

Forecasting The Ensuing Impact Of 3G On Business Practices In India: An Exploratory Analysis

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INTRODUCTION

Technology is progressing at a rapid rate. It was not as such 20 years back. The rapid movements in technical upliftment, increased investment in research and development, and more advanced business strategies have opened up a new ball game in the business practices. No traditional way of doing business will be at work in the market. As we are moving ahead with time, technology and innovation have begun to decide the trends and development in the business world. In this transitional phase, it is really important to know what can be the next big blast in the business world. Will mobile technology and internet rule the business world? Will the business competition be based on deep pocket, adaptation of new practices and rapid changes in innovation? What will rule the business world in the coming decade is a major area of research. Unfortunately, no serious work has been done in this field to help/make aware the companies to fight the ensuing battle. In an attempt to do so, authors have tried to forecast how the business practices in India will get a dynamic status in the coming years. The authors have attempted to analyze the impact of Third generation technology on the business practices in India. 3G is one of the most discussed topics in the business world today. 3G has the potential to turn-out the business map globally. And since India is in the developing stage in information technology, impact of 3G can be mind blowing, both in the positive and in negative sense. Attempts are made to discuss the probable transitions that can take place in the business practices and how to survive in the competition when 3G will be at work.

LITERATURE REVIEW AND THEORETICAL BACKGROUND

There have been many press write up on the 3G licensing in India. Many have predicted about the technical superiority of 3G over 2.5G or 2G. Though India is having the late entry of 3G, it is expected to open new era of opportunities. 3G technology has been at the forefront of many transformations (**Selian 2002**). A few countries have got the flavor of 3G many years back. Licensing fees to be paid to operate 3G actually determine what type of response the technology will get in a particular country, which in turn affects the business practices. Competition also plays a vital role to fine tune 3G services and to drive the importance of 3G in business practices. Since 3G is new to the Indian market, no proven research is available that has forecasted/studied the probable impact of the 3G in the business practices. A few researches are available in the management and technology literature which have studied the technical aspects and licensing issues in different countries.

In Europe, the price paid per UMTS (technology standard for 3G in Europe) license has opened up a discussion on non-effective decisions taken by states with regards to future development of market (**Monte, 2003; Spohr, Efferink, 2001; Bjorkdahl, Bohlin, 2003; Marais, 2003**). One very crucial thing about the popularity of any new product or service is that how well the product is compatible with both the competitive and complementary products/services available in the market. This is more important in an environment where businesses are presently/going to dependent on a network in the space where many people are using it (**Cushman et al. 1992; Kelly 1997**). Also, a few studies have been carried out, connecting the psychology of the users and the acceptance of a new technology (**Research by Utterback, 1994, Anderson and Tushman 1991; Wade, 1995 and also from research of Woodside in 1994**). Also, depending on whether the technology is entirely different from the available one and whether the technology has the first mover advantage, the impact of that technology on the business practices can be illustrated/forecasted (**Arthur 1996, Kerin et al, 1992**). The ways a new technology alters the market conditions of the rival technologies and of the users through its

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effect on all the business functions: finance, IT, marketing, operation, distribution etc (the battle between VHS and Beta technology, beta video recording system) are important to notice. (Cusumano et al, 1992 and Arthur, 1989). The mentioned literatures don't directly introduce our research agenda. Since no research has been made showing the impact of 3G on the business practices of any other country, nothing can be replicated in the Indian context. Because 3G has not been fully operational in India, and the business practices in India bear certain specific qualities that cannot be neglected while writing about business practices, one need to go in depth to know how 3G can impact the business practices.

RESEARCH METHODOLOGY

The research is purely qualitative and exploratory. Authors have taken into consideration several secondary data to proceed in the research. Also, interview with the experts, technologists, and business leaders were taken to give the shape to the research. Comments from the third party and professional analysts are noted and mentioned. Several articles about the entry of 3G, regulation, auction and implementation from the newspapers, journals and the internet are taken into consideration for the research. No mathematical or empirical models are followed. This exploratory research, with consideration of positives and negatives of the issue, will solve the purpose.

3G AND ITS STATUS IN INDIA

The growth of the mobile network has been awesome in India in the last decade. Mobile phones were considered a sign of prestige a few years back. But at present, the network has been distributed so widely, that a large part of the entire population bears mobile phones. The reasons may be conveniences, cheap handsets and low cost of operation. But the services of the mobile operators are not full-fledged in India. Network difficulties, waiting time, low speed, problems in connectivity and many technical issues are the problems experienced with the mobile operations. 3G India Mobile Operators Executive Summit held in Delhi focused on the road map to 3Gs and offered an platform for the players to understand the current and future market situation in India. Key issues raised were how to tackle ARPU (average revenue per user), how to extend national coverage, operational challenges, business challenges with the advanced technology, etc. Auctions for 3G took place in India in May 2010. Seven players - Bharti Airtel, Reliance Communications, Vodafone Essar, Idea cellular, Tata and S Tel and Aircel have got the spectrum.

