Impact of Information Technology in Various Sectors

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ABSTRACT

IT has brought in several technological developments in every field .IT plays a major role in simplifying various organizational processes. IT has accelerated several business organizations all over the world, helped several businesses realize organizational goals and automate processes by following the principles of usability, efficiency, customer related and a clear communication. Most business enterprises rely on the power of information technology for carrying out their daily tasks conveniently and faster. IT makes complex procedures easier, faster and also helps a lot in avoiding redundancy. It lets individuals access necessary data, ensuring the safety of confidential ones. Information Technology has made every individual completely dependent for even the simplest day to day task.

INTRODUCTION

Work that was done manually in the past now can be done easily and efficiently with the help of computers. There's no need to store paper files as all the important documents can be stored on computer and can be accessed without much hassle. Better and faster communication online has led to globalization and have immensely helped industries and businesses around the world. Information Technology (IT) can be termed as a backbone to all the industries because of wide-scale use of computers, internet and telecommunications systems. Information Technology helps in managing, manipulating, storing, regaining, sharing/communicating and transmitting small as well as large amount of information/data conveniently and effectively. IT has entered almost all industry verticals. For instance, railways, airways and sea networks are connected with the help of IT, as information plays a vital role in the smooth functioning in these sectors and lack of it even for a second can create havoc.

Business

Businesses across the world, due to IT, are not bound to a geographical area anymore. With the help of online communication they can reach the world. It's because of IT that there are so many people today who can work for employers that are located in some different geographical area.

How IT changed Industries Around:

Transport

Transport sector is also not untouched. New inventions and innovations have upgraded the transport industry to a great extent. Roadways, railways, airways, waterways all are revolutionized. Availability of seats, timings are all at a stone throw just because of internet.

Media

Media field has been totally upgraded and transformed by the IT. Now, media can cover news better and can distribute it for mass consumption on a larger scale. Apart from TV and radio, online websites have been launched to keep people updated. Now we are having 24*7 news.

Information Technology in Banking

Few years ago, in banks working with hands and saving data on paper was a norm. But with the arrival of computer, everything has changed. Now entries are directly and efficiently recorded in PC files, money can be transferred online, account balance can be checked, people have been provided with the service online banking service to carry out various transactions. In fact, e-commerce has made online banking as well as online purchasing and selling of commodities and services much easier and faster adding to the convenience of the common man. By simply searching on the internet one can order anything with just a click of the mouse button. Information Technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. Internet has significantly influenced delivery channels of the banks. Internet has emerged as an important medium for delivery of banking products and services. Banking environment has become highly competitive today. To be able to survive and grow in the changing market environment banks are going for the latest technologies, which is being perceived as an 'enabling resource' that can help in developing learner and more flexible structure that can respond quickly to the dynamics of a fast changing market scenario. It is also viewed as an instrument of cost reduction and effective communication with people and institutions associated with the banking business. The customers can view the accounts; get account statements, transfer funds and purchase drafts by just punching on few keys. The smart card's i.e., cards with micro processor chip have added new dimension to the scenario. An introduction of 'Cyber Cash' the exchange of cash takes place entirely through 'Cyber-books'. Collection of Electricity bills and telephone bills has become easy. The upgradeability and flexibility of internet technology after unprecedented opportunities for the banks to reach out to its customers. No doubt banking services have undergone drastic changes and so also the expectation of customers from the banks has increased greater.

