others?

32. What do you think would improve the effectiveness of the strategic planning process in this organisation?

[ ] More staff participation
[ ] User participation
[ ] Proper technology assessment
[ ] Decentralisation
[ ] Less political control
[ ] Regular seminar
[ ] Written report
[ ] Rethink strategic planning process
[ ] External Consultant
**Phase 4: A. Public Policy Questions**

33. In your view, what are the stages taken into consideration for your organisation’s policy making process?

[ ] Agenda-Setting
[ ] Policy Formulation
[ ] Decision-Making
[ ] Policy Implementation
[ ] Policy Evaluation
[ ] Others?

34. What are the approaches taken into consideration for Thailand’s public policy making?

[ ] Deductive  [ ] Inductive  [ ] Mixture

34.1 If deductive, what is/are sub-types of this approach considered for the case of Thailand?

[ ] Public Choice
[ ] Class Analysis
[ ] Neo-Institutionalism
[ ] Others?

34.2 If inductive, what is/are the sub-types of this approach considered for the case of Thailand?

[ ] Welfare Economies
[ ] Pluralism/Corporatism
[ ] Statism
[ ] Others?

34.3 If it is a mixture, what is/are the sub-types of these approaches considered for the case of Thailand?

[ ] Public Choice
[ ] Class Analysis
[ ] Neo-Institutionalism
[ ] Welfare Economies
[ ] Pluralism/Corporatism
[ ] Statism
[ ] Others?

35. In your view, what role does a clear public policy statement have over the organisational and eventually national strategic planning and practices?

[ ] Vital for decision making
[ ] Avoid chaos among companies
[ ] Know exactly what to expect
[ ] Encourage fair trade
[ ] Less political pressure
[ ] Others?
36. How is government ownership and control defined in the development of Thailand’s basic telecommunications infrastructure?

[ ] Clear revenue sharing agreement with the private concessionaires
[ ] Specified distribution of fixed public wired lines in rural areas
[ ] Clearly defined responsibility among state owned enterprises
[ ] Less political intervention
[ ] Specified ownership control
[ ] Equal opportunity for other private sectors for participation
[ ] Others?

37. At present, what kind of revenue agreement is shared with the private concessionaires who are involved in developing Thailand’s telephone networks?

[ ] Depends on total Main Lines installation contract
[ ] Subsidy to the rural dev.
[ ] Based on years of concession agreement
[ ] Others?

38. In your own opinion, why has the Thai government chosen to privatise their state owned enterprises?

[ ] Political pressure
[ ] Employee union
[ ] Unskilled labor force
[ ] Availability of technology
[ ] Others?

39. In your view, why has liberalisation occurred before privatisation in Thailand?

[ ] Political pressure
[ ] Specific groups interest
[ ] Lack of expertise
[ ] Caps on international borrowing
[ ] Encourage joint ownership
[ ] Others?

40. If there are any changes required in public policy with regard to telecommunications industry, what would you suggest to the policy makers do and why?
B. Regulation

41. Is there any regulatory body at present which oversees the telecommunications infrastructure planning and implementation practices?

[ ] Yes  [ ] No

42. Who is/are the main regulator(s) of Thailand’s telecommunications industry?

[ ] Ministry of Transport and Communications
[ ] Ministry of Science and Technology
[ ] Post and Telegraph Department
[ ] Telephone Organisation of Thailand
[ ] Communications Authority of Thailand
[ ] Independent Regulatory Body?
[ ] Others?

43. Do you or your organisation happen to look at other national telecommunications regulatory models and processes to help make regulatory decisions?

[ ] Yes  [ ] No

44. If yes, what kind regulatory model is/are being currently used in Thailand’s telecommunications industry? Please explain why do you use that particular model.

[ ] OFTEL (Office of Telecomm)
[ ] AUSTEL (Aust. Telecomm Auth)
[ ] FCC (Federal Comm Commission)
[ ] MPT-Japan
[ ] RTT-Belgium
[ ] SEI-Brazil
[ ] CRTC-Canada
[ ] PTT-France
[ ] DBP-Germany
[ ] PTT-Switzerland
[ ] Others?

45. If no, what kind of regulatory model is/are planning to adopt for the Thai telecommunications industry? Please explain why.

[ ] OFTEL
[ ] AUSTEL
[ ] FCC
[ ] MPT-Japan
[ ] RTT-Belgium
[ ] SEI-Brazil
[ ] CRTC
[ ] PTT-France
[ ] DBP
[ ] PTT-Switzerland
[ ] Others?
46. In your opinion, what is/are the regulator's role in Thailand's basic telecommunications infrastructure planning and practices? Please explain, why?

