



Kiruba Jeyaseeli Benjamin Levi

# **Market Entry Strategies of Foreign Telecom Companies in India**



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# WIRTSCHAFTSWISSENSCHAFT

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With forewords by Prof. Dr. Rudolf Grünig  
and Prof. Prabhu Gupta

Deutscher Universitäts-Verlag

Bibliografische Information Der Deutschen Nationalbibliothek  
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der  
Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über  
<<http://dnb.d-nb.de>> abrufbar.

Dissertation Universität Fribourg, 2006

1. Auflage Januar 2007

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Lektorat: Brigitte Siegel / Anita Wilke

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[www.duv.de](http://www.duv.de)



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Umschlaggestaltung: Regine Zimmer, Dipl.-Designerin, Frankfurt/Main

Gedruckt auf säurefreiem und chlorfrei gebleichtem Papier

Printed in Germany

ISBN 978-3-8350-0607-2

To my beloved husband Benjamin Levi and to  
our dear sons Steve and Chris Benjamin

## Foreword

The telecommunication markets in Europe, North America and Australia are currently changing from growth to saturation or even to decline. The results are fierce competition and strongly reduced profit rates. The situation in developing countries is totally different. Large unsatisfied needs are leading to increased demand and to important growth rates. China and India are especially attractive to operators and equipment manufacturers in the telecom sector, because of their important size. Ms. Kiruba J. B. Levi's research investigates India as one of these two markets.

Ms. Levi's objective is to support, with her research, the successful entry of foreign companies in the Indian telecom market. To reach this objective, she proceeds in four steps. First, she summarizes the literature on market entry strategies. Afterwards, Ms. Levi describes the Indian Telecom Market. A lot of actual facts and figures are given. The clear structure helps the reader to find the needed information. The third step consists of four cases of foreign companies entering the Indian telecommunications sector. After the description of the companies and their entry activities, the cases are analyzed with the help of the case research method. Based on the analyses of the Indian telecommunications market and especially on the lessons learnt from the four cases, Ms. Levi finally provides recommendations for companies, which are planning to start activities in the Indian communications industry.

Ms. Levi's book is well structured and easy to read. It contains a lot of relevant information and concrete statements. I therefore recommend it to the executives of telecommunications companies, which are planning to go to India.

Prof. Dr. Rudolf Grünig  
*Chair of Management*  
*University of Fribourg*  
*Switzerland*

## Foreword

Emerging markets have been the main drivers of growth in the world economy for some years now. To be more precise, this role has been played principally by two countries, China and India. Of these, India will clearly continue to be the more important long-term driver of growth - apart from the political, environmental, social, legal and linguistic issues in China, it is clear that, according to all forecasts, China's growth will start slowing down for demographic reasons around the year 2015, whereas India's growth will, in the worst foreseeable circumstances, continue to progress at about the same speed as at present. Of course, these forecasts exclude the impact of any disaster(s), natural or man-made. Still, it is interesting that, under most circumstances that can be foreseen, India will be the number one driver of the world economy, at least so far as emerging markets are concerned, beyond 2015.

The IT sector, TV/Media, and Telecoms are all already converging into what is called ICT - though this ignores the other fields which have begun converging from a theoretical and experimental point of view, and these fields will probably begin converging in reality so far as customers are concerned in the next few years. In turn, ICT is already the principal driver of growth within the Indian context and, barring a renewal of infrastructure and manufacturing in India (which looks politically unlikely at present, though it may happen), ICT will continue to be the principal driver of growth.

Dr. Levi's book is therefore on one of the most important as well as fascinating markets and, within that market, on clearly the most important subject.

The objectives of Dr. Levi's book are stated unambiguously: the "major objective" is to "support foreign companies to enter the Indian market successfully", while the "minor objectives" are to "understand the Indian telecom market", to "describe and analyze different market entry strategies and the reasons for their success and failure", and to "arrive at a set of recommendations for foreign companies entering the Indian telecom market in future".

In pursuit of that goal, Dr. Levi initially provides a comprehensive survey of what is covered in the previously-existing literature on these subjects. In these days, when the mantra of globalization prevails, one expects that



plenty of research has been done not only on all these areas, but on related areas as well. However, Dr. Levi demonstrates the surprising fact that there is very little researched material that is available, either on “developing countries” or on “emerging markets” as a whole, or specifically on India, in the following areas:

- a. telecoms
- b. the market situation
- c. market entry strategies that have been attempted by foreign companies
- d. systematic consideration of whether and why these strategies have been successful, on the basis of which there can be recommendations for new entrants.

This is partly because of the lack of transparency in emerging markets (one of my now-retired colleagues became notorious for his now-quite-unfashionable quip: “Emerging markets are markets from which it is difficult to emerge in an emergency”).

Dr. Levi certainly helps bring some transparency to each of the four areas mentioned above. The strength of her book is that it is the first time that these areas have been tackled.

Let me take each of these areas and examine them one by one to see what specifically Dr. Levi’s research contributes.

First, the telecoms market in India. As I said above, this is surprisingly the first time that anyone has, to my knowledge, attempted to describe and organise comprehensively the legal, regulatory, political, market, competitive and technical situation for telecoms in India. Field work in these situations is not easy, and one needs persistence and creativity to get around the blocks that are usually placed in the way of obtaining any facts. The time and effort involved must not be under-estimated.

Second, the market situation as a whole in India. Dr. Levi suggests that the country falls into various regional markets, and evaluates the most attractive versus the least attractive regions, as well as the most attractive versus the least attractive “sub-markets” from a technical point of view (i.e. equipment, infrastructure, services or whatever). She also includes call centres in the research - on which, again, very little has been published.

Third, market entry strategies. I have already drawn attention to the difficulties and effort involved in gathering this sort of data. The more important fact is that her discussion of the case material (and, particularly, of the cross-case material) is original as well as intellectually stimulating - and shows new insights into the market situation in India.

A reader will also find in the book the most complete array available so far of bibliography, facts, figures and charts on the subject.

We come finally to the most crucial section of the book: detailed examination of whether and why foreign market entrants have or have not been successful in India. On the basis of her analysis, Dr. Levi provides a valuable flow-chart for setting up operations in India, once a decision has been taken to enter the Indian market. More importantly, she makes specific recommendations for foreign companies regarding the particular products, services, regions and customer-segments that would be most worth targeting.

Prof. Prabhu Guptara  
*Director Executive & Organizational Development*  
*Wolfsberg Executive Development Center*  
*A subsidiary of UBS AG*  
*Switzerland*

# Preface

I wish to thank all those people who provided personal and practical support without which this work would not have been possible.

I would like to thank my first advisor, Prof. Dr. Rudolf Gruenig, the Head of the Chair of Management, the former Dean of the Economics and Social Sciences Department and the current Vice Rector of the University of Fribourg in Switzerland. He not only guided my work but also was readily available for me and always responded to the drafts of each chapter of my work patiently and quickly. His extensive knowledge of Strategic Management, and his comments and suggestions were always perceptive, helpful and appropriate. He fostered an affable working relationship, which was critical to the completion of the work. I wish to thank him not only for his expert guidance and patience but also for giving me the privilege to work in the Chair of Management as his Assistant, which gave me an opportunity to improve my knowledge base, appreciate his style of working, support myself financially and also enabled me to contribute to his teaching programs and publications.

I wish to thank my second advisor, Prof. Prabhu Gupta, Director, Organizational Development, Wolfsberg (a wholly-owned subsidiary of Union Bank of Switzerland); Chairman of Advance Management Training Limited, UK; Freeman of the City of London and of the Worshipful Company of Information Technologists; Fellow: of the Institute of Directors, of the Chartered Institute of Personnel and Development, of the Royal Commonwealth Society, and of the Royal Society for Encouragement of the Arts Commerce and Manufactures; and a Visiting Professor at various Universities and Business Schools. With vast experience internationally, he is an eloquent speaker and a charismatic person with an abundance of ideas. His suggestions were thought provoking and valuable at all times. In spite of shouldering numerous responsibilities and being involved with activities round the globe, he responded to me quicker than expected. His immense knowledge on internationalization strategies brought new insights to the work. I am grateful for the interest, love and support he showed not only to me but also to my family.

I want to give my heartfelt thanks to my father, Dr. D. Selvaraj, a Senior Civil Service Officer of the Department of Telecommunications, Government of India, who has been associated with the telecom department at various levels for the last 35 years, Fellow of the Institute of Cost and

Management Accountant of India, visiting faculty of leading professional and management Institutions in Delhi and possessing various post graduate degrees in management for rendering all help and assistance in completing my research. But for his help it would have been very hard to procure latest and appropriate material on Indian telecom and to get in touch with key persons from the Indian telecom market. Though being a busy person himself, he was always just an e-mail or phone call away and went to any extent to help me in carrying out the work.

I am grateful to Dr. Tim Kelly, Head of Strategy and Policy Unit of the International Telecommunication Union in Geneva; and Dr. Paul Polishuk from the Telecom Research and Consulting of the IGI Group Incorporated in Boston and the Asia Pacific Telecommunity in Bangkok, for furnishing me with valuable printed and electronic material free of charge, which otherwise was unaffordable.

I also extend my sincere thanks to Mrs. Dr. Jocelyne Imbach, Vice-Director and Studies Coordinator of the International Institute of Management in Telecommunication of the University of Fribourg for allowing me to use their library where I could find a plethora of material related to strategies and telecommunication.

I wish to give special thanks to the following people and organization in Switzerland for offering me financial support during the period I worked on my research. Without this support, my work would not have been accomplished. They are - Mr. Beat Fasnacht the Director of Almedica AG in Galmiz, Dr. Hans Ulrich Pestalozzi the former CEO of Bayer International S.A. in Fribourg, Chair of Management of University of Fribourg and the committee of the Federal Commission of Scholarship in Bern.

I wish to thank my interviewees who held the following position at the time of the interview for giving me their valuable time and information: Mr. Antoine Andenmatten, Deputy Head of Participation Management of Swisscom AG; Mr. Michel Vetil and Amresh Sood, CEO and General Manager Accounts and Finance respectively of Alcatel India Limited; Mr. Niru Mehta, Managing Director of Avaya Communications India Limited; Mr. Manoj Kohli, Executive Director & Chief Executive Officer of First Pacific India/Escotel Mobile Communications Limited; Mr. Joseph Samuel, Managing Director of Nortel Networks India Limited; Mr. Jagdish Kini, Chief Executive Officer of Bharti Mobile Limited; Dr. Harsha V. Singh, Secretary cum Principal Advisor of Telecom Regulatory Authority

of India; Mr. Narinder Sharma, Chairman & Managing Director of Mahanagar Telephone Nigam Limited; and Mr. Rajneesh Gupta, Director of Videsh Sanchar Nigam Limited.

Last but not the least, my deepest thanks go to my family, especially to my husband Dr. Benjamin Levi Moses. Next to God, he was the source of love, support and patience. He encouraged and supported me whenever I was physically and mentally weary. Not only did he extend his hand to reduce the strain and the over-load of responsibilities at home but also provided me assistance by helping me find material and going through my work and giving his opinion. Our four-year-old son Steve Benjamin was the greatest source of joy after hours of strenuous mental work. He quietly tolerated the deprivation of many rightful privileges due to the time and effort I had to invest on my research ever since he was born. My sincere gratitude goes to my parents Mrs. Ambika Selvaraj and Dr. David Selvaraj who encouraged me to pursue a career in this field and inspired and motivated me. I am also thankful to my sister Mrs. Niranjana David for furnishing me with first hand information regarding the latest publications on telecom and related items from various journals. My heartfelt thanks to my dear parents-in-law Mrs. Gracey Moses and Mr. K. Moses, and other family members and friends who helped and prayed for strength and wisdom to complete the work.

Kiruba J. B. Levi (Jessy)

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## List of abbreviations

ADSL:	Asymmetric Digital Subscriber Line
AG:	Aktiengesellschaft (German: stock corporation)
AGR:	Adjusted Gross Revenue
Approx.:	Approximately
AT & T:	American Telephone and Telegraph
ATM:	Asynchronous Transfer Mode
BCG:	Boston Consulting Group
Bhd.:	Berhad (Malaysian: Limited)
BPL:	British Physical Laboratories
BPO:	Business Process Outsourcing
BSNL:	Bharat Sanchal Nigam Limited
CAGR:	Compounded Annual Growth Rate
CC:	Contact Center
CDMA:	Code-Division Multiple Access
C-DOT:	Center for Development of Telematics
CEO:	Chief Executive Officer
CHF:	Swiss Francs (currency code)
CMC:	Computer Maintenance Corporation
CRM:	Customer Relationship Management
DANIDA:	Danish International Development Agency
DECT:	Digital Enhanced Cordless Telecommunications
DFE:	Design For Environment
DoT:	Department of Telecommunications
E.g.:	Exempli Gratia (Latin: For example)
EBIT:	Earnings Before Interest and Tax
EBITDA:	Earnings Before Interest, Tax, Depreciation and Amortization
ECIL:	Electronics Corporation of India Limited
EPABX:	Electronic Private Automatic Branch Exchange
Et al:	Et Alia (Latin: And others)
Etc.:	Et cetera (Latin: And so on)
EU:	European Union

EVA:	Economic Value Added
FDI:	Foreign Direct Investment
FIPB:	Foreign Investment Promotion Board
FMCG:	Fast Moving Consumer Goods
GAIL:	Gas Authority of India Limited
GDP:	Gross Domestic Product
GMPCS:	Global Mobile Personal Communications by Satellite
Govt.:	Government
GPRS:	General Packet Radio Service
GSM:	Global System for Mobile communication
HCL:	Hindustan Computer Limited
HFCL:	Himachal Futuristic Communications Limited
HP:	Hewlett Packard
HPA:	Higher-order Path Adaptation
IBM:	International Business Machines
ICICI:	Industrial Credit and Investment Corporation of India
ICT:	Information and Communication Technology
IDR:	Identification Record
IIMT:	International Institute for Management in Telecommunications
IIT:	Indian Institute of Technology
ILDS:	International Long Distance Service
IN:	Intelligent Networks
INR:	Indian Rupees
IP:	Internet Protocol
ISDN:	Integrated Services Digital Network
IT:	Information Technology
ITA:	Information Technology Agreement
ITI:	Indian Telephone Industries
ITU:	International Telecommunication Union
JTM:	JT Mobiles
Kms:	Kilometers
LAN:	Local Area Network
Lakh/Lac:	Unit equivalent to 100,000



---

LDCA:	Long Distance Charging Area
Ltd.:	Limited
MCPC:	Mesh-Connected Parallel Computers
MD:	Managing Director
MEPZ:	Medium Export Promotion Zone
MNC:	Multi National Company
MTNL:	Mahanagar Telephone Nigam Limited
MYR:	Malaysian Ringgit (currency code)
NEC:	National Electrical Code
NLDS:	National Long Distance Service
NOIDA:	New Okhla Industrial Development Authority (India)
NTP 99:	National Telecom Policy 1999
OECD:	Organization for Economic Cooperation and Development
ONGC:	Oil and Natural Gas Corporation Limited
PABX:	Private Automatic Branch Exchange
PBG:	Performance Bank Guarantee
PBG:	Poverty Bias of Growth
PBX:	Private Branch Exchanges
PC:	Personal Computer
PIN:	Postal Index Number
PLDT:	Philippines Long Distance Telephone
PSU:	Public Sector Unit
PTT:	Post Telegraph and Telephone
R&D:	Research and Development
RBI:	Reserve Bank of India
RCA:	Radio Corporation of America
RMI:	Remote Maintenance Integration
ROC:	Registrar of Companies
ROI:	Return On Investment
RPG:	Rama Prasad Goenka Group
RPS:	Radio Paging Service
SDCA:	Short Distance Charging Area
Sq Km.:	Square Kilometer

SSA:	Secondary Switching Area
STD:	Subscribers Trunk Dialing
SWOT:	Strength, Weakness, Opportunity and Threat
TCIL:	Telecommunications Consultants of India Limited
TDMA:	Time Division Multiple Access
TDSAT:	Telecom Dispute Settlement and Appellate Tribunal
TEC:	Telecommunication Engineering Center
Telecom:	Telecommunications
TRAI:	Telecom Regulatory Authority of India
TV:	Television
UHF:	Ultra High Frequency
UK:	United Kingdom
UP:	Uttar Pradesh
USA:	United States of America
USD:	United States Dollars
USO:	Universal Service Obligation
Viz.:	Videlicet (Latin: Namely)
VoIP:	Voice over Internet Protocol
VP:	Vice President
VSAT:	Very small aperture terminals
VSNL:	Videsh Sanchar Nigam Limited
WAN:	Wide Area Network
WAP:	Wireless Application Protocol
WLL:	Wireless in Local Loop
WPC:	Wireless Planning Co-Ordination
WPI:	Wholesale Price Index
WTO:	World Trade Organization
2 G:	Second Generation
2.5 G:	Two- and-a-half Generation (Between 2 <sup>nd</sup> and 3 <sup>rd</sup> Generation)
3 G:	Third Generation

# **I Preliminary Remarks**

## **1 Relevance of the topic of the research**

### **1.1 Indian telecom market as a market with great future**

Driven by unrelenting technological and market forces, telecommunications is one of the world's most dynamic economic sectors. Until not long ago a relatively obscure territory of interest mainly to engineers, telecommunications today seems to be everybody's proper playing field. Large and small businesses, user groups, investment banks, policymakers, development organizations, legislators, economists, political scientists, and lawyers, among others, are now actively and visibly involved in telecommunications. Hardly a day goes by without telecommunications events making news in the international and local press.<sup>1</sup>

Although telecom<sup>2</sup> is a young and dynamic industry with lot of growth opportunities, it is observed that the previously booming telecom markets in Europe and North America are on the way to saturation. As a result the telecom giants in these markets need to look for new markets in Asia, Africa and South America. The markets in Asia like India and China are quite attractive with tremendous growth potential. This has inspired numerous foreign telecom companies to enter the Indian and Chinese market in the recent past.

India's 153.37 million lines telephone network, including mobile, is one of the largest in the world and the second largest among emerging economies (after China) with a wide range of services such as basic, cellular, internet, paging and V-SAT. Given the low telephone penetration rate of about 5 per hundred people of population, which is much below the global average, India offers vast scope for growth. It is, therefore, not surprising that India has one of the fastest growing telecommunication systems in the world with an average annual growth of about 22% for basic telephone services and over 100% for cellular and internet services. Telephone lines added to the basic services network over the last 5 years have been one and a half times that added over the preceding five decades. Recognizing that telecom

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<sup>1</sup> Wellenius/Stern (1996), p. 1.

<sup>2</sup> The word telecommunications is alternatively referred as telecom.

sector is one of the prime movers of economy, the Government's regulatory policy initiative has been directed towards establishing a world class telecommunications infrastructure in the country.<sup>3</sup>

The Indian government also realized that in order to overcome persistent shortfalls in telecommunications development, it is necessary to attract private investment and new entrants to the telecommunications business as well as to shift the role of government from ownership and management of operations to sector policy formulation and regulation. This resulted in the privatization of the Indian telecom sector in October 2000.

With the liberalization of the Indian telecom market and with its vast growth potential, it has been perceived as a promising market for foreign investors. This has generated a great interest among the foreign companies to enter the Indian telecom market. Since then a number of foreign companies started their operation in India in providing basic services, cellular services, paging services and V-SAT services- e.g., Hutchison Max Telecom Ltd., Hexacomm India Limited, Swisscom AG, Birla AT&T communications Limited, RPG Cellcom Limited, Nortel Networks India Limited, Alcatel India Limited, Tata Avaya, Qualcomm Inc., etc.

## **1.2 Entering the Indian telecom market as a very difficult task**

With globalization of the world economy and liberalization in developing countries in Asia like India and China, it is not as difficult as it was few years ago for multinationals to operate. This entry of the multinational telecom companies in the third world countries and developing countries has been found to be beneficial both to the foreign company and as well as to the domestic telecom market. These multinationals are gateway to new technologies and enhance the use of telecom by making life more comfortable and easy.

The idea of geographical diversification by foreign telecom companies mentioned in the above section definitely sounds beneficial for both the foreign and the domestic operators but to enter a new market is not as easy

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<sup>3</sup> Telecom Regulatory Authority of India, Press Release No. 51/2006 (9 June 2006), Indian Telecommunications (2003).

as the idea appears. This is because every market is different in terms of economy, political and legal system, regulation and policies of the government concerning telecom sector, technology, society and culture.

In the case of a country like India that is almost the size of Europe, there is a great diversity in almost every area of life. There is a wide gap between the rich and the poor, the educated and the uneducated, and the urban and the rural. India has a population of around 1.3 billion, which is the second largest in the world next only to China. About 29% of the population lives below poverty line. There is a sizable educated middle class and then a thin stratum of the rich. India also has a large number of young and highly qualified people who know English. With all the above-mentioned qualities, the Indian telecom market is attractive to foreign telecom companies. In the recent past, many foreign companies entered the India telecom market, some of whom have managed to build a stronghold in the Indian telecom market, some are still trying to do so and some could not even survive for a short period.

Most companies in haste ignore the socio-cultural aspects of the country thinking it to be the least influential aspect of business. Some companies try to enter just with the help of the modern and sophisticated technology and face utter failure- e.g., Swisscom is one of the telecom companies well known for its technology and its stand in telecom field as one of the best in Europe mainly in Switzerland but it failed in its attempt to enter the Indian market way back in 1997. Almost every company entering a new market has teething problem that is kind of foreseen before, but it all depends how a company maneuvers the opportunities and benefits seen in such a market to establish its stand.

In the past numerous companies began their operation in the Indian telecom market but some of the companies could not withstand and defaulted in paying the annual license fee to the Indian government in subsequent years resulting in termination of licenses. This is mostly because of high cost of initial capital investment, burden of high license fee and poor return contrary to their expectations. For example, Licenses for the operation of radio paging in the cities of Indore and Ernakulam granted to M/s Usha Martin Telecom Limited were terminated because of non-payment of license fee.<sup>4</sup>

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<sup>4</sup> Annual Report, Ministry of Telecommunications of India (2000-01), p. 14.

The failures mentioned above clearly show that entering the Indian telecom market is definitely not an easy task. Therefore a good entry strategy has to be devised taking into account both the hard and the soft factors that influence successful entry of a foreign company in the Indian telecom market.

### **1.3 Research questions as a summary**

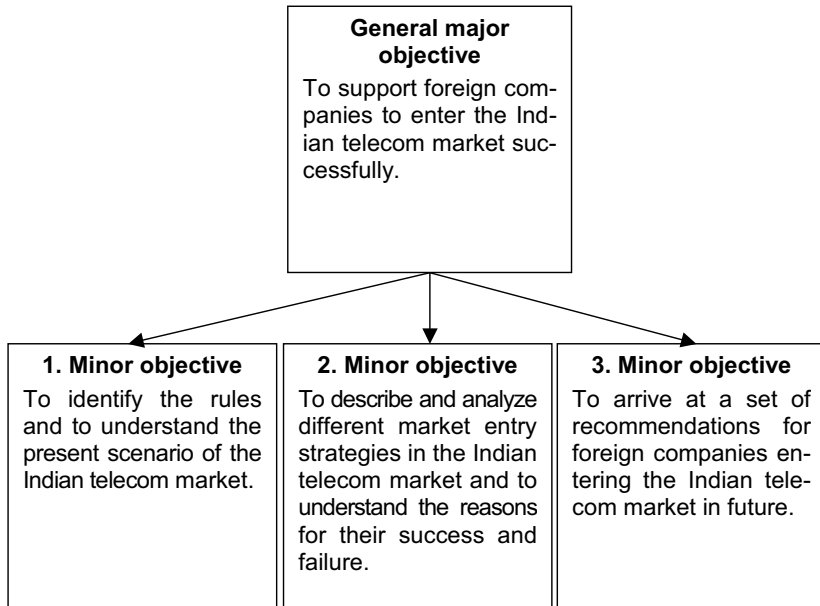
This dissertation intends to explore the following questions:

1. Why is the Indian telecommunications market so attractive to investors?
2. Why is India's vast potential in the field of telecom difficult to tap?
3. What strategies have been followed by foreign companies entering the Indian market and what has been the result of following these entry strategies?
4. What lessons can be learnt from the experiences of companies trying to enter the Indian market so far? For example, what kinds of actions could help success in India, what kind of analysis should be done before stepping into the Indian telecom market, who all should be involved and to what extent?
5. What will be the prime sectors of Indian telecommunications for investment in future?

## 2 Objective of the research

The major objective of the research is to support foreign companies to enter the Indian telecom market successfully. The major objective of the book has been further divided into three minor objectives, which are explained below.

The first minor objective is to identify the rules, regulations and policies of the Indian government and the telecom authorities in India, and to clearly understand the present scenario of the Indian telecom market in terms of economic, socio-cultural, political, legal and technological environment. The second minor objective is to describe and analyze different market entry strategies in the Indian telecommunications market and to understand the reasons for their success and failure. The third minor objective is to identify the success factors and to arrive at a set of recommendations for foreign companies entering the Indian telecom market in future. All this is represented in **Figure I-1**.



**Figure I-1: Objective of the research**

### **3 Methodology of the research**

#### **3.1 Process of the research**

The research was divided into five stages.

Stage 1 was a survey of existing literature in order to be aware of, and to build on, existing scholarship in the areas of (a) strategy in general and (b) market entry strategies. This literature survey provided a qualitative feel and a broad understanding of the issues involved.

Stage 2 consisted of discussions and interviews with different personalities from (a) the Indian telecom sector in order to have a good insight into the government's telecom policies and (b) foreign telecom companies operating in India in order to discuss the strategies followed by them in the Indian market.

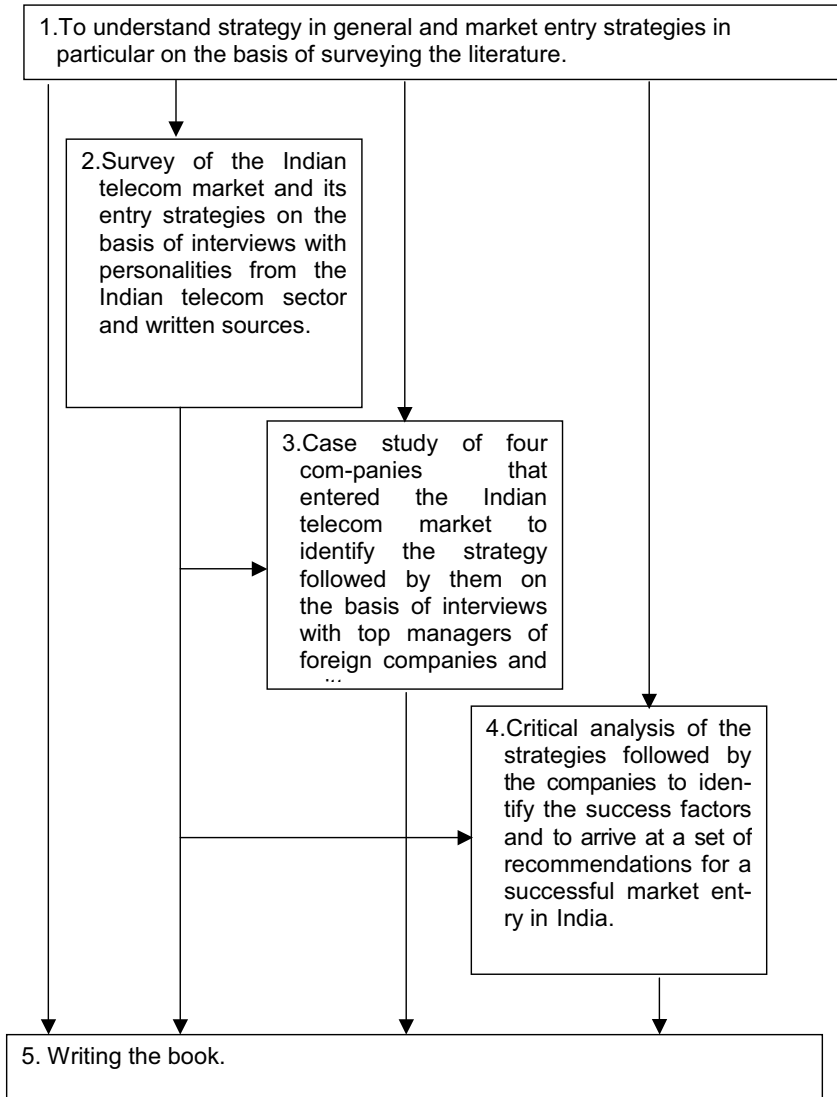
Stage 3 was to select four companies that entered the Indian telecom market and to study the strategies followed by them that resulted in their success or failure in penetrating the telecom sector in India.

Stage 4 comprised critical analysis of the strategies of the four companies to explain their success or failure and to identify the success factors so as to arrive at a set of recommendations for successful market entry in India.

Stage 5, the final stage in the research, was the writing of the book.

**Figure I-2** shows the summary of the process of the research.





**Figure I-2: Process of the research**

## 3.2 Applied tools in the research

### 3.2.1 General remarks

This section talks about the usage of scientific approaches such as survey of literature, survey of company documents, survey of internet, interview and case study. In order to accomplish the various tasks, a combination of more than one scientific approach is used at different stages of the research. This blend of various scientific approaches for a particular task is to get the adequate information in order to arrive at the goal or the objective of the research. **Table I-1** gives a summary of the scientific approaches used in the research.

Tasks \ Sources and tools	Literature	Company documents	Internet	Interview	Case study
1. To understand strategy in general and market entry strategies in specific	X		X		
2. Survey of the Indian telecom market and its entry strategies	X	X	X	X	
3. Case study of four companies that entered the Indian telecom market to study the strategy followed by them		X	X	X	X
4. Critical analysis of the strategies followed by the companies to identify the success factors and to arrive at a set of recommendations for a successful market entry in India	(X)			(X)	(X)
5. Writing the book					
X = direct use      (X) = indirect use					

**Table I-1: Scientific approaches used in the research**

The case study is at another level as compared to the other tools as shown in the above table I-1. This is because in this research, case study on one hand serves as an ideal qualitative research tool and on the other hand it is a task or a process of the research, which helps to attain the final objective of the research.

### **3.2.2 Survey of literature**

A thorough review of the existing literature is essential to get a qualitative feel and to increase the knowledge and understanding of the issues dealt in the research.

In this research, the survey of literature gives a good understanding of strategy in general and a thorough knowledge of market entry strategies to be used in stage 1 of the book. It also gives a good overview of the telecommunications sector in general and a clear understanding of the telecom market in India and the entry strategies in the Indian telecom market to be used in stage 2 of the book. Stage 4 of the book too uses the literature survey indirectly for the critical analysis of the strategies followed by the companies to identify the success conditions for a successful market entry in India.

### **3.2.3 Survey of internet**

Using internet as a research tool potentially offers researchers many advantages such as easy access to world-wide samples, low administration costs both financially and temporally, and its unobtrusiveness and friendliness to respondents. One of the most cited empirical examples of internet as a research tool is the article by M. L. Marcus.<sup>5</sup>

Using e-mail as an interview tool eschews the conventional constraints of spatial and temporal proximity between interviewer and respondent and offers the considerable practical advantage of providing 'ready-transcribed' data. There is an emerging literature surrounding the use of electronic mail in academics.<sup>6</sup> Following on from trends in market research<sup>7</sup> there have

<sup>5</sup> Markus (1994), pp. 502 ff.

<sup>6</sup> Wild/Winniford (1993), pp. 193 ff., Berge/Collins (1995), pp. 183 ff., Huff/Sobiloff (1993), pp. 60 ff.

<sup>7</sup> Mehta/Sivadas (1995), pp. 429 ff., Pitt (1996), pp. 45 ff.

been tentative moves toward using e-mail as a research tool, primarily in the form of quantitative instruments such as electronic questionnaires and also, to a lesser extent, qualitative methods such as electronic interviews and electronic 'focus' groups.

E-mail appears to provide a context for the kind of non-coercive and anti-hierarchical dialogue that constitutes an 'ideal speech situation', free of internal or external coercion, and characterized by equality of opportunity and reciprocity in roles assumed by participants.<sup>8</sup> In this way e-mail goes some way to transcending the traditional biases that beset interviewing techniques. Furthermore, the potential for asynchronous communication that e-mail offers is attractive feature when considering its use as a research tool.<sup>9</sup>

In this research, the survey of internet provides information for the stages 1, 2 and 3 of the book. Precisely, it provides some additional information on the strategy in general and market entry strategy for the stage 1 of the book. The web sites of the various Indian telecom companies provide up-to-date information for stage 2 of the book. In stage 3 too, the information gathered from the web site of the company provides a lot of data for making the case study.

### **3.2.4 Survey of company documents**

Survey of company documents are important as it provides lot of written information about the performance, turnover, market share, company policies, strategies, products and services of the company in detail. The company documents provide the primary data and are highly reliable and accurate. Above all, documents play an explicit role in the data collection for the case studies.<sup>10</sup>

In this research, the survey of the company documents are used in stages 2 and 3 of the book. The company documents of the various Indian telecom companies provide information for stage 2 of the book. Similarly the information from the company documents of various companies also provides inputs for the formation of case study of these companies in stage 3 of the book.

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<sup>8</sup> Boshier (1990), pp. 49 ff.

<sup>9</sup> Thach (1995), pp. 27 ff.

<sup>10</sup> Yin (1994), pp. 81 ff.

### 3.2.5 Interview

Interviews are one of the most important sources of information in research.<sup>11</sup> The kind of interview followed in this research is mainly semi-structured. The semi-structured interview comprises of specific questions but not in a specific order.<sup>12</sup>

This kind of interview is appropriate as the research involves interview with experts.<sup>13</sup> The interviewees are people in the top management of various telecom companies (CEO, Country Manager or Managing Director). They are people who are familiar with the strategy and strategic programs the research is investigating. Asking semi-structured questions on one hand allows to compare the responses given by different interviewees and on the other hand gives room to the interviewees to express their ideas and opinions more freely and elaborative than in the case of a structured interview.<sup>14</sup>

These interviews provide information about the current scenario of the Indian telecom market for stage 2 and are the base for the case studies by providing important information such as the strategies followed by the foreign companies in the Indian market, the market position and market share in the Indian market etc. for stage 3 of the book. In stages 2 and 3 interviews are directly used while in stage 4 it is indirectly used to critically analyze the strategies followed by the companies to identify the success conditions for a successful market entry in India.

### 3.2.6 Case study

Case study is one of the several approaches to qualitative inquiry it is probably the most frequently used and arguably the best known.<sup>15</sup> As a methodology, it is especially responsive to research questions of why and how, and it offers scholars a flexible yet integrated framework for holistic examination of a phenomenon in its natural state.<sup>16</sup> Yin describes case

<sup>11</sup> Yin (1994), pp. 84 ff.

<sup>12</sup> Bradburn/Sudman (1979), Cannel/Marquis/Laurent (1977), Oppenheim (1966), Sudman /Bradburn (1983).

<sup>13</sup> Bingham/Moore (1959).

<sup>14</sup> Silverman (1993).

<sup>15</sup> Stake (1995), Lee (1989), pp. 117 ff., Eisenhardt (1989), pp. 532 ff., Hamel (1993).

<sup>16</sup> Miles/Huberman (1984), Merriam (1991).

study as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.<sup>17</sup> Many qualitative researchers use the case study approach as a guide to their investigations. By concentration on a single phenomenon or entity, the researcher aims to uncover the interaction of significant factors and characteristics of the phenomenon. The case study method focuses on holistic description and explanation. As a general statement any phenomenon can be studied by case study methods, while other qualitative research traditions, although compatible, are limited to a particular category of phenomenon. Examples of the latter include ethnography, phenomenology, hermeneutics, semiotics, biographical research, and historical research.<sup>18</sup>

According to Robson,<sup>19</sup> case studies seek to find out what is happening, to look for new insights, to ask questions, and to assess phenomenon in a new light. A particular application of the exploratory case study is as a diagnostic tool to develop a range of objective possibilities that could occur. Some researchers see significant value in the ability of case studies to suggest a range of possibilities for future, which cannot be assumed to be a projection of the past.

In this research, real life cases of four companies are formed by inputs from their respective company documents, internet and interviews. The first step in the case research is to determine the purpose for the study and the formation of questions (which is later used as a questionnaire for the interview). In the second step, information for each case is obtained by triangulation of documents, literature and information from homepage.<sup>20</sup> In step three, the information collected from the interviews leads to the formation of the complete case involving all the critical areas under the scope of the research. Then in step four, the conclusion from each case are formulated.

The cases therefore identify the success conditions and provide recommendations for a successful market entry in the Indian telecom market.

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<sup>17</sup> Yin (1994), p. 13.

<sup>18</sup> Gall/ Bourg/Gall (1996).

<sup>19</sup> Robson (1994).

<sup>20</sup> Gable (1994), pp. 112 ff., Kaplan/Duchon (1988), pp. 571 ff., Ragin (1987), Lee (1991), pp. 342 ff.

The cases in this research are designed as holistic multiple-case design.<sup>21</sup> That is, each case is considered as a single unit and analyzed individually. The findings of each case contribute to the final outcome of the research.

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<sup>21</sup> Yin (2003), p. 40.

## **4 Structure of the book**

The entire book is divided into six chapters and again each chapter is further divided into various sections and subsections.

The first chapter introduces the research and is divided into four sections. It sets out the relevance and objective of the research. It also gives the reason and motivation for choosing this particular topic for research, and highlighting the methodology and the structure of the research.

Chapter two is about strategic management and the market entry strategies in the literature. This chapter has been divided into nine sections. It presents the tasks and purpose of strategic management, strategies and strategic planning in the initial sections. Then it defines market entry strategy and the other terms related to it such as internationalization strategy, global operation strategy, mode of entry and its influence, as well as the process and criteria of a good market entry strategy. The chapter concludes with the implications for the research project.

The third chapter is about the telecom market in India and is divided into eight sections. It describes briefly the world telecom market before describing the Indian telecom market in detail, highlights the Indian telecom regulatory authorities and telecom policies. It also covers the economical, socio-cultural, legal, technological and political environment of India to understand their influence on the penetration of foreign investors in the Indian telecom market. It highlights the reasons that motivate the foreign companies to set their foot in the Indian telecom market and the important facts about entry in the Indian telecom market. The chapter ends with a detailed note on summary and implication.

The fourth chapter describes and assesses cases of market entry strategies of foreign companies in the Indian telecom market. The chapter is divided into seven sections. The initial sections are about case research method and its application in this research. Further it describes and assesses the cases of four foreign companies that still operate or operated in the Indian telecom market. The chapter highlights conclusions concerning market entry strategy and Indian telecom market as derived from the cases of the four foreign companies and concludes with the summary and implications of this study.

The fifth chapter provides recommendations and guidelines for foreign companies entering Indian telecom market in future. It is divided into five



sections. It provides a detailed set of recommendations and guidelines for successful market entry for foreign companies that intend to enter the Indian market in future, classified on the basis of legal rules, market entry strategies and future investment in the Indian telecom market.

Chapter six which is the last chapter of the book contains final remarks divided into three sections which summarizes the research project, sheds light on the limitations of the research, and makes suggestions for future research.

**Table I-2** shows the summary of the structure of the book.

<p><i>I. Preliminary remarks</i></p> <ul style="list-style-type: none"> <li>• Relevance of the topic and objective of the research</li> <li>• Methodology and structure of the research</li> </ul>
<p><i>II. Strategic management and market entry strategies in the literature</i></p> <ul style="list-style-type: none"> <li>• Strategic management and its sub systems in detail</li> <li>• Market entry strategies</li> </ul>
<p><i>III. Telecom market in India</i></p> <ul style="list-style-type: none"> <li>• Study of Indian telecom competitors, telecom customers, telecom authorities and telecom policies</li> <li>• Facts about entry into Indian telecom market</li> </ul>
<p><i>IV. Description and assessment of cases on market entry strategies of foreign companies in Indian telecom market</i></p> <ul style="list-style-type: none"> <li>• Case study of foreign companies in the Indian telecom market</li> <li>• Assessing the strategies followed by these companies in the Indian telecom market</li> </ul>
<p><i>V. Recommendations and guidelines for foreign companies entering the Indian telecom market in future</i></p> <ul style="list-style-type: none"> <li>• Legal rules and market entry</li> <li>• Future investment</li> </ul>
<p><i>VI. Final remarks</i></p> <ul style="list-style-type: none"> <li>• Summary of the research project</li> <li>• Study limitations and scope for future research</li> </ul>

**Table I-2: Structure of the book**

## **II Strategic management and market entry strategies in the literature**

### **1 An overview of the chapter**

Chapter II of this book focuses on strategic management and market entry strategies in management literature. The chapter intends to achieve the following goals in relation to the literature:

Goal 1- Understanding strategic management and strategies in general, and market entry strategies in particular

Goal 2- Identifying the process and criteria for a good market entry strategy.

In order to achieve the above said goals the chapter is divided into nine sections and the sections into several sub sections.

There exists a plethora of literature on strategic management. However, this chapter narrows down mainly to the views of Grünig and Kühn, Hill and Jones, and Miller and Dess in sections 2 and 3.

Section 2 is about the tasks of strategic management and its main purpose. Sub-section 2.1 explains the three main tasks of strategic management as being strategic planning, strategic implementation and strategic control. Sub-section 2.2 throws light on the vital objective of strategic management which is to ensure long term success for a company. It describes the long-term accomplishment of a company's goal by the creation and maintenance of success potentials.

Section 3 is about strategies and strategic planning. Sub-section 3.1 explains the two forms of strategies as intended- and realized-strategy. The next sub-section, 3.2, discusses the two types of intended strategies that are corporate strategy and business strategy. The corporate strategy of a company directs its activities towards attractive markets while the business strategy specifies the resources and the offers required for each business in order to reach the target market position set in the corporate strategy. It also presents the core element of the corporate strategy which is a portfolio matrix and the core element of business strategy which is generic strategy. The last sub-section, 3.3, briefly describes the process of strategic planning.

Section 4 defines the term “market entry strategy” and other terms commonly used in the literature such as “global operation strategy”, “mode of entry” and “internationalization strategy”, as well as show the relation between them.

Section 5 is about global operation strategies namely multidomestic strategy, international strategy, global strategy and transnational strategy. It explains the characteristics, advantages and disadvantages of these four global strategies and highlights the influence of the global operation strategy on the market entry strategy.

Section 6 presents the various modes of entry into a foreign market. A company entering into a foreign market employs one or more of the modes of entry, that is, exporting, licensing, franchising, entering into strategic alliance and joint venture, or setting up a wholly owned subsidiary. Sub-section 6.1 gives an overview, and sub-sections 6.2 to 6.6 describe each mode of entry in detail and highlight all the material regarding its advantages and disadvantages. Sub-section 6.7 summarizes mode of entry. Sub-section 6.8 describes the dependence between global operation strategy and mode of entry into a foreign market. It highlights favorable and unfavorable combinations of a global operation strategy and of a mode of entry into a foreign market. The section concludes with sub-section 6.9, which describes the criteria for selecting a mode of entry by bringing to light the external and internal criteria of a company, which influences the choice of mode of entry.

Section 7 describes the process of market entry and explains the various steps in it. It also shows the difference between the processes of market entry for a nationally active company that enters a foreign market for the first time and that of an internationally active company that expands its operation to yet another country.

Section 8 summarizes the criteria for a good market entry strategy deduced from sections 2, 3 and 5. The five criteria identified here along with the process of the market entry in the previous section later form the basis for assessing the cases in chapter IV.

The final section, 9, of this chapter gives the implications of all this for the research project.

## **2 Strategic management and its purpose**

Strategic management is a sub-set of management and is concerned with the general direction and long-term policy of a business, which is distinct from its day-to-day operations. A decision concerning the long-term policy of a business is referred to as strategy.<sup>1</sup> In simple words, what an organization is trying to achieve is called its objectives and how the organization is going to achieve it is called strategy. To determine the strategy of an organization is only one of the functions of management but it is the most significant area of management decision-making. To give a better understanding of strategic management, section 2.1 discusses the various tasks of strategic management and section 2.2 discusses the main purpose of strategic management.

### **2.1 Tasks of strategic management**

The various tasks of strategic management can be broadly classified into strategic planning, strategic implementation and strategic control. They are discussed below in detail.<sup>2</sup>

The process by which strategies are produced is called strategic planning. Strategic planning is run independent of the day-to-day business but determines the way the day-to-day business is to be run -and that is done by the other two tasks, strategic implementation and strategic control process. Hence strategic planning forms the basis for the other two tasks. The production of successful strategy is therefore the core of strategic management.<sup>3</sup>

Strategic implementation is the realization of strategies at the level of market offer and resources as well as the complementary measures at the personnel level. The most important realization measures, such as the development of new products, the reduction or increase in the number of production facilities, the outsourcing of production, the building up of foreign markets and so on clearly do not relate to the personnel in an organization. So, the most common cause of strategy failure is improper

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<sup>1</sup> Grünig/Kühn (2002), p. 1., Stacey (1993), p. 1., Hill/Jones (1998), p. 3.

<sup>2</sup> Thomson and Strickland classify the tasks of strategic management into five. See Thomson/Strickland (1999), p. 3.

<sup>3</sup> Grünig/Kühn (2002), p. 16., Hill/Jones (1998), pp. 4 ff.

implementation at the personnel level. That is why strategic implementation cannot be successful without realization measures at the personnel level.<sup>4</sup>

Strategic control consists of three elements namely strategic monitoring, strategic scanning and strategic realization checking. After the strategy is formulated, strategy monitoring begins. Strategy monitoring begins right after strategy formulation. It builds up and maintains an early warning system. However, risk due to unexpected developments cannot be ruled out. The role of strategic scanning is to put systems in place in order to minimize the risk, merely intuitive observation of the environment. Finally, strategic realization checking helps to ensure that strategic measures are realized.<sup>5</sup>

The above-mentioned tasks of strategic management form three stages of a single process. The first stage, strategic planning, sets long-term goals and gives an indication of direction to achieve these goals. It also forms the basis of the second stage, which is strategic implementation. In this stage the implementation of the strategies planned during the first stage takes place. The third stage, strategic control has two functions. First, it provides information about how the strategies are to be realized. Second, it highlights any deviation from the actual strategic planning and strategic implementation. So that if the deviation is too large then the strategic planning must begin once again.

Though the three stages form a single process, they do not take place consecutively. There is a considerable amount of temporal overlap between the stages. For example, stages two and three, that is strategic implementation and strategic control, take place simultaneously and the overlap in time reflects the interplay between the three separate tasks and the influence each has on the other two.

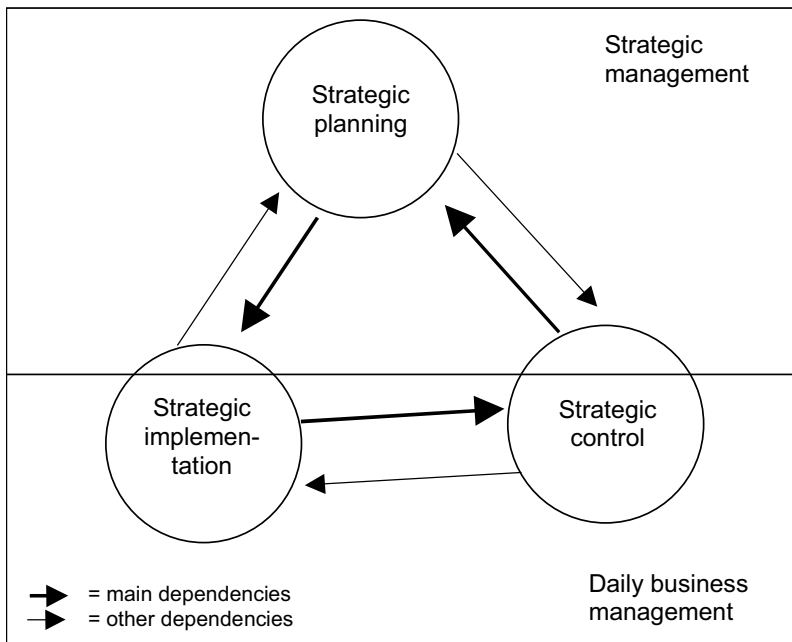
However, it is very difficult to distinguish between strategic management and management of daily business. Although strategic planning can be distinguished clearly from the medium and short term planning, the other two tasks of strategic implementation and control cannot be distinguished so clearly except for the early warning system.<sup>6</sup>

**Figure II-1** summarizes the three main task of strategic management.

<sup>4</sup> Grünig/Kühn (2002), p. 17., Hill/Jones (1998), pp. 6-10., Miller/Dess (1996), pp. 325 ff.

<sup>5</sup> Grünig/Kühn (2002), p. 17., Hill/Jones (1998), pp. 382 ff.

<sup>6</sup> Grünig/Kühn (2002), p. 16.



**Figure II-1: The three main tasks of strategic management<sup>7</sup>**

## 2.2 Main purpose of strategic management

The vital objective of strategic management is to provide or to ensure long-term success to companies. The long-term success of a company lies in achieving its overriding goals and objectives. A company can accomplish its goals and objectives in the long-term by the construction and careful maintenance of success potentials.<sup>8</sup>

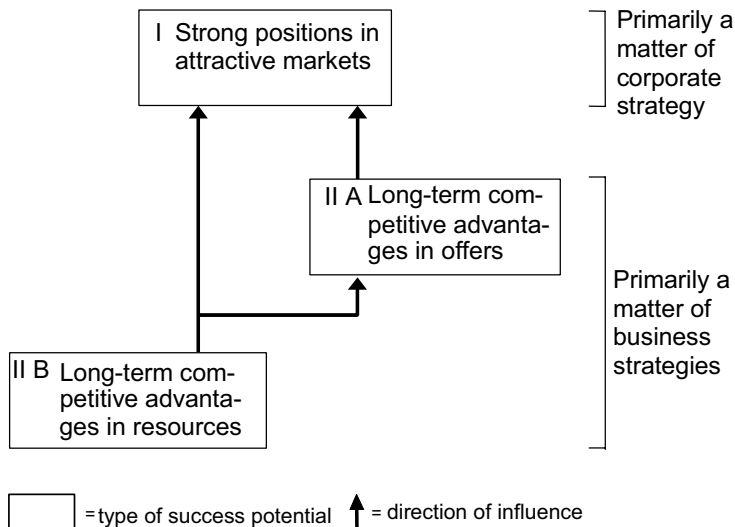
There are three types of success potential as shown in **Figure II-2** and they are discussed below.

1. Strong positions in attractive markets. ‘Strong position’ denotes the substantial market shares in the served markets or market niches. ‘Market attractiveness’ is based on the size, growth rate and intensity of competition in the market.

<sup>7</sup> Grünig/ Kühn (2002), p. 17.

<sup>8</sup> Gälweiler (1987), pp. 26 ff.

2. Long-term competitive advantages in market offers. This includes better product quality, good customer service, effective and aggressive advertising, long-term price advantages and similar things.
3. Long-term competitive advantages in resources. This includes not only technology, human resources, information systems and financial resources but also soft factors such as company culture, brand image, innovation capabilities, cooperation capabilities and the ability to change.



**Figure II-2: Types of success potential<sup>9</sup>**

An option for competitive advantage at the level of the different elements of the offer and of the different elements of the resources can be called a success potential network. A success potential network must (a) be focused to achieve the target market position as stated in the corporate strategy, (b) be within the investment budget as stated in the corporate strategy, (c) implement the chosen business strategy in the respective industry segments as per the decisions made, and finally (d) benefit from synergy effects.<sup>10</sup>

<sup>9</sup> Grünig/Kühn (2002), p. 10.

<sup>10</sup> Grünig/Kühn (2002), p. 243.

**Table II-1** gives an example of *Nokia Mobile Phones* to understand the idea of a success potential network.

*Nokia Mobile Phones is the world's largest mobile phone manufacturer. With its comprehensive product portfolio covering all consumer segments and standards, Nokia is in a strong position to lead the development towards the Mobile Information Society. Nokia's technology and applications are designed for human needs and are based on solutions that function seamlessly and effectively together.*

*Nokia has sales in over 130 countries, research and development in 14 countries, production in 10 countries and a global network of distribution, sales, customer services and other operational units. Headquartered in Finland, Nokia is listed on the New York, Helsinki, Stockholm, London Frankfurt and Paris stock exchanges and employs more than 55,000 people.*

*Nokia's strategic intent is to take a leading role in creating the Mobile information Society by combining mobility and the internet, and stimulating the creation of new services.*

*The technologies on which the Mobile Information Society is being built are advancing rapidly. But these technologies have no value in themselves. They only attain value in the context of fulfilling human needs. People must gain actual benefit from them. That is what Nokia's challenge is all about: understanding people's needs and using their technological competence to come up with applications that make people's lives better.*

*Most new services, features and functions will be based on software and much of it will be user-configurable. Software will play an increasingly important role in the coming years. That's why Nokia is taking a leading role in the development of software platforms for future mobile devices.*

*Nokia further developed a number of joint initiatives. In particular Nokia started to deliver the world's first WAP (=Wireless Application Protocol) media phone, Nokia 7110. WAP is creating an important shift in speeding up developments in mobile data. It has also helped to ensure that in 1999 the vision of the Mobile Information Society has penetrated more deeply into other industries too.*

*Nokia focuses its environmental work on what it has identified as 'king phases' of product life cycles. These include an environmentally sound supply chain, environmental management-systems, environmentally conscious packaging and recycling and other end-of-life practices.*

*Environmental objectives and considerations are systematically integrated into the design of products, processes and services through Nokia's DFE (=Design For Environment). The objective is to minimize the use of materials and energy and*

**Table II-1: The success potential network of Nokia Mobile Phones-I**



maximize reuse and recycling while maintaining or improving cost, performance and quality standards.

Nokia Mobile Phones is also actively addressing the question of end-of-life management of its products. It has participated in the mobile phone take back pilots organized by the body representing the European telecommunications equipment industry. It also actively assists in national and local programs for the recovery and disposal of batteries.

Figure II-3 shows the success potential network of Nokia Mobile Phones.

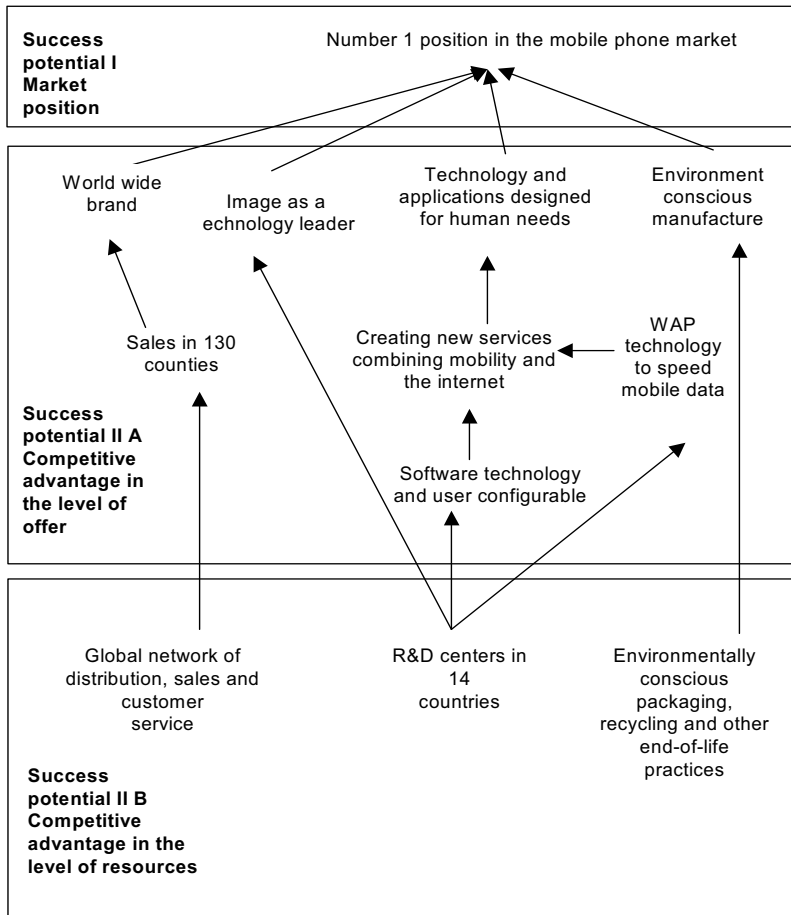


Figure II-3: Success potential network of Nokia Mobile Phones

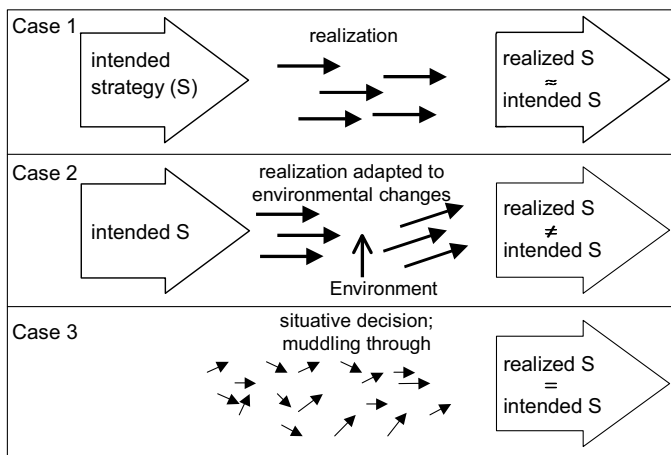
Table II-1: The success potential network of Nokia Mobile Phones-II

### 3 Strategies and strategic planning

The term “strategy”, that was earlier defined in section 2, can be used to refer to two forms of strategy - that is, intended strategy and realized strategy. Realized and intended strategy are discussed in section 3.1, while the distinction between the two levels of strategy - corporate and business strategy - are discussed in section 3.2.

