

Business Information Processing Through Electronic Commerce: Opportunities and Emerging Trends

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ABSTRACT

Electronic commerce is one of the key areas for policy research among the WTO-related issues in the area of Services. It continues to be an extremely important development and vehicle for trade. Economies and enterprises across the globe are integrating their systems with this digital reality. For international trade, the use and benefits of Information & Communication Technology (ICT) are obvious and growing. This paper is an attempt to showcase India as a major constituent of e-commerce around the globe in the next decade through its innovative ideas and executions for developing the business models. Though India has made giant strides in software and business process outsourcing (BPO) services exports, the use of e-commerce for the rest of its export basket remains an untapped potential. Some suggestions and recommendations relating to it have been proposed to make e-commerce a way of life in India.

Keywords: e-commerce, e-business, Information Technology, Internet, ICT

1. INTRODUCTION

Liberalization, privatization, globalization and new 'digital economy' provide unlimited opportunities and perceptible threats to the various stakeholders in India. Indian economy has been developing at 7% to 9% for the past few years. At the same time most of the economies of the world have been clocking negative growth rates with the exceptions of China, Brazil and Russia etc. Global meltdown had been a cause of anxiety and worry for the developed nations. India has remained untouched due to the protectionist policies of the Government, National markets, including in developing countries, have been affected by changes in the global economic environment, and further such changes will continue to affect enterprises and citizens throughout the world. The impact of e-commerce for developing countries is at present mainly in the international trade sector.

Various studies indicate that over the past few years import and export industries have grown significantly, and, therefore, the impact of e-commerce would be significant. E-commerce will also have a significant impact on the services sector as not only this is the fastest growing sector today, it is also the sector with the greatest potential for offering digitized service and transactions. For several countries this is of particular relevance as the majority of their workers are employed in the services sector. The potential of e-commerce is no more a matter of debate. From the world of hype and fantasy it has

moved to that of digital reality. E-commerce already affects the economic relations between / within countries and companies, and will continue to do so more and more. As e-commerce growth becomes more and more significant, countries such as India must not only address and appreciate its potential for the growth of trade and industry but also as a means of survival in the new world of e-commerce-based trade and business. The ability to do so will depend on several factors, the most important of which will be infrastructure, financial and legal framework, and some environmental factors. It also depends on the availability and price of hardware (computers, routers, switches, etc.) and software, as well as the human resource and education standards and policies of the country.

2. E-COMMERCE

It is important to elaborate on the definitions of e-commerce as that will help determine the scope and perspective of the policy agenda in this connection. E-commerce has been simply defined as conducting business on-line. The Organization for Economic Cooperation and Development (OECD) defines electronic commerce as a new way of conducting business, qualifying it as business occurring over networks which use non-proprietary protocols that are established through an open standard setting process such as the Internet. This definition distinguishes it from the earlier EDI type proprietary based networks or

Intranets that were not based on an open (and, therefore, not cost effective information infrastructure) like the Internet. In the WTO Work Programme on Electronic Commerce, it is understood to mean the production, distribution, marketing, sale or delivery of goods and services by electronic means. A commercial transaction can be divided into three main stages: the advertising and searching stage, the ordering and payment stage and the delivery stage. Any or all of these may be carried out electronically and may, therefore, be covered by the concept of 'electronic commerce'. Broadly defined, electronic commerce encompasses all kinds of commercial transactions that are concluded over an electronic medium or network, essentially, the Internet. E-commerce covers three main types of transactions, i.e. business-to-consumer (B2C), business-to-business (B2B), and business-to-government (B2G). It is this business and transactional definition which is base for analysis of paper.

From a business point of view, e-commerce is not limited to the purchase of a product. It includes, besides e-mail and other communication platforms, all information or services that a company may offer to its customers over network, from pre-purchase information to after-sale service and support. There are essentially two major uses of e-commerce. The first is to use it to reduce transaction costs by increasing efficiency in the use of both time and procedures, and thus lowering costs. The other is to use it both as a marketing tool to increase sales (and customer services) as well as to create new business through it—for example, Information Technology (IT) enabled business, call-centers, software and maintenance services, etc. as well as 'digital commerce'. It is thus a tool for both existing businesses as well as an opportunity for new business, both for existing companies as well as for new entrants. Though the future of e-commerce may still be unpredictable, possibly in a short span of time, all businesses will need to know how to make use of it—much as most businesses had to learn to adapt to the phone and fax, only more so as more and more trade transactions and supply chains become digital and on-line.