[ ] Monitoring the public and private participation
[ ] Setting tariff structure
[ ] Oversee revenue sharing
[ ] Set rules and regulations for entry and technology standards
[ ] Tariff Structuring
[ ] Technology Adoption Guideline
[ ] Provide service offered guidelines
[ ] Others?

47. In your view, what type(s) of regulation is/are adopted for Thailand? Please explain why?

[ ] Economic Regulation
[ ] Social Regulation
[ ] Mixture

48. If economic regulation is being practiced in Thailand, what is/are the factors taken into consideration for developing Thailand's economic regulation model? Please explain why.

[ ] Government established rules
[ ] Competitive market for consumer benefits set by the govt.
[ ] Prevent detrimental loss
[ ] Price fixing and cartels
[ ] Risk of exploitation through natural monopoly
[ ] Others?

49. If social regulation is being practiced in Thailand, what is/are the factors taken into consideration for developing Thailand's social regulation model? Please explain why.

[ ] Provision of universal service
[ ] Safeguard consumers
[ ] Charging less than true costs of installation for rural areas
[ ] Cross subsidisation
[ ] Others?

50. If mixture regulation are being practiced, what is/are the factors taken into consideration for developing this type of regulation model? Please explain why.

[ ] Government established rules
[ ] Competitive market for consumer benefits set by the govt.
[ ] Prevent detrimental loss
[ ] Price fixing and cartels
[ ] Risk of exploitation through natural monopoly
[ ] Provision of universal service
[ ] Safeguard consumers
[ ] Charging less than true costs of installation for rural areas
[ ] Cross subsidisation
[ ] Others?
51. In your opinion, what regulatory framework is required for more effective strategic planning control? Please explain why.

C. Technology Adoption

52. By what process are the technology adoption decisions made?

[] Top-down
[] Persuasive
[] Consultative
[] Collegial-participative
[] Delegated styles
[] Looking at international standard
[] Others?

53. By whom are the technology adoption decisions made?

[] CEO
[] Senior Managers
[] Central office
[] Board of Directors
[] Users
[] Regulatory Authority
[] Outside agencies?

54. In your view, how should the technology adoption decisions be made?

[] Conduct Technology Assessment
[] Look at the Appropriateness of the Technology for Different Locations
[] Follow a Universal Standard
[] Standards Set By the ITU
[] Standards Set By the RSOs
[] Suggestions By External Consultant
[] Regulatory Body Should Suggest
[] Others?

55. What are the challenges needed to be addressed in regard to technology adoption in Thailand? Please explain why.

[] Developing Technological Know how
[] Build Infant Equipment Industry
[] Proper Employee Training
[] Interconnection Standards
[] Funding Alternatives
[] Private Sectors Cooperation
[] Others?
56. When adopting a new technology, how do you determine the right standards for telecommunications interconnection equipment? Please explain why do you that particular standard?

[ ] ISO
[ ] ITU
[ ] IEEE
[ ] ANSI
[ ] EIA
[ ] NIST
[ ] RSOs
[ ] Std. suggested by the NECTEC
[ ] Others?

57. Is there any international pressure on Thailand’s telecommunications technology adoption?

[ ] Yes       [ ] No

58. If yes, how is it viewed by the Thai telecommunications operators?

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

59. In your view, what is the relationship between the present technology adoption policy and the basic telecommunications infrastructure development process? Please explain, why?

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

60. What role does the ITU (International Telecommunications Union) have over Thailand’s telecommunications technology adoption policy?

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
61. In your opinion, what influences does the RSOs (Regional Standard Organisation) have over Thailand's technology adoption? Please explain.

62. Which regional organisation's standard is/are being adopted by the Thai telecommunications industry?

[ ] ECSA (Exchange Carriers Stds. Assoc.)
[ ] TTC (Telecomm Technology Committ)
[ ] ETSI (European Telecomm Stds. Insti)
[ ] Others?

Phase 5: A. Organisational Interaction Questions

63. In your opinion, is the relationship between your organisation and National Economic and Social Development Planning Board functional? If no, please explain what are the problems experienced?

[ ] Yes [ ] No

64. How do you view the relationship between the state owned enterprises and government organisations in developing Thailand's telecommunications infrastructure plan?

[ ] Very Coop
[ ] Coop
[ ] Non-coop
[ ] Others?