E-Banking:

Many banks have modernized their services with the facilities of computer and

electronic equipments. The electronics revolution has made it possible to provide ease and flexibility in banking operations to the benefit of the customer. The e-banks, which may call as easy bank offers the following services to its customers:
´   Credit Cards/Debit Cards
´   ATM
´   E-Cheques
´   EFT (Electronic Funds Transfer)
´   DeMAT Accounts
´   Mobile Banking
´   Telephone Banking
´   Internet Banking
´   EDI (Electronic Data Interchange)

Benefits of E-Banking
´   Anywhere Banking no matter wherever the customer is in the world. Balance enquiry, request for services, issuing instructions etc., from anywhere in the world is possible.
´   Anytime Banking – Managing funds in real time and most importantly, 24 hours a day, 7days a week.
´   Convenience acts as a tremendous psychological benefit all the time.
´   Brings down "Cost of Banking" to the customer over a period a period of time.
´   Cash withdrawal from any branch / ATM
´   On-line purchase of goods and services including online payment for the same.
´   Innovative, scheme, addresses competition and present the bank as technology driven in the banking sector market.
´   Reduces customer visits to the branch and thereby human intervention.
´   Inter-branch reconciliation is immediate thereby reducing chances of fraud and misappropriation.
´   On-line banking is an effective medium of promotion of various schemes of the bank, a marketing tool indeed.

Traditional Banking Sector

Information Technology in Insurance
        Insurance industry is a data-rich industry, with increased competition among insurers, service has become a key issue. Moreover, customers are getting increasingly sophisticated and tech-savvy. People today don't want to accept the current value
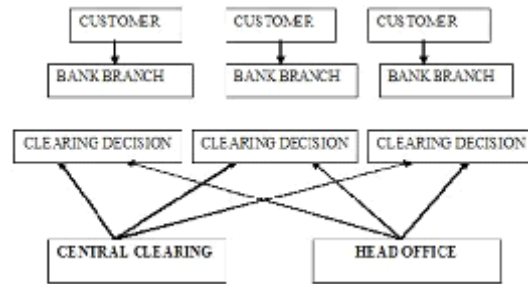
propositions, they want personalized interactions and they look for more and more features and add ones and better service.

Applications

Electronic Customer Relationship Marketing
        This is a concept derived from e-commerce. This also uses net environment i.e., internet, intranet , and extranet. To implement electronic customer relationship marketing there are three steps life cycle.
Data Collection : About customers preference information actively and passively.
Data Aggregation : Filter and analysis for firm's specific needs to fulfill their requirements
Customer Interaction: According to customer's need, the company has to provide proper feedback to them.

Claims Management
        Today various insurance companies are providing facilities to their clients. They can check the balance premium, maturity date, dues and outstanding of their policy. They are provided various new information regarding new policy. The customer can pay the premium amount of there policy from the e-insurance option.

Information Technology in Education
        In the past education was done mainly with the help of books. However these days, internet plays a vital role in teaching students valuable information regarding any subject they want to learn about.

Benefits of Information Technology in Education
´   Access to variety of learning resources
´   Immediacy to information
´   Anytime learning

´ Anywhere learning
´ Collaborative learning
´ Multimedia approach to education
´ Authentic and up to date information
´ Access to online libraries
´ Teaching of different subjects made interesting
´ Educational data storage
´ Distance education
´ Access to the source of information
´ Multiple communication channels-e-mail, chat, forum, blogs, etc.
´ Access to open courseware
´ Better accesses to children with disabilities
´ Reduces time on many routine tasks

Applications of Information Technology in Education

Access to variety of learning resources

With the help of IT now it is easy to provide audio visual education. In particular, learners need to make use of the new multimedia technologies to communicate ideas, describe projects, and order information in their work.

Immediacy to information

IT has provided immediacy to education. Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated anywhere at any time. New IT has often been introduced into well-established patterns of working and living without radically altering them.

Any time learning

Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated .One can study whenever he wills irrespective of whether it is day or night and irrespective of being in India or in US because of the boom in IT.

Collaborative learning

Now IT has made it easy to study as well as teach in groups or in clusters. With online we can be unite together to do the desired task. Efficient postal systems, the telephone (fixed and mobile), and various recording and playback systems based on computer technology all have a part to play in educational broadcasting in the new millennium. The Internet and its Web sites are now familiar to many children in developed countries and among educational elites elsewhere, but it remains of little significance to very many more, who lack the most basic means for subsistence.