WHY HAS 3G GOT SO MUCH POPULARITY?

Researches speak that Indian market is full of opportunities. Post globalization, the Indian economy has witnessed tremendous growth opportunities. All round development is observed in all the sectors of the economy. India has become the investment destination for the foreign investors. And communication is one of the factors driving the dynamics. 3G is expected to change the business landscape. Since it will provide various opportunities to the customers in terms of information sharing and decision making, a new era of changed business dynamics is expected. Since deployment of 3G requires huge investment, related infrastructure and trade-off, post 3G deployment era will be divided into two main categories: with 3G and without 3G. Since smaller players will not be able to invest to acquire the required spectrum, 3G will create a gap and drive away the competition for big players. Mergers and acquisitions and consolidation among the companies can be expected. 3G will change the atmosphere for non-telecom-companies also. As a result, it can be expected that there will be a drastic change in the business practices in India.

SCOPE OF 3G IN INDIA

Report from the federation of Indian Chambers of Commerce and Industry says that the base of the subscriber is expected to reach 90 million (12% of over all user base), revenue generation will be \$15.8 billion (46% in over all wireless service revenue), sales of 3G devices will reach \$81.3 million by 2013. Looking at the business dynamics, we believe that the picture is rosy for 3G in India. But cost of operation and its subsequent result obtained by operators and their clients will determine the future. In reality, 3G has seen tremendous growth in every growing market. So, the same can be expected in India too. Indian consumers are going to adopt the new technology quickly if it will provide sophisticated services with required information. 3G will be instrumental in alleviating the severe spectrum crunch in metros and two tier cities. It is expected to speed up e-initiatives such as e-governance, e-education, e-surgery, tele-medicines, e- operations of business etc. With 3G, mobile handsets are expected to work in a human-like fashion.

HOW 3G WILL AFFECT BUSINESS PRACTICES?

✿ This section throws light on how 3G can be expected to roll the business practices in India. Before that, let us ask two questions ourselves: Can 3G be looked as a marketing Gimmick by the telecom service providers to increase the subscriber base? Is 3G going to provide additional features that can directly/indirectly affect the business practices?

✿ Answer to the first question: It will not be only a marketing Gimmick; it will have a respectable impact on business dynamics. Answering second question, it is right to say that as per the information regarding the 3G, additional features will be provided by the service providers, but cost for services may be relatively high.

a) Impact on Information Processing/Data Mining: 3G will definitely impact the information processing and data mining. With the increase in the speed of the internet, information rolling will take place at a faster speed. Faster information will make companies provide the services at the fastest possible speed. The delivery, distribution and logistic will suffer. 3G will increase the expectations of the customers. If any firm cannot deliver up to the expectations of the customers, firms will not be able to sustain in the competitive arena. Here again, support technology and the infrastructure capabilities of the firm will come into question. Firms with deep pocket will have an added advantage in terms of investment required to support 3G implementation.

b) Marketing and Sales: It is expected that 3G will close the door for marketing in place and sales at hand. Once 3G will be fully operational, people will only look at the internet marketing. Physical sells or direct purchase will turn into online sells. Here, if with the changes in the dynamics, companies will not able to adapt, market share of those organizations can be expected to decrease. This shift, if it happens, will be because of the conveniences that consumers will enjoy in the era of 3G. Firms have to modify/shift their marketing strategies. The “*value generation*” will be the driver of the marketing strategies. Firms that will be able to adapt to the changed culture will rock and others will have to wait till the next revolution (i.e. 4G). In managing sales also, companies will suffer from multiple dimensions. No hard sales call and techniques will work. Since information will be available 24/7, it will be difficult for the salesmen to complete sales calls without an excellent product at hand. Thus, the new product development concept will come into play, which will demand new infrastructure, advanced technology, better resources and more advanced delivery. This will begin a new business atmosphere, and companies need will need to adapt to that to sustain in the business.