#### 3.1 Realized and intended strategy

The term strategy can be used for both intended strategy and realized strategy. In practice, it is rarely possible to realize the intended strategy as desired. Therefore, realized strategy deviates to a smaller or greater extent from intended strategy. In some cases, there are no specific intended strategies; hence the realized strategy is an outcome of several decisions taken individually at various steps. **Figure II-4** distinguishes the two forms of strategy. The typical characteristics of intended strategy are (a) it indicates the long term guidelines of a company, (b) is relevant either for the company as a whole or for an important part of it, (c) is determined usually by management, and (d) guarantees permanent accomplishment of the objectives of a company by building up success potentials.<sup>11</sup>



**Figure II-4: Intended and realized strategies<sup>12</sup>**

<sup>11</sup> Grünig/Kühn (2002), p. 8., Hill/Jones (1998), p. 20., Miller/Dess (1996), pp. 22-24., Digman (1990), p.11.

<sup>12</sup> Grünig/Kühn (2002), p. 7.

Therefore intended strategies can be defined as managerial guidelines or statements, which direct and aid decision-making and subsequent action. Intended strategies also attempt to ensure coordination in a situation where there are number of managers at different places, in different situations and at different times.

## **3.2 Corporate and business strategy**

Basically there are two levels of strategies namely, corporate strategy and business strategy. The corporate strategy of a company directs its activities towards attractive markets where it can build or maintain advantageous competitive position. Business strategy on the other hand specifies the resources and the offers which are needed for each business so that it can achieve or protect the target market position set out in the corporate strategy. The two types of strategies are discussed more elaborately in the following sections (3.2.1 and 3.2.2).

### **3.2.1 Corporate Strategy**

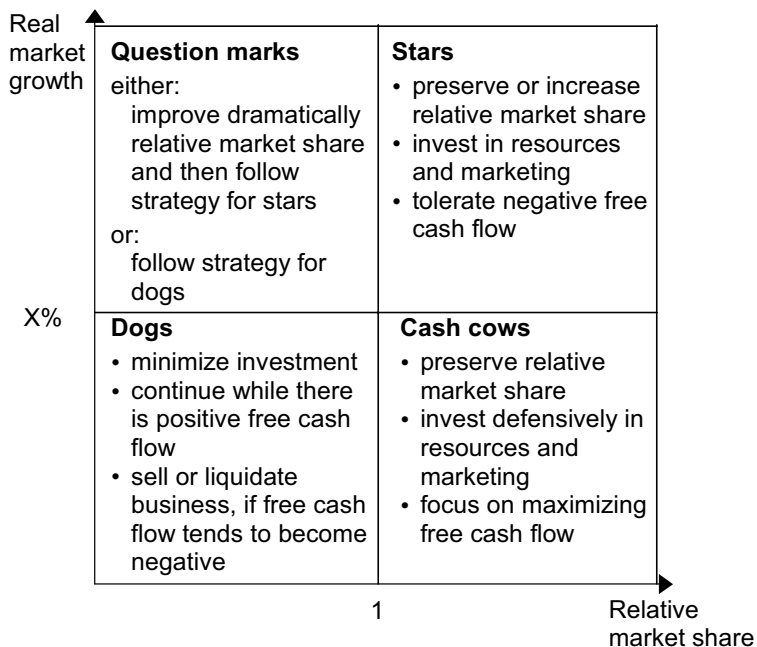
Corporate strategy determines the long-term orientation and development of corporate activities. It specifies (a) the businesses the company will continue to operate, any new businesses the company will commence and any businesses it will withdraw from, (b) the target competitive positions to be achieved by various businesses in its respective markets, and (c) the amount of investment it is going to make to maintain or enlarge its strategic businesses.<sup>13</sup>

The core element of a corporate strategy is normally a portfolio matrix. Portfolio methods make it possible to assess and plan for both existing and proposed businesses. Portfolio methods use two sets of criteria, namely criteria for assessing the attractiveness of the markets served by the businesses, and criteria for assessing the relative strength of each business in comparison with competing companies. There are two popular portfolio methods: market growth – market share portfolio (Boston Consulting Group portfolio) and industry attractiveness – competitive strength portfolio (McKinsey & General Electric portfolio).

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<sup>13</sup> Grünig/Kühn (2002), p. 105., Hill/Jones (1998), pp. 279-311., Miller/Dess (1996), pp. 271 ff.

The Boston Consulting Group portfolio has two axes: the vertical axis representing real market growth and the horizontal axis representing relative market share. Usually the relative market share is determined in comparison with the position of the strongest competitor in the market. **Figure II-5** shows the Boston Consulting Group portfolio.

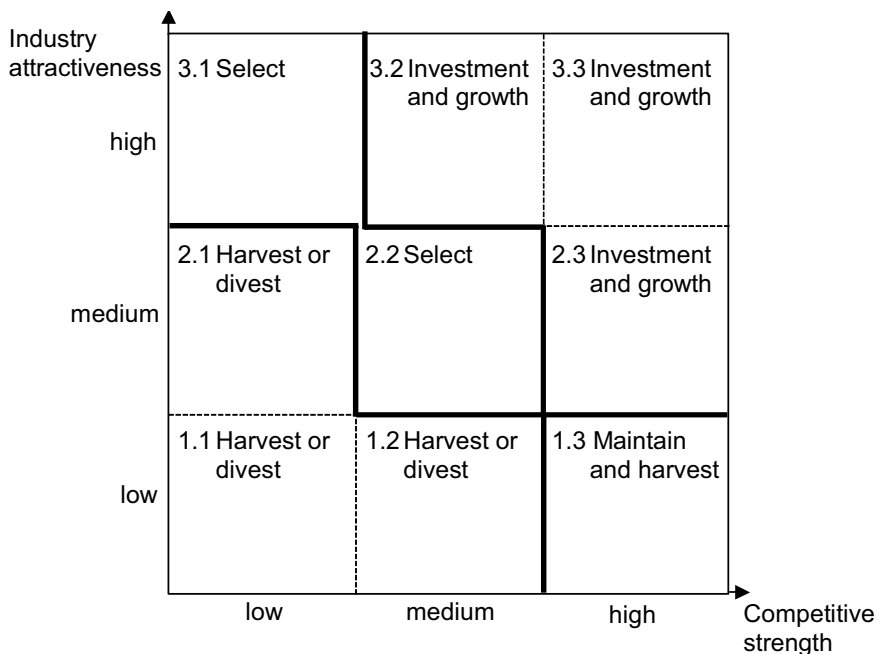


**Figure II-5: The Boston Consulting Group portfolio<sup>14</sup>**

Each axis is divided into two sections. The vertical axis (real market growth) uses the average growth rate of the world economy as the mid-point. Alternatively, if the activities of a company are focused on one industry or one region, the average real market growth of that industry or region is used. The relative market share on the horizontal axis is divided using the relative market share of 1.0 as the mid-point. This division allows only one competitor per market to be positioned to the right of the dividing line.

<sup>14</sup> Grünig/Kühn (2002), p. 145., Hill/Jones (1998), p. 316., Miller/Dess (1996), p. 272., Wit/Meyer (1998), pp.428, 432.

In contrast to the BCG portfolio, McKinsey & General Electric portfolio is more complex. The two single quantitative criteria, the real market growth and relative market share defining the position of a business in the BCG portfolio are replaced by a wider set of quantitative and qualitative criteria in the McKinsey & General Electric portfolio. It is a matrix with nine squares and the assessment of businesses in this portfolio is carried out analytically. The vertical and horizontal axes of McKinsey & General Electric portfolio are divided into three sections, corresponding to high, medium and low values. This results in nine squares grouped into four areas. The three squares on the top right correspond to 'investment and growth'. The three squares at the bottom left correspond to 'harvest or divest'. The square on the bottom right corresponds to 'maintain and harvest'. The square in the center and that on the top left correspond to 'select'. **Figure II-6** shows the McKinsey & General Electric portfolio.



**Figure II-6: McKinsey & General Electric portfolio**<sup>15</sup>

<sup>15</sup> Grünig/Kühn (2002), p. 150., Hill/Jones (1998), p. 319., Miller/Dess (1996), pp. 273, 275.

### 3.2.2 Business strategy

Business strategy specifies the resources and offers that are needed for each business in order to achieve or protect the target market positions as stated in the corporate strategy. That is, a business strategy identifies the competitive advantages at the level of market offers and resources, which are to be built up or maintained.<sup>16</sup>

There are several ways for a business to build or to maintain competitive advantage. However, management literature and strategy planning practice focus on a limited number of basic business strategies derived from a classification of possible competitive advantages. These are referred to as generic competitive strategies or generic business strategies. According to Porter the three basic competitive strategies are:

- cost leadership,
- differentiation, and
- focus.

Figure II-7 shows these generic competitive strategies of Porter.

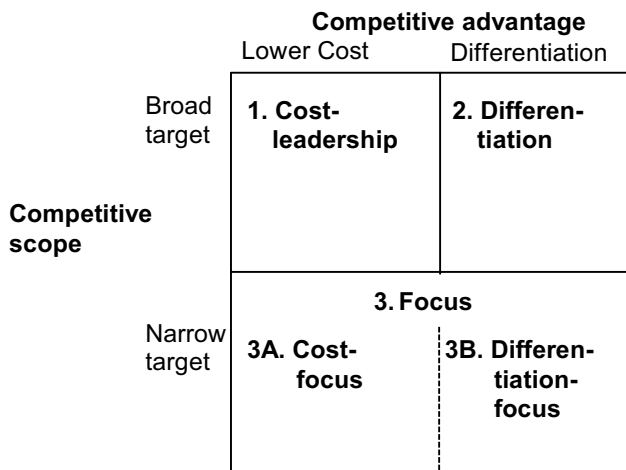


Figure II-7: Porter's generic competitive strategies<sup>17</sup>

<sup>16</sup> Grünig/Kühn (2002), pp. 183 ff., Hill/Jones (1998), pp. 185-212., Miller/Dess (1996), pp. 149 ff.

<sup>17</sup> Grünig/Kühn (2002), p. 184.

The three generic strategies vary in dimension and their successful implementation requires different resources and skills. They also differ in their organization arrangements, control procedures, and inventory systems. Sustained commitment to one of the strategies as the primary target is necessary in order to be successful. Some common implications of the generic strategies are shown in **Table II-2**.<sup>18</sup>

<b>Generic Strategy</b>	<b>Commonly required skills and resources</b>	<b>Common organizational</b>
Overall cost leadership	Substantial capital Investment and access to capital Process engineering skills Intense supervision of labor Products designed for ease in manufacture Low-cost distribution system	Tight cost control Frequent, detailed control reports Structured organization and responsibilities Incentives based on meeting strict quantitative targets
Differentiation	Strong marketing abilities Product engineering Creative flair Strong capability in basic research Corporate reputation for quality or technological leadership Long tradition in the industry or unique combination of skills drawn from other businesses	Strong coordination among functions in R&D, product development, and marketing Subjective measurement and incentives instead of quantitative measures Amenities to attract highly skilled labor, scientists, or creative people
Focus	Combination of the above policies directed at the particular strategic target	Combination of the above policies directed at the particular strategic target

**Table II-2: Implications of Porter's generic strategies<sup>19</sup>**

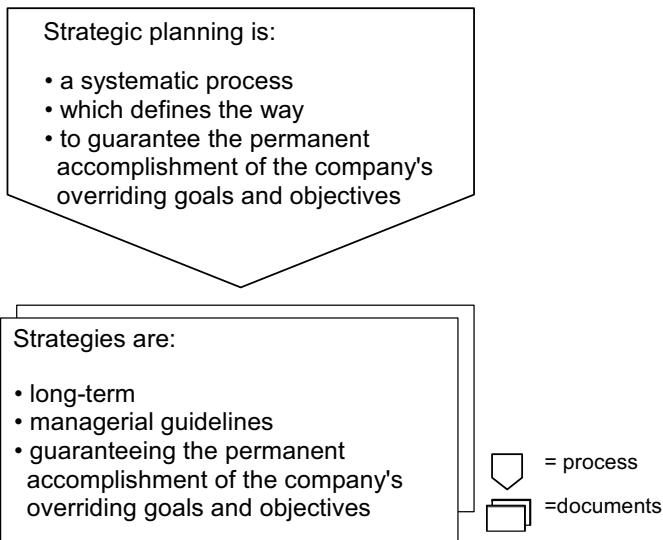
<sup>18</sup> Porter (1998), p. 40.

<sup>19</sup> Porter (1998), pp. 40 ff., Hill/Jones (1998), pp. 188, 415., Miller/Dess (1996), p. 184.

### 3.3 Process of strategic planning

As mentioned earlier in section 2.1 strategic planning refers to a systematic process by which strategies are produced with the objective of guaranteeing the long term accomplishment of the company's overriding goals and objectives.

A strategic planning process focuses either on the company as a whole or at some important parts of the company. In strategic planning, competencies and responsibilities are concentrated at the level of top management.<sup>20</sup> Hence, there is a difference between strategic planning and strategies which is shown in **Figure II-8**.



**Figure II-8: Strategic planning and strategies<sup>21</sup>**

The process of strategic planning starts with the planning of the project. This involves the determining of project scope, objectives and general conditions both favorable and unfavorable to the project, budgeting the project cost, project organization, etc. It also involves deciding whether to

<sup>20</sup> Grünig/Kühn (2002), p. 8., Hill/Jones (1998), p. 4.

<sup>21</sup> Grünig/Kühn (2002), p. 9.

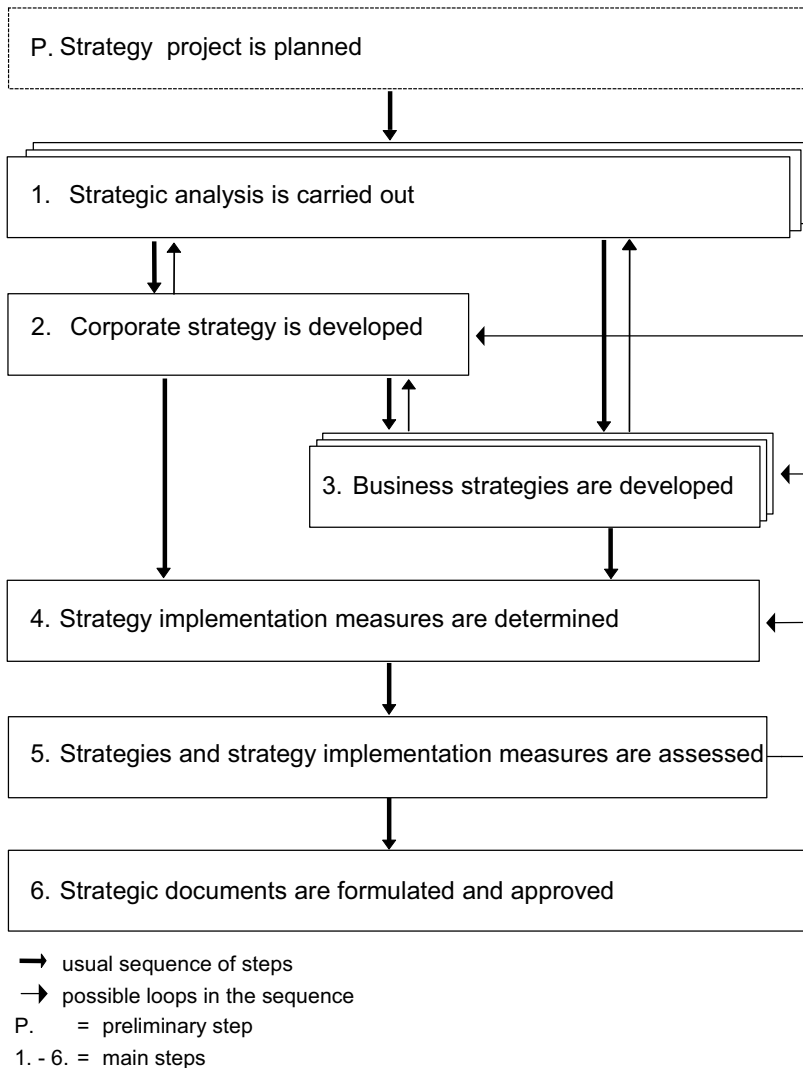


hire an external consultant for the project, at which stage, and to what extent. The next step is strategic analysis, which involves analyzing not only the current situation but also the future development of the overall environment, the industries and the company, as well as the provisional identification of the opportunities and threats. The above analysis leads to the development of corporate strategy and business strategies. Then strategy implementation measures are determined, followed by concrete ways of assessing those measures as well as the effectiveness of the strategies. Finally strategic documents are formulated and approved. **Figure II-9** summarizes the process of strategic planning in general.<sup>22</sup>

However the process of strategic planning differs for different types of company. The scheme shown in figure II-9 is appropriate for a company with a simple strategic structure. Adaptations are necessary for companies with a complex strategic structure such as for a diversified company operating at a national level, or for a company operating internationally with different product groups in a single industry market – and even more so for a diversified company operating internationally.

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<sup>22</sup> Grünig/Kühn (2002), pp. 41 ff., Hill/Jones (1998), pp. 4 ff.



**Figure II-9: The process of strategic planning<sup>23</sup>**

<sup>23</sup> Grünig/Kühn (2002), p. 42., See also Hill/Jones (1998), p. 5.

## 4 Market entry strategy and related terms

The market entry strategy is the plan developed by a company to enter a new market or sub-market.<sup>24</sup>

Any company operating internationally employs a strategy (explicit or implicit) to run its activities. This is called the global operation strategy. There are different possible global operation strategies, which are explained in section 5.

Global operation strategy gives the framework for a market entry strategy, while the market entry strategy itself gives the overall plan to enter a new market, and the components that must be considered to reach this objective. For instance the market entry strategy may cover issues such as buying market knowledge, entering into a joint venture with a local partner, choosing market segment and region of operation, offers, etc.

The mode of entry is the central element of the market entry strategy. Companies employ different important modes of entry, which are explained in section 6.

If a company wants to enter more than one foreign market it develops an internationalization strategy. The internationalization strategy defines the target foreign markets and the priorities in entering them. It can also be based on the conditions of geographical boundary for entering foreign markets.

The above discussed terms and definitions associated with market entry are summarized in **Table II-3** shown below.

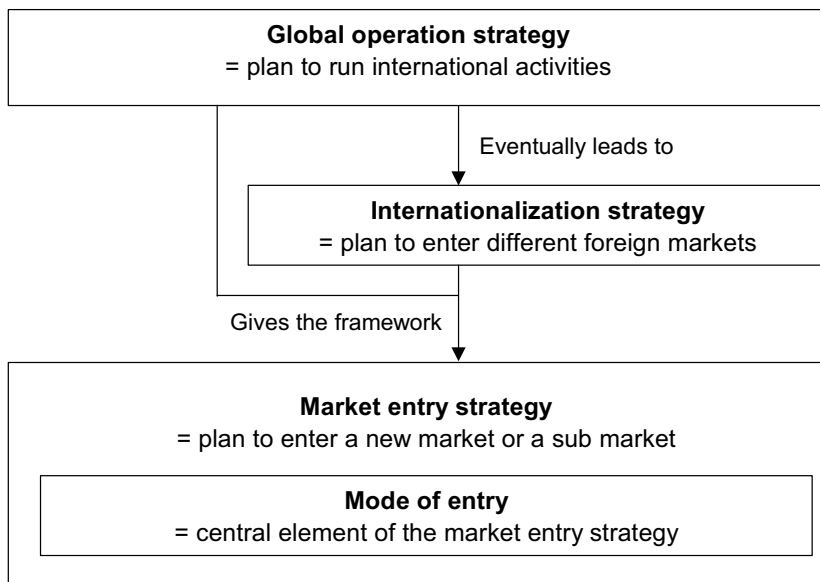
The relationship between global operation strategy, internationalization strategy and mode of entry based on the above discussion is shown in **Figure II-10**.

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<sup>24</sup> Littler/Wilson (1995), p. 50.

Terms	Definition
Market entry strategy	Plan to enter a new market or sub-market
Internationalization strategy	Plan to enter different foreign markets
Global operation strategy	Plan to run international activities
Mode of entry	Central element of a market entry strategy

**Table II-3: Terms and definitions associated with market entry**



**Figure II-10: Relation between global operation strategy, internationalization strategy, market entry strategy and mode of entry**

## 5 Global operation strategy as framework for market entry strategy

When a company enters the international environment, it has to decide how to manage its operations internationally. The strategy followed by a company to operate businesses in an international environment is called global operation strategy.

Companies can use one of four kinds of basic global operation strategies to compete in the international environment.<sup>25</sup> They are: multidomestic strategy, international strategy, global strategy and transnational strategy. These strategies depend on factors such as the degree of orientation towards local responsiveness or cost reduction, or the degree of centralization or decentralization of units such as marketing and research and development. The four global operation strategies are defined as follows.

- *Multidomestic strategy*: establishes semiautonomous national units in each country of operation in order to produce and to customize products to local markets. Some companies following a multidomestic strategy are *Nestle* (the Swiss baby food giant), *Matsushita* (the Japanese electronic giant) and *Microsoft* (the personal computer software giant).<sup>26</sup>
- *International strategy*: centralizes marketing and research and development activities at home while all the other value creation functions are decentralized to national units. Some companies following international strategy are *IBM*, *Kellogg*, *Merck* and *Procter and Gamble*.<sup>27</sup>
- *Global strategy*: centralizes all principal value-adding functions at a single optimal global location. Some companies following global strategy are *Intel*, *Texas Instrument* and *Motorola*.<sup>28</sup>
- *Transnational strategy*: centralizes some of the functions at an optimal global location while decentralizes others to achieve local responsiveness. It is the most suitable strategy when a company faces high pressures for cost reduction as well as high pressures for local responsiveness. Some companies following transnational strategy are *Unilever* and *Caterpillar*, the world's leading producer of heavy earth moving equipments.<sup>29</sup>

<sup>25</sup> Hill/Jones (1998), p. 253.

<sup>26</sup> Douglas/Craig (1995), p. 328., Miller (1998), p. 293., Thompson/Strickland (1999), p. 192.

<sup>27</sup> Douglas/Craig (1995), p. 326., Hill/Jones (1998), pp. 253 ff.

<sup>28</sup> Hill/Jones (1998), p. 255.

<sup>29</sup> Hill/Jones (1998), p. 257.

It can be easily seen that a multidomestic strategy customizes product offerings and marketing in accordance with local responsiveness, which is lacking in a global strategy. In turn, global strategy benefits from the experience curve effect and from location economies which multidomestic strategy lacks.<sup>30</sup> By contrast, an international strategy lacks local responsiveness, ability to benefit from location economies, and experience curve effects but is appropriate if a company has a valuable distinctive competency that indigenous competitors in foreign market lack. That is why transnational strategy is considered to be the most suitable strategy for most of the markets but is the most difficult to implement among the four operational strategies due to high pressures of cost reductions and local responsiveness. However, it allows customization of product offerings and marketing in accordance with local culture, and to benefit from experience curve effects, from location economies and global learning.

Companies that compete in the international environment face two types of pressures:<sup>31</sup>

- The first is the pressure for cost reduction, in response to which a company tries to minimize its unit costs. In order to achieve this goal the company has to base its production activities at the most favorable low-cost location in the world. It may also have to offer a standardized product to the global market in order to benefit from the experience curve. Pressures for cost reduction can be particularly intense in industries producing commodity-type products, where meaningful differentiation on nonprime factors is difficult, and price is the main competitive weapon. Products that serve universal needs tend to fall into this category such as bulk chemicals, petroleum, steel and sugar.
- The second is the pressure for local responsiveness. A company needs to differentiate its product offering and marketing strategy from country to country in order to accommodate the diverse demands arising from

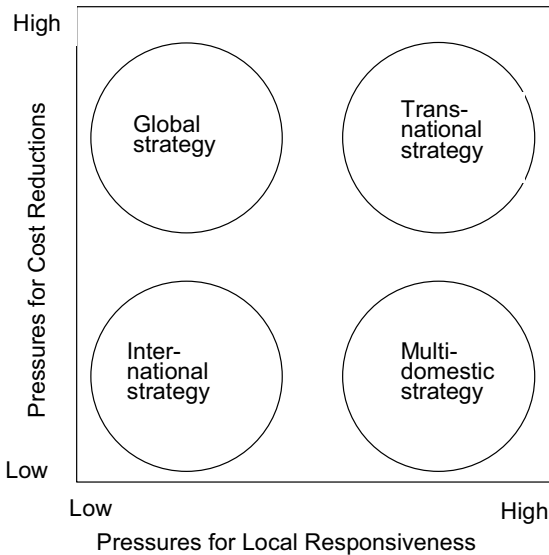
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<sup>30</sup> *Experience curve*- refers to the systematic decrease in production costs that has been observed to occur over the life of a product. See Hill/Jones (1998), pp. 248 ff. *Location economies*- are those that arise from performing a value creation activity in the optimal location for that activity, wherever in the world that might be (transportation costs and trade barriers permitting). See Hill/Jones (1998), pp. 246 ff. *Economies of scale*- are situation where the average unit of costs of producing a good or service decreases as the volume of production increases. See Hill/Jones (1998), p. 74.

<sup>31</sup> Hill/Jones (1998), pp. 249 ff.

national differences in consumer's tastes and preferences, business practices, distribution channels, competitive conditions, and governmental policies. Pressures for local responsiveness can be particularly intense in industries such as automobile, food and furniture.

The relation between the pressures for local responsiveness and pressures of cost reductions create the four basic strategies depicted in **Figure II-11**. The X-axis represents the pressures for local responsiveness and the Y-axis represents the pressures for cost reductions.



**Figure II-11: Pressures of cost reductions and local responsiveness on the global operation strategies<sup>32</sup>**

From figure II-11 it can be seen that International strategy is applicable in a market where the pressure for both local responsiveness and cost reduction are low. Multidomestic strategy is applicable in a market where the pressure for local responsiveness is high whereas the pressures for cost reductions is low. Global strategy is applicable in a market where pressures for cost reductions are high whereas local responsiveness is low.

<sup>32</sup> Hill/Jones (1998), p. 254.

Transnational strategy is applicable in a market where the pressures of both cost reduction and local responsiveness are high. In other words, a company pursuing transnational strategy tries to achieve both low cost and advantages of differentiation at the same time.

**Table II-4** gives a summary of the advantages and disadvantages of the four basic global operation strategies.

As a company changes from a multidomestic to an international, global or transnational strategy, it requires a more complex structure and control system to coordinate the value creation activities associated with that strategy. Therefore, the need for coordination and the bureaucratic costs increase. The coordination required is lower for a multidomestic strategy as compared to that for an international strategy, which in turn is lower than that for a global strategy, which in turn is lower than that for a transnational strategy.<sup>33</sup>

For a multidomestic strategy, the responsibility and authority can be decentralized to national units. The need for complex integrating mechanism is low in this case and the organizational culture is not important.

For an international strategy, responsibility and authority are organized in such a way that the core competencies are centralized and other competencies are decentralized to the national units. The entire operation is grouped into an international division structure. The need for complex integrating mechanism is medium and the organizational culture quite important.

For a global strategy, the responsibility and authority is centralized at an optimal global location and the operation is grouped into a global product-group structure. The need for complex integrating mechanism is high and the organizational culture important.

For a transnational strategy, the responsibility and authority is simultaneously centralized and decentralized and the operation is grouped into a global matrix structure. The need for complex integrating mechanism is very high and the organizational culture very important.

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<sup>33</sup> Adapted from Hill/Jones (1998), p. 259.



Strategy	Description	Advantages	Disadvantages
Multi-domestic	<ul style="list-style-type: none"> <li>Establishes semiautonomous units in each country</li> <li>Customizes products to local market</li> </ul>	<ul style="list-style-type: none"> <li>Ability to customize product offerings and marketing in accordance with local needs</li> <li>Presence of local responsiveness</li> </ul>	<ul style="list-style-type: none"> <li>Inability to realize location economies</li> <li>Failure to exploit experience-curve effects</li> <li>Failure to transfer distinctive competencies to foreign markets</li> </ul>
International	<ul style="list-style-type: none"> <li>R&amp;D and marketing centralized at home</li> <li>Other functions decentralized to national units</li> </ul>	<ul style="list-style-type: none"> <li>Transfer of distinctive competencies to foreign markets</li> </ul>	<ul style="list-style-type: none"> <li>Lack of local responsiveness in key functions</li> <li>Inability to realize location economies</li> <li>Failure to exploit experience-curve effects</li> </ul>
Global	<ul style="list-style-type: none"> <li>Value creation functions centralized at an optimal global location</li> </ul>	<ul style="list-style-type: none"> <li>Ability to exploit experience-curve effects</li> <li>Ability to exploit location economies</li> </ul>	<ul style="list-style-type: none"> <li>Lack of local responsiveness</li> </ul>
Trans-national	<ul style="list-style-type: none"> <li>Some functions centralized at an optimal global location</li> <li>Other functions are decentralized</li> </ul>	<ul style="list-style-type: none"> <li>Ability to exploit experience-curve effects</li> <li>Ability to exploit location economies</li> <li>Ability to customize product offerings and marketing in accordance with local needs</li> <li>Reaping benefits of global learning</li> </ul>	<ul style="list-style-type: none"> <li>Difficulties in implementation because of complexity and size of organizational problems</li> </ul>

**Table II-4: Advantages and disadvantages of global operation strategies<sup>34</sup>**

<sup>34</sup> Hill/Jones(1998), pp. 421 ff.

The above discussion about the relation between global operation strategy, coordination, bureaucratic costs, structure and control is summarized in **Table II-5**.

Strategy	Centralization of authority & responsibility	Horizontal differentiation	Need for complex integrating mechanism	Organizational culture	Structure & control	Bureaucratic costs	Coordination
<b>Multi-domestic strategy</b>	Decentralized to national units	Global structure	Low	Not important			
<b>International strategy</b>	Core competencies centralized, other competencies decentralized to national units	International division structure	Medium	Quite important			
<b>Global strategy</b>	Centralized at optimal global location	Global product-group structure	High	Important			
<b>Transnational strategy</b>	Simultaneously centralized & decentralized	Global-matrix structure	Very High	Very important			

**Table II-5: Global operation strategy and structure**<sup>35</sup>

<sup>35</sup> Adapted from Hill/Jones(1998), p. 260.

## **6 Mode of entry as a component of a market entry strategy**

### **6.1 Overview**

Companies expanding their operations to international markets employ five different modes to enter the foreign market:

- exporting,
- licensing,
- franchising,
- strategic alliance or joint venture, and
- setting up of a wholly owned subsidiary.

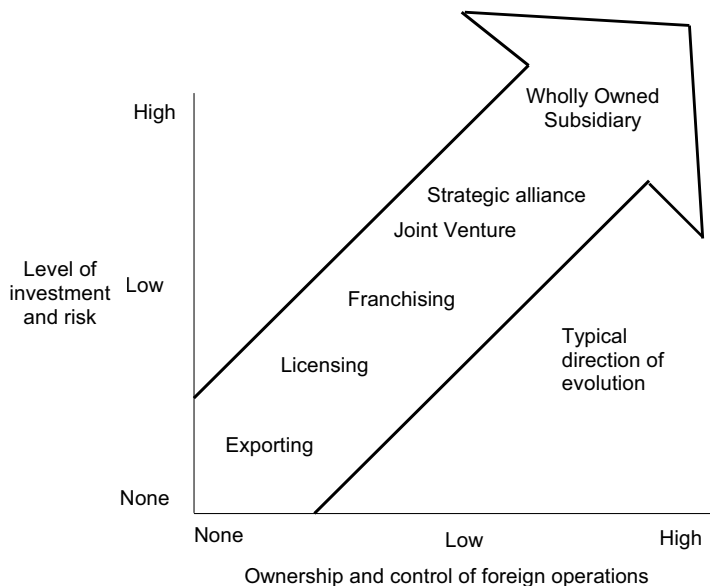
Strategic alliance and joint venture has been considered together because strategic alliance is a contract in the beginning, which if successful, usually leads to a joint venture.

The optimal choice of the mode of entry depends on the company. Each entails a different level and type of risk and control. **Figure II-12** shows the various modes of entry into a foreign market and the risks involved with each. Typically, a company starts with the low-risk/low-control option and then advances to higher levels of risk and control as it gains experience and builds confidence.

The various modes of entry are discussed in the following sections 6.2 through 6.6.

### **6.2 Exporting**

Exporting is the transfer of goods or services across national boundaries. Most companies begin their expansion into the international arena by exporting into a foreign market and then move to the other modes of entry. Exporting has several advantages. First, the company entering a foreign market can maintain production facilities at home and transport the goods or services abroad. In this way, the company can avoid the substantial cost which it would incur if it were to establish production facilities in the host country. Second, the company benefits from the economies of scale and from its global sales volume. Hence, exporting enables a company to benefit from the experience-curve, cost economies and from location economies.



**Figure II-12: Modes of entry into foreign markets and the level of risk<sup>36</sup>**

Third, exporting does not require a very substantial presence abroad. Some examples of companies that have used exporting as a mode of entry are *Sony* in the global television market, *Matsushita* in the video cassette recorder market, and several Japanese companies in the United States auto market.<sup>37</sup>

On the other hand, exporting has several disadvantages. First, exporting from the home country may not be profitable if lower cost production facilities could be established in the host country. Second, exporting could become uneconomical if the transportation costs associated with exporting are high. However, this problem could be overcome by manufacturing bulk products on regional basis. Third, tariff barriers which can be imposed by the government of the country, and regulations which can be imposed by the regulatory authorities of the country to which the company is exporting, could make this mode of entry quite risky. Fourth, there is no guarantee that the local agent to whom the company delegates marketing activities will

<sup>36</sup> Adopted from Miller (1998), p. 286.

<sup>37</sup> Hill/Jones (1998), p. 260.

perform in the best interest of the company. Finally, problems arising due to cultural difference and currency exchange can be difficult to handle from a distance.<sup>38</sup>

### **6.3 Licensing**

Licensing is an arrangement by which the licensor or the international company gives the right to the licensee or the national company to use one or more of the following:

- (i) patent rights,
- (ii) trademark rights,
- (iii) copyrights, or
- (iv) product or process know how

in a particular foreign market in exchange for certain performance and payment from the licensee. In exchange for the rights received, the licensee usually agrees

- (i) to produce the products covered by the rights,
- (ii) to market these products in an assigned territory, and
- (iii) to pay the licensor some amount related to the sales volume of such product in the form of royalty.<sup>39</sup>

The advantages of licensing are as follows. First, financial commitment can be kept low as the licensor company does not have to bear the development costs and risks associated in establishing itself in a foreign market. Hence, it is the best option for a company which lacks capital for overseas establishment or wants to avoid costs associated with research and development, launch of new products, tariff and transport, and to benefit from local production where national suppliers are favored. Also it could be one of the best modes of entry into a foreign market where a company is unwilling to invest substantial financial resources owing to country risk. Second, it is often the quickest and the easiest way to enter a foreign market because some governments favor licensing.<sup>40</sup> Thus, licensing may gain the approval of the government much quicker than any other mode of entry. Further, due to government policies in some countries licensing may

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<sup>38</sup> Miller (1998), p. 286.

<sup>39</sup> Miller (1998), p. 287., Doole/Lowe/Phillips (1994), p. 267., Terpstra/Sarathy (1997), p. 533.

<sup>40</sup> Terpstra/Sarathy (1997), p. 533.

be the only possible mode of entry.<sup>41</sup> Third, through licensing a company can immediately gain local knowledge. Last but not the least, it enables a company to keep the management commitment to the lowest.<sup>42</sup>

However, licensing has its disadvantages too. First, it does not give a company tight control over manufacturing and marketing in a foreign country. This makes it impossible to realize experience-curve cost economies and location economies. Second, competing in a global market place may make it necessary for a company to coordinate the worldwide strategy but licensing severely limits a company's ability to coordinate strategies in this way.<sup>43</sup> Third, there is a risk associated with licensing technological know-how to foreign companies as technological know-how afterwards forms the basis of competitive advantage for many companies. For example, *RCA* once licensed its color television technology to a number of Japanese companies. Soon the Japanese companies assimilated *RCA's* technology and used it to enter the U.S. market. Now the Japanese have a bigger share of the U.S. market than the *RCA* brand. However, this risk can be reduced by entering into a cross licensing agreement with a foreign company.

In a cross-licensing agreement, a company licenses some of its valuable intangible property to a foreign company, but in addition to a royalty payment, the company might also requests the foreign company to license some of its valuable know-how to this company. For example, *Amgen*, a biotechnology firm of the United States licensed to *Kirin*, a Japanese pharmaceutical company to sell one of its key drugs called Nuprogene in the Japanese market. In return *Kirin* not only has to pay the royalty but has also licensed to *Amgen* to sell some of its products in the United States of America.<sup>44</sup> Fourth, problems could occur if licensee does not respond to change in the market or does not help to develop the market for the licensor. Fifth, a licensee poses a potential threat of becoming a competitor when the licensing agreement runs out.

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<sup>41</sup> Johnson/Beaton (1998), p. 106.

<sup>42</sup> Doole/Lowe/Phillips (1994), p. 267.

<sup>43</sup> Hill/Jones(1998), p. 261.

<sup>44</sup> Hill/Jones(1998), p. 262.

## 6.4 Franchising

Franchising is an agreement in which the franchiser sells the rights to use its brand name to the franchisee in exchange for a lump-sum payment and a share of the franchisee's profit. Franchising is employed chiefly by services and marketing companies, while licensing is employed chiefly by manufacturing companies. Examples of companies that use franchising as a mode of entry are *McDonalds*, *Kentucky Fried Chicken*, *Hilton hotels* and *Dynorod pipe* in blocking services.<sup>45</sup>

The advantages of franchising are similar to that of licensing. First, the franchiser does not have to bear the development costs or the risks associated with expansion into a foreign market. Hence, it is an attractive mode of entry for companies that wish to expand quickly with low capital investment.<sup>46</sup> Second, the franchiser benefits from the local market knowledge, capital and participation of the management of the franchisee. Third, the franchiser can have a certain degree of control over the franchisee.

Franchising too has its disadvantages. The first and the most significant disadvantage of franchising is the difficulty of quality control. The crux of franchising lies in the message that a company's brand name conveys about its quality. For example, a traveler booking into *Hilton* International hotel in Hong Kong expects the same quality of room, food and service as he would receive in *Hilton* New York.<sup>47</sup> This is because the brand name conveys consistency in the quality of the products or services. Second, franchising could inhibit the ability of a company to achieve global strategic co-ordination.

## 6.5 Strategic alliances and joint ventures

Strategic alliances and joint ventures are discussed together because strategic alliances are a weaker form of joint venture. A strategic alliance can be defined as an agreement between two companies in order to combine their value chain activities for the purpose of competitive advantage.<sup>48</sup>

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<sup>45</sup> Johnson/Beaton (1998), p. 107., Hill/Jones (1998), p. 263.

<sup>46</sup> Cateora (1993), p. 331.

<sup>47</sup> Hill/Jones (1998), p. 262.

<sup>48</sup> Doole/Lowe/Phillips (1994), p. 278.

In most cases, strategic alliances involve competitors.<sup>49</sup> The objectives of strategic alliances are technological swaps, research and development exchanges, distribution relationships, marketing relationships, manufacturer-supplier relationships and cross licensing.<sup>50</sup> On the other hand, a joint venture can be defined as a venture between an international company and a national company in which the international company has enough equity stake to have voice in the management but not enough to completely dominate the venture. The equity share of the international company can vary from 10% to 90%, but generally it is between 25% to 75%.<sup>51</sup> However the most typical form of venture is 50/50 in which each party takes 50% ownership stake. Also the ownership stake is shared by the team of managers from both the parent companies. For example, the joint venture between *Fuji* and *Xerox* to produce photocopiers.<sup>52</sup> However, in some joint venture the equity split could be in the form of 51/49 percent, allowing the company with the majority share holding to have a tighter control. The basis of a joint venture is to benefit from the complementary competitive advantages of the two companies. Hence, the difference between the strategic alliance and joint venture is that the former is a contractual agreement, for example to share technology or to cooperate on a research and development project without the creation of a separate legal entity, as in the case of a joint venture.

Strategic alliances and joint ventures have numerous advantages. First, they give greater return from equity participation than other modes of entry. Second, they enable greater control over production, marketing and operations. Third, they reduce political and economic risks as a result of the involvement of the native partner. Fourth, they are the best mode of entry where foreign ownership is not permitted. Fifth, they could be the quickest mode of entry. Sixth, an international company has direct participation in the foreign market and thus it can understand the international market better and take sounder decisions for the future.

The disadvantages of strategic alliances and joint ventures are as follows. First, there is a high risk of losing control over technology to a venture partner. Second, differences in aims and objective of participating companies can result in tensions and disagreements over the strategies

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<sup>49</sup> Doole/Lowe/Phillips (1994), p. 276, Terpstra/Sarathy (1997), p. 541.

<sup>50</sup> Doole/Lowe/Phillips (1994), p. 276.

<sup>51</sup> Terpstra/Sarathy (1997), p. 538.

<sup>52</sup> Hill/Jones (1998), p. 263.



to be adopted. Third, there could be an inequality in burden sharing.<sup>53</sup> Fourth, they could involve a more substantial commitment of financial and management resources than anticipated. Fifth, they do not always permit a company to benefit from experience curve effects.

## **6.6 Wholly owned subsidiary**

A wholly owned subsidiary is a mode of entry in which the parent company has 100% ownership of the subsidiary's stock. A wholly owned subsidiary can be set up either by acquisition or by establishing a completely new entity.<sup>54</sup>

The advantages of a wholly owned subsidiary are as follows. First, a company whose competitive advantage is based on technological competency does not need to fear loss of control over it. Second, it enables a company to benefit from global strategic coordination. Third, it enables a company to benefit from location economies and from experience curve effects.

However, wholly owned subsidiaries have disadvantages too. First, they are a very costly mode of entry into a foreign market. This is because it requires large capital investment and management resources. Second, it means operating a company without local market knowledge and contacts of a local company. Third, the risk associated is very high compared to the other modes of entry.<sup>55</sup>

## **6.7 Summary of mode of entry**

**Table II-6** provides a summary of the description and the most important advantages and disadvantages of the different modes of entry into a foreign market.

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<sup>53</sup> Terpstra/Sarathy (1997), p. 539.

<sup>54</sup> Hill/Jones (1998), p. 264.

<sup>55</sup> Doole/Lowe/Phillips (1994), p. 271.

<b>Mode</b>	<b>Description</b>	<b>Advantages</b>	<b>Disadvantages</b>
Exporting	Transfer of goods or services across national boundaries	<ul style="list-style-type: none"> <li>- Ability to realize location and experience-curve economies</li> <li>- Avoids the cost of establishing manufacturing operations in the host country</li> <li>- Low risk</li> </ul>	<ul style="list-style-type: none"> <li>- High transport costs</li> <li>- Unpredictability of trade barriers</li> <li>- Problems with local marketing agents</li> </ul>
Licensing	Foreign licensee buys the rights to produce a company's product in the licensee's country for a negotiated fee	<ul style="list-style-type: none"> <li>- Low costs of development of foreign markets and risk</li> <li>- Quick growth possible</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to realize location and experience-curve economies &amp; to engage in global strategic coordination</li> <li>- Difficult to have control over technology</li> </ul>
Franchising	Selling to franchisee limited rights to use its brand name and business model in return for a lump-sum payment and a share of the franchisee's profits, often in the services and trade sectors	<ul style="list-style-type: none"> <li>- Low costs of development of foreign markets and risk</li> <li>- Quick growth possible</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to engage in global strategic coordination</li> <li>- Difficult to control quality</li> </ul>
Strategic alliance/ Joint Venture	Sharing of ownership stake and operating control by both parent companies	<ul style="list-style-type: none"> <li>- Access to local partner's knowledge</li> <li>- Shared development cost and risk</li> <li>- Easier political acceptability</li> <li>- Facilitate the transfer of complementary skills</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to engage in global strategic coordination and to realize location and experience-curve economies</li> <li>- Risk of giving away technological know-how and market access to alliance partner for a small return</li> </ul>
Wholly owned subsidiary	Parent company owns 100 percent of the subsidiary's stock	<ul style="list-style-type: none"> <li>- Protection of technology</li> <li>- Ability to engage in global strategic coordination and to realize location and experience-curve economies</li> </ul>	<ul style="list-style-type: none"> <li>- High costs and risks</li> <li>- Divergent corporate cultures and priorities</li> </ul>

**Table II-6: Description, advantages and disadvantages of the modes of entry into a foreign market<sup>56</sup>**

<sup>56</sup> Adapted from Hill/Jones (1998), p. 267.

## **6.8 Dependence between global operation strategy and mode of entry**

Section five presented global operation strategy as a framework for market entry strategy and the earlier part of section six presents the possible modes of entry in a market entry strategy. Now the dependence of the mode of entry on the global operation strategy is explained.

The mode of entry cannot be separated from the global operation strategy that has to be employed, to coordinate the operations after the entry into a foreign market. This implies that the mode of entry is influenced by the global operation strategy. Therefore, the combinations of the various modes of entry and the global operation strategies may fit well more or less, and vary from unfavorable, to favorable, to most favorable. The relationship between the four operation strategies and the five modes of entry are as follows.

If a company uses multidomestic strategy to run its international activities, then a joint venture or strategic alliance is the most favorable mode of entry into a new market; licensing or setting up a wholly owned subsidiaries are favorable modes. However, exporting and franchising are not favorable modes of entry for a company following multidomestic strategy for its global operations.

If a company uses international strategy to run its international activities, then licensing or a joint venture/strategic alliance are the most favorable modes of entry into a new market. Entering a market by setting up a wholly owned subsidiary and exporting are favorable modes for such a company.

For a company using global strategy for running its international activities, exporting or setting up a wholly owned subsidiary are the most favorable modes. "Exporting" here refers to the export of products from one subsidiary to the other. Franchising is a mode of entry favorable to such a company but licensing and joint venture/strategic alliance are considered unfavorable modes of entry into a new market.

For a company using transnational strategy for running its international activities, the best mode of entry is to set up a wholly owned subsidiary. Exporting or franchising are considered favorable modes but licensing and

joint venture/strategic alliance are considered unfavorable modes of entry. “Exporting” here refers to the export of products from one subsidiary to the other.

**Table II-7** gives a summary of the dependence of the global operation strategy and the mode of entry as discussed above.

<b>Global operation Strategy</b> \ <b>Mode of entry</b>	Exporting	Licensing	Franchising	Strategic alliance/ Joint Venture	Wholly owned subsidiary
Multidomestic strategy	O	X	O	XX	X
International strategy	X	XX	X	XX	X
Global strategy	XX*	O	X	O	XX
Transnational strategy	X*	O	X	O	XX
O = Unfavorable      X = Favorable      XX = Most favorable					
* Product exports from one to the other subsidiary					

**Table II-7: Dependence between global operation strategy and mode of entry**

## 6.9 Criteria for selection of a mode of entry

According to Terpstra and Sarathy, the mode of entry of a company depends on the following:<sup>57</sup>

- Goal of the company regarding the amount of international business desired, geographical coverage, time span of foreign involvement intended.
- Company size in terms of sales and assets.
- Product line and nature of a company's product; that is, whether the product is for industrial or consumer use, high or low priced, its technological content, etc.
- Trade barriers and regulations in the country concerned.
- Competition in the foreign market.

Some of the above mentioned factors are external to a company and some internal. So the selection of a mode of entry by a company depends upon the external and internal criteria of the company.

The external and internal criteria influencing the mode of entry of a company are described in detail as follows.

### 6.9.1 External criteria

The external criteria that influence the choice of a mode of entry by a company can be broadly classified under the following:<sup>58</sup>

- Country characteristics
- Government restrictions and trade barriers
- Product characteristics

*Country characteristics.* There are numerous country characteristics such as demography, geography, economy, basic resources, infrastructure, society and culture, level of education, technology, customer buying behavior, purchasing power, etc., that a company may consider in deciding its mode of entry. Some of these factors are stable and some are unstable. Moreover, the importance of each of these factors varies from company to company

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<sup>57</sup> Terpstra/Sarathy (1997), p. 509.

<sup>58</sup> Douglas/Craig (1995), pp. 147 ff.

depending on the nature of the company itself, but also its products or services. Some of the key factors are country size and market growth, political and environmental risk, economic and market infrastructure, and society and culture.

- If the size of the country and market is large then it is better for a company to establish a wholly owned subsidiary, majority owned joint venture or a sales organization. On the other hand if a country is small, it may be served through licensing or exporting agreements.
- In a politically and environmentally unstable country, a company should opt for a mode of entry, such as exporting, that demands minimum commitment of resources.
- In a country with less developed economic and market infrastructure a company is likely to encounter substantial difficulties and development costs in establishing its own production, distribution or sales facilities.
- If a country has similar societal and cultural values, then the needs and preferences of the customers are more or less the same and the company can choose any mode of entry depending on the above conditions.

*Government regulations and trade barriers.* In some countries, government regulations restrict certain modes of entry for foreign companies especially in strategic industries such as telecommunications, computers and information technology. However, as markets worldwide are becoming more interdependent and integrated, several governments have removed or reduced restrictions on ownership. For example, Coca-Cola, which had to leave the Indian market in 1977 owing to restrictions regarding majority ownership, could re-enter the country when such restriction was lifted after a few years. Trade barriers such as tariffs, quotas, customs, or product regulation also influence market entry strategy. Trade barriers can be broadly classified into direct and indirect trade barriers. Examples of direct trade barriers are tariffs and quotas, which restrict the import of foreign goods. Hence direct trade barriers influence any decision regarding local production or assembly operations. Examples of indirect trade barriers are product regulation, preference for local suppliers, customs, and certification formalities. Such kinds of trade barriers encourage establishment of contractual agreements such as a strategic alliance or joint venture with a local company. The local partner helps in developing local contacts, negotiating sales, and establishing distribution channels, as well as in diffusing the foreign image.

*Product characteristics.* The physical characteristics of the product or service such as its weight to value ratio, perishability, composition and process are important in determining the location of production. For example, in the case of a company producing products with low weight to value ratio such as expensive watches, especially where there are significant production economies of scale, the preference will be for direct exporting. On the other hand, for products such as soft drinks and beer, a company may look for establishing licensing agreements, or invest in local bottling units or production facilities especially for distant markets in order to avoid substantial shipping costs. Also, in products and services which incorporate propriety assets such as technology, brand name and/or image, a company should be reluctant to establish a joint venture especially where it is likely to lose control over production quality or distribution, or has to share propriety information or technology. Contractual agreements such as licensing and franchising are best established where the right of the licensee, franchisee, or local partner to utilize the proprietary asset such as technology, trade mark or corporate name is clearly established, and there is adequate provision for quality control and monitoring of operations.

### **6.9.2 Internal criteria**

The internal criteria that influence the choice of mode of entry by a company are as follows:<sup>59</sup>

- Objectives of the company
- Country selection strategy
- Resources
- Experience and expertise
- Flexibility
- Risk
- Degree of penetration
- Level of control

*Objective of the company* - Companies which have limited objectives for entering a new market favor a mode of entry, such as exporting or licensing as these require less financial resources and management attention. On the other hand, companies that want to be proactive and aggressive in the new market to increase their market share favor a mode of entry such as a strategic alliances, joint venture or setting up of a wholly owned subsidiary.

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<sup>59</sup> Bennett (1995), p. 60., Douglas/Craig (1995), pp. 152 ff., Terpstra/Sarathy (1997), p. 547.

*Country selection strategy* - Companies can follow country selection strategy either based on speed or sequence. If the country selection strategy of a company is based on speed then it desires to enter a country rapidly to take advantage of the emerging market opportunity. For example, licensing, franchising and acquiring existing companies. If the country selection strategy of a company is based on sequence, then the company begins with a mode of entry with minimal commitment such as exporting and gradually shifts to licensing, then to joint venture and then towards establishing its own subsidiary.

*Resources* - The choice of a mode of entry depends upon the financial and the managerial resources a company has or intends to commit to the new foreign market. It will be best for a company that wants to keep its financial and managerial resource commitment low to follow the exporting or licensing mode of entry. However, modes that entail low financial and managerial resource commitment may not foster quick growth in the foreign market and may also result in loss of significant opportunities. On the other hand mode of entry such as joint venture demands high level of financial and managerial resources but it is an equitable way of sharing risk, financial exposure, cost of establishing a distribution network and hiring local personnel.

*Experience and expertise* - The experience and expertise a company gains from other foreign operations helps to identify the effectiveness of a particular mode of entry. Though there is no single way to deal with a particular situation, often insights from past experience can be applied to make a good decision. For instance, the entry mode and its consequence in another foreign market earlier can be used as a lesson to avoid similar mistakes and to reap benefits.

*Flexibility* - Contractual arrangements with other firms or substantial equity investment in production, warehousing, or sales facilities in foreign market are typically the least flexible and most difficult to change in the short run. Licensing and other contractual agreements limit the firm's ability to adapt or change strategy during their duration and need to be evaluated carefully, especially where market conditions are changing rapidly. Similarly, wholly owned production or distribution networks in foreign markets may be costly and difficult to divest.

*Risk* - The choice of a mode of entry is also influenced by the ability of a company to withstand risk associated with each mode. Figure II-12 showing the level of investment and risk associated with each mode of entry indicates that the degree of risk increases in the order of exporting,



licensing, franchising, strategic alliances and joint venture, and wholly owned subsidiaries. It also depends on the extent to which a company is prepared to give out its know-how, core competency and competitive advantages.

*Degree of penetration* - Degree of penetration by a company means the extent to which a company wants to be involved in a market, that is, for short term or long term and the extent to which it desires local responsiveness. This influences the channel of distribution the company adapts. Deep penetration normally requires a permanent presence within the country concerned. In such a case setting up of a wholly owned subsidiary will be the best followed by strategic alliance and joint venture.

*Level of control* - The selection of a mode of entry is also influenced by the level of control the management of the company requires over the operations in the foreign market. Mode of entry with minimal resource commitment such as exporting and licensing provides very little control or no control over the development of the foreign market or even the way the products or services are marketed in the foreign market. The products may be under or overpriced resulting in the loss of sales or potential profit. Joint venture also limits the degree of management control over operations in foreign countries and can be a source of considerable conflict where the goals and objectives of partners diverge. Wholly owned subsidiaries provide the most control but entail substantial commitment of resources.

**Figure II-13** summarizes the criteria that influence the selection of a mode of entry by a company.

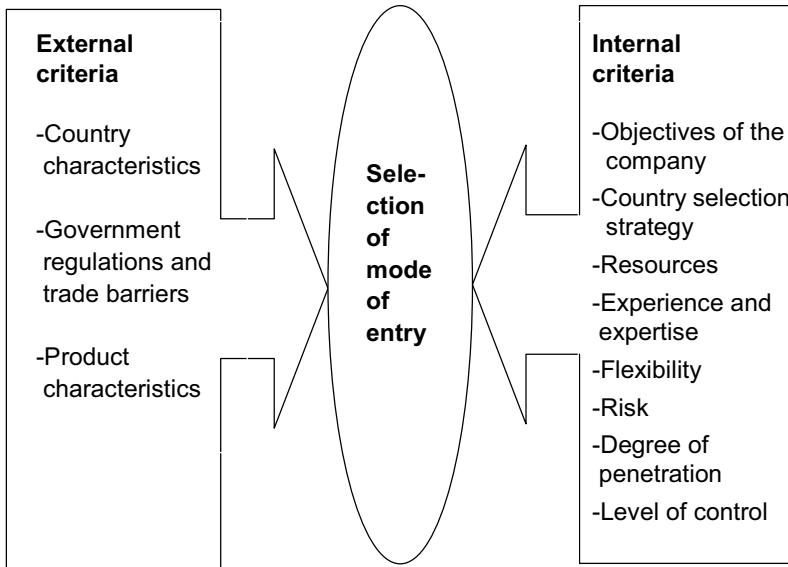


Figure II-13: Criteria influencing the selection of mode of entry

## 7 Process of market entry

**Figure II-14** shows the process of market entry for a nationally active company that enters a foreign market for the first time and that of an internationally active company that expands its operation to yet another country.<sup>60</sup>

The process of market entry contains a sequence of steps starting from the time when a company desires to enter a foreign market to the time it establishes its operation in the new market.

Considering the case of a nationally active company that enters a foreign market for the first time, the steps in the process of market entry will be as follows.

Step 1: The first step is the decision to explore the possibility of entering a foreign market.