65. In your opinion, is there any resistance to effective organisational interaction?

[ ] Yes [ ] No

65.1 If yes, please explain why and how?

65.2 If no, please explain why and how?
### Existence of Strategic Plans in your Organisation

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Does this organisation do formal strategic planning?</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Does this organisation develop a formal strategic plan?</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>If so, is the overall plan produced annually?</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>If not annually, how often is it done?</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>When in the year is the plan issued?</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Is the responsibility for the plan specifically assigned?</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>What organisations are responsible for the plan?</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>What other organisations are involved with the plan?</td>
<td>No</td>
</tr>
<tr>
<td>a.</td>
<td>Committees</td>
<td>No</td>
</tr>
<tr>
<td>b.</td>
<td>Task Forces</td>
<td>No</td>
</tr>
<tr>
<td>c.</td>
<td>Others?</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Are formal strategic analysis carried out?</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>After the analysis are done, are go/no go decisions made?</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>What is the highest level (title) to receive the strategic plan?</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>Is the SP an input to the long-range business plan?</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>Is the SP an input to the annual business plan?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* This column is for the identification number, or abbreviated name, of the document which corresponds to the question.

---

Interviewer Remarks:

1. Was the respondent very cooperative, somewhat cooperative, or not cooperative?

________________________________________________________________________

________________________________________________________________________

1.1 If not cooperative: What seems to be the trouble?

________________________________________________________________________

________________________________________________________________________

2. Did the respondent seem to enjoy the interview?

________________________________________________________________________

3. Was anyone else present during any part of the interview?
   [ ] Yes [ ] No

3.1 Who was it? __________________________________________________________

3.2 During which parts of the interview was someone else present? Specify who is in which parts.

________________________________________________________________________

________________________________________________________________________

4. Were there any questions which the respondent did not seem to understand?
   [ ] Yes [ ] No

4.1 If yes: Which ones? ________________________________________________

5. Was the respondent honest in answering, even when felt uneasy about answering?

________________________________________________________________________

________________________________________________________________________

6. Was the interview taped?
   [ ] Yes [ ] No

6.1 If yes: Write questionnaire number on the tape label.
6.2 Fast Forward tape to the end.
6.3 Why wasn’t the interview taped?

________________________________________________________________________

________________________________________________________________________

7. Date of interview and Name, Organisation, Position of the person interviewed.

________________________________________________________________________

8. Length of the interview (in minutes) ____________________________________
Notes on Interviewee Selection and Contact Details

1. Ministry of Transport and Communications (MOTC)
2. Telephone Organisation of Thailand (TOT)
3. Communications Authority of Thailand (CAT)
4. Post and Telegraph Department (PTD)
5. National Electronics and Computer Tech. Center
6. National Information Technology Center (NITC)
7. Thai Telephone and Telecommunications (TT&T)
8. TelecomAsia Public Co. Ltd. (TA)
Subject: Inquiry about the possibility for Interviewing "Strategic Planning Executives"

Dear Mr. Hossain,

Kindly refer to your letter dated April 1, 1996 requesting to interview the senior executive officials from Ministry of Transport and Communications who are involved with Thailand's strategic telecommunications planning and practice.

I am pleased to inform you that the Ministry has made an arrangement for you to meet our senior officials enclosed herewith as your request.

Please contact them directly for your further arrangement.

With kind regards,

Yours sincerely,

(Sud-anong Charuthus)
Director
International Affairs Division

Mr. Liaquat Hossain
Ph.D. Candidate
Centre for Information Research (CIR)
Information & Communications Tech. Dept.
The University of Wollongong, NSW 2522
Australia
# The Interviewing Names Listed

<table>
<thead>
<tr>
<th>No.</th>
<th>Date/Time</th>
<th>Name/Organization</th>
<th>Place</th>
</tr>
</thead>
</table>
| 1.  | 4th or 5th July 1966 at anytime | Mr. Direk Charoenphol  
Senior Executive Vice-President  
Telephone Organization of Thailand  
Tel : 505-1333  
Fax : 574-8955 | TOT           |
| 2.  | 19th July 1966 at 10.00 am. | Mr. Phisal Jorphochaudom  
Director  
Telecommunication Business  
Development Division  
The Communications Authority of Thailand  
Tel : 573-4519  
Fax : 573-7093 | CAT           |
| 3.  | 11th July 1996 at 10.00 am. | Mr. Manit Saikaw  
Director  
Telecommunication Planning Division  
The Communications Authority of Thailand  
Tel : 573-5453  
Fax : 506-4265 | CAT           |
| 4.  | 2 July 1996 at 14.00 pm. | Miss Nualnapa Tiancharoen  
Chief  
Transport and Communications Policy and Planning Bureau  
Ministry of Transport and Communications | MOT            |
Fax Message

