Chapter 2

REVIEW OF LITERATURE

“Indian Telecom market even with 899 million subscriber base, 120 million internet users, conducive regulatory environment is far from saturation. With a huge rural market waiting to be tapped, the Indian market is largely voice market. It is yet to see the dominance of Mobile Value Added Services (MVAS), which will change the dynamics and economics of this market. The MVAS market is expected to increase from INR 122 billion in 2010 to INR 482 billion by 2015, driven by the uptake of 3G services in urban as well as in rural areas. In the years to come, MVAS will be the single most important tool for empowering the common man in India. Innovative and value added services like m-Banking, m-education, m-Health, m-Governance, m-agriculture, location based services will be delivered to the common man, even in the remotest corners of the country. Government of India is committed to empower the common man through cost effective, reliable and high quality telecom services with strong focus on MVAS. The sustainability of the growth of telecom services depends on strong and vibrant industry, empowered telecom consumers and strong and forward looking regulation. To build an ecosystem for sustainable growth of telecom services with a win-win approach.”

-(Kapil Sibal Hon’ble MOC&IT, GOI)

This chapter on literature review touches the theoretical and conceptual aspects of marketing with special emphasis on service industry. The works carried out by various authors on the subjects of Customer Relationship Management (CRM), identify the issues associated with the implementation of CRM and the factors related to the success and failure of CRM in organizations. These have been helpful to understand the subject matter of telecom marketing and the research gap. The main emphasis of the study is to explore the customer satisfaction, product differentiation, service quality and staff orientation. The concepts on Relational Marketing (RM), Transactional Marketing (TM) and Information Technology (IT) were reviewed from the point of view of their applicability to telecom industry.

2.1 Conceptual framework and theory of Marketing and CRM

Regis McKenna founder and Chairman of Regis McKenna, advisor to the Stanford Graduate School of Business, Harvard Business School’s Science Technology and Public
Policy Programs and an internationally renowned marketing authority, defined CRM as “Marketing is building and sustaining customer and infrastructure relationships. It is the integration of customers into the company’s design, development, manufacturing, and sales process. All employees need to be in the business of building customer relationships”.

Parvatiyar and Sheth (1994) define CRM as “a comprehensive strategy and process of acquiring and partnering with selective customers to create superior value for the company and the customer”. CRM unites the potential of relationship marketing strategies and IT to create profitable, long-term relationships with customers and other key stakeholders. It provides enhanced opportunities to use data and information to both understand customers and co-create value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that are enabled through information, technology and applications. Customer Relationship Management (CRM) has become an increasingly critical means of developing and maintaining customer loyalty while also helping business migrate to low value customer towards greater profitability. (Chu, Mckinley and O’Neill, 2001)

Payne and Frow (2005) support their view that CRM is a strategy and define it as “a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments.

Naidu et al (1999) are of the view that CRM is the process of developing continuously cooperative and collaborative relationship with customers. Customer retention, being the core element of relationship marketing, includes activities such as after marketing and post treatment satisfaction services, frequent user benefits, customer focused care programs, database maintenance, and support for on-going relationship with customers and programs to involve customers into the design, development and sales activities (Naidu, Parvatiyar, Sheth and Westgate, 1999).
Few studies have reported that the concept of CRM was found useful in improving the performance of service personnel as a key to retaining customers. Professor Mohan L. Agrawal (1997) explored the nexus between naturalness of relationship marketing and the characteristics of selected service industries viz., equipment-dominant services, and people- dominant services and found that both customer and marketer play an equal role in producing the services in India.

Jakson (1985) defined relationship marketing as marketing-oriented, strong lasting relationship with individual accounts. Gronroos (1990) and Gumesson (1987) took a broader perspective and advocated that the customer relation ought to be the focus and dominant paradigm of marketing.

Morgan and Hunt (1994) drew upon the distinction made between transactional exchanges and relational exchanges. A set of generic process of relationship initiation; relationship maintenance, and relationship termination was identified. A similar process model of buyer-seller; co-operative and partnering relationship was developed by integrating conceptual and empirical research conducted in this field. In current era of hyper competition, marketers are forced to be concerned with customer retention and loyalty (Rechheld, 1996).

