CHAPTER: 2
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INTRODUCTION:

In our globalised world, there are three forces which restructure every aspect of business and society: telecommunication, information and globalization.

Communication means the importing or transmission of information. The difference between transport and communication is that while the former implies conveyance of goods the latter implies the conveyance of information.[17]

The conveyance of information is very necessary for the development of industry, commerce and trade in the country. The most important means of communication are the postal services, telephone services, radio, television, cellular phones, Internet, etc.

In India, telecommunication was introduced in 1851 near Calcutta by the British Government, when the first telegraph lines were laid. Only 5 years after Alexander Graham Bell invented the telephone in 1881, British firms introduced POTS (Plan Old Telephone Services) to the colonies. By 1947, India had 321 telephone exchanges in urban areas and a teledensity of 0.25 phones per thousand people.[4]

At first, telecommunication services were accessible to the rich only Stephen McDowell in his treatise on the political economy of the communication sector also takes this view: "Telecommunication technology and services did not assume a high national priority until the seventh economic development plan (1985-90). It is claimed that until the early 1980s, policy makers regarded telecommunication as luxury services not essential to economic growth.[33]

This sector gained prominence after the recommendations of Satyam (Sam) Pitroda around 1985-86. India planners realized the importance of communication as an important infrastructure for economic development and this led to expansion of telecommunication facilities.

History of Cellular Telephony in India

1992

The telecommunication sector in India was liberalized to bridge the gap through Government spending and to provide additional resources for the nation's telecom target. The private sector was allowed to participate.

1993

The telecom industry gets an annual foreign investment Rs. 20.6 million.

1994

Licences for cellular mobile services were granted by the Government of India for the metropolitan cities of Delhi, Mumbai, Kolkata and Chennai Cellular mobile service would operate as duopoly (i.e., not more than 2 cellular mobile operators could be licensed in each telecom circle) under a fixed license fee regime for 10 years.

1995

19 more telecom circles get mobile licenses.

1995 (Aug.)

Kolkata became the first metro to have a cellular network.

1997

Telecom Regulatory Authority of India is set-up.

1998

Annual foreign investment in telecom stands at Rs. 17,756.4 million.

1999

FDI inflow into telecom sector falls by almost 90% to Rs. 2126.7 million.

1999 (March)

National Telecom policy is announced.

2000 (June)

FDI inflow drops further down to Rs. 918 million.

2000 (January)

The TRAI act is amended.

After the liberalization of the Indian economy, many changes occurred in the business environment.[27]

With the introduction of the new telecom policy in 1994, the telecommunication sector was transformed from a state owned monopoly into an increasingly competitive industry. A revolution had taken place in this field. The opening up of the market led to impressive growth in the business as the private sector spread all over the country, new licenses were acquired, funds were raised from both, the domestic and international market.

The private operators started offering basic and a range of added telecommunication services including:

Cellular Communication (Cellular phone)
Electronic Mail
Radio Trucking
Paging
Other value added services

India's cellular market has shown definite signs of recovering from its many disappointments in recent years. The arrival of 4th mobile operators has changed the complexion of the telecom industry; the turf battle is now among

the four big players. The cellular market that began as a low volume high margin market (each call limit cost Rs. 16 once upon a time) has transformed into a low margin market and the operators needs higher volume to survive.[1]

Gujarat is an industrial state in the western part of India. There are many industries large, medium and small scale in this western industrial belt. Being industrialized and to promote industrialization the development of cellular technology is a vital part of telecommunication for the smooth functioning of the telecom sector.

Cellular technology came to Gujarat soon after the introduction of the new telecom policy. Hutch started its operations in Gujarat in January, 1997. Initially only two operators were given licences to operate in one state. So in Gujarat those operators were Hutch and Idea Cellular.

The mushrooming of service providers (i.e., the number increased from 2 to 4) and other value added services provided by them, is a matter of investigation. Therefore this crucial sector was chosen to study the effect of changes due to opening of the sector for private players and the entry of more private players in this sector and the impact on their performance and their strategies.

So the researcher attempts to study the cellular market in Gujarat and to look into the organization structure and strategies of cellular operators in Gujarat.

There has been no study to ascertain the marketing strategies adopted by the service providers and their effect on the consumer. The present study also attempts to study the effects of the new telecommunication policy on marketing strategy and pricing. It also attempts to study the effects of Government policies on the cellular operators particularly the privately owned enterprises (the fourth being a state owned PSU).

The early 1980s marked a significant change in the functional behaviour of marketing.