To: Mr. Liquat Hossain  
Ph.D. Candidate  
The University of Wollongong, Australia  
Fax: 61-42-214-170

From: Ms. Srisunan Hoonsuwan  
Director, International Relations Division  
Telephone Organization of Thailand  
Fax: 662-574-9535; Tel: 662-574-9982

Subject: Executives Interview  
Date: June 4, 1996

In response to your fax dated April 1, 1996, I would like to inform you the names of our executives who could assist you on certain issues:

1. Mr. Direk Charoenphol  
   Senior Executive Vice President  
   Tel: 505-1333 (Office on 4th July, 96)  
   Khun Swang (Asst. Khun Direk)

2. Mr. Thongchai Youngcharoen  
   Senior Executive Vice President  
   Tel: 505-555, Fax: 574-901, Send for  
   Khun Suraporn (Asst) 25th Tuesday (9:00am)

3. Mr. Olarn Pientam  
   Executive Vice President  
   Tel: 505-1222 (Call back 2:00pm)  
   Khun Wanlap (Asst)

4. Mr. Pichai Wongsup  
   Vice President, Office of Policy and Corporate Planning  
   Tel: 505-1992 / 533-9888 (Call back 2:00pm)  
   Khun Laddawan (Asst)

Mr. Sanan Phitromswad  
Special Senior Adviser  
Khun Suthep (Asst)

I hope that our information is useful for you.

Best regards,

(Srisunan Hoonsuwan)

OR/5
November 27, 1996

To
Mr. Jumpone Herbat
Telephone Organisation of Thailand
89/2 Moo-3, Chaeng Wattana Road
Chaengwattana Road, Donmuang
Don Meang, Bangkok 10210
Fax: 662-574-9535
√ 662-574-9547

From
Liaquat Hossain
Centre for Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong
NSW 2522 Australia
Fax: 61-42-214170

Ref.: With reference to the last fax sent on April 01, 1996

Subject: Inquiry about the possibility for interviewing “Strategic Planning Executives”

Dear Mr. Herbat,

I’m currently working as a doctoral fellow at the Univ. of Wollongong, Australia. My Ph.D. research is about the “Environmental Influences on National Strategic Planning and Practices: The Case of Telecommunications in Thailand”. I’m particularly looking at three environmental factors—public policy, regulation, and technology adoption and its impact on Thailand’s strategic telecommunications planning and practice.

I’m planning to conduct an in-depth interview of the senior executives who are directly involved in Thailand’s strategic telecommunications planning and practices from the Ministry of Transport and Communications, the TOT, the CAT, the PTD, TT&T, and TelecomAsia. After successful completion of my research, I also would like to provide a detailed analysis of findings to your organisation.

I’m expecting to be in Thailand by the end of June, 1996 in order to conduct my research. I would highly appreciate if you could possibly pass this letter to your secretariat and provide me the names of the planners, position, and detailed address for correspondence.

Sincerely,

Liaquat Hossain

Email: l.hossain@uow.edu.au

Information & Communication Technology Department, University of Wollongong NSW 2522 Australia
Telephone: +61 42 21 4382 or +61 42 21 3555. Facsimile: +61 42 21 4170
Email: j.cooper@uow.edu.au or s.jennings@uow.edu.au
April 01, 1996

To
Mr. Jumpone Herabat
President
Telephone Organisation of Thailand
89/2 Moo-3, Chaeng Wattana Road
Don Muang, Bangkok 10210
Thailand
Fax: +662 5749535 / 5749013

From
Mr. Liaquat Hossain
Ph.D. Candidate
Centre for Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong, NSW 2522
Australia
Fax: +61-42-214170

Subject: Inquiry about the possibility for interviewing “Strategic Planning Executives”

Dear Sir,

I’m currently working as a doctoral fellow at the University of Wollongong, NSW Australia. My Ph.D. research is about the “Environmental Influences on National Strategic Planning and Practices: The Case of Telecommunications in Thailand”. I’m particularly looking at three environmental factors—public policy, regulation, and technology adoption and its impact on Thailand’s strategic telecommunications planning and practice.

I’m planning to conduct an in-depth interview of the senior executives who are directly involved in Thailand’s strategic telecommunications planning and practice from the Ministry, the TOT, the CAT, and the PTD. After successful completion of my Ph.D. research, I also would like to provide a detailed analysis and findings to the Telephone Organisation of Thailand (TOT).