c) Customer Relationship Management: 3G will make CRM a difficult task to handle. If the business will shift entirely to the web, it will be difficult to judge the behavior of consumers in terms of consumption /likings /choices etc. This difficulty in turn will affect the strategic decisions in terms of what to produce, what to sell, and how to deliver. Once the business will be on the mobile button, the control over the consumers will go blind and business strategies will be based on the assumption, whose success will be on toss. Again, 3G will produce a real world of business on space. When internet began its role to influence back in the beginning of the decade, the main issue was the lack of mobility. A desktop PC or a laptop cannot be carried to all places, thus, the business through the internet although took place, it was not at a large scale. Now since 3G will be operable with the mobile, one can use it from any place. This will produce a flexible business atmosphere, where companies will find difficult to manage the grievances/complaints of the customers. CRM will demand advanced process to be handled, which will be another kick at the revenue and profit management process of the firms.

d) Advertising And Promotion: In the authors' opinion, the most affected verticals will be the advertisement and promotion. Print media is almost dead in India. Although there is no research that proves quantitatively, the departure of the print media from Indian Business practices, in reality, print media has experienced the dark chapter. TV advertisement, radio advertisement, newspaper advertisement and promotions, banner advertisements etc. are not effective measures to promote and advertise businesses in India today. Indian customers have already started to join “*the go digital*” game. Internet advertisement and promotions are getting much more popularity. Since customers will get very good deal with ample information to check/compare products/services and know more about the products, internet is becoming the most sought after medium for advertising/promotion in the business practices today. Once 3G will be operational, more inclination towards mobile advertisement/promotion will be generated, since it will be hassle free, fast and convincing.

e) Mergers, Acquisitions And Joint Ventures: 3G will affect one most important part of business practices: mergers, acquisitions, joint ventures and collaboration. Since 3G will expel some small players from the market, big firms will have opportunities to acquire them. Medium level firms will merge with the other medium level firms to form a big

venture. Some big players will even try to jointly operate to minimize cost and optimize profits. This may result in monopolistic competitions in place of perfect competitions. Another major shift that will be noticed by Telecom Service Providers is increase in operating cost and market consolidation. Due to small margins, all players in the telecom industry are already bleeding. Most of the new entrants are relying heavily on Network sharing and thus, are operating on a model where some amounts need to be paid to the Network owner/call. The license of 3G has been acquired by very few Telecom Service Providers. 3G network sharing will be a new business model of existing players. But the industry will go through a consolidation phase. There will be transformations in the industry from Perfect Competition to Oligopoly. Some companies will start concentrating only on network sharing, which will be the core for next generation marketing in Telecom.

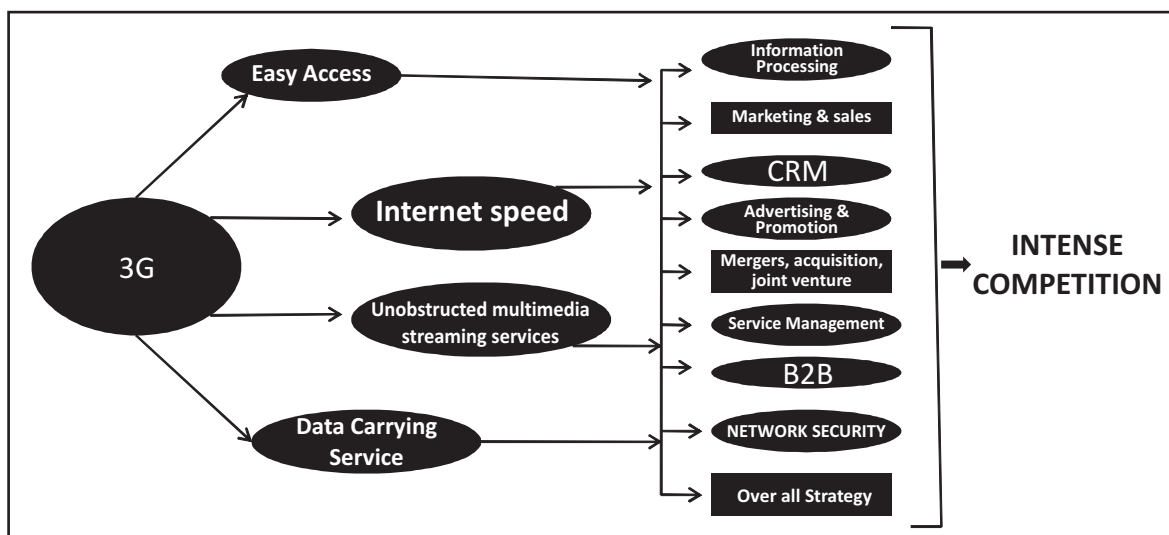
f) Service Management: Critical affect will be observed in the field of service management. Since technology will be superior in the 3G era, by virtue, service should be the best one. Managing service by the firms from different sectors will be a critical factor. Since India does not have the required infrastructure to hold the fast movement of 3G, only firms that can change their operational excellences will be able to manage the demanded service. As with any transition in the business, in 3G era also, customers will remain the lord. Thus, managing service will define a part of success for the firms. If a firm cannot deliver the demanded services, customers will avoid that firm while making purchase decisions in future. Again, since markets will run on tip point, to know the customer's expectations will be difficult.

