
ICT – A NEW PARADIGM FOR ECONOMIC DEVELOPMENT

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Abstract

ICT industry has played a significant role in transforming India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs and a global player in providing world class technology solutions and business services. Strong economic growth, rapid advancement in technology infrastructure, increasingly competitive Indian organisations, enhanced focus by the government and emergence of business models that provide IT help to new customer segments are the key drivers for increased technology adoption in India. ICT contribute more to value creation than the classic technologies of automotive and mechanical engineering, both as a sector unto themselves and as a form of technology that cuts across most other economic sectors. As the key to an increasingly knowledge-based economy, information and communication technologies help to accelerate growth throughout numerous sectors. This paper analyses the importance of Information and Communication Technology (ICT) in socio economic development of India.

Keywords: ICT Industry, communication, socio economic development, technology adoption etc.

INTRODUCTION

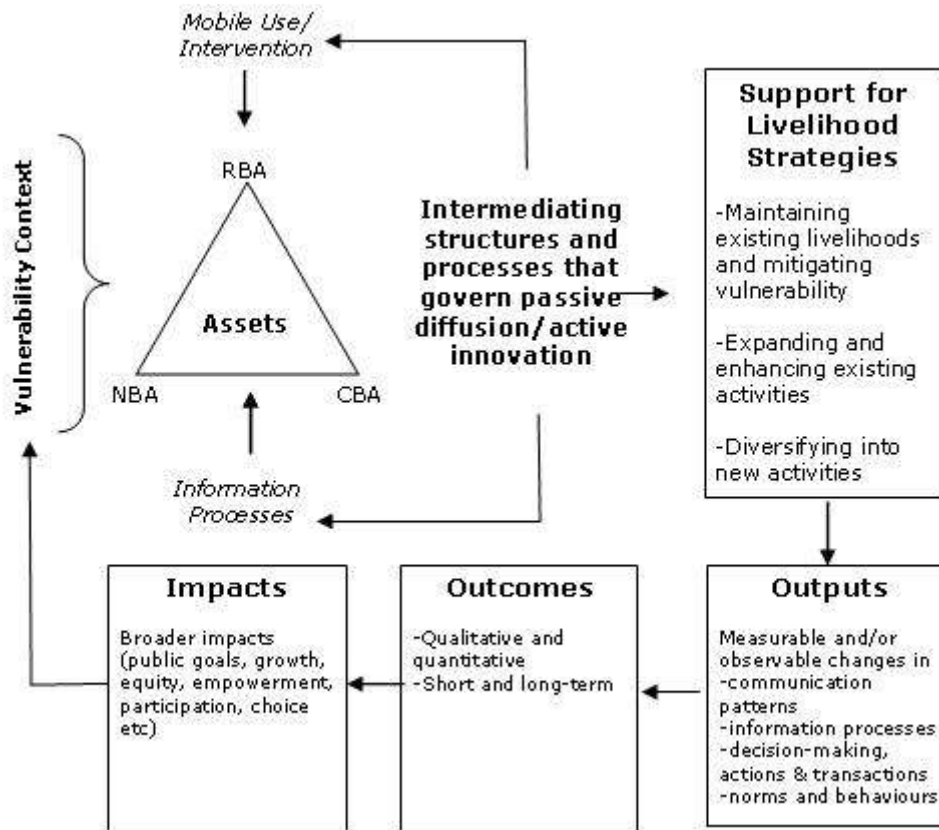
“Information technology is the most powerful thing that has happened to mankind right now. It’s a new opportunity to change the world in a very different way. This is a chance for us to bring information technology to the poorest people, so the potential energy and creativity that each one of them has can be unleashed. Microsoft can play a tremendous role because they are at the top of the technology pyramid. If Microsoft puts their mind to it something dramatic can happen. This is an opportunity that we cannot ignore.”

Nobel Prize Winner Dr. Muhammad Yunus,

Founder and Managing Director of Grameen Bank

Today technology is a key factor for economic, social and technological progress and for sustainability of economies all over the world. A country’s IT potential is paramount for its march towards global competitiveness, healthy GDP, improving defence capabilities and meeting up the energy and environmental challenges. ICT contribute more to value creation than the classic technologies of automotive and mechanical engineering, both as a sector unto themselves and as a form of technology that cuts across most other economic sectors. As the key to an increasingly knowledge-based economy, information and communication technologies help to accelerate growth throughout numerous sectors. ICT is the second biggest employer after the manufacturing industry, even before the automotive and the electronics industries. Almost 850,000 people are employed in the ICT sector itself and an additional 650,000 ICT specialists are employed in user sectors. Because it is growing at a substantially faster rate than the overall economy, the ICT sector is clearly one of the main engines of economic growth in our country.