Futurists have predicted that before 2025 A.D. one hundred satellites will be stationed in orbit; with the help of solar energy they will produce energy to the extent of 30% of the worlds total energy requirements. This energy will be transmitted to the Earth with the help of microwave system for the betterment of mankind. In the present context we cannot fight tomorrow's competition by yesterday's tool.

In the future all marketing strategy will require a major change. Product strategy, promotional strategy and distribution strategy would require revamping.

With liberalization, the changes in environmental condition and demographic structure, strategies adopted etc., also influence the nature and form of marketing organization.[13]

Marketing is one of the most neglected functions in India. Very few Indian firms seriously practise marketing.

In India distribution and selling are practiced but they go by customer oriented marketing.

Excess regulation of the Indian economy in the last 40 years has resulted in shortage of many goods and services and the consequent creation of a seller's market. Shortage of consumer goods led to unhealthy consumer exploitation and a deterioration in the quality of product and services.

Some key factors responsible for the growth of marketing in developed countries are:

Existence of a large consumer base with real income
Supply of goods matching consumer dd
Freedom of choice available to the consumer
Minimum intervention by the Government

Before liberalization the role of marketing was limited because business depended more on satisfying needs of politicians and bureaucrats than on satisfying customers.

The services of customers were ignored because added to cost of doing business. So marketing remained more as sales oriented activity rather than market oriented.

India remained an over protected and over regulated economy for a long period. This hampered the country's economic growth. The process of economic liberalization started only after 1991.

Liberalization marked the beginning of a new era of more liberal, open and industry friendly economic policies.

The economic reforms started the era of consumerism in the country. The consumer goods segment was open to foreign investors: this allowed technology transfer and collaboration. Marketing acts as a catalyst for transformation of latent resources into actual resources.

Earlier business firms had policies and practices related to physical attributes of their products; customers' needs were ignored. Traditionally India's markets were sellers' markets where product quality was the last thing to be considered. After liberalization, Indian firms readjusted their priorities from products to customers.[19]

Review

Sujoy Chakravarty, in his study "Determinants of Cellular competition in Asia",[34] concentrated on diffusion of mobile technologies and mobile tariffs over the last decade. He also discussed the degree of competition regulation and its effects in Asia with mobile markets in developed countries. The analysis was done for 29 countries for a period of 10 years to study the determinants of mobile penetration in Asia. (The author) It was that found that competition has played a major role in increasing the diffusion of cell phones. The presence of independent telecommunication regulator has had a positive affect on diffusion of mobile services.

The cellular market in India is growing rapidly. This growth has made for falling tariffs, increase in number of firms and technologies and subscriber base, which is growing at a significant rate.

Saravanan Muthaiyah, in his publication "Key success factors of 3rd generation mobile network services for M-Commerce in Malaysia",[31] discussed that there has been a great deal of excitement in view of M-Commerce, very little is actually known about conditions and critical success factors for successful introduction of the 3rd generation mobile network services in Malaysia. Third generation mobile network or better known as 3G is a wireless communication system for a range of radio technologies that are designed to enhance the capabilities for radio based networks.

This study investigates the factors for successful diffusion of 3G network services and their role in advancing an interactive market place. 3G is considered a necessary underlying infrastructure for M-Commerce in the future; its main objective is to upgrade the performance of cellular networks and support wireless data and multimedia services.

The objective of this study is to investigate significant key enablers of 3G deployment and adoption in Malaysia. An insight into critical factors to be considered for the deployment of 3G technology in Malaysia and experiences

of other countries are used as a benchmark to understand the mitigating factors of 3G deployment. Critical factors such as cost of service, interoperability of standards, insufficiency of mobile services or context and deficiency of the laws are also discussed in this study. The study also discusses diffusion barriers.

From this study it is concluded that despite all the setbacks and problems faced by 3G, 3G will play a major role towards the next level of wireless technology in Malaysia. The success for 3G in Malaysia will not come overnight. History has taught that other mobile technologies have taken sometime to actually prosper and gain consumer acceptance; success will call for tremendous efforts and co-operation between stakeholders, governments, network operators, contexts and devices vendors and consumers.

Roger & Scott, "Telecommunication Policy in India",[29] say that, in 1985, when the rumblings of reform in telecommunications had just begun, the performance of the industry was poor. After a decade of fits and starts in the reform process the performance of the sector began to improve in wire line services and since 2001 the growth in service has been explosive.

This publication assesses the current state of the industry and the policies that shape its performance. The improvement in performance is traced first to a political decision in the early 1990s to allow private participation in the industry and to invest in incumbent state owned enterprises and then to key policy decisions early in the new millennium that removed significant constraints from wireless services.