g) B2B Context: 3G deployment will bring loads of business opportunities for B2B companies. B2B companies will have to upgrade their system from 2G and 2.5G to 3G. The arrival of 3G will attract new operators and foreign players to the Indian Market, which in turn bolster demand for new and more compatible business software and hardware. Players have already started to provide unlimited internet services, chat services, multimedia content download, instant messaging, and access to social networking sites at affordable rates. The business model is definitely going to face severe challenges in the near future because of 3G.

h) Network Security Management: Companies will face severe problems in network security management. Although 3G is expected to offer speedier internet services, it will be difficult for companies to manage the security related issues in business transactions. When we have 2G or 2.5G, we have difficulty to manage our online business. When the whole business world will run on mobile keyboard, can we expect all time network security? It will be difficult for companies to convince the customers regarding the security management in business transactions. Firms need to spend more on security management software to get advanced services.

i) Overall Business Strategies: 3G will, as a whole, affect over all business strategies of the companies. Starting from new product development and customer acquisition to profit maximization, every step of the business model of all companies will be affected. For a few companies, the changes will be positive, while for others, it will be negatives. By 2013, India will need additional 100000-150000 towers to meet the needs of growing 3G mobile subscribers. Rural

Figure 1: Conceptual Framework



India will be the target market to drive the mobile value added service market. Operation management will be affected in terms of timely production and delivery of the services and products. Demand supply equations will define the willingness to pay. But willingness to pay will also depend on the delivery issues. Faster information flow will make it difficult to provide normal delivery. Firms will have to expand and modify their processes.

DEVELOPING A CONCEPTUAL FRAMEWORK

After the realization that 3G will impact the business practices in India, a conceptual framework is developed showing the components of 3G that will affect the certain business verticals. Here, 3G is characterized by easy access, high speed internet, data carrying service and unobstructed multimedia streaming services. These four factors along with the technical factors of 3G will affect certain dimensions of the business practices. How much each dimension will be affected can be proved once we have data at hand. May be in future, we get more input and output variables. But it will only happen once 3G will be at work in a full-fledged manner. The impact on the business verticals will create intense competition in terms of operational excellence, profit maximization and business growth.

IMPACT ON THE INDIAN ECONOMY

3G will permit the service providers to offer data related services, video VAS. This will attract many people to access the broadband internet. It is expected that demand of the 3G devices will increase like anything; and this will positively impact the economy. Also, the software companies can get business, merging with the service providers and this in near future can be extended to emerging countries. This will give a good boost to the national economy. 3G will initiate service of video content to mass market as well as to the niche on the basis of price (segmented/differentiated). 3G will create segmentation of user base: high end and low end users. Thus, the whole business process will become vibrant in the near future. Growth in business will definitely impact positively the Indian economy. Facilities such as MMS, Commerce/business through mobile, video conferencing, GPS/GPRS facilities, online shopping through the 3G terminals applications like calendar synchronization, services to recognize several languages (white board application), remote home monitoring services, security enhancement services (e-security), more record keepings, search instantaneously anything under the sun will be at work shortly. As a result, business will run fast and will impact all its dimensions. Rapid changes will be experienced in each vertical. But there is a small doubt also. There may be a threshold limit beyond which, services will start falling from peak point. This is in general a doubt from our understanding. Also, the Indian economy may face challenges from other developed economies in terms of technology deployment, since a few countries have already started to enjoy 4G. Thus, the real scene will be clear once 3G will be at work. Economy may get employment opportunities, revenue growth, new investment, growth of infrastructure etc for 3G. Consumer centric services such as mobile TV, convergent communications, and demand for mobile number portability will get a very good platform.

WHAT STRATEGIES SHOULD ORGANIZATIONS ADOPT?