Selvaraj and Malathi (2005) attempted to analyze the behaviour of consumers towards cell phone in Thithookudy City. The study was based on the primary data collected through questionnaire from 200 sample respondents. The main purpose of the study was to know the choice of brands, reasons for choice of brands and problems faced by the consumers. The study suggested for improvement in advertisement, introduction of new model of hand sets for women and introduction of other sales promotional activities.

Competitive advantage of the service firm is not just the result of satisfying the customers. The customer relationships, alone do not automatically lead to competitive advantage. Even a pro-active management of customers and customer relationships is not a guarantee for being successful. The most important point is that the service firm creates
superior customer value and that customers perceive a service as being superior to services offered by its competitors (Grönroos, 2000; Kleinaltenkamp et al., 1997; Hennig-Thurau et al., 2000; Zeithaml and Bitner, 2000; Hogan and Armstrong, 2001; Eggert and Ulaga, 2002).

In case the customer interprets a service as superior, this is the consequence of a bundle of resources; one of those resources is the service customer himself and his contributions. Thus, a prerequisite for a firm’s competitive advantage is to combine different resources in a better way than its rivals do (Day, 2000; Castanias and Helfat, 1991; Grant, 1991).

This is very much crucial for an organization to possess different resources that are strategically relevant and it is even more important to transform these resources into a competitive advantage as suggested by Dierickx and Cool (1989). This helps in integrating the services effectively and efficiently within the production process and within the firm. Capabilities of integrating customers can be a major capability for a core competence of a service firm. Managing customers and their behaviour is particularly important in those cases where the degree of integration is high (Bateson, 2002).

A service firm, which strives for building its competitive advantage upon customers and customer relationships needs a modified understanding of marketing and marketing perspectives. In the marketing literature many authors agree a paradigm shift from transactional marketing towards relationship marketing (Parvatiyar and Sheth, 1994). In recent studies, some authors argue that firms should integrate both types of marketing (Pels et al., 2000; Coviello et al., 2002).

From the perspective of the resource-based view, a firm needs a so-called product advantage reflecting superior value through the quality, performance and price of the product offering and a so-called relational advantage (Day and Van den Bulte, 2002). In the case of services, there are two types of advantages, a special sub-advantage: an integration advantage. This study concludes that the customer should be effectively and efficiently integrated in the service production and delivery process and in the partnership
with the firm. Therefore, both, transactional marketing and relationship marketing need to be complemented by the management of customer integration. The challenge of customer integration can bring together transactional and relationship marketing. The resource-based view concentrates on factors ‘inside the firm’ in strategic management, whereas the industrial-organization view focuses on factors ‘outside the firm’. In this contribution, it is seen that the customers are a bridge between the internal and the external view since they are partially integrated in the firm. Thus, it is important to combine an internal with an external view (Hooley et al., 2001).

In a study on customers experiences while purchasing services, it is found that the complexity of the product, the customer’s previous experience of the product of the situational context will influence the length of time needed to move through this buying process. The customer experience defines everything the customer feels, remembers, says and does about his interaction with organizations. Organizations position themselves to service customers through their product and service offering. This offering has to appeal not just to the immediate need but also to the emotional context within which the customer is operating. The organizations that remain adaptive and are able to tailor the experience to meet the changing emotional context of the customer will close the door to the competition. (Charley, Jonathan 2001).

Based on a thorough understanding of their customers, organizations need some well thought out customer strategies and individual customer action plans together with the ability to deliver responsive and tailored propositions. Cap Gemini Ernst & Young has identified 10 core principles in support of achieving enduring and profitable customer relationship that enable organizations to spot the opportunities, ensure appropriate targeting and enable effective servicing. These are identified as Value Segmentation, Collaboration, Institutional Memory, Touch-point Alignment; Real-time Information Management; Closed – loop Process, Customer Scorecard, Listening Post, One and done, Total experience management (Ernst&Young 2001).
According to Peppers and Rogers (1997), great service happens only when you relate to your customers “One to One”. To do that, you have to identify your customers, differentiate them, interact with them and finally, customize your products or services to meet their needs. This calls for CRM, a tool in the hands of the banker (firm). Obviously a CRM strategy has numerous aspects, but the basic theme is for the banker to become more customer-centric. This does not necessarily create a new revenue stream today or even tomorrow. However, it will add customer loyalty to the business’s bottom line.

