1

Indian Developments within the Global Context

About five years ago, when the first edition of the book came out, the dot com bust had cast its long shadow over the internet developments. One was somewhat hesitant about the wide spread acceptance of this medium. However, the last five years have dispelled whatever doubts one may have had about its usage. The financial services industry in particular has witnessed major shifts in customer preferences in the use of this channel and security concerns notwithstanding, there is a tremendous growth in its use.

This chapter begins with a review of the global growth in internet usage. This is followed by a discussion on impact assessment and return on investment. We have devoted a separate chapter to review what is now described as 'Internet Economics'. This chapter broadly examines the usage and the impact of internet on the financial services industry in general.

The internet is a multipurpose and multipoint, digital, interactive, worldwide telecommunications network. By its nature, internet facilitates multipoint information flows and all the processes that are based on information flows. Financial intermediation and financial exchanges are based on the exchange of information. In fact, at present, a transaction of exchange of financial instruments, including equities bonds and their derivatives, is just a record of altered digital information.

It is not possible to better President Clinton's description of the way the internet has grown during the last few years. 'When I took office, only the high energy physicists had ever heard of what is called World Wide Web. Now even my cat has its own page.' The internet grows almost day by day.

The Internet Evolution

The growth of internet usage in India from December 1995 to June 2007 has been reviewed in the following paragraphs. Tables 1.1 and 1.2 provide the statistics for usage in India and the growth of global internet users respectively.

Table 1.1 Growth of Internet Users in India

Year	*Claimed Internet Users (in million)*	*Active Internet Users (in million)*
2000	4.9	2.2
2001	8.7	4.3
2002		
2003	11.9	7.5
2004	16.4	11.2
2005		
2006	32.2	21.1
2007	46	32

Source: http://www.iamai.in/Upload/Research/I-Cube-2007-Summary-Report-final.pdf

Table 1.2 Growth of Global Internet Users

Date	*Number of Users (in million)*	*World Population (in %)*	*Information Source*
December 1995	16	0.4	Industrial Development Corporation (IDC)
December 1996	36	0.9	IDC
December 1997	70	1.7	IDC
December 1998	147	3.6	C.I. Almanac
December 1999	248	4.1	Nua Ltd
December 2000	361	5.8	Internet World Stats
August 2001	513	8.6	Nua Ltd
September 2002	587	9.4	Internet World Stats
December 2003	719	11.1	Internet World Stats
December 2004	817	12.7	Internet World Stats
December 2005	1,018	15.7	Internet World Stats
December 2006	1,093	16.7	Internet World Stats
December 2007	1,319	20.0	Internet World Stats
December 2008	1,574	23.5	Internet World Stats
March 2009	1,596	23.8	Internet World Stats

Source: http://www.internetworldstats.com/emarketing.htm

There are other reports about usage in India from JuxtConsult. The research offers insightful, comprehensive and up-to-date understanding of net usage behaviour and online preferences of regular internet users. India Online 2008 understands online Indians as consumers and not just faceless net users. It has been a year of healthy growth in the Indian online space. The number of internet users could well be put at about 49 million. Of these about 40 million are urban users while about 9 million are in the rural category. The growth in the number of regular users is very substantial at 33 per cent. It might be useful to add that 'regular' refers to accessing the net at least once every month.

Growth has been both in class and in mass of online users in India. Seventy-seven per cent of all online users belong to the 19–35 age group category, 70 per cent of the total users belong to the large, medium- and small-sized towns and townships, 51 per cent users are salaried employees, 63 per cent users own an automobile and English is the most preferred language of reading for only 28 per cent of internet users (indicating the potential for vernacular language content).

For some time now it is becoming increasingly customary to compare the growth in such sectors in China while looking at the Indian figures. China's fast-growing population of internet users has soared to 221 million, tying the United States for the largest number of people online, according to government data reported in the last three years. The figure, reported by the Xinhua News Agency, reflects China's explosive growth in internet use despite the government's efforts to block access to material considered subversive or pornographic. It was a 61 per cent increase over the 137 million internet users reported by the government at the start of 2007. China lags the United States, South Korea and other markets in online commerce and other financial measures. But e-commerce, video-sharing and other businesses are growing quickly and companies have raised millions of dollars from investors.

'We'll see this growth continuing,' said Duncan Clark, chairman of BDA China Ltd. These figures speak for themselves. Apart from the numerical differences there is a distinct possibility that this network capacity would soon be put to use to promote Chinese trade and commercial activities particularly in the small- and medium-sized enterprises.