With the growth of 3G, the potential of mobile as a customer engagement vehicle will significantly grow. With mobile marketing becoming interactive and user friendly with 3G at work and 4G approaching, it is better to analyze what companies should do to sustain and win the game. The success of 3G will be determined by the price charged by the operators. 3G has been tested and perhaps, has even turned obsolete in many countries. Three characteristics of mobile as a marketing channel : its capabilities to launch location specific, interactive and personalized marketing programmes has not changed over generations. Definitely, new generation technology such as 3G and 4G, VAS services will impart momentum to the mobile marketing or more specifically, to the business practices through mobiles by enabling operators to better exploit these. The good strategy for the marketers will be to keep a balance approach to manage 2G, 3G and 4G together. The main challenge for the marketers will be to maintain the right balance by integrating diversified channels. Relevance of channel, time, context, offer and services and real time responses to the queries to customers will definitely lead the game. Also, the platform capability to leverage real time subscriber data will boost the mobile marketing. In the era of 3G, technology's user friendliness will have a definite role. The technology used for web based marketing will also not work for mobile marketing. Thus, another challenge, firms will face is the right implementation of the right technology to encourage the mobile marketing strategies. For service providers and the advertisers, the road seems to be golden if they can manage the right technology mix.

Time will define the status, but it will be really interesting to see how players and various stake holders in the mobile marketing value chain make use of this ensuing opportunity. Some strategies that firms can look at to sustain in the battle are :

- 1) Understanding the coverage of the business/ identifying what and how business can be affected/how to turn the weakness to strength etc.
- 2) Developing the infrastructure as per the requirement of future needs.
- 3) If firm is small in terms of turn-over and if managing business through 3G seems to be difficult, one should plan accordingly. Merging with the big one or joint business programmes can be effective strategies.
- 4) Firms should look at the advertisement practices. 3G will definitely bring the dramatic shift in this domain. One should shift to the online media, since it is going to be the future.
- 5) It is advised not to promote through traditional media vehicles. Rather, try to present in the online mode. Firms should convince/convey their presence in the e-world before the drama begins.
- 6) Use of analytics followed by proper implementation of strategies as per demand of the market need to be adopted.
- 7) CRM needs more response and commitment, since it will be the interacting vehicle for customers and companies. CRM should be made online.
- 8) Better businesses will come into play if customers get better service. Companies should dedicate to the service management.
- 9) 3G will increase the importance of social media. Firms should make their presence in the social media.

CAN 3G BE A GAME CHANGING TECHNOLOGY IN INDIA?

The success of 3G technology will depend on the operating players. Yes, 3G has the capability to become a game changing technology if executed well. Since the customers in India are price sensitive, the tariff will be the single component deciding the game. However, proper execution can add value in all the segments, since PCs and internet technology is severely under penetrated in India as compared to China and other developed nations. India is getting some local players such as Micromax, Spice coming with cheap smart-phones, which can leverage 3G. Since huge number of mobile users and subscribers are expected to enroll and enjoy 3G, 3G is definitely going to have major impact on the companies in India. But we have to wait to see the real game and future scenario that 3G will bring in.

RURAL TELEPHONY MIRAGE

Most marketers are looking at the Indian Rural population as their new CREAMY target segment. With 3G coming in, most marketers are planning to implement the same in rural India as well. But some facts seem to work against the same. Apart from the infrastructure, one major issue the marketers will face in the rural market is the challenge to educate the customers. The rural customers are not very tech savvy, and thus, any change to reach its tipping point will take ample amount of time. Traditional Mindset, low Per capita income and understanding new technology may pose a great threat to companies who want to enter the market.

The calculus in choice determination in rural market is far less than rational and driven by word of mouth. Thus, there will be huge cost involved to tie up these rural customers towards the new technology. Targeting rural customers may not be a rational decision at this point, as per 3 G is concerned.

It is difficult to predict the behavior of Indian rural customers on the occasion of many choices provided to them. Rural customers have not been exposed to many non-traditional sources of advertisement. Since the impacts of 3G will lie on the promotional context and providing ample information, there is a chance that the creamy target segment accepts it with doubt.

LIMITATIONS OF THE STUDY, FUTURE RESEARCH OPTIONS AND MANAGERIAL IMPLICATIONS

This exploratory study and the conceptual framework will be helpful to the managers in developing strategies for their companies to compete and sustain in the business. Authors have tried to find enough information, so that a real sense of the expected happenings can be provided. However, many technicalities have to be taken care of. Since it is difficult to study each sector of the business world, some of the forecasts may not be applicable to the some sectors. Probably,

India has been late in adopting 3G. World has already started to get the flavor of 4G. One can study and forecast the impact of 4G in the business practices in India in future and provide information to the companies about what to do next. Also, one can study the impact of 3G when it starts to complete operation and can contribute to the literature showing how companies have adapted themselves to the technology change and how they have changed their business practices. This can give a general understanding about how companies need to prepare whenever there is a shift in the technology and how they need to direct their business practices to operate, remain competent and sustain in the changed business atmosphere.

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