

## Role of Internet Systems and E-Business Model in India

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### Abstract

Internet has become most important tool in current era in every field of life. The awareness of internet usage has increased in past decade globally and penetration in more in Asian and African countries. India has emerged as economic power after post liberalization of economic reforms and e-business in India has emerged along with other segments. E-business concept is new in Indian economy but has significantly evolved benefitting economy with higher gains. The Indian traditional marketing system is adsorbing the new technological approach in-order to cope with international market and vast growing Indian consumer market. The e-business is part of new technology adopted in every sector of market benefitting the economy with wider scope and approachability with higher consumer base and consumer satisfaction. The open international market and globalization has pushed market and economy to adopt the new technology usage to cope up with larger tasks and data with high level of perfection. The study shows enormous potential for E-Business but has to go with consumer protection and company-client data safety at every stage.

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**KEYWORDS – E-Business, E-Commerce, ICT, Indian economy=**

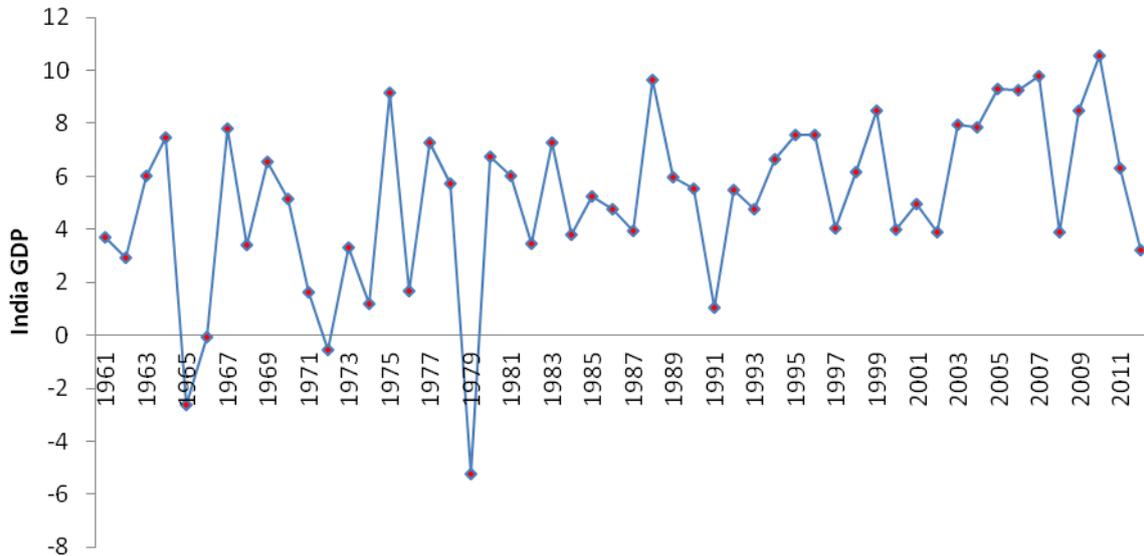
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### Introduction

Knowledge sharing and converting knowledge into business is most rapid phenomenon in current era. Many companies had emerged and proven knowledge with constant up-gradation, research and innovation. Creation of new product and services and bringing it onto online web portal is highly innovative and is not simply website creation. Jeff Bezos founder of Amazon.com created one of biggest online store using web portal only. Since it does not works on physical store it has reach to entire world through its web-portal? Amazon is among top role model for e-business in world. Another example is of Larry Page and Sergey Brin starting search engine Google and transforming whole internet usage with their innovative research. Chad Hurley, Steve Chen, and Jawed Karim created YouTube later purchased by Google among top video posting and sharing site on internet. Niklas Zennstorm created Skype known for best VOIP services online. Numerous examples are available to credit innovative online entrepreneurs who have given new definition to e-business with modern technology.