This main objective of this publication is to review the performance of the telecommunication sector in India and compare the existing policy environment with the best practices recommendations and look into the troubling feature of the current regulatory systems.

The author says that if reforms are consolidated and expanded, the industry will grow. But for the industry to achieve its full potential as a crucial input to

business services and as a conduct for highly valued consumer services, further reforms are required. Most of the remaining problems centre around the same fundamental issue – the government's protective attitude towards the former monopoly and still dominant state owned enterprise, BSNL, and the persistence of inefficient pricing policies.

According to the in-depth research from RAD (Research and Advisory Division of Asian CERC Information Technology Ltd., on "Telecom – Basic Telephony" dated October 9, 2003), the opening up of the telecom sector was greeted with a lot of optimism about the potential and spread of telecom services. The highest inflow of FDI into the telecom sector in the world is in India. The study also discussed the scenario of opening up the market, where in private operators bid for telecom circles at high license fees. However the high investment requirements were not matched by a corresponding increase in revenues. It also discussed different problems faced by telecom sector operators.

It was concluded from the findings that implementation of New Telecom Policy (NTP) 1999, which allow existing private operators to migrate from fixed license fee to a one time entry fee plus revenue sharing, has led to the improvement in the project viability of many basic and cellular service projects.[39]

Per E. Pederson & Rich Ling, in their Thesis "Mobile end-`user service adoption studies: A selective review",[23 & 28] say that, end user services in third generation mobile telephony (3G) networks are being developed using more complex service models than those of previous wireless networks. Even though technological business strategic and behavioural requirements should be met to obtain widespread adoption of the end user 3G services the behavioural demand side adoption requirements are focussed upon in this paper to understand the adoption requirements of end users, analyses of their context specific and role specific behaviour when adopting such services should be conducted.

In this research different ways of categorizing research on mobile end user service adoption are suggested. For understanding the adoption requirements of end users analyses of their context specific and role specific behaviour when adopting such services were conducted.

Pradipta Bagchi, in a CASI working paper on "Telecommunications reform and the state in India : The contradiction of private control and government competition"[3] : In 2002, India has a population of over a billion, but only 27 million telephones. This translates into a tele-density of 2.7 phones per 100 people. Currently over 50% villages are connected to the world by the telephone and rural tele-density is expected to increase eight fold by 2010. To this end, the Indian Government has given up its state monopoly and introduced competition to spur the growth rate of telecom in all areas. After the initial euphoria of liberalization, the Indian economy slipped into recession by 1995. GDP growth rates fall as the government, by and large withdrew as an investor in the economy while the private sector failed to step in to fill the investment gap.

The crux of the problem has been that the state and its associated agencies, like the bureaucracy, used to exercising control, have been unable to build a regulatory structure that provides credible commitment against the exercise of arbitrary discretion by the state and changes in the regulatory environment.

In this paper the analysis of Indian telecommunication sector in the context of state control and regulation is discussed. It also discusses the conflicting policy goals both explicit and implied, adopted by the state and whether these conflicting goals can be achieved.

From this paper it is seen that conflicting goals of the government policy, both implicit and explicit were far from satisfactory. These goals were (1) encourage private sector investment and competition to increase national coverage at an affordable price, (2) Raise money for the government to finance its deficit by auctioning off licenses, (3) Protect the interests of the state owned firms, the dominant players in the industry.

The bid to raise money for the fiscal deficit through licenses turned out to be a problem, forcing the government to shift to a revenue share based model for all telecom companies.

Foreign investment has also fallen, dropping from a peak of 178 billion rupees in 1998 to just 918 million rupees in 2000. The state continues to be dominant player in basic services. The cellular services segment, which has accounted for 43.7% of the total FDI, continues to grow at a fair clip and has registered over 23 million subscribers by June 2000.

As cited in the unpublished Ph.D. Thesis by Nigam, Anjali[18], there are many studies,[6, 10 & 15] highlighting that organizations in both industrialized and developing countries adopted strategies viable for their given environments and that there are striking differences in the strategies adopted by the firms in industrialized countries and developing countries and these differences could be attributed to the differences in the degree and direction of environmental change in these countries.

Chandhari Shekhar in his working paper "Strategy in the Emerging Countries"[7] says that many developing countries of Asia and Africa with large and increasing populations have low level of economic development, but represent large potential markets for consumer as well as industrial products. Due to the process of deregulation and economic liberalization taking place in these countries there has been a sudden upsurge in economic activity and as expected in several industries.

