

ROLE OF IT AS AN ACCELERATOR FOR EDUCATION, TRADE AND INDUSTRY

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Abstract:

It is rightly understood that our country has progressed a great deal in modern times in the field of education, trade and industry. The credit, of course, goes to the revolution in the field of Information and Technology. Due to IT, the business world has revolutionized almost everything, including education, beyond recognition in the past few decades particularly after the opening of Indian economy in the early 90's. The combination of IT innovations and a changing domestic and global business environment makes the role of modern technology in business and education sector even more important than before. The IT revolution is not something that happened casually and then burst, but instead has turned out to be an ongoing, powerful source of new technologies with significant business and educational implications for much of this century and the century that lies ahead.

Information Technology is a comprehensive term that includes all types of technology used to exchange, store, utilize, create and use information. Commonly used Information technology equipment includes computers, servers, peripheral devices, Internet connectivity equipment and phone systems. From basic computer terminals to IP-based telephony systems, IT is an integral part in most modern educational and business operations. This conceptual paper is an attempt to measure the pros and cons of the growing trend in the field of education, trade and industry which is being stupendously affected by the explosion of Information Technology.

Keywords - Information Technology, trade, industry, business, global market, domestic market.

Introduction

The Information Technology Association of America (ITAA) explains 'information Technology' as encompassing all possible aspects of information systems based on Computers. Information technology provides commercial and industrial systems for businesses. These systems enable businesses and educational institutions to function effectively, nicely, cost-effectively and efficiently. Information Technology, also known as IT, is a comprehensive term that includes all types of technology used to exchange, store, use or create information. Commonly used Information technology equipment includes computers, servers, peripheral devices, Internet connectivity equipment and phone systems. From basic computer terminals to IP-based telephony systems, IT is an integral part of most modern business operations.

Technology affects almost every aspect of our lives. Just look around us how wired we are. Thanks to the Internet, virtually anything we desire can be delivered to our door in a matter of days. We can even trade stocks or file taxes online. If we want to study anything nowadays, it can be done on the click of the mouse.

From fax machines to smart phones, business is constantly adapting to new technology. The fax machine and email were two of the big technology breakthroughs which facilitated faster business, ironically both now being seen as yesterday's technology. Now we have mobile phones, tablets, web-conferencing and social networks. All these modern technology have drastically affected our education, business and trade level.

Communication is instantaneous, simple and cheap. We can transmit documents, videos and images anywhere in the world, instantly and at no cost. Wireless Internet, cell phones and Black Berries have made it easy to work from home or for that matter, from the beach. The fact that it's easy to work from the beach compels people to do so. In this way, technology allows workaholics to work and slackers to slack.

Due to *IT* the business and education world has revolutionized everything beyond recognition in the past few decades. Technology -- and we mean the advances in communication and information technology -- has changed the face and the pace of business. Even a single day without computers leaves us feeling paralytic. Information Technology (IT) has made us completely dependent for even the simplest day to day task. The recent incident of system failure at key Swiss government ministries has brought Geneva to a standstill. This proves how information Technology has drastically transformed the way we carry out day to day business. It is dynamic and vast and its absence for a day leaves a severe effect on us. Internet being the simplest form of IT has a major role to play in business. It has become the backbone of every organization.

In the early days Indian economy was totally based on agriculture. People used to produce whatever they required for their self-consumption. There was no need for sale or exchange of goods. But later on, needs of the people increased and so did the production. People began to specialize in producing different items of luxury and daily use and did not have skills and time left for producing others items of their use. However, they were able to produce surplus items with increase in their efficiency. So, a system of exchanging surplus items with the items of need was evolved. (Barter system) This was the beginning of trade. It is normally understood that India has progressed a great deal in the modern time, especially after independence, in the field of education, business and trade.

Education field in our country has also seen tremendous change over the years. It is being drastically affected by modern gadgets and no phase of education, be it primary, secondary or college/university level, can claim that it is not being touched by new innovations and technology.