In 1991, a breakthrough reform of India economy happened with liberalization of Indian economy under leadership of Late Prime minister P V Narshima Rao and Dr

Manmohan Singh as Finance Minister and opening of market to global competition led to tremendous growth of Indian economy. The Indian economic system changed from socialist to capitalist system with rapid industrialization and GDP growth leading India among top growing nations in World. The GDP of India soared constant high figures in between 8 to 10 during last decade (Figure 1).



**Figure1: GDP growth of India 1961-2011 E-Business**

"E-business" is defined as the application of information and communication technologies (ICT) which support all the activities and realms of business. E-business focuses on the use of ICT to enable the external activities and relationships of the business with customers. Electronic business methods enable enterprises to link their internal and external data processing systems more efficiently and flexibly and serve better to the needs and expectations of their customers. E-business uses web-based technology to improve relationships with customers.

The goal of any e-Business can be summarized as below:

- An increase in margins
- Increase in staff motivation.
- As a result of customer satisfaction.
- Privileged relationships with the clients.

E-Business is all about the practical realization of these mind-boggling opportunities- opportunities in terms of business-to-business interaction over the Internet, in supply-chain planning, analysis and automation: catalogue management ; order management ( entry, confirmation, tracking, fulfillment, invoicing and payment ) ; warehousing and inventory management; shipping and freight; pricing ; promotion ; taxes ; duties ; reporting ; customer relation management ; customer service ; customized product and service development ; marketing etc. the list is endless. And these possibilities are available to all types of enterprise, whether governmental, educational, nonprofit, or commercial.

## **E-Business Concepts**

Implementing an e-Business project necessarily involves the deployment of a network or web-interface connecting company-specific services to the client. The implementation of just computer tools is not enough; an e-Business project has to be implemented in a new organization based on new technologies.

The concept of e-Business is very flexible and therefore covers all possible uses of information and communication technologies (ICT)

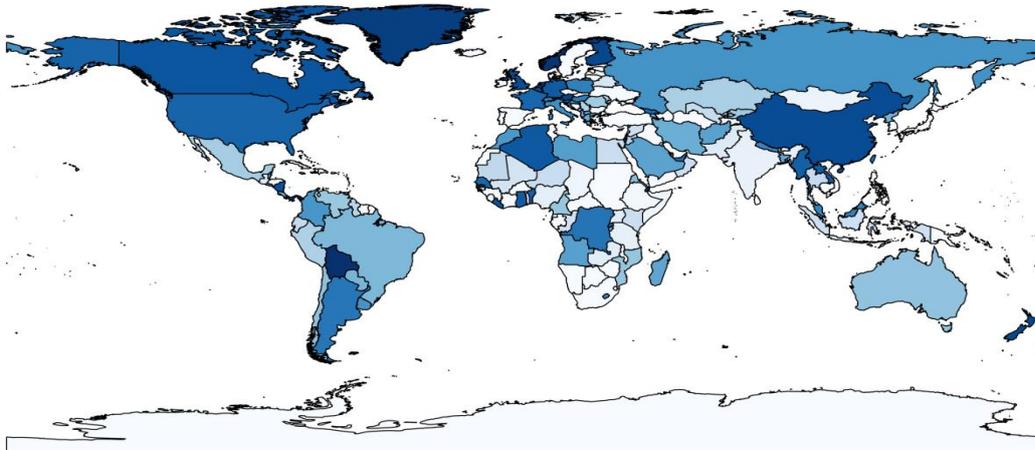
- Making the relationships between the company and its clients
- Newer business opportunities are developed
- Flow of information is made easier
- Controlling different processes within the company

The concept of e-business and e-marketing was originated in western countries with the development of internet-working. The concept was adopted in Indian marketing culture after the globalization of Indian economy. The multinational companies brought the modern e-business concepts owing to the greater benefit transparency if it was widely accepted.