Step 2: The second step is to carry out a thorough market research of the selected country and to develop a global operation strategy. The market research is to provide information about a wide set of factors pertaining to the new market. The factors generally considered for research in the new market are geography, demography, economy, political and legal set-up, technology and educational level, society and culture, basic resources, infrastructure network, government rules, regulations and trade barriers in the industry concerned to the company, production, sales and usage indicators, competition in the market, purchasing power of customers, consumer behavior, customer buying behavior, availability of substitute products, potential partners, distributors and agents. Depending upon the nature of the company's products and services, different factors could be of different importance. For example, factors such as geography and demography may hardly be of any importance for some companies while for some other companies it might be one of the determining factors for their success in the foreign market.

Step 3: As the company is going international for the first time, it has to develop a global operation strategy. The company may explicitly or implicitly choose one of the four global operations strategies discussed in section 5 depending on the pressures for local responsiveness and cost reductions, and on the amount of coordination and bureaucratic costs involved.

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<sup>60</sup> Grünig/Kühn (2002), p. 61.

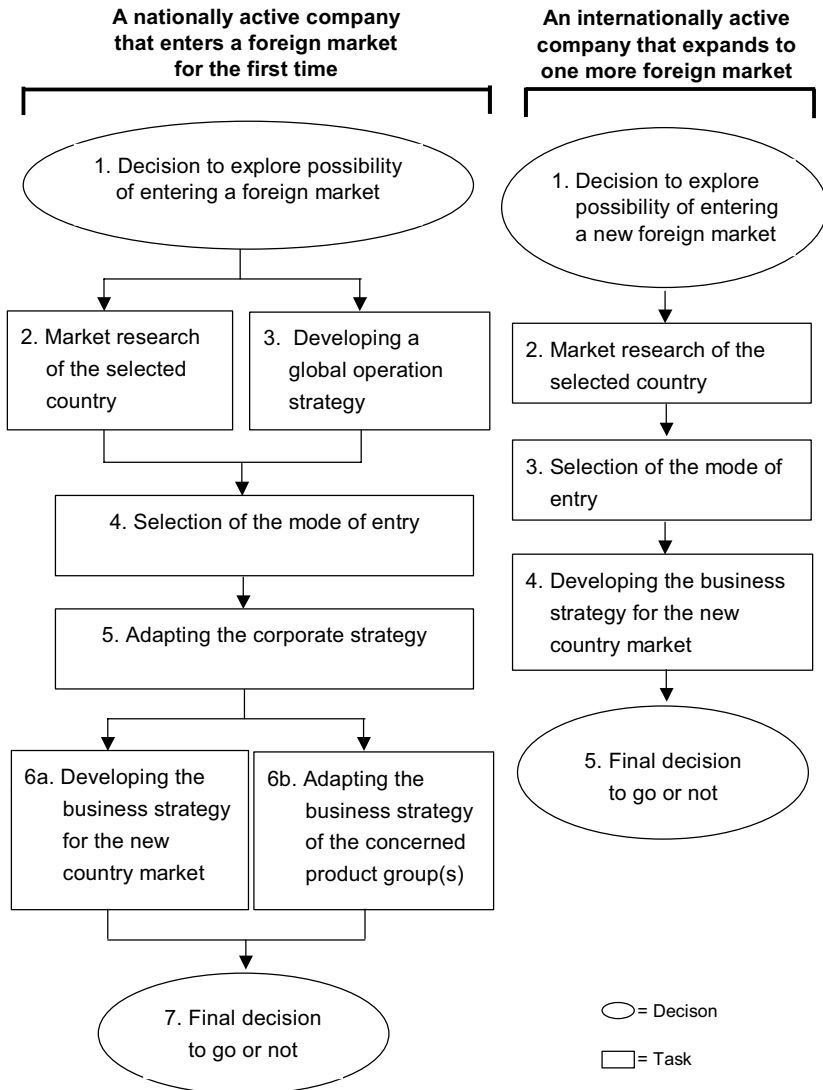


Figure II-14: Process of market entry

Step 4: The fourth step is the selection of the most appropriate mode of entry. As discussed in section 6 of this chapter, the various modes of entry into foreign market are: exporting, licensing, franchising, strategic alliance or joint venture, and setting up of a wholly owned subsidiary. Each mode of entry has advantages and disadvantages, which are discussed earlier in this chapter in section 6. Also the level of investment and risk, and the level of ownership and control of foreign operations vary from one mode of entry to the other as shown in figure II-15. As stated in section 6, typically a company starts with the low risk/low-control option and then advances to higher level of risk and control as it gains experience and builds confidence in the new market.

Step 5: The fifth step is to adapt the corporate strategy in the event of any new development in terms of strategic business/es, target market position/s, or new investment/s as a result of the new foreign operation. However, a company may not need to adapt its corporate strategy once again if the newly developed strategic business or target market position or investment opportunity risen from the new foreign operation is already incorporated in the corporate strategy.

Step 6: The sixth step is to develop the business strategy for the new country market or to adapt the business strategy or strategies of the concerned product group or groups that the company intends to offer in the foreign market.

Step 7: The last step in the process of market entry is the decision to go or not to go in the foreign market. A company may finally decide not to enter a foreign market if its strategies eventually do not seem to be feasible, or if it senses major hurdles for operation due to change in the economy, government, regulatory authority, or industry performance of the new country market, or if the company lacks financial or personnel resources.

Coming to the second case, where the company is already internationally active but is just expanding its operation to one more country, it can be seen that the process as well as the decisions are much easier though they may not be simpler. The first step is the same as in the former case; that is the decision by the company to explore the possibility of entering a new foreign market. The second step is to carry out a thorough market research of the selected country. The third step is the selection of an appropriate mode of entry. The fourth step is to develop the business strategy for the new country market and the last step is the decision by the company to go or not to go into the new foreign market.

## **8 Criteria for a good market entry strategy**

The literature review and the discussions in the earlier sections 2, 3 and 5 suggest that a company can be said to follow a good market entry strategy if it respects the following criteria. First, if the market entry strategy of the company is based on the strengths that arise from its competitive advantages in its offers and resources, as discussed in section 2.2. Second, if the market entry strategy leads to the choice of a good industry segment. Third, if it avoids direct competition as described by portfolio techniques in section 3.2.1. Fourth, if the market entry strategy leads to the implementation of a clear generic strategy as described in Porter's three basic or generic competitive strategies discussed in section 3.2.2. Last but not the least, if the market entry strategy of the company leads to the choice of a structure and control system that allows its global operation strategy to operate efficiently as discussed in section 5.<sup>61</sup>

In nutshell, the market entry strategy of a company can be classified as good if it is:

- based on company's strengths,
- chooses a good industry segment,
- avoids direct competition,
- follows a clear generic strategy, and
- chooses a structure and control system that allows its global operation strategy to operate efficiently.

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<sup>61</sup> Sections- 2.2, 3.2.1, 3.2.2, 5, Table II-14

## **9 Implication for the research project**

The literature review shows that a vast amount of literature is available on strategic management and strategies. However, as said in the beginning this research work takes into consideration primarily the views of Grünig and Kühn, Hill and Jones, and Miller and Dess to explain briefly the tasks, purposes and procedures of strategic management. The focus of the chapter is on the market entry strategy, and the terms associated with it. The chapter presents four global operation strategies, five modes of entry, and the process of planning a market entry.

The chapter contributes in the following ways to reaching the goals of the research work.

First, the chapter provides a consistent vocabulary of terms in the area of strategic management. This allows a clear and easily understandable description of the case studies in chapter IV.

Secondly, the chapter provides criteria for assessing the cases. For instance, the construction and careful maintenance of success potentials described in section 2.2, the process of entering a foreign market described in section 7, and the criteria for a good market entry described in section 8, provide a substantial basis to assess the cases in chapter IV.

# **III Telecom market in India**

## **1 An overview of the chapter**

Chapter III of this book focuses on the Indian telecom market, with the following goals:

Goal 1- Understanding the Indian telecom market

Goal 2- Identifying the prime reasons of the attractiveness of the Indian telecom market to foreign investors

Goal 3- Understanding essential facts about entry into the Indian telecom market.

In order to achieve the above said goals the chapter is divided into eight sections and several sub sections.

Section 2 is a bird's eye view of the world telecom market. Sub-section 2.1 presents the latest trends in the world telecom market. Sub-sections 2.2 and 2.3 discuss the submarkets and the major players of the world telecom market respectively. Several of the latest trends and major telecom players in the world telecom market are also mentioned in the discussion of the Indian telecom market in the later sections of this chapter that cover the Indian telecom market. It also can be seen that two out of the four case studies in Chapter IV of the book concern the major telecom players in the world market that are referred to in this section.

Section 3 provides a glance at the Indian telecom market. Sub-section 3.1 presents India, as one of the two large emerging economies of Asia next to China, with a huge and growing telecom market. Sub-section 3.2 discusses the immense potential in the Indian telecom market, and 3.3 presents the submarkets of the Indian telecom market.

Section 4 focuses on the major players in the Indian telecom market. Since the liberalization and privatization of the Indian telecom sector, there has been a surge in foreign and domestic private investors in the country. The major types of players in the country (the public telecom operators, domestic and foreign private telecom operators) are presented in this section.



Section 5 provides information on the regulatory bodies in sub-section 5.1, and the rules for public, private, domestic and foreign operators in various segments of the Indian telecom sector in sub-section 5.2.

Section 6 highlights the various reasons for the attraction of the Indian telecom market for foreign investors.

Section 7 provides guidance for a good market entry strategy in the Indian telecom market by highlighting certain facts and figures of the Indian telecom market for future foreign investors in India.

The concluding section, 8, summarizes this chapter and highlights the implications of this chapter for the research.

## 2 World telecom market

According to Yoshio Utsumi, the secretary general of the International Telecommunication Union (ITU), the world market has changed almost beyond recognition over the last twenty years.<sup>1</sup> The erstwhile features of the traditional state owned telecom market is rapidly being replaced by competition and privatization. Nevertheless, the pace and growth varies in different regions of the world.

The recent trends in the world telecom market are presented in sub-section 2.1. Sub-section 2.2 highlights the submarkets of the world telecom market and sub-section 2.3 presents the major players in it.

### 2.1 Recent trends in the world telecom market

The changes in the world telecom market can be described as follows:

*Private:* The traditional state ownership of telecom is replaced by private ownership. Privatization has influenced the telecom operators in every part of the globe. The developed countries have already privatized their telecom operators and most of the developing countries too are moving in a similar direction, for example, India, China and many countries in the African continent. Whereas, twenty years ago only a handful of countries had private public telecom operators, today these form the majority. By 2002, more than half of the countries in the world had partially or fully privatized their telecom operators. Europe, South Asia and the Pacific have partly or fully privatized telecom operators. India and China are notable holdouts in Asia, where privatization exists in bits and pieces. India's incumbent internet service operator, VSNL<sup>2</sup>, and the fixed line operator in the metro cities of Delhi and Mumbai, MTNL<sup>3</sup>, and the nationwide fixed line operator and cellular provider in some regions of India, BSNL<sup>4</sup>, are already privatized. Africa, the least privatized continent, has also accelerated its pace of privatization in the recent years. It has 10 countries, which have partly privatized incumbent telecom operators, and yet more are on the way, for example, Burundi, Cameroon, Kenya and Malawi.<sup>5</sup>

<sup>1</sup> World Telecommunication Development Report, ITU (2002), p. iii.

<sup>2</sup> Stands for Videsh Sanchar Nigam Limited.

<sup>3</sup> Stands for Mahanagar Telephone Nigam Limited.

<sup>4</sup> Stands for Bharat Sanchar Nigam Limited.

<sup>5</sup> World Telecommunication Development Report, ITU (2002), p. 3.

Privatization has brought a new relationship between government and telecom operators and at the same time has created a lot of competition, which had led to further increase in the number of players.

*Competition:* If there are several players, all seeking to maximize profits, an increase in competition is inevitable. A majority of countries allow competition in the mobile and internet segment (though the majority of countries still retain monopoly in fixed line services such as local and long distance). However, the competition is quite uneven. On the other hand, the growth in competition can itself result in an increase in the number of operators. For instance, competition in fixed and mobile services in India has attracted a number of private operators.<sup>6</sup>

*Mobile:* Telecom services are now becoming highly mobile and are delivered by the medium of radio waves. Whereas, until some 50 years ago majority of international calls were through short wave radio. This is because with a handheld device anyone can be reached anytime and anywhere unlike the fixed device. Handheld devices are capable of receiving updates from website and real time video streams from multiple sources around the globe. This makes the handheld device much more practical and convenient to get the latest information. So now radio is increasingly used to provide access networks, while wired networks provide the long distance component. However, research shows that constant usage of handheld radio wave devices could increase the possibility of health hazards due to radio waves. If the health consequence is adverse then it may even retard the usage of handheld devices in the long run.<sup>7</sup>

*Voice to data:* During the early years of the invention of telecommunication most of the information was transferred as data through telegraph. Later, telephony took over, shifting the focus from data to voice. Now, once again, the focus shifts from voice to data with the use of radio waves. Most of the information can be received in the form of data in mobile phones as well as through wired network via internet. The shift from voice to data makes telecom services highly mobile and assists globalization.<sup>8</sup>

*Global:* Globalization has made a great impact on telecom industry and its three main effects are as follows. First, many telecom operators from major

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<sup>6</sup> World Telecommunication Development Report, ITU (2002), p. 3.

<sup>7</sup> Levitt (1995), p. 272, <http://news.bbc.co.uk/1/hi/health/314363.stm>., BSNL portal (3 March 2006).

<sup>8</sup> World Telecommunication Development Report, ITU (2002), pp. 67 ff.

developed countries have holdings in operators in other nations, with consequent rationalization, specialization and the rise of strategic investors from developing countries. A second indicator of telecommunication globali-zation is the rising influence of regional and multilateral organizations such as the World Trade Organization (WTO) in lowering the barrier for traditional goods. A third indicator of globalization is new global services, such as mobile cellular roaming, that allow customers to continue to use a service away from their home country.<sup>9</sup>

*Digital divide:* Digital divide refers to the unequal availability of Information and Communications Technology (ICTs) to different socio-economic groups within the world and within individual countries. The digital divide exists between countries at different levels of development, and within a country, separating urban from rural areas, the rich from the poor, educated from uneducated, men from women, and the young from the elderly. An example of a country with a big digital divide is India. However, within certain groups and countries, the digital divide isn't too wide, making it hard to generalize as a problem. Example, Thailand, where women make up almost 50 per cent of all internet users or the USA, where women make up over 50 per cent of all internet users.<sup>10</sup>

*Changing balance of power:* At the outset of the telecom revolution, the regions of Americas and Europe had many more subscribers for telecom services than Africa and Asia-Pacific. But now the Americas and Europe are nearly saturated whereas subscribers in Asia-Pacific region are increasing faster. It is predicted that, ten years from now, Asia-Pacific will be the region with the largest number of subscribers in the world.<sup>11</sup>

*Shift from engineering to finance:* Gone are the days when interest in telecom was confined only to engineers. With privatization, a new psychology has been created; there has been a shift in attention from engineering to finance. Today telecom operators are private companies publicly traded on stock exchanges.<sup>12</sup>

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<sup>9</sup> World Telecommunication Development Report, ITU (2002), p. 4.

<sup>10</sup> World Telecommunication Development Report, ITU (2002), p. 25.

<sup>11</sup> ITU Asia Pacific Telecommunications Indicators (2000), p. 7., Digiworld, IDATE (2003), p. 63., BSNL Portal (7 March 2006).

<sup>12</sup> World Telecommunication Development Report, ITU (2002), p. 2.

To summarize, the recent trends in the world telecom market are: increase in private ownership, competition, data based mobile and global communication, trade and finance oriented operators, and rapid increase in subscribers from the developing nations. Several of these trends (such as increase in privatization, competition, mobile communication, digital divide) also exist in the Indian submarket.

## 2.2 Submarkets

The submarkets of the world telecommunications market can be divided into broad categories based on

- Geography, and
- Technology.

The submarkets based on geography are formed due to regional proximity, regional co-operation and the influence of multilateral organizations such as WTO, ITU etc. on them. Different regions have regional telecom organizations which oversee telecom activities in the respective regions. For example, in the Asia-Pacific Telecommunity based in Bangkok, Thailand, oversees telecom activities in the Asia Pacific region while the African Telecommunications Union based oversees the African region in Nairobi, Kenya. The geographical submarkets are as follows:<sup>13</sup>

- i. North America
- ii. Latin America
- iii. Western Europe
- iv. Central and Eastern Europe
- v. Africa and Middle East
- vi. Asia-Pacific

The submarkets based on technology are:<sup>14</sup>

- i. Telecommunications services, and
- ii. Telecommunications equipment

The telecommunication services submarket includes fixed and mobile telephony, data processing, internet and broadband, image transmission,

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<sup>13</sup> Digiworld Atlas, IDATE (2003), p. 2., World Telecommunications Services Market, IDATE (2003).

<sup>14</sup> World Telecom Equipment Market, IDATE (2003), Digiworld, IDATE (2002), p. 26.

electronic publishing and software services. The telecom services offered pave the way to a broad and large telecom equipment submarket.

The telecommunication equipment submarket includes public networks equipment, private systems and terminals, LAN/WAN<sup>15</sup> equipment, infrastructure for mobile network, cables, fiber optics, mainframes, personal computers, peripherals and datacom equipment.

To summarize, the submarkets of the world telecom market are mainly classified according to geographical location, and according to the technology used. India comes under the Asia Pacific geographical submarket.

### 2.3 Major players

The number of players in the world telecom market has surged dramatically in the last few decades owing to recent developments in the telecom market, such as privatization and globalization.

The monopolist public telecom services providers and equipment manufacturers in most parts of the world telecom market are now increasingly replaced by private service providers and equipment manufacturers. This is evident from **Table III-1** which shows the major players of the world telecom market in the fixed service, mobile service and equipment market, according to the reports of one of Europe's leading skills centers, specializing in analysis of the information and communications technologies sectors called IDATE in France, in 2003. The ranking of fixed services and equipment companies is on the basis of revenue in USD in 2001, and the ranking of mobile services is on the basis of subscribers in mid 2002.

The surge in the use of data and wireless communication has created many new segments of players in world telecom market. For example, infrastructure segments such as cables, optic fibers, datacom equipment, peripherals, etc.

With globalization and internationalization, business communication has become highly mobile, increasing dramatically both mobile service providers and competition.

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<sup>15</sup> Stands for Local Area Network/Wide Area Network.

Rank	Fixed Services	Equipment	Mobile Services
1	NTT (Japan)	Nokia (Finland)	China Mobile (China)
2	Verizon (USA)	Motorola (USA)	Vodafone (UK)
3	AT&T (USA)	Alcatel (France)	T-mobile (Germany)
4	SBC (USA)	Ericsson (Sweden)	NTT DoCoMo (Japan)
5	Deutsche Telekom (Germany)	Siemens (Germany)	Orange (France)
6	France Telecom (France)	Lucent (USA)	Telecom Italia Mobile (Italy)
7	MCI WorldCom (USA)	Nortel (Canada)	Verizon (USA)
8	Vodafone (UK)	NEC (Japan)	Telefonica Moviles (Spain)
9	Telefonica (Spain)	PTIC (China)	ATT Wireless (USA)
10	Telecom Italia (Italy)	Samsung (Korea)	SBC (USA)
11	British Telecom (UK)	Avaya (USA)	mmO2 (UK)
12	Sprint (USA)	Corning (USA)	Bell South (USA)
13	BellSouth (USA)	Fujitsu (Japan)	
14	KDDI (Japan)	Marconi (UK)	
15	China Telecom (China)	Hitachi (Japan)	

**Table III-1: Major players of the world telecom market in the fixed service, mobile service and equipment market<sup>16</sup>**

To summarize, with the recent changes in the world telecom market, a plethora of telecom players are added to the industry. And the major players in the world telecom market consist of companies from all over the world and from all segments of the telecom market. It can be observed from section 4 of this chapter that several of these major players are either currently present in the Indian telecom market or have made an attempt to enter the Indian market (e.g. AT&T, British Telecom, Motorola, Siemens, Nokia and Orange). In chapter IV of this book, two of these companies are chosen for case studies (Avaya and Alcatel) from the equipment manufacturing sector.

<sup>16</sup> Digiworld, IDATE (2003), pp. 45, 47, 55.

### 3 Indian telecom market at a glance

This section highlights the key features of the Indian telecom market. Sub section 3.1 is about India's huge telecom market, and 3.2 presents the Indian telecom sector. Sub section 3.3 describes the various submarkets of the Indian telecom sector. Sub section 3.4 throws light on foreign direct investment in the Indian telecom market.

#### 3.1 India as a huge and growing market

India, the world's largest democracy, with the world's second highest population and seventh largest area, is also the fourth largest economy in terms of purchasing power parity.<sup>17</sup> **Figure III-1** shows the political map of India



**Figure III-1: Map of India**<sup>18</sup>

<sup>17</sup> According to World Bank Report.

<sup>18</sup> <http://www.mapsofindia.com>.



with Delhi in the north as the political capital, a large number of states and union territories, and the neighboring countries (Sri Lanka which is not in the map is the neighbor to south). India's richness and diversity of culture, geographic and climatic conditions, natural and mineral resources are matched by few other countries in the world.

At the time of 2001 census in India, there were 638,691 villages and 5,161 towns. In 1991, the total number of villages and towns were 634,000 and 4,689 respectively. **Table III-2** shows the average size of villages and towns in India by population. The largest number of villages were in Uttar Pradesh (123,950) and the least in Lakshadweep (24). The average size of villages also varied from state to state, depending upon the nature of the terrain. It also shows that, among the states, the villages in Kerala have the largest population (17,281 persons) on average, followed by Haryana (2,152) and Tamil Nadu (2,137). The lowest size of village is in Arunachal Pradesh (214) followed by Himachal Pradesh (273) and Meghalaya (308). Among the states, Maharashtra has the largest average size of towns (108,518) followed by Andhra Pradesh (97,636) and Gujarat (78,097). Uttar Pradesh has the largest number of villages and second largest number of towns but comparatively smaller villages (1,224) as well as medium size towns (49,024).

Name of State/ Union Territory*	No. of Villages	Rural Population	Average Population per Village	No. of Towns	Urban Population	Average Population per Town
Jammu & Kashmir	6,652	7,564,608	1,137	75	2,505,309	33,404
Himachal Pradesh	20,118	5,482,367	273	57	594,881	10,437
Punjab	12,729	16,043,730	1,260	157	8,245,566	52,520
Chandigarh*	24	92,118	3,838	1	808,796	808,796
Uttaranchal**	16,823	6,309,317	375	86	2,170,245	25,235
Haryana	6,955	14,968,850	2,152	106	6,114,139	57,681
Delhi *	165	963,215	5,838	62	12,819,761	206,770
Rajasthan	41,353	43,267,678	1,046	222	13,205,444	59,484

**Table III-2: Average size of villages and towns in India-I<sup>19</sup>**

<sup>19</sup> eCENSUSindia, No. 14 (2003).

Uttar Pradesh	107,452	131,540,230	1,224	704	34,512,629	49,024
Bihar	45,113	74,199,596	1,645	130	8,679,200	66,763
Sikkim	452	480,488	1,063	9	60,005	6,667
Arunachal Pradesh	4,065	868,429	214	17	222,688	13,099
Nagaland	1,317	1,635,815	1,242	9	352,821	39,202
Manipur	2,391	1,818,224	760	33	570,410	17,285
Mizoram	817	450,018	551	22	441,040	20,047
Tripura	870	2,648,074	3,044	23	543,094	23,613
Meghalaya	6,023	1,853,457	308	16	452,612	28,288
Assam	26,247	23,248,994	886	125	3,389,413	27,115
West Bengal	40,793	57,734,690	1,415	375	22,486,481	59,964
Jhar-khand**	32,615	20,922,731	642	152	5,986,697	39,386
Orissa	51,349	31,210,602	608	138	5,496,318	39,828
Chhatis-garh**	20,308	16,620,627	818	97	4,175,329	43,045
Madhya Pradesh	55,392	44,282,528	799	394	16,102,590	40,870
Gujarat	18,544	31,697,615	1,709	242	18,899,377	78,097
Daman & Diu *	23	100,740	4,380	2	57,319	28,660
Dadra & Nagar Haveli *	70	169,995	2,429	2	50,456	25,228
Maha-rashtra	43,722	55,732,513	1,275	378	41,019,734	108,518
Andhra Pradesh	28,123	55,223,944	1,964	210	20,503,597	97,636
Karnataka	29,483	34,814,100	1,181	270	17,919,858	66,370
Goa	359	675,129	1,881	44	668,869	15,202
Laksha-dweep *	24	33,647	1,402	3	26,948	8,983
Kerala	1,364	23,571,484	17,281	159	8,267,135	51,995
Tamil Nadu	16,317	34,869,286	2,137	832	27,241,553	32,742
Pondi-cherry *	92	325,596	3,539	6	648,233	108,039
Andaman & Nicobar Islands *	547	239,858	438	3	116,407	38,802
Total INDIA	638,691	741,660,293	1,161	5161	285,354,954	55,291
* signifies the Union Territories ** signifies the new states formed during 2001 census						

**Table III-2: Average size of villages and Towns in India- II**

India's enduring institutions, rooted in the principles of democracy and justice, ensure a relatively transparent, predictable and secure environment for domestic and foreign private investors. The existence of an independent judiciary, strong legal and accounting system, a free and vibrant press, reservoir of highly skilled personnel and use of English as the principal language of business and administration are some of the attractive features of the Indian business environment. **Table III-3** shows some basic facts about India and **Table III-4** gives an overview of the key economic and telecom indicators of India.

<b>India Factsheet</b>	
Capital	New Delhi
Location	8.4-37.6° north latitude, 68.7-97.25° east longitude
Size	3,214 km (north to south), 2,933 km (east to west)
Area	3,287,263 sq km
Divisions	28 states and 7 Union Territories
Neighbors	Pakistan, Afghanistan, Bangladesh, Burma, Nepal, China, Tibet, Bhutan & Sri Lanka
Population	1.3 billion and above
Official languages	Hindi, English, 15 regional languages, 1500 languages & dialects
Government	Parliamentary Democracy
Currency	Indian Rupee & paisa

**Table III-3: India factsheet<sup>20</sup>**

<b>Key Economic &amp; Telecom indicators</b>	
GDP at market price (2005-2006)	USD 723.30 billion
GDP - Real Growth Rate (2005-2006)	8.1 %
Wholesale price index (WPI) (Mar. 2006)	4.1 %
Inflation (Feb. 2006) based on WPI	4.1 %
Foreign exchange reserve (Mar. 2006)	USD 145.1 billion
Exports (2005-2006)	USD 74.98 billion
Imports (2005-2006)	USD 108.80 billion
Foreign exchange rate (Apr. 2006)	1 USD=INR 44.89
Telephone lines (Jun. 2006)	153.4 million, (Fix: 47.4, Mob: 106)
World's largest telephone network (May 2006)	5 <sup>th</sup> position
Teledensity (Jun. 2006)	13.95%
Growth in teledensity (Mar. 2006)	12.80%
Total subscriber growth (2005-2006)	140.32 million, 42.60% in a year
Subscriber growth in a month (Jun. 2006)	Fix: 0.02, Mob: 4.78 (in million)
FDI in Telecom Sector (Sep. 2004)	USD 9.20 billion

**Table III-4: Key economic and telecom indicators of India<sup>21</sup>**

<sup>20</sup> www.indiatouristoffice.org.

<sup>21</sup> Economic Survey (2005-2006), p. 2., The Management Accountant (June 2006), p. 470., TRAI Press Release No. 60/06, 66/06 (28 June & 12 July 2006), Annual Report, DoT (2004-2005), p. 12.

The Indian economy was characterized by a highly regulated business environment, by a pervasive license system and by high tariff barriers until 1991. Sweeping reforms, introduced in 1991 and continued by successive Governments, have radically changed the course of the Indian economy. Today, a new spirit of economic freedom is stirring India, bringing sweeping changes in its way and unleashing the vast potential of the Indian economy. A series of reforms aimed at further deregulating and stimulating foreign investment have moved India firmly into the front ranks of growing international economies. India's known strength in software and Information Technology (IT) and tremendous e-commerce potential ensures a progressive trend in the Indian economy. There exists a strong political consensus on economic liberalization at central as well as state government levels. This augurs well for the continuation and progressive strengthening of investor friendly policies that have created ample of opportunities for domestic and foreign investors. These measures have had a significant impact on promoting the development of infrastructure facilities in India, at least in the telecom sector. The telecom industry is thought to have the highest potential for investment in India. The growth in demand for telecom services in India is not limited to basic telephone services. India has witnessed rapid growth in cellular services, radio paging, value-added services, internet services and global mobile personal communication by satellite (GMPCS). A large number of foreign investors, ranging from Fortune 500 companies to small and medium sized enterprises, have already invested in the Indian telecom sector. One of the key factors responsible for focusing the interest of foreign investors in India over the last few years has been the sheer size and growth potential of the Indian market. Recognizing that the telecom sector is one of the prime movers of economy, the Government's regulatory and policy initiatives have been directed towards establishing a world-class telecommunications infrastructure in the country.<sup>22</sup>

India is Asia's second largest emerging economy next to China. However, India and China are very different in most respects. The most obvious difference between India and China is the political system. India's democratic set-up has taken such a deep root in the country that even the illiterate part of India's electorate understands and accepts the rules and procedures of a multi-party system, whereas China still remains a one-party dictatorship in the totalitarian mold of the former Soviet Union. This is one of the important reasons for political stability in China as long as it lasts.

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<sup>22</sup> Ecensusindia (2001), [www.censusindia.net](http://www.censusindia.net), Indian Telecommunications (2003), p.1.

Initial bureaucratic hurdles to enter India may be greater than in China but once established in India it is difficult to be removed. This is because, unlike China, India has a highly developed judicial system. Also, based on parliamentary democracy and of course on the British legacy, India has developed the rule of law with all the institutions and procedures that are common in the industrialized countries in the West. In China, once the government decides on an economic priority it makes sure that the foreign investor gets a speedy and efficient treatment, at the same time, the investor can be faced with rapid policy changes that can negatively affect his business, as well as with difficult situations in which there is often no recourse to establish legal procedures.

The other difference is that although on the surface in China the bigger cities appear to be much more westernized than in India, the fact that English is the language of the Indian elites, makes this country much easier for a foreign investor.

Culturally and religiously too India has greater diversity than China. Daily life in India confronts people with much more diversity than is the case in China.

It is true that as compared to China, India lags behind in a number of important fields specially in attracting foreign direct investment, but economic show a complete picture. This is evident from the fact that the Indian middle class (which is one of the fastest growing stratum of the Indian society) is both in terms of purchasing capacity and in terms of personal assets considerably more advanced than the Chinese middle class. In brief India is a destination for an investor with a long-term perspective, while China a destination for an investor with a short-term perspective. **Table III-5** shows an overview of key parameters for comparing the two emerging economies, India and China.

To summarize, India is one of the world's largest and Asia's second largest emerging economy next to China. Since a decade, it has been attracting a large number of foreign investors especially in the telecom sector ever since the liberalization and privatization of the Indian telecom market. The country is believed to be a good market for investment despite bureaucratic hassles and shortages of infrastructure. It presents vast potential for overseas investment and is actively encouraging the entrance of foreign players into the market. Moreover, the use of English as the language for business and administration, and government policies, offer an investor friendly environment. No company, of any size, aspiring to be a global player can for long ignore this country which is one of the top two emerging economies.

Parameters	India	China
<i>World ranking</i>		
Size	7	2
Population	2 (1 billion)	1 (1.3 billion)
Road network	2 (3319644 km)	4 (1698012 km)
Rail network	3 (63000 km)	5 (59100 km)
Economies by GDP	12 (USD 477.3 billion)	6 (USD 1159 billion)
Economies by purchasing power	4 (USD 2930 billion)	2 (USD 5111 billion)
Industrial output	13 (USD 114 billion)	3 (USD 593 billion)
Global competitiveness	36	28
Business environment	38	37
Business operating cost	28	27
Business software piracy	22	2
Expenditure on research and development	37	26
Least corrupted	73	59
<i>Telecom figures</i>		
Mobile users	7 million	150 million
Cellular subscriber growth	1 million per month	4 million per month
<i>Qualitative facts</i>		
Strength	Manufacturing	Technical & Services
Merchandise Export	~ USD 0.9 trillion	~ USD 0.1 trillion
IT & Services Export	~ USD 0.1 billion	~ USD 30 billion
FDI	~ USD 60 billion (2004)	~ USD 5 billion (2004)
Average age of work force	between 20-30 yrs	between 30-40 yrs
Market opportunity	Better	
Management capability	Better	
Manpower quality/availability	Better	
Language capability	Better	
Overall country risk	Better	
Political stability		Better
Cultural & religious diversity	Greater	Lesser
Press	Vibrant and Free	
Potential investor	Long term perspective	Short term perspective

**Table III-5: Indo-China comparison<sup>23</sup>**

<sup>23</sup> Survey conducted by Interlink India and Xerox Corporation (1998), Indian Economy (Feb. 2004), Talk at the Annual General Meeting of SICC on India and China by Urs Schoettli ( June 2003), World in Figures (2004), Business Week, European Edition (22-29 August 2005).

### 3.2 The Indian telecom market

Telecommunications came to India almost at the same time as in other advanced countries. The first telegraph link experiment in 1839 between Calcutta<sup>24</sup> and Diamond Harbor, 21 miles apart, was the harbinger of telecommunication in India. India's present telephone network of 153.37 million lines is one of the largest in the world and the second largest among emerging economies, after China. Indian telecom market has a wide range of services - basic or fixed, cellular, internet, paging, VSAT, etc. The telephone penetration rate per hundred population (or tele-density) in India is about 5, which is well below the global average. This low teledensity suggests the vast scope for growth of the Indian telecom market. Moreover, the teledensity is expected to be increase to and 15% by 2010. This translates into an investment requirement of approximately USD 69 billion by 2010. It is, therefore, not surprising that India has one of the fastest growing telecommunication systems in the world with an average annual growth of about 22% for fixed telephone services and over 100% for cellular and internet services. Telephone lines added to the basic services network over the last 5 years have been one and a half times that added over the preceding five decades.<sup>25</sup>

Some of the key features of the Indian telecom market are summarized below:

- 5<sup>th</sup> largest network in the world with a wide range of services - fixed, cellular, internet, paging, VSAT, etc.
- Cellular subscribers are increasing ten times more than the fixed subscribers but the fixed subscribers are also growing rapidly approximately at a rate of 22 percent.
- As per New Telecom Policy 1999 tele-density is proposed to be increased to 15 percent (175 million telephone connections) by 2010. Already in June 2006 the Indian telecom market touched 153.4 million connections including both fixed and mobile.
- Current players include state-owned operators as well as private operators.
- Both sorts of operators are on a 'level-playing field'.

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<sup>24</sup> Refers to present day Kolkotta.

<sup>25</sup> Indian Telecommunications (2003), p. 3.

- Independent regulatory body-Telecom Regulatory Authority of India (TRAI).
- Independent dispute settlement body-Telecom Dispute Settlement and Appellate Tribunal (TDSAT).<sup>26</sup>

Until 1990, the state owned monopoly, the Department of Telecommunications (DoT) obtained super-normal profits as it was not only the monopoly provider of services, but also the monopoly buyer of equipment, as well as the sole network operator, not to mention the supreme regulator. The role of foreign companies in the telecom market was confined to the supply of equipment. In 1992, the government decided to open up the 'value added services' category to private sector participation. This category included cellular, paging, e-mail, VSAT, video-conferencing, and data communications services. Later, cellular services by foreign companies were allowed but only as joint ventures. Still later, they could even provide value added services. At present even the basic services sector is open to foreign companies. But private operators especially those in the cellular segment, faced problems not only because of the regulatory framework but also because of the fact that they had to bid far too high for obtaining licenses. As a result, they had a hard time achieving profits. Companies were also forced to charge high tariff, which had the effect of cutting demand.<sup>27</sup>

Before the government opened up the telecom sector, the prices were high and service was poor. Today, prices are much lower while the service is much better. Indian consumers have access to world class products and the latest technology. In the old days of the monopoly of the Department of Telecommunication, there was little or no customer service. Telephones were not marketed, only rationed or approved. There were also unreasonably high security deposits and long waiting periods. Today, there are all kinds of incentives offered to the customer. There are 24 hour help-lines. The waiting list is almost gone in the bigger market and the customer is the king. In the last several years, the number of cellular subscribers has grown many fold, for example, from table III-4 it can be observed that the subscriber growth for cellular service in a month is more than 4.5 million.

To summarize, India had a traditional telecom market, which was dominated by public sector monopoly till 1990. Later, it was priv atized by

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<sup>26</sup> Indian Telecommunications (2003), pp. 2 ff.

<sup>27</sup> India Infrastructure (2002), p. 16.



bits and pieces and now allows private sector participation in almost all the sectors of telecom in the nation. It has a rapidly increasing subscriber base. It allows investor friendly environment and has set up regulatory bodies to ensure justice to all players. In brief, the present Indian telecom sector is marked by choice, competition, subscriber growth, improvement in quality and service, and a shift from monopoly to oligopoly to true competition.

### 3.3 Submarkets in Indian telecom market

The classification of the submarkets of the Indian telecom market, though similar to that of the world telecom market described earlier in section 2.2 of this chapter, is different to some extent due to various internal factors associated with the country such as its huge size, population, tele-density, digital divide, etc. The submarkets of the Indian telecom market are primarily divided according to the technology used for service such as fixed service, cellular service and internet service and several others. For the services submarket, the country is geographically divided into 21 telecom 'circles'<sup>28</sup>. Circles correspond approximately to states and are categorized as either 'A', 'B' or 'C' according to size and importance. For example, Category 'A' includes the heaviest volume areas such as Delhi, Uttar Pradesh, Maharashtra, Gujarat, Andhra Pradesh, Karnataka and Tamil Nadu. For National Long Distance (NLD) service, the country is divided into 21 such circles. The circles have been further divided into 322 Long Distance Charging Areas (LDCAs) and these LDCAs have been split into Short Distance Charging Areas (SDCAs). For cellular mobile services, the country is divided into 20 circles and 4 metro cities. The circles and the categories into which they fall for different services are described later in sub-section 3.3.1.

The submarkets of the Indian telecom market based on technology are nearly the same as the submarket at the world level, with the exception that the infrastructure segment forms a submarket too. This is due to the differing rules and regulations that apply to different segments. So the Indian telecom market can be divided into three submarkets- (i) Services, (ii) Equipment and (iii) Infrastructure providers (IP). The services submarket can be further classified into three segments namely (a) basic service, (b) cellular service and (c) value added services. The equipment submarket too is further classified into three segments- (a) digital switching,

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<sup>28</sup> The term circle will be consistently used after here in this book.

(b) transmission system and (c) terminal equipment. Infrastructure providers are divided into (a) Infrastructure providers ‘Category I’ and (b) Infrastructure Providers ‘Category II’.<sup>29</sup> Category I and II are explained later in sub section 3.3.3 of this chapter. Basically the two categories meet different needs and the rules of the government for the two are different. **Figure III-2** shows the submarkets of the Indian telecom market, which are discussed in detail in the following sub sections.

### 3.3.1 Services submarket

The services submarket consists of basic services, cellular services and value added services. They are discussed in detail below.

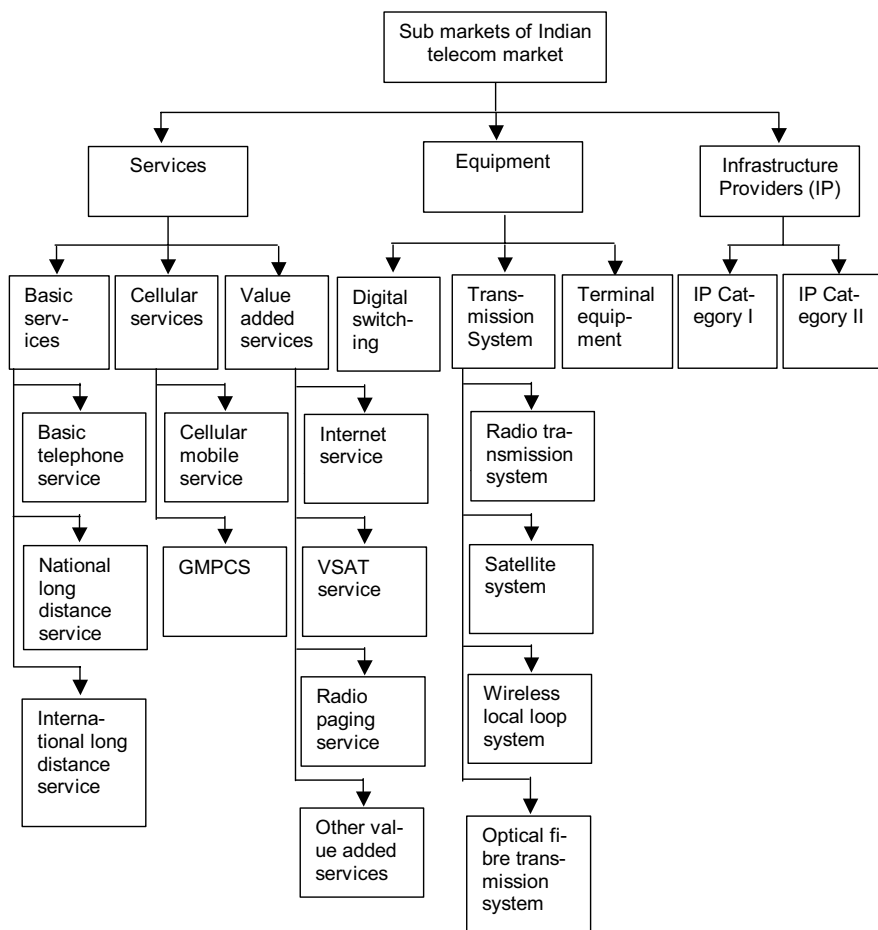
Basic services market is further segmented into Basic Telephone Service, National Long Distance Service (NLDS) and International Long Distance Service (ILDS).

*Basic Telephone Service* involves the provision of basic or fixed line connections. The obligations concerned are linked to the establishment of Points of Presence (POP) in a Short Distance Charging Area (SDCA), which is a specified geographic region. For this purpose the country is divided into 21 territorial service areas called circles. As mentioned earlier in sub-section 3.3, each circle is further classified into category A, B and C according to its size, importance, eligibility conditions, performance, guaranties, etc. For example, Category ‘A’ includes the heaviest volume areas such as Delhi, Maharashtra, etc. Category ‘B’ includes comparatively lesser volume, and Category ‘C’ includes the hilly regions of India.

Category A	Andhra Pradesh, Delhi, Gujarat, Karnataka, Maharashtra (including Mumbai & Goa), Tamil Nadu (including Chennai)
Category B	Haryana, Kerala, Madhya Pradesh (including Chhattisgarh), Punjab, Rajasthan, Uttar Pradesh (East), Uttar Pradesh (West)- (including Uttaranchal), West Bengal (including Kolkatta)
Category C	Andaman & Nicobar, Assam, Bihar (including Jharkhand), Himachal Pradesh, Jammu & Kashmir, North East, Orissa

*National Long Distance Service (NLDS)* gains its importance from the enormous geographical extensiveness of the country. This involves carrying inter-circle long distance voice and data traffic. Intra-circle traffic can also be carried on the basis of mutual agreement between basic service operators.

<sup>29</sup> Indian Telecommunications (2003), pp. 5, 12.



**Figure III-2: Submarkets of the Indian telecom market**

The service area for NLDS is the whole of India. So it is not divided into circles and categories.

*International Long Distance Service (ILDS)* involves the carriage of international long distance traffic. This service is also on an all-India basis.

The cellular services market consists of Cellular Mobile Service and Global Mobile Personal Communication by Satellite (GMPCS).

*Cellular Mobile Service.* For the purpose of cellular mobile service the country is divided into 20 circles and 4 metro cities. They are permitted to carry their own long distance traffic within their service area.

- Category A Andhra Pradesh, Gujarat, Karnataka, Maharashtra (except New Mumbai & Kalyan), Tamil Nadu (including MEPZ, Minjur & Mahabalipuram)
- Category B Haryana (except Faridabad & Gurgaon), Kerala, Madya Pradesh (including Chhattisgarh), Punjab, Rajasthan, Uttar Pradesh (East), Uttar Pradesh (West)- (including Uttaranchal but excluding Ghaziabad & NOIDA), West Bengal (except Kolkatta)
- Category C Andaman & Nicobar, Assam, Bihar (including Jharkhand), Himachal Pradesh, Jammu & Kashmir, North East, Orissa
- Metro cities Chennai (including MEPZ, Minjur & Mahabalipuram), Delhi (including Faridabad, Gurgaon, NOIDA & Ghaziabad), Kolkatta, Mumbai (including New Mumbai & Kalyan)

*Global Mobile Personal Communication by Satellite (GMPCS).* GMPCS operators provide voice and non-voice messages, data service and information services utilizing any type of network equipment, including circuit and/or packet switches that meet the relevant International Telecommunication Union (ITU)/Telecommunication Engineering Center (TEC) standards. Like NLDS and ILDS, GMPCS is also on all-India basis.

The value added services market consists, for example, of Internet service, VSAT Service, and Radio Paging Service (RPS).

*Internet Service* involves the carriage of internet traffic by international gateways through satellite or submarine cable. For the purpose of internet service the country is divided into the following categories.

- Category A All over India
- Category B Any of the 20 territorial telecom circles or major telephone districts- Ahmedabad, Bangalore, Chennai, Delhi, Hyderabad, Kolkatta, Mumbai and Pune
- Category C Any Secondary Switching Area (SSA), excluding major cities covered in category B above

*V-SAT Services* involve data communication via very small aperture terminals. The service area for V-SAT is exclusively on all India basis.

*Radio Paging Service (RPS)* is available in 243 cities in India at present and has 600,000 subscribers. The RPS uses radio waves to provide paging services within particular areas of operation. For the purpose of Radio Paging Service the service area is divided into territorial circles and 27 major cities.

*Other Value Added Services* include public mobile radio trunking, which is provided on a city-by-city basis, voice mail/audio-tex domestic data using VSAT, etc. There is increasing demand for a range of value added services with the growth in telecommunication and information technology infrastructure. There has been significant investment from domestic and foreign investors in new evolving services such as tele-education, tele-medicine, tele-banking, call center etc.<sup>30</sup>

To summarize, the Indian telecom services market caters to the demand in basic telecom services, as well as in cellular services and in the value added services segment. Depending on the size, population density, economic importance, the whole nation is divided into circles and categories to cater to the demand in a particular region. Privatization of the telecom sector and the growing subscriber base encourages new investors, and attracts foreign investors. It also offers the investor a choice of telecom segment and region for operation.

### **3.3.2 Equipment submarket**

The equipment submarket consists of Digital Switching, Transmission Systems and Terminal Equipment.

*Digital Switching* system technologies of multinational companies viz. Alcatel, Seimens, Fujitsu, Lucent, Erricson, and NEC have been introduced in India, and are now manufactured here. Indigenous technologies also now exist in the country. Example, one of the nation's research and development centers called the Center of Development of Telematics (C-DOT) in Delhi has developed a wide range of switching products for rural as well as the urban applications. The main automatic exchange can connect upto 40,000 subscribers and support features such as Integrated Services Digital Network (ISDN), and Intelligent Network (IN).<sup>31</sup> Not only does C-DOT manufacture to meet the needs of the domestic market but also to export to several nations in Asia and Africa. (Bhutan, Egypt, Ghana, Ethiopia, etc.)<sup>32</sup> With increasing investment in value added services, the demand for other switching products such as Cellular Switches, ISDN switches, Gateway switches, ATM, Frame Relay etc. is growing sharply.

<sup>30</sup> Indian Telecommunications (2003), pp. 4 ff.

<sup>31</sup> Annual Report, DoT, (2002-2003), p. 25.

<sup>32</sup> Annual Report, DoT, (2002-2003), pp. 32 ff.

*Transmission Systems* include radio transmission systems, satellite systems, wireless local loop system and optical fiber transmission system. Let us take these in turn.

- (a) Radio transmission systems. A large number of public and private sector manufacturers, in collaboration with telecom giants such as Lucent, Fujitsu, and Siemens, have set up manufacturing facilities in India for digital transmission equipment. Digital Microwave Radio Equipment has potential for large investment and high returns since most of the radio frequency spectrum in microwave is still available for deployment.
- (b) Satellite systems involve the following main types of equipment for which opportunities exist: IDR, MCPC-VSATS, and the entire range of HPAs, earth station antennas and low noise amplifiers.
- (c) Wireless local loop system. The system Cor-DECT-Wireless Local Loop based on Cor-DECT technology has been indigenously developed by Indian Institute of Technology (IIT), Chennai. Shyam Telecom, ECIL, Crompton Greaves and HFCL have been licensed by IIT Chennai to manufacture WLL system based on Cor-DECT. WLL System based on CDMA/TDMA is also in the process of being manufactured in India.
- (d) Optical fiber transmission systems. Investors in the for manufacture of optical fiber transmission equipment as well as infrastructure equipment of cellular and paging services appear to be sure winners for the future. With India's still surging interest in internet and expanding value added services, long distance network is being rapidly converted to optical fiber rapidly. A number of astute international houses have seen this as an opportunity and are getting their products validated for local manufacturing.

*Terminal Equipment*-With rapid growth in basic and value added services, a wide variety of terminal equipment including telephone instruments ranging from normal push button to multi-line feature phones is expected to grow. Although large capacities for telephone instruments have been set up locally, scope exists for upper-end phones too. Production of telephone answering machines, key telephone systems, cordless telephones, pagers, cellular phones, hand sets of radio trunk service, pay phones, fax machines, ISDN terminals, line jack units, data terminals and modems, etc. provide excellent opportunities to prospective investors.

Rising demand for a wide range of telecom equipment due to increased infrastructure creation provides excellent opportunity for both domestic and foreign investors in the manufacturing sector. Besides this India is also an

exporter of equipment and a key supplier of products and technologies for rural telecommunications by international organizations such as International Telecommunications Union.

To summarize, with the rapid growth in basic and value added services and also because of the advancement in technology, the demand for this wide variety of equipment has increased tremendously. Thus the equipment market forms a major slice of the Indian telecom market where foreign investments have risen many fold and still has a great potential to rise.<sup>33</sup>

### 3.3.3 Infrastructure providers submarket

The infrastructure providers submarket is divided into Infrastructure provider (IP) Category I and Category II.

*Infrastructure providers Category I* involves the provision of assets such as dark fibers, right of way, duct space and towers. This requires mere registration and no financial commitments are involved.

*Infrastructure Providers Category II* involves the provision to lease, rent out or sell end-to-end bandwidth (that is, digital transmission capacity) capable to carry a message. There is no entry fee for this, but there is a license fee in the form of ten percent of the revenue.<sup>34</sup>

To summarize, with rising demand and growth in the services segment there is also an increase in the demand for infrastructure. It provides various assets that aid the growth of the Indian telecom market as a whole. In nutshell, the growth in this submarket has created excellent opportunities for domestic as well as foreign private investors.

## 3.4 Foreign Direct Investment

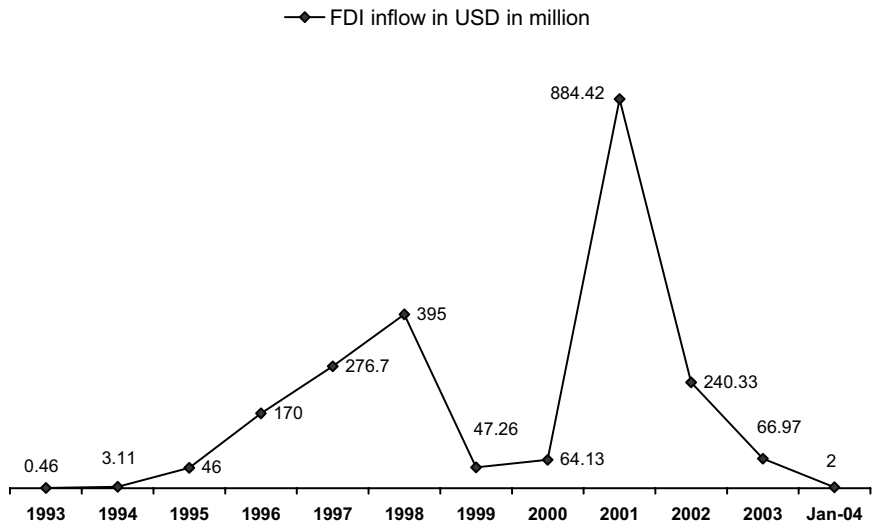
During the period from August 1991 to January 2004, 926 proposals for Foreign Direct Investment (FDI) of a total of USD 12.73 billion were approved and the actual inflow of FDI during the above period was USD 2.2 billion. In terms of approval of FDI in India, the telecom sector is second largest after the power & oil refinery sector.

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<sup>33</sup> Indian Telecommunications Investment opportunities (1999), pp. 18 ff.

<sup>34</sup> Indian Telecommunications (2003), p. 4.

**Figure III-3** shows the year wise actual inflow of foreign direct investment in the Indian telecom market from August 1993 to January 2004.<sup>35</sup>



**Figure III-3: Inflow of FDI in Indian telecom market**

**Table III-6** shows the submarket-wise actual inflow of foreign direct investment in the Indian telecom market from August 1991 to January 2004 and **Table III-7** shows the origin of the actual inflow of foreign direct investment in the Indian telecom market from August 1991 to January 2004.<sup>36</sup>

<sup>35</sup> Annual Report, DoT, (2003-2004), pp. iii, 9.

<sup>36</sup> Annual Report, DoT, (2003-2004), p. 10.



Service/Item	FDI in USD in Million	Percentage
Basic Telephone Service	87.48	4
Cellular Mobile Telephone Service	574.71	26.26
Radio Paging Service	20.22	0.92
E-mail Service	15.28	0.70
VSAT Service	6.24	0.29
Cable TV Network + Internet Service	37.86	1.73
Satellite Telephone Service	10.68	0.49
Radio Trunking Service	1.57	0.07
Manufacturing & Consultancy	350	16.03
Holding Companies	1076	49.05
Other Value Added Services	5	0.23
Automatic Route	8	0.37
Total	2193.89	

**Table III-6: Submarket wise actual inflow of FDI in Indian telecom market**

Country	FDI in USD in Million	Percentage	Country	FDI in USD in Million	Percentage
Argentina	0.0002	0.00	Luxembourg	2.26	0.10
Australia	15.58	0.71	Malaysia	13.33	0.61
Austria	0.21	0.01	Mauritius	1586.09	72.30
Bahrain	0.18	0.01	Netherlands	70.17	3.2
Bahamas	0.31	0.01	NRI	19.75	0.90
Bermuda	1.44	0.07	Philippines	1.63	0.07
Canada	9.15	0.42	Singapore	1.24	0.06
Denmark	1.61	0.07	South Korea	4.41	0.20
Finland	7.91	0.36	Sweden	34.04	1.55
France	22.43	1.02	Switzerland	0.10	0.00
Germany	0.28	0.01	Spain	0.016	0.00
Honk Kong	16.47	0.75	Srilanka	0.105	0.00
Israel	17.77	0.81	Thailand	49.15	2.24
Japan	11.96	0.55	UK	197.24	8.99
Kuwait	0.01	0.00	USA	108.99	4.97
Total					2193.89

**Table III-7: Origin of the inflow of FDI in Indian telecom market**

## 4 Major players in the Indian telecom market

Since the liberalization and the privatization of the Indian telecom market, public telecom operators as well as domestic and foreign private telecom operators have invested in various submarkets of the Indian telecom market. Several of the major players in the world telecom market mentioned in section 2.3 of this chapter could also be seen in India at some point of time. Though the Indian telecom market has an enormous number of telecom operators, this section intends to give just an overview of some of the major telecom operators in India.

The major telecom players discussed are from the following categories:

- i. Public telecom operators
- ii. Domestic private telecom operators
- iii. Foreign private telecom operators

Public telecom operators add up to a large number in the country. However, here are some of the most important public telecom operators.

- *Bharat Sanchar Nigam Limited (BSNL)* was formed on October 1, 2000 by corporatization of the erstwhile Department of Telecom Services and Department of Telecom Operations. BSNL is a government of India owned Public Sector Undertaking (PSU). It is the largest PSU in the country and serves the entire length and breadth of India. The main functions of BSNL include planning, engineering, installation, maintenance, management and operation of voice and non-voice telecommunications services all over the country. It has launched a nationwide mobile phone service under the brand 'CellOne' and internet telephony services under the brand name 'Webfone'. BSNL provides fixed, internet and cellular services in the country.
- *Videsh Sanchar Nigam Limited (VSNL)* was the exclusive international telephony provider of India till the government opened the international long distance service market for private players on 1<sup>st</sup> April 2002, two years ahead of schedule. On 13<sup>th</sup> of February 2002 VSNL was privatized by the reduction of government equity to 26% percent and the transfer of the management to the indigenous business conglomerate Tata group. VSNL provides international telecom services and value added services.
- *Mahanagar Telephone Nigam Limited (MTNL)* provides fixed, internet and cellular services in the metropolitan cities of Mumbai and Delhi. It provides cellular service in the metros of Delhi and Mumbai under the brand 'Dolphin'. However, there is a high probability of merger of

- MTNL with BSNL in the future. Analysts with equity research houses now give MTNL a 'market outperformer' investment rating, if divestment does take place.
- *Indian Telecom Industry Limited (ITI)* was formed in 1948 and was among the first public sector undertakings to be set up by the government of India. It has seven manufacturing units scattered across the country, which produce a wide range of equipment including electronic switching equipment, transmission equipment, VSAT equipment and telephone instruments of various types.
- *Telecommunications Consultants of India Limited (TCIL)* undertakes projects in all the fields of telecommunications in India and abroad. The core competence of the company is communication network projects, software support, switching and transmission systems, cellular services, rural telecommunications and optical fiber based backbone network. It has plans to enter the basic services market abroad through joint ventures and the internet services segment in India.<sup>37</sup>

There are several domestic private telecom operators in the Indian telecom market. Some of the most important domestic private operators are discussed as follows.