The Role of Information Technology in Education, Business and Trade

The role of information technology systems in education and business environment can be classified into four broad categories. These categories include function performance, communication through networking, management and enterprise roles.

i. Function IT Systems

Function IT systems are applications that allow individuals to function effectively in the workplace. Examples of common IT systems that enhance workplace functions are word processor applications, spreadsheet applications, statistical analysis software and computer aided design (CAD) programs. Employees can work and perform their task individually or collectively using these specialized software technologies.

ii. Network IT Systems

Network IT systems allow effective communication within and outside an organization. Examples range from simple e-mail (electronic mail) to blogs, wiki sites, IM (instant messaging) and electronic conferencing systems. These types of technologies promote interaction and collaboration among working groups and also facilitate quick information flow at all levels.

iii. Management IT systems

Management IT systems (MITS) can be defined as planned applications that are designed to process data and transform the processed data into useful information for management decision making.

iv. Enterprise IT Systems

Enterprise IT systems are technologies designed to integrate and manage entire business processes for large organizations. Typically, enterprise application software is hosted on large servers over a computer network. Transmission of information can either be internal or external. Examples of enterprise information systems may be accounting software, health care specific software or Electronic Data Interchange (EDI). Another good example of software application within this category is Customer relationship management software (CRM).

INDUSTRY

An industry is a group of manufacturers or businesses that produce a particular kind of goods or services.

- Ex
1. Workers in the textile industry design, fabricate and sell cloth.
 2. The tourist industry includes all the commercial aspects of tourism.

TYPES OF INDUSTRY

PRIMARY – This involves the extraction of resources directly from the Earth; this includes farming, mining and logging. They do not process the products at all. They send it off to factories to make a profit.

SECONDARY- This group is involved in the processing products from primary industries. This includes all factories- those that refine metals, produce furniture, or pack farm products such as meat.

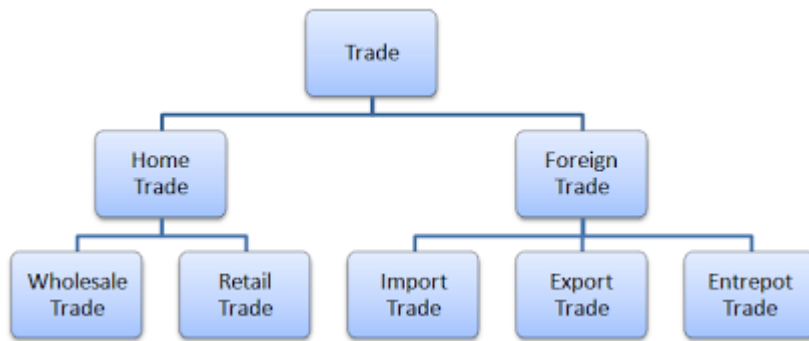
TERTIARY- This group is involved in the delivery and sale of goods. For ex-They include truck drivers and retail work.

TRADE

Trade involves the transfer of the ownership of goods or services from one person or entity to another in exchange for other goods or services or for money.

Trade refers to buying and selling of goods and services for money or money's worth. It involves transfer or exchange of goods and services for money or money's worth. The manufacturers or producer produces the goods, then moves on to the wholesaler, then to retailer and finally to the ultimate consumer.

Trade is essential for satisfaction of human wants, Trade is conducted not only for the sake of earning profit; it also provides service to the consumers. Trade is an important social activity because the society needs uninterrupted supply of goods forever increasing and ever changing but never ending human wants.

TYPES OF TRADE:**TYPES OF TRADE**

1. Internal or Home or Domestic trade.
2. External or Foreign or International trade

1. Internal Trade:

Internal trade is also known as Home trade. It is conducted within the political and geographical boundaries of a country. It can be at local level, regional level or national level. Hence trade carried on among traders of Delhi, Mumbai, etc. is called home trade. Internal trade can be further sub-divided into two groups-

- (i) **WHOLESALE-** Wholesale trade is concerned with buying goods from manufacturers or dealers or producers in large quantities and selling them in smaller quantities to others who may be retailers or even consumers. Wholesale trade is undertaken by wholesale merchants or wholesale commission agents.
- (ii) **RETAIL-** Retail trade is concerned with the sale of goods in small quantities to consumers. This type of trade is taken care of by retailers.