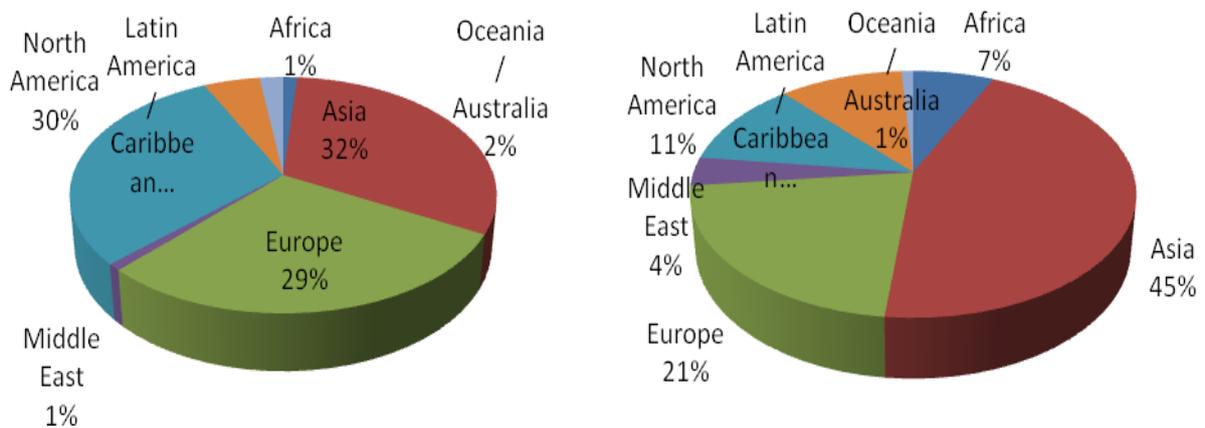
More implementation of e-business in different section of the economy is helping the country to achieve 8% to 9% annual GDP growth and poised to take double digit growth in coming year which has been discussed in detail. The present study mainly dealt with position and challenges of complementary the e-business of India. There is very little research on India that can quantify e-business and its growing trend in India.

The importance of this study is to provide an overview to the readers about the current status of e-business in the country along with discussion on its usefulness and challenges in implementing it in Indian economic scenario. The study will also provide a future projection model based upon growing trend in Indian economics. The overall objective of the study is to provide qualitative as well as quantitative information about the e-business in Indian economy. There is very little published report available for e-business development in India. The major challenge was to gather effective information about the subject matter through various national and international publications. The data collection and research analysis was performed to study the internet awareness and scope in Indian economic growth among common Indian users.

The data from international internet statistics ([www.internetstats.com](http://www.internetstats.com)) for each country for internet usage, internet penetration and population was downloaded and processed. The processed data was then mapped using Geographic Information System technique using open freeware Quantum GIS. Figure 2 shows internet usage population in 2013. It clearly shows greater population using internet in western world while in Asia, China has more dominance on internet usage than India. The growth of internet penetration is faster in China 82.5% than India 79.5%. The growth in internet usage in India has gained momentum with cell phone internet which has surpassed desktop internet usage.



**Figure 2: World map showing population penetration for internet growth**



**Figure 3 : Internet usage in year 2000    Figure 4 : Internet usage in year 2012**

In last decade, the usage of internet has increased with more dominance on Asia leading the internet usage. Asia shared 32% of internet usage while Europe and North America were 29% and 30% only in 2000 but in twelve years Asia gained to 45%. African share was 1% in 2000 which gained to 7% in 2012 (Figure 3 and Figure 4).

The e-business awareness in India has increased with fast adaption of internet and internet based service in today’s post economic liberalization scenario. The World internet statistics reveal that India is one of the emerging nations for internet user and stands fourth-largest country after China, US and Japan. Although, India stands fourth in population-wise internet usage still it has lower population penetration percentage 6.9 whereas US has population percentage 77.3 (Table 1).