Copulinsky and Wolf (1990) define relationship marketing from a different angle stressing the role of IT as a “process where the main activities are to create a database including existing and potential customers, to approach these customers using differentiated and customer-specific information about them and to evaluate the life-term value of every single customer relationship and the costs of creating and maintaining them”. This definition includes the role of IT in supporting the relationship marketing processes (Fjermestad et al., 2003; 2006)

Services and selling to existing customers is viewed to be just as important to long term marketing success as acquiring new customers. All customers are valuable, the frequency of purchases from these customers should determine the differentiation in rewarding them. Interaction with the customers induces a more ‘personal’ feeling and touch to the customer relationship program (Berry, 1983).

Dialogue continually refreshes the database of marketing information, which is being built, enabling an alert watch on what customers want. Berry’s notion of CRM resembles that of other scholars studying services marketing, such as Gronroos (1990) and Gummesson (1987). Each one of them is espousing the value of interactions in marketing and its consequent impact on customer relationships. The purpose of CRM is to improve marketing productivity and enhance mutual value for the parties involved in the relationship. CRM has potential to improve marketing productivity and create mutual values by increasing marketing efficiencies and/or enhancing marketing effectiveness. The formation process of CRM refers to decisions regarding initiation of relational
activities for a firm with respect to a specific group of customers or with respect to an individual customer with whom the company wishes to engage in a cooperative or collaborative relationship. (Sheth and Parvatiyar 1995).

In 2002, worldwide statistics revealed that 70 per cent of the companies would revamp their customer processes, 53 per cent will use e-commerce to transform relationships and as many as 49 per cent will organize themselves by customer type. It implies that the future is CRM because when a company manages its customer relationship well, the benefit received by it far exceeds the cost. It is interesting to note that attracting a new customer is seven (7) times more costly than retaining an old one, and if a customer is once satisfied he will advocate regarding the product and the company and in a span of 10 years he will bring to the company 100 new customers. On the other hand, if s/he is dissatisfied with the company product or service, s/he may not only switch over to the competitors but also tells others regarding his/her problems, which may restrict the future prospects to move up the ladder of loyalty. (Adrian Payne, 2005)

E-CRM is making it possible to recreate an old fashioned customer service experience in every sector of the economy. E-CRM is a web-centric approach to do the same thing that CRM does where e-channels; web and e-mail is a critical means of customer interaction (Ishani Duttagupta, 2000).

The marketing philosophies have undergone substantial changes since 1980s. Technological developments have brought about IT revolution thereby increasing the level of customers’ knowledge and giving them the aptitude to choose from the wide range of products thus leading to increase in competition. The old lessons of 4Ps have given way to 4C’s that is Consumer; Cost; Convenience, and Communication (Chadha, 2002).

Several authors have claimed that relationship marketing offers a paradigm shift, a new springboard replacing the conventional marketing management paradigm (Gronroos and Gummission 1994).
Lawrence A. Crosby and Nancy Stephens (1987) reported on effects of relationship marketing on satisfaction, retention, and rises in the Life Insurance Industry. The credentials of relationship marketing are hard to dispute. Academics in the idle of service marketing business to business marketing and high tech marketing concluded that long-term relationship benefits buyers and suppliers (Berry 2000).

A study reveals that there are two forces working for the relationship marketing approach. On one hand by having long-term trusting relationship between both buyer and seller can and should reap mutual benefit and second from the supplier side (Gronoors 1990).

There is a body of evidence that has showed that customer retention has a positive effect on company’s profitability. CRM has evolved from establishing a separate customer service department. Organizations have become aware of the lifetime value of customers, as well as the different needs of a variety of customer segments that they serve. Customer loyalty has a significant influence on business growth and an impact on the bottom line (Chaudhary, 2000).

A more customer-centric perspective results in a lower cost of acquisition of customers and some increase in switching costs for customers. The relationship centric approach requires that the organization should accumulate knowledge about customer activities and preferences in order to engage in a value added relationship. It is far cheaper to keep an existing customer than to find new ones. In the early 1980’s, CRM was used most notable in sales force automation and in the area of telemarketing. Data capture and control was the primary focus and there was little integration across organizations or with organizations strategy (Adrian Payne, 2005).