E-commerce, however, is more than just electronics and commerce added together. It represents an entirely new way of doing business over a medium that changes the very rules of doing that business. It is, therefore, far more about strategy and business management than it is about technology. In order to understand e-commerce and its implications for developing countries, it is important, therefore, to see it from the perspective of the transactional aspects of e-commerce, i.e. those that represent the business between the different players, as well as the framework aspects, i.e. those basic requirements that are needed in developing countries for it to develop. It is argued that it is in the interest of

developing countries such as India to develop in this area so that promises of the digital economy is shared also by the South.

3. INTERNET AND E-COMMERCE

E-commerce and the Internet, if correctly utilized for development, can be major instruments for ensuring future sustainable economic growth. It is the simplest, deep rooted and stable network for e-business and e-commerce activities to be carried out. Throughout the world, the profound impact of electronic commerce on the economies and societies of the globe will no doubt improve economic efficiency, competitiveness, and profitability (for those engaging in e-commerce) and, therefore, result in the development of the information society. E-commerce and the new emerging digital technologies and services can be tools for development and help improve the livelihood of millions across the globe, by linking up remote regions and bringing together scientists, administrators, development professionals, managers, and people into projects and programmes to promote economic and social development. The potential usage of e-commerce and the Internet is indescribable today. Its opportunities range from finance and transport to education and health. Many governments (including Indian) have in many spheres recognised this and have been proactive in promoting the IT revolution even within government itself through initiatives such as e-government.

The information and communication technologies (ICTs) in general and e-commerce in particular can bring very important benefits and opportunities for enterprises, and indeed for whole economies, in the developing world.

There were about 1802 million internet users in 2009 and the global penetration rate is 26.6%. 42% of internet users are distributed in Asia. So far as the scenario in India is concerned, there were 70 lacs internet users in 2001, whereas there were 420 lacs users in 2007.

India has a vast potential for further penetration of internet and e commerce with a total population of more than 108 crores, if we have a look at the following data of the various types of workers.

<i>Type of Worker</i>	<i>Rural</i>	<i>Urban</i>	<i>Total Population (in crores)</i>
Marginal workers	8.08	0.85	8.93
Main workers	22.92	8.38	31.30
Total	31.00	9.23	40.22

As per the latest reports emanating from US, India is likely to be the third largest economy within the next five years. Considering these statistics, we can also expect that in E commerce also, India is likely to occupy a leading position.

As per a study conducted by MAIT AND IMRB, in Mar 2009, on the IT performance review, we can always conclude that India is in growth trajectory. The following data may be of interest to the readers, as adopted from the MAIT survey in 2009.

The PC and Notebooks sales have shown a CAGR of 76% from 2003 to 2009. The notebooks sales which were below one lac ie around 88000 in 2003 have crossed 15 lacs in 2009. While PC sales are now showing that the market is somewhat saturated with the sales for 2009 at around 52 lac units. On the basis of a conservative projection, the notebooks sales are likely to show a growth of 25% per annum for the next two to three years.

4. EMERGING TRENDS AND E-COMMERCE IN INDIAN CONTEXT

So what should we understand by e-commerce in the Indian context? It is important to define this as it will help us focus on the areas where more thrust is required as well as help us understand the dimensions of the issue. India's fame in the digital world is on account of its software exports and its software professionals (who themselves are often part of the service export). In the last few years there has been a distinct shift in the Indian IT world – both external and internal – from software towards electronic commerce. We have considered the following in e-commerce for India encompasses three areas. Software exports (body shopping to e-commerce services), Web-enabled services (transcription services to call centres), e-business and e-trade (dot.coms, portals, services, and old and new economy global supply chains)

India has emerged a big software exporter with TCS leading the pack, Infosys closely following with a turnover of more than Rs 22000 crores and net profits exceeding Rs 5600 crores for the last year ie up to Mar 2010. Wipro is at the third position. These three companies have accounted for more than 70% of the revenues generated by the software companies in India with their world class services and above all strong ethical and values system and keeping the Indian flag high despite economic slowdown and the forgettable episode of Satyam in Jan 2009.