Earlier the fear that the rural–urban divide may be glossed over or completely ignored, has to some extent been overcome by the establishment of internet cafés, which provide facilities for internet usage and these need to be taken into account when looking at the number of connections. It is true that merely having these facilities does not automatically lead to the

conclusion that this has some correlation with internet trading or that these facilities are used for financial transactions. Books like Friedman's *World is Flat* create an impression that the transition to internet trade has already been made or that it is just round the corner. It is not quite correct. One must remember that barely 26 per cent of the total population in India has any relationship with banks as such. Only 19 per cent of them have, perhaps, access to loan facilities. It is, therefore, quite clear that the use of the internet in financial transactions is restricted to the more technology savvy clients. We, however, feel that mobile telephones may facilitate some primary banking functions. With the help of mobile phones and internet, queries regarding account balance can be sent or bills can be paid. However, much would depend on the pace of technical developments.

Before analysing the impact of net-based services on the financial services industry, it must be added that the security concerns and very tardy pace of getting legal remedial action has deterred many prospective users. In addition, one faces the difficulty about having precise information about the use or periodicity, expenses incurred, and so on. Therefore we would have to use parallels from other countries and then try and see to what extent these might be applicable in the Indian context.

Before proceeding to an impact assessment exercise, it is necessary to highlight the peculiar characteristics of the internet.

- It is a single worldwide communication network.
- It offers instant up to the minute access to information.
- It has the ability to transform massive amounts of data online.
- There is an army of developers refining and creating applications that make access easier.
- It is a vast source for global information regarding stock prices, exchange rates and thousand and one other details. These could determine risk levels for critical investments.
- The speed and accuracy could be described as the special features of this delivery channel.

Instead of dealing with the subject in the abstract, we can give it a more concrete shape. Capital is managed around the clock in globally integrated financial markets in real time. Billions of dollars worth of transactions take place in seconds in the electronic circuits throughout the globe. New technologies allow capital to be shuttled back and forth between economies in a very short time. Capital and, subsequently, savings and investments are

interconnected worldwide from banks to pension funds, stock exchanges to currency exchanges.

Impact Assessment

One has to remember that we have an extremely potent and versatile tool, and it is up to the management to ensure its effective utilization.

It needs to be clarified at the outset that our approach to the problem is somewhat restricted. We do not intend to look to the wider questions like the effect it has on trade union problems or the impact on Indian economic policy or the way global capitalism is using the technology for a given purpose, and so on. To what extent the questions like growth of technology and changes in the means of production substantiate Marxian analysis are no doubt interesting, but are far from our current area of discourse. Those who would like to look at these and related issues could most profitably look at Castell's *The Rise of Network Society* (see Castell 2000).

This chapter does not examine the question in the light of earlier exaggerated hopes raised about the internet. It is true that in those days we were expecting the branch network of banks or of broking houses to shrink and, over a period, to wither away. Bill Gates' assertion that we need banking, but not branch banking has been belied. The current scenario has both the channels playing a very important role in the distribution of financial services. 'Brick and Click' is the order of the day.

This chapter is primarily concerned with questions that a bank/broking house management would ask before/after undertaking such investments. The decision to invest could have been made for various reasons. However, the management needs to know about the level of adoption of internet solutions and also needs to measure the impact on revenue and on costs. The focus to start with would be on broad business areas as well as keying on specific areas. The list could be somewhat as follows:

- Customer development and e-marketing.
- Customer service and support.
- Business-to-business (B2B) growth in activities.
- Finance and accounting (improvements due to centralization).
- Retail and wholesale operations.

The review of the planned areas of future developments is a must for such an exercise. Equally necessary would be a critical review of incomplete

areas of work. Perhaps a review of investments done and the current market value of such investments will have to be part of the review exercise.

One must get a clear idea about the increase in revenue, decreased costs, decreased general expenses and/or operating expenses. In case of financial industry, a reduction in staff costs and, equally important, the per transaction cost, will have to be reviewed. Failure of expected financial impact of all internet business solutions will have to be reviewed against both tangible and intangible aspects of working.

The following list contains the areas that need special attention.

- Customer satisfaction.
- Workforce efficiency.
- Employee satisfaction.
- Revenue per customer.
- Customer acquisition costs.
- Customer retention costs.

It is important to quantify and critically evaluate the results. It is also important to review strategy changes. Sandra Sucher, lecturer at Harvard Business School, points out that, in general, banks have been slow to adopt technology and change their style of functioning.

The working of a very key department in a bank has been reviewed in the following paragraphs. The treasury is one of the major contributors to the bank's sound working. Their working has been affected by the fact that now telephone has been replaced by the internet.