Theodore Levitt (1990) suggested that obtaining, keeping and maximizing customers is the only way to increase business profitability. CRM explains systematically the various
concepts and cardinal principles, significance, architectural and other related aspects. (H. Peeru Mohamed and A. Sagadvan, 2002).

Customer relation strategy is marketing strategy in the context of relationship marketing. According to Morgan (2000) relationship can be a part of the firm’s overall means of achieving its goals and objectives. It can be major part of the firm’s business strategy and can provide the firm with a guiding strategy for a wide variety of decisions.

Shani and Chalasani (1992) define Relationship Marketing as “an integrated effort to identify, maintain and build up a network with individual customers and to continuously strengthen the network for the mutual benefit of both sides, through interactive, individualized and value-added contacts over a long period of time.”

Berry (1993) stresses that attracting new customers should be viewed only as an intermediate step in the marketing process. Developing closer relationship with these customers and turning them into loyal ones are equally important aspects of marketing. Thus, he proposed relationship marketing as “attracting, maintaining, and – in multi-service organizations – enhancing customer relationships”.

A growing number of organizations have implemented or are considering implementing Customer Relationship Management (CRM) strategies for the purpose of becoming more customers focused. Despite this trend, there remains a relative dearth of academic literature relating to examining the realities of achieving such organizational objectives. CRM systems can be viewed as strategic and operational information systems aimed at enabling organizations to realize a customer focus (Bull 2003).

A significant number of organizations operating in diverse business environments have or are considering adopting CRM systems. Despite this phenomenal growth the organizational record of the successful development and utilizing of such systems is mixed. Some studies of CRM systems projects conclude that organizations are struggling to achieve improvements in customer performance (Fjermestad and Romano Jr 2003; Giga, 2001). However, others highlight a more positive scenario. As the organizational
adoption and utilization of CRM systems evolves, a clearer appreciation and understanding of how CRM systems can affect customer performance should emerge (Davenport et al, 2001).

In literature, there are many definitions given to describe CRM. The main difference among these definitions is technological and relationship aspects of CRM. Some authors from marketing background emphasize technological side of CRM while the others consider IT perspective of CRM.

From marketing aspect, CRM is defined by Couldwell, (1998) as “a combination of business process and technology that seeks to understand a company’s customers from the perspective of who they are, what they do, and what they are like”. Technological definition of CRM was given as “the market place of the future is undergoing a technology-driven metamorphosis” Peppers and Rogers (1995). Consequently, IT and marketing department must work closely to implement CRM efficiently. Meanwhile, implementation of CRM in banking sector was considered by Mihelis et al. (2001). Specifically, the customer relationships of new technology-based firms have been studied.

Cook and Hababou (2001) were interested in total sales activities, both volume-related and non-volume related. They also developed a modification of the standard Data Envelope Analysis (DEA) structure using goal programming concepts that yields both a sales and service measure.

Beckett Cameraman et al. (1998) have noted that managing relationships with their customers (especially with employees, channel partners and strategic alliance partners) was critical to the firm’s long-term success. It was also emphasized that customer relationship management based on social exchange and equity significantly assists the firm in developing collaborative, cooperative and profitable long-term relationship.
Peppers (2000) has also presented a framework, which is based on incorporating e-business activities, channel management, relationship management and back-office/front-office integration within a customer centric strategy. He has developed four concepts, namely Enterprise, Channel Management Relationships and Management of the total enterprise, in the context of a CRM initiative.

Ryals and Knox (2001) have identified the three main issues that can enable the development of Customer Relationship Management in the service sector, the organizational issues of culture and communication, management metrics and cross-functional integration especially between marketing and information technology. It is a concept in business management which was first described and popularized by Michael Porter in 1985 in his best-seller, Competitive Advantage: Creating and Sustaining Superior Performance, to describe the range of inter-linked activities that a business uses to make and sell its goods and services.