2. External Trade:

External trade also called as Foreign trade. It refers to buying and selling between two or more countries. For instance, If Mr.X who is a trader from Mumbai, sells his goods to Mr.Y another trader from New York then this is an example of foreign trade. External trade can be further sub-divided into three groups-

- (i) **Export Trade:** When a trader from home country sells his goods to a trader located in another country, it is called export trade. For e.g. a trader from India sells his goods to a trader located in China.
- (ii) **Import Trade:** When a trader in home country obtains or purchase goods from a trader located in another country, it is called import trade. For e.g. a trader from India purchase goods from a trader located in China.
- (iii) **Entrepot Trade:** When goods are imported from one country and then re-exported after doing some processing, it is called entrepot trade. In brief, it can be also called as re-export of processed imported goods. For e.g. an Indian trader (from India) purchase some raw material or spare parts from a Japanese trader (from Japan), then assembles it i.e. convert into finished goods and then re-export to an American trader (in U.S.A.)

DOMESTIC MARKET

A domestic market, also referred to as an internal market or domestic trading, is the supply and demand of goods, services, and securities within a single country. In domestic trading, a firm faces only one set of competitive, economic, and market issues and essentially must deal with only one set of customers, although the company may have several segments in a market.

IT ROLE IN DOMESTIC MARKET

The contribution of India's IT industry to economic progress has been quite significant. The rapidly expanding socio-economic infrastructure has proved to be of great use in supporting the growth of Indian information technology industry.

The flourishing Indian economy has helped the IT sector to maintain its competitiveness in the global market. The IT and IT enabled services industry in India has recorded a growth rate of 22.4% in the last fiscal year. The total revenue from this sector was valued at 2.46 trillion Indian rupees in the fiscal year 2007. Out of this figure, the domestic IT market in India accounted for 900 billion rupees. So, the IT sector in India has played a major role in drawing foreign funds into the domestic market.

The growth and prosperity of India's IT industry depends on some crucial factors. These factors are as follows:

- A) India is home to a large number of IT professionals, who have the necessary skill and expertise to meet the demands and expectations of the global IT industry.

- B) The cost of skilled Indian workforce is reasonably low compared to the developed nations. This makes the Indian IT services highly cost efficient and this is also the reason as to why the IT enabled services like business process outsourcing and knowledge process outsourcing have expanded significantly in the Indian job market.
- C) India has a huge pool of English-speaking IT professionals. This is why the English-speaking countries like the US and the UK depend on the Indian IT industry for outsourcing their business processes.

The emergence of Indian information technology sector has brought about sea changes in the Indian job market. The IT sector of India offers a host of opportunities of employment. With IT biggies like Infosys, Cognizant, Wipro, Tata Consultancy Services, Accenture and several other IT firms operating in some of the major Indian cities. So in conclusion it can be said that the growth of India's IT industry has been instrumental in facilitating the economic progress of India.

FOREIGN MARKET

Part of a nation's internal market, representing the mechanisms for issuing and trading securities of entities domiciled outside that nation.

ROLE OF IT IN FOREIGN MARKET

Information technology has made a tremendous development in respect of our approach at a mass level. It opens the door of several avenues as well as has brought in several threats, which should be analyzed carefully. Due to development in technology, the information can be transferred from one place to another in very short span of time, earlier which required lot of time. Transfer of large information and storing capacity for a long period also has some draw backs, inherent in the process itself. For example manipulation of message is very easy and it requires small level of technical literacy. It is also observed that master in a subject may not be many times able to express his views effectively as compared to a person having less knowledge of subject but more computer literacy, who can make better presentations. Here the knowledge part of the core subject has been compromised with proficiency with technology. The development of new information technology should be welcomed because it is the need of the hour. And all of us should prepare ourselves to make it easier for us and should use it in ethical ways then only we would be able to survive in the global market.

ROLE OF INFORMATION TECHNOLOGY IN PROMOTING EDUCATION, BUSINESS & TRADE:

A combination of information technology innovations and a changing domestic and global business environment makes the role of IT in business and education even more important than just a few years ago. The Internet revolution is not something that happened and then burst, but instead has turned out to be an ongoing, powerful source of new technologies with significant business implications for much of this century. There are various factors to consider when assessing the growing impact of IT in education, business firms and trade, both today and over the next few years.