- *Bharti Group* is the largest private communication service provider in the country, across all types of licensed communication services. It focuses on different areas of business through independent joint venture companies: Bharti Cellular for cellular operations, Bharti Telenet for fixed services, Bharti-BT Internet for Internet services, Bharti BT for VSAT and WAN consultancy, Bharti Telesoft for telecom software development, Bharti International for joint ventures in global markets, Bharti Televentures for projects, and Bharti Telecom for telecom equipment development. Bharti Group has over USD 200 million of turnover and controls about 20 % of the total telecom market in India. It is the second largest player in terms of total number of subscribers from cellular and fixed services. The cellular service offered by Bharti group under the brand name 'AirTel' is rated one of India's best cellular service operator. It was also the first Indian company to provide comprehensive telecom services outside India (Seychelles). It should not be surprising therefore that it is the fastest growing VSAT company in India, and its first multinational internet service provider.

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<sup>37</sup> Annual Report, DoT, (2002-2003), Voice and Data (July 2001).

- *BPL Group* too is a service provider as well as an equipment manufacturer. The BPL Group is widely regarded as a successful, dynamic business house with more than two decades of successful consumer marketing expertise. It occupies the top slot in terms of market share in all its areas of operation. The Group has five focus areas: telecom, consumer electronics, home appliances, components and power. BPL group has three companies-BPL Mobile, BPL Cellular and BPL Telecom. BPL Mobile is the cellular service provider for the metropolitan city of Mumbai, New Mumbai & Kalyan Telecom Circles and offers services under the brand of BPL Mobile. BPL Mobile is a joint venture between the BPL Group and France Telecom. BPL Cellular Limited is the licensee to provide cellular mobile services in the States of Maharashtra (excluding Mumbai but including Goa), Tamil Nadu (excluding Chennai but including Pondicherry) and Kerala. BPL Cellular Limited is a joint venture between, BPL, India's number one consumer durable giant and AT&T Broadband. BPL Telecom manufactures, designs and markets high quality telecom and information technology products and solutions.
- *Himachal Futuristic Communications Limited (HFCL) Group* established in 1987 has emerged as a leader in the Indian telecommunication market. It is both a service provider as well as an equipment manufacturer. HFCL group provides paging service in the country through its company Microwave Communications Limited. The company is a leading paging service provider, with the renowned brand name 'pagelink'. It is also the largest player in the domestic call center business. Through HFCL Infotel Limited, the group provides wide range of fixed line services in the form of voice, data and video in the state of Punjab. It has also developed a mobile network base on the latest CDMA technology. The group provides satellite communication services through its company HFCL Satellite Communications Limited. It manufactures a wide range of products in the range of switching, access products, terminals, phones, smart card payphones, payphone booths and ADSL through its company Himachal Exicom Communications Limited.
- *Tata Group* is the industrial conglomerate group in India operating business in seven key industry sectors - Materials, Engineering, Energy, Chemicals, Consumer products, Telecommunication and Information Technology and Services. In telecommunications it has 5 companies and in Information Technology 7 companies. Some of the most important companies are described below one after the other.

Idea Cellular provides cellular service in five circles: Maharashtra, Gujarat, Andhra Pradesh, Madhya Pradesh (including Chhattisgarh) and New Delhi. It is formed by the merger of Tata Cellular and Birla AT&T Communications in 2001. Tata Telecom is a joint venture between the US based Avaya Inc, and the Tata Group. With over 60 per cent market share in call centre solutions, the company is India's leading voice communication solutions provider. Its solutions range from converged voice and data networks and customer relationship management solutions to unified messaging solutions for enterprises. Tata Teleservices Limited delivers basic telephony services in six key Indian states: Andhra Pradesh, Tamilnadu, Karnataka, Delhi, Gujarat and Maharashtra. Tata Internet Services Limited provides internet services. It focuses on key elements of the value chain in the consumer and corporate data services. Tata group provides international telecommunications service through its company VSNL, in which it owns 45% equity and the Indian government owns approximately 26%. Tata Consultancy Services offers end-to-end strategy consulting and system integration services to Fortune 500 clients across 55 countries. Tata Infotech Limited has operations in India and overseas that can be classified into three business segments: system integration services, manufacturing services and education services. CMC and Tata Elxsi are the information technology companies of the group. Tata Interactive Systems is one of the world's largest e-learning companies. Tata Technologies provides consulting services to manufacturing and distribution companies on the strategic use of information technology. Its customers are multinationals, large manufacturers and distributors.<sup>38</sup>

With the opening of various segments of Indian telecom sector for private operators, there has been a surge in the number of foreign telecom companies operating in India. Most of the foreign companies especially in the services submarket, operate as a joint venture with a domestic partner. For example, Hutchison, First Pacific, Avaya, etc. However, in the equipment submarket, foreign companies are allowed to operate independently. Some of the major foreign private telecom operators are discussed below.

- Hutchison Whampoa, which is a unit of Hong Kong's Hutchison Whampoa Limited, has a joint venture with the indigenous Essar group

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<sup>38</sup> www.bharti.com, www.hfcl.com, www.bpltelecom.com, www.bplmobile.com, www.coai.com, www.tata.com, www.csoft.co.uk, Voice and Data (July 2001).

and is one of the major cellular service provider in India's industrial capital Mumbai under the brand name Orange. Besides Mumbai, Hutchison also provides cellular services in the Delhi region too. It is rated one of the best next to the domestic group Bharti. The Hutchison group ranks fourth in the country and the major companies under it are Hutchison Max, Sterling Cellular, Fascal and Usha Martin Telekom, all providing cellular services in different regions

- *First Pacific* a Hong Kong based company is a global corporation that operates in 20 countries. It has interests in telecommunication, banking, real estate and marketing. It operates the biggest and fastest growing telecom business in Philippines. It has a joint venture with the Escorts group and offers cellular services under the brand name Escotel through the joint venture company Escotel Mobile Communications. It operates cellular phone services in state circles of Uttar Pradesh (West), Haryana and Kerala. First Pacific has 49% equity stake in Escotel, the maximum permitted by the rules of the Indian telecom market and the remaining is held by the indigenous Escorts group.
- *Nortel Networks* is a Canada based equipment manufacturer with its own subsidiary in India. Nortel has expertise in the technology of Optical Long Haul, Wireless, Metro Optical, Voice over Internet Protocol, Optical Ethernet and Security. Its strengths in the Indian market are that it produces products and solutions that address all voice and data requirement, caters to the needs of the enterprise market and the service provider market, it provides and integrates both applications as well as infrastructure.
- *Alcatel* in India is the Indian subsidiary of Alcatel, France. It provides end-to-end communications solutions enabling carriers, service providers and enterprises to deliver content to any type of user, anywhere in the world. It has leading-edge products and services in virtually every sector of the telecommunications industry. Its products range from broadband access to metro and core optical networking, from 3G mobile infrastructure to revenue-generating applications, from carrier networking to enterprise solutions. In the Indian market it is strong in broadband transport technologies.
- *Avaya* an US based manufacturing company is a global leader in communication systems, applications and services. It designs, builds, deploys and manages networks for enterprises. Avaya's presence in the

Indian market is through a joint venture with Tata Telecom of the internationally known Indian business conglomerate Tata Group. The businesses of Avaya in India through Tata Telecom are enterprise voice solutions, contact center and customer relationship management (CRM) solutions and teleconferencing. It is number one in each of these businesses.<sup>39</sup>

As a summary, owing to the large size and requirement of the country, suppliers are required in almost every sector of the telecom industry, whether it is services, manufacturing or infrastructure. Such suppliers are from all divisions: public, private, domestic and foreign. Privatization has paved the way for the participation of innumerable domestic indigenous players in various segments of the Indian telecom market. This has resulted in cheap and easy availability of service to the local customer and has also increased the possibility of finding a good alliance partner for foreign companies that intend to operate in the Indian telecom market. Even after privatization of the Indian telecom market, not only are several public telecom companies still operating in India but also are still the major telecom players in it. Liberalization and privatization of the Indian telecom market has led to an exponential surge in the number of foreign telecom companies investing in India, with investment withdrawal and re-investment from time to time as can be expected in an open market. In the services submarket, especially in cellular service, a foreign company is not permitted to operate independently. Hence any foreign company wanting to operate in the cellular segment has to look for an alliance partner first.

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<sup>39</sup> [www.orange.co.in](http://www.orange.co.in), [www.gsmworld.com](http://www.gsmworld.com), [www.coai.com](http://www.coai.com), [www.alcatel.com](http://www.alcatel.com), [www.nortelnetworks.com](http://www.nortelnetworks.com), [www.firstpacco.com](http://www.firstpacco.com), [www.essar.com](http://www.essar.com), [www.avaya.com](http://www.avaya.com), [www.tatatelecom.com](http://www.tatatelecom.com), Voice and Data (July 2001).

## 5 Regulatory bodies and rules

Every market has its own regulatory authorities. The rules that govern the markets also therefore vary. This section lists the authorities and key rules of the Indian telecom market. Sub-section 5.1 presents the various regulatory bodies and 5.2 presents the rules in the current Indian telecom market.

### 5.1 Regulatory bodies

The regulatory bodies in the Indian telecom market are Telecom Commission, Department of Telecommunication, Telecom Regulatory Authority of India (TRAI) and Telecom Dispute Settlement and Appellate Tribunal (TDSAT). They are described below one by one.

*Telecom Commission* was set up by the Government of India and has the administrative and financial powers of the government to deal with various aspects of telecommunications. The strategies followed by the Telecom Commission have not only transformed the very structure of this market but also have motivated all partners to contribute in accelerating the growth of the market. The functions of the Telecom Commission includes:

- Policy formulation,
- Licensing,
- Wireless spectrum management,
- Administrative monitoring of public sector units (PSUs),
- Research and development,
- Standardization and validation of equipment<sup>40</sup>

*Department of Telecommunications* has the following functions:

- Policy formulation, licensing and coordination of matters related to telegraphs, telephones, wireless, data, facsimile and telematic services and other like forms of communications
- Granting licenses to operators for providing fixed and value added services in various cities in accordance with the policy of government
- Implementing treaties and agreements with other countries
- International relations in matters connected with telecommunications, including matters relating to all international bodies dealing with tele-

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<sup>40</sup> Annual Report, DoT, (2002-2003) p. 1.



communications such as International Telecommunication Union, International Telecommunication Satellite Organization, International Mobile Satellite Organization and Asia Pacific Telecommunication

- Promotion of standardization, and research and development in telecommunications
- Promotion of private investment in telecommunications
- Financial assistance for research and study in telecommunications technology to adequately train manpower
- Administration of laws with respect to The Indian Telegraph Act 1885, The Indian Wireless Telegraphy Act, 1933 and The Telecom Regulatory Authority of India Act, 1997<sup>41</sup>

*Telecom Regulatory Authority of India (TRAI)* is empowered to provide recommendations on various aspects related to the functioning of telecom service providers and to enforce the following regulatory functions:

- Monitor the quality of services provided by the service providers
- Protect consumer's interest
- Recommend the provision of Universal Service Obligation (USO)
- Fix tariffs for various telecom services
- Advise the government on
  - need and timing for introduction of new service providers
  - terms and conditions of the license<sup>42</sup>

*Telecom Dispute Settlement and Appellate Tribunal (TDSAT)* is empowered with the following authorities:

- Adjudicate on disputes
  - between licensor and licensee
  - between two or more service providers
  - between service provider and group of consumers
- Acts as the appellate authority in respect of any directions, decisions or orders of TRAI; any appeal beyond TDSAT is only to the Supreme court<sup>43</sup>

To summarize, India has set up separate bodies to deal with clearly demarcated areas of responsibility. The telecom commission has

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<sup>41</sup> Annual Report, DoT, (2002-2003), p. 3.

<sup>42</sup> Indian Telecommunications (2001), p. 7., [www.dotindia.com/regulation](http://www.dotindia.com/regulation), [www.traigov.in](http://www.traigov.in).

<sup>43</sup> Indian Telecommunications (2001), p. 7., [www.dotindia.com/regulation](http://www.dotindia.com/regulation).

administrative and financial powers from the government of India. The Department of Telecommunication is responsible for international activities and for the grant of licenses to telecom operators in accordance with the policy of the government. The Telecom Regulatory Authority of India is responsible for fixing tariffs for various telecom services and for protecting the interests of consumers as well as that of the suppliers. The Telecom Dispute Settlement and Appellate Tribunal is responsible for adjudication of disputes between the players in the market. By the operation of these bodies, both there is a sound framework and a relatively rigorous implementation of policies, which have been responsible for and continue to drive the liberalization and growth of a competitive, flourishing and growing market in India.

## **5.2 Rules**

The government announced the New Telecom Policy 1999, recognizing the need for a policy initiative to address the challenges faced by the Indian telecom industry as a result of wide ranging developments in the Indian and international telecom markets, and increasing convergence between telecom, information technology, media and consumers electronics.

The policy initiatives aim at achieving the country's vision of becoming an information technology superpower, and giving a further impetus to establishment of a world-class telecommunications infrastructure in the country.

The details of NTP 1999 are given in appendix F. Here are some of the key objectives and targets of the NTP 1999:

- Access to telecommunications is of utmost importance for achievement of the country's social and economic goals. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the telecom policy.
- Strive to provide a balance between the provision of universal service to all uncovered areas, including the rural areas, and the provision of high-level services capable of meeting the needs of the country's economy.
- Encourage development of telecommunication facilities in remote, hilly and tribal areas of the country.
- Create a modern and efficient telecommunications infrastructure taking into account the convergence of IT, media, telecom and consumer electronics and thereby propel India into becoming an IT superpower.

- Transform in a time bound manner, the telecommunications sector to a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players.
- Strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities.

In line with the above objectives, the specific targets that the NTP 1999 seeks to achieve would be as follows:

- To achieve a teledensity of 7 by the year 2005 and 15 by the year 2010.
- Encourage development of telecom in rural areas making it more affordable by suitable tariff structure and making rural communication mandatory for all fixed service providers.
- Increase rural teledensity from the current level of 0.4 to 4 by the year 2010 and provide reliable transmission media in all rural areas.
- Achieve telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002.
- Provide Internet access to all district head quarters by the year 2000
- Provide high-speed data and multimedia capability using technologies including ISDN to all towns with a population greater than 200,000 by the year 2002.

The Indian telecom market is still on the way to achieve a lot objectives stated by the NTP 1999.

The NTP 1999 also prescribes the general rules for the investment policy and restructuring of equity and operation. All the rules apply equally to domestic, foreign, private and public telecom companies. The highlights of NTP 1999 are to:

- Encourage convergence between telecom, information technology and media
- Create an investment environment that enables establishment of a world-class telecom infrastructure
- Create a level playing field, attracting private investment, and facilitating India's emergence as a dynamic telecom market

The rules for investment policy for foreign direct investment (FDI) upto 100%, 74% and 49% are as follows:

- FDI up to 100 percent permitted for the following:
  - Manufacture of telecom equipment
  - Internet service (excluding the provision of international gateways)
  - Infrastructure providers of category I

- E-mail service
- Voice mail service
- Call centers & IT enabled services
- FDI up to 74 percent is permitted but is subject to licensing and security requirement for the following:
  - Internet service (provision of international gateways)
  - Infrastructure providers of category II
  - Radio paging service
- FDI up to 49 percent is permitted for the following services:
  - International long distance service
  - National long distance service
  - Basic telephone service
  - Cellular mobile service
  - Global mobile personal communication service
  - Value added services

However, these services are subject to licensing conditions for foreign equity capital and lock-in period for transfer and additional equity.

FDI of 49% is also allowed in an investment company, set up for making investment in the telecom companies licensed to provide telecom services. Investment by these investment companies in a telecom service company is treated as part of domestic equity and is not set off against the foreign equity capital. Proposal for FDI beyond 49% is considered by Foreign Investment Promotion Board (FIPB). At times an FDI of 100% may also be allowed to such companies with the condition that they divest 26% of their equity in favor of Indian public for 5 years, in case these companies are listed in the other parts of the world.

Apart from the FDI upto 100%, 74% and 49%, the following are also permitted:

- Foreign investment through holding company
- Automatic approval for technologies where the license fee is less than USD 2 million and for royalty up to 5 percent for domestic sales and 8 percent for exports in telecom manufacturing. Any amount higher than this is through specific approvals.
- Full repatriability of dividend income and capital invested in the telecom market
- Fiscal incentives and concessions for the telecom sector:
  - Amortization of license fee
  - Tax holiday

- Rebate on subscription to shares/debentures
- Scope for tax exemption on financing through venture capital
- Import duty rates reduced for various telecom equipment
- Restructuring of equity of licensee company permitted
- Lock-in stipulation on share holding for 5 years provided in the migration package modified as below:
  - existing foreign partner allowed to be substituted by another foreign partner of similar standing and experience subject to approval from Department of Telecommunications
  - existing Indian partner allowed to acquire foreign partner's shareholding
- Transfer of equity between existing Indian promoters permitted, provided the majority Indian partner continues to hold at least the present shareholding for a period of five years from the effective date of license agreement as per the migration package
- Merger of licensee companies are permitted with the condition that competition is not compromised<sup>44</sup>

To summarize, the National Telecom Policy 1999 prescribes the complete rules for investment, operation, incentives and concessions for operators in the Indian telecom market for foreign, domestic, public and private companies. The rules encourage foreign direct investment and the participation of foreign companies in the Indian telecom market. FDI varying from 49% to 100% is permitted for different services. The rules of the Indian telecom market aim at creating a level playing field, attracting private investment and facilitating India's emergence as a strong telecom market.

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<sup>44</sup> Indian Telecommunications, (Nov. 2001), p. 3., NTP (1999), [www.investindiatelecom.com/investment](http://www.investindiatelecom.com/investment).

## 6 Attraction of Indian telecom market for foreign investors

There are several reasons why the Indian market is highly attractive to foreign investors. Some of the most important reasons are discussed below.

### 1. *Huge size*

- India's population of more than a billion, which is the second largest in the world, provides a huge potential in telecom for foreign investors. According to the census of 2001 shown in table III-2, India has 638,691 villages and 5161 towns with rural population of 741,660,293 and urban population of 285,354,954.<sup>45</sup> India is the fourth largest economy in terms of purchasing power parity with a large and rapidly growing consumer market with 300 million people constituting the market for branded consumer products growing at 8% per annum.
- India's large geographical area gives way to various kinds of telecom services, specific and extraordinary in the area of technology because of the varied geography of the country. Some parts of India like the hilly regions of North India, North East India and Central India needs a great amount of work to be done which though difficult could be prospective market for foreign investors. Of course, the teething problem could be very high and may prevail for a long time. Moreover the country also exhibits a huge digital divide within regions and the government is concerned to reduce the digital divide in the country. This could also be an opportunity for the foreign investors.

### 2. *Growth in subscriber base and submarkets*

- India has one of the fastest growing telecommunication systems in the world growing at an average of more than 20% over the last 5 years. It has about 54 million connection, not many for a country of a billion people. To entrepreneurs this undersupply promises growth. Moreover the teledensity of India is much low as compared to that of the world standards and the government's focus to increase the teledensity, is an immense opportunity for foreign investors
- There is a growth in demand for all kinds of telecom services in India. It has a large potential for subscriber growth in fixed and cellular services. A large percentage of the Indian population lives abroad and the strong social family ties prevailing in the Indian society forces them

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<sup>45</sup> E-census (2003), Issue No. 14.

to look for various advanced technologies to keep in regular touch with their families abroad.

- There is a tremendous growth in cellular, fixed, v-sat, international long distance, national long distance, internet services, internet telephony, radio paging, cable network and other value added services.
- The growth in telecom services submarket has led to the growth of the equipment and the infrastructure submarkets too. So there are excellent opportunities for foreign investors in all the submarkets.

3. *Open market and favorable policies*

- Indian government is encouraging competition by opening up the market and making it easy for the private and foreign companies to operate. The change from fixed regime to revenue sharing is an encouraging step for the private investors. Liberalization and privatization of the Indian telecom sector has paved wave for choice and strong competition for both the investors and the customers.
- Indian government's current policies have created a more investor friendly economic environment, promoting foreign investment. The new regulatory framework is a significant step in strengthening the regulatory mechanism and boosting investor confidence. The regulatory bodies ensure equal opportunity for public, private, domestic as well as foreign companies. Hence providing equal opportunity for foreign investors to be major players in the country.

4. *Skilled manpower*

India has one of the largest pools of professional managers, scientists, engineers, accountants, lawyers and technicians available at competitive costs.

5. *English as business language*

English being the primary language for business and administration, and the language of the Indian elite and the exploding middle class, India is much easier to access by foreign investors. Being able to understand the mainstream opinions and debates in India without a translation cannot be underestimated as a contributing factor to success.

6. *Judicial system*

India's highly developed judicial system based on the parliamentary democracy and the traditions of the Anglo-Saxon world too is an advantage to a foreign investor as the laws and procedures are common or much closer to the industrialized countries in the west.

## 7 Important facts about entry in the Indian telecom market

On the basis of the study of the Indian telecom market conducted in this chapter, five consolidated tables are provided as guidelines for market entry strategy of the foreign companies entering the Indian telecom market in future.

**Table III-8**, gives consolidated data on the foreign direct investment permitted in the Indian telecom market in various telecom submarkets. The foreign direct investment varies between 49%, 74% and 100% in the different telecom submarkets. This helps the companies to foresee the kind of market entry they could consider to enter the Indian telecom market.

**Table III-9**, gives an overview of subscriber- and market-growth of the two key telecom services for foreign investors, that is, basic or fixed telephone service and cellular service in India from 1992 to 2002.

**Table III-10**, provides a regional analysis of the above mentioned key telecom services in the Indian telecom market. In this figure the country is divided into the major regions in the North, South, East and West. The table gives market volume, market growth and competitors for fixed service as on December 2003 and for cellular service as on January 2004.

**Table III-11**, provides information about call centers. Due to the availability of cheap and best labor force, technology and competence in English as the business language has led numerous international companies to choose India as their location for international call centers. This figure shows the geographical locations and number of international call centers in different regions of India to give an idea to foreign companies that intend to choose India for such kind of service in future. On the left are the regions or states where there are call centers, the number in the bracket indicates the number of international call centers currently in that region and on the right the provinces are indicated where call centers are exactly located.

**Table III-12**, provides a summary of the basic conditions for investments in the Indian telecom market. It provides the conditions for foreign companies to operate business in various telecom segments in the country.



Submarkets		Foreign Direct Investment (FDI) permitted in the Indian telecom market up to		
		49%	74%	100%
Services	Fixed telephone service	X		
	Call centers and IT-enabled services			X
	Cellular mobile service	X		
	E-mail service			X
	Global mobile personal communication service	X		
	International long distance service	X		
	Internet service		X <sup>(1)</sup>	X <sup>(2)</sup>
	National long distance service	X		
	Radio paging service		X	
	Other value added services <sup>(3)</sup>	X		
	Voice mail service			X
	VSAT service	X		
Equipment	Telecom equipment			X
Infrastructure	Infrastructure Provider-I <sup>(4)</sup>			X
	Infrastructure Provider-II <sup>(5)</sup>		X	
<sup>(1)</sup> provision of international gateways <sup>(2)</sup> excluding the provision of international gateways <sup>(3)</sup> Voice Mail/Auditex/Unified Messaging Service, Public Mobile Radio Trunked Service, Tele-education, Tele-medicine, Tele-banking, etc <sup>(4)</sup> assets such as dark fibers, right of way, duct space, towers, etc <sup>(5)</sup> end-to-end bandwidth				

**Table III-8: FDI in Indian telecom market<sup>46</sup>**

<sup>46</sup> Indian Telecommunications, (2003), NTP 1999 (1999), [www.dotindia.com](http://www.dotindia.com), [www.investindiatelecom.com/investment](http://www.investindiatelecom.com/investment).

Year	Subscribers in million in March in fixed services	Subscriber growth in % in fixed services	Subscribers in million in March in cellular services	Subscriber growth in % in cellular services	Total subscribers in millions	Average market growth in %
1992	5.81	-	-	-	5.81	-
1993	6.80	17.04	-	-	6.80	17.04
1994	8.03	18.09	-	-	8.03	18.09
1995	9.80	22.04	-	-	9.80	22.04
1996	11.98	22.24	-	-	11.98	22.24
1997	14.43	20.45	0.34	-	14.77	23.28
1998	17.80	23.35	0.88	160.25	18.68	26.50
1999	21.61	21.40	1.20	35.96	22.81	22.09
2000	26.65	23.32	1.88	57.08	28.58	25.10
2001	32.10	20.45	3.58	89.84	35.68	25.03
2002	37.71	17.48	6.43	79.78	44.14	23.72

**Table III-9: Subscriber growth of fixed and cellular services in India from 1992-2002**<sup>47</sup>

<sup>47</sup> Tele.net (July 2002), p. 56.

Regions	Population	Tele-density <sup>(1)</sup>	Fixed services in Dec 2003			Cellular Mobile Service in Jan 2004		
			Volume of subscribers	Market Growth in %	Number of Competitors	Volume of subscribers	Market Growth in %	Number of Competitors
<b>North India</b>								
Delhi	12,719,000	16.86	3,094,696	30.4	2	3,091,836	81	4
Haryana	21,002,000	4.05	1,255,325	15.9	2	449,226	116	4
Himachal Pradesh	7,270,000	5.94	501,944	10.5	2	149,491	197	4
Jammu & Kashmir	10,716,000	1.72	260,830	4.4	1	31,268	-	1
Punjab	24,537,000	6.82	2,848,410	25.7	2	1,913,071	145	4
Rajasthan	57,463,000	2.48	1,909,270	10.2	2	489,772	136	4
Uttar Pradesh <sup>(2)</sup>	186,297,000	1.65	3,281,521	3	4	186,297	140	3
<b>South India</b>								
Andhra Pradesh	78,892,000	4.1	4,176,430	18.1	2	1,647,558	112	4
Karnataka	54,692,000	4.69	3,392,021	19.6	2	1,583,895	127	4
Kerala	33,365,000	7.67	3,409,032	16.2	2	1,091,126	90	4
Tamilnadu <sup>(3)</sup>	63,756,000	5.94	5,006,552	20.8	2	1,308,384	143	4

<sup>(1)</sup> Number of phones per hundred people <sup>(2)</sup> includes Uttaranchal, Uttar Pradesh East and West <sup>(3)</sup> includes Chennai

**Table III-10: Regional analysis of the two key telecom services in India - I**

Regions	Population	Tele-density <sup>(1)</sup>	Fixed services in Dec 2003			Cellular Mobile Service in Jan 2004		
			Volume of subscribers	Market Growth in %	Number of Competitors	Volume of subscribers	Market Growth in %	Number of Competitors
<b>West India</b>								
Gujarat	51,426,000	5.19	3,745,956	21.8	2	1,895,211	113	4
Madya Pradesh	85,582,000	1.81	1,753,234	20	2	727,108	109	4
Maharashtra <sup>(4)</sup>	96,610,000	6.3	7,155,229	10.8	2	2,113,332	143	4
<b>East India</b>								
Assam	27,521,000	1.33	488,637	5	1	41,468	-3.5	2
Bihar <sup>(5)</sup>	107,364,000	0.87	1,645,704	10.4	3	458,830	119	2
Orissa	37,092,000	1.5	793,706	14.2	3	237,485	160	2
West Bengal <sup>(6)</sup>	83,509,000	2.66	2,838,133	14.8	3	257,330	136	2
North East <sup>(7)</sup>	14,599,000	2.08	339,832	7.8	1	10,927	41	3

<sup>(4)</sup> includes Mumbai

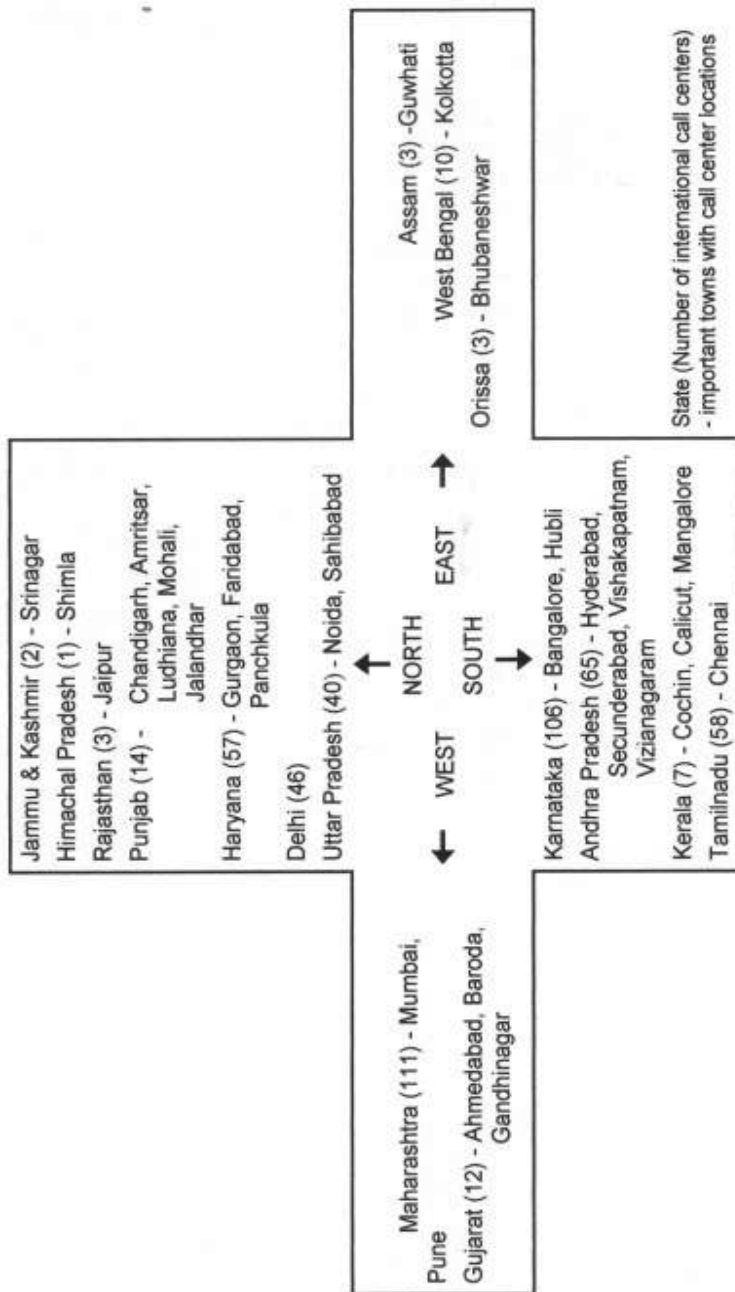
<sup>(5)</sup> includes Kolkata and Andaman and Nicobar Islands

<sup>(6)</sup> includes Chattisgarh and Jharkhand

<sup>(7)</sup> includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura

**Table III-10: Regional analysis of the two key telecom services in India –II<sup>48</sup>**

<sup>48</sup> Annual Report DoT (2002-2003), Indian Telecommunications Statistics (2003), Table 20A, Tele.net (April 2003), p. 56., www.dotindia.com, www.investindiatelecom.com/investment, www.bsnl.co.in, www.coai.com, www.trai.com, www.ebusinessforum.com.



**Table III-11: Number of international call centers in India<sup>49</sup>**

<sup>49</sup> Indian Telecommunications (2003), [www.investindia.com](http://www.investindia.com), [www.dot.com](http://www.dot.com).

Conditions Telecom Submarkets	Division of the country into regions	Financial Obligations all figure are approximate	Granted Permissions
Basic or Fixed service	Country divided into 21 territorial service areas	<ul style="list-style-type: none"> <li>-Minimum paid-up capital and promoter's combined net worth for each service area to be in accordance with prescribed norms</li> <li>-One time entry fee for each service area to be in accordance with prescribed norms</li> <li>-License fee in form of revenue share at 8 percent/10 percent/12 percent, depending on the service area</li> <li>-Spectrum charges - 2 percent of revenue earned from wireless access system</li> <li>-License for a period of 20 years, extendable by 10 years</li> <li>-Roll out obligations linked to establishment of Points of Presence in a Short Distance Charging Area (specified geographic region)</li> </ul>	<ul style="list-style-type: none"> <li>-Permitted to carry their own long distance traffic within their service area</li> <li>-Direct interconnectivity and sharing of infrastructure with other service providers in the same service area permitted</li> </ul>
Call centers and IT enabled service	All India basis	<ul style="list-style-type: none"> <li>-Only registration for specific service</li> <li>-No license fee</li> </ul>	<ul style="list-style-type: none"> <li>-Interconnectivity of call centres of the same group of companies permitted for redundancy and load balancing</li> <li>-The International call centres permitted to interconnect with the 'Hot sites' for the purpose of back up and working during disaster</li> </ul>

Table III-12: Summary of basic operating conditions for foreign companies in Indian telecom market-I

Conditions Telecom Submarkets	Division of the country into regions	Financial Obligations (all figure are approximate)	Granted Permissions
Cellular mobile service	Country divided into 20 circle service areas and 4 metro cities	<ul style="list-style-type: none"> <li>-License fee in form of revenue share at 8 percent/10 percent/12 percent, depending on the category of the service area</li> <li>-Additional revenue share of 2 percent for spectrum up to 4.4 MHz + 4.4 MHz or 3 percent for spectrum up to 6.2 MHz + 6.2 MHz or 4 percent for spectrum up to 10 MHz + 10 MHz</li> <li>-License for a period of 20 years, extendable by 10 years</li> </ul>	<ul style="list-style-type: none"> <li>-Permitted to carry their own long distance traffic within their service area</li> <li>-Direct interconnectivity and sharing of infrastructure with other service providers in the same service area permitted</li> </ul>
Global mobile personal communication service	All India basis	<ul style="list-style-type: none"> <li>-Entry fee of USD 0.22 million</li> <li>-License fee in form of revenue share at 10 percent</li> </ul>	
International long distance service	All India basis	<ul style="list-style-type: none"> <li>-Minimum networth of applicant company to be USD 5.4 million</li> <li>-One time entry fee of USD 5.4 million in addition a bank guarantee of USD 5.4 million, to be released on fulfillment of network roll-out obligations</li> <li>-License fee in form of revenue share, including Universal Service Obligation, at 15 percent</li> <li>-License for a period of 20 years, extendable by 5 years</li> </ul>	<ul style="list-style-type: none"> <li>-Establishment of minimum four International Gateways, one in each region of the country</li> </ul>
Radio paging service	Service area divided into territorial circles and 27 major cities	<ul style="list-style-type: none"> <li>-Fixed license fee for first 3 years and review of the license fee afterwards</li> <li>-License fee for the 4th and 5th year fixed in consultation with Telecom Regulatory Authority of India as 5% of the gross revenue for the city paging.</li> </ul>	

**Table III-12: Summary of basic operating conditions for foreign companies in Indian telecom market- II**

Conditions Telecom Submarkets	Division of the country into regions	Financial Obligations (all figure are approximate)	Granted Permissions
National long distance service	All India basis	-Minimum paid-up capital of USD 54 million and promoter's combined net worth of USD 540 million -One time non refundable entry fee of USD 21.5 million, 4 bank guarantees of USD 10.25 million each, to be released on fulfillment of network roll-out obligations* -License fee in form of revenue share at 10% plus contribution to Universal Service Obligation Fund**, with a total cap of 15% -License granted for a period of 20 years, extendable by 10 years	-Permitted to carry inter-circle long distance voice and data traffic, intra-circle traffic to be carried based on mutual agreement with basic service operator
VSAT service	All India basis	-License fee in form of revenue share at 10 percent inclusive of Universal Service Obligation -One time entry fee of USD 0.06 million -License for a period of 20 years, extendable by 10 years	-Use of Ku-band and extended C-band permitted
Other value added services (Tele-education, -medicine, -banking, etc.)	All India basis	-Only registration for specific service -No license fee	
Voice Mail/Audiotex/ Unified Messaging Service		-License to be issued on non-exclusive basis -No entry fee and license fee for licensees -No separate license for those having licenses for basic or cellular mobile telephone services	
Public Mobile Radio Trunked Service	On city basis	-New licenses to use only digital technology -No entry fee. License fee in form of revenue share at 5 percent, in addition to spectrum charges	

\* Memorandum of DoT on 18.06.2004: Amendment to Clause 5.1 of the license agreement for NLDs Provider- Reduction of PBG

\*\*The government is committed to provide access to all people for fixed telecom services at affordable and reasonable prices.

**Table III-12: Summary of basic operating conditions for foreign companies in Indian telecom market-III**



Conditions Telecom Submarkets	Division of the country into regions	Financial Obligations (all figure are approximate)	Granted Permissions
Internet service	Country divided into 26 circle service areas and 2 metro cities	-License fee of USD 0.02 per annum -Period of license is 15 years. Extension may be granted at the discretion of Telecom authority	-Permitted to establish own International Gateways using Satellite or Submarine cable for carrying Internet traffic -Permitted to give bandwidth from gateway to other Internet service providers -Internet Telephony service allowed
Equipment	All India basis	-No registration or license fees	Digital switching equipment, Radio transmission system, Satellite system, Wireless local loop system, Optical fibre transmission system, Terminal equipment
Infrastructure Provider I	All India basis	-Mere registration -No entry fee no bank guarantee	Assesses such as dark fibres, right of way, duct space and towers
Infrastructure Provider II	All India basis	-No entry fee -Annual license fee in form of revenue share at 6% of adjusted gross revenue (AGR) shall be payable* -License granted for a period of 20 years, extendable by 10 years	End-to-end bandwidth
* Memorandum of DoT on 26.06.2004: Amendment to license agreement for IP Category II			

**Table III-12: Summary of basic operating conditions for foreign companies in Indian telecom market-IV<sup>50</sup>**

<sup>50</sup> Indian Telecommunications (2003), NTP 1999 (1999), Indian Telecommunication Statistics (2002), www.dotindia.com, www.investindiatelecom.com/investment, Annual Report DoT (2002-2003), Ninth Five Year Plan for Telecommunications Services (1997-2002), Memorandum of DoT on NLDS (18.06.2004), Memorandum of DoT on IP II (24.06.2004).

## 8 Summary and implication

This chapter is the outcome of extensive study of all the available data on Indian telecom market such as the journals and annual reports of the government of India, Department of Telecommunication in India, Asia Pacific Telecommunity in Bangkok, International Telecommunication Union in Geneva, and numerous other documents published by various international sources. Hence the information in this chapter provides vital input for potential foreign telecom investors in India.

The chapter begins with a remark on the current trend of the world telecom market, which are: increase in private ownership, data based mobile global communication and trade and finance oriented telecom operators as compared to public ownership, voice based communication and simply engineering oriented telecom operators. It can be also observed in the world telecom market that the subscribers for telecom services in the Asia Pacific region are increasing at an exponential rate and soon this region will have the largest number of subscribers in the world.

Later, the focus of the chapter shifts towards the Indian telecom market highlighting the trends in the markets as improvement in the quality of service for customers, and increase in choice, in competition, in subscriber growth, in private and foreign investment, in an investor friendly environment, and in skilled and professional manpower in Indian telecom market.

**Table III-13** shows the most and the least attractive regions, submarkets and entry modes in the Indian telecom market.

A region is classified as most attractive if it fulfils one or more of the following criteria.

- First, if the region has large number of villages and/or towns, and population as shown in table III-2. This is because the Indian telecom market wants to achieve telecom coverage of all villages in the country.
- Second, if the tele-density is lower than 4, which can be seen from table III-10. This is because it is evident that the Indian telecom market wants to reduce the digital divide prevalent in the country and hence to increase the rural tele-density upto to atleast 4 by 2010. It could also be seen that the Indian telecom market also wants to encourage development of telecommunication facilities in remote, hilly and tribal areas of the country.

	Most attractive	Least attractive
Regions	<p><i>North India-</i> Rajasthan, Uttar Pradesh including Uttranchal,</p> <p><i>West India-</i> Madya Pradesh,</p> <p><i>East India-</i> Bihar including Jharkhand and Chattisgarh, Orissa, West Bengal, Assam, North East which includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura</p>	<i>North India-</i> Jammu & Kashmir
Submarkets	Equipment, Infrastructure, Fixed services, Cellular services, National long distance service, International long distance service, E-mail services, Call centers	Radio paging services, Global mobile personal communication services
Entry mode	Strategic alliance/ Joint venture	Exporting

**Table III-13: Most and least attractive regions, submarkets and entry forms in the Indian telecom market**

A region is classified as least attractive if it falls under one of the following criteria.

- First, if the region is politically and strategically unstable.
- Second, if there are more than 2 competitors for fixnet and cellular services as shown in table III-10.

As per the above arguments the most attractive regions of India for the fixed and cellular services are identified as Rajasthan, Uttar Pradesh and Uttranchal in the North India, Madya Pradesh in West India. Bihar, Jharkhand, Chattisgarh, Orissa, West Bengal, Assam and the North Eastern hilly and tribal states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura in East India. No doubt the other regions of India including the regions of South of India also owing to their large size and population serve as good markets but they already have several operators competing among them. However, they can serve as potentially attractive markets for the other submarkets that will be mentioned below. The region of Jammu and Kashmir in North India is identified as the least attractive region at the moment owing to political disturbance between the Indo-Pakistan dispute over certain parts of this region.

Coming to the most and the least attractive submarkets in India the following can be said. The most attractive submarkets are identified as fixed services, cellular services, e-mail services, call centers, equipment and

infrastructure submarkets. The least attractive submarkets are identified as radio paging services and global mobile personal communication services.

The above results are formed on the basis of the following argument.

- First, the discussions in section 3.3.2 and 3.3.3 prove the attractiveness of the equipment and infrastructure submarkets.
- Second, table III-6 about the inflow of FDI in submarkets, table III-10 about the regional analysis of the two key telecom services, and the objectives and targets of NTP 1999 as mentioned earlier points towards fixed services and cellular services as attractive submarkets. Cellular phones are not only common among small businesses but also among farmers, fishermen and the least literate of the population.
- Third, the large size of the country, and its position in the forefront of globalization is making it an abode for foreign companies. As a result the volume of the national and the international long distance traffic is increasing exponentially paving way for fixed, cellular and call center services as these are key services to run the business activities.
- Fourth, Moreover, as mentioned in section 6 with a large percentage of Indian population living abroad and the strong family ties among them results in huge volumes of international calls. The same is true for e-mail services too.
- Fifth, table III-11 shows the importance and the attractiveness of the call center services in India, which makes call centers too an attractive submarket in the Indian telecom market.
- Sixth, the radio paging service and the global mobile personal communication service has been classified as the least attractive submarket. This is simply based on a parallel comparison with the above mentioned submarkets. For instance, for India's huge rural population who are mostly illiterate or can read only the local language for them a pager with paging service in English is not too attractive, rather a cellular phone in which they can talk in their own mother tongue is more attractive. Although the Indian telecom market is trying to equally promote global mobile personal communication services, surely the advantage of cellular services is higher than GMPCS. Hence it has been put in the category of the least attractive submarket. Yet a company with strong advantages in this business should not withhold from investing, as there is a high opportunity for harvest in almost every submarket in India if carefully and thoughtfully invested.

Now coming to the entry modes, among the various entry modes stated in chapter II, strategic alliance/joint venture is considered to be the most

attractive entry form into the Indian telecom market. This is evident from table III-8 on foreign direct investment. From this table as well as the rules as per NTP 1999 shown in section 5.2 it is clear that the FDI permitted in all the submarkets are not up to 100%. That means depending on the nature of the company it has to form a strategic alliance or joint venture with a local partner. Moreover, due to largeness of the country, political, legal, and socio-cultural barriers prevalent in business operations in the country, it is safe to enter the Indian telecom market through a strategic alliance or joint venture. Exporting though not the unaccepted but will be the least attractive entry modes, as this would be highly expensive. Moreover, with the progress in technology and the availability of skilled and professional man power in the country makes it a better place to manufacture most of the equipment and infrastructure with in the country incurring lesser cost.

As said in section 1 of this chapter the three partial goals of this chapter were to understand the Indian telecom market, to identify the prime reasons of attraction of the Indian telecom market to foreign investors, and to understand the facts about entry into Indian telecom market.

Goal 1 of the chapter to understand the Indian telecom market helps in attaining the first minor objective of the research, that is, to identify the rules in the Indian telecom market and to understand the present scenario of the Indian telecom market as shown in figure I-1.

Goal 2 of the chapter to identify the prime reasons of attraction of Indian telecom market to foreign investors answers few of the research questions as stated in chapter 1. The most important questions that the chapter directly answers is “why is the Indian telecommunications market so attractive to the foreign investors” and two other questions that it indirectly deals with are “why is it that India’s vast potential in the field of telecom difficult to tap” and “what will be the prime sectors of Indian telecommunications for investment in future”. By addressing the above said questions directly or indirectly, goal 2 of the chapter provides substantial basis for recommendations for foreign investors in future to be made in chapter V of the research work.

The most significant contribution of Goal 3 of the chapter to understand the facts about entry into Indian telecom market is also to provide a substantial basis for recommendations for future foreign investors that are made in chapter V.

# **IV Description and assessment of cases on market entry strategies of foreign companies in Indian telecom market**

## **1 An overview of the chapter**

Chapter IV of this book describes and assesses cases on market entry strategies of foreign companies in Indian telecom market. Numerous foreign companies from Americas, Europe and Asia are operating in the services, equipments and infrastructure segments of telecom market in India. A number of them have established a strong hold in India, though several have left the market after burning their fingers. This chapter presents the cases of four foreign companies that tried to penetrate the India telecom market. The companies are from different parts of the world and operate in different segments of the telecom sector. All of these are leading companies either in the world market or in their domestic market in various cutting edge technologies. Yet some were successful and some unsuccessful in the Indian telecom market. For some, India was the first market in the international arena; for others, it was just one more country internationally. There were various reasons for their successes and failures, which can be understood from the cases.

The chapter has the following goals:

- Goal 1- Identify the market entry strategies followed by four foreign companies to enter the Indian telecom market
- Goal 2- Evaluate the market entry strategies in the light of the literature review carried out in chapter II.
- Goal 3- Infer the conditions of the Indian telecom market from the experience of the four foreign companies

For this reason the chapter is divided into seven sections and several sub-sections.

Section 2 describes case research as a qualitative descriptive research method and describes the various steps of the case research method. The case research approach is a comparatively flexible scientific method as it gives relative freedom to researchers to discover and address issues as they arise. It is an appropriate method in situations where the investigator has

little or no control over the events under consideration and when the focus is on a contemporary phenomenon within real life.<sup>1</sup>

Section 3 is about the application of the case method in this research. It presents how the various steps in the case research method are applied in this research and also highlights the issues that are used as benchmark for the assessment of the cases.

Section 4 describes and assesses the cases. This section is divided into several sub-sections. Each case is presented in a sub-section, which provides information about the company, the market entry strategy, the analysis of the market entry strategy and conclusion. The analysis is evaluated in the light of the literature review of market entry strategies in chapter II.

Section 5 is a comparative analysis or a cross case analysis of the four cases in order to determine the similarities and dissimilarities between them. The comparative analysis is based on the cross case analysis as described in section 2.

Section 6 is about the general conclusions from the case analysis carried out in sections 4 and 5 of the chapter with reference to chapters II and III.

The final section, 7, presents the summary and the implication of the chapter in the book.

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<sup>1</sup> Yin (2003) p. 1.

## 2 Case research method

Researchers such as Robert K. Yin, Robert E. Stake, Jacques Hamel and several others have suggested techniques for organizing and conducting successful case researches.<sup>2</sup> Case research can be divided into five important steps:

1. Determining and defining the research question(s)
2. Designing case research
3. Collecting the necessary data
4. Describing the cases
5. Analyzing the cases

*Determining and defining the research questions.* This clear first step enables a researcher to establish a focus by forming specific questions about the situation or problem that is to be studied. Case research generally answers the “how” and “why” questions. Clear and careful definition of the research question enables the researcher(s) to determine the best methods for data collection and analysis.<sup>3</sup>

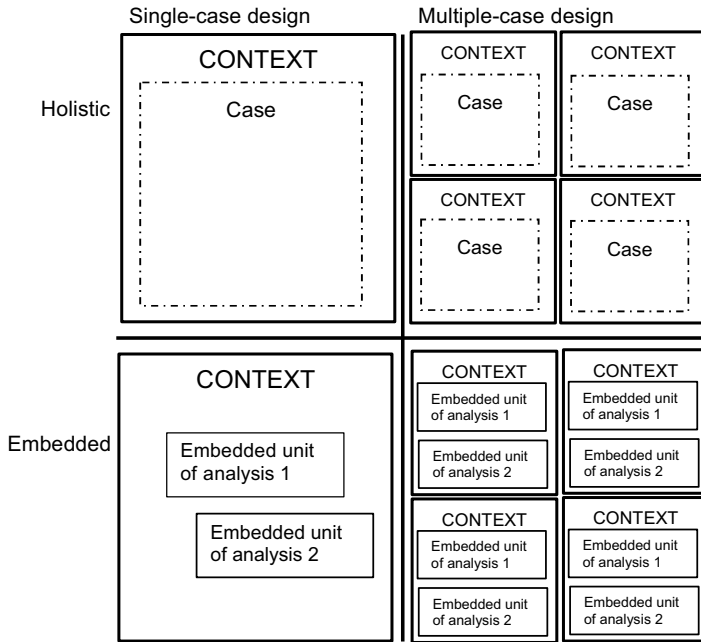
*Designing case research.* According to Robert K. Yin, research design is the logic that links the data to be collected and the conclusion to be drawn to the initial questions of study. The most important components of research design are (a) the unit or units of analysis; and (b) the logic linking the data to the criteria for interpreting the findings. The design phase of case research determines the approach to be used in selecting single or multiple real life cases either as single units or multiple units of analysis as shown in **Figure IV-1**. If the case research has only one case, it is important to determine whether to deal with it as a single unit of analysis or whether as multiple units of analysis. If the case research has several cases, then it is important to determine each case is to be considered as one unit in itself and analyzed independently, or whether each case is to have several units within itself to be analyzed one after the other. Throughout the design phase, researchers must ensure that the case has validity and reliability.<sup>4</sup>

<sup>2</sup> Yin (2003), Stake (1995), Hamel (1993), Tellis, W. (1997, July), Feagin/ Orum/ Sjoberg (1991), Sjoberg/ Williams/ Vaughan/ Sjoberg (1991).

<sup>3</sup> Yin (2003), p. 5.

<sup>4</sup> Yin (2003), pp. 19-21., Babbie (1992), pp. 88 ff., Punch (1998), pp.138 ff., Patton (2002), pp. 209 ff., Creswell (1998), pp. 13 ff., Denzin/Lincoln (1998), p. 295., Perry (2005).





**Figure IV-1: Designs for case research<sup>5</sup>**

Validity, particularly refers to external validity, construct validity and internal validity. Validity in general is defined as the degree to which the researcher has measured what he set out to measure. In other words, validity refers to the appropriateness, meaningfulness, and usefulness of the specific inference. It is whether the measure is measuring what it intends to measure, which is the most important criterion of the goodness of a measure. Put most simply, validity addresses the question, “Am I measuring what I think I am measuring?” External validity, construct validity, internal validity and reliability are described below.<sup>6</sup>

External validity concerns the design phase of the research. Yin, defines it as the extent to which the findings can be generalized beyond the immediate case or cases. Similarly, Baker says it is the generalizability of an

<sup>5</sup> Yin (2003), p. 40.

<sup>6</sup> Yin (2003), pp. 34 ff., Flippen (2001), pp. 48, 299-321., Miller/Delbert (1977), Singleton/Straits/Straits (1993), pp. 114 ff., Silverman (1993), pp. 144, 149.

experiment or a case to other setting, other treatments and other subjects. According to Cook and Campbell, it concerns the extent to which casual inferences made in an experiment can be generalized to other times, settings, or groups of people. Dooley points out that the most important question that is dealt in this phase is that does the observed finding generalize to other populations, places, and times? And if the answer is no, then we need to limit our claims to the people or settings studied and ask what unique factors help account for the results.<sup>7</sup>

Construct validity concerns the data collection and composition phase of the research. It requires a researcher to use multiple sources of evidence to establish a chain of evidence. Baker defines it as the form in which hypotheses generated from a concept are tested, and the results of these tests are correlated with the original concept. For example, as Carmines and Zeller explain, suppose we have to validate a measure of self-esteem. We might begin by developing hypotheses that set up expectations about what self-esteem might be likely to vary with. If we hypothesized that self-esteem would more likely be high among students who participated in extracurricular activities at school than among those who did not. Then we might correlate the self-esteem scale with participation rates in school activities as a means of gathering on kind of evidence that the self-esteem scale was measuring what we believed to be a part of the theoretical construct of the meaning of self-esteem. Smith says that construct validity is evaluated through determining the degree of which certain explanatory concepts (constructs) account for performance on the measurement. As per Dooley construct validity addresses the question, “Does the measured experimental variable reflect only or mainly the intended construct?” A measure of treatment that reflects some other construct or nothing at all has poor construct validity.<sup>8</sup>

Internal validity concerns the data analysis phase of the research. It demonstrates that certain conditions lead to other conditions, and requires a researcher to assume that a particular event resulted from some earlier occurrence, based on interview, documentary evidence etc., collected as part of the case research. According to Campbell and Stanley and Cook and

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<sup>7</sup> Yin (2003), p. 37., Baker (1988), pp. 119, 121-125, 211-214, 216., Cook/Campbell (1979), pp. 37-94, Dooley (1995), pp. 78, 279.

<sup>8</sup> Yin (2003), p. 35., Baker (1988), pp. 119, 121-125, 211-214, 216., Carmines/Zeller (1979), p. 11., Smith (1975), pp. 61, 77., Dooley (1995), pp. 78, 279.

Campbell, internal validity is given the greatest attention in experimental and quasi-experimental research. Internal validity is only a concern for causal (or explanatory) case studies, in which an investigator is trying to determine whether event x led to even y. This logic is inapplicable to descriptive and exploratory studies (case studies, surveys or experiments), which are not concerned with making causal claims. Baker defines it as the extent to which an experiment actually has caused what it appeared to cause. Dooley points out that the question that is dealt in this phase is that the observed impact on the outcome is due to the presumed cause or does the apparent effect stem from some other variable or causal process? Internal validity pertains to the design of studies and requires attention to a variety of threats or rival explanations.<sup>9</sup>

Reliability concerns the data collection phase of the research and refers to the stability, accuracy and precision of measurement. According to Hammersley, and Kirk and Miller, reliability refers to the degree of consistency with which instance are assigned to the same category by different observers or by the same observer on different occasions. Baker defines reliability as the consistency in measurement, that is, when it is repeatedly used it will lead to the same results. Carmines and Zeller, and Monette, Sullivan and DeJong define it as the degree to which a procedure for measuring produces similar outcome when it is repeated. However if a measurement is not valid, it is irrelevant even if it is reliable.<sup>10</sup>

*Collecting the necessary data.* Case research generates a large amount of data usually from multiple sources, so a systematic organization of the data is important to prevent the researcher from becoming overwhelmed by the amount of data. The researcher needs to collect and store multiple sources of evidence comprehensively and systematically, in formats that can be referenced and sorted. Data may be collected from various documents, archival records, interviews, direct observation, participant-observation and physical artifacts. Case research is flexible, but when changes are made it needs to be documented systematically.<sup>11</sup>

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<sup>9</sup> Yin (2003), p. 36., Baker (1988), pp. 119, 121-125, 211-214, 216., Dooley (1995), pp.78, 279., Campbell/ Stanley (1966), Cook/ Campbell (1979).

<sup>10</sup> Yin (2003), p. 37., Hammersley (1992a), p. 67., Kirk/Miller (1986), p. 13., Baker (1988), pp. 119, 121-125, 211-214, 216., Carmines/Zeller (1979), p. 11., Monette/Sullivan/DeJong (1994), pp. 103 ff., 254, 258-260, 271-276.

<sup>11</sup> Yin (2003), pp. 83 ff., Stake (1995), pp. 49 ff.

*Describing the cases.* This step refers to the description of the case or the unit of analysis itself. A case tells a clear story which has a beginning, a middle and an end, even if it uses sophisticated narrative techniques such as flashbacks.