India has again emerged as a leader in the call center activity worldwide. The credit again goes to the above mentioned organization, which have shown the world a faster way to come out of meltdown and remaining unscathed rather growing in such turbulent times.

On the basis of survey of MAIT ibid, a glimpse of it would show that internet penetration in the major cities have reached in the range of 40 – 52% in the business cities while the it remains at a low level of 16 – 28% with the overall level at 47 % and 24% respectively.

Internet penetration opportunities are very vast with the population of the country exceeding 100 crores and more and more people opting for it. Total internet users orld wide will be 22 billion by 2013 and India would become 3rd largest country in terms of internet users across the globe, according to forecast by Forrestat.

There are at present 622 million broadband subscribers, out of which 5.364 million are DSL based, 0.474 million are cable modem based and 0.244 million are Ethernet LAN based. There will be 20 million 3G based broadband subscribers by 2014, where as WiMax users will touch 60 million, as per report by magazine, E-Govt.

Small towns were contributing only 5% of internet usage in 2000, which has now grown upto 36% in 2009. It is the young population which contribute to more than 44% of the total internet usage, 72% of young people access Internet on regular basis.

E business and E trade is also growing rapidly with online travel industry being the the largest contributor to the B2C E-Commerce Industry, sized at Rs. 5500 for the year 2006-07 and is expected to rise to Rs 10000 crores by the end of 2007- 08. The overwhelming response of the consumers towards this segment is triggered by the entry of low cost carriers. The industry saw an upsurge in the travel aggregators and tour operators, thereby bringing affordable travel at doorsteps of Indian travelers. The industry has witnessed an increase in the number of travelers as well as number of travels per traveler.

5. CONCLUSIONS

The unique characteristics of the Indian economy represent lots of challenges for the various organizations engaged in the E commerce. An understanding of these characteristics is necessary to unleash the vast potential of the Indian market. The differences between urban-rural consumers are too vast to be ignored. The rural Indian consumer is economically, socially and psycho graphically very different from his urban counterpart. 70% of the population in India is still living in the rural areas. The literacy rate is far from desirable. Urban growth in CPG sector is spread over a diverse basket of goods like low priced mobiles, cheap financed consumer goods and new entertainment options. Rural spending and demand is fuelled by good monsoons resulting in disposable income that is spent on medicines, fertilizers and interest repayments. Cultural preferences and tastes that differ from the "global economy" Given the strong and diverse cultures in India, multinational firms have to develop and customize products specifically for the Indian market. The Indian market is dominated by over 12-15 million small "mom and pop" retail outlets, of which about 65% are in rural areas. Accessing these

outlets is one of the biggest challenges facing the E commerce. The Indian market is a Fragmented market.

Another major challenge before the technologists is poor connectivity with more than 25 thousands villages without the power connections. Lack of awareness which can also be attributed to low literacy rate is another cause of worry for the growth of E commerce.

The Indian market continues to have a strong presence in the unorganized sector, primarily due to limited entry barriers, exemptions and reservations of certain items for the small-scale sector. Despite all the challenges mentioned, the unlimited opportunities are lying ahead for the Indian organization like Sanjeev Bhikhchandani has shown with its naukri.com success and other related e commerce activities.

REFERENCES

- [1] Consumer E commerce Market in India 2006 -07, IAMAI and IMRB Survey.
- [2] N Narayan Moorthy, Software Industry in India : Opportunities and Challenges, Infosys Technologies Ltd, Bangalore, India.
- [3] India Mobilises for Rural Revolution, Ameer Lee, Financial Times, May 2009
- [4] Doing Business in India, A Comprehensive and Updated Guide, 2008, Banknetindia.com.
- [5] IT Industry Annual Performance Review, 2008 -2009, July 2009.
- [6] www.internetworldstat.com
- [7] Marketing Management, 12 th Edition, Philip Kotler.