I’m expecting to be in Thailand by the end of June 1996 and will be there for six months in order to conduct my research. Now, I would highly appreciate if you could possibly pass this to your secretariat and provide me the names of the planners, position, and detailed address for correspondence. Please also do let me know the possibility to have an interview with you.

Sincerely,

Liaquat Hossain

Email: mlh02@uow.edu.au
INTERNATIONAL RELATIONS DIVISION
THE COMMUNICATIONS AUTHORITY OF THAILAND
99 CHAENG WATHANA ROAD, DONMUANG, BANGKOK 10002
FAX. No. (662) 5735413 TLX. 80054 CATINT TH BKK
TEL. No. (662) 5735423

FAX MESSAGE

TO : THE UNIVERSITY OF WOLLONGONG FAX : 61-42-214170
ATTN : MR. LIAQUAT HOSSAIN
DATE : 19 APRIL 1996 NO. OF PAGE (S) 1
SUBJECT : INTERVIEWING "STRATEGIC PLANNING EXECUTIVES"
YR REF : FAX MESSAGE DATED APRIL 1, 1996
THIS REF : CAT/IC 1429/1995

Dear Mr. Hossain,

In reply to your above fax message, we would regretfully like to inform you that due to heavy schedule of engagements, our President will not be able to meet you for an interview as proposed. However, we are pleased to arrange you the meeting with Executive Director of Engineering Department and Director of Telecommunication Planning Division instead on Thursday 11 July 1996 at 10.00 am. at Meeting room 7, Office of the President, CAT Headquarters.

In this connection, please contact the following address for further detail and arrangements in this matter:

Director of International Relations Division
99 Chaeng Wathana Road
Don Muang
Bangkok 10002, Thailand
Tel : (662) 5734481
Fax : (662) 5735413

Yours sincerely,

[Signature]

Assistant Director
for Director of International Relations Division
CAT (Communications Authority of Thailand)

Proposed CAT Executives To Be Interviewed

1. Mr. Aswin Savaros (President)
2. Mrs. Nanta Kovitvanii (VP-General Affairs)

Economics and Marketing:

1. Mr. Sawait Santaond (VP-Policy and Planning Department)
2. Mr. Damnoen Kaewthawee (ED-Policy and Planning Department)

Telecommunications Systems:

1. Mr. Jirachai Srijohn (ED-Planning and Development Department)

Telecommunication Operation:

1. Mr. Thamnoon Julmanichot (EVP-Telecommunication Operation)
2. Mr. Pakkaporn Sathienpakiranakorn (VP-Telecommunication Services)
3. Mr. Prasartporn Surasidhi (ED-Telecomm Voice Service Department)
4. Mr. Kowit Surapunthu (VP-Regional Telecommunication)
5. Mr. Tob Tunyoung (ED-First Regional Telecomm Department)
6. Mr. Srimuang Charoensiri (ED-Second Regional Telecomm Department)
April 01, 1996

To
Mr. Aswin Saovaros
President
Communications Authority of Thailand
99 Chaeng Wattana Road, Don Muang
Bangkok 10002
Thailand
Fax: +662 5735413

From
Mr. Liaquat Hossain
Ph.D. Candidate
Centre for Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong, NSW 2522
Australia
Fax: +61-42-214170

Subject: Inquiry about the possibility for interviewing “Strategic Planning Executives”

Dear Sir,

I’m currently working as a doctoral fellow at the University of Wollongong, NSW Australia. My Ph.D. research is about the “Environmental Influences on National Strategic Planning and Practices: The Case of Telecommunications in Thailand”. I’m particularly looking at three environmental factors—public policy, regulation, and technology adoption and its impact on Thailand’s strategic telecommunications planning and practice.

I’m planning to conduct an in-depth interview of the senior executives who are directly involved in Thailand’s strategic telecommunications planning and practice from the Ministry, the TOT, the CAT, and the PTD. After successful completion of my Ph.D. research, I also would like to provide a detailed analysis and findings to the Communications Authority of Thailand (CAT).

I’m expecting to be in Thailand by the end of June 1996 and will be there for six months in order to conduct my research. Now, I would highly appreciate it you could possibly pass this to your secretariat and provide me the names of the planners, position, and detailed address for correspondence. Please also do let me know the possibility to have an interview with you.

Sincerely,

Liaquat Hossain

Email: mlh02@uow.edu.au
Subject: Interviewing the CAT Executives (Ref. No. CAT/IC 1542/1996)

Dear Madam,

Take my regards. Thanks a lot for your time and kind consideration about the interviewing possibility with the executives. Please keep the previous interview appointments as scheduled. In the mean time, please advice me if there is any possibility to interview the other executives (the name and position that I proposed).