Cases can be written in three types depending on its functional purpose, as descriptive, explanatory or exploratory. Descriptive cases are narratives that provide a detailed account of a circumstance or situation. It conveys information which a reader is free to use, unconstrained by any pre-existing goals of the writer. Explanatory cases require that the writer assumes the role of an expert and use that expertise to translate a difficult subject into a language accessible to the reader. It removes obscurity and makes the difficult comprehensible. Exploratory case requires the writer to assume the role of a knowledgeable but unobtrusive guide and the reader is left to explore and experience the case. The case writer remains in the background, secure in the knowledge that all potentially dangerous contingencies have been identified and planned for in advance.<sup>12</sup>

*Analyzing the cases.* Data analysis consists of examining, categorizing, tabulating, testing, or otherwise recombining both quantitative and qualitative evidence to address the initial questions for study. The researcher examines raw data using many interpretations in order to find linkages between the unit of analysis and the outcomes with reference to the original research questions. The use of multiple data collection methods and analysis techniques provide the researcher the possibility of triangulating data in order to strengthen the research findings and conclusions. However, not all case studies lend themselves to statistical analysis, and in fact the attempt to make the study conducive to such analysis could inhibit the development of other aspects of the study. Therefore, Miles and Huberman have suggested alternative analytic techniques in such situations, such as using arrays to display the data, creating displays, tabulating the frequency of events, ordering the information, and other methods. This must be done in a way that will not bias the results. Hill and Jones suggest that a detailed analysis of a case should include the following eight areas: (i) analyze the history, development, and growth of the company over time, (ii) analyze the company's internal strengths and weakness, (iii) analyze the external environment of the company for opportunities and threats, (iv) evaluate the SWOT analysis, (v) analyze the corporate strategy, (vi) analyze the business

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<sup>12</sup> Yin (2003), p. 1., Swiercz. (2001), p. 6.

strategy, (vii) analyze the structure and control system, (viii) make recommendations.<sup>13</sup>

Techniques for analyzing cases include pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis or comparative analysis. The first four are applicable for researches that involve a single- or a multiple- case design whereas the fifth only for a multiple-case design.<sup>14</sup>

Pattern-matching is one of the most desirable techniques used in case study analysis. In pattern matching an empirically based pattern is compared with one or several already predicted theoretical patterns. According to Trochim, pattern-matching is one of the most desirable strategies for analysis. This technique compares an empirically based pattern with a predicted one. If the patterns match, the internal reliability of the study is enhanced. The actual comparison between the predicted and actual pattern might not have any quantitative criteria. The discretion of the researcher is therefore required for interpretations. In explanatory case studies, the patterns may be related to the dependent- or the independent- or both the variables, of study. However, in descriptive type of case studies, pattern matching is relevant only if the predicted pattern of specific variables is defined prior to data collection.<sup>15</sup>

Explanation-building is considered a form of pattern-matching, in which the analysis of the case study is carried out by building an explanation of the case. This implies that it is most useful in explanatory case studies, but it is possible to use it for exploratory cases as well as part of a hypothesis-generating process. Explanation-building is an iterative process that begins with a theoretical statement, refines it, revises the proposition, and repeating this process from the beginning. This is known to be a technique that is fraught with problems for the investigator. One of those problems is a loss of focus, although keeping this in mind protects the investigator from those problems.<sup>16</sup>

The time-series analysis technique in case research is similar to the time-series analysis conducted in experiments and quasi-experiments. The

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<sup>13</sup> Miles/ Huberman (1984), Hill/Jones (1998), pp. c1-c14.

<sup>14</sup> Yin (2003), pp. 109-ff., Stake (1995), pp. 71 ff., Perry (2005), Perry/ Sim/ Easterbrook (2004).

<sup>15</sup> Yin (2003), pp. 116 ff., Trochim (1989), pp. 355-366., Cook/Campbell (1979), pp. 118 ff.

<sup>16</sup> Yin (2003), pp. 120 ff., Glaser/Strauss (1967).

objective of the time series analysis is to examine relevant “how” and “why” questions about the relationship of events over time. Time series analysis can follow intricate patterns. The more intricate and precise the pattern, the more the time-series analysis will lay firm foundation for conclusions of the case.<sup>17</sup>

Logic models stipulate a complex chain of events over time. The events are stages in repeated cause-effect-cause-effect patterns, whereby a dependent variable (event) at an earlier stage becomes the independent variable (casual event) for the next stage. This involves matching empirically observed events to theoretically predicted events.<sup>18</sup>

The fifth technique, cross-case synthesis or comparative analysis as called in this book, applies specifically to the analysis of multiple cases and so to use this technique there must be at least two cases. In multiple case studies each case will be treated individually and studied separately. For large number of cases, cross-case synthesis may involve quantitative techniques. However, for modest number of cases it involves qualitative techniques such as creation of word tables that displays data from individual cases according to some uniform framework. Then the word tables are examined for cross-case patterns. Cross case synthesis relies strongly on argumentative interpretation and not on numeric properties. It is directly analogous to cross-experiment interpretations.<sup>19</sup>

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<sup>17</sup> Yin (2003), pp. 122 ff., Kratochwill (1978), Kidder (1981), pp. 227-256., Campbell (1975), pp. 178-193.

<sup>18</sup> Yin (2003), pp. 127 ff., Peterson & Bickman (1992), pp. 165-176., Rog & Huebner (1992), pp. 129-144.

<sup>19</sup> Yin (2003), pp. 134 ff.

### 3 Application of case research method in this research

This section applies the case research method described in the previous section to this research.

*Determining and defining the research questions.* The research focuses on answering the following questions:

- What are the strategies followed by the foreign companies entering the Indian market?
- What have been the reasons for the success or failure of foreign companies in the Indian market?
- What can the foreign companies intending to enter the Indian market learn from the experience of foreign companies that entered earlier and what recommendations can be given to foreign companies?

*Designing case research.* The case research consists of four cases, each considered as a single unit, and with each case contributing to the whole study. The companies or cases are chosen from different part of the world: two are from Europe, one from North America and one from Asia. Two of these companies are from services sector and two from equipment sector. Two cases are about companies successful in the Indian telecom market, one about an unsuccessful company and one about a company that is new to the Indian telecom market and making its way through.

The four companies as shown in **Table IV-1** are First Pacific of Hong-Kong, Swisscom of Switzerland, Alcatel of France and Avaya of USA. Swisscom and First Pacific are from services segment while Avaya and Alcatel are from equipment segment. Swisscom, which operated in the Indian market as a joint venture with a domestic operator, presents an unsuccessful case while First Pacific that operates in the Indian telecom market with a joint venture with a domestic partner presents a successful case. Alcatel from the equipment sector operates independently in the Indian telecom market and presents a successful case while Avaya, which operates with a domestic joint venture partner, is a new entrant to the market. Though it is making through a successful path in the Indian telecom market, yet its period of operation in India is too short to put it under the successful category. Hence it can be called a successfully progressing company.

Company	Services segment	Equipment segment
Successful	First Pacific (Hong Kong)	Alcatel (France)
Successfully progressing		Avaya (USA)
Unsuccessful	Swisscom (Switzerland)	

**Table IV-1: Companies for case research**

*Collecting the necessary data.* Initial data was collected from homepages, news articles, survey published in telecom magazines. Then field interviews with key persons in the telecom sector in India and the top management of the foreign companies were conducted over a period of two months. Some other interviews with people from Swisscom were conducted later in Switzerland and yet few others with executives of Alcatel were conducted on the internet through e-mail. These interviews covered the entire sphere of public and domestic private telecom companies of India and the foreign telecom companies operating in the Indian market.

The interviews were semi-structured, and conducted with the help of a questionnaire. The request letter for interview, interview questionnaire, list of interviewees, consolidated responses of the interviewees and data sheets are shown in the appendices A through G. The questionnaire had 18 questions divided into four parts. The first part was about the company, its nature of work, number of employees, the telecom situation in India and the performance of foreign companies in India. The second part included questions about when and how the company entered the Indian market, which strategy did it employ and why? How effective was this strategy, what kind and how much market analysis were carried out. The third part focuses on the financial aspects of the company, such as its current market position, its turnover, its market share and how it rates itself in terms of ROI, EBIT, free cash flow etc. The last part was about their competitors in the Indian telecom market. In brief, the semi-structured interview conducted includes facts, opinions, insights, and the questionnaire helped to maintain uniformity and consistency.

During the interview, company documents such as annual report, financial report, news clippings, brochures, and other written material describing relevant information to aid in forming a case in the later stage was collected from the interviewees and from other sources in the company.



*Describing the cases.* The four cases are structured in four sections and are written in a descriptive style. The first section is about the company. Its a brief overall introduction of the company comprising of its activities and market position both in the international as well domestic market from the time it started, through the time it entered the Indian market to its present day situation in the context of its growth and development. The second section is about the market entry strategy followed by the company to enter the Indian telecom market. It deals with questions such as, how, when and why it entered the Indian telecom market? How did it go about implementing its plans in India? What was the consequence of the steps taken? How is/was it rated in the in the Indian market? etc. The third section is the assessment or analysis of the case, which is discussed below. The final section presents conclusions of the individual case.

*Analyzing the cases.* Analysis in this research is at three levels. Initially each case is analyzed individually as a single unit, followed by a comparative analysis. The final analysis is to arrive at a general conclusion. The Hill and Jones suggestion for case analysis as explained in section 2 of this chapter is applied here in a modified way.

The analysis of case at level I is done in three parts for each of the four case:

- The first analysis (I-1) is the analysis of the strengths and weaknesses of the company. This includes the background such as history, development, and growth of the company over time. This analysis assesses if the company was in a position to enter the Indian telecom market. It is a qualitative case analysis and uses the examining technique of analysis as mentioned in section 2 of this chapter.
- The second analysis (I-2) is the analysis of the market entry strategy followed by the company to enter the Indian market. This is to analyze if the market entry strategy followed by the company was good or bad. This analysis will take into account corporate strategy, business strategy, process of market entry, structure and control system, etc. of the company as discussed in chapter II. This too is a qualitative case analysis and involves the explanation-building technique of case analysis. From section 3 we see that this technique is considered as a form of pattern-matching, in which the analysis of the case study is carried out by building an explanation of the case. Therefore, the market entry strategy of each case is explained on the basis of 5 questions, which are as follows:

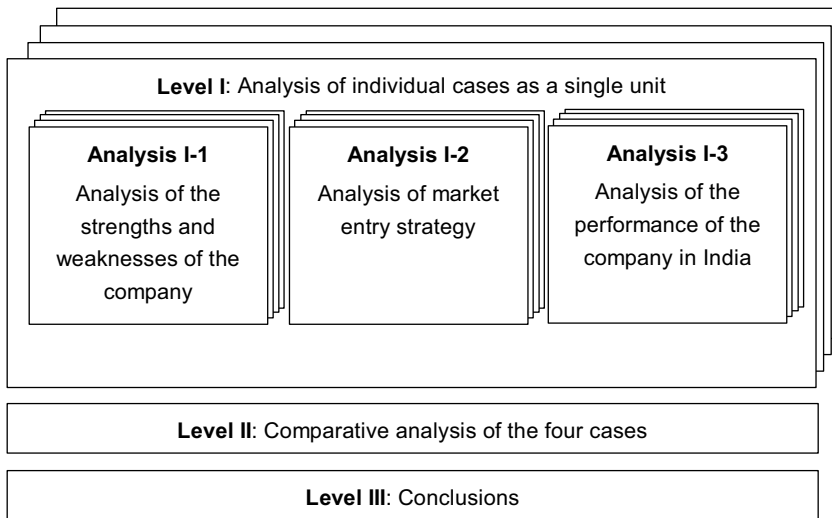
- (1) Was the objective of the company to enter the Indian market realistic or unrealistic?
  - (2) Was the process of the market entry strategy followed by the company to enter the Indian market as proposed in the literature in chapter II?
  - (3) Did the market entry strategy followed by the company respect the 5 criteria of a good market entry identified in chapter II. They are (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows to operate efficiently.
  - (4) Was the market research adequate or inadequate?
  - (5) Was the strategy followed by the company realistic or unrealistic?
- The third analysis (I-3) is the analysis of the performance of the company in India. The purpose of this analysis is to assess if the company is or was successful or unsuccessful in the Indian telecom market. The criteria of analysis are as follows:
    - (1) Current presence or absence, or duration of operation in India,
    - (2) Current market position and its trend, and
    - (3) Competitive advantages at the level of offers and resources. This refers to the concept of success potential of a company described in chapter II.

This analysis involves facts and figures, hence, the combination of quantitative and qualitative evidences provided in the case.

The analysis of case at level II is a comparative analysis of the four cases. The criteria for analysis are the above 3 analysis carried at level I, that is, (i) strength and weakness analysis (I-1) (ii) market entry analysis (I-2), and (iii) performance analysis (I-3). This analysis involves the cross case synbook technique of case analysis. In this analysis all the four cases are together compared and their similarities and dissimilarities explained as mentioned in section 2.

The analysis of case at level III is to arrive at a general conclusion based on the above analyses.

The entire analyses of case discussed above are summarized in **Figure IV-2**.



**Figure IV-2: Analysis of case**

## **4 Description and assessment of cases**

This section describes the cases of four companies. The companies are First Pacific of Hong Kong, Swisscom of Switzerland, Alcatel of France and Avaya of the United States of America.

### **4.1 First Pacific**

#### **4.1.1 The company**

Founded in 1981, First Pacific Company Limited, which is commonly known as First Pacific, is a Hong Kong-based conglomerate with business interests principally in telecommunications, consumer food products and property development. Before it entered the Indian telecom market, its key investments were in telecommunications in Philippines, consumer food products in Indonesia and property development in Philippines apart from some small investments in several other countries in South Asia. It had a work force of over 30,000 with operations mainly in Southeast Asia. First Pacific's turnover increased by 12.2% from USD 899.1 million in 2002 to USD 1008.7 million in 2003. The contribution from operations increased by 69.7% and recurring profit increased by 123.1% in the year 2003. It is listed on the Hong Kong stock exchange and its shares are available in the United States through American Depository Receipts.<sup>20</sup>

First Pacific's telecommunication service in Philippines is through a joint venture of 31.4% under the name Philippines Long Distance Telephone Company (PLDT). PLDT is based in Manila and its principal businesses are fixed line, wireless and internet services. It held 57% market share of the total GSM market and 70% market share in fixed line business in Philippines by 2003. This increase in market share was attributed to its marketing skills, varied offers and the brand image in the Philippines market. It has common shares listed on the Philippine Stock Exchange and American Depository Receipts listed on the New York Stock Exchange and on the Pacific Exchange in San Francisco, California. PLDT's financial and operating results in the third quarter of 2003 reached a number of milestones and showed record performance.<sup>21</sup>

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<sup>20</sup> Data sheets from Appendix E., Escotel company document (2001), First Pacific Annual Report (2002), p. 2., First Pacific Latest financials (2003), First Pacific Interim Report (2003).

<sup>21</sup> First Pacific company presentation, Third quarter results (2003), p. 3.

### 4.1.1 The market entry strategy

*Background.* Telecommunications being one of the principal business interests of First Pacific, it wanted to increase investment in this business and felt the need to expand to other international market in Asia. Indian telecom was at the threshold of exponential growth for nearly a decade, since the liberalization in 1991 with both cellular services as well as fixed services markets growing rapidly in India. According to the statistics, it is expected that the cellular- will overtake the fixed-service by 2010 in India. The tele-density of India is much below the world average and the digital divide is huge. This has drawn the attention of the government of India, which encourages the participation of private sector to overcome this drawback. All these reasons led First Pacific to consider India as a potential market for investment in telecom business. First Pacific chose to invest in the cellular services segment of the Indian telecom market.<sup>22</sup>

*Market entry.* First Pacific began its market entry in India by conducting a market research to assess the potential of the country in telecommunication, investment policies and trade barriers. However, after the market entry, according to Mr. Kohli, the Indian subsidiary felt that market research alone is not sufficient and it has to be mixed with market experience and personal insight as market changes rapidly. From Chapter III it can be seen that for cellular services, the maximum foreign direct investment (FDI) allowed in India according to the New Telecom Policy 1999 (NTP 1999) is only 49%. First Pacific's investment initiatives in India started even before this NTP 1999 was introduced during which time too a foreign company was permitted only a limited FDI. Hence it was not possible for First Pacific to establish its own subsidiary in India. For First Pacific, the best option for mode of entry seemed to establish a joint venture with a suitable and reliable domestic partner. This led First Pacific to enter into a joint venture worth USD 267 million with the Delhi based conglomerate business group Escorts to form Escotel Mobile Communications Limited in 1996 to provide cellular services in India. Escorts Limited held 51 per cent stake in Escotel, while First Pacific held the rest. The joint venture company Escotel was headquartered in Delhi with over 700 employees all over the country with a mission to make cellular telephony a common means of communication. According to Mr. Kohli, in the joint venture operation of Escotel, it is mainly financial funds and good practices that came from First Pacific. The management of First Pacific focused on growing the business, enhancing cash flows and addressing financing issues.<sup>23</sup>

<sup>22</sup> Interview with Mr. Manoj Kohli on 24. 09.2001, Chapter III- sections 3.2, 5.2, table III-9.

<sup>23</sup> Chapter III - sections 5.2 & 7, table III-8, Escotel company album (2001), www.escotel.com.

*Target customer.* The next task for Escotel was to choose its target customer segment and a strategy to reach them. Escotel opted to target the small and medium businessmen of rural India and the rural rich, which is a huge population. From chapter III, it can be seen that with 638,691 villages with a rural population of 741,000,000 as compared to 5161 towns with an urban population of 285,000,000 as per the 2001 census, nearly 70% of India's population live in rural India.<sup>24</sup> Out of which the top 20% make the population of small and medium businessmen and the rural rich. This forms a large population in India.<sup>25</sup> In rural India, landline phones are few and far between. Due to the complexities of climate, landscape and distances, the few existing phones were often out of order. Making a phone call meant traveling to the nearest town, usually by foot. This is where Escotel saw an opportunity. Manoj Kohli the then CEO of the company said in the interview that they implemented their strategies quite effectively. Through their programs such as club Royale, they gathered the small and medium businessmen and through their path-breaking rural telephony program, "Grameen Phone", which intended to provide each village with a handset at highly subsidized rate, Escotel changed the belief that cellular phones were the preserve of the rich and wealthy people.<sup>26</sup> In brief, Escotel gained sound understanding of the rural markets and the customers.

Escotel had a combined customer base of over 627,000 customers in 2001 which was expected to touch one million soon. In 2001-02, its subscriber base grew by 63.1 percent, making it the fourth largest mobile operator in the country, and the only one of its kind which is referred as category 'B'<sup>27</sup> operator in the Indian telecom market, to reach half-a-million mark at that time. Escotel has a market share of 67% among customers.<sup>28</sup>

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<sup>24</sup> Chapter III- section 3.1, table III-2.

<sup>25</sup> 46% of the income is accounted for by the top one-fifth of the people and the top 10% alone earns 33% of all income in India. India has a middle class of 20%. Agriculture contributes 25% of India's GDP with 60% labor force. Das (2001), Larry Press (Jan./Feb.1999) Vol. 5, No. 2, pp 36-38. Ecensus India, (2003) Issue 14, India Profile Economy- Nation Master (2001).

<sup>26</sup> Interview with Mr. Manoj Kohli on 24. 09.2001.

<sup>27</sup> Category 'A' include heaviest volume areas such as Delhi, Maharashtra, etc. Category 'B' includes comparatively lesser volume and Category 'C' includes the hilly regions of India. For more see section 3.3.1 of chapter III.

<sup>28</sup> Voice and Data (July 2001).

*Regions of operation.* After choosing the target customer segment, the next step for Escotel was to select its regions of operation. Due to the large size of the country for various services the country is divided into a number of service circles. For the purpose of cellular services the country is divided into 20 territorial circles and 4 metros. A company needs to have separate license to operate in each circle.<sup>29</sup>

Escotel has very thoughtfully selected its geographical regions of operation in India. It operates in geographically diverse regions of Western Uttar Pradesh and Haryana in the North of the country and Kerala in the South. Uttar Pradesh is home to one of the seven wonders of the world, the Taj Mahal, which features on every tourist map. Bordering New Delhi, with the agriculturally rich Terai region in its fold, it is one of North India's most prosperous regions. Haryana strikes a perfect balance between agriculture and industry, being highly developed in both. As a result the state's per capita income is the third highest in India. Haryana, has a large middle class with a sizeable disposable income making it an ideal place for a cellular operator. Kerala is rated by National Geographic magazine as one of the top 50 tourist destinations worldwide. It has the country's highest tele-density and high internet and mobile penetration. Escotel is also expanding its coverage to the northern states of Punjab, Himachal Pradesh and Rajasthan which are geographically close to the current regions of operation in the North of the country. It provides coverage in 180 towns, highway coverage in 77 towns and 3000 villages in its region of operation.

It is a market leader in all the three states where it operates and the state of Kerala where it operates is the 3<sup>rd</sup> biggest market for cellular operation next to the metro cities of Delhi and Mumbai. In Kerala, it has 65% market share, in Haryana 90% and in West Uttar Pradesh 100% market share. Escotel has a market share of 74% in terms of the revenue in its regions of operations.<sup>30</sup>

Escotel claims that its strategy in the Indian market was good but it could not achieve its goals fully because of company- and market-reasons. The company reasons were mainly linked to the difficulties arising from the market. The former monopolist service provider, regulator and policy maker Department of Telecommunications (DoT) was not favorable to private

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<sup>29</sup> Circles correspond generally to one or several states. For more see section 3.3 of chapter III.

<sup>30</sup> Interview with Mr. Manoj Kohli on 24. 09.2001.

operators as it will lose its market share. Unlike today's independent regulator which ensures level-playing field for all the players, the then regulatory mechanism of DoT was very unfavorable and prejudiced towards private operators hence more than focusing on market development, Escotel's concentration was on fighting against DoT. So even though their strategy and market were right, they had to hold back investment because of DoT's behavior towards private telecom operators.<sup>31</sup>

*Resources.* Escotel sought to enhance value for its customers by providing them relevant and easy to use products through innovation and by harnessing the latest developments in technology. In line with this strategy, it constantly introduced innovative products to suit its customer segments.

Escotel's entire operation was backed by Lucent Technologies, USA, which is their technology partner. This has helped them provide their subscribers with unmatched voice clarity and reliability, together with the flexibility to seamlessly add new products and services. It has also invested in building up an 1800 km long independent microwave backbone to ensure reliability of its service and is one of the few operators in the country to do so.<sup>32</sup>

Both as a company, and as individuals, it recognizes that human resources are their true business resource. It promotes an open culture, where cross-functional teams work in close unison and creativity is encouraged.<sup>33</sup>

Escotel has also established a strong distribution channel in the country with more than 5000 outlets, which are still growing. It's three-pronged strategy of lowering entry costs, monthly recurring cost and spreading out wide to reach and serve the consumer through an FMCG distribution model helped them take cellular telephony to the huge middle class.<sup>34</sup>

*Offers.* Escotel provides both prepaid and postpaid service. With a plethora of features and instant activation, their pre-paid cards have led to tremendous growth in customer base. Aggressive tariff plans and handset package offers have helped them stay on top in the post-paid market too.<sup>35</sup>

It offers a variety of options for its customers such as roaming for both prepaid and postpaid customers. It provides international roaming in 56

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<sup>31</sup> Interview with Mr. Manoj Kohli on 24. 09.2001, Voice and Data (July 2001).

<sup>32</sup> Escotel company document (2001).

<sup>33</sup> Escotel company document (2001).

<sup>34</sup> Escotel company document (2001).

<sup>35</sup> Escotel company document (2001).



countries across 101 networks and national roaming in 1000 cities, which is the most extensive in the country.<sup>36</sup>

Escotel also provides a choice of tariff plans to suit its customers by providing payment options such as cash, cheque, direct deposit in bank, standing instruction to debit from bank, over the internet, ATMs, credit card, smart pay options from prepaid outlets.<sup>37</sup>

Besides this, its interactive voice response system allows customers 24-hour trouble-free access to their customer care services. Escotel is the first cellular company in the country to provide a service guarantee, made possible through its total quality management practices, and was rated the number one non-metro cellular service provider in customer satisfaction in the mobile users survey conducted in 2002 by Voice & Data, one of the leading telecommunication journals of the country. Today, Escotel is closer to the consumer than anyone else. Also its rank among the telecom operators of the country, according to a survey conducted by 'Voice and Data' analysis of the top 100 telecom companies in India, moved from 43<sup>rd</sup> position in 2001 to 30<sup>th</sup> position in 2002.<sup>38</sup>

*Financials.* Escotel was the first cellular company to have achieved financial closure, thereby tidying up all its project finances. Today Escotel is one of the few cellular companies in India who have met all their financial commitments to government, suppliers, financiers and employees, their prudent credit and collection policy has ensured flexible usage for their customers and has resulted in one of the lowest bad debts among all operators. Escotel was EBITDA positive within three years of commencement of operations in all its three regions. It was well on its way to achieve cash break-even in early 2001, making it amongst the first cellular operators in the country to do so. Its turnover increased from USD 23 million to USD 63 million in two year between 1999-2000 and 2001-2002.<sup>39</sup> Financial institutions like ICICI have shown great faith in the company's performance; its management and the commitment of its shareholders have readily come forward with long term loans.<sup>40</sup>

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<sup>36</sup> Escotel company document (2001).

<sup>37</sup> Escotel company document (2001).

<sup>38</sup> www.firstpacco.com, First Pacific company document, interim results, (3 September 2001), p. 4., First Pacific Latest financials (2003).

<sup>39</sup> Data sheets in Appendix E, Turnover of Escotel.

<sup>40</sup> Interview with Mr. Manoj Kohli on 24. 09.2001, Voice and Data (July 2001, 22 July 2002).

In 2001-02 Escotel grew by a robust 61.9 percent and recorded a total turnover of USD 63 million. It had closed the accounts for 2002-03 with revenues of USD 73 million. Escotel expects its revenues to grow by 9 per cent in the following year.<sup>41</sup>

### 4.1.3 Analysis of the case

#### *Analysis 1: Strengths and weaknesses analysis*

The first analysis shown in **Table IV-2** is the strengths and weaknesses analysis (I-1) of First Pacific. This analyses the overall condition and the background of the company and assesses if the company was in a position to enter the Indian telecom market as referred in section 3.

From the analysis of the strengths and weaknesses of First Pacific shown in the following page it can be concluded that it was fit to enter the Indian market with its various competencies such as human resources, financial resources, technology and offers, and some experience, which are foundation for any new market entry.

#### *Analysis 2: Market entry strategy analysis*

The second analysis (I-2) shown in **Table IV-3** is that of the market entry strategy followed by the company to enter the Indian telecom market as referred in section 3.

	Strengths	Weaknesses
Offers	<ul style="list-style-type: none"> <li>- Many product lines and offers</li> <li>- Quality products</li> <li>- Good marketing skills</li> </ul>	<ul style="list-style-type: none"> <li>- Core businesses other than telecom could deviate companies interest in different directions</li> </ul>
Resources	<ul style="list-style-type: none"> <li>- Human resource competency with large work force</li> <li>- Good financial management, increasing turnover and contribution from operations, recurring profit, record performance</li> <li>- Brand image</li> <li>- Experience from Philippines telecom market</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of any prior business experience in India</li> </ul>

**Table IV-2: Analysis of strengths and weaknesses of First Pacific**

<sup>41</sup> Voice and Data (22 July 2002), The Hindu Business line (26 August 2003).

<p>1. Was the objective of the company to enter the Indian market realistic or unrealistic?</p>
<p>First Pacific perceived that telecom is a rapidly growing business and it seemed to be an opportunity to invest in telecom business. First Pacific's corporate strategy seems to already incorporate expansion into foreign markets, as it was operating in several other countries other than its country of origin in telecom and other core businesses. Moreover, from the previous analysis it can be seen that the company has competencies meeting basic resources to step into another market.<sup>42</sup></p> <p>For First Pacific, India seemed to be a potential market with its rapidly growing cellular and fixed service market. Moreover, the Indian government's encouragement of participation of private foreign investors made it the right place to be.</p> <p>Hence, the objective of the company to enter the Indian market was realistic.</p>
<p>2. Was the process of the market entry strategy followed by the company to enter the Indian market as proposed in the literature in chapter II?</p>
<p>The company first made a decision to enter the Indian market, which was the first investment outside Philippines in telecom business. Then it conducted market research and opted joint venture as the best mode of entry into India.</p> <p>As its corporate strategy already seemed to incorporate this step it didn't seem to require a revision of the same. It formed business strategy to operate in India and adapted the business strategies of the concerned product groups and regions.<sup>43</sup></p> <p>Hence, the process of the market entry strategy followed by the company is similar to that proposed in the literature in chapter II. The process followed is that of a company entering a foreign market for the first time.</p>
<p>3. Did the market entry strategy followed by the company respect the 5 criteria of a good market entry identified in chapter II? They are (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows to operate efficiently.</p>
<p>From the previous analysis it can be seen that the company's strengths favored the market entry decision. The decision to invest in cellular service was an appropriate choice for the company. This is because the cellular market was growing rapidly in terms of subscribers, and its target customer</p>

**Table IV-3: Analysis of market entry strategy of First Pacific- I**

<sup>42</sup> Chapter II- sections 6.9 and 7.

<sup>43</sup> Chapter II- sections 6.9 and 7, table II-5, figure II-14.

group of small and medium businessmen formed a large portion of the population in its regions of operation. Moreover, by choosing the market segment and the region not generally chosen by many foreign operators of that time, it avoided quite a bit of direct competition. It did follow a clear generic strategy of differentiation to meet the needs of its target customer group. In the joint venture of First Pacific and Escorts in Escotel choose its structure and control in such a way that all the operation in India was managed by the Indian manpower and First Pacific pooled in the finances and good practices. That is, the involvement of First Pacific was at the level of the board of directors and stakeholders. This enabled a smooth functioning of its global operation strategy.<sup>44</sup>

Hence, the market entry strategy followed by the company did respect the 5 criteria of a good market entry identified in chapter II.

#### 4. Was the market research adequate or inadequate?

The market research was focused on the potential of the country in telecom, investment policies, trade barrier, potential target customer segment, regions for operation, potential joint venture and technology partner. Moreover, it coupled the market research with its experience and personal insight.<sup>45</sup>

Hence, the market research carried out by the company was adequate.

#### 5. Was the strategy followed by the company realistic or unrealistic?

Thoughtful selection of target customer segment, regions of operation, and offers:

- With agriculture contributing to the GDP of the nation by 25%, the population of small and medium businessmen in rural India is huge
- Indian government's efforts to increase the rural tele-density encourages investments in rural area
- The regions chosen were one of the most touristic and agricultural parts of the country with a high concentration of its target customer segment
- Attracted its customers through various programs, good customer service and through subsidized and technologically sound offers

Realized strategy was nearly same as the intended strategy.<sup>46</sup>

Hence, the strategy followed by the company was realistic.

**Table IV-3: Analysis of market entry strategy of First Pacific- II**

<sup>44</sup> Chapter II- sections 2.2, 3.2.1, 3.2.2, 5, 6.9 and 8.

<sup>45</sup> Chapter II- section 7.

<sup>46</sup> Chapter II- section 3.1.

From the above analysis it can be concluded that the market entry strategy followed by First Pacific was good as it was an appropriate strategy right from the market research, to the process and the choice of the mode of entry, to the implementation of business strategies. This includes its selection of target customer group, the regions of operation, and the programs and offers it made available to its customers.

### *Analysis 3: Performance analysis*

The third analysis (I-3) shown in **Table IV-4** is the performance analysis of

1. Current presence or absence or the duration of operation in India.
Operating since 1996 in India and is currently operating in the country.
2. Current market position and its trend. <sup>47</sup>
<ul style="list-style-type: none"> <li>• 4th largest operator in the country</li> <li>• Market leader in all the 3 regions of operation</li> <li>• Market share greater than 65% in all the regions of operation</li> </ul>
3. Competitive advantages at the level of offers and resources. <sup>48</sup>
<p>3.1 Offers:</p> <ul style="list-style-type: none"> <li>• Programs such as Club Royale to gather and keep its customers informed of the latest developments and offers</li> <li>• Subsidized handsets</li> <li>• Prepay and postpay offers</li> <li>• Domestic and international roaming facility</li> <li>• Choice of tariffs and payment modes</li> <li>• Best quality of service and customer care in the industry</li> </ul> <p>3.2 Resources:</p> <ul style="list-style-type: none"> <li>• Sound research and development</li> <li>• Strong distribution channel</li> <li>• Technological collaboration with leading telecom companies</li> <li>• Favor from country's leading financial institutions</li> <li>• Increasing turnover</li> <li>• Sound understanding of the market</li> <li>• Good quality management practices</li> <li>• Large customer base</li> <li>• Brand image and reputation</li> </ul>

**Table IV-4: Analysis of performance of First Pacific- I**

<sup>47</sup> Chapter II- section 2.2.

<sup>48</sup> Chapter II- section 2.2.

the company in the Indian telecom market. This analysis gives an overview of how successful or unsuccessful the company is in the Indian market as referred in section 3.

The above analysis of the performance of First Pacific's operation in India shows that it is currently present in the country and has a growing turnover, increasing market share and leading market position in the country. Its sound understanding of the rural markets and strong distribution channel makes it a popular brand and most favored in these regions. Its technological collaboration, and sound research and development enable best quality of service and customer care in the industry. Moreover it has the favor of the financial institutions and is rated the best non-metro cellular service provider in the nation.

This analysis indicates that First Pacific is a successful company in the Indian telecom market.

#### **4.1.4 Conclusion**

The analysis of the case of First Pacific shows that it is a case of a successful company. The following conclusions can be driven from the case:

- First Pacific choose a market segment that was rapidly growing and regions with a high concentration of its target customer segment. These regions were not generally targeted by many foreign operators of that time. Hence it avoided largely direct competition.
- First Pacific followed a clear generic strategy of differentiation to meet the needs of its target customer group. It attracted its customers through various programs, good customer service and through subsidized and technologically sound offers and emphasized on research and development and technical collaboration with companies that boosted their operation in India.
- First Pacific conducted thorough market research and opted joint venture as the best mode of entry into India due to the restriction on foreign direct investment of up to 49%. In the joint venture, First Pacific choose its structure and control in such a way that all the operation in India was managed by the Indian manpower and it contributed more in terms of finances and management practices. This enabled a smooth functioning of the joint venture.

- The regions of Kerala, Uttar Pradesh and Haryana chosen by First Pacific's Escotel operation are one of the most touristic and agricultural parts of the country with a high concentration of small and medium businessmen. Rajasthan in the North India is another such place.
- Unlike the subscribers in the cities, the subscribers in rural India require programs in local language to educate and inform them of the offers and facilities that could simplify their work. Such as the club royale program of Escotel to gather and inform the target customer group about the various tariff plans, modes of payment subsidized offers etc.
- The tele-density of rural India is very low but the need for telephone is high. This makes rural India, which has 638,691 villages, and population of 741,660,293 during the 2001 census, a huge field for investment with a vast potential in terms of subscribers. Moreover, Indian government's efforts to increase the rural tele-density encourages investment in rural area.
- Agriculture contributes 25% of India's Gross Domestic Product and the labor force by occupation in agriculture amounts 60%. This indicates a large percentage of small and medium businessmen in rural India, who form potential customer segment.
- Most of the cellular operators, both domestic and foreign are concentrated in the cities where the competition is extremely high as compared to the rural India. Hence, the competition in rural India is comparatively lesser than in cities where most of the foreign cellular operators are concentrated.

## 4.2 Swisscom

### 4.2.1 The company

Swisscom is Switzerland's leading telecom company offering a comprehensive range of telecom services and products for mobile, fixed and IP-based voice and data communications. The history of telecommunications in Switzerland began in 1852 A.D., more than 150 years ago and it is here that Swisscom has its roots. Swisscom was born from Swiss PTT, the former state owned telecommunications operator of Switzerland. Swiss PTT possessed state-of-the-art technology and was innovative and laid emphasis on research and development. Hence, it provided a range of telecom services and products to its customers making it a household brand in Switzerland. It had a large work force with the current figure standing at 15,000 employees. Swiss PTT was in the process of privatization since 1995, and it was fully privatized leading to the formation of the present day Swisscom on 1<sup>st</sup> January 1998. Swisscom became a public limited company due to the liberalization of the telecommunications market in Switzerland and the EU. Prior to privatization and formation of Swisscom, Swiss PTT was the sole operator in the Swiss market and enjoyed the large market share from its monopoly.<sup>49</sup>

In 1995, Swiss PTT along with PTT Telecom Netherlands (now KPN) had acquired 27% strategic interest in Prague SPT Telecom. SPT Telecom further had a 51% interest in Eurotel, one of the two cellular operators in Czech Republic. The launch of innovative new products such as Natel easy pre-paid service developed by Swiss PTT enabled Eurotel to increase its competitive edge in 1997. Swiss PTT had 50% interest in Jásztelek Rt in Hungary at the same time. Swiss PTT, PTT Telecom Netherlands and Telia of Sweden formed Unisource N.V. through a strategic alliance. Further AT&T of USA and Unisource had a partnership forming AT&T-Unisource Communications Services with 40% and 60% interests respectively. By 31 December 1997, Swiss PTT had the following investments as shown in **Table IV-5** in the respective countries.<sup>50</sup>

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<sup>49</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, [www.swisscom.com](http://www.swisscom.com), Appendix E: "Monopoly of Swiss PTT in Switzerland", Swisscom Annual Report (1997), Swisscom Annual Report (2004), p. 54.

<sup>50</sup> Swisscom Annual Report (1997), pp. 32-39.



Name	Location, Country	Interest in %
Subsidiaries and affiliates		
JászTel Rt.	Jászberény, Hungary	50
Mutiara Swisscom Berhad	Kuala Lumpur, Malaysia	30
Sterling Cellular Limited	New Delhi, India	32.56
Swisscom North America, Inc.	Washington DC, USA	100
Swisscom S. P. A.	Milan, Italy	100
Swisscom Telekom. GmbH	Vienna, Austria	100
Telecom FL AG	Vaduz, Liechtenstein	100
TelSource N.V.*	The Hague, Netherlands	49
Telson GmbH & Co. KG	Stuttgart, Germany	50
Unisource N.V.	Hoofddorp, Netherlands	33.3
Other holdings		
Infonet Services Corporation	El Segundo, CA, USA	18.7
* Holding the interest in SPT		

**Table IV-5: Swiss PTT's international investments by the end of 1997<sup>51</sup>**

Currently, with roaming agreements in over 125 countries, Swisscom is the global leader in international roaming and with Bluewin, it owns the largest Swiss online portal for residential customers in Switzerland. It has a market share of 66% in its home market with 3.74 million subscribers and 383,000 ADSL accesses, and had net revenue of USD 8.7 billion at the end of September 2003. Swisscom has operations in Germany, France, the Netherlands, Denmark and Slovenia through its company Debitel in which it has 93% equity and is listed on the stock exchange and is Europe's largest network-independent telecom company and the third largest mobile operator in Germany. Swisscom also offers broadband Internet via public wireless at 400 hotspots in the European market through its company Swisscom Eurospot which is headquartered in Geneva and is present in Germany, France, Italy, Belgium, the Netherlands, Luxembourg, Spain, Ireland and the UK.<sup>52</sup>

<sup>51</sup> Swisscom Annual Report (1997), p. 32.

<sup>52</sup> Swisscom Annual Report (2003), pp. 13 ff., 27 ff., Swisscom Annual Report (2002), pp. 39 ff.

#### 4.2.2 The market entry strategy

*Background.* Swiss PTT was aware that once it is privatized and the market is liberalized, it would lose market shares in home market owing to the introduction of competition. This made Swiss PTT look for developing and emerging markets outside Switzerland that drove its attention towards other parts of the world. Asia seemed to be a very promising market with growth of cellular subscribers rising exponentially. In Asia, initially Swiss PTT wanted to enter the then emerging markets of Philippines and Indonesia in 1995. But it gave it up, owing to the fact that there were already several well-established players in both the markets. So it focused on India and Malaysia, which were also emerging markets with great potential. There were several reasons for Swiss PTT to choose India. Some of the reasons are India's huge population with a rapidly growing middle class population, English as the business language, and its law and mentality closer to that of the British.<sup>53</sup>

*Market research.* Swiss PTT began its market entry process in the Indian market by carrying out a thorough market research. It had complete business case analysis done with the help of various well-known consultancies. The analysis was to understand what the market is all about, what are the regulations in it, what could be the possible market entry, what should be the financial investment and what should be the milestones for development in future. According to Mr. Andenmatten, this analysis enabled Swiss PTT to understand that the possible ways to enter the market were probably by establishing retail chain or entering into a joint venture. The first seemed impossible, so they preferred a joint venture.<sup>54</sup>

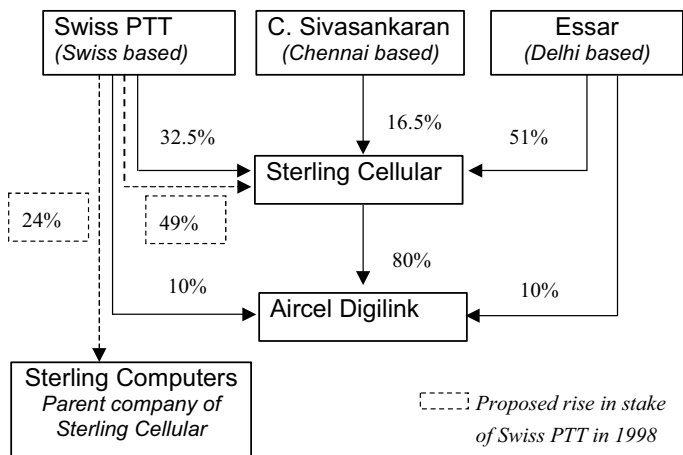
*Market entry, stake and regions of operation.* Swiss PTT decided to start with cellular services as it presumed that most of the cities in India would be technically difficult to wire. This led them to look for a partner in India. In the Indian telecom market, a foreign company was not allowed to operate cellular services independently at that time too. Hence, in the first quarter of 1996, Swiss PTT formed a joint venture with Delhi based Essar TeleHoldings Limited, in Sterling Cellular Limited to provide GSM cellular service in Northern India, acquiring 30% stake initially which later rose to 32.5%, with an investment of USD 202 million. Essar TeleHoldings

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<sup>53</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, [www.swisscom.com](http://www.swisscom.com), Appendix E: "Monopoly of Swiss PTT in Switzerland", Swisscom Annual Report (1997).

<sup>54</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002.

Limited held a stake of 51% in Sterling Cellular Limited. The remaining stake was held by Chennai-based C Sivasankaran. Swiss PTT had a major role in the running of the cellular services company as its nominees already held the key positions of Chief Executive Officer, Chief Operating Officer, Chief Financial Officer and Head of Marketing.<sup>55</sup> **Figure IV-3** shows the situation of stake of Swiss PTT in various companies in India, which is as discussed further.



**Figure IV-3: Stake of Swiss PTT in various companies in India**

Sterling Cellular Limited in turn owned 80% stake in Aircel Digilink India Limited, which is fully consolidated in the financial statements of Sterling Cellular Limited. Aircel Digilink held licences for Haryana, Rajasthan and Uttar Pradesh East regions, covering the Northern part of India with a network that is able to offer telephone services to the local population of more than 170 million people. Swisscom also owned a direct 10% stake in Aircel Digilink with the remaining 10% owned by Essar.<sup>56</sup>

<sup>55</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, Indian Express, (19 January 1998), Appendix E: "Management control of the Indian operation by Swiss PTT", Swisscom Annual Report (1997), p. 36, Swisscom Document 20 F (1998), p. 35., Indian Express, (16 January 1998).

<sup>56</sup> Swisscom Form 20F (1998), p. 35.

This investment was Swiss PTT's first in Asia, and the carrier's international strategy. It hoped to secure and manage a portfolio of international investments and provide additional value to shareholders. This investment gave Swiss PTT a stake in India's leading cellular consortium, with four cellular licenses covering most of northern India. The joint venture was particularly strong due to the Delhi cellular license. Licenses in Haryana, Uttar Pradesh East and Rajasthan were taken to try to give Swiss PTT and Essar a dominant market position. At the end of 1997 there were around 125,000 customers in the four regions.<sup>57</sup>

Essar and Swiss PTT initiated talks in 1998 for increasing the latter's stake to a possible 49% in Sterling Cellular from 32.5% by buying the stake of C. Sivasankaran. The Swiss PTT also demanded more say in the management in its joint venture than what it already had. Company insiders say Swiss PTT was keen to have a bigger say in the Delhi's cellular operations, and, therefore, was keen on a higher stake.<sup>58</sup>

Swiss PTT also sought a 24 % stake in Sterling Cellular's parent company, Sterling Computers. Essar had received approval from the Foreign Promotion Investment Board (FIPB) in December 1997 to offload a 24 % stake in Sterling Computers to three overseas bodies: Asia Pacific Bonds, Asia Pacific Alliance and Asia Pacific Markets, the special purpose vehicles, from which Swiss PTT will buy its stake.<sup>59</sup>

However, these recapitalization collapsed due to a failure to obtain certain regulatory approvals relating to limitations on the foreign ownership of telecommunications licenses, and, more generally, to continued regulatory uncertainty within the Indian cellular industry.<sup>60</sup>

*Crisis and withdrawal.* In the meantime, Swisscom's telecom operations in Malaysia since 1996 was also declining due to the Asian economic crisis.

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<sup>57</sup> Indian Telecom 2000, Volume I (2000), p. 116., Express India, (26 February 1998), Indian Express, (16 January 1998).

<sup>58</sup> Indian Express, (19 January 1998), Appendix E: "Management control of the Indian operation by Swiss PTT", Indian Telecom, Volume I (2000), p. 116., Express India, (26 February 1998), Indian Express, (16 January 1998).

<sup>59</sup> Indian Express, (19 January 1998), Indian Telecom, Volume I (2000), p. 116., Express India, (26 February 1998), Indian Express, (16 January 1998).

<sup>60</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, Indian Express, (19 January 1998), Indian Telecom, Volume I (2000), p. 116., Express India, (26 February 1998), Indian Express, (16 January 1998).

Swisscom had invested in Mutiara Swisscom Berhad, which later changed to DiGi Swisscom. DiGi Swisscom was a holding company of Swisscom with 30% equity, listed on the Kuala Lumpur stock exchange. Due to Asian economic crisis the subscriber growth was very slow and the bad debt expense increased in DiGi Swisscom's core mobile telephony business.<sup>61</sup>

Eventually in 1998 nearly after 2 years after Swiss PTT paved way to the formation of Swisscom, it realized that Indian market is not its cup of tea. This was because results were not met and above all the market was far difficult than estimated. Too many big competitors, rigid laws, frequent changes in the rules, unfavorable role of regulators, unfair rules for competition and a financially unsound competition prevailed in the Indian telecom market. Swisscom attributed their loss to the weak financial position and liquidity of Sterling Cellular.<sup>62</sup>

*Refocusing of international strategy.* Finally in March 1999, the Board of Directors of Swisscom announced a plan to dispose of its operations in India and Malaysia due to refocussing of its international strategy on the "Heart of Europe" as well as the continued losses and other adverse economic conditions prevailing in Asia. Swisscom withdrew from the Indian market after writing down the book value of its investment in Sterling Cellular. The loss associated with these businesses was CHF 519 million in 1998.<sup>63</sup>

Swisscom claims its international operation in India and Malaysia as a short-term trial period. Since its withdrawal from the Asian market, Swisscom's focus is on the home and European market where it aims to maintain its market leadership in its core businesses of fixed network and mobile communications, and to invest in related growing businesses.<sup>64</sup>

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<sup>61</sup> Swisscom Annual Report (1998), pp. 32 ff, Swisscom Document 20 F (1998), p. 35.

<sup>62</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, Swisscom Annual Report (1998), pp. 33, Swisscom Document 20 F (1998), p. 35. Appendix E: "Swiss PTT quit Indian telecom market", "Slow down of Swiss PTT's work in India".

<sup>63</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, Swisscom Annual Report (1998), p. 33, Swisscom Document 20 F (1998), pp. 33, 35, 77, 94., Swisscom Financial Report (1998), pp. 5, 39., Appendix E: "Swiss PTT quit Indian telecom market".

<sup>64</sup> Interview with Mr. Antoine Andenmatten on 7.11.2002, Swisscom Document 20 F (1998), pp. 20, 94., Swisscom Annual Report (1998), p. 33, Swisscom Financial Report (1988), pp. 5, 39.

### 4.2.3 Analysis of the case

#### *Analysis 1: Strengths and weaknesses analysis*

The first analysis (I-1) shown in **Table IV-6** is the strengths and weaknesses analysis of Swisscom as referred in section 3. Swisscom was not privatized at the time of entering the Indian telecom market and was still operating under the banner of the state owned Swiss PTT.

From the analysis of the strengths and weaknesses of Swisscom it can be seen that Swiss PTT though the best in home market, having financial, technical and human resource competencies, lacked the practical knowledge of operating in a foreign market with competition. Yet its basic competencies enabled it to enter the Indian telecom market.

	Strengths	Weaknesses
Offers	<ul style="list-style-type: none"> <li>- Wide range of offers of services and products</li> <li>- Quality products</li> </ul>	<ul style="list-style-type: none"> <li>- No offers abroad</li> </ul>
Resources	<ul style="list-style-type: none"> <li>- Human resource and financial competency</li> <li>- Sound research and development competency</li> <li>- State-of-the-art technology</li> <li>- Long history and good records in telecom industry</li> <li>- Popular brand among Swiss customers</li> <li>- Increasing subscriber base in Switzerland</li> </ul>	<ul style="list-style-type: none"> <li>- No experience outside home market</li> <li>- No experience of competition</li> <li>- Not an international telecom brand</li> <li>- Not a clear understanding of the needs in the Indian market</li> </ul>

**Table IV-6: Analysis of strengths and weaknesses of Swisscom**

#### *Analysis 2: Market entry strategy analysis*

The second analysis (I-2) shown in **Table IV-7** is that of the market entry strategy followed by the company to enter the Indian telecom market as referred in section 3.

<p>1. Was the objective of the company to enter the Indian market realistic or unrealistic?</p>
<p>It was clear that privatization of Swiss PTT will lead to loosing of market share in its only market. Hence, Swiss PTT had to think of other means to compensate the loss. The booming Indian telecom market with a large potential and business compatibility did seem to be an ideal choice.</p> <p>Although, the company seems to have technological, financial and managerial compatibilities making it eligible to step into the international arena, yet its limitations could be considered a strong threat towards its long-term operation. The companies limited experience just from the home market, and then getting started with an altogether new market with an entirely different culture and mentality could be a too big challenge to the company.<sup>65</sup></p> <p>Hence, the objective of the company to enter the Indian market is stated to be ambitious.</p>
<p>2. Was the process of the market entry strategy followed by the company to enter the Indian market as proposed in the literature in chapter II?</p>
<p>The process began with the investigation of the legal possibilities to enter the Indian market, followed by market research. It was followed by the selection of joint venture as the mode of entry. Further it had to adapt its corporate strategy in order to incorporate its new international operation. Then it had to develop a business strategy for the new country market and finally the decision to go.<sup>66</sup></p> <p>Hence, the process of market entry strategy followed by Swiss PTT was similar to that of a company entering the foreign market for first time as given in the literature.</p>
<p>3. Did the market entry strategy followed by the company respect the 5 criteria of a good market entry identified in chapter II? They are (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows to operate efficiently.</p>
<p>Swisscom's choice to enter the Indian market was of course supported by its internal strengths in offers and resources that can be seen from its domestic operations.</p> <p>The company's choice to invest in cellular services segment was a wise decision as the cellular market was new and had a tremendous potential.</p>

**Table IV-7: Analysis of market entry strategy of Swisscom- I**

<sup>65</sup> Chapter II- sections 6.9 and 7.

<sup>66</sup> Chapter II- sections 3.2.1, 3.2.2, 6.9 and 7, table II-5, figure II-14.

Moreover, investment in cellular service is the most appropriate choice economically in a country like India, which lacks basic infrastructures for services such as fixnet that depends on it.

Though the condition of the Indian telecom market was such that a direct competition cannot be totally avoided due to a large number of telecom operators dynamically involved in it. But by choosing the non-metro regions of North India, where there were not many operators, Swisscom did avoid direct competition to a greater extent.

However, the company did not seem to have a clear and well-defined generic strategy rather the whole operation seemed to be centered on issues and disputes over equity and management.

Swiss PTT seemed to have a strong influence on the structure and control of the whole joint venture operation. It appears even when Swiss PTT began with a stake of 30% as against 49% of its Indian partner, Essar, it had its nominees in the key positions of the top management such as the Chief Executive Officer, Chief Operating Officer, Chief Financial Officer and Head of Marketing. From the case it appears, the steps taken by Swisscom to increase its stake in its Indian operation was more to have a stronger control. This shows Swisscom was over enthusiastic and wanted to have a dominant position in its Indian operation. Swisscom didn't work on a gradual and a steady rise in equity plan and control over operations that would have generated a better understanding between the two partners that would have been beneficial for Swisscom's long-term operation in India. Infact, structure and control is one of the vital aspects of any joint venture and has to be dealt very gently and wisely for the success of the joint venture, more so in a joint venture which has an altogether different cultural, social and legal strings attached to it. Therefore, in the case of Swisscom, the structure and control system that was chosen by Swisscom did not seem to allow its global operation strategy to operate efficiently.<sup>67</sup>

Hence, the market entry strategy followed by the company does not seem to respect all the criteria, but only 3 out of 5 criteria of a good market entry identified in chapter II.

#### 4. Was the market research adequate or inadequate?

Swiss PTT carried out a thorough market research with the help of various well-known consultancies. The research included all the areas an ideal market research would involve to understand the aspects of a new market.<sup>68</sup> Hence, the market research carried out by the company can be concluded as adequate.

### Table IV-7: Analysis of market entry strategy of Swisscom- II

<sup>67</sup> Chapter II- sections 2.2, 3.2.2, 5, 6.9 and 8.

<sup>68</sup> Chapter II- section 7.



5. Was the strategy followed by the company realistic or unrealistic?

In the strategy followed by the Swiss PTT, the choice of the mode of entry, the joint venture partner and the target market segment seem to be appropriate.

However, the execution of the strategy seems to be more at a superficial level without much deeper interest in the market. It seems to be a real hit and trial effort with greater emphasis on structure and control, than a committed and focused long-term interest.

Swisscom's operation in India was like that of a whirlwind. It entered the Indian market suddenly looking at the prospects in the Indian telecom market, was ready to invest in equity wherever possible, and wanted to see results immediately. And when things didn't happen as they expected they were quick to leave the market without wasting much more time or money because they realized that the Indian market is not as easy to win over as much attractive it seems to be. Moreover, they did not seem to have a vision for this market or for that matter for Asian market as a whole. This was perhaps a very expensive trial for Swisscom to try its hands on its luck before they quickly reorganized their new international strategy towards the "heart of Europe" after its privatization in 1998.

Hence, it is evident that Swisscom's realized strategy was not as its intended strategy.<sup>69</sup>

Hence, the strategy followed by the company is concluded as unrealistic.

**Table IV-7: Analysis of market entry strategy of Swisscom- III**

From the above analysis it can be seen that Swisscom had strengths on its side to favor its entry into the Indian telecom market and having been done a thorough market research with the help of specialized consultancies it was certain of the potential and opportunities that existed in the Indian market. Yet after stepping into the market it could not deal with the realities of the market instead it added to its hurdles by quick and incorrect decisions over rise in equity and control over management, on which it seemed to focus most of its time and effort.

Hence, it can be concluded that the market entry strategy followed by Swisscom had loopholes which when unattended turned out to be a bad strategy.

<sup>69</sup> Chapter II- section 3.1.

### Analysis 3: Performance analysis

The third analysis (I-3) shown in **Table IV-8** is the performance analysis of the company in the Indian telecom market. This analysis gives an overview of how successful or unsuccessful the company is in the Indian market as referred in section 3.

1. Current presence or absence in India.
<p>Currently, Swisscom is not present in India and it operated only for a short period, that is, nearly two years.</p> <p>Swisscom walked out of the Indian telecom market due to the following reasons:</p> <ul style="list-style-type: none"> <li>● Tough competition and too many competitors</li> <li>● Rigid telecom policies and regulatory restrictions</li> <li>● Unfavorable role of regulators</li> <li>● Unfolding of unexpected and unfavorable events from the new market due to change in the rules in the telecom market</li> <li>● Cultural differences in managerial functions and operations</li> <li>● Lack of patience on the part of the company</li> <li>● Huge loss of money due to weak financial position and liquidity of the joint venture partner</li> <li>● Reconsideration of its international strategy and future investment plans in Europe</li> </ul>
2. Current market position and its trend. <sup>70</sup>
<p>Swisscom is currently operating in its home and European market where it is maintaining market leadership in its core businesses of fixed network and mobile communications, and investing in related businesses.</p>
3. Competitive advantages and disadvantages at the level of offers and resources. <sup>71</sup>
<p>Swisscom's competitive advantages and disadvantages at the time of its operation in India were as follows:</p> <p>3.1 Offers:</p> <p>Advantages</p> <ul style="list-style-type: none"> <li>● State-of-the-art technology</li> <li>● Wide range of offers and services</li> </ul>

**Table IV-8: Analysis of performance of Swisscom-I**

<sup>70</sup> Chapter II- section 2.2.