The impact of reforms on industry has been felt acutely in India where several industries are now in the process of transformation. From a regulated and protected environment firms have been catapulted into a market oriented economy where international competitiveness is the only route to success. The target customers were essentially at the lower end of the market requiring low quality and low priced products.

It is seen that with realization of the changes in the competitive environment firms are now experimenting with a diversity of strategic approaches.

From a low cost approach firms are moving towards a new management paradigm. Strategic approaches incorporating product differentiation, brand building, rapid new product development, major technological changes, organizational restructuring for greater effectiveness and efficiency, internationalization and a strategic refocusing on business, with a view to building on core competences are fast becoming the order of the day in India. Future progress on economic front in India as well as on the sub-continent would depend on improvement in the governance processes. Political stability would be a key to further reforms and in turns industrial resurgence.

Shaileya V. R., in the article "Tough times for India's Cellular Carrier : A Global Perspective",[32] says that, in this article the author has experienced one of the fastest growth any where in the world. At the end of December 1997, there were 8, 00,000 mobile phone users throughout the country and the number of new connections were growing by an impressive 60,000 new subscribers every month. Here the author discussed the reasons behind the failure of expectations of revenues which resulted in financial difficulties. The two basic reasons for financial difficulties were : (1) miscalculation of average airtime usage and (2) expected revenues of $62.50 per month per subscriber was insufficient revenue to cover huge government assessed licensing fees.

To make matters even worse the subscriber growth was severely impacted by (1) A sluggish market followed by an industrial slowdown, (2) US imposed sanctions after the nuclear test, (3) The income tax department's decision to tax subscribers. According to the cellular operators association of India (COAI) the industry was losing $100 million per month.

The author found out that these problems forced the major cellular vendors to start revising their sales projections, and dropping subscribers for non payment of bills. Cellular operators are concentrating on value added services value, not volume is the buzzword for 1998 in the cellular industry.

Patibandla Murali, in his working paper "Internal Policy Reforms and Evolution of Market Structure : A Study of Indian Industry"[21] says that, "the new market reforms in developing economies, have led to increasing presence of multinational firms, which has significant implication on the evolution of the domestic market structure". This paper builds a simple theoretical model which considers firm level asymmetries in terms of time of entry, costs of production, and firm specific intangibles under oligopolistic competition in explaining the evolution of markets in the context of the Indian industry. The main propositions of the model are empirically verified by econometric exercises based on firm level panel data for a set of industries. The results, for four of out of six industrial studies, show that new entrant MNCs export at higher intensity than incumbents.

The result suggests a positive explanation of domestic market shares of firms by their relative technical efficiency in production. Increased competition from new entrant multinational firms are driving domestic firms to undertake deliberate technological efforts for enhancing production efficiency. Investment in research and development expenditure (in Indian market) appears to be more important for domestic firms than for new entrant multinationals for increasing technical efficiency in production.

Parikh Indira J., in the working paper "Organization Development Interventions in Indian Organizations"[22] says that the growth of an organization pulls people to change. Those who plan and initiate change grow and others remain frozen in their roles and location. Organization Development and Design is a process decision which an organization takes to actively give shape and direction to the organization.

This paper focuses on the leaders and top market making a choice for organization development interventions. The paper explores the significant dimensions of an Organization Development exercise which consists of looking at the history of growth and its impact on the current organization culture, impact of leadership profile, redesigning of organization structure and

people interface, people profile, emergent organizational and managerial ensues and strengths and limitations of the organization.

The findings reveal the choices an organization can make for future directions, at different level of institutional, organizational, leadership, corporate, managerial roles, workers, and organizational renewal and taking leads to organizational development.

The dynamics and performance implications of the environment – organization interface are important topics of investigation in both the organization theory and strategic marketing literatures.[14] Many authors have studied linkages among environmental characteristics, organizational strategy (structure size) and performance outcomes.[2, 5, 6, 9, 11, 16, 25, 26 & 36]

Chandra Pankaj, in his working paper "Competing through capabilities strategies for global competitiveness of the Indian textile industry"[8] says that the change in the global textile trading regime, from 2005 with the phase out of the MFA, its implication on competition will be significant. Countries that have already put competition policies in place and firms that have been improving their capabilities are the ones that are going to face domestically and abroad in a few years from now. Some of the characteristics of competitive firms will emerge in the ensuing period.

This paper presents a summary of comparisons of Indian primary textile firms with those of China and Canada (based on a primary plant level survey in the three countries). It also discussed some processes that are helping the Chinese textile industry grow rapidly.