I’ll highly appreciate your consideration in this matter as a sample size of at least 10 executives from different departments (involved in strategic planning) will greatly assist me to draw a positive conclusion about your organisation’s planning and practices. However, since I’ll there for six months, it is possible to conduct some interview in late July/August—December, 1996.

As you’re already aware that this research and the interviewing is a part of my Ph.D. and I can assure you that full confidentiality will be maintained about the collected data and I’ll also provide a detailed analysis to your organisation. I’ll highly appreciate your consideration regarding this matter and thank you in advance for your concern.

Best regards,

Liaquat Hossain
Email: Liaquat_Hossain@uow.edu.au
April 23, 1996

To
The Director
International Relations Division
99 Chaeng Watthana Road
Don Muang, Bangkok 10002
Thailand
Fax: 662-5735413

From
Liaquat Hossain
Ph.D. Candidate
Centre For Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong, NSW 2522
Fax: 61-42-214170, Tel: 61-42-214142

Dear Sir/Madam,

Thank you very much for your response dated 10/04/1996 (Ref.: CAT/IC 1429/1996). I'm providing you the list and names of the executives that I would like to interview while I'll be in Thailand for conducting my case studies.

I'll highly appreciate if you could possibly provide me their contact details or make necessary arrangements for an in-depth interview with them individually.

Thank you in advance for your consideration and looking forward to hear from you soon.

Sincerely,

Liaquat Hossain

Email: Liaquat_Hossain@uow.edu.au
or, mlh02@uow.edu.au
Dear Mr. Hussain,

With reference to your above fax message, I would like to regretfully inform you that your proposal to interview with other CAT executives can not be made and to confirm you the discussion with our assigned officers as advised in our letter of 19 April 1996.

With best regards.

Yours faithfully,

(Miss Suvarnitha Dhamanees)
Assistant Director
For Director of International Relations Division
Dear Mr. Hossain,

With reference to your above fax message, I would like to regretfully inform you that your proposal to interview with other CAT executives cannot be made and to confirm you the discussion with our assigned officers as advised in our letter of 19 April 1996.

With best regards.

Yours faithfully,

(Signature)

(Miss Somnurip Dhamratkid)  
Assistant Director for Director of International Relations Division
Subject: Inquiry about the possibility for interviewing "Strategic Planning Executives"

Dear Sir,

Reference is made to your letter of 1 April 1996 inquiring the possibility for interviewing the senior executive officials from the Post and Telegraph Department who are involved in Thailand's strategic telecommunication planning and practice. I am pleased to recommend you to contact the following suitable persons whose addresses and subjects are below for interview.

1) Foreign Policy and Cooperation in Telecommunication services in Thailand
   Ms. Chirapa Chitraawang
   Director
   International Services Division
   Tel. 66 2 2713515
   Fax 66 2 2713512

2) Telecommunication Planning and Policy in Thailand
   Ms. Tipsuda Charavejasarn
   Director
   Technical and Planning Division
   Tel. 66 2 2713510
   Fax 66 2 2713510

Mr. Liaquat Bosing
Ph. D. Candidate
Centre for Informatics Research
Information & Communication Tech. Dept.
The University of Wollongong
NSW 2522
Australia
3) Trend of Telecommunication Technology in Thailand 3rd edition

Mr. Winit Suttipak
Director, Frequency Management Division
Tel: 66 2 2700361
Fax 66 2 2762530

Yours sincerely,
Chirapa Chitraawang
Director, International Services Division
for Director General
May 06, 1996

To                     From
Ms. Chirapa Chitraswag  Liaquat Hossain
Director                 Ph.D. Candidate
International Services Division
Foreign Policy & Coop in Telecomm
Bangkok Thailand
Fax: 662-2713512

Subject: Inquiry about interview appointment

Dear Madam,

With reference to your fax and mailed letter, I would like to thank you for your kind consideration and response. I’m expecting to be in Thailand by the end of this month or first week of June, 1996 and will be there till December, 1996. I’ll be very happy, if you can possibly give me an initial appointment by the end of June, 1996.

Please kindly inform Ms. Tipsuda Charavejasam and Mr. Wiwat Suttipak about this matter. In the mean time can you provide me some contact details in the Ministry of Transport and Communications. However, I’ve already received positive reply from the NITC, CAT, TT&T, TelecomAsia as well.

As you are already aware that this research is for my Ph.D. degree and I can assure you that full confidentiality will be maintained about the information which will be gathered from your organisation and I’ll submit a detailed report based on the research findings to your organisation.