<sup>71</sup> Chapter II- section 2.2.

- Financial power

#### Disadvantages

- Good image but only in Switzerland
- Quality brand but known only in Switzerland

#### 3.2 Resources:

##### Advantages

- Influential Indian partner
- Research and development
- Experience from home market such as know-how from its hilly and mountainous geography

##### Disadvantages

- Lack of experience abroad
- Lack of experience in a highly competitive environment

### **Table IV-8: Analysis of performance of Swisscom-II**

The above analysis explains why Swisscom, though a very reputed company in the home and European market, was not a successful company in the Indian telecom market.

#### **4.2.4 Conclusion**

The analysis of the case of Swisscom shows that it is a case of an unsuccessful company from the services segment of the Indian telecom market and the following conclusions can be driven from the case:

- Swisscom thought to win the Indian telecom market by its technical strengths alone, overlooking the legal, social and cultural aspects of the joint venture. Swisscom's lack of experience in a highly competitive environment and operations abroad outweighed its financial and technical competency that it seemed to rely on in the Indian market.
- Swisscom did a thorough market research with the help of consultancies before entering the Indian market, made a good choice of investment by stepping into cellular services, and avoided direct competition in India by choosing non-metro regions other than Delhi. However, it did not seem to follow a well-defined generic strategy and its operation in India seemed more superficial.

- Swisscom rightly understood joint venture as the best mode of entry into the Indian telecom market however its high influence on structure and control points towards its dominant role in the joint venture though its stake was lesser than its partner.
- Swisscom's quitting the Indian market can not be blamed completely on it because the prevailing conditions in Indian telecom market at that time such as tough competition, too many competitors, rigid telecom policies, regulatory restrictions, unfavorable role of regulators, changing rules of the telecom market, coupled with cultural differences in managerial functions, weak financial position and liquidity of the joint venture operation all led to such a decision.
- The Indian telecom market is a relatively easy market because of language competency with English being the business language. However, the offers and services will be more effective only when it is communicated in the local language, which varies entirely from region to region. Hence, in order to make matters much simpler it is better to operate hand in hand with a local partner, just as Swisscom did in its regions of operation in India.
- Indian telecom market though is a promising market yet was not a very easy market ten years back due to its recent privatization, strong red-tapism and bureaucracy, and rigid laws and unfavorable role of regulators at that time.
- Most of the places in India are technically difficult to wire, and to do so, it would require a huge investment. This is due to the large size of the country and the lack of basic infrastructure. Hence, for many of the foreign companies wireless segment and related services could be of much interest.
- Competitive advantages such as Swisscom's knowledge and experience from its mountainous home market, Switzerland, could be used for the upliftment of the hilly and mountainous regions of India where the tele-density is too low and is one of the greatest concerns of the government of India.

## 4.3 Alcatel

### 4.3.1 The company

Alcatel is a France based manufacturing company providing end-to-end communication solutions, enabling carriers, service providers and enterprises to deliver voice, data or multimedia content. Alcatel's business is divided into three business groups: fixed communications, mobile communications and private communications. It has operations in 130 countries with 56,000 employees, and displays 20 nationalities among its top 340 managers. It earned Euro 12.3 billion in sales with a net profit of Euro 281 million in 2004. The distribution of sales geographically is 7% in Eastern Europe, 43% in Western Europe, 18% in North America, 19% in Asia, and 13% in rest of the world. The distribution of sales in terms of business groups was 46% in fixed communications, 26% in mobile communications and 28% in private communications.<sup>72</sup>

**Table IV-9** shows the different business groups and activities of Alcatel.

In order to consolidate its competitive position, Alcatel has maintained a substantial research and development program focused on sectors and product lines that offer the greatest growth potential. It has 18,700 engineers working in R&D activities worldwide. In 2002, the budget for R&D totaled Euro 2.2 billion, representing 13.5% of sales, up from 11.3% in 2001. Alcatel's research and development policy is designed to focus on innovations that create the greatest value for customers, such as applications dedicated to the new multimedia services. It is concentrated on the sectors in which the company has a technical edge and can gain market share, such as carrier- class IP networks or those sectors in which it can consolidate its leading position in terms of sales and marketing, such as broadband access.<sup>73</sup>

### 4.3.2 The market entry strategy

*Background.* Alcatel has been active in India for more than two decades and had maintained its position as one of the leading providers of end-to-end

<sup>72</sup> Alcatel in brief (2003), p. 2., Alcatel company presentation (2003), pp. 2, 15., Alcatel company presentation (2005), pp. 4, 5, 7, 16.

<sup>73</sup> Alcatel in brief (2003), p. 3.

Fixed communications	Mobile communications	Private communications
<ul style="list-style-type: none"> <li>● Pioneer in digital switching</li> <li>● World's largest digital line installed base with 18%</li> <li>● Number 1 in optical networking with 15% market share</li> <li>● Number 2 in multi-service wide area networks with 22% of the market</li> <li>● World leader in broadband access technologies with 38% cumulative market share</li> </ul>	<ul style="list-style-type: none"> <li>● Leader in Intelligent Network applications, messaging and payment solutions for the mobile environment</li> <li>● Provides mobile infrastructure solutions to one out of four GSM/GPRS operators in the world with market growth of 20% in three years in its market share</li> </ul>	<ul style="list-style-type: none"> <li>● Addresses non-carrier communication market</li> <li>● Offers convergent network solutions and interaction management to enterprises</li> <li>● Offers transport solutions to transportation companies which includes Alcatel's integration and services activities, operation and maintenance, consulting, turnkey design, and build and operations support which contributes to 15% of Alcatel's sales</li> </ul>

**Table IV-9: Business groups and activities of Alcatel**<sup>74</sup>

telecommunications and internet-based solutions to customers in the public as well as private sectors. Alcatel is one European company, which has taken the American companies, including the new generation ones, head-on, while most others have chosen their niches and are marginal players in India.<sup>75</sup>

*Market entry.* Alcatel started its Indian operations in 1982 by forging collaboration with an Indian public sector telecom equipments manufacturing company, Indian Telephone Industries Limited (ITI) in a place called Mankapur in the state of Uttar Pradesh in North India. This partnership with ITI was for transfer of Alcatel's digital subscriber switching technology. This collaboration gave Alcatel a major market share

<sup>74</sup> www.alcatel.com, Alcatel company presentation (2005), p. 8.

<sup>75</sup> Interview questionnaire, The Hindu Business Line (18 December 2002/ 6 February 2003/ 8 October 2003), Voice and Data (July 2001).

in the Indian market for switching products as the Government, the telecom monopolist at that time, was the major buyer of the products of Alcatel manufactured by ITI.<sup>76</sup>

Gradually, Alcatel started expanding its coverage and marketing efforts to the private operators segment. In 1991, it set up a joint venture with the Modi group and established a plant in Gurgaon near Delhi to manufacture switching equipments. During the same year it also created a joint venture with a Delhi based Indian partner Telerec Communications, whose shares it bought back in 2000. In 1995, it formed Alcatel Business Systems joint venture in Bangalore. In 1996, Alcatel installed turnkey installations of Koshika Telecom's GSM network in the regions of Orissa, Bihar and UP. In 1998, Alcatel established its software center in Chennai. Finally in 1999, it bought Modi's shares and set up Alcatel India, a 100 percent subsidiary of Alcatel.<sup>77</sup>

Currently, Alcatel's manufacturing facility in Gurgaon, the enterprise-business organization in Bangalore, and software centers in Bangalore, Chennai and Gurgaon accounts for 800 employees. Beyond this, approximately 2,000 Indian software engineers contribute to Alcatel's worldwide high tech development program through subcontracting agreements. Alcatel identifies India as a key country for its growth with two facilities in Gurgaon and Chennai and with India as home to Alcatel's competence center for Intelligent Networks (IN) from where they support the IN in 15 countries.<sup>78</sup>

*Market research.* Alcatel performed a normal overall market research of the potential of the Indian telecom market when it first stepped into the market in collaboration with the Indian monopolist. In the interview the CEO of Alcatel International, Mr. Michel Vetil and et al said that Alcatel kept very close watch in tracking the market and activity of its competitors. In addition, it they also performed market research to understand the purchase pattern and requirements of its customers both technically and commercially in order to give them the "best match" offerings.<sup>79</sup>

<sup>76</sup> Interview with Mr. Michel Vetil and Mr. Amresh Sood on 14.03.2002, The Hindu Business Line (6 February 2003/ 8 October 2003), Newslink (2001) p. 22.

<sup>77</sup> Interview with Mr. Michel Vetil and Mr. Amresh Sood on 14.03.2002, Voice and Data (April 2002), Newslink (2001) p. 22., The Hindu Business Line (18 December 2002).

<sup>78</sup> Newslink (2001) p. 22., Voice and Data (July 2002), Voice and Data (December 2003), The Hindu Business Line (8 October 2003).

<sup>79</sup> Interview with Mr. Michel Vetil and Mr. Amresh Sood on 14.03.2002.

Alcatel from its market research, experience and knowledge of the Indian telecom market perceived that the overall market outlook for telecom equipment and services is bullish due to the liberalization policy and the tele-density targets the government has set up. Hence, the telecom sector represented a huge opportunity.<sup>80</sup>

*Offers.* Alcatel takes the pride of introducing the right products in India since the beginning.<sup>81</sup> At present, it offers a complete suite of telecom solutions and services to meet the needs of the challenging market in India. It manufactures switching and transmission equipment and markets a broad range of telecommunications solution, develops software, offers turnkey solutions and is also active in satellite space in India. It supplied the submarine fiber optic link between Singapore and India to Bharti-SingTel joint venture. In Global Services for Mobile (GSM), it provides complete infrastructure for cellular networks. In 2001, it bagged the largest ever-single order for fixed line switching of 100,000 plus lines placed by BSNL Limited. Currently, Alcatel is the first multinational to manufacture GSM handsets in India. With over 2,000 node installed, Alcatel has references with major public and private operators, utilities, banks, administrations and software companies.<sup>82</sup>

*Market share.* Alcatel grew about 29% in the fiscal year 2001-02 and registered a turnover of USD 540 million. Alcatel has emerged as the single largest supplier of digital switching in India with 50% market share. In transmission, Alcatel has 29% of the digital microwave market. It has a market share of 66% for multiplexer and 42% for Asynchronous Transfer Mode/Frame Relay.<sup>83</sup>

*Strategy.* Alcatel claims to have followed a very aggressive strategy in the Indian telecom market from the very beginning.<sup>84</sup> It's strategy for growth in India is in line with its global strategy that outlines equal focus on all lines of businesses, including wireline carrier, wireless carriers and non-carrier business such as space and transport. Alcatel continues not only to

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<sup>80</sup> The Hindu Business Line (8 October 2003).

<sup>81</sup> Interview with Mr. Michel Vetil and Mr. Amresh Sood on 14.03.2002.

<sup>82</sup> The Hindu Business Line (6 February 2003/ 8 October 2003), Voice and Data (April 2002), Newslink (2001) p. 22.

<sup>83</sup> Newslink (2001) p. 22., Voice and Data (July 2002), The Hindu Business Line (8 October 2003).

<sup>84</sup> Interview with Mr. Michel Vetil and Mr. Amresh Sood on 14.03.2002.



consolidate but also to expand its presence in new segments for the wireline market. Over two decades of experience in the Indian market has provided Alcatel with significant insight into the market. Alcatel is geared to leverage its experience and the advantage of having a manufacturing set-up in India to meet the requirements of the market. In order to increase its focus in India, Alcatel has shifted its headquarters for the Indian subcontinent from Paris to Delhi in 2002 and has made Ravi Sharma an Indian as its Managing Director and Vice President. Alcatel's strategy intends to break through its wireless market in India and overcome the threat from its competitors such as Cisco.<sup>85</sup>

From its base in India, Alcatel is also reaching out to countries bordering India. For instance, in December 2004, Alcatel signed a turnkey agreement with Bhutan Telecom for the implementation of the rural telecommunications in the Royal Kingdom of Bhutan. Alcatel has won the contract through international competitive bidding with stiff competition from Ericsson and Simco Maritime (Denmark). The project value is approximately Euros 16 million and is financed through a Danish Loan from Royal Danish Ministry of Foreign Affairs (DANIDA). In this way Alcatel helps to bridge the digital divide in the Himalayas, and Alcatel India will provide services for this and will look after the annual maintenance in the years to come.<sup>86</sup>

Alcatel wants to make the best out of the prevailing opportunity in the Indian telecom market. That is the:

- growth of wireless and fixnet differently from application to application and region to region
- shift of voice traffic in urban areas towards wireless and the growing data traffic primarily carried on wireline
- growth of fixed line telephony much faster than wireless in semi-urban and rural areas
- growth of Internet and broadband deployment in urban areas
- growth of use of VSATs in space-related technologies.

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<sup>85</sup> The Hindu Business Line (18 December 2002/ 8 October 2003), Voice and Data (December 2003).

<sup>86</sup> [www.alcatel.co.in/feature/](http://www.alcatel.co.in/feature/)- Feature stories, (February 2005). [www.alcatel.com](http://www.alcatel.com)- Press release, Paris, (December 1, 2004).

### 4.3.3 Analysis of the case

#### *Analysis 1: Strengths and weaknesses analysis*

The first analysis (I-1) shown in **Table IV-10** is the strengths and weaknesses analysis of Alcatel as referred in section 3. This analyses the overall condition and the background of the company and assesses if the company was in a position to enter the Indian telecom market.

	Strengths	Weaknesses
Offers	<ul style="list-style-type: none"> <li>- Wide range of products and services</li> <li>- Aggressive sales and marketing</li> <li>- Quality products and recognition as world leader in manufacturing of telecom products and a range of telecom technology</li> </ul>	<ul style="list-style-type: none"> <li>- Alternative products and services from competitors in India such as Cisco, Lucent, Nortel Networks</li> </ul>
Resources	<ul style="list-style-type: none"> <li>- Large work force &amp; professional staff</li> <li>- Sound financial position</li> <li>- Innovative research and development</li> <li>- Brand image and recognition in the telecom industry</li> <li>- Competency in international dealings and strategy</li> <li>- Experience from its world wide operations</li> </ul>	<ul style="list-style-type: none"> <li>- Managerial competency to deal with the market situation in India</li> </ul>

**Table IV-10: Analysis of strengths and weaknesses of Alcatel**

From the analysis of strengths and weaknesses of Alcatel it can be concluded that Alcatel not only had basic competencies to step into the Indian telecom market but also was one of the best in the telecom market.

#### *Analysis 2: Market entry strategy analysis*

The second analysis (I-2) shown in **Table IV-11** is that of the market entry strategy followed by the company to enter the Indian telecom market as referred in section 3.

1. Was the objective of the company to enter the Indian market realistic or unrealistic?
<p>Alcatel was already operating worldwide and saw investment opportunity in India from a public sector company. From the previous analysis it can be seen that Alactel had the competency to go ahead with this investment. This investment would increase the company's regional market share in the Asian operation and the company saw it as increased opportunity in the future due to the large market potential tapped in this regional market.<sup>87</sup></p> <p>Hence, the objective of the company to enter the Indian market is said to be realistic.</p>
2. Was the process of the market entry strategy followed by the company to enter the Indian market as proposed in the literature in chapter II?
<p>When Alcatel entered the Indian market more than two decades back, the market was entirely different from what it is today. It was not privatized and was governed by the monopoly of the government. Alcatel's investment in India rose more as an investment offer from the government of India. It started its operation in collaboration with the Indian public sector company and later used the opportunities to make partnerships with different public and private sector companies and gradually expanding its operation over the period and finally setting up its own subsidiary in the country.<sup>88</sup></p> <p>Hence, the process of market entry followed by Alcatel was that of an internationally active company that expands to one or more market as given in the literature.</p>
3. Did the market entry strategy followed by the company respect the 5 criteria of a good market entry identified in chapter II? They are (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows to operate efficiently.
<p>Yes the market entry strategy of Alcatel was based on its strengths, and the investment segment chosen was the best in the industry at that time. Initially, Alcatel did not encounter much competition in India due to government monopoly. However, later on when competition started to creep in the market, it had a strong stand in the market and there were not too many telecom companies, which could compete with it as most of the telecom companies unlike Alcatel operated only in niche market. Thus Alcatel's wide market coverage allowed it to avoid direct competition. It followed a clear generic strategy of differentiation from the commencing of its operation in India, which</p>

**Table IV-11: Analysis of market entry strategy of Alcatel- I**

<sup>87</sup> Chapter II- sections 6.9 and 7.

<sup>88</sup> Chapter II- sections 6.9 and 7, table II-5, figure II-14.

resulted in its success in India. Till the time Alcatel established its stronghold in India, structure and control system was more governed by the parent company headquartered in France. However, its successful operation in India has resulted in the reorganization of this structure and control by shifting the headquarters for the Indian subcontinent from Paris to Delhi and by making an Indian to be the Managing Director and Vice President of the operation. This move was done considering its global operation strategy for the benefit of the entire Alcatel world wide operation.<sup>89</sup>

Hence, the market entry strategy followed by the company does seem to respect all the criteria of a good market entry identified in chapter II.

#### 4. Was the market research adequate or inadequate?

As the Indian market did not have competition at the time when Alcatel first entered the Indian market, it did not feel the need to do an extensive and thorough market research but just an assessment of the potential of the market.

It is evident that later as the market was made open for competition through market research it kept a close watch of the market and tracking the activity of its competitors, purchase pattern and requirements of its customers both technically and commercially in order to give them the “best match” offerings.<sup>90</sup>

Hence, the market research carried out by Alcatel was adequate for its market entry.

#### 5. Was the strategy followed by the company realistic or unrealistic?

Alcatel’s strategy in India followed a steady and consistent move.

The company seemed to be convinced of the potential of the market and thus its strategy was aimed at tapping this potential keeping long-term goal in mind.

The strategy of the company showed deep interest in the market and coupled it with patience and perseverance.

It’s strategy for growth in India is in line with its global strategy that outlines equal focus on all lines of businesses, including wireline carrier, wireless carriers and non-carrier business such as space and transport. It not only consolidates but also expands its presence in new segments for the wireline market.

Alcatel is also reaching out to countries bordering India from its Indian operation, such as the Euro 16 million project in Bhutan to reduce the digital divide in the country.

**Table IV-11: Analysis of market entry strategy of Alcatel- II**

<sup>89</sup> Chapter II- sections 2.2, 3.2.1, 3.2.2, 5, 6.9 and 8.

<sup>90</sup> Chapter II- section 7.

The strategies involved introduction of the right product from the beginning thus making it a pioneer in a number of telecom related activities in the country.

Hence, the strategy followed by the company is concluded as realistic.<sup>91</sup>

### **Table IV-11: Analysis of market entry strategy of Alcatel- III**

From the above analysis it can be concluded that the market entry strategy followed by Alcatel was steady and effective from the time it entered the Indian market more than two decades back. The above analysis points that the market entry strategy followed by Alcatel was a good strategy.

#### *Analysis 3: Performance analysis*

The third analysis (I-3) shown in **Table IV-12** is the performance analysis of the company in the Indian telecom market. This analysis gives an overview of how successful or unsuccessful the company is in the Indian market as referred in section 3.

1. Current presence or the duration of operation in India.
Alcatel is currently operating in the country and it is operating for more than 20 years now.
2. Current market position and its trend. <sup>92</sup>
<ul style="list-style-type: none"> <li>• Leading provider of end-to-end telecommunications and internet-based solutions to customers in the public as well as private sectors in the country</li> <li>• Largest supplier of digital switching equipments in the country</li> <li>• First multinational to manufacture GSM handsets in India</li> </ul>
3. Competitive advantages at the level of offers and resources. <sup>93</sup>
3.1 Offers:
<ul style="list-style-type: none"> <li>• A complete suite of telecom solutions and services to meet the needs of the challenging Indian market</li> <li>• Manufacturing of switching and transmission equipment in the country, which makes its product cheap though best in quality</li> </ul>

### **Table IV-12: Analysis of performance of Alcatel-I**

<sup>91</sup> Chapter II- section 3.1.

<sup>92</sup> Chapter II- section 2.2.

<sup>93</sup> Chapter II- section 2.2.

- Marketing of a broad range of telecommunications solution, developing software, offering turnkey solutions, and satellite and space related activities
- Large market share in India
- Quality products

### 3.2 Resources:

- Manufacturing facilities and software centers in Gurgaon, Chennai and Bangalore and recognizing India as key country for its growth
- Professional Indian work force with contribution to its worldwide high tech development program
- Research and development making India as Alcatel's competence center for Intelligent Networks (IN) from where they support the IN in 15 countries
- References with major public and private operators, utilities, banks, administrations and software companies in India makes it a popular company in the nation
- Reputation leading to bagging of huge orders in the country such as fixed line switching of 100,000 plus lines
- High brand image
- Secure financial position with large turnover
- Long years of presence and understanding of the India market
- Headquarters for Indian operation within the country and having an Indian head of the operation

## **Table IV-12: Analysis of performance of Alcatel-II**

The above analysis of the performance of Alcatel's operation in India shows that it is currently present in the country and expanding its operation successfully not only in India but outside India keeping India as its base. This analysis indicates that Alcatel is successful company in India.

### **4.3.4 Conclusion**

The analysis of the case of Alcatel shows that it is a case of a successful company from the manufacturing segment of the Indian telecom market and the following conclusions can be driven from the case:

- Alcatel gradually increased the ownership and control of foreign operation first by choosing strategic alliance and then later establishing a wholly owned subsidiary, moving gradually up the ladder of investment and risk as referred in section 6.2 of chapter II.

- The strategy of Alcatel in Indian telecom market was as a result of its deep interest in the market, which was supplemented with patience and perseverance from its side. Alcatel seemed to be convinced of the potential of the Indian market and thus its strategy was aimed at tapping this potential keeping long-term goal in mind.
- Alcatel's strategy for growth in India was in line with its global strategy and its operations not only aimed at consolidating but also in expanding in new market segments with opportunity.
- Alcatel avoided direct competition and followed a clear generic strategy, which resulted in its success in India. Also Alcatel's decision to reorganize its structure and control by shifting the headquarter from the Indian subcontinent from Paris to Delhi and by making an Indian to be the head of the operation, turned out to be in the best interests of the overall global operation strategy and Alcatel's worldwide operation, as well as success in India.
- Alcatel through market research kept close watch of the Indian telecom market, tracking the activity of its competitors, purchase patterns and requirements of its customers technically and commercially to give them a best match offer. This shows its emphasis on market research, research and development and customer care and relationship.
- References with major public and private operators, utilities, banks, administrations and software companies in India made Alcatel a popular company in the nation.
- Manufacturing switching and transmission equipments in India makes it more cost effective, as it becomes much more cheaper without compromise in quality. Also having a production base in India makes it easier to access the rest of Asia-Pacific, countries of the underdeveloped regions of Africa, and the world due the availability of skilled and competent manpower at low cost.

## **4.4 Avaya**

### **4.4.1 The company**

Avaya is a US based global leader in communication systems, applications and services. It designs, builds, deploys and manages networks for enterprises. Its customers, which are more than 1 million businesses worldwide, range from small businesses and nonprofit agencies up to more than 90% of the companies in the Fortune 500, and the U.S. government. They all rely on Avaya for reliable, secure networks that facilitate customer relationships, enhance productivity and maximize profitability.<sup>94</sup>

Avaya's unique combination of communications applications, systems and services help simplify complex communications and work with existing technologies from other vendors, enabling customers to unlock value and potential from their network. Avaya by embedding communications into the very business processes of an enterprise helps to improve the way organizations work by making people more productive, processes more intelligent and customers more satisfied.<sup>95</sup>

Avaya's existence as a standalone company began on 2 October 2000, when it was spun off from Lucent Technologies and began trading on the New York Stock Exchange. For more than a century prior to that it was a part of Western Electric, AT&T, and Lucent.<sup>96</sup>

Avaya employs approximately 20,000 people, including some 2,500 research and development professionals worldwide in more than 90 countries. Avaya global services has approximately 9,000 services experts worldwide, supported by 24 network operations centers, 13 technical support centers and unique patented design and management tools. Avaya has about 2,500 authorized or certified partners worldwide. Avaya's network of partners and alliances unites business partners, alliances, consultants, service providers, and developers under a single worldwide program.<sup>97</sup>

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<sup>94</sup> Avaya at a glance (2005), Avaya corporate overview (2003), p. 5, Avaya Annual Report (2004), p. 135, Avaya Annual Report (2001), p. 4., Avaya 10 F document, [www.avaya.com](http://www.avaya.com).

<sup>95</sup> Avaya at a glance (2005).

<sup>96</sup> [www.avaya.com](http://www.avaya.com).

<sup>97</sup> Avaya corporate overview 2003, p. 4.



Avaya's vision, which is converged communication, is fueled by the technology work of its world-class Research and Development (R&D) organization, Avaya Labs. Avaya Labs includes about 2,000 R&D professionals located around the globe. The majority of Avaya Labs people are aligned with the Avaya businesses, developing Avaya's new offers. Additionally, a small group of scientists in Avaya research labs are focused on investigating the basic technologies needed for converged communications. A commitment to R&D excellence, a drive to innovate, and a dedication to meeting the needs of Avaya's customers are values shared by all of the people of Avaya Labs.<sup>98</sup>

For the Fiscal year ending September 2004, Avaya had a revenue of USD 4069 million and operating income of USD 323 million as against the revenue of USD 3796 million and operating income of USD 63 million in 2003.<sup>99</sup>

It has leadership positions in several businesses in several geographical regions. It is number 1 in the following:

- North American enterprise telephony,
- U.S and worldwide IP telephony,
- Worldwide voice messaging, unified communication and unified messaging,
- Call centers in North America, Western Europe and Asia Pacific,
- U.S. PBX maintenance services, and
- Worldwide enterprise structured cabling solutions market.<sup>100</sup>

#### 4.4.2 The market entry strategy

*Background.* In 1995, a private Indian telecom equipment manufacturing company, Tata Telecom, belonging to the Industrial conglomerate Tata group entered into an agreement to market some of the products of USA based company AT&T in India. In 1996, AT&T gave birth to Lucent Technologies. Perceiving the growing telecom market and the increase in demand for telecom equipments and solutions in India, Lucent Technologies formed an equal joint venture with Tata Telecom in April

<sup>98</sup> www.avaya.com.

<sup>99</sup> Avaya Annual Report (2004), p. 2.

<sup>100</sup> The Hindu Business Line (8 October 2003), Avaya at a glance (2003/2005), Avaya Annual Report (2005), p. 2.

1997. In October 2000, the enterprise networks group of Lucent Technologies spun off as a separate company and led to the formation of Avaya.<sup>101</sup>

*Market entry.* Avaya is present in the Indian telecom market right after its formation in 2000 through a joint venture with Tata Telecom. The joint venture company Tata Avaya, which is well known in the country as Tata Telecom began as an equal joint venture company between Avaya and Tata. Infact, Avaya benefits from the experience that Tata Telecom has in India and incorporates them in products that it develops. Avaya's contribution to the joint venture company is in terms of equity and technology, the sole representative of Avaya in the management of its joint operation in India was the CEO of the joint venture company from the beginning. The top management positions in the company were not dominated by Americans. The operation was entrusted to be headed by the Indian CEO and collaborators from India. In September 2004, Tata Telecom, the joint operation of Tata and Avaya in India was rechristened as Avaya Globalconnect subject to change in shareholder and regulatory approvals.<sup>102</sup>

Avaya GlobalConnect Limited is a leading enterprise converged communication solutions provider in India. It does not manufacture a particular product but provides a set of products to businesses in the form of solutions and services related to these solutions. That means, though it does not have manufacturing activities in India, for the purpose of foreign direct investment it comes under the broad category of equipment suppliers segment of the telecom industry in the country.<sup>103</sup>

With the formalization of the launch of Avaya's new subsidiary, the company gained 500 additional employees in India. Mark Leigh, President, Avaya Asia Pacific, said: "India is fast becoming a force to reckon with in the global markets. Over the years, the company has exhibited a 26 percent compounded annual growth rate (CAGR) and will continue to maintain a

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<sup>101</sup> Voice and Data (July 2001), Lucent Technologies press release (20 January 1997), Lucent Technologies press release (17 January 1995).

<sup>102</sup> Interview with Mr. Niru Mehta on 24.09.2001, Dataquest (April 2003), Convergence Plus (8 September 2004), Digital Media Asia (29 September 2004), Avaya GlobalConnect Annual Report 2004-05, p. 2, [www.avayaglobalconnect.com](http://www.avayaglobalconnect.com).

<sup>103</sup> Convergence Plus (8 September 2004), Digital Media Asia (29 September 2004), [www.avayaglobalconnect.com](http://www.avayaglobalconnect.com).

22-25 percent CAGR in the years to come. I am confident that together, Avaya GlobalConnect and Avaya will deliver superior value proposition for all stakeholders.” Avaya Global Connect, meanwhile, will continue to provide end-to-end converged communication solutions with support from its Avaya India Development Centre located in Pune and Avaya Labs in the Asia-Pacific, and around the world for R&D in converged solutions, customer relationship management and unified communications solutions, as well as consulting and integration services. This center also houses the Avaya Global Solutions Support Center.<sup>104</sup>

*Strategy.* On entering the market Avaya GlobalConnect employed a strategy that gives ability to play in the market and to be flexible allowing it to grow as the market grows. It set the first 18 months as the timeframe and executed its strategies well. However, there were some deviations partly because of issues such as government, infrastructure, bank, band width, domestic long distance network, data network pricing etc. As a part of its strategy, Avaya GlobalConnect also promotes the advantage of India in the other markets by organizing events such as ‘Destination India’ in the global marketplace.<sup>105</sup>

Avaya GlobalConnect currently focuses its strategy to channelize the following opportunities and threats it sees in the Indian market.

- Customer base- Large installed customer base offers opportunity to address their needs for communication technology upgrade on continual basis. As new companies also set up offices, this is likely to open up additional opportunities.
- Improving Economic Condition- There is a general improvement in the overall economic conditions in India, which will lead to higher investment in technology by businesses, specifically relating to communication. It is expected that more companies will opt for technology upgrades.
- Enhanced Solutions Portfolio- The Company’s initiative on strategic partnerships with best-in-class vendors is expected to provide sustained revenue growth. The new partnerships are expected to contribute higher revenue over a period of time as acceptance and deployment increases.

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<sup>104</sup> Convergence Plus (8 September 2004), Digital Media Asia (29 September 2004), [www.avayaglobalconnect.com](http://www.avayaglobalconnect.com).

<sup>105</sup> Interview with Mr. Niru Mehta on 24.09.2001, Tata Telecom news release (21 May 2003), Tata Avaya company presentation (2003), Chapter II- section 3.2.2.

- The small and medium business enterprises have shown increased desire in spending on communication technology and this is expected to provide new opportunity for converged communication solutions.
- Destination India for outsourcing- India has been a preferred destination for Business Process Outsourcing (BPO) for some time. However, there could be challenges as to how long this can be sustained at the current rate. As other countries are increasing their focus on outsourcing by offering attractive avenues to foreign multi national companies (MNCs), this pose a challenge to the company.
- A number of new players have entered the Contact Center and Convergence Solution business. They are also increasing their penetration by expanding presence and giving extremely competitive offers to penetrate the market and Avaya GlobalConnect will have to face this challenge while continuing to grow in the market place.<sup>106</sup>

*Market research.* According to the CEO, Niru Mehta, market research alone is not appropriate to enter the India market. He feels that the Indian telecom market is so dynamic that market conditions sometimes changes by very short duration and even unexpectedly making the data obtained less effective. Hence, an adequate market research focusing on the essentials must be carried out and this is what Avaya is doing in India.<sup>107</sup>

*Offers.* Avaya GlobalConnect offers a comprehensive suite of converged solutions, contact center solutions and customer services. The main service groups of Avaya in India are enterprise voice solutions, contact center and customer relationship management solutions and teleconferencing. It is number 1 in each of these businesses with a market share of 36%, 60% and 20% respectively. It is a market leader in contact center solutions with over 60% market share and is also India's leading telephony and video communication solutions provider.<sup>108</sup>

Avaya GlobalConnect recognizes the Indian IP telephony market to have a lot of potential. It is also the number 1 player in India in the IP telephony, with a market share of 43%. India leads the market in outsourcing contracts from the USA. These contact centers were the first to use IP telephony

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<sup>106</sup> Avaya GlobalConnect Annual Report (2004-2005), p. 20.

<sup>107</sup> Interview with Mr. Niru Mehta on 24.09.2001.

<sup>108</sup> Interview with Mr. Niru Mehta on 24.09.2001, Tata Avaya company presentation (2003), [www.avayaglobalconnect.com](http://www.avayaglobalconnect.com).

products and back-office operations. India is on top of the outsourcing destination list with benefits of location, skilled labor force, and more. Avaya GlobalConnect wants to expand its product portfolio in India to meet the emerging challenges and strengthen its market position. Its IP Telephony products are categorized by increased capabilities and scalabilities, enabling third party integration with software and introduce multimedia contact centers in India. It also wants to educate its customers by interacting with them about the benefits and uses of IP.<sup>109</sup>

Avaya GlobalConnect's eCommunications is enabling India corporate leapfrog into a new era of communications. 75 per cent of India's top business houses utilize Avaya GlobalConnect's converged communications solutions.<sup>110</sup>

With an existing strength of 500 professionals with another 500 added to it after its rechristening as Avaya GlobalConnect in 2004, Avaya GlobalConnect has over 30 offices spread across the country, from Jammu to Trivandrum to Ahmedabad to Siliguri. The company has an extensive distribution network comprising over 50 systems integrators, channel partners and dealers. With over 6,000 customers, it provides world-class service support through a remote maintenance integration (RMI) system. In order to provide best-in-class converged communications products and solutions, Avaya GlobalConnect has partnered global technology leaders-Polycom, the world's leading video-conferencing solutions provider; Nice Systems, the Israel-based customer experience management specialist and LG, a leading global player in EPABX and KTS products. It also has strategic alliances with systems integrators such as IBM, HP, Netsol and Servion. It has a distribution network of 58 business partners comprising systems integrators, value added resellers and channel partners.<sup>111</sup>

*Financials.* Currently it is a healthy situation and world-class performance for Avaya GlobalConnect in India, with market share growing rapidly at 34%. However, it was not so in the first few years of the operation during which the situation was very bad and negative. In the financial year 2002-03, Avaya GlobalConnect (Tata Telecom) recorded a turnover of USD 70 million as compared to USD 60 million in the previous year, reporting a

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<sup>109</sup> Interview with Mr. Niru Mehta on 24.09.2001, Dataquest (April 2003).

<sup>110</sup> Interview with Mr. Niru Mehta on 24.09.2001, [www.avayaglobalconnect.com](http://www.avayaglobalconnect.com).

<sup>111</sup> Interview with Mr. Niru Mehta on 24.09.2001, [www.avayaglobalconnect.com](http://www.avayaglobalconnect.com).

24% growth. The profit after tax stands at USD 4 million as against USD 3.5 million in the previous year, an increase of 18%. In the financial year 2004-05, Avaya GlobalConnect recorded a growth in revenue of 35% in convergence, 19% call centers and CRM solutions, 55% in customer service and an overall growth of 17%.<sup>112</sup>

*Recognition.* Avaya GlobalConnect has been conferred with numerous awards since the beginning of its operation in India. In 2002, 'Frost & Sullivan' awarded Avaya GlobalConnect with market engineering award for 'Market Leadership in Interaction CRM Market' in India as it continues to dominate the contact center market. It also honored the company with the 'Market Strategy Award in Enterprise Voice Equipment Market' for emerging as the strongest competitor with the best marketing strategies gaining stronger foothold in this business. 'Deloitte and Touche' ranked Avaya GlobalConnect as among the top 20 fastest growing technology companies in India. 'Communications Today' identified Avaya GlobalConnect as the market leader for Enterprise Voice Over IP solutions by revenue in the Indian market. Some of the awards bagged by Avaya GlobalConnect in the year 2003 include Market leadership Award for IP Telephony System and Call Monitoring Solutions, Industry leadership Award in iCRM and Enterprise Voice Equipement, CEO of the year award to Mr. Niru Mehta, the Vice Chairman and the Managing Director of the company. Avaya GlobalConnect is also recognized as one of the best employers in the country and focuses on improving employee productivity by high performance environment.<sup>113</sup>

#### 4.4.3 Analysis of the case

##### *Analysis 1: Strengths and weaknesses analysis*

The first analysis (I-1) shown in **Table IV-13** is the strengths and weaknesses analysis of Avaya. This analyses the overall condition and the background of the company and assesses if the company was in a position to enter the Indian telecom market as referred in section 3.

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<sup>112</sup> Interview with Mr. Niru Mehta on 24.09.2001, Tata Telecom news release (21 May 2003), Avaya GlobalConnect Annual Report (2004-05), p. 22.

<sup>113</sup> Tata Telecom news release (6 August 2003/ 21 May 2003), Tata Avaya company presentation (2003), Avaya GlobalConnect Annual Report (2004-05), p.16, Avaya GlobalConnect Directors Report, p. 4.

	Strengths	Weaknesses
Offers	<ul style="list-style-type: none"> <li>- Quality brand with top ranking in several of its businesses</li> <li>- Large customer base due to good customer service</li> <li>- Wide range of offers</li> </ul>	<ul style="list-style-type: none"> <li>- Perhaps more focused on fortune 500 and similar companies than indigenous companies</li> </ul>
Resources	<ul style="list-style-type: none"> <li>- Large and professional work force</li> <li>- Large and popular customer base</li> <li>- Evolution from reputed telecom companies with long successful telecom history</li> <li>- State-of-the-art research and development labs</li> <li>- Technically and financially sound</li> <li>- Brand image</li> <li>- Large network with prestigious business partners</li> <li>- Experience in India through the presence of its parent and forerunner companies</li> <li>- Identification with an influential Indian partner</li> <li>- Experience from worldwide operation</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of knowledge about the Indian telecom market. Initial hurdles comes the way of any new operation as was the case of Avaya in India</li> </ul>

**Table IV-13: Analysis of strengths and weaknesses of Avaya**

From the analysis of strengths and weaknesses of Avaya it can be concluded that it was capable to enter and operate in the Indian market.

*Analysis 2: Market entry strategy analysis*

The second analysis (I-2) shown in **Table IV-14** is that of the market entry strategy followed by the company to enter the Indian telecom market as referred in section 3.

<p>1. Was the objective of the company to enter the Indian market realistic or unrealistic?</p>
<p>As Lucent Technologies, the parent company of Avaya had already operations in India, after Avaya was formed it followed the vision formed by Lucent Technology to tap the growing telecom market and the increase in demand for telecom equipments and solutions in India. Avaya found opportunity in India and decided to adhere to the already existing joint venture with the Indian telecom company to take advantage of the emerging market, which could prove a fortune to the company if operated successfully.<sup>114</sup></p>
<p>2. Was the process of the market entry strategy followed by the company to enter the Indian market as proposed in the literature in chapter II?</p>
<p>Avaya's presence in India resulted through the business collaboration of its parent company in India. Avaya did not follow the process of market entry strategy proposed in the literature directly as it budded from its parent company. Yet its forerunner or parent company (AT&amp;T) had undergone the same process to enter the Indian market and it is not discussed in this case as it is out of its scope. Hence Avaya too followed this process indirectly as it was confined in its parent company before its formation.<sup>115</sup></p> <p>Hence, it can be said that Avaya's predecessor respected the process of the market entry strategy proposed in the literature in chapter II, thus Avaya too.</p>
<p>3. Did the market entry strategy followed by the company respect the 5 criteria of a good market entry identified in chapter II? They are (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows to operate efficiently.</p>
<p>From the previous analysis, it can be seen that the market entry of the company was based on the company's strengths and it choose the industry segment were it has competency and reputation as the world leader. Its joint venture operation with Tata made it strong and one of the best in its industry segment resulting in avoiding direct competition to a larger extent. It followed the differentiation strategy to run its business, thus following a clear generic strategy. By limiting its contribution to finance and technology and placing an Indian CEO as the only representative to look after its Indian operation, it laid a great trust on its Indian partner making its strategy more successful. This structure and control system that is simple and flexible allowed its global operation strategy to operate efficiently.<sup>116</sup></p>

**Table IV-14: Analysis of market entry strategy of Avaya- I**

<sup>114</sup> Chapter II- sections 6.9 and 7.

<sup>115</sup> Chapter II- sections 6.9 and 7, table II-5, figure II-14.

<sup>116</sup> Chapter II- sections 2.2, 3.2.1, 3.2.2, 5, 6.9 and 8.



Hence, the company respected all the 5 criteria of a good market entry as identified in chapter II.

4. Was the market research adequate or inadequate?

As is clear from Avaya's market entry, it didn't invest much time and money on market research due to the dynamism of the Indian market. Moreover as Avaya was already present in India through its parent company, it already understood the market well. According to Avaya, for a dynamic market like India too is not much beneficial.<sup>117</sup>

Hence, the market research done by Avaya can be said to be inadequate.

5. Was the strategy followed by the company realistic or unrealistic?

Avaya decided to maintain the joint venture though legally it is allowed to set up its own subsidiary in the Indian market. The company's joint venture partner was an industrial conglomerate and a household name in the country with good reputation. This helped the company to benefit from the influential partner and gave access to a lot of procedures which otherwise may have taken a considerable amount of time, money and effort.

Though the joint venture is 50/50, Avaya choose to have an Indian CEO for the Tata Avaya operation, who was the sole representative of Avaya in the nation. Its contribution was mainly in terms of equity and technology. This resulted in the smooth functioning of the operation.

Avaya finds the Indian IP telephony market to have a lot of potential, and it leaves no stones unturned to attract worldwide customers to come and benefit from this situation. Through its attractive marketing strategy it promotes the advantage of India abroad by organizing events in the global market.

It's global strategy makes it a leading player in IP telephony and contact center solutions with nearly 60% of the market share in India and gives it an edge over its competitors.

Hence the strategy the company is following can be said to be realistic.<sup>118</sup>

#### **Table IV-14: Analysis of market entry strategy of Avaya-II**

From the above analysis it can be concluded that the market entry strategy followed by Avaya as a good strategy.

<sup>117</sup> Chapter II- section 7.

<sup>118</sup> Chapter II- section 3.1.

### *Analysis 3: Analysis of Performance*

The third analysis (I-3) shown in **Table IV-15** is the performance analysis of the company in the Indian telecom market. This analysis gives an overview of how successful or unsuccessful the company is in the Indian market as referred in section 3.

The below analysis of the performance of Avaya's operation in India shows that it is currently present in the country and has performance as one of the best telecom companies currently operating in the Indian telecom market.

Though Avaya's operation in India is so far successful, its duration in India is just 5 years. It can be said that the company is still in the initial years of

1. Current presence or the duration of operation in India.
Avaya is currently operating in India and exists since its formation in 2000.
2. Current market position and its trend. <sup>119</sup>
Market leader in all its businesses in India: <ul style="list-style-type: none"> <li>● Market leader in contact center solutions with over 60% market share</li> <li>● Market leader for enterprise voice over IP solutions by revenue</li> <li>● Leading telephony and video communication solutions provider in India</li> </ul>
3. Competitive advantages at the level of offers and resources. <sup>120</sup>
3.1 Offers: <ul style="list-style-type: none"> <li>● Wide range of solutions with world-class performance</li> <li>● Presence all over the country</li> <li>● Excellent customer support service</li> <li>● Brand image</li> <li>● Award and recognition as <ul style="list-style-type: none"> <li>•• Best employer in the country</li> <li>•• Best market strategist</li> <li>•• Fastest growing technology company</li> </ul> </li> <li>● Event oriented marketing activities in the global market to promote advantage of having business in India</li> </ul>

**Table IV-15: Analysis of performance of Avaya-I**

<sup>119</sup> Chapter II- section 2.2.

<sup>120</sup> Chapter II- section 2.2.

### 3.2 Resources:

- Professional staff
- Wide network of offices
- Extensive distribution network with systems integrators, channel partners and dealers
- 6000 customers with 75 per cent of India's top business houses as its customer base
- Strategic alliances with leading national and international systems integrators such as IBM, HP and HCL
- Growing market share
- Increasing turnover

### **Table IV-15: Analysis of performance of Avaya-II**

laying stronghold in the Indian market and hence can be classified as a successfully progressing company in the Indian telecom market.

#### **4.4.4 Conclusion**

The analysis of the case of Avaya shows that it is a case of a successfully progressing converged communication solutions providing company in India. Thus it comes under the broad category of equipment supplier segment of the Indian telecom market. The following conclusions can be driven from the case:

- Avaya recognized joint venture as the best mode of entry into the Indian telecom market. Moreover, the joint venture operation of Avaya is more known in the country through the local partner Tata Telecom, as the business conglomerate Tata is a popular household name in India.
- Avaya though being one of the strong telecom companies faced financial difficulties in its initial period of operation. However, Avaya's business strategy in India was shaped with flexibility and with ability to perform in the market taking into account the financial difficulties as well as deviations arising due to government, infrastructure, bank, pricing etc.
- Avaya's offers of a comprehensive suite of solutions and services made it a market leader and its focus on improving employee productivity by

high performance environment made it one of the best employers in the country and so increasing its popularity in the nation.

- A foreign company can be successful without having its people occupying all the key positions in the top management but just a few. This is demonstrated by Mr. Niru Mehta, the CEO of the operation of Avaya in India, who was also the head of the local partner Tata Telecom.
- Strategic partnership with best-in-class vendor from Indian telecom market is expected to provide sustained revenue growth as new partnerships contribute to higher revenue over a period of time due to increase in acceptance and deployment.
- Indian telecom market offers a market for international contact centers and outsourcing destination for customer relationship management with benefits of location and professional work force.
- The investment opportunity in manufacturing and infrastructure segment is also growing due to deployment of enterprise voice solutions, contact center and customer relationship management (CRM) solutions and teleconferencing. Avaya's strong marketing abilities such as the events in global market place to promote the advantage of destination India is proving beneficial to attract foreign companies.
- There is a general improvement in the overall economic conditions in India, which will lead to higher investment in technology by businesses, specifically relating to communication. It is expected that more companies will opt for technology upgrades. The small and medium business enterprises are showing increased desire in spending on communication technology and this is expected to provide new opportunity for converged communication solutions.

## 5 Comparative analysis of the cases

This section compares the four cases as discussed in the previous section. The comparative analysis is a cross case analysis and relies strongly on argumentative interpretations as mentioned in section 2.<sup>121</sup>

This comparative analysis shown in **Table IV-16** is the analysis at level II after having analyzed each case individually in the previous section as referred in section 3.

Comparative analysis of the four cases
Comparative criteria: Strengths and weaknesses analysis (Analysis I-1)
<p>The situation of the companies before they entered the Indian telecom market was as follows.</p> <ul style="list-style-type: none"> <li>• All the four companies were market leaders in their domestic geographical market</li> <li>• All of the companies were recognized as the best brands and popular in telecom industry in their domestic markets, and enjoyed a large market share</li> <li>• All of them had financial, technological, and human resources competencies</li> <li>• All companies except Swisscom had experience in telecom operations from other foreign markets</li> <li>• Alcatel and Avaya were telecom giants with worldwide operations. First Pacific and Swisscom had smaller scale of operation limited to fewer countries or just its own country</li> <li>• Alcatel and Avaya had more competencies in international dealings and strategy due to its larger exposure and experience from its worldwide operations</li> </ul>
Conclusion
<p>All the four companies had internal strengths and external opportunities favoring their entry into the Indian telecom market. It applies even in the case of Swisscom, which is the only company out of the four, which left the country due to financial losses and refocusing of its international strategy.</p>
Comparative criteria: Market entry strategy analysis (Analysis I-2)
<ul style="list-style-type: none"> <li>• Except Swisscom the objective of all the other three companies to enter the Indian telecom market was realistic. The reason for Swisscom to enter the Indian market was to compensate for the loss of market share in the domestic market owing to its privatization. The investment was motivated by the large potential, and rapidly growing cellular and fixed services market in</li> </ul>

**Table IV-16: Comparative analysis of the cases- I**

<sup>121</sup> Yin (2003), pp.134 ff.

India. Together with their business competencies the Indian telecom market proved to be an ideal choice for investment at the outset but it was also aware that it was risky to invest for the first time abroad in a country with a totally different culture.

- The process of the market entry strategy followed by all the companies were similar to that proposed in the literature in chapter II with the exception of Avaya which was already present in India through its parent company. The process of market entry followed by First Pacific and Swisscom were that of the company entering a foreign market for the first time according to chapter II. Alcatel's process of market entry was that of an internationally active company that expands to one or more market according to chapter II. It can also be observed that in the process of market entry, all the four companies followed joint venture as the mode of entry.<sup>122</sup>
- All the companies except Swisscom respected all the 5 criteria of a good market entry identified in chapter II. Swisscom had respected only 3 of the 5 criteria. Swisscom did not seem to have a clear and well-defined generic strategy and the structure and control system that was chosen by Swisscom did not allow to operate efficiently. Both of these criteria are essential for the success of a company.<sup>123</sup>
- Except Avaya the market research carried out by all the other companies were adequate involving thorough market research with the help of various well-known consultancies in some cases. The market research involved all the vital aspects for market entry such as the potential of the country in telecom, investment policies, trade barriers, potential target customer segments, regions for operation, and potential joint ventures and technology partners. Unlike the other companies, Avaya did not have to do an intensive market research for entry because of its origin from the pre-existing parent company in India.
- The strategy followed by all the 3 companies except Swisscom was realistic. The strategy of First Pacific was based on its thoughtful selection of target customer segment, regions of operation, and offers. This made its realized strategy nearly the same as the intended strategy as described in chapter II.<sup>124</sup> Alcatel's strategy in India was to follow a steady and consistent move, laying stronger foundation and making deeper impact in the telecom industry. Its strategy focused on introducing products that met the need and demand of the Indian telecom industry, and in its pioneering efforts. Avaya's strategies involved the following: (a) stick on to the joint venture established by its parent company with the prestigious Indian business conglomerate, (b) tap the growing enterprise voice over IP, and (c) to promote advantage of India in the global market

#### **Table IV-16: Comparative analysis of the cases- II**

<sup>122</sup> Chapter II- sections 6 and 7.

<sup>123</sup> Chapter II- section 8.

<sup>124</sup> Chapter II- section 3.1.

place to attract international customers too. The strategy of Swisscom was more ambitious than realistic because the strategies were executed more at a superficial level without a long-term interest in the market and with too much influence over the structure and control of the joint venture operation.<sup>125</sup>

#### Conclusion

All the four companies followed the process of market entry strategy as identified from the literature review in chapter II. Hence, it can be concluded that this prescribed process of market entry strategy is an ideal approach for companies entering the Indian telecom market and in other similar cases.

All the four companies employed joint venture as a mode to enter the Indian telecom market initially. From section 6 in chapter II, it can be seen that joint venture is a form of mode of entry that gives access to the local partner's knowledge, and to share development costs and risks. At the same time political acceptability is easier and it facilitates the transfer of complementary skills. This is what is exactly needed in the Indian telecom market. Hence, even though from figure II-12 in chapter II, it can be seen that joint venture involves higher level of investment and at the same time it seems to be the best mode of entry into the Indian market and most likely will remain the best till the telecom policies in India change radically in the future giving the foreign investor an edge.

It can also be concluded that the 5 criteria for a good market entry as identified in chapter II influences the success of a company in the Indian telecom market. Hence, a good market entry strategy should carefully choose to fulfill the 5 criteria in order to be successful.

#### Comparative criteria: Performance analysis (Analysis I-3)

- Except Swisscom, all the other companies are still operating in the country, and their length of operation varies from more than 5 to 20 years. All the three companies are now the market leader in its businesses and regions of operation with a considerable amount of market share and a large and growing customer base.
- All these companies have financial, technological, and managerial competency to deal with the market situation in India. They are known for their brand name, quality, customer service, network and reputation in the country. Their offers, sales and marketing practices are very specific to its target market segment. For instance, the offers of First Pacific are more for small and medium businessmen in the rural areas, and that of Alcatel and Avaya are more for corporate clients that are concentrated in the urban areas.
- Alcatel and Avaya with their operations in India are reaching out to the neighboring countries and global market much economically without any compromise in the quality.

**Table IV-16: Comparative analysis of the cases- III**

<sup>125</sup> Chapter II- Table II-4.

- First Pacific and Swisscom are from the services sector and Alcatel and Avaya are primarily from equipments sector with the exception of Avaya proving solutions and call centre services. The companies from the services segment faced more difficulties than the companies from manufacturing segment due to telecom policies, unfavorable role of regulators, and differences in business practices, culture and mentality in the Indian telecom market. Yet, First Pacific endured all these difficulties but Swisscom quit the market due to loss of money, lack of patience and changes in its international strategy. Swisscom had opportunities in India just like the other operators that entered India had due to the prevailing condition of the telecom market in India compounded to the company's strengths. For example, the Indian government's key concern and offers to reduce the digital divide prevailing in the hilly and mountainous regions of the country was certainly an opportunity for Swisscom as its experience in home market is from similar geographical conditions. Except Alcatel all the other three companies that started after liberalization of the Indian telecom market faced acute legal difficulties and financial problems due to large investments and heavy losses in the beginning years of its operation. Big companies such as Alcatel and Avaya could cope up with this, as they were better prepared than the smaller companies like Swisscom and First Pacific.

#### Conclusion

It can be seen that the success of the companies that are still operating in India is a larger extent due to the competitive advantages they have at the level of offers and resources and their focus towards long-term investment perspective.

For the companies from the manufacturing segment, to have manufacturing facilities and software centers in India serves as a great advantage in terms of cost, and availability of professional work force.

Due to the huge gap between the urban and rural, rich and poor, educated and the uneducated in the Indian society, the offers must be user friendly and corresponding to the purchasing pattern of each social strata such as the upper, middle and lower class.

To have local partners and to benefit from their contacts and references with financial institutions, public sector institutions helps to tackle the bureaucracy and red-tapism prevalent in the country and makes things proceed much faster.

Financial competency is one of the most important necessities of any new operation, and technological competency, the backbone of a telecom company. Yet, a telecom company in the Indian market cannot base its success on finance and technology. It must rather be based on competitive strategy that is long term oriented and clearly based on its success potentials and generic business strategies.

**Table IV-16: Comparative analysis of the cases- IV**



## **6 Conclusions**

The general conclusions from the case analysis of the four foreign companies – First Pacific, Swisscom, Alcatel and Avaya – carried out in sections 4 and 5 of this chapter can be classified under two main categories, which are as follows.

- (a) Conclusions concerning the market entry strategy
- (b) Conclusions concerning the Indian telecom market

The above said conclusions are elaborated below.

### **6.1 Conclusions concerning the market entry strategy**

- i. All the four companies based their entry into the Indian telecom market on their internal strengths.
- ii. All the four companies employed joint venture as a mode of entry to enter the Indian telecom market initially, though in the case of Alcatel it changed later as the company established a wholly owned subsidiary. Thus Alcatel gradually increased the ownership and control of foreign operation and moved up the ladder of investment and risk as shown in figure II-12 of chapter II. Strategic partnership with best-in-class vendors from Indian telecom market is expected to provide sustained revenue growth as new partnerships contribute to higher revenue over a period of time due to increase in acceptance and deployment.
- iii. The companies that fulfilled the 5 criteria of a good market entry strategy identified in section 8 of chapter II were successful in the Indian telecom market. The 5 criteria are (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows to operate efficiently.
- iv. The performance of the 3 successful companies in the Indian market, which are First Pacific, Alcatel and Avaya was based on the advantages it had in terms of offers and resources as referred in section 2.2 of chapter II.

- v. All the four companies followed the process of market entry strategy as identified from the literature review in section 7 of chapter II.
- vi. The main contribution of First Pacific and Avaya, was financial and technological support. They didn't influence or pressurize the structure and control system of the joint venture operation to their side, which led to a development of trust and smooth functioning of the operation.
- vii. The choice of headquarters close to the Indian market and nomination of a local CEO aided First Pacific, Alcatel and Avaya to be more effective in India.
- viii. The successful company from the services segment, First Pacific concentrated on regions with fewer competitors but larger potential, and also commenced operation by choosing one or few regions and then gradually expand, which led to its success in the Indian telecom market.
- ix. All the companies except Avaya, emphasized on thorough market research before the entry into the Indian telecom market, sometimes with specialized consultancies like in the case of Swisscom, covering vital aspects for market entry such as the potential of the country in telecom, investment policies, trade barrier, potential target customer segments, regions for operation, and potential joint venture and technology partner.
- x. Unlike the other three companies, Swisscom seemed to rely more on technical and financial strengths in its operations in India and laid more emphasis on increasing the stake rather on developing competitive advantages and generic business strategy.