From the findings it was concluded that competitiveness of Indian firms would be contingent on developing long term distinctive capabilities. For developing

distinctive capabilities and providing illustrations of initiatives at the firm level, industry level and the government level are three key strategies, namely commitment, coordination and cooperation that would form part of the implementation package for each strategy.

J. Justin Tan and Robert J. Litschert, in their study on "Environment strategy relation ship and its performance implications, on the Chinese electronics industry"[35] examined the strategy environment-performance idea in a centrally designed economy in transition to a more market focused economy. Based on the analysis of top Chinese managers in the electronics industry it was found that during tradition of central planning these strategies were significantly associated to professed environmental uncertainties.

Firms functioning in regulated environments tackle concurrently – two factors that impact both the function and character of strategy. The first concerns the need to deal with the functioning or technological aspects of regulation, second involves administrating the firms interactions with political relationships with external entities, such as regulatory agencies.[24] Studies in extremely regulated settings in the market point out that when managerial judgment is controlled, environmental circumstances rather than variables subject to managerial control play a big role in shaping organizational performance.[37 & 38]

Parikh Indira J., in her working paper on "Indigenous Voice : The Regressive Effects of Western Models on Organization Structure, Marketing Practices and Relationship Processes in Indian Organizations"[20] explores the historical antecedents of the growth of Indian organizations, the processes of borrowing and adoptions of and adoptions to technology and organizational models. It also explores their impact on organization structure, marketing practices and relationships, the present status of Indian organizations, the image of the donors of technology and organization models as held by the managers and other employees and internal dynamics and the reality of Indian organizations and its people.

The paper also identifies some of the functional and healthy processes of Indian organizations which could revitalize and reenergize these organizations.

Jain Rekha, in her working paper "Review of the Policy Changes in the Indian Telecom Sector : Implications for Decision Makers"[12] is an attempt to critically review the policy changes initiated by the Government and draw necessary lessons from them.

It is seen that in response to the business needs of faster, cheaper and more varied modes of communication, the telecommunication sector in many countries has been undergoing rapid technological and structural changes over the past few years since the mid 80s; the telecommunication sector in India, too, has undergone major transformations. Private participation in the manufacture of end user equipment and services, reorganization of the monolithic Department of Telecommunication and raising finances from the public for investment in the state factories and organizations have been some of the policy initiatives of the government.

Ruth Kava et. al., in their article "Cell phones Cause Brain Tumor"[30] talked about the various causes of brain tumor. After the Larry King show presented claims of a link between cell phone usage and cancer in 1993, various concerns over this supposed connection have surfaced. Most recently, media claims have highlighted reports that cell phones cause acoustic neuroma, a benign tumor on the acoustic nerve.

The objective of the study is to find out whether cell phones cause brain tumor or not. In general, scientists don't consider new findings to be reliable until they have been demonstrated several times in studies conducted by different groups of researchers. Reaching conclusions on the basis of a single, unreplicated finding would be unwise because it is possible that the isolated finding might be in error.

The researchers further stated that the study mainly examined the use of analog cell phones (which emit more radiation than the digital phones that make up almost the whole market today) and that the results should not be cause for concern for cell phone users but rather cause for further research into the matter.

With reference to Joshua Zevine in the article "Cell Phones Cause Cancer, Problems in Health", the objective of the study is to find out whether the use of cell phones causes cancer or not, as there is a lot of confusion among people related to it. Some of the studies conducted on animals have yielded conflicting results. A few of these studies have suggested that low level of RF could accelerate the development of cancer in laboratory rate.

However according to the American Cancer Society, the energy level emitted from cell phones and absorbed by human tissues make it unlikely that they cause cancer. The bottom line is that only time and more long term research will tell for sure.[40]

There is growing evidence that supports the potential danger of cellular phones. One recent study indicated that the number of immune cancer cells doubled in mice exposed to microwaves. Others indicate that memory loss and the formation of tumors can be related to microwave exposure caused by cell phone use. Dr. George Carlo, former WTR chairman, has stated that studies of possible harm from cellular phones indicate evidence of genetic damage in human blood and brain cancer among wireless phone users.

The Cellular Telecommunication Industry Associations (CTIA) has spent more than $25 million researching the health effects of mobile phones and has never tried to withhold any information or any negative comments regarding findings. A number of studies including several conducted by the FDA (Food and Drug Administration) indicate no proven linkage between usage and health effects, but the media largely ignores these reports. It has been concluded that though scientific results are frequently inconclusive, the cellular phone industry has been forced to defend itself frequently against accusations that are hyped and unsupported by evidence.

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