Lastly, I would like to ask you the possibility of interviewing a large sample size (approximately 10) from your organisation which in fact will greatly assist in the theory development for my research. Thank you very much and looking forward to hear from you soon.

Sincerely,

Liaquat Hossain

Email: Liaquat_Hossain@uow.edu.au
April 01, 1996

To
Mr. Kitti Yupho
The Director General
Post and Telegraph Department (PTD)
87 Phaholyothin Road 8
Bangkok 10400
Thailand
Fax: +662 2713512

From
Mr. Liaquat Hossain
Ph.D. Candidate
Centre for Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong, NSW 2522
Australia
Fax: +61-42-214170

Subject: Inquiry about the possibility for interviewing “Strategic Planning Executives”

Dear Sir,

I'm currently working as a doctoral fellow at the University of Wollongong, NSW Australia. My Ph.D. research is about the “Environmental Influences on National Strategic Planning and Practices: The Case of Telecommunications in Thailand”. I'm particularly looking at three environmental factors—public policy, regulation, and technology adoption and its impact on Thailand’s strategic telecommunications planning and practice.

I'm planning to conduct an in-depth interview of the senior executives who are directly involved in Thailand’s strategic telecommunications planning and practice from the Ministry, the TOT, the CAT, and the PTD. After successful completion of my Ph.D. research, I also would like to provide a detailed analysis and findings to the Post and Telegraph Department (PTD).

I'm expecting to be in Thailand by the end of June 1996 and will be there for six months in order to conduct my research. Now, I would highly appreciate if you could possibly pass this to your secretariat and provide me the names of the planners, position, and detailed address for correspondence. Please also do let me know the possibility to have an interview with you.

Sincerely,

Liaquat Hossain
Email: mlh02@uow.edu.au
Subject: Inquiry about the possibility for interviewing "Strategic Planning Executives"

Dear Sir,

Reference is made to your letter of 1 April 1996 inquiring the possibility for interviewing the senior executive officials from the Post and Telegraph Department who are involved in Thailand's strategic telecommunication planning and practice. I am pleased to recommend you to contact the following suitable persons whose addresses and subjects are below for interview.

1) Foreign Policy and Cooperation in Telecommunication services in Thailand
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Ms. Tipsuda Charavejasarn
Director
Technical and Planning Division
Tel. 66 2 2713510
Fax 66 2 2713510

/3) Trend...

Mr. Liaquat Hossain
Ph. D. Candidate
Centre for Informatics Research
Information & Communication Tech. Dept.
The University of Wollongong
NSW 2522
Australia
3) Trend of Telecommunication Technology in Thailand

Mr. Wiwat Suttipak
Director
Frequency Management Division
Tel. 66 2 2701364
Fax 66 2 2782530

Yours sincerely,

Ms. Chirapa Chitrarawang
Director, International Services Division
for Director General
Date: May 2, 1996

TO: Mr. Liaquat Hossain  
Centre for Informatics Research (CIR)  
The University of Wollongong

FM: Supara Ratanajarana  
Senior Administrative Officer  
Office of the CEO

SUBJ: Inquiry for an interview with TT&T executive

Dear Mr. Hossain:

With reference to your fax dated April 26, 1996, requesting us to provide the name and address of the TT&T executive whom you can contact for an interview, please find the detailed information as follows:

Dr. Chutichai Napasab  
Vice President - Strategic Planning Department  
Thai Telephone & Telecommunication Public Company Limited  
252/30 Muang Thai-Phatra Office Tower 1, 25th Floor  
Rachadaphisek Road  
Huay Kwang, Bangkok 10320  
Thailand

Tel. (662) 693-2109 ext. 3000  
Fax. (662) 693-2125

Yours sincerely,

Supara Ratanajarana
April 26, 1996

To

The Director
Thai Telephone & Telecommunications
333 Laksi Plaza Tower II, 5th Floor
Chaengwattana Road, Donmuang
Bangkok 10210 Thailand
Fax: 662-576-0662

From

Liaquat Hossain
Centre for Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong
NSW 2522 Australia
Fax: 61-42-214170

Subject: Inquiry about the possibility for interviewing “Strategic Planning Executives”

Dear Sir,

I’m currently working as a doctoral fellow at the Univ. of Wollongong, Australia. My Ph.D. research is about the “Environmental Influences on National Strategic Planning and Practices: The Case of Telecommunications in Thailand”. I’m particularly looking at three environmental factors--public policy, regulation, and technology adoption and its impact on Thailand’s strategic telecommunications planning and practice.