One of the most frequently asked questions by investors, journalists, and Business entrepreneurs are, "What's the next big thing?" As it turns out, the next big thing is in front of us: We are in the midst of a networking and communications revolution driven by the growth of the Internet, Internet-based technologies, and new business models and processes that leverage the new technologies. Although "digital convergence" was predicted a decade ago, it is now an undeniable reality. Massive amount of industries are moving toward a common platform of global business.

The education sector is equally and marvelously being affected by the above mentioned developments and it has changed every nook and corner of educational institutions.

The Internet is bringing about a convergence of technologies, roiling markets, entire industries, and firms in the process. Traditional boundaries and business relationships are breaking down, even as new ones spring up. Telephone networks are merging into the Internet, and cellular phones are becoming Internet access devices. Handheld storage devices such as iPods are emerging as potential portable data, plan, policies and entertainment center.

Traditional markets and distribution channels are weakening and new markets are being created. For instance, the markets for music CDs and video DVDs and the music and video store industries are undergoing rapid change. New markets for online streaming media and for music and video downloads have materialized.

The Information Technology has paved many easy ways for:

- Transformation of the business enterprises,
- Growth of a globally connected economy,
- Growth of knowledge and information-based economies,
- Emergence of numerous amounts of the digital firms,
- New business technologies with favorable costs,
- E-business, e-commerce, and e-government,
- Rapid changes in markets and market structure
- Increased obsolescence of traditional business models.
- Change in Methodology of Teaching in Education Field.
- Use of gadgets like PPT, Computers and OHP's.
- Information technology reduces transaction costs and thereby improves productivity.

- Offer immediate connectivity-voice, data, visual-improving efficiency, transparency and accuracy.
- Substitutes for other, more expensive means of communicating and transacting such as physical travel.
- Increased choice in market places and provide access to otherwise unavailable goods and services
- Widen the geographic scope of potential markets and,
- Channel knowledge and information of all kinds.

Companies that operate in the domestic market must take account of elements in the external environment that influence their marketing strategy. Seven of the most important external elements are cultural and social factors, the political and regulatory environment, economic conditions, levels of competition, the media infrastructure, logistics infrastructure, and technology infrastructure

“Trade is essentially an international transformation of commodities, inputs and technology which promotes welfare in two ways. It extends the market of a country’s output beyond national frontiers and may ensure better prices through exports. Through imports, it makes available commodities, inputs and technology which are either not available or are available only at higher prices, thus taking consumers to a higher level of satisfaction. The foremost principle of foreign trade, viz., „the law of comparative costs”, signifies that what a country exports and imports is determined not by its character in isolation but only in relation to those of its trading partners.

The extension of foreign trade, according to Ricardo “will very powerfully contribute to increase the mass of commodities, and therefore, the sum of enjoyments”. This will be true for each trading nation. In modern terminology, “trade is a p positive sum game”.

The media infrastructure in the domestic market as well as in foreign market determines our options for communicating with customers and prospects. Depending on our product and our target audience, we will benefit from a wide choice of magazines, newspapers, and television and radio stations, enabling us to select the media that reach the greatest number of prospects at the lowest cost.

To reach our domestic customers, or foreign customers we need a well-developed logistics infrastructure. A strong network of retailers or distributors is important if we market our products through indirect channels. If we market our products throughout the country, a national logistics infrastructure of warehouses, distributors, and transport operators will help us to access our market easily.

The technology infrastructure influences the domestic and foreign marketing environment in a number of ways. It can provide an important communication channel, enabling us to market the products through a website or via email. If to supply digital products or services in fields of education, trade and commerce, use of Internet is a must.

The level of competition will experience in foreign markets is likely to be more dynamic and complex than we experience in domestic markets.

It may be difficult to find reliable information and data for some markets, particularly less-developed economies as their statistical agencies may not be as sophisticated as developed market economies. However it is important to gather as much information as we can to successfully enter the market.

The degree of technology can vary substantially in foreign markets. If our product or service requires a high degree of technology sophistication to use or implement, then markets with low levels of technology will not be suitable for our business.

It can finally be concluded that information technology has totally changed almost every field in modern times and the field of education, trade and industry are no exception. Probably in the coming years these modern gadgets are going to transform the way we do our task. Let’s watch and see how long it takes to see the era where we totally become dependent on science and technology.

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