**Table 1: Growth of internet users in last ten years (2000-2010)**

S.No.	Country Region	or% (Penetration)	Population Growth 2000-2010	% of World Users
1	China	31.60%	1766.70%	21.40%
2	United States	77.30%	151.60%	12.20%
3	Japan	78,2 %	110.60%	5.00%
4	India	6.90%	1520.00%	4.10%
5	Brazil	37.80%	1418.90%	3.90%
6	Germany	79.10%	171.30%	3.30%
7	Russia	42.80%	1825.80%	3.00%
8	United Kingdom	82.50%	234.00%	2.60%
9	France	68.90%	425.00%	2.30%
10	Nigeria	28.90%	21891.10%	2.20%

Source: worldinternetstats.com

**Data collection:**

E-Business approach in India is recent and has many challenges in implementing form govt. admin and from customers in order to know the perception of Govt. official Bank Managers and customers at the other end, about this change a survey was conduct through questionnaire & personal interview

Personal Interview for the manager and the officers of nationalized and private Banks both were conducted to know there perception about Pre E-Business and comment scenario. In a similar way, personal interview of working staff of stock broking/Travel & Tourism/Insurance was conducted to know their perception. To know the customers’ perspective about the E-Business adoption and challenges, a survey was conducted using a questionnaire (one was in physical form and another was online). Online link was sent to different user groups and there response was recorded electronically in the computer system. The data obtained was analyzed for further interpretation.

The number of internet subscribers in India has increased by ten folds in last decade and our study shows that it will be 35 folds by the end of year 2025 compared to year 2000 making India a global hub for internet users and using its capabilities for harnessing major business and trade benefits. It will eliminate the role of intermediaries, making the business model easily accessible, customer friendly and auditable transparent. A survey was conducted using questionnaire about the awareness of internet usage, about the users and penetration in India. The responses were analyzed and with the growing number of internet users at exponential rate in last decade and at the same time most of the businesses in India adopting their business in electronic form within their company and also directly with the customers' for their work. The survey suggested that most of the internet users are graduates (38%) and post graduates (27%) (Figure 5) and mostly they use it for checking email (40%) and browsing educational information (26%) (Figure 6).The users were also surveyed for the time they spend for browsing

internet for various purposes and most of the users are able to do it once in a week while 20% of users are able to browse internet daily (Figure 7).

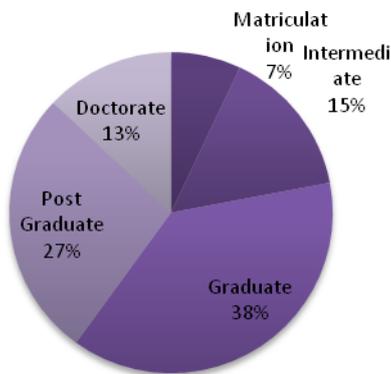


Figure 5: Internet users age group percentage based upon survey

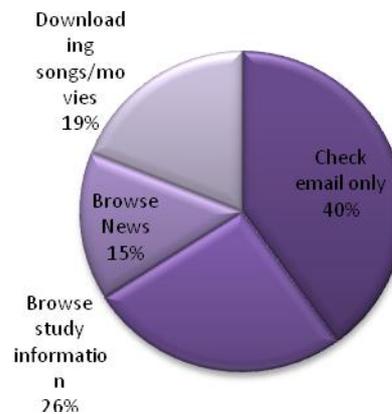


Figure 6: Internet usage for information percentage based upon survey



Figure 7: Internet usage time percentage based upon survey

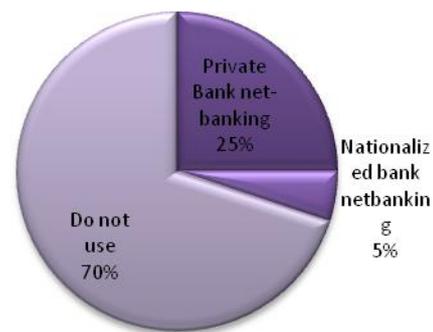


Figure 8: Internet Banking users percentage based upon survey

HSBC first time in 1987 launched ATMs for cash withdrawal making a revolution in Indian banking system and today almost every bank has ATMs more than several thousands in country to serve the people with cash withdrawing without stepping into bank and convenient merchandise purchasing without carrying cash. The growing e-business is not only limited to urban scenario but has expanded its root in rural regime benefiting the farmers and rural dwellers. Majority of the people are still unaware of internet-banking due to computer illiteracy and those who are using internet banking are mostly private bank customers (Figure 7). Most of our people dwell in rural areas and agriculture still dominates in Indian GDP.