I’m planning to conduct an in-depth interview of the senior executives who are directly involved in Thailand’s strategic telecommunications planning and practices from the Ministry of Transport and Communications, the TOT, the CAT, the PTD, TT&T, and TelecomAsia. After successful completion of my research, I also would like to provide a detailed analysis of findings to your organisation.

I’m expecting to be in Thailand by the end of June, 1996 in order to conduct my research. I would highly appreciate if you could possibly pass this letter to your secretariat and provide me the names of the planners, position, and detailed address for correspondence.

Sincerely,

Liaquat Hossain
Email: Liaquat_Hossain@uow.edu.au
May 06, 1996

To
Dr. Chutchai Napasab
Vice-President
Strategic Planning Department
Huay Kwang
Bangkok 10320 Thailand
Fax: 662-693-2125

Cc: Supara Ratanajarana
Senior Administrative Officer
Office of the CEO
Fax: 662-576-0662

Subject: Interviewing Strategic Planning Executives

Dear Sir,

I would like to call your attention about the possibility for interviewing the executives from the strategic planning department. In my last fax, I mentioned my research area and interests and Miss Supara from the Office of the CEO has kindly provided your name and contact details.

I will be in Thailand by the end of June, 1996 to conduct research for six months. However, I need to interview at least 5-10 executives from your organisation who are directly involved in TT&T's strategic planning and practices. I'll highly appreciate if you can possibly arrange the interview appointments by the end of July or 1st week of August, 1996. Moreover, if you have a busy schedule on that proposed month, please fill free to fit me in some other time.

As you're aware that the research is a part of my Ph.D. and I can assure that full confidentiality will be maintained about the information which will be gathered from your organisation. I also would like to submit a detailed report based on the research findings to your organisation. Thank you in advance for your kind consideration and looking forward to hear from your soon.

Best regards,

Liaquat Hossain
Ph.D. Candidate
Centre For Informatics Research (CIR)
Information & Communication Tech. Dept.
The University of Wollongong
NSW 2522 Australia
Fax: 61-42-214170

Email: Liaquat_Hossain@uow.edu.au
TO : Mr. Liaquat Hossain
Centre for Informatics Research (CIR)
The University of Wollongong

DATE : May 24, 1996
Fax. (61) 42 - 214170

FM : Thawatchai Lumpsombat
Manager - Business Planning
Strategic Planning Department
Fax. (662) 6932125

Subj : Interviewing TT&T Strategic Planning Executives

Dear Mr. Hossain:

With reference to your fax dated May 6, 1996, Dr. Chutichai Napasab assigned me to accept and appoint for your interview. He will be available in the first week of August, so I would like to ask you to fix the date and reply me. Now we have no ideas about other executives and we may arrange for you afterward.

Yours Sincerely,

(Thawatchai Lumpsombat)
May 27, 1996

To
Mr. Thawatchai Lumsombat
Manager
Business Planning
Strategic Planning Department
Thai Telephone & Telecommunications
Fax: 662-603-2125

From
Liaquat Hossain
Ph.D. Candidate
Centre for Informatics Research (CIR)
The University of Wollongong
Northfields Avenue, NSW 2522
Fax: 61-42-214170

Subject: Interview appointment with Dr. Chutichai Napasab and with other executives

Dear Mr. Thawatchai,

Thanks for your response. Please fix my interview appointment with Dr. Napasab according to his free time during the first week of August, 1996. However, my suggestions will be on the 1/08/1996, 2/08/1996 or 05/08/1996 or depending on his time availability. Please inform him that I may need to see him twice since I’ll be in Thailand for six months (June-December, 1996) and each time the interview may last for about 40 min.

I highly appreciate your organisation’s kind consideration on this matter and I can assure that whatever data I collect from your organisation will be kept as confidential and will only be used for my Ph.D. research purposes. I also would like to interview some other executives from your organisation including yourself (since you’re also involved in the strategic planning and implementation process).

Thank you once again and looking forward to hear from your office soon.

With Regards,

Liaquat Hossain
Email: l.hossain@uow.edu.au
Facsimile Transmission

TO : Mr. Liaquat Hossain
Centre for Informatics Research (CIR)
The University of Wollongong

FM : Thawatchai Lumpsombat
Manager - Business Planning
Strategic Planning Department

Subj : Interviewing TT&T Strategic Planning Executives

DATE : May 29, 1996
Fax. (61) 42 - 214170

TO : Mr. Hossain

Now I set the appointment on the August 1, 1996. During July 16 - 31, please confirm the meeting again.

Yours Sincerely,

(Thawatchai Lumpsombat)