As per Michael Porter, the value chain identifies the common value adding activities of an organization. Organization’s primary activities include internal logistics operations (production), outbound logistics, marketing and sales (demand) and services (maintenance). The “support activities” include: administrative infrastructure management, human resource management, information technology and procurement. The costs and value drivers are identified for each value activity. Ultimate goal of value chain management is to maximize value creation while minimizing costs. Value chain management is important as it has six business functions.

In the current era of hyper-competition, marketers are forced to be more concerned with customer retention and loyalty. Numerous studies have indicated that retaining customers is less expensive and perhaps a more sustainable competitive advantage than acquiring new ones. Marketers are realizing that it costs less to retain customers than to compete for new ones (Rosenberg and Czepiel 1984).
The most important aspect in CRM is supply chain and demand chain. The supply chain includes company’s suppliers, supplier’s suppliers and network of direct and indirect professionals who help in manufacturing and designing and delivering better, faster and cheaper product. The demand chain includes customers, company’s customers’ customers, and network of direct and indirect marketing, sales and service professionals who can be the end users (Dick and Basu 1994, Reicheld 1996).

The history of management is replete with examples of processes designed to make human effort systematic and meaningful from Henry Fayol’s (1916) process model of managerial activities of planning, formalized, command, coordination and control, to Peter Ducker’s (1973) enunciation of the practices of management, to the process of knowledge management formalized by Tom Davenport (1998). Modern practices related to processes are several. Among the major comprehensive processes are business process reengineering (BPR), quality management processes, benchmarking, supply chain management (SCM) and value chain management (VCM).

There was a study done titled "SCM 2010 and Beyond” supported by funding from the Eli Broad Graduate School of Management at Michigan State University which studied the differences between today’s supply chain and the Value Chain of the future. They came up with a matrix which was the outcome of gaps that existed in the value chain and activities required to close the gap of the future Value Chain of 2010 (Lummus 2007).

India, with the population of more than 890 million people below the age of 45 years, is the nation with the youngest population and one of the world’s biggest markets, Goldman forecasts about India (Sachs 2003).

“In 30 year India will be larger than all but US and China”. This is one of the reasons why international players like Wal-Mart, Tesco, Carrefour, GAP, and Sears are geared up to start and expand their operations in India (Gupta 2008).
Retailing in India has been witnessing a revolution. Overseas retailers have come sniffing around, sensing the opportunity, given India’s customer base, with 52% of the total population being under twenty-five (25) years (Shukla 2008).

Till recently, the retail store owners in India did not consider any need for maintaining adequate care of customer relationship management. Because of the competition becoming stiff and more choices are available with the customers; the customers have become choosy and demand adequate care. Many store owners undertook some steps to maintain healthy relations with their customers. In this process they have found that it works and results into increasing the loyalty / patronage of the customers for their stores. According to Sheth and Sisodia (1995), the purpose of relationship marketing is to enhance marketing productivity by achieving efficiency and effectiveness.

Zeithaml et al. (2001) explained that the strategies to be employed for profitable customer could be decided as part of the CRM initiative and help to strengthen the relationships with these customers to ensure long term benefits from them.

Greenleaf and Winer (2002) have explained CRM as, “Customer Relationship Management is a business strategy to select and manage customers to optimize long-term value”.

CRM focuses on understanding the needs and desires of the customers and is achieved by placing these needs at the heart of the business by integrating them with the organization’s strategy, people, technology, and business processes (Fox 2001).

According to Kenhove et al. (1999) the study revealed that retailers are able to influence the consumers on their store choice decision. The study also indicated that larger quantities, immediate purchases, routine purchases and others have an impact on store choice decision.
**Mattson (1982)** examined that situational factors have a significant influence on store choice decision. Factors such as time pressure, self shopping, purchasing for occasions such as birthdays and other situation specific drivers have an impact.

**Raju et al. (1995)** proposed that retailers’ profits are going to increase if more number of national brands are available in a product category. The study was carried under the assumption that customers exhibit brand loyalty when the competition among national brands is high. They found that when more number of national brands is available in a product category, introduction of store brand increases category product sales, thus overcoming the false assumption that the presence of too many national brands leaves no place for private labels. Hence, more number of brands in a product category increases category sales thus giving a chance for private labels to be introduced.