Many of agro-based and agricultural-development companies like ITC have improved the agricultural-business by adopting latest techniques and e-business system. It has also benefited the agricultural-sector with latest infrastructure and educating the farmers adopting new techniques for agricultural development.

Indian railway which forms busiest and densest root network in world moving millions of people to their destination has the cumbersome job of informing and booking tickets to million people in single day. Before, getting to electronically available on internet railway has to manage long queues of passengers boarding with their limited staff. Today, with IRCTC online service, which started in August 2002, passengers can browse train information, route information, and seat availability and can book his ticket online. It is really a mammoth task for IRCTC to maintain such a huge database for thousand of trains and millions of passengers moving every day. E-ticketing is no more a new thing to passengers and many passengers now travel with e-tickets compared to traditionally booked tickets. About 12% of the people been surveyed book the railway e-ticket by themselves whereas 25% people rely on agents to get e-ticket. Still, large populations 63% of internet users are purchasing railway e-ticket through traditional method from railway reservation counters.

Many of the traditional public work from government offices are switching to electronically maintenance and operation of records. It is more suitably called e-governance which has significantly reduced large volume of paper work and has created transparency in record and operation. Some of the services like e-filing of income tax have benefited customers with easy filing and maintaining records. Other important office which has adopted electrically operation is Passport Office. Applicant use to wait for months to years to get their passports made for traveling. The plan to develop passport office electronically operative is still under development phase under TCS and will be soon in operation which will be able to get passport to applicant within 15 days.

Land record information and registration is also been available online which is able to transfer cumbersome paper work load, efficiency and transparency in system. Although e-governance is in implementation phase and has covered small proportion of the large system but it will soon take-over to larger proportion owing to its numerous benefits and would provide a highly transparent and work solution. India, owing to its large population and still immature society with numerous social evils has maximum number of pending (3crores in 2005) cases of all natures in various courts of the country. It is also a difficult job for victims to register case with police. Under this situation, e-court and adoption of modern electronic method to facilitate court proceedings is beneficial to millions of people to get justice. E-courts equipped with tele-conferencing and video-conferencing facilitate hearing of remote witnesses and fasten court proceeding.

There is significant improvement in Indian education system with adoption of computer in their study and also in their administrative operations. India which is giant in the fields of software technology still has large population of students which need to learn basic computer working. With much dependency upon computer in every field of life, students of any stream need to learn this tool. Universities and colleges now have their personal webpage easing the job to seek information about courses.

The number of users for internet access has increased about 10 folds in last decade indicating the dependency of user as well as e-marketing business on network

technology. Figure 8 shows the growing trend of Indian internet subscribers from year 1998 to 2010. The regression analysis shows best fit curve power function with coefficient of determination 0.968. The best fit curve was used to analyze and project the growing trend upto year 2025 showing growth upto 35 folds compared to 1998.

### **Conclusion**

The projection model used in study indicates that India will be one of biggest user hub for e-business marketing as well depending upon network technology that will create more reliable, secure and transparent method of business transaction. India currently has lower population penetration and our study shows that it has tremendous growth and therefore high potential for e-business network model to grow, although it will take time to come to its optimum level due to in education among a large segment of people who need to better trained with new technology for adoption. The progress has already begun among the mass youth generation with the use of cell phone technology and the use of ATM cards indicating that Indians are stepping to catch the technology with the world.

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