Multimedia approach to education

Audio-Visual Education, planning, preparation, and use of devices and materials that involve sight, sound, or both, for educational purposes. Among the devices used are still and motion pictures, filmstrips, television, transparencies, audiotapes, records, teaching machines, computers, and videodiscs. The growth of audio-visual education has reflected developments in both technology and learning theory.

Better accesses to children with disabilities

Information technology has brought drastic changes in the life of disabled children. IT provides various software and technique to educate these poor peoples. Unless provided early with special training, people profoundly deaf from birth are incapable of learning to speak. Deafness from birth causes severe sensory deprivation, which can seriously affect a person's intellectual capacity or ability to learn. A child who sustains a hearing loss early in life may lack the language stimulation experienced by children who can hear. A delay in learning language may cause a deaf child's academic progress to be slower than that of hearing children. The academic lag tends to be cumulative, so that a deaf adolescent may be four or more academic years behind his or her hearing peers. Deaf children who receive early language stimulation through sign language, however, generally achieve academically alongside their hearing peers.

Information Technology in Health

IT has brought revolutionary changes in medicine sector as well. With the help of new techniques, technologies and equipments developed by IT for this specific field, physicians can provide more accurate treatment to patients.

Information technology helps to organize patient records and can provide valuable cross-referencing information when it comes to things

like drug interactions. Because of the rise in the number of medical images captured and used in treatment for a variety of conditions, information technology is especially important for storing images and locating them when needed. Even reading medical images may require IT assistance because of the increasing complexity of imaging technologies.

The areas in Healthcare in which information technology can effectively contribute to cost-savings fall into three broad categories.

Administrative Data Processing

The effectiveness of IT in helping to reduce administrative overheads was one of the earliest arguments for the development of hospital information systems. Today, the state-of-the-art for claims processing is to automate the process by using electronic claim submission(ECS) technologies running on wide-area electronic data interchange(EDI). Inventory control is another major area in which IT has been proven to be an effective tool in reducing administrative costs.

Clinical Data Processing

Patient monitoring is one area in which the use of clinical data processing can substantially reduce a hospital's operational costs. Often patients have to be monitored continuously(eg ECG monitoring) or periodically(eg monitoring vital signs). These monitoring process may be done for diagnostic purposes in the emergency room, for therapeutic purposes eg in the operating theatre, or for surveillance purposes eg in the ICU. As a result of monitoring processes, large volumes of data are often generated.

Health and Medical Information Systems

These are systems that can collect, collate and present data from various sources to the user in very quick time to meet the user information needs. The use of these systems saves the user time to look for various items of information and to combine them in a comprehensible manner. From the IT angle, an approach to second medical

opinion could come from the use of expert systems. An expert system is a software that mimics the way a medical expert will examine, diagonise and recommend treatment for a patient. Hence an expert system could be used as a cross checking tool to advise the physician whether or not an expensive medical test should be prescribed given the patient's history and signs and symptoms.

CONCLUSION

IT is increasingly moving from a back office function to a prime assistant in increasing the value of a bank over time. IT does so by maximizing banks of pro-active measures such as strengthening and standardizing banks infrastructure in respect of security, communication and networking, achieving inter branch connectivity, moving towards Real Time gross settlement (RTGS) environment the forecasting of liquidity by building real time databases, use of Magnetic Ink Character Recognition and Imaging technology for cheque clearing to name a few. Indian banks are going for the retail banking in a big way. A number of web-sites are coming up on insurance, a few financial magazines exclusively devoted to insurance. In the insurance sector various new tools are coming to facilitate the business. E-crm , E-insurance leading a new way for the development of this sector it leads to increase in the employment opportunity in future. In order to educate students to be life-long learners and successful contributors to the new global market, educators must change the way they teach and the way students learn. We need to remember that if we want to help students achieve a high level of competency and competitiveness, we have no choice but to make technology an integrated tool in the field of education. While information technology can improve patient care, it can also compromise patient information, potentially making personal details available to people outside of the doctor-patient relationship. Institutions implementing information technology to store and communicate information should be aware of these concerns and take steps to address them.

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