Figure 1: ICT as a value creator for Business



Above diagram elaborates that how ICT helps in value creation through support for business strategies. Modern ICT in traditional sectors, such as energy, transport, health, education, leisure, tourism and administration, not only afford new opportunities but also pose new challenges, especially in data protection. This is why even the Federal Government has developed a new ICT strategy for the digital future of Germany. The ICT strategy, called Digital Germany 2015, sets out the priorities, tasks and projects for the period up to 2015. It aims to do the following:

- Strengthen competitiveness through the use of ICT in all segments of the economic process
- Expand digital infrastructure and networks to meet future challenges
- Safeguard protected and personal rights of users in the future Internet and in the use of new media

- Step up research and development in the ICT sector and speed up translation of R&D findings into marketable products and services
- Make consistent use of ICT to cope with social problems including sustainability and climate protection, health, mobility, administration and the improvement of the quality of life of citizens

Information technology has a great use in the automated production of sensitive information, automated up gradation of the important business processes and the automated streamlining of the various business processes. Basic Core Indicators identified and recognized at international level can be summed up under the four categories that is

- (a) Infrastructure and Access
- (b) Access to and use of ICT by households & Individuals
- (c) Use of ICT by Businesses
- (d) ICT sector and Trade in ICT goods.

The first three indicators A1, A2 and A3 viz fixed telephones per 100 inhabitants, Mobile telephones per 100 inhabitants'; and computers per 100 inhabitants, are regularly maintained month wise by the department of telecommunication under the ministry of information and communication technology. The latest information available till March,2010 on these three indicators are depicted in the following charts.

Figure 2: No. of telephones per 100 inhabitants

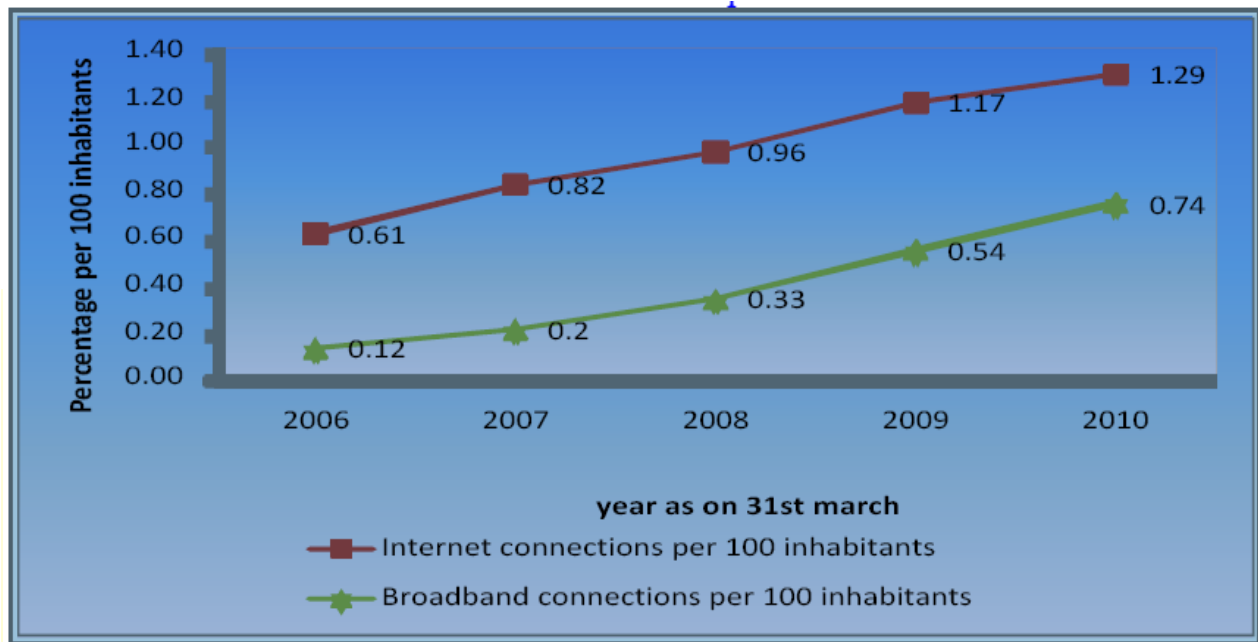


Figure 3: No. of Internet connections per 100 inhabitants



Growth and Contribution of ICT

In addition to fuelling India's economy, this industry is also positively influencing the lives of its people through an active direct and indirect contribution to various socio-economic parameters such as employment, standard of living and diversity. The industry has played a significant role in transforming India's image from a slow-moving bureaucratic economy to a land of innovative entrepreneurs and a global player in providing world class technology solutions and business services, according to National Association of Software and Service Companies (NASSCOM). India's outsourcing industry has witnessed a rebound and registered better than expected growth according to NASSCOM. Contribution of ICT becomes evident from the following:

- Industry's share in India's GDP today was around 7.5 percent in 1990 and it accounted for 26 percent of India's exports by the end of 2011.
- Industry had created direct employment for 2.8 million people at the end of 2011, indirectly generating 12 million jobs for young people.
- 74 percent of people employed by the Indian IT-BPO industry were less than 30 years of age and 35 percent were less than 25 years old.
- Indian addressable market for IT products and services is projected to increase from US\$ 21.0 bn in 2012 to US\$ 42.2 bn by 2016.
- Less than 3% of people in India own a computer (about one-fifth of the level in China), meaning particular potential in the lower end product range. However, realization of this long-term growth potential depends on fundamental drivers such as raising India's low computer penetration, rising incomes, falling computer prices and the government's ambitions to connect the vast rural areas to the outside world.
- In 2011, local governments made a significant contribution to the IT market through procurements related to various ICT-programmes. Government of Karnataka announced a pilot programme to bring ICT education to 5,000 schools whereas Government of Punjab selected virtual computers for 480 computer labs across schools in the state, as part of an initiative called ICT Education Project for Punjab.
- 2011 saw the release of several lower-priced tablets from Indian vendors. In October 2011, Datawind released a US\$60 tablet (US\$30 with subsidies), with an inbuilt modem and a SIM card for internet access. This followed the September 2011 launch by Indian computer peripherals maker Best IT World of a 7-inch tablet priced a INR13,995

(US\$02.6.) The device was the latest in a series of launches of low cost Android-based tablets by local companies.