- The internet has evolved to create information-rich websites that help in providing information about market rates and facilitating research directly to the clients.
- Market now demands customized rates and terms.
- There is cut-throat competition. Each supplier has unique products, unique attributes and alliances. This has resulted in reduced margins, disintermediation and entirely new client relationship management.
- Considerable transparency in area of fees and charges.

The changes have made it imperative for the treasury departments to be properly integrated with other operations. Treasury systems have to be internet-ready. This must result in improvements in the following areas.

- Forecasting quality.
- Global hedging of local payments.
- Reduction in duplicate entry of cross payments.
- Elimination of paper work to a large extent.

The question then is to bring the treasury systems developers, top management and others closely connected with this work to see that a proper integrated and coordinated system is in place.

The aforementioned analysis brings home one point: it is not the size of investment or even availability of latest technology, but a proper integrated approach in which various stakeholders contribute to successful implementation.

Internet for Underdeveloped Countries

A wider question that is often raised pertains to the possibility of the use of internet technology in underdeveloped countries. We are of the view that e-finance has great potential to improve the quality and scope of financial services, to expand opportunities for trading risks and widen the access to financial services for a much greater set of retail and commercial clients by offering more cost-effective delivery of services. Africa online and Bangladesh Grameen Bank experiences are the real pointers in this direction. One could certainly say that the ability of these countries to adopt the new internet technologies would depend on their telecommunication infrastructure. One would perhaps have to assert that the low efficiency and quality of financial services and the skewed profile of users favour migration towards e-finance. Online brokerage is a case in point. E-finance allows a much easier access to global capital and financial service providers.

Before coming to organization-specific questions, it is essential to deal with enabling factors and these, as has been stated previously, play an important part in the Indian context. India is amongst the few countries, which has taken significant steps in creating the required enabling environment. The factors listed here would make it quite easy for us to make the transition to e-finance:

- Regulatory framework for telecommunications.
- Security framework and public key infrastructure.
- Framework for information and privacy.

- Framework for contract enforcement.
- Financial system laws.
- Market infrastructure.

The World Bank has come out with a system of 'weights' for some of these areas and we are listing the important ones.

Enabling Services and Their Importance

- Regulatory framework for telecommunication (very important).
- Security framework and public key infrastructure (very important).
- Framework for information and privacy (very important).
- Contract enforcement (very important).
- Market infrastructure (somewhat important).
- Consumer protection (very important).
- Investor protection (very important).
- Competition policy (very important).

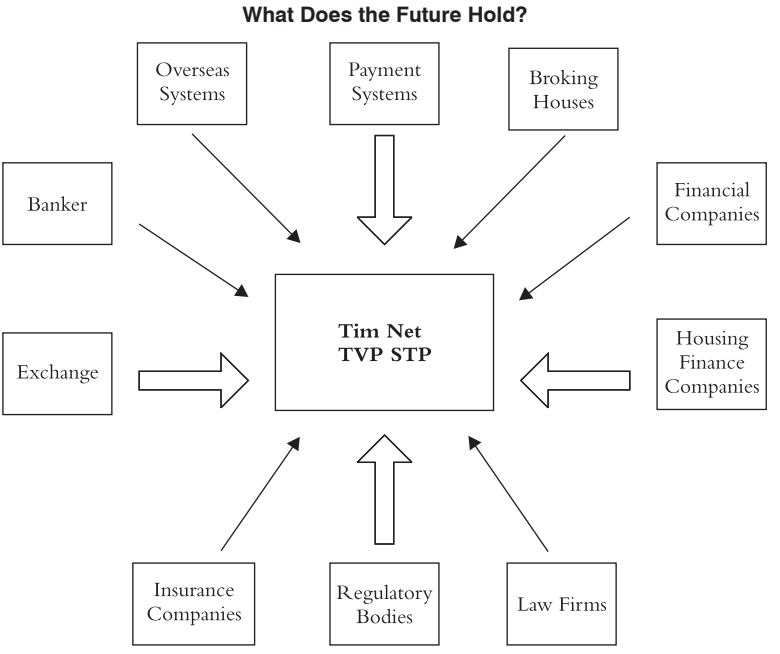
Regulatory Framework for Telecommunication

Telecommunication regulation is a key area for e-finance. Non-fixed lines are offering important possibilities in developing countries, including Africa, China and Cambodia. What is required is improvement in postal and telegraph administration, proper pricing regulations, and so on.

It would suffice to say that these factors, which would otherwise have hindered the developments, have in fact propelled the changes. Instead of relying on some benchmark figure like internet connectivity, it is better to look at the totality and decide on the possibilities.

One must at this stage try and predict what the future could hold for us. This is best described in the figure given in the appendix overleaf.

APPENDIX



Source: Hong Kong Monetary Authority, quoted in Sitjin et al. (2000).