## **6.2 Conclusions concerning the Indian telecom market**

- i. The Indian telecom market is a relatively easy market to identify with at the managerial level because of language competency with English being the business language. Then to have telecom equipments manufacturing facilities and software centers in India serves as a great advantage in terms of cost as well as to access the rest of Asia-Pacific and third world countries due to availability of skilled, competent and

- professional work force at a price comparatively lower than that of the developed world.
- ii. Indian telecom market does not fit well for telecom operators with short-term investment perspective and quick profit making goals. Rather it is best suited for telecom operators with long-term investment perspectives, and prepared to suffer losses at the beginning.
  - iii. In the Indian telecom market, to have a local partner and to benefit from its contacts and references helps to tackle the bureaucracy and red-tapism prevalent in the country and makes things proceed much faster.
  - iv. The wireless and fixed line segments represent a huge opportunity for service providers and vendors. But there are differences from application to application and region to region. The voice traffic in urban areas are increasingly shifting towards wireless, hence further increasing the broadband deployment in future. In semi-urban and rural areas, fixed line and cellular telephony is expected to grow faster than data communication. The investment opportunity in manufacturing and infrastructure segment is growing due to deployment of enterprise voice solutions, contact center and customer relationship management (CRM) solutions and teleconferencing. The small and medium enterprises have shown increased desire in spending on communication technology and this is expected to provide new opportunity for converged communication solutions. Also the use of Very Small Aperture Terminals (VSATs) for space-related technologies is expected to grow in the future.
  - v. The two rapidly growing potential customer segments in India are small and medium businessmen especially in rural regions, and the middle class that is mostly concentrated in the cities and the urban area.
  - vi. Most of the cellular operators, both domestic and foreign are concentrated in the cities where the competition is extremely high as compared to the rural India where the tele-density is very low but the need for telephone very high. This makes rural India a huge field for investment with a vast potential in terms of subscribers. Moreover, Indian government's efforts to increase the rural tele-density and thus to bring down the digital divide prevalent in the country encourages investments in rural area. The hilly and mountainous region of India where too the tele-density is low is an opportunity for foreign

companies who come up with know-how and operational experience from similar regions.

- vii. Due to the huge gap between the urban and rural, rich and poor, educated and the uneducated in the Indian society, the offers must be user friendly and corresponding to the purchasing patterns of the chosen segments. Moreover, the offers and services specially to the subscribers in rural India will only be effective when communicated in the local language, which varies entirely from region to region.

## **7. Summary and implication**

This chapter begins with a description of the general use of the case research as scientific method and the application of the same in this book. Further the cases of four foreign companies from different parts of the world that operated in the Indian telecom market at various period of time have been described, analyzed and conclusions drawn at the end of each case. This is followed by a comparative analysis of all the cases together and conclusions thereafter about the market entry strategy and the Indian telecom market.

As said in section 1 the chapter has three partial goals. The first two partial goals of this chapter were to identify the market entry strategies followed by four foreign companies to enter the Indian telecom market, and to evaluate the market entry strategies in the light of the literature review carried out in chapter II. This leads to attaining the second minor objective of the research, that is, to describe and analyze different market entry strategies in the Indian telecom market and to understand the reasons of their success and failure as shown in figure I-1 in chapter I. The third partial goal of this chapter was to infer the conditions of the Indian telecom market from the experience of the four foreign companies, as can be seen from the conclusions.

The conclusions drawn from the four cases in this chapter along with the inputs and conclusions from chapter III about the Indian telecom market forms the basis for the next chapter, V, which are the recommendations for foreign companies entering the Indian telecom market in future.

# **V Recommendations and guidelines for foreign companies entering the Indian telecom market in future**

## **1 An overview of the chapter**

Chapter V of this book provides recommendations and guidelines for foreign companies entering the Indian telecom market in future. These are based on the facts, figures and conclusions about the Indian telecom market from chapter III, and the general conclusions from the case analyses of the four foreign companies that operate(d) in the Indian telecom market as presented in chapter IV.

The chapter V has two goals:

Goal 1- to arrive at a set of recommendations and guidelines for a successful market entry in India

Goal 2- to identify prime telecom segments for possible investment for future in India

In order to meet the above goals, the recommendations and guidelines are categorized as follows:

- Legal rules in the Indian telecom market
- Entry strategies into the Indian telecom market
- Attractive investment areas in future in the Indian telecom market

Section 2 recommends the key legal rules of the Indian telecom market that a foreign company has to bear in mind while making a decision for market entry into India. The rules provide guidelines concerning the foreign direct investment (FDI) permitted, industrial license required and other terms and conditions that are applicable.

Section 3 makes recommendations regarding market entry strategies of foreign companies entering the Indian telecom market. It also provides guidelines in the form of a flow chart for setting up operations in India once a decision has been taken to enter the Indian telecom market.

Section 4 provides recommendations for foreign companies concerning future investment in India in terms of products and services, regions of operation, and customer groups.

Section 5 summarizes the chapter.

## **2 Recommendations and guidelines concerning current laws applicable to the Indian telecom market**

These are specific laws that a foreign company has to consider while making a decision regarding market entry into India for each submarket (that is, services, products/equipment, and infrastructure providers)<sup>1</sup>:

### (A) Services market

- i. Foreign Direct Investment (FDI) of 49% is allowed to providers of fixed telephone service, cellular mobile service, global mobile personal communication service, international long distance service, national long distance service, value added service such as voice mail, audiotex, unified messaging service, public mobile radio trunk service, tele-education, tele-medicine, tele-banking, etc.
- ii. Foreign Direct Investment of 74% is allowed to providers of internet services for provision of international gateways and radio paging services.
- iii. Foreign Direct Investment of 100% is allowed to call centers and IT enabled services, e-mail services and internet services excluding the provision of international gateways whether for satellite or for submarine cables.
- iv. Proposal for FDI beyond 49% requires government approval and shall be considered by Foreign Investment Promotion Board (FIPB) on case-to-case basis.
- v. Except for call centers and IT enabled services, where mere registration is required, all other services are subject to licensing and security requirements.
- vi. For different services the country has been divided into several territorial service areas called circles. This is a geographical division based on the size, importance and the volume of existing and potential subscribers. A company can operate in a particular circle only if it has obtained license for it.

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<sup>1</sup> NTP 99, DoT Annual Report 2002-03, Indian Telecommunications 2003, Destination India 2003, Chapter III- section 5, figure III-6, figure III-10, Chapter IV- sections 4, 5 and 6.



- vii. Amendment to National Telecom Policy 1999 (NTP-99) in 2003 has permitted unified license for telecommunication services permitting licensee to provide all telecommunication/telegraph services covering various geographical areas using any technology.
- viii. Amendment to NTP-99 in 2003 has permitted license for unified access (fixed or basic and cellular) services permitting licenses to provide fixed and/or cellular services using any technology in a defined service area.

(B) Product/ Equipment market

- i. No industrial license is required for setting up manufacturing units for telecom equipment.
- ii. 100% Foreign Direct Investment is permitted in telecom equipment manufacturing sector through automatic route.<sup>2</sup>
- iii. The dividend income and capital invested in telecom manufacturing are fully repatriable.
- iv. Technical know-how fee of upto USD 2 million, net of taxes can be paid on an automatic basis. In addition royalties upto 5% on domestic sales and 8% on export sales are also permitted.
- v. Telecom equipment, parts and components are freely importable (except for certain wireless equipment, where a license from Wireless Planning Co-ordination is required for import).
- vi. Customs duty on telecom equipment varies from 0-10%. As per India's commitment under Information Technology Agreement in WTO, customs duty on these products is reduced to zero from the year 2005.

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<sup>2</sup> Automatic route means there is no prior approval required for FDI. However, the Reserve Bank of India has to be informed within 30 days of inward remittances or issues of shares to Non-residents.

(C) Infrastructure providers market

*(C1) Infrastructure Provider Category I*

- i. No industrial licensing is required for setting up units, though registration is required.
- ii. Foreign Direct Investment of 100% is allowed to infrastructure providers in Category I – that is, companies that provide assets such as dark fibers, right of way, duct space and tower.
- iii. There is no restriction on foreign equity in this market.
- iv. The applicant must be an Indian company, registered under the Companies Act 1956.

*(C2) Infrastructure Provider Category II*

- i. Foreign Direct Investment of 74% allowed for infrastructure providers in Category II – that is, companies that lease, rent out or sell end-to-end bandwidth or digital transmission capacity.
- ii. Proposal for FDI beyond 49% requires government approval and is considered by the Foreign Investment Promotion Board (FIPB) on a case-to-case basis.
- iii. This market is subject to industrial licensing.
- iv. License fee is in the form of revenue share of 10% plus contribution to the Universal Service Obligation Fund with a total cap of 15%.

### **3 Recommendations and guidelines concerning entry strategies into the Indian telecom market**

For foreign companies that intend to enter the Indian telecom market, this section provides recommendations regarding entry strategies as well as guidelines for establishing operations.

These recommendations and guidelines are derived mainly from chapter IV but also partially from chapter II of the book.

- (A) The recommendations for foreign companies concerning their market entry strategy into the Indian telecom market are as follows:<sup>3</sup>
- i. A foreign company in order to enter the Indian telecom market needs to have competencies in terms of finance, technology, manpower, language efficiency, experience, patience and perseverance.
  - ii. Successful market entry strategies respect the following 5 criteria: (i) based on company's strengths, (ii) choose good industry segment, (iii) avoid direct competition, (iv) follow clear generic strategy, (v) choose a structure and control system that allows its global operation strategy to operate efficiently.
  - iii. The best mode of entry into the Indian telecom market for a foreign company from any sub-market is to set up either a joint venture or strategic alliance. The second best mode applicable only for the manufacturing market and the infrastructure provider category I is to set up a wholly owned subsidiary in India. Exporting is one of the least preferable modes of entry into the Indian telecom market, due to disadvantages in cost-economies.

Though joint venture and strategic alliances are the most suitable mode of entry in the beginning in almost every case, it may become advantageous to move to a different mode of engagement at a later stage. Joint venture and strategic alliances not only helps to benefit from the local partner's brand-image, market know-how and already established distribution channels, but also from established contacts with financial institutions, government organizations, regulatory

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<sup>3</sup> Chapter II- figure II-14, Chapter III- section 7, table III-13, Chapter IV- section 6.

bodies, et al. A local partner also helps a foreign company to tackle the bureaucracy and red-tapism prevalent in the country and makes things proceed much faster. Moreover, privatization of the Indian telecom market has increased the possibility of finding a good alliance partner for foreign companies that plan to operate in the Indian telecom market.

A joint venture or strategic alliance with a well-known local operator in the Indian telecom market means local and global at the same time. This creates good acceptance by customers.

- iv. A joint venture or strategic alliance can function more smoothly if the foreign company's focus is on financial and technological support, leaving the structure and control system of the operation to the Indian partner. Though the Indian telecom market is "modern" due to globalization, and there are a large number of foreign telecom companies in India, Indian business practices remain largely traditional, highly influenced by hierarchy, social norms and politics. A company has of course the liberty to organize its structure and control as it desires, yet to be effective and to function smoothly in the Indian market, it is better to give weight to the opinion of the Indian counterpart.
- v. The choice of the headquarters in India and the nomination of a local person as the head of the operations seem to be important for the success of the market entry strategy.
- vi. As the Indian market is a dynamic market, the foreign companies entering India has to base its entry on facts gathered from sound market research carried out with the help of specialized consultancies. The research has to involve vital aspects for market entry such as the potential of the country in telecom, investment policies, trade barriers, potential target customer segments, attractivity of regions for operation, and potential joint venture partner.
- vii. The entry strategy of the foreign companies in the services segment must involve concentration on regions with sufficient potential and fewer competitors, and be based on know-how gained from home market. Choosing one region or a few regions and then gradually expanding to other regions seems to make the market entry strategy of the foreign company more successful.

- viii. The market entry strategy of a foreign telecom company entering the Indian market should not be based on its financial and technological strengths alone but on its success potentials (competitive advantages at the level of offers and resources) and by following a specific generic business strategy.
- ix. Indian telecom market requires patience and perseverance. So is suited for telecom operators that have a long-term perspective. It is not a market for telecom operators with short-term investment perspective and quick profit making goals.
- x. A market entry strategy that involves promoting the advantage of India in the global market as part of the international marketing strategy reaps a lot of benefit. A case in point is the “Destination India” marketing events organized in the USA by the Tata Avaya joint venture to attract prospective companies by informing them of the advantages of choosing India as their destination for call centers, which is now one of their most flourishing businesses in India.
- xi. Due to the huge gap between urban and rural, rich and poor, educated and the uneducated in Indian society, a company’s offers must correspond to the purchasing pattern of the chosen region and segments.
- xii. It is recommended that foreign companies entering the Indian telecom market follow the process of market entry strategy shown in **Figure V-1** based on the category it comes under.

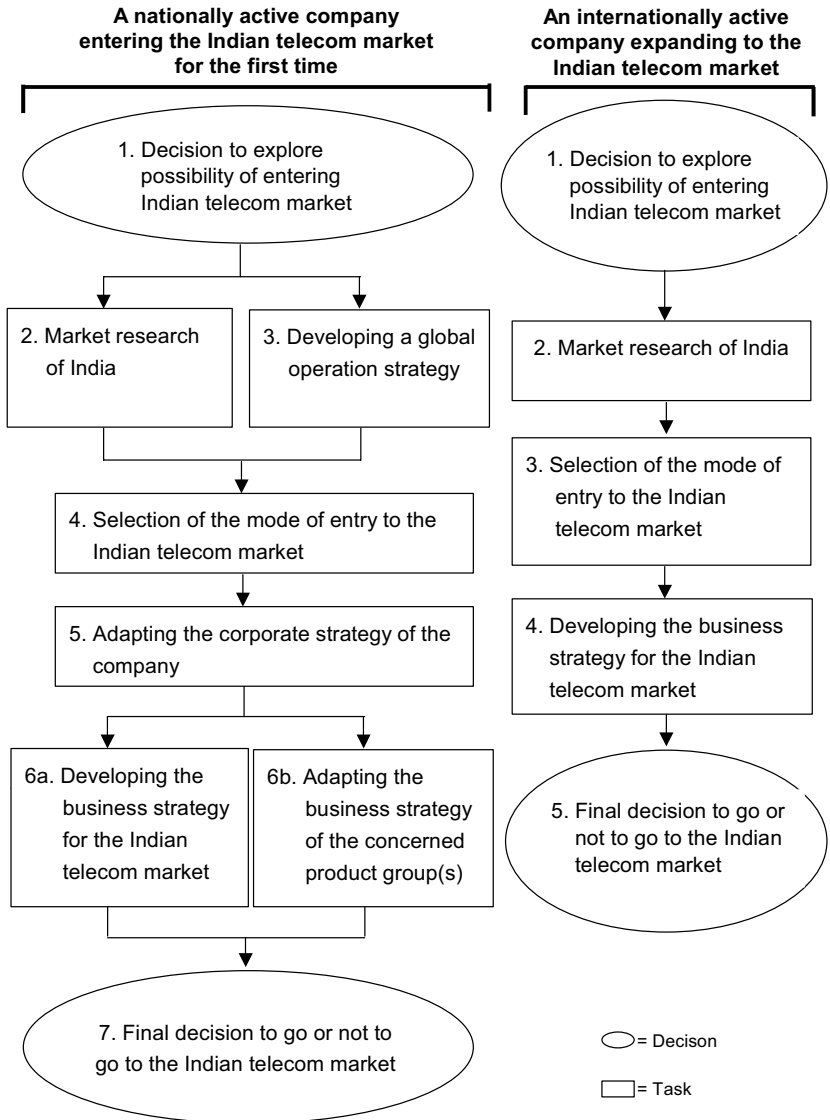


Figure V-1: Process of market entry into the Indian telecom market

(B) Guidelines for foreign companies setting up an operation in India are as follows.<sup>4</sup>

When a foreign telecom company plans to set up business operation in India, it has two options: either to operate as an Indian company or to operate as a foreign company. In any case, the company requires approval for FDI. If the company is an equipment manufacturer or infrastructure provider (Category I) then it can go through the automatic route, (that is, without government approval and only on the basis of information to the Reserve Bank of India (RBI)<sup>5</sup> within 30 days of inward remittances or issues of shares to non-residents). If the company is a service provider or infrastructure provider (Category II) then it needs government approval, which follows the recommendation of the Foreign Investment Promotion Board (FIPB). Once the FDI approval is granted, the company can choose to operate either as an Indian company or a foreign company.

Further the company is an equipment manufacturer or infrastructure provider (Category I), then it can either enter into a joint venture or set up a wholly owned subsidiary. If the company is a service provider or infrastructure provider (Category II) then joint venture is the only permitted mode of entry except in specific services such as call centers, IT enabled services, e-mail services and internet services (The additional exception is the provision of international gateway where 100% FDI is allowed).

Once the company has chosen the mode of entry it has to file an application with the Registrar of Companies (ROC) for registration and incorporation. After the company is registered and incorporated as an Indian company, it is subject to Indian laws and regulations.

If the company chooses to operate as a foreign company then it can either set up a liaison office or representative office or a project office or a branch office. If it sets up a liaison office, the role of that office is limited to collecting information about possible market opportunities, providing information about the company and its products to prospective Indian customers, promoting export/import from/to India and facilitating technical/financial collaboration between parent company and companies in India. Approval for establishing a liaison office in India is granted by RBI.

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<sup>4</sup> NTP 99, DoT Annual Report 2002-03, Indian Telecommunications 2003, Destination India 2003, Entry strategies for foreign investors -DIPP, Chapter III, Chapter IV.

<sup>5</sup> RBI is the central bank of India. It makes monetary policy, regulates banks, the external sector, and the fixed income and currency markets.

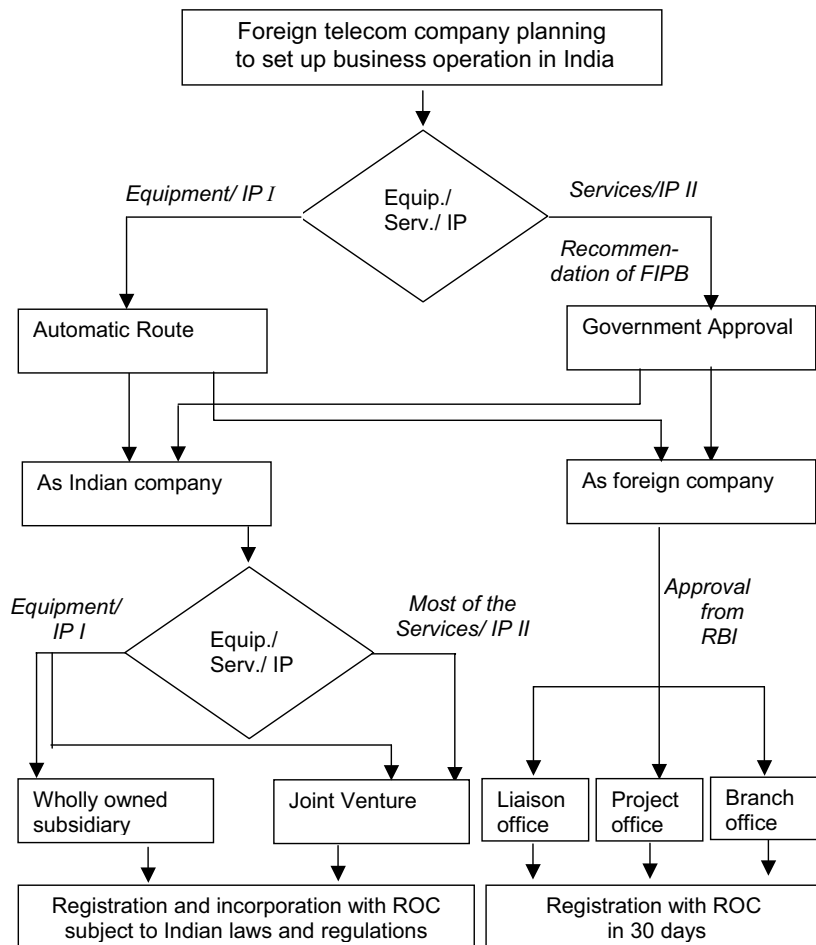
With permission from the RBI, foreign companies planning to execute specific projects in India can set up temporary project/site offices in India. Such offices cannot undertake or carry on any activity other than the activity relating to and or incidental to execution of the project. Project offices may remit outside India the surplus of the project on its completion.

Foreign companies engaged in manufacturing and trading activities abroad can also be permitted by the RBI to set up branch offices in India for a) export/import of goods, b) providing professional or consultancy services, c) carrying out research work in which the parent company is engaged, d) promoting technical or financial support to Indian companies, and e) representing the parent company in India and acting as buying/selling agents in India. A branch office is not allowed to carry out manufacturing activities on its own but is permitted to subcontract these to an Indian manufacturer. Branch offices established with the approval of RBI, may remit outside India profit of the branch, net of applicable Indian taxes.

Once the foreign company decides the kind of office it is going to set up, it has to register with the Registrar of Companies (ROC) within 30 days of setting up a place of business in India.

**Figure V-2** shows the guidelines, for foreign companies that have decided to set up business operations in India, in the form of a flowchart based on the above discussion.





1. FIPB: Foreign Investment Promotion Board
2. RBI: Reserve Bank of India
3. ROC: Registrar of Companies
4. Equip: Equipment
5. Serv: Services
6. IP: Infrastructure Providers

**Figure V-2: Flow chart for a foreign company to set up operation in India**

## **4 Recommendations and guidelines concerning attractive investment areas in the Indian telecom market**

This section provides recommendations and guidelines for foreign companies intending to invest in the Indian telecom market.

This section is based mainly on the discussion in chapters III and IV of the book.

The recommendations and guidelines for future investment by foreign companies in India are organized under the following three categories:

- services, products/ equipment, and infrastructure providers
- regions of operation
- customer segments

(A) Services, products/ equipment and infrastructure providers<sup>6</sup>

*(A1) Services*

The following services are identified as key markets for investment in the future.

i. Cellular mobile service

India has one of the fastest growing telecom systems in the world growing at an average of about 22% for fixed telephone services and over 100% for cellular and internet services. The wireless and fixed line segments represent a huge opportunity for service providers and vendors, though the exact rate of growth differs from application to application, and from region to region.

According to the TRAI 4-5 million subscribers are added each month. Cellular subscribers are expected to increase by 100 million in the next 3-4 years.

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<sup>6</sup> NTP 99, DoT Annual Report 2002-03, Indian Telecommunications 2003, Destination India 2003, Entry strategies for foreign investors- DIPP, Chapter III, Table III-13, Chapter IV, Invest India Brochure 2003, www.coai.com, Centre for monitoring Indian economy (February 2004), TRAI Press Release No. 66/2006 (12 July 2006).

From the point of view of needed investments in relation to expected turnover, it is easier for a foreign telecom operator to provide wireless services than wired services.

This makes investment in cellular mobile service the highest priority investment in services segment of the Indian telecom market.

ii. Fixed or basic telephone service

The Government aims to increase teledensity in rural regions, has put in place specific programs to reduce the digital divide between the urban and the rural. Such programs make it attractive to invest in fixnet in rural areas. The potential for providing telephone connections is estimated at 75 million by 2005 and 175 million by 2010.

Opportunities also exist in international long distance service, national long distance service, and internet services.

iii. Call center service and similar activities

India has been recognized as one of the top outsourcing destinations because of the benefits of location, skilled and efficient young manpower proficient in the English language.

Other important sectors for investment include international contact centers, customer relationship management, tele-education, tele-medicine and tele-banking.

iv. Email service

The need for e-mail services is also rising in the Indian telecom market both among individual clients and among corporate clients in the cities as well as in countryside.

The least attractive market segments are radio paging services and global mobile personal communication services. As mentioned in section 8 of chapter III, this is because of India's huge rural population which is mostly illiterate or can read only the local language. For them, a pager with paging service in English is not too attractive. Rather more attractive is a cellular phone in which they can talk in their own mother tongue. Although the Indian telecom market is trying to equally promote global mobile personal communication services, surely the advantage of cellular services is higher

than GMPCS. That is why it has been put in the category of the least attractive sub-market. Yet a company with strong advantages in this business should not hesitate to invest, as there is a high opportunity for harvest in almost every sub market in India if carefully thought through and well implemented.

*(A2) Product/ Equipment*

The demand for various kinds of telecom equipment and infrastructure is continuously increasing in the Indian telecom market due to the growth in the telecom services owing to the liberalization policy and the tele-density targets of the government. Government has permitted foreign companies to trade telecom equipment under ‘cash and carry wholesale trading’, under which foreign companies have no obligation for either transfer of technology or to set up manufacturing base. Having telecom equipment manufacturing facilities and software centers in India has a great advantage in terms of cost, quality and availability of professional work force. It also makes it easier to access the rest of Asia and the world. Some of the best markets could be the following.

i. Terminal equipment

There is a rise in demand for terminal equipment such as telephone instruments ranging from normal push button to multi-line feature phones, telephone answering machines, key telephone systems, cordless telephone systems, pagers, cellular phones, handsets for radio trunk services, pay phones, fax machines, ISDN terminals, line jack units, data terminals and modems.

ii. Transmission equipment

There is a similar rise in demand for transmission systems such as radio-, satellite-, wireless local loop-, and optical fiber transmission-system due to rise in VSAT and other services.

Digital microwave radio equipment has potential for large investment and high returns since most of the radio frequency spectrum in microwave is still available for deployment.

The use of VSATs for space-related technologies is expected to grow in the future with some more liberalization in this sector.

(A3) *Infrastructure providers*

There is a rise in demand for infrastructure providers such as dark fibers, right of way, duct space, towers and end-to-end bandwidth.

The increase in deployment of enterprise voice solutions, contact center and customer relationship management (CRM) solutions and teleconferencing has also resulted in the boosting of telecom infrastructures.

(B) Regions of operation<sup>7</sup>

The following regions or areas are identified as key markets for investment:

i. Urban regions

Voice traffic in urban areas will shift towards wireless, while data traffic such as the use of internet will grow by leaps and bounds and will primarily be carried on wireline.

Urban region are attractive because of the concentration of educated, middle class and English speaking population. Urban areas also home to a plethora of multinational and large companies in India. Hence, in the urban areas a lot of broadband deployment is needed in the future but at the same time the competition is higher in urban regions than in rural areas.

ii. Semi-urban and rural regions

In semi-urban and rural areas, fixed line and cellular telephony will grow faster than data communication. This is due to the concentration of the humble, non-schooled population, who can communicate and follow only the local language that makes data communication, which is mainly in English, not a very friendly process.

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<sup>7</sup> NTP 99, DoT Annual Report 2002-03, Indian Telecommunications 2003, Destination India 2003, Entry strategies for foreign investors- DIPP, figure III-8 of Chapter III, Chapter IV, Invest India Brochure 2003, www.coai.com, Centre for monitoring Indian economy (February 2004). e-census, Bajpai and Sachs 1999 and March 2000, Indian Telecom Statistics 2003, Press report of Indian Committee of Youth Organization, January 2005.

Tele-density in rural India is very low, but the need for telephones is high. This makes rural India, which has 638,691 villages, and population of 741,660,293 during the 2001 census, a huge field for investment with a vast potential in terms of subscribers.

The Indian government's efforts to increase rural tele-density and thus to bring down the digital divide prevalent in the country encourages investment in rural area.

Most cellular operators, both domestic and foreign, are concentrated in the cities where the competition is extremely high.

iii. Touristic regions

The touristic regions of India such as Uttar Pradesh, Rajasthan and Kerala attracting lot of tourists make these areas good for investment in cellular service for that reason, but also for fixed service, since they are not highly urbanized and are therefore not highly competitive.

iv. Hilly and mountainous regions

Hilly and mountainous regions of India where tele-density is very low present an opportunity for foreign companies who come with know-how and operational experience from similar regions.

v. Most and least attractive regions

The most attractive regions are Rajasthan, Uttar Pradesh and Uttranchal in the North, Madya Pradesh in the West; Bihar, Jharkhand, Chattisgarh, Orissa, West Bengal, Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura in East India. In these regions either the volume of market in terms of subscribers is high or there is not much that has been done. So these regions are demanding and attracting investment to catch up with the rest.

The other regions such as such as Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Kerala and Tamil Nadu are also attractive but they have already attracted a lot of operators. So it may seem attractive to step in here, but competition is stiff.

The least attractive region is Jammu & Kashmir because of tensions and violence. When and if these abate, then this should be considered among the most attractive regions for fixed as well as cellular.

**Table V-1** provides recommendations on the basis of which foreign companies can choose in which region (“state”) of India to establish operations. The figure below shows two types of classification of the regions. The classification on the left is based on the current market volume of cellular and fixed services subscribers in the region and the classification on the right is based on the number of villages and rural population in the region.

There are also rather significant differences in commitment to reform and economic performance between Northern India and Southern India. In Southern India, Karnataka, Tamil Nadu and Andhra Pradesh are quite dynamic now in trying to get the infrastructure. The regimes try to attract large-scale foreign investment. In the North, (e.g., in Bihar and Uttar Pradesh one does not see the same kind of reform dynamism with the consequence that economic growth is poor. There is a popular argument that these differences will have political impact sooner rather than later, as inequalities become glaring. The regions that are ahead will have better performance and the regions that lag behind will find that the citizens demand that they to catch up with the regions that are growing. That will spur a kind of competition among the Indian regions and make the reform process go much faster. It remains to be seen if this argument will align with reality.

### (C) Customer segments<sup>8</sup>

For foreign companies the key customer segments are middle class, students and small and medium businessmen in agricultural rural India.

#### i. Middle class

One of the fastest growing stratum of the Indian society is the middle class, which is mostly situated in the cities and the urban areas. With a

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<sup>8</sup> Chapter III, Chapter IV, Harvard Asia Quarterly (27 July 2004), Destination India, Economic Survey 2002-03, Ecensus, CIA World Factbook, [www.nationmaster.com](http://www.nationmaster.com), Arts & Letters Daily by Prof. Dennis Dutton, Homepage of Ministry of secondary and higher education of Government of India, [www.indiastat.com](http://www.indiastat.com), [www.indianchild.com/classes\\_in\\_india](http://www.indianchild.com/classes_in_india).

Market volume	Regions based on current market volume of cellular and fixed services subscribers	Based on number of villages and rural population to represent the future potential	Number of villages
High market volume	Andhra Pradesh (S) Delhi (N) Gujarat (W) Karnataka (S) Maharashtra (W) Tamilnadu (S)	Bihar (E) Madya Pradesh (W) Maharashtra (W) Orissa (E) Uttar Pradesh (N) West Bengal (E)	> 40,000 villages
Medium market volume	Haryana (N) Kerala (S) Madya Pradesh (W) Punjab (N) Rajasthan (N) Uttar Pradesh (N) West Bengal (E)	Andhra Pradesh (S) Assam (E) Gujarat (W) Himachal Pradesh (N) Karnataka (S) Punjab (N) Rajasthan (N) Tamilnadu (S)	10,000-40,000 villages
Low market volume	Assam (E) Bihar (E) Himachal Pradesh (N) Jammu & Kashmir (N) North East (E) Orissa (E)	Delhi (N) Haryana (N) Jammu & Kashmir (N) Kerala (S) North East (E)	< 10,000 villages
<ul style="list-style-type: none"> <li>• Uttar Pradesh includes Uttaranchal, Uttar Pradesh East and West</li> <li>• Tamilnadu includes Chennai</li> <li>• Maharashtra includes Mumbai</li> <li>• Bihar includes Chattisgarh and Jharkhand</li> <li>• West Bengal includes Kolkatta and Andaman and Nicobar Islands</li> <li>• North East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura</li> <li>• (N)- North, (E)- East, (W)- West, (S)- South</li> </ul>			

**Table V-1: Attractivity of regions of operation**



middle-class population exceeding 300 million, India remains one of the biggest potential markets of the world economy. According to Prof. Dennis Dutton, the Director of Radio New Zealand, Inc, and the Editor of the journal *Philosophy and Literature*, published by the Johns Hopkins University Press, millions of Indian people increasingly have a level of wealth that is approaching the middle classes of the West (in buying power, if not in exact cash equivalence). This group is mobility-driven, consumer-oriented, and to some extent forward-looking. Hard to define precisely, it is not a single stratum of society, but straddles town and countryside, making its voice heard everywhere. It encompasses prosperous farmers, white-collar workers, business people, military personnel, and myriad others, all actively working toward a prosperous life. Ownership of cars, televisions, and other consumer goods, reasonable earnings, substantial savings, and educated children (often fluent in English) typify this diverse group. Many have ties to kinsmen living abroad who have done very well.

The richer part of the middle class, the “upper middle class” is 1 percent of the total population that is 13 million. These are owners of large properties, members of exclusive clubs, and vacationers in foreign lands, and include industrialists, former maharajas, and top executives. The products and services that could be interesting to them include cellular services, basic phone services, internet services, and related equipment and accessories.

Such middle class strata, along with the rich and affluent class, form an attractive segment for telecom and IT related services.

ii. Young student population

India has one of the largest youth populations in the world. According to the Indian Committee of Youth Organizations, India’s youth population stood at 540 million in January 2005. According to the department of secondary and higher education of government of India, there are 16,885 colleges with 10 million students enrolled, not including those from the technical colleges and research institutions. This is a segment consisting of young, intellectual and techno-driven individuals and mostly concentrated in the cities and the urban regions. The products and services that could be interesting to them include cellular services, paging services, call center services, tele-medicine, tele-education, internet services, and related equipment and accessories.

iii. Small and medium businessmen

Agriculture contributes to 25% of India's Gross Domestic Product (GDP), and 60% of India's total labor force of 406 million, according to a survey conducted in 1999 is in agricultural labor. This indicates a large percentage of small and medium businessmen in rural India, who form potential customer segment, the value of which was seen in the case of First Pacific in section 4.1.4 of chapter IV.

The products and services that could be interesting to some of them include basic phone services, pay phones. Cellular services and internet services. Paging service too could be interesting to this segment if the barrier of language is overcome: the majority of the population in the villages does not speak English, but the regional language.

**Table V-2** summarizes the above discussion and presents the best future investment in terms of customer segment.

Customer segments	Population (approx.)	Products/Services
Middle class	> 300 million	Cellular services, fixed phone services, internet services, and related equipment and accessories
College and University Students	>10 million	Cellular services, paging services, call center services, tele-medicine, tele-education, internet services, and related equipment and accessories
Small and medium business men	240 million*	Cellular services, fixed phone services, paging services, internet services, and related equipment and accessories
*60% of total labor force of 406 million as per 1999 census		

**Table V-2: Future investment in terms of customer segments**

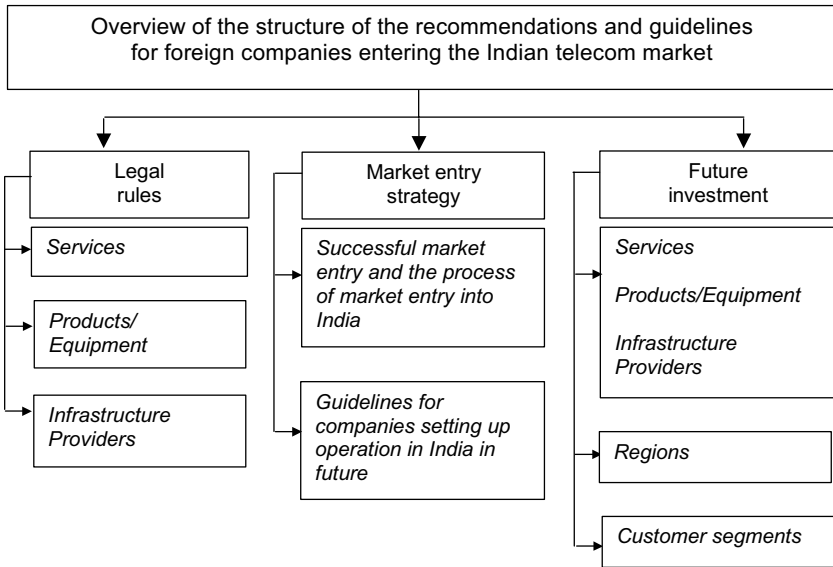
## 5 Summary

This section summarizes the structure of the recommendations and guidelines for foreign telecom operators wishing to enter the Indian telecom market in future.

The recommendations and guidelines focus on three areas: legal rules, market entry and future investment. The recommendations for legal rules correspond to the three sub markets of the Indian telecom market: services market, products/ equipment market, and infrastructure providers market. The recommendations and guidelines for market entry indicate the key facts which must be taken into account if one wishes to enter the Indian telecom market, the process of market entry into India and the path for establishing an operation in India. The recommendations for future investment are categorized into services and products, regions of operation and customer segments.

As the Indian telecom market is highly dynamic and is in the process of reformation for the betterment of the industry as well as of the players, some of the recommendations are time bound, especially the legal rules that may be subject to changes in the future.

**Figure V-3** shows the overview of the structure of the recommendations and guidelines.



**Figure V-3: Overview of the structure of the recommendations and guidelines**

# **VI Final remarks**

## **1 An overview of the chapter**

Chapter VI is the concluding chapter of this book. It summarizes the main findings of the research, the study limitations and directions for further research. The chapter is divided into three sections.

Section 2 summarizes the research project.

Section 3 sheds light on the limitations of the research and suggestions for future research.

## 2 Summary

As seen from the introductory chapter, this research has one general major objective, that is, to support foreign companies who wish to enter the Indian telecom market successfully. The research also has three minor objectives.

- To identify the legal rules in the Indian telecom market and to understand the present situation of the Indian telecom market.
- To describe and analyze different market entry strategies which have been attempted by foreign telecom companies in the Indian telecom market, and to understand the reasons for their success or failure.
- To arrive at a set of recommendations for foreign companies which may wish to enter the Indian telecom market in future.

After a thorough survey of the relevant literature, it is clear that not much has been published on market entry strategy in the Indian telecommunication market.

Therefore, this research intended to shed new light on market entry strategy in relation to the emerging Indian telecom market, which is the star among the sunrise industries in India. This book is one of the very few researches about the Indian telecom market carried out for the benefit of foreign companies interested in this market.

The research highlights the reasons, which makes Indian telecom market highly attractive to foreign investors, and describes the rules and regulations prevalent in the Indian telecom industry. Live case studies on market entry strategies of foreign companies that entered the Indian telecom market in the past help to learn from their success and failure. The research also identifies the prime sectors of Indian telecom for investment in future and provides recommendations to foreign companies intending to enter the Indian telecom market in future.

It is the hope of the author that the foreign telecom companies that have interest in the Indian telecom market can use this research as a handbook.

The overview of the chapters with its implication to minor objectives and the research questions of the book is shown in **Table VI-1**.

Chapters	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6
Minor objectives and research questions	Preliminary remarks	Strategic management and market entry strategies in the literature	Telecom market in India	Description and assessment of cases on market entry strategies of foreign companies in Indian telecom market	Recommendations and guidelines for foreign companies entering the Indian telecom market in future	Final remarks
Minor objective 1	To identify the rules in the Indian telecom market and to understand the present scenario of the Indian telecom market.					
			X	(X)		
Minor objective 2	To describe and analyze different market entry strategies in the Indian telecom market and to understand the reasons for their success and failure.					
		(X)		X		
Minor objective 3	To arrive at a set of recommendations for foreign companies entering the Indian telecom market in future.					
					X	
Research Question 1	Why is the Indian telecommunications market so attractive to the foreign investors?					
			X			
Research Question 2	Why is it that India's vast potential in the field of telecom difficult to tap?					
			X			
Research Question 3	What strategies have been followed by foreign companies entering the Indian market and what has been the result of following these entry strategies?					
				X		
Research Question 4	What lessons can be learnt from the experiences of companies trying to enter the Indian market so far? For example, what kinds of actions could help success in India, what kind of analysis should be done before stepping into the Indian telecom market, who all should be involved and to what extent?					
				X	(X)	
Research Question 5	What will be the prime sectors of Indian telecommunications for investment in future?					
			(X)		X	
X = directly fulfils (X) = indirectly fulfils						

**Table VI-1: Overview of chapters, research objectives and questions**

### **3 Limitations of the research and suggestions for future research**

As any other studies, this research has its limitations too.

First, the focus of this book is the Indian telecom market as a whole. The Indian telecom market is very vast with large sub-markets both in terms of products/services and regions, and also with many customer segments. Therefore, intensive study in each sub-market taking into account all the factors was not possible. The case studies of companies are only from some submarkets and do not address the issues in each submarket.

Second, the Indian telecom market was extremely dynamic during the last decade with a lot of reformations taking place in the industry, which influenced the companies operating in the Indian market including those chosen for case study in this book. There were not many primary sources available that recorded the latest data consistently. This reason coupled with the focus of the book on the overall Indian market made the author to deal with the cases at a superficial level.

Third, the Indian telecom industry is quite young and is in the growth phase of development. Therefore, the rules and regulations of the telecom industry described in chapters III and V are for the period when the research was conducted and it may not be applicable after a certain time since its publication. Hence, readers are requested to pay attention to possible anomalies arising due to amendments in the rules and regulations of the Indian telecom market.

The following areas are suggested for further research to compliment the study undertaken in this book.

- Industry analysis of Indian telecom market in terms of products and services, customer segments, and regions.
- Study of factors influencing the market entry strategy of foreign companies in a specific telecom sub-market.
- Comparative study of Indian telecom market in respect for instance to the Chinese telecom market.



# **Appendix A: Letters to the interviewees requesting an appointment**

## **1. Letter to experts in India**

«Title». «First\_Name» «Name»  
«Company»  
«Street»  
«PIN» «Country»

New Delhi, xx August 2001

### **Request for an interview with a doctoral research student from Switzerland**

Dear «Title». «First Name» «Last Name»,

I am a doctoral research student in Management at the University of Fribourg in Switzerland, doing my research at the Chair of Prof. Dr. Rudolf Grüning, the Dean of the Department of Economics and Social Sciences of the same university, Director of the International Institute of Management in Telecommunications (IIMT), Fribourg, Switzerland and a visiting professor of strategic management in several international management institutions.

I am here in India for a short period for interviewing few eminent personalities from the Indian telecom industry to get an idea about the present scenario of the Indian telecom market and to write my research more precisely, which will be published on completion.

It would be a great pleasure if I could get the privilege of knowing your opinion on the questions that I have in mind and which I would like to incorporate in my research.

I would be glad if you could grant me the opportunity to meet you on any day according to your convenience between 29<sup>th</sup> of August and 10<sup>th</sup> of October 2001 for an interview.

Looking forward to meet you.

Yours sincerely,

Kiruba Levi

## **2 E-mail to experts other than in India**

To: «E-mail address»

Subject: Request for an interview with a doctoral research student from Switzerland

Dear «Title». «First Name» «Last Name»,

I am a doctoral research student in Management at the University of Fribourg in Switzerland. The topic of my thesis is “Entry strategies of foreign companies in Indian telecommunications market”. I am interested to meet you in person for an interview and discuss few important questions, which would direct my thesis in the right direction.

I would be glad if you could grant me the privilege to meet you in person at the earliest, or kindly fill in the questionnaire attached in case of your unavailability.

Kind regards,

Kiruba Levi

Enclosed: Questionnaire

## Appendix B: List of interviewees

Name	Company	Function	Place	Date	Mode
Antoine Andenmatten	Swisscom AG	Deputy Head of Participation Management	Bern, Switzerland	7.11.2002	Personal interview
Michel Vetil and Amresh Sood	Alcatel India Limited/ Alcatel International	CEO and General Manager Accounts and Finance	Paris, France/ Delhi, India	14.3.2002	E-mail interview
Niru Mehta	Avaya Communications India Limited*/ Tata Avaya	Managing Director	New Delhi, India	24.9.2001	Personal interview
Manoj Kohli	First Pacific India/ Escotel Mobile Communications Limited	Executive Director & Chief Executive Officer	New Delhi, India	24.9.2001	Personal interview
Joseph Samuel	Nortel Networks India Limited	Managing Director	Bangalore, India	20.9.2001	Personal interview
Jagdish Kini	Bharti Mobile Limited	Chief Executive Officer	Bangalore, India	20.9.2001	Personal interview
Dr. Harsha V. Singh	Telecom Regulatory Authority of India (TRAI)	Secretary cum Principal Advisor	New Delhi, India	27.8.2001	Personal interview
Narinder Sharma	Mahanagar Telephone Nigam Limited (MTNL)	Chairman & Managing Director	New Delhi, India	24.8.2001	Personal interview
Rajneesh Gupta	Videsh Sanchar Nigam Limited (VSNL)	Director (Network) VSNL Board	New Delhi, India	23.8.2001	Personal interview
* Then known as Avaya Communications India Limited and rechristened as Avaya GlobalConnect in 2004.					

## Appendix C: Questionnaire used for interview

### QUESTIONNAIRE

Name of the organization:

Name and designation of the interviewee:

Date:

Greetings and thanks

Brief introduction about self and the thesis

Questionnaire

#### **PART I: Introduction**

1. The main activities of the organization and the number of employees in the organization.
2. Your current function in the organization and what were your responsibilities prior to this. (*Since how long have you been with this company and how many years of experience do you have in the telecom industry*)
3. How would you see the telecom situation in India with lot of changes coming in?
4. Where is the Indian telecom market in specific view of the foreign companies in the Indian telecom market?
5. What is the situation of foreign companies coming in India i.e., how do you rate their performance?

#### **PART II: Market entry strategy**

6. When did your company enter the India telecom market?
7. What strategy did your company follow to penetrate Indian telecom market explicitly in terms of the services the company offers, service segments, and geographical area?
8. Why and what was the reason for choosing such a strategy?

9. How did you execute or implement your strategies. Was there any difference between the intended strategy or attainment of goals and the reality?
10. How effective was your strategy. To what extent could you attain your desired goals? In other words how far have you been successful?
11. Could there have been any other strategy, which you would have intended to follow instead of the one that you did?
12. What kind and how much market analysis or research did you do to arrive at your strategy?
13. Where is the Indian telecom industry moving towards or how do you see the future of the Indian telecom industry?
14. What are the chances of your company going to the other markets in Asia?

### **PART III: Current position**

15. What is the current market position of your company? How are the business and the turnover of your company developing in the Indian market?
16. What are your services, market share, customer segments and geographical area of work?
17. How do you rate the current success of your company in terms of ROI, EBIT and free cash flow etc?

### **PART IV: Final**

18. Who do you think is your main competitor or potential competitor in future?

## Appendix D: Consolidated responses of the interviewees

<b>Name of the interviewee:</b> Mr. Antoine Andenmatten		Date: 7.11.2002
<b>Company:</b> Swisscom AG		
Q 1.	Swisscom has 20,470 employees with business in telecom products and services in fixed, cellular, voice and data, and internet.	
Q 2.	Deputy Head of Participation Management of Swisscom.	
Q 3.	Potential market for telecom due to huge population and exploding middle class, UK law/mentality-so interest can be protected, technically difficult to wire cities like Delhi so cellular services is much easier.	
Q 4.	Not so much aware of India. But WLL was a topic in 1997 and it is still not ruled out. The competition is big but weak; hence it is almost equal to no competition. Regulators need to be more independent. The frame given by the law should be operated solidly.	
Q 5.	Refer to Q4.	
Q 6.	In 1996.	
Q 7.	We had a joint venture with the Delhi based Essar group for providing cellular services in Delhi.	
Q 8.	The was because at that time we were not allowed to have more than 49% of share holding, hence a joint venture was one of the best strategies.	
Q 9.	Yes there were differences.	
Q 10.	Initially it was fine but not in the long run, which forced us to move out of India.	
Q 11.	The other possibilities were to establish retail chains or to have a nucleus of sales channel but this is very difficult task or nearly mission impossible.	
Q 12.	A complete and thorough business case analysis on Indian market was done with the help of different international consulting group before entering the Indian market.	
Q 13.	Refer to Q4.	
Q 14.	Not answered.	
Q 15.	India was a difficult market. Results were not met. Overestimation of number of potential subscribers.	
Q 16.	Not answered.	
Q 17.	We want to be the biggest of the small and not smallest of the big. To be a global market operator is not our target. We want to be number one in excellence in our operations.	
Q 18.	Not answered.	

<b>Name of the interviewee:</b> Mr. Michel Vetil and Mr. Amresh Sood Date: 14.03.2002	
<b>Company:</b> Alcatel India Limited and Alcatel International	
Q 1.	1980, single largest supplier of digital switching in India, has 800 employees in India and 76,000 all over the world.
Q 2.	CEO and General Manager Accounts and Finance along with Vice President marketing of Alcatel India.
Q 3.	<p>With government liberalizing the telecom sector in the last seven years, telecom reforms have transformed the telecom business in India radically. The government has initiated major changes in providing telecom facilities; cellular services, national &amp; international long distance have been opened up for private operators.</p> <p>In short, competition has increased service quality, brought down price levels and has given options to the consumer.</p> <p>These reforms are irreversible and would ensure that Indian telecom market will benefit from the latest technology and services.</p>
Q 4.	The Indian telecom market today can compare itself with the market elsewhere in the world. With continuous reforms and competition, prices have come down and price sensitivities have led to increased number of subscribers and improved teledensity.
Q 5.	Over the last seven years there have been a mixed experience of foreign telecom companies and their association with local operators. We have seen that quite a few of them have quit India whereas there has been substantial interest from few who want to be closely associated with the Indian telecom market. In recent times, an increased association of Singtel and Qualcomm with the telecom projects in India has been observed.
Q 6.	1982.
Q 7.	Alcatel was very aggressive in Indian telecom market from the very beginning. Alcatel introduced the right products in India and ensured that it worked very closely with the customers for their requirements, both technically & commercially. Alcatel also has a local manufacturing unit, which was a must for providing products for the Government PTT.
Q 8.	In the initial stages of growth in the telecom sector in India, the Government PTT was the major buyer and as per purchase practices adopted by them, they confined their purchase to Indian rupees of locally manufactured products. This gave us a major market share in Indian market for switching product.
Q 9.	Refer to 6 to 8.
Q 10.	Same as Q8.
Q 11.	No.
Q 12.	We have been keeping very close watch in tracking the market and activity of our competitors. In addition, we have also tried to understand the purchase pattern and requirements of the private operators both technically and commercially so that we can give them the “best match” offerings.

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Q 13.	Indian telecom industry presently is at cross roads and is bound to expand with specific emphasis on mobile telephony. In short, the industry has still a long way to go but has a bright future.
Q 14.	Not answered.
Q 15.	Not answered for confidentiality reasons.
Q 16.	50% market share.
Q 17.	Not answered for confidentiality reasons.
Q 18.	Cisco, Lucent, Nortel Networks.



<b>Name of the interviewee:</b> Mr. Niru Mehta		Date: 24.09.2001
<b>Company:</b> Avaya Communications India Limited*/ Tata Avaya Limited		
Q 1.	Global leader in enterprise communication equipment. Operates in 90 different countries and supplies to 90% of the fortune 500 companies, 500 employees.	
Q 2.	Managing Director of Avaya India and the Vice President of Tata Telecom since 1997. Prior to this worked in AT&T and Lucent for 23 years in United States of America.	
Q 3.	There are more opportunities and larger market.	
Q 4.	Encouraging market opportunities for foreign investors. India is on top of the outsourcing destination list with benefits of location, skilled labor force, and more.	
Q 5.	Lot of things are happening and the question is to how to put everything together because of the complexity and newness. To leap frog, basic business models have to be developed and not just technology to go further.	
Q 6.	2000.	
Q 7.	Joint venture with a strong local name which has services through out the country.	
Q 8.	Our domestic joint venture partner was also in Enterprise Communication.	
Q 9.	Our expectation was much higher, we had the first 18 months as the timeframe. We employed a strategy that gives you ability to play in the market and flexible allowing you to grow as the market grows.	
Q 10.	Very well, but there were some deviations partly because of government, infrastructure, bank, band width, domestic long distance network, data network pricing etc.	
Q 11.	Started with alternation strategy, which was quite successful without any conflict in management.	
Q 12.	Market research not valid in India, same data, source is so unscientific, not worth spending lot of time and money as market is likely to go and could be longer or shorter than expected.	
Q 13.	Refer to Q5.	
Q 14.	Not applicable.	
Q 15.	Well, growing rapidly at 34%.	
Q 16.	40% market share, cover the whole range of enterprise communication.	
Q 17.	Presently very healthy situation and world class performance. Two years back it was very bad and negative.	
Q 18.	Cisco, Nortel Networks in call center business, Siemens in basic telephony.	
* Then known as Avaya Communications India Limited and rechristened as Avaya GlobalConnect in 2004.		

<b>Name of the interviewee:</b> Mr. Manoj Kohli		Date: 24.09.2001
<b>Company:</b> First Pacific India Limited/ Escotel Mobile Communications Limited		
Q 1.	Cellular services, 700 employees in India.	
Q 2.	Chief Executive Officer of Escotel which is a joint venture between the Escorts group in India and First Pacific of Hong Kong for last 5 years, prior to this in DCM for 17 years and Allied Signal for 2 years.	
Q 3.	Indian telecom is at the threshold of exponential growth for nearly a decade, since the liberalization in 1991. There is rise in teledensity and number of cellular subscribers.	
Q 4.	Foreign companies need patience in the context of government and to grow in a scattered market like India.	
Q 5.	The attitude of foreign companies in India is very poor. Most of them enter India without any real understanding of the Indian market. They rely more on the opinion of the consultants, expatriates which often leads them to a wrong mind-set and business values. Most of them such as AT&T, Hutchison and Swisscom had wasted a lot of resources acquiring new properties.	
Q 6.	In 1995.	
Q 7.	We entered the Indian market through a joint venture with the native Escorts group. Our target group is the common man that is the small and medium businessman, which is a huge population in India. We operate in 7 big states in India. The state of Kerala where we operate is the 3 <sup>rd</sup> biggest market for cellular operation next to Delhi and Mumbai.	
Q 8.	We adopted this strategy because it is a long-term strategy. Immediately after our launch we came down to specifics.	
Q 9.	We implemented our strategies quite effectively. Through our club Royale we gathered all the small and medium businessmen.	
Q 10.	Strategy was good but we could not achieve our goals fully because of company reason and market reason. The regulatory mechanism of DoT was not good hence more than focusing on market development our concentration was on fighting DoT.	
Q 11.	Our strategy and market was right but we had to hold back the investment because of DoT's behavior.	
Q 12.	Huge amount of research was done. However, market research alone is not sufficient it has to be mixed with market experience and personal insight.	
Q 13.	India is a potential market for both cellular services and fixed service. Both are growing rapidly and by 2010 cellular will overtake the fixed service.	
Q 14.	India surely has a much bigger market abroad too.	
Q 15.	We are the market leader in 3 of the states we are operating in. They are Kerala (65%), Haryana (90%) and U.P. West (100%). Our turnover is growing by 100% every year.	
Q 16.	Refer Q15.	

Q 17.	EBITDA positive within three years of commencement of operation in all three circles. EBITDA average of 45%.
Q 18.	Today the real job is to build the market, convince the potential customer. Real competition would start in 5 years. Our competitors are Singtel Tel and Airtel. However, collaboration and competition is needed to widen the market. For example in the operation of Escotel, it is the finance (equity of 49%) and good practices that come from First Pacific.

<b>Name of the interviewee:</b> Mr. Joseph Samuel		Date: 20.09.2001
<b>Company:</b> Nortel Networks India Limited		
Q 1.	We are in the business of providing telecommunication equipments and solutions to the telecom operators. We also provide e-business solutions and networking solutions to the enterprise segment. 80,000 employees.	
Q 2.	I am in charge of Indian operations of Nortel Networks.	
Q 3.	<p>With the opening up of the telecom sector, India's telecom infrastructure is bound to grow. Many incumbent and emerging carriers are investing heavily in laying the basic infrastructure to support network operations, and these backbone infrastructure will grow exponentially as competition to provide basic telephony services begins in what was formerly a heavily protected market sector.</p> <p>With the passing of NTP 1999 bill on convergence, a total outlay of USD 18 billion (INR. 820 billion) is envisaged over the next couple of years. And since Government has liberalized the types of technologies that can be incorporated, there has been a phenomenal response from market players looking to provide value-added services to their subscribers.</p> <p>The range of available subscriber services calls for dramatic change in the way incumbent and emerging carrier networks choose their equipment. In the telecommunications infrastructure sector, there has been a trend for telecommunications companies to ask for more reliable, scalable and integrated core network equipment. As existing basic telephony technologies move away from 2G to 2.5G and to 3G in the near future, India's telecommunications companies cannot afford not to set up new-generation, scalable and end-to-end networks.</p>	
Q 4.	The Asian subcontinent as a whole is seen as a huge market by all players in this segment. India is perceived to be one of the largest markets in Asia after Japan and China. The Indian telecom sector would witness a huge amount of capital spending in the next few years.	
Q 5.	The telecom equipment manufacturers and solutions providers that operate in India are doing very well. This is because of the fact that the telecom sector in India is going through a boom period. This is because this sector has been thrown open to private participation and a lot of private companies are looking at setting up networks in India. This represents a huge opportunity for telecom equipment manufacturers to provide them with the network equipment and solutions.	
Q 6.	1998.	
Q 7.	India part of its worldwide strategy. It had a two-way approach- the enterprise market and the service provider market.	
Q 8.	Did not want to miss the opportunity in India.	
Q 9.	Need to be more aggressive.	
Q 10.	Refer to Q9.	
Q 11.	No	

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Q 12.	Not answered.
Q 13.	India an important market.
Q 14.	Already operating.
Q 15.	Turnover of USD 66.5 million in 2000-01.
Q 16.	We supply the entire range of telecommunications networking equipment along with a host of other allied services meant for telecom operators and enterprise segment. We provide end-end networking solutions to our customers.
Q 17.	Refer to Q15.
Q 18.	There are many players in this space. But our major competitors are Nokia, Alcatel, Cisco Systems, Motorola etc.