### 2.2 IDC Reports on Asian Markets

**a. Impact of Wireless Local Loop Technologies on Telecom Network Services (Apr 2004)**

This IDC study analyzes the impact of Wireless Local Loop on India and China's fixed and wireless market. Market sizing and forecasts are provided for WLL revenue and subscriber base. We also highlight the regulatory changes that have allowed WLL to thrive in two of the world's most populated countries.

"Going forward, WLL in both India and China will pose a credible threat to mobile operators, gone are the days when mobile operators in these two countries enjoyed boundless access to subscriber acquisition in their respective markets, they are forced to lower prices, improve quality and come up with better value-added service offerings to distinguish themselves from the WLL onslaught. All this will fuel growth for mobile and fixed line penetration alike, which ultimately will benefit consumers in both countries," said Lau Chi-Weng, Senior Analyst, Telecommunications Research, IDC Asia/Pacific.

**b. India Internet Telephony Services Forecast and Analysis, 2003-2008**

This IDC study presents the latest forecast of the Indian Internet Telephony Services market. The purpose of this study is to cut through the hype surrounding this nascent service segment by identifying and quantifying the actual market opportunity.
The analysis in this study includes the following:

- Assessment of the current market situation including market sizing and forecast through 2008, segmentation of the market with respect to call destinations and user composition, regulatory factors and substitute/complementary services affecting the market.
- Profiling of the key market players, including each of the player's service overview, pricing and market strategy.
- Essential guidance to existing and potential market players with analysis of technology innovations likely to impact the industry and other action points with respect to market forces.

"Internet telephony as the 'killer application' for ISPs has not come through. In India, factors like limited installed base of PCs, falling international call rates, thriving illegal (grey) market, and unfavorable regulatory policies have kept it from growing at a faster rate. However, Internet telephony continues to be an attractive service due to its distinct price advantage over any other form of long distance telephony. Improvements in quality of service, effective utilization of established retail outlets like PCOs and cyber cafes, and a more liberal regulatory approach to Internet telephony for long distance telephony could go a long way in making this market a better value proposition," notes Nareshchandra Singh, Assistant Manager, Internet, Communications and Convergence Research, IDC India.

c. IP VPN services segment in India

This IDC study analyses the current market scenario and future trends for the IP VPN services segment in India. This study also sizes the market opportunity for IP VPN services and presents forecasts for the same till 2008. Leading operators in this service segment have also been profiled.

"Given the recent upswing in general economic conditions, and increasing competitive pressures, IP VPN market is expected to grow at a healthy rate in the coming years. The banking and financial services sector as well as the manufacturing sector are expected to lead the IP VPN market growth," said Dinesh Jindal, Assistant Manager, Research, IDC (India) Limited.
d. **Deregulation in emerging markets**

This IDC study discusses the realities of promised deregulation in emerging markets and how this market liberalization is affecting the telecommunications market in these countries. Markets covered include India, Malaysia, the Philippines, the People's Republic of China, and Thailand.

"The growth of the telecommunication services in the emerging countries in Asia has long been limited by a plethora of restrictions aimed at protecting local incumbents," said Renee Gamble, senior program manager, Asia/Pacific Fixed Line Telecom Research. "But aware that a vibrant and dynamic telecommunication services sector contributes to economic growth, governments are hard-pressed to introduce changes and encourage new competition. After many years of quasi monopoly and inertia, the telecommunication markets in India, Malaysia, the Philippines, the PRC, and Thailand are undergoing liberalization but remain slow to open up."

e. **Internet service providers (ISPs) in the Asia/Pacific (excluding Japan) region.** *(Jan 2004)*

This IDC study provides profiles of the leading Internet service providers (ISPs) in the Asia/Pacific (excluding Japan) region.