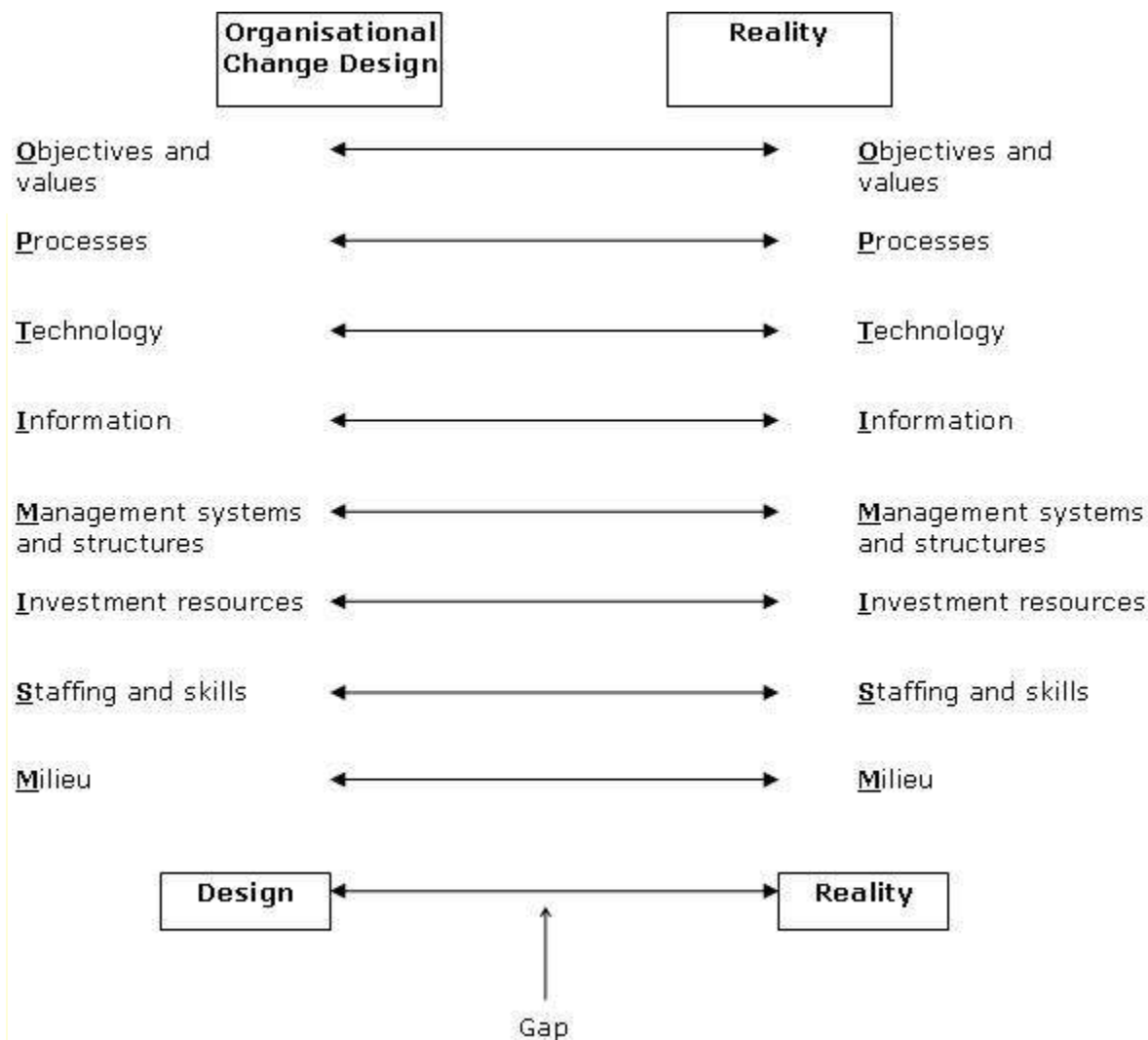
- In September 2011, IBM won a large managed services tender from mobile telco giant Vodafone's Indian unit. The deal, which has a value estimated at between US\$800,000 and US\$1bn, will result in IBM managing Vodafone India's information technology systems until 2017.
- Computer Sales BMI estimates that the Indian addressable market for PCs (including notebooks and accessories) will be worth around US\$8.2bn in 2012, up from US\$7.2bn in 2011.
- BMI believes the PC market will grow at a CAGR of 16% between 2012 and 2016, with unit sales maintaining strong growth. Growing PC penetration in lower-tier cities should help to maintain demand for some time to come.
- India's IT services market is estimated at around US\$8.5bn in 2012 and is projected to grow to US\$18.3bn in 2016. The Indian market has traditionally been low margin, with India's IT majors such as Infosys, Wipro and TCS focusing most of their attention outside the domestic market.
- India will see its number of internet users triple to 237 million by 2015, from 81 million registered in September 2010, according to a report titled 'Internet's New bn', by the Boston Consulting Group (BCG). BCG said Internet penetration rate in India is expected to reach 19 per cent by 2015, up from the current seven per cent.
- Telecom Regulatory Authority of India (TRAI) is targeting a 10-fold increase in broadband subscribers to 100 million by 2014. The country has 10.29 million subscribers now. "We will have 100 million broadband subscribers by 2014," J.S. Sarma, Chairman, TRAI said at the fifth India Digital Summit 2010 organised by the Internet and Mobile Association of India.
- India is a preferred destination for companies looking to offshore their IT and back-office functions. It also retains its low-cost advantage and is a financially attractive location when viewed in combination with the business environment it offers and the availability of skilled people.

- In a survey conducted by IMRB for the Internet and Mobile Association of India (IAMAI), the total number of active internet users in rural area will rise by 98 per cent to touch 24 million by the end of 2011 from 12.1 million in December 2010. The survey said that the claimed internet user category is also set to grow by 96 per cent to reach 29.9 million by December 2011 from 15.2 million in December 2010.

There is an increasing number of large projects, particularly from the government, but also from key verticals such as banks, telecoms, defence, manufacturing and retail. A significant opportunity will be created by demand from Indian businesses and government agencies for help to utilize cloud computing, which is driving data-centre investments.

Though ICT has contributed a lot in socio economic development of India, yet there is a need to upgrade the ICT industry. It is evident from the following diagram:



Figure 4: Convergence of Organizational Change design and Reality

From the above diagram it becomes clear that in order to strike a balance between setting up of goals and their achievement, gap between organizational design and reality need to be minimized.

Conclusion

ICT had proved itself as a panacea to consumers and business to reduce transportation costs and all this can be achieved through regular technical optimization with the prime quest for speed, security and multifunction complete with a dynamic management with strong development

focuses. Adoption of ICT and the consequent increased productivity and economic growth induced by it has been described as the dawn of the new economy.

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