<b>Name of the interviewee:</b> Dr. Harsh V. Singh		Date: 27.08.2001
<b>Company:</b> Telecom Regulatory Authority of India (TRAI)		
Q 1.	Regulation of the telecom industry.	
Q 2.	Since June 1997 as Economic Advisor, prior to that in WTO in Geneva as a Counselor to the Director General in basic telecommunication negotiation.	
Q 3.	The National Telecom Policy of 1999 has changed the vision of the government to corporatization, universal service obligation etc.	
Q 4.	The limit on extent of foreign participation is 49% in few segments. Example Cellular.	
Q 5.	Disinvestments and corporatization taking place in India and the rate of growth of lines is 20% per annum.	
Q 6.	Not applicable.	
Q 7.	Not applicable.	
Q 8.	Not applicable.	
Q 9.	Not applicable.	
Q 10.	Not applicable.	
Q 11.	Not applicable.	
Q 12.	Not applicable.	
Q 13.	Expanding rapidly specially in the cellular and basic services	
Q 14.	Pretty good. Buying parts of existing companies and establishing new companies. For example disinvestments in Bangladesh.	
Q 15.	Not applicable.	
Q 16.	Not applicable.	
Q 17.	Not applicable.	
Q 18.	Not applicable.	

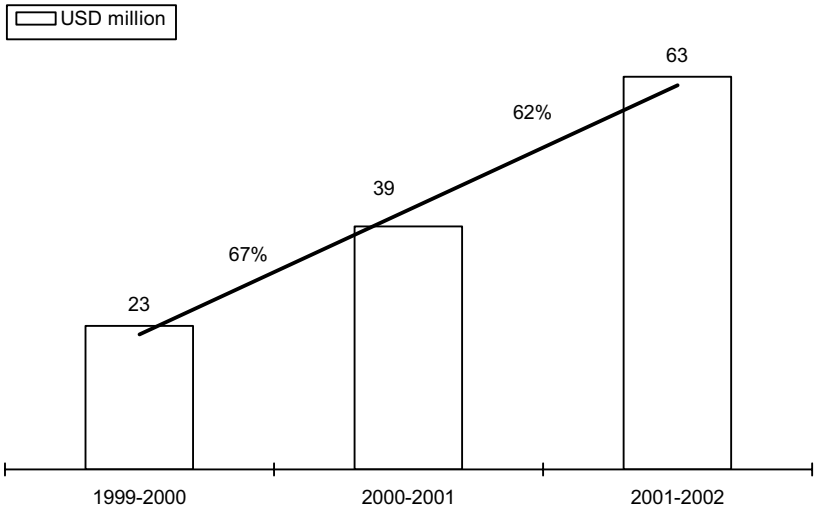
<b>Name of the interviewee:</b> Mr. Narendra Sharma		Date: 24.08.2001
<b>Company:</b> Mahanagar Telephone Nigam Limited (MTNL)		
Q 1.	Provides basic telecom services in the metropolitan cities of Delhi and Mumbai. 61,000 employees.	
Q 2.	Chairman and Managing Director of the organization.	
Q 3.	Transition from monopoly to open market entry. Incumbent operator in all the businesses. Unlimited players in basic services and long distance but limited in cellular services. In cellular only 4 operators per state is allowed. Interconnect agreement in basic service sector is not yet in place. Resolution to a number of issues is required.	
Q 4.	With the establishment of strong regulators and dispute settlement authorities, there is level play in the market. So foreign companies should be able to come and invest.	
Q 5.	Open market, introducing state-of-art technology, tremendous potential for growth.	
Q 6.	Not applicable.	
Q 7.	Not applicable.	
Q 8.	Not applicable.	
Q 9.	Not applicable.	
Q 10.	Not applicable.	
Q 11.	Not applicable.	
Q 12.	Not applicable.	
Q 13.	The tele-density is very low (3.5%). It is projected to increase to 10% by 2007, so a lot of investment in the telecom industry is taking place and the growth is projected to be very fast.	
Q 14.	License has been issued to a joint venture of MTNL, VSNL, TCIL for WLL services in Nepal, a bid for 51% stake in Malawi is also on the way.	
Q 15.	Not applicable.	
Q 16.	Not applicable.	
Q 17.	Not applicable.	
Q 18.	Not applicable.	

<b>Name of the interviewee:</b> Mr. Rajneesh Gupta		Date: 23.08.2001
<b>Company:</b> Videsh Sanchar Nigam Limited (VSNL)		
Q 1.	VSNL provides International Long Distance Service and has 2000 employees.	
Q 2.	Serving in the board of VSNL since 1991, prior to that in DoT, 1970 Indian Telecom service.	
Q 3.	<p>Earlier only government was providing certain infrastructures, government was struggling with questions such as at what point of time should it open up, if opening up for basic infrastructure is sufficient etc. As over delay opening up has no meaning and the basic social goals to countrymen took the priority.</p> <p>Now opening up is taking place. A strong regulator is being set up to see what extent and tariff, level of playing should be allowed. The rules are such that any outsider must have a fair deal whatever the market be. Private sector participation encouraged. The dispute settlement machinery is amicable and fast. The level of confidence of the players is rising and there is a better flow.</p>	
Q 4.	The foreign companies see India as a big commerce center. FDI is encouraged even up to 100% in some segments.	
Q 5.	India is currently a big playing field in South Asia and is a huge emerging economy.	
Q 6.	Not applicable.	
Q 7.	Not applicable.	
Q 8.	Not applicable.	
Q 9.	Not applicable.	
Q 10.	Not applicable.	
Q 11.	Not applicable.	
Q 12.	Not applicable.	
Q 13.	Lot of competition in telecom market. For example, 400 ISP licenses are issued but less than 90 are operating. Refer to Q5.	
Q 14.	Main target abroad is South Asia and Africa. Already present in Nepal, Mauritius and Kenya.	
Q 15.	Not applicable.	
Q 16.	Not applicable.	
Q 17.	Not applicable.	
Q 18.	Not applicable.	



## Appendix E: Data sheets

### Turnover of Escotel



Source: Voice and Data, July 2002

## Half-Year Highlights of First Pacific Group

<b>Financial Summary</b>	<b>2003</b>	<b>2002</b>	<b>Change</b>
<b>Six months ended 30 June</b>			
<b>US\$ millions</b>			
Turnover	1,008.7	899.1	+12.2%
Contribution from operations	43.1	25.4	+69.7%
Recurring profit	34.8	15.6	+123.1%
Foreign exchange gains	1.9	11.2	-83.0%
Profit attributable to ordinary shareholders	36.7	26.8	+36.9%
<b>US\$ millions</b>			
	<b>At 30 June 2003</b>	<b>At 30 December 2002</b>	<b>Change</b>
Net current assets	235.6	20.6	+1,043.7%
Total assets	2,066.9	2,313.1	-10.6%
Net debt	869.8	1,062.7	-18.2%
Shareholders' deficit	(20.8)	(71.2)	-70.8%
Net assets*	312.3	352.9	-11.5%
<b>Per share data</b>			
<b>Six months ended 30 June</b>			
<b>US cents</b>			
Recurring profit	1.09	0.50	+118.0%
Basic earnings	1.15	0.85	+35.3%
<b>Financial ratio</b>			
<b>Times</b>			
	<b>At 30 June 2003</b>	<b>At 30 December 2002</b>	<b>Change</b>
Gearing ratio**			
- Consolidated	2.79	3.01	-7.3%
- Company	0.09	0.15	-40.0%

\* Equivalent to the sum of shareholders' deficit and outside interests.

\*\* Calculated as net debt divided by net assets

Source: First Pacific company Limited, Interim report 2003, p. 2.

## Performance in local currency of First Pacific group

	Original Currency	Turnover			Net Profit/(Loss)		
		<u>2001</u>	<u>2000</u>	%	<u>2001</u>	<u>2000</u>	%
<b>Consumer</b>							
Indofood	Rp'bn	<b>7,158</b>	5,891	+22	<b>353</b>	286	+23
Berli Jucker	Baht'mn	<b>5,438</b>	5,035	+8	<b>300</b>	300	-
Darya-Varia	Rp'bn	<b>245</b>	211	+16	<b>(16)</b>	(4)	-300
<b>Telecommunications</b>							
PLDT	Peso'mn	<b>36,725</b>	29,477	+25	<b>1,374</b>	123	+1,017
Escotel	Rupee'mn	<b>1,177</b>	673	+75	<b>(917)</b>	(787)	-17
Infrontier	US\$'mn	-	-	-	<b>(4)</b>	-	-
<b>Property</b>							
Metro Pacific	Peso'mn	<b>4,406</b>	5,826	-24	<b>(1,088)</b>	(603)	-80

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Source: Interim results, First Pacific Company, Appendix D, 3 September 2001, p.13.

## Value of Assets of First Pacific Group

	<u>US\$'m</u>	<u>HK\$'m</u>	<u>HK\$ per share</u>
<b>Market Value<sup>(1)</sup></b>			
PLDT	393	3,065	0.98
Indofood	397	3,097	0.99
Metro Pacific	106	827	0.26
Berli Jucker	79	616	0.19
Darya-Varia	24	187	0.06
	<b>999</b>	<b>7,792</b>	<b>2.48</b>
<b>Carrying costs<sup>(2)</sup></b>			
Escotel	63	492	0.16
<b>Total valuation of assets</b>	<b>1,062</b>	<b>8,284</b>	<b>2.64</b>
<b>Head Office</b>			
- Net debts	(243)	(1,895)	(0.60)
- Other assets	99	772	0.24
	<b>(144)</b>	<b>(1,123)</b>	<b>(0.36)</b>
<b>Total valuation</b>	<b>918</b>	<b>7,161</b>	<b>2.28</b>
<b>Total no of shares in issue (million)</b>	<b>3,140</b>	<b>3,140</b>	
<b>Value per share (dollars)</b>	<b>0.29</b>	<b>2.28</b>	

<sup>(1)</sup> Value based on quoted share price at 31 August

<sup>(2)</sup> Investment cost

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Source: Interim results, First Pacific Company, Appendix H, 3 September 2001, p.17.

## **Monopoly of Swiss PTT in Switzerland**

.....The most serious barriers to U.S. exports exist in the domain of telecommunications. The Swiss PTT controls the public network and all services related to voice transmission. Satellite communication requires licensing by the PTT, and telecommunication equipment has to be approved by the Federal Office of Telecommunication (separate from the PTT). The Swiss PTT has the possibility to take stakes in private companies operating in the domain of Value Added Network Services (VANS), which have been liberalized, whereas the private sector has no access to markets controlled by the PTT.....

Source: U.S. department of state, Switzerland: 1994 country report on economic policy and trade practices, Bureau of economic and business affairs

## **Swisscom's stake in Mutiara, Malaysia**

*Withdrawal from Asia-* In Malaysia, Swisscom holds 30% of DiGi-Swisscom-Berhad (formerly Mutiara-Swisscom). DiGi has licenses for the operation of a national digital mobile network (GSM 1800), a fixed network, an international gateway, VSAT and data network services in Malaysia. By the end of 1998, DiGi had 310,000 customers but currently faces a difficult market situation due to the financial crisis in Asia.

Source: Swisscom Annual Report 1998, p. 32.

### **Swisscom's stake in Sterling Cellular Limited of India – I**

In New Delhi, a metropolis with a population of 12 million, a GSM mobile network is being developed under Swisscom management.

***Sterling Cellular Limited, New Delhi, India-*** In 1996 Swisscom acquired strategic interest of 32.5% in Sterling Cellular. A state-of-the-art GSM cellular network is now being set up under Swisscom's guidance in New Delhi, a city with a population of twelve million. The products and services are marketed under the "Essar Cellphone" brand. Sterling Cellular's subsidiary Aircel Digilink holds licences for the Haryana, Rajasthan and Uttar Pradesh East regions, covering the northern part of India with a network that is able to offer telephone services to a population of more than 170 million people. At the end of 1997 there were around 125,000 customers in the four regions. All the cellular networks have now been commissioned and are operational. In the spring of 1998 the Delhi network acquired its third exchange. The network boasts 129 base stations which receive and transmit voice and data signals not only for the company's own customers, but also for those of other operators who have a roaming agreement with Sterling.

Source: Swisscom Annual Report 1997, p. 36.

### **Swisscom's stake in Sterling Cellular Limited of India - II**

Swisscom has held a 32.5% interest in Sterling Cellular in India since 1996. The Sterling subsidiary Aircel Digilink, in which Swisscom has an additional direct investment of 10%, has licenses for the Harvana, Rajasthan and Uttar Pradesh East regions, covering the northern part of India with a mobile network. Regulatory restrictions by the Indian government, in particular the high level of license fees, made it impossible to extend the market position in India during the year under review. Swisscom recorded high losses in its participations in the mobile network operators in India and Malaysia in 1998. As a consequence of the focusing of international activities and following detailed critical analysis of various options, in March 1999 Swisscom decided to withdraw from the participations in Malaysia and India.

Source: Swisscom Annual Report 1998, p. 33.

### Swisscom's stake in Sterling Cellular Limited of India – III

**DiGi Swisscom in Malaysia.** Swisscom holds a 30% interest in DiGi Swisscom Bhd. (“DiGi Swisscom”), formerly known as Mutiara Swisscom Bhd. DiGi Swisscom is a holding company, listed on the Kuala Lumpur stock exchange, that owns all of the share capital of DiGi Telecommunications Sdn. Bhd. (“DiGi”), formerly known as Mutiara Telecommunications Sdn. Bhd., a full-service telecommunications provider in Malaysia whose core business is mobile telephony. Swisscom made an initial investment of CHF 357 million in July 1996 to acquire its interest in DiGi Swisscom and in October 1997 invested an additional MYR 71.6 million (CHF 35.8 million) in order to maintain its percentage shareholding following DiGi Swisscom’s initial public offering.

As has happened throughout the mobile telephony business in Malaysia, the Asian economic crisis has resulted in slower subscriber growth and increased bad debt expense in DiGi’s core mobile telephony business. The effect of the economic recession on DiGi’s mobile business has been somewhat offset by the success of its prepaid cellular service, which is based on Swisscom’s proprietary SICAP platform, and by DiGi’s international traffic termination and hubbing activities, through which it earns foreign currency income. Nevertheless, DiGi had a net loss for the year ended December 31, 1998 of MYR 368 million (CHF 133 million), which exceeds the amount recorded by Swisscom as an impairment of DiGi’s net assets and associated goodwill and the costs expected to be incurred to exit the business, and revenues of MYR 468.3 million (CHF 169 million).

Due to the decline in operations, Swisscom decided to withdraw from the Malaysian market in March 1999 and recorded a charge to write-off the remaining portion of its investment in DiGi, having concluded that its investment in DiGi was impaired. In addition, Swisscom also provided for anticipated exit costs which it expects to incur in connection with the planned disposition of its interest. In early May 1999, Swisscom entered into a preliminary agreement with one of the other shareholders in DiGi in order to facilitate the sale of Swisscom’s holdings. Due to the imposition of capital and currency controls in Malaysia in September 1998, it is uncertain whether or when Swisscom will be able to repatriate proceeds, if any, of the planned sale of its stake in DiGi.

**Sterling Cellular in India.** Swisscom owns 32.51% of the issued share capital of Sterling Cellular Limited, an Indian company licensed to provide mobile services in the metropolitan area of New Delhi. Swisscom’s joint venture partner in India, Essar TeleHoldings Ltd. (“Essar”), currently holds 51.05% of Sterling Cellular Limited. Sterling Cellular Limited in turn owns an 80% interest in Aircel Digilink India Ltd. (“Aircel Digilink” and, together with Sterling Cellular Limited, “Sterling Cellular”) which is fully consolidated in the consolidated financial statements of Sterling Cellular Limited. Swisscom also owns a direct 10% interest in Aircel Digilink with the remaining 10% owned by Essar. Aircel Digilink holds licenses for three regions in Northern India: Haryana, Uttar Pradesh (East) and Rajasthan. Each such mobile license area and Delhi has two private mobile operators. In the aggregate Sterling Cellular holds licenses covering a larger population in northern India than any other mobile services provider. These licenses permit Sterling Cellular to carry intra-regional long-distance traffic but do not allow it to carry inter-regional or international traffic. Swisscom acquired its initial

interest in Sterling Cellular in the first quarter of 1996 with an investment of CHF 252 million.

Sterling Cellular's financial position and liquidity is extremely weak. A recapitalization proposed by Swisscom, pursuant to which Swisscom would have acquired additional equity in the company, collapsed due to a failure to obtain certain regulatory approvals relating to limitations on the foreign ownership of telecommunications licensees, and, more generally, to continued regulatory uncertainty within the Indian cellular industry. For the year ended December 31, 1998, Sterling Cellular had consolidated revenues of Rs 1,921 million (CHF 63 million), incurring a net loss of Rs 3,088 million (CHF 101 million), excluding the amount recorded by Swisscom related to an impairment of Sterling's net assets and associated goodwill and the costs expected to be incurred to exit the business.

As in the case of Malaysia, as a result of the decline in operations, Swisscom decided to withdraw from the Indian market in March 1999 and has written down the book value of its investment in Sterling Cellular. Swisscom has also made provisions for its anticipated exit costs. Swisscom had previously issued guarantees which remain outstanding in support of equipment purchases made by Sterling Cellular from Siemens AG and for amounts owed by Sterling Cellular to certain banks, totaling US\$36.5 million (CHF 51 million) and Rs. 231 million (CHF 7.7 million). Swisscom has entered into a preliminary agreement to sell its stake in Sterling Cellular.

Source: Swisscom Form 20F 1998, p. 35.

## Swiss PTT demanding more say in the management and equity

MUMBAI, 1998 January 18: Swiss PTT, the Zurich-based telecom company, is demanding more say in the management and equity in its joint venture with the Essar group, Sterling Cellular, and offered to the Ruias to increase their stake in the company to 51 per cent. Sterling Cellular is the operator of New Delhi cellular service.

Sources say the Essar group would be a minority partner in the telecom venture where the Swiss telecom giant is already having a 32 per cent stake.

Though the Indian government norms bar foreign companies to have a majority control in the private telephone network, sources say till the regulations do not change, Swiss PTT will officially have a 49 per cent stake.

Due to the liquidity crunch, Essar was in talks with the Swiss PTT since the last few months. Sources say a deal would be signed soon by both the companies.

With the fund infusion from Swiss PTT, Essar would be able to invest more on its basic telephone network coming up in Punjab.

The Ruias had taken over Sterling Computers, the holding company of Sterling Cellular, from the Chennai-based C Sivasankaran. At the time of takeover, Sterling Computers had already bagged the license to operate the cellular phone network in New Delhi.

Sources say Swiss PTT wanted a greater say in the management of the Delhi cellular phone network, and inject more funds to expand operations. The Swiss company also offered to invest funds into the joint venture which was to be equal to Essar contribution.

When contacted, Essar director, Prashant Ruia, denied any move by Swiss PTT to increase its stake in the joint venture. At present, Essar holds 51 per cent in Sterling Cellular, Swiss PTT holds 32 per cent and C Sivasankaran holds the remaining portion in the operating company of 17 per cent.

Essar's 51 per cent stake in Sterling Cellular is routed through the holding company, in which Essar Investments holds over 90 per cent. Company insiders say Swiss PTT was keen to have a bigger say in the Delhi's cellular operations, and, therefore, was keen on a higher stake.

Swiss PTT already plays the majority role in the running of the cellular services company as its nominees hold the key positions of CEO, chief operating officer, head-marketing and chief financial officer.

Swiss PTT is also looking at the possibility to pick up the Sivasankaran's stake of 17 per cent in Sterling Cellular. In future, Swiss PTT is also interested in picking up a higher stake in Sterling Computers, the holding company of Sterling Cellular.

The Ruias have received approval from the Foreign Promotion Investment Board (FIPB) in December last year to offload a 24 per cent stake in Sterling Computers to three overseas bodies: Asia Pacific Bonds, Asia Pacific Alliance and Asia Pacific Markets, the special purpose vehicles, from which Swiss PTT will buy its stake.

Source: Indian Express Newspapers (Bombay) Ltd., 19 January 1998, "Swiss PTT Swiss PTT plans to hike stake in Sterling Cellular" by Dev Chatterjee, <http://www.expressindia.com /ie/daily/19980119/01950094.html>.



## Slow down of Swiss PTT's work in India

.....Having received Letters of Intent (LoIs) from the Department of Telecommunications (DoT) as long as five months ago, the licensees-in-waiting - whose foreign partners include Israel's Bezeq, Hughes, NYNEX, Bell Canada, Japan's NTT and Swiss PTT - have been unable to act upon their licences as uncertainty remains over the actual signing. The government blames procedural delays. Both the licence agreement and the interconnect agreement, which governs access between the competing networks of private companies and the DoT, are being vetted by the Law Ministry. The Law Ministry is reputed to work slowly, but it also provides a convenient excuse for government departments that wish to stall for any reason. Even if legal clearance is received soon, the agreements are not likely to be signed before the middle of this month - by which time a new government will be in the process of forming.....

Source: The Indian Technomist, 2 May 1996, "India's general elections slow telecom reform" by Rishab Aiyer Ghosh, <http://dxm.org/technomist/02may96.html>.

## Swiss PTT quit Indian telecom market

..... The world's biggest names came into our telecom sector, but today all but a few have quit. British telecom has sold out to Bharti. Telstra of Australia, Bezeq of Israel, Shinwatra of Thailand, have all have pulled out. Nynex has sold out to its partner Reliance. Others who have exited are Vodafone, Bell South, Bell Canada, US West and Swiss PTT. The few remaining foreign investors in telecom include Hutchison, Singtel, and AT&T. Unlike power, telecom is generally considered a successful sector, yet foreigners have left in droves. Why? First, investors grossly overestimated. Second, bickering between the telecom regulatory authority and department of telecommunications created uncertainties on the interpretation and enforcement of rules. Third, the rules themselves keep changing. In one case this benefited foreign investors: they were allowed to migrate from an unviable licence fee system to a revenue-sharing system. But in general, foreigners are not used to and cannot manage constant changes in rules, unlike Indian businessmen enjoying decades of experience with a capricious licence-permit raj. Often Indian telecom partners have bought out foreigners. This contradicts the traditional wisdom that joint ventures end with foreigners swallowing Indians (something that has indeed happened in other sectors, mainly because Indian partners could not produce enough capital to meet rising losses). The quit India movement of foreign investors is not limited to power and telecom.....

Source: The Times of India, 4 November 2001, "What makes MNC quit India" by Swaminomics/Swaminathan S Anklesaria Aiyar  
<http://timesofindia.indiatimes.com/articleshow/1602986123.cms>,  
<http://timesofindia.indiatimes.com/columnists/msid-12071824,auid-7863.cms>.

## **Management control of the Indian operation by Swiss PTT**

It appears that the bottom has fallen out of the cellular market in India! At the end of December 1997, there were nearly 800,000 mobile phone users through-out the country (see Table 1), and the number of new connections was growing at an impressive 60,000 new subscribers every month-arguable one of the fastest growth rates experienced anywhere in the world. Cellular operators should have been exuberant!

Why, then, would a relatively successful cellphone operator-Hutchison-Max-sell its interests to a foreign partner? Why would Essar hand over management control to Swiss-PTT? Why would JT Mobile sell its Punjab operations to Essar so cheaply? And why is Koshika so desperate to find a buyer? HFCL has already reduced its stake in Fascal-one of the operators in lucrative Maharashtra-to the mandatory 10% and is planning to sell all its shares in the near future. HHS Communications pulled out of Tamil Nadu as soon as it got in. Also on the auction block are stakes in cellular companies from the BPL and B K Modi stable, Skycell Communications, and Hexacomm, say sources. Even the big guys like Reliance and Tata are struggling.

Why indeed! Things turned nightmarish almost from the beginning when cellular operators realized that their projections for subscriber growth (see Table 2) and airtime usage were simply unrealistic. In fact, the miscalculation of average airtime usage is the primary reason for their current financial difficulties. Additionally, operators expected revenues of \$62.50 per month per subscriber! Failure to meet these expectations.....

Source: New Telecom Quarterly, Third Quarterly 1998, Volume 6, Number 3, pp. 3-9.  
"Tough times for India's cellular carriers" by V. R. Shailaja.

## **Alcatel in India**

Alcatel's initial presence in India was through a partnership with Indian Telephone Industries (I.T.I. Ltd.) forged in the early 1980s. This partnership was renewed in 1991 and 1999 to incorporate technological changes in line with the trends in the industry. In 1991, Alcatel created a joint venture with an Indian partner, buying back its shares in 2000; Alcatel now has a fully owned subsidiary, Alcatel India Ltd, which offers the complete suite of telecom solutions and services to meet the needs of this challenging market.

Alcatel has invested heavily in India in terms of infrastructure and human resources. It operates a manufacturing facility in Gurgaon, near Delhi, an enterprise-business organization in Bangalore, and software centers in Bangalore, Chennai and Gurgaon. This accounts for 800 employees. Beyond this, approximately 2,000 Indian software engineers contribute to Alcatel's worldwide high tech development program through subcontracting agreements.

Alcatel has emerged as the single largest supplier of digital switching in India with 50% marketshare achieved through manufacturing by I.T.I. Ltd. since 1982 and that of its own since 1993. Alcatel supplied the first national packet switched data network, I-NET II, for BSNL (the recently corporatized part of the Indian Department of Telecommunications). In transmission, Alcatel has 29% of the digital microwave market and will be the first supplier of DWDM to BSNL. Alcatel will also supply the submarine fiber optic link between Singapore and India to Bharti-SingTel joint-venture (see "Letter From"). In GSM, Alcatel provides complete infrastructure for cellular networks. Through a recent acquisition, Alcatel holds a leading position in the broadband and narrowband multiservice platform market. It has a market share of 66% for multiplexers and 42% for ATM/Frame Relay. With over 1,500 nodes installed, Alcatel has references with major public operators, utilities, banks, administrations and software companies. Among them: BSNL as previously mentioned; MTNL, India's public operator for the cities of Delhi and Mumbai; VSNL, the soon to be privatized international voice/data service provider owned by the Government of India.

In the private operators market, Alcatel is working with Bharti Enterprises, Reliance Telecom, Birla AT&T, and Himachal Futuristics Corporation Limited (HFCL). Additionally, major software exporters like Wipro, Satyam and Tata Consultancy Services use Alcatel solutions in their networks.

Source: Newslink, 2<sup>nd</sup> Quarter 2001, Vol. 9, No. 2, pp. 20-22. "Alcatel in India" by Purnima Mohanty.

## **Tata Telecom rechristened Avaya GlobalConnect -I**

Tata Telecom Ltd, the communication equipment solutions provider in India, has been renamed as Avaya Global Connect Ltd.

Avaya Inc recently acquired 59.1 per cent stake in Tata Telecom including Tatas' 50.6 per cent in Tata Telecom.

The name change is subject to shareholder and regulatory approvals, the company said in a statement. With the formalization of the launch of Avaya's new subsidiary, the company will gain 500 additional employees in India. Avaya Global Connect, meanwhile, will continue to provide end-to-end converged communication solutions with support from its Avaya India Development Centre located in Pune and Avaya Labs in the Asia-Pacific, the company said.

Through Avaya GlobalConnect, the company plans to address the Australian and the Asia-Pacific market.

Source: Digital Media Asia, 29 September 2004, "Tata Telecom rechristened Avaya GlobalConnect" by Parthajit Bhattacharyya,  
<http://www.digitalmediaasia.com/default.asp?ArticleID=3486>.

## **Tata Telecom rechristened as Avaya GlobalConnect - II**

NEW DELHI -- Tata Telecom Ltd, a leading converged communication solutions provider for enterprises in India, recently reconstituted its board of directors and subsequently approved the proposal to rechristen the company as Avaya GlobalConnect Ltd., subject to shareholder and regulatory approvals.

The new board will comprise eight distinguished business professionals namely, Mark Leigh (President, Avaya Asia Pacific), Niru Mehta (Vice Chairman, Tata Telecom), David P. Johnson (Group Vice President, Small & Medium Business Solutions, Avaya), Francis M. Scricco (Group Vice President, Avaya Global Services), Amar Pai (Vice President, Finance Operations and Corporate Controller, Avaya), S. Ramakrishnan (MD, Tata Teleservices), Pradeep Mallick (Adviser and mentor to several companies) and C. B. Bhawe (MD, National Securities Depository Ltd.). The newly appointed board also elected Mark Leigh as the new Chairman of the rechristened entity, Avaya GlobalConnect. The transaction between the Tatas and Avaya has been completed and the Board has taken note of the same.

Mark Leigh, President, Avaya Asia Pacific, said: "India is fast becoming a force to reckon with in the global markets. Over the years, the company has exhibited a 26 percent CAGR and will continue to maintain a 22-25 percent CAGR in the years to come. I am confident that together, Avaya GlobalConnect and Avaya will deliver superior value proposition for all stakeholders."

Niru Mehta, Vice chairman, Tata Telecom, added: "One of our key differentiators for consistent growth and market leadership has been our driving force - winning through customer responsiveness. We will continue to leverage on our strengths and focus on customer responsiveness for further consolidation of our leadership position in our chosen markets. In addition, we remain focused on exploring future growth opportunities by leveraging on our capabilities for faster growth and further strengthening of our end-to-end offering."

The Avaya India Development Center located in Pune collaborates with Avaya Labs in the Asia Pacific and around the world for R&D in converged solutions, customer relationship management and unified communications solutions, as well as consulting and integration services. This center also houses the Avaya Global Solutions Support Center.

Source: Convergence Plus, 8 September 2004, "Tata Telecom rechristened as Avaya GlobalConnect", <http://www.convergenceplus.com/sep04%20india%20telecom%2001.html>.

## Appendix F: New Telecom Policy 1999

### 1.0 Preamble

#### *1.1 Importance of Telecommunications*

The Government of India (Government) recognises that provision of world-class telecommunications infrastructure and information is the key to rapid economic and social development of the country. It is critical not only for the development of the Information Technology industry, but also has widespread ramifications on the entire economy of the country. It is also anticipated that going forward, a major part of the GDP of the country would be contributed by this sector. Accordingly, it is of vital importance to the country that there be a comprehensive and forward looking telecommunications policy which creates an enabling framework for development of this industry.

#### *1.2 NTP 1994 - objectives and achievements*

In 1994, the Government announced the National Telecom Policy which defined certain important objectives, including availability of telephone on demand, provision of world class services at reasonable prices, ensuring India's emergence as major manufacturing / export base of telecom equipment and universal availability of basic telecom services to all villages. It also announced a series of specific targets to be achieved by 1997. As against the NTP 1994 target of provision of 1 PCO per 500 urban population and coverage of all 6 lakh villages, DoT has achieved an urban PCO penetration of 1 PCO per 522 and has been able to provide telephone coverage to only 3.1 lakh villages. As regards provision of total telephone lines in the country, DoT has provided 8.73 million telephone lines against the eighth plan target of 7.5 million lines.

NTP 1994 also recognised that the required resources for achieving these targets would not be available only out of Government sources and concluded that private investment and involvement of the private sector was required to bridge the resource gap. The Government invited private sector participation in a phased manner from the early nineties, initially for value added services such as Paging Services and Cellular Mobile Telephone Services (CMTS) and thereafter for Fixed Telephone Services (FTS). After a competitive bidding process, licenses were awarded to 8 CMTS operators in the four metros, 14 CMTS operators in 18 state circles, 6 BTS operators in 6 state circles and to paging operators in 27 cities and 18 state circles. VSAT services were liberalised for providing data services to closed user groups. Licences were issued to 14 operators in the private sector out of which only nine licensees are operational. The Government has recently announced the policy for Internet Service Provision (ISP) by private operators and has commenced licensing of the same. The Government has also announced opening up of Global Mobile Personal Communications by Satellite (GMPCS) and has issued one provisional license. Issue of licenses to other prospective GMPCS operators is under consideration.

The Government recognises that the result of the privatisation has so far not been entirely satisfactory. While there has been a rapid rollout of cellular mobile networks in

the metros and states with currently over 1 million subscribers, most of the projects today are facing problems. The main reason, according to the cellular and basic operators, has been the fact that the actual revenues realised by these projects have been far short of the projections and the operators are unable to arrange financing for their projects. Basic telecom services by private operators have only just commenced in a limited way in two of the six circles where licenses were awarded. As a result, some of the targets as envisaged in the objectives of the NTP 1994 have remained unfulfilled. The private sector entry has been slower than what was envisaged in the NTP 1994.

The government views the above developments with concern as it would adversely affect the further development of the sector and recognizes the need to take a fresh look at the policy framework for this sector.

### *1.3 Need for a new telecom policy*

In addition to some of the objectives of NTP 1994 not being fulfilled, there have also been far reaching developments in the recent past in the telecom, IT, consumer electronics and media industries world-wide. Convergence of both markets and technologies is a reality that is forcing realignment of the industry. At one level, telephone and broadcasting industries are entering each other's markets, while at another level, technology is blurring the difference between different conduit systems such as wireline and wireless. As in the case of most countries, separate licences have been issued in our country for basic, cellular, ISP, satellite and cable TV operators each with separate industry structure, terms of entry and varying requirement to create infrastructure. However, this convergence now allows operators to use their facilities to deliver some services reserved for other operators, necessitating a relook into the existing policy framework. The new telecom policy framework is also required to facilitate India's vision of becoming an IT superpower and develop a world class telecom infrastructure in the country.

## **2.0 Objectives and targets of the New Telecom Policy 1999**

The objectives of the NTP 1999 are as under:

- Access to telecommunications is of utmost importance for achievement of the country's social and economic goals. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the telecom policy.
- Strive to provide a balance between the provision of universal service to all uncovered areas, including the rural areas, and the provision of high-level services capable of meeting the needs of the country's economy;
- Encourage development of telecommunication facilities in remote, hilly and tribal areas of the country;
- Create a modern and efficient telecommunications infrastructure taking into account the convergence of IT, media, telecom and consumer electronics and thereby propel India into becoming an IT superpower;

- Convert PCO's, wherever justified, into Public Teleinfo centres having multimedia capability like ISDN services, remote database access, government and community information systems etc.
- Transform in a time bound manner, the telecommunications sector to a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players;
- Strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities.
- Achieve efficiency and transparency in spectrum management.
- Protect defense and security interests of the country.
- Enable Indian Telecom Companies to become truly global players.

In line with the above objectives, the specific targets that the NTP 1999 seeks to achieve would be :

- Make available telephone on demand by the year 2002 and sustain it thereafter so as to achieve a teledensity of 7 by the year 2005 and 15 by the year 2010
- Encourage development of telecom in rural areas making it more affordable by suitable tariff structure and making rural communication mandatory for all fixed service providers.
- Increase rural teledensity from the current level of 0.4 to 4 by the year 2010 and provide reliable transmission media in all rural areas.
- Achieve telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002.
- Provide Internet access to all district head quarters by the year 2000
- Provide high speed data and multimedia capability using technologies including ISDN to all towns with a population greater than 2 lakh by the year 2002.

### **3.0 New Policy Framework**

The New Policy framework must focus on creating an environment, which enables continued attraction of investment in the sector and allows creation of communication infrastructure by leveraging on technological development. Towards this end, the New Policy Framework would look at the telecom service sector as follows :

- Cellular Mobile Service Providers, Fixed Service Providers and Cable Service Providers, collectively referred to as 'Access Providers'
- Radio Paging Service Providers
- Public Mobile Radio Trunking Service Providers
- National Long Distance Operators
- International long Distance Operators



- Other Service Providers
- Global Mobile Personal Communication by Satellite (GMPCS) Service Providers
- V-SAT based Service Providers.

### *3.1 Access Providers*

#### *3.1.1 Cellular Mobile Service Providers*

The Cellular Mobile Service Providers (CMSP) shall be permitted to provide mobile telephony services including permission to carry its own long distance traffic within their service area without seeking an additional licence. Direct interconnectivity between licensed CMSP's and any other type of service provider (including another CMSP) in their area of operation including sharing of infrastructure with any other type of service provider shall be permitted. Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI and the same would be announced by August 15, 1999 as a part of the structure for opening up national long distance. The CMSP shall be allowed to directly interconnect with the VSNL after opening of national long distance from January 1, 2000. The CMSP shall be free to provide, in its service area of operation, all types of mobile services including voice and non-voice messages, data services and PCOs utilizing any type of network equipment, including circuit and/or packet switches, that meet the relevant International Telecommunication Union (ITU)/Telecommunication Engineering Center (TEC) standards.

CMSP would be granted separate licence, for each service area. Licences would be awarded for an initial period of twenty years and would be extendible by additional periods of ten years thereafter. For this purpose, service areas would be categorized into the four metro circles and Telecom circles as per the existing policy. CMSP would be eligible to obtain licences for any number of service areas.

Availability of adequate frequency spectrum is essential not only for providing optimal bandwidth to every operator but also for entry of additional operators. Based on the immediately available frequency spectrum band, apart from the two private operators already licenced, DOT/ MTNL would be licenced to be the third operator in each service area in case they want to enter, in a time bound manner. In order to ensure level playing field between different service providers in similar situations, licence fee would be payable by DoT also. However, as DoT is the national service provider having immense rural and social obligations, the Government will reimburse full licence fee to the DoT.

It is proposed to review the spectrum utilisation from time to time keeping in view the emerging scenario of spectrum availability, optimal use of spectrum, requirements of market, competition and other interest of public. The entry of more operators in a service area shall be based on the recommendation of the TRAI who will review this as required and no later than every two years.

CMSP operators would be required to pay a one time entry fee. The basis for determining the entry fee and the basis for selection of additional operators would be recommended by the TRAI. Apart from the one time entry fee, CMSP operators would also be required to pay licence fee based on a revenue share. It is proposed that the

appropriate level of entry fee and percentage of revenue share arrangement for different service areas would be recommended by TRAI in a time-bound manner, keeping in view the objectives of the New Telecom Policy.

### 3.1.2 Fixed Service Providers

The Fixed Service Providers (FSP) shall be freely permitted to establish 'last mile' linkages to provide fixed services and carry long distance traffic within their service area without seeking an additional licence. Direct interconnectivity between FSP's and any other type of service provider (including another FSP) in their area of operation and sharing of infrastructure with any other type of service provider shall be permitted. Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI and the same would be announced by August 15, 1999 as a part of the structure for opening up of national long distance. The FSP shall be allowed to directly interconnect with the VSNL after the opening up of national long distance from January 1, 2000. The FSP may also utilize last mile linkages or transmission links within its service area made available by other service providers. The FSP shall be free to provide, in his service area of operation, all types of fixed services including voice and non-voice messages and data services, utilizing any type of network equipment, including circuit and/or packet switches, that meet the relevant International Telecommunication Union (ITU)/ Telecommunication Engineering Center (TEC) standards.

The FSP shall be granted separate license, on a non-exclusive basis, for each service area of operation. Licences would be awarded for an initial period of twenty years which shall be extended by additional periods of ten years thereafter. The FSPs shall be eligible to obtain licences for any number of service areas.

While market forces will ultimately determine the number of fixed service providers, during transition, number of entrants have to be carefully decided to eliminate non-serious players and allow new entrants to establish themselves. Therefore, the option of entry of multiple operators for a period of five years for the service areas where no licences have been issued is adopted. The number of players and their mode of selection will be recommended by TRAI in a time-bound manner.

The FSP licencees would be required to pay a one time entry fee. All FSP licencees shall pay licence fee in the form of a revenue share. It is proposed that the appropriate level of entry fee and percentage of revenue share and basis for selection of new operators for different service areas of operation would be recommended by TRAI in a time-bound manner, keeping in view the objectives of the New Telecom Policy.

As in the case for cellular, for WLL also, availability of appropriate frequency spectrum as required is essential not only for providing optimal bandwidth to every operator but also for entry of additional operators. It is proposed to review the spectrum utilisation from time to time keeping in view the emerging scenario of spectrum availability, optimal use of spectrum, requirements of market, competition and other interest of public.

The WLL frequency shall be awarded to the FSPs requiring the same, based on the payment of an additional one time fee over and above the FSP entry fee. The basis for determining the entry fee and the basis for assigning WLL frequency shall be

recommended by the TRAI. All FSP operators utilising WLL shall pay a licence fee in the form of a revenue share for spectrum utilization. This percentage of revenue share shall be over and above the percentage payable for the FSP licence. It is proposed that the appropriate level of entry fee and percentage of revenue share for WLL for different service areas of operation will be recommended by TRAI in a time-boutid manner, keeping in view the objectives of the New Telecom Policy.

### 3.1.3 Cable Service Providers

Under the provisions of the Cable Regulation Act, 1995, Cable Service Providers (CSP) shall continue to be freely permitted to provide 'last mile' linkages and switched services within their service areas of operation and operate media services, which are essentially one-way, entertainment related services. Direct interconnectivity between CSP's and any other type of service provider in their area of operation and sharing of infrastructure with any other type of service provider shall be permitted.

Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI and the same would be announced by August 15, 1999 as a part of the structure for opening up national long distance. In view of convergence, it is highly likely that two-way communication (including voice, data and information services) through cable network would emerge in a significant way in future. Offering of these services through the cable network would tantamount to providing fixed services. Accordingly, in case the above two-way communication services are to be provided by CSPs utilising their network, they would also be required to obtain FSP licence and be bound by the licence conditions of the FSPs, with a view to ensure level playing field.

### 3.2 Internet Telephony

Internet telephony shall not be permitted at this stage. However, Government will continue to monitor the technological innovations and their impact on national development and review this issue at an appropriate time.

### 3.3 Radio Paging Service Providers

The Radio Paging Service Providers (RPSP) shall be permitted to provide paging services within their service area of operation. Direct interconnectivity between licenced RPSPs and any other type of service provider in their area of operation including sharing of infrastructure shall be permitted. Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI and the same would be announced by August 15, 1999 as a part of the structure for opening up of national long distance.

The RPSP shall be granted separate licence, on a non-exclusive basis, for each service area of operation. Licences would be awarded for an initial period of twenty years and will be extended by additional periods of ten years thereafter. For this purpose, the service areas would be categorized as per the existing structure. The RPSP shall be eligible to obtain licences for any number of service areas.

Availability of adequate radio frequency spectrum is essential not only for providing optimal bandwidth to every operator but also for entry of additional operators. It is proposed to review the spectrum utilisation from time to time keeping in view the

emerging scenario of spectrum availability, optimal use of spectrum, requirements of market, competition and other interest of public. The entry of more operators in a service area shall be based on the recommendation of the TRAI who would review this as required and no later than every two years.

The radio paging licencees shall pay a one time entry fee. The basis for determining the entry fee and the basis for selection of additional operators will be recommended by the TRAI. All radio paging licencees shall pay licence fee as a revenue share. It is proposed that the appropriate level of entry fee and percentage of revenue share for different service areas of operation will be recommended by TRAI in a time-bound manner, keeping in view the objectives of the New Telecom Policy. Further, TRAI may also examine and recommend the revenue sharing arrangements between RPSP and other access providers, subject to technical feasibility.

### *3.4 Public Mobile Radio Trunking Service Providers*

The Public Mobile Radio Trunking Service Providers (PMRTSP) shall be permitted to provide mobile radio trunking services within their service area of operation. Direct interconnectivity between licenced PMRTSP's and any other type of service provider in their area of operation shall be permitted after examining the legal implications in view of the CMSP licences

The PMRTSP shall be granted separate licence, on a non-exclusive basis, for each service area of operation. Licences would be awarded for an initial period of twenty years and will be extended by additional periods of ten years thereafter. For this purpose, the service areas would be categorized as per the existing structure. The PMRTSP shall be eligible to obtain licences for any number of service areas.

PMRTSP licencees would be required to pay a one time entry fee. The basis for determining the entry fee and the basis for selection of additional operators will be recommended by the TRAI. Apart from the one time entry fee, PMRTSP licencees would also be required to pay licence fee based on a revenue share. It is proposed that the appropriate level of entry fee and percentage of revenue share arrangement for different service areas would be recommended by TRAI in a time-bound manner keeping in view the objectives of the New Telecom Policy.

### *3.5 National Long Distance Operator*

National long distance service beyond service area to the private operators will be opened for competition with effect from January 1, 2000. To promote setting up long distance bandwidth capacity in the country, provide a choice to consumers and promote competition, all NLDOs should be able to access subscribers. With a view to achieve the above, all access providers shall be mandatorily required to provide interconnection to the NLDOs resulting in choice for subscribers to make long distance calls through any operator. For this purpose, the terms and conditions and other modalities would be worked out in consultation with TRAI and the same will be announced by August 15, 1999. The terms and conditions would also specify the number of operators, licence conditions on revenue sharing basis and other related issues.

Usage of the existing backbone network of public and private power transmission companies/ Railways/ GAIL, ONGC etc. shall be allowed immediately for national long distance data communication and from January 1, 2000 for national long distance voice communications.

Resale would be permitted for domestic telephony, announcement for the modalities thereof to be announced along with the opening up of national long distance by August 15, 1999. Resale on international long distance will not be permitted till the year 2004.

### *3.6 International Long Distance Services*

The subject of opening up of international telephony service to competition will be reviewed by the year 2004.

### *3.7 Other Service Providers*

For applications like tele-banking, tele-medicine, tele-education, tele-trading, e-commerce, other service providers will be allowed to operate by using infrastructure provided by various access providers. No licence fee will be charged but registration for specific services being offered will be required. These service providers will not infringe on the jurisdiction of other access providers and they will not provide switched telephony.

### *3.8 Global Mobile Personal Communication Services*

The Government has opened up the GMPCS market in India and has issued a provisional licence. The terms of the final licence would need to be finalised in consultation with TRAI by June 30, 1999. All the calls originating or terminating in India shall pass through VSNL gateway or in case of bypass, it should be possible to monitor these calls in the Indian gateways. VSNL is also to be compensated in case gateway is bypassed.

The GMPCS operators shall be free to provide voice and non-voice messages, data service and information services utilising any type of network equipment, including circuit and/or packet switches that meet the relevant International Telecommunication Union (ITU)/ Telecommunication Engineering Center (TEC) standards. However, the licences be awarded after the proposals are scrutinised from the security angle by the Government.

The appropriate entry fee/revenue sharing structure would be recommended by TRAI, keeping in view the objectives of the New Telecom Policy.

### *3.9 SATCOM Policy*

The SATCOM Policy shall provide for users to avail of transponder capacity from both domestic/ foreign satellites. However, the same has to be in consultation with the Department of Space.

Under the existing ISP policy, international long distance communication for data has been opened up. The gateways for this purpose shall be allowed to use SATCOM.

It has also been decided that Ku frequency band shall be allowed to be used for communication purposes.

### 3.9.1 VSAT Service Providers

The VSAT Service Providers shall be granted separate licence, on a non-exclusive basis for an initial period of twenty years and will be extended by additional periods of ten years thereafter. Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI and the same would be announced as a part of the structure for opening up national long distance by August 15, 1999.

The VSAT service providers shall be granted separate licence, on a non-exclusive basis. Licences would be awarded for an initial period of twenty years and will be extended by additional periods of ten years thereafter.

VSAT licencees would be required to pay a one time entry fee. The basis for determining the entry fee and the basis for selection of additional operators will be recommended by the TRAI. Apart from the one time entry fee, VSAT licencees would also be required to pay licence fee based on a revenue share. It is proposed that the appropriate level of entry fee and percentage of revenue share arrangement would be recommended by TRAI in a time-bound manner, keeping in view the objectives of the New Telecom Policy.

### 3.10 Electronic Commerce

On line Electronic Commerce will be encouraged so that information can be passed seamlessly. The requirement to develop adequate bandwidth of the order of 10 Gb on national routes and even terabytes on certain congested important national routes will be immediately addressed to so that growth of IT as well as electronic commerce will not be hampered.

### 3.11. Resolution of problems of existing operators

The New Policy Framework which seeks to significantly redefine the competitive nature of industry, would be applicable to new licensees.

There are, however, multiple licences that have been issued by the Government for cellular mobile services, basic services, radio paging services, internet services etc. It is the Government's intention to satisfactorily resolve the problems being faced by existing operators in a manner which is consistent with their contractual obligations and is legally tenable,

## 4.0 Restructuring of DoT

World-wide, the incumbent, usually the Government owned operator plays a major role in the development of the telecom sector. In India, DoT is responsible for the impressive growth in number of lines from 58.1 lakhs on April 1, 1992 to 191 lakhs in December 1998, showing CAGR of 20%. DoT is expected to continue to play an important, and indeed, dominant role in the development of the sector.

Currently, the licensing, policy making and the service provision functions are under a single authority. The Government has decided to separate the policy and licensing functions of DoT from the service provision functions as a precursor to corporatisation. The corporatisation of DoT shall be done keeping in mind the interests of all stakeholders by the year 2001.

All the future relationship (competition, resource raising etc.) of MTNL / VSNL with the corporatised DoT would be based on best commercial principles.

The synergy of MTNL, VSNL and the corporatised DoT would be utilised to open up new vistas for operations in other countries.

### **5.0 Spectrum Management**

With the proliferation of new technologies and the growing demand for telecommunication services, the demand on spectrum has increased manifold. It is therefore, essential that spectrum be utilised efficiently, economically, rationally and optimally. There is a need for a transparent process of allocation of frequency spectrum for use by a service and making it available to various users under specific conditions.

The National Frequency Allocation Plan (NFAP) was last established in 1981, and has been modified from time to time since. With the proliferation of new technologies it is essential to revise the *NFAP* in its entirety so that it could become the basis for development, manufacturing and spectrum utilization activities in the country amongst all users. The NFAP is presently under review and the revised NFAP-2000 would be made public by the end of 1999, detailing information regarding allocation of frequency bands for various services, without including security information. NFAP shall be reviewed no later than every two years and shall be in line with radio regulations of International Telecommunication Union.

Relocation of existing Spectrum and Compensation:

- Considering the growing need of spectrum for communication services, there is a need to make adequate spectrum available.
- Appropriate frequency bands have historically been assigned to defence & others and efforts would be made towards relocating them so as to have optimal utilisation of spectrum. Compensation for relocation may be provided out of spectrum fee and revenue share levied by Government.
- There is a need to review the spectrum allocations in a planned manner so that required frequency bands available to the service providers.
- There is a need to have a transparent process of allocation of frequency spectrum which is effective and efficient. This would be examined further in the light of ITU guidelines. For the present, the following course of action shall be adopted.
- Spectrum usage fee shall be charged.
- Setting up an empowered Inter-Ministerial Group to be called as Wireless Planning Coordination Committee (WPCC) as part of the Ministry of Communications for periodical review of spectrum availability and broad allocation policy.
- Massive computerisation in the WPC Wing will be started during the next three months time so as to achieve the objective of making all operations completely computerised by the end of year 2000.

## 6.0 Universal Service Obligation

The Government is committed to provide access to all people for basic telecom services at affordable and reasonable prices. The Government seeks to achieve the following universal service objectives:

- Provide voice and low speed data service to the balance 2.9 lakh uncovered villages in the country by the year 2002
- Achieve Internet access to all district head quarters by the year 2000
- Achieve telephone on demand in urban and rural areas by 2002

The resources for meeting the USO would be raised through a 'universal access levy' which would be a percentage of the revenue earned by all the operators under various licences. The percentage of revenue share towards universal access levy would be decided by the Government in consultation with TRAI. The implementation of the USO obligation for rural/ remote areas would be undertaken by all fixed service providers who shall be reimbursed from the funds from the universal access levy. Other service providers shall also be encouraged to participate in USO provision subject to technical feasibility and shall be reimbursed from the funds from the universal access levy.

## 7.0 Role of Regulator

The Telecom Regulatory Authority of India (TRAI) was formed in January 1997 with a view to provide an effective regulatory framework and adequate safeguards to ensure fair competition and protection of consumer interests. The Government is committed to a strong and independent regulator with comprehensive powers and clear authority to effectively perform its functions.

Towards this objective the following approach will be adopted:

- Section 13 of The TRAI Act gives adequate powers to TRAI to issue directions to service providers. Further, under Section 14 of the Act, the TRAI has full adjudicatory powers to resolve disputes between service providers. To ensure a level playing fields, it will be clarified that the TRAI has the powers to issue direction under Section 13 to Government (in its role as service provider) and further to adjudicate under Section 14 of the Act, all disputes arising between Government (in its role as service provider) and any other service provider.
- TRAI will be assigned the arbitration function for resolution of disputes between Government (in its role as licensor) and any licensee.
- The Government will invariably seek TRAI's recommendations on the number and timing of new licences before taking decision on issue of new licenses in future.
- The functions of licensor and policy maker would continue to be discharged by Government in its sovereign capacity. In respect of functions where TRAI has been assigned a recommendatory role, it would not be statutorily mandatory for Government to seek TRAI's recommendations.



## **8.0 Other Issues**

### *8.1 Standardisation*

To enable the establishment of an integrated telecommunication network, common standards with regard to equipment and services would be specified by the Telecom Engineering Centre (TEC). TEC would also continue to grant interconnect and interface approvals for various service providers.

### *8.2 Telecom equipment manufacture*

With a view to promoting indigenous telecom equipment manufacture for both domestic use and export, the Government would provide the necessary support and encouragement to the sector, including suitable incentives to the service providers utilising indigenous equipment.

### *8.3 Human resource development and training*

Human resources are considered more vital than physical resources. Emphasis would be planked on the development of human resources for all fields related to telecommunications and the dispersal of this expertise to the related fields. Such expertise shall also be made available to other countries.

### *8.4 Telecom research and development*

Recognising that telecommunications is a prime pre-requisite for the development of other technologies, telecommunications research and development (R&D) activities would be encouraged. Government would take steps to ensure that the industry invests adequately in R&D for service provision as well as manufacturing. Indigenous R&D would be actively encouraged with a view to accelerate local industrial growth and hasten transfer of technology. Premier technical institutions would be encouraged to undertake R&D activities on a contribution basis by the telecom service providers and manufacturers so as to develop multi-dimensional R&D activities in telecommunications and information technology.

### *8.5 Disaster management*

International co-operation in the use of terrestrial and satellite telecommunications technologies in the prediction, monitoring and early warning of disaster, especially in the early dissemination of information would be encouraged. Financial commitment to disaster management telephony and the development of appropriate regulatory framework for unhindered use of trans-boundary telecommunications would be put in plakhe.

### *8.6 Remote area telephony*

Rural Telephony, areas of North East, Jammu & Kashmir and other hilly areas, tribal blocks, etc. may be identified as a special thrust areas for accelerated development of telecommunications. The Ministry of Defence shall be assigned a more active role in the development of telecommunications in such remote areas as are identified for accelerated development of telecommunications.

### *8.7 Export of Telecom equipment and services*

Export of telecom equipment and services would be actively incentivised. Synergies among the various telecom players (manufacturers and service providers) would be exploited and used to provide integrated solutions for exports.

### *8.8 Right of way*

Government recognises that expeditious approvals for right-of-way clearances to all service providers are critical for timely implementation of telecom networks. The Central/ State Government/ Local bodies/ Ministry of Surface Transport etc. shall take necessary steps to facilitate the same.

## **9.0 Changes in legislation**

The Indian telecommunications system continues to be governed by the provisions of the Indian Telegraph Act, 1885 (ITA 1885) and the Indian Wireless Act, 1933. Substantial changes have taken place in the telecommunications sector since 1992. ITA 1885 needs to be replaced with a more forward looking Act.

## Appendix G: Addendum to the New Telecom Policy 1999

Government of India  
Ministry of Communications and Information Technology  
Department of Telecommunications  
Sanchar Bhawan, 20 Ashoka Road, New Delhi-110 001.

No.808-26/2003-VAS

11 November 2003

### OFFICE MEMORANDUM

#### **SUB: Addendum to the New Telecom Policy – 1999 (NTP-99)**

Given the central aim of NTP-99 to ensure rapid expansion of teledensity; given the unprecedented expansion of telecom services that competition has brought about; given the steep reductions in tariffs that competition has ensured; given the fact that advances in technologies erase distinctions imposed by earlier licensing systems; given the fact that even more rapid advances in technologies are imminent; given the steep reduction in costs of providing telecom services; given the rapid convergence of tariffs for wireless services; given the fact that the provision of such services at the cheapest possible rates and by the most reliable mode is the sine qua non for India to consolidate its position as a leading hub of Communications systems, Information Technology, IT enabled services, and of establishing itself as a leader in new disciplines such as bioinformatics and biotechnology; given the recommendations of TRAI in this regard; Government, in the public interest in general and consumer interest in particular and for the proper conduct of telegraphs and telecommunications services, has decided that there shall also be the following categories of licences for telecommunication services:

- (i) Unified Licence for Telecommunication Services permitting Licensee to provide all telecommunication/ telegraph services covering various geographical areas using any technology;
- (ii) Licence for Unified Access (Basic and Cellular) Services permitting Licensee to provide Basic and /or Cellular Services using any technology in a defined service area.

( A. S. Verma)  
Director (VAS-II)

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