"As broadband networks become more ubiquitous, and with greater choices available to ISPs in terms of which networks they want to access for reselling, the key to growth for network operators and resellers alike will be service innovation," said Renee Gamble, senior program manager, Asia/Pacific Fixed Line Telecommunications. "This will involve end-to-end innovation (from sign-up promotions to customer care and billing, to value-added services and applications like voice, digital TV, multimedia and interactive content, to CPE bundling."

f. **Asia/Pacific excluding Japan (APEJ) regional market for Internet access and Internet Protocol (IP) value-added services (VAS).**

This IDC study analyzes the Asia/Pacific excluding Japan (APEJ) regional market for Internet access and Internet Protocol (IP) value-added services (VAS). It covers the key markets of Australia, Hong Kong, India, Korea, Malaysia, the Philippines, the People's Republic of China (PRC), Singapore, Taiwan, and Thailand. Market sizing and forecasts...
are provided for dial up and broadband services, in terms of both subscribers and revenue. The market opportunity for IP VAS is provided in revenue terms.

"The APEJ Internet access services market continues to enjoy high rates of growth, buoyed by the recovering economy throughout the region as well as a big boost from two of the region's largest growth economies, the PRC and India," said Lau Chi-Weng, Senior Analyst, Telecommunications Research, IDC Asia/Pacific. "Underpinning the growth has been tremendous take-up of broadband access services across the region, with Korea and Hong Kong leading the market in terms of competition and penetration.

2.3 **Industry experts on IT**-The abstracts (Annexure 2.1) from writings of various authors are studied and presented here to highlight the trends, analysis, findings and recommendations about telecom industry.

a. Teledensity has tripled since 1999 and ARPU has gone down to $7 per customer per month.
b. Telecom share of FDI has grown 15% after investment ceiling in ILD is increased to 74%.
c. Increase in broadband capacity and setting up of NIXI exchange for ISPs has given a boost to IT enabled service sector.
d. Broadband growth at one Lac connections per month is very low and a strong govt push is required to increase its penetration.
e. USO funded broadband roll out in villages will help India to ride the Internet revolution wave.
f. According to the ITU, for every one per cent increase, Internet connectivity has twice the impact of voice on GDP growth.
g. India’s telecom infrastructure, both its core and access networks, are improving.
h. India will have 629 million telephones by 2012.
i. 3G and 4G broadband are the future technologies for economy derivers in India.
j. The market share of private companies has crossed 70% and they have done it by bringing new technology and cost efficient performance as against the legacy networks of incumbent operator (e.g. BSNL)
k. Service providers need to deliver personalised experiences at home, at work, or on the move to retain subscribers and build revenue through new services.
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l. Need for high capacity networks has helped to grow indigenous manufacture of wireless and optical fibre systems and the local companies are now expanding into global markets. Even mergers and acquisitions are taking place for synergistic reasons.
m. Data network security is very important for world level ICT and BPO industry and is the main concern for all service providers.

2.4 Survey of BSNL customers in Andhra Pardes - The findings of this survey (Ranganath, 2001) on 100 customers and the highlights are listed below.
a. 77% of the respondents rate BSNL service as good but not good enough in a competitive scenario.
b. The rating given for fault repair service reflects poor performance.
c. 55% feel that precious time is being wasted in telephone bill payment.
d. Almost 100% confirm that bills are received in time.
e. Performance on the telephone shifting front is poor.
f. 93% are satisfied with STD/ISD services provided by BSNL.
g. Customers are not aware of the range of services including phone plus services provided.
h. The responses to the customers’ queries are satisfactory only occasionally.
i. 52% feel that the tariff is high.
j. The customer loyalty to BSNL is in tact (This finding has to be weighed against the non-favourable responses on other service parameters listed above).
k. 92% customers do not know the web site of BSNL.
l. 100% customers expect Cellular service from BSNL.

On perusal of the above studies and literature it is found that they pertain to general topics like telecom marketing and advertising. Some authors have touched the subject from the point of view of technological innovations related to customer relations. Others have delved on the notion of telecom services vis-à-vis the latest trends in computing and Internet topology. No study pertains to any PSU or Government company facing the competition in telecom market space of India. This PSU which is BSNL in the present study is facing aggressive approach by its private counter parts to market their telecom
services supported by different state of the art technologies. These private players are capturing the telecom market share from BSNL which is the Government incumbent in this case. So the gaps found in the past research efforts and studies need to be explored further and this specific study on analytical framework for BSNL strategy to improve customer relations in Punjab is a humble attempt. The implementation of recommendations of this study is likely to turn around the business of BSNL in terms of better customer relations and growth of market share in all services provided by BSNL in India in general and Punjab in particular.

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