Role of Information Technology in Indian Banking Sector

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Abstract

Information technology refers to the acquisition, processing, storage and dissemination of all kinds of data using technology and telecommunication systems. Technology includes all maters concerned with the furtherance of computing and technology and with the planning, development, installation and implementation of data system and applications. Information technology architecture is an integrated framework for acquiring and evolving it to realize strategic goals. Information technology has both logical and technical components. hardware and software, voice, data, network, satellite, other telecommunications technologies, multimedia are application development tools. These technologies are used for the input, storage, processing and communication of data .

Information technology includes ancillary equipment, software, firmware and similar procedures, services etc. Modern high throughput technologies are providing vast amounts of the sequences, expressions and functional data for genes and protein. one among the foremost difficult challenges is popping this enormous pool of data into useful scientific insight and novel therapeutic products.

Keywords: Computer, Information Technology, Telecommunications.

Introduction

With the globalization trends world over Information technology is difficult for any nation big or small, developed or developing, to stay isolated from what's happening around. For a rustic like India, which is one among the foremost promising emerging markets, such isolation is almost impossible. More particularly within the area of data technology, where India has definitely a foothold over its competitors, remaining away or uniformity of the planet trends is untenable. Financial sector generally and banking system especially is that the largest spender and beneficiary from information technology. This endeavors to relate the international trends in Information technology with the Indian banking system.

The last lot includes possibly all foreign banks and newly established Private sector banks, which have fully computerized all the operations. Information technology these variations within the level of data technology in Indian banks, Information technology are useful to require account of the trends in Information technology internationally as also to

ascertain the comparative position in Indian banks. This article starts with the banks perception once they get into Information Technology up gradation. All the trends in Information Technology sector are then discussed to ascertain their relevance to the status of Indian banks.

Information Technology Considerations

Since the first nineties, each Indian bank has done some Information Technology improvement effort. the primary and foremost compulsion is that the fierce completion Information technology. While choosing the specified architecture Information technology for the knowledge Technology consideration is given to following real Information technologies.

(1.) Meeting Internal Requirement: the wants of the banks are different individually depending upon their nature and volume of business; specialize in a specific segment, spread of branches and a like. many an time's banks do have the specified information but Information technology is scattered. The operating UN Information technologies seldom know the aim of gathering the knowledge by their higher author Information technologies.

(2.) Effective in Data Handling: As stated earlier the banks have most of the needed data but are distributed. Further the value of collection of knowledge and putting an equivalent to use is prohibited Information technology very high. The accuracy and timeliness of knowledge generation becomes the causal Information technologies within the process. Better of the intentions on computerization are wished away because there's non-visible reduction in cost /efforts/ time required for the specified data gathering.

(3.) Extending Customer Services: Addressing to rising customers expectations is critical particularly within the background of increased compete Information technology. just in case bank A is unable to supply the specified service at a compatible Information technologies price and in an accurate manner Information technology speed. There is always a bank Information Technology at next-door Information technology to rent the customer. Awareness of consumers about the available Information technology of services and their pricing as also available options have brought into sharp focus the difficulty of customer satisfaction.

(4.) Creative Support for brand spanking new Product Development: Information technology has become necessary for the banks to see the method of development. Marketing functionaries needs tons of data not only from the surface sources but also from within the banks. Banks are looking to retail segment because the future market places for

sales efforts. Having full-fledged information of existing customer is that the key for this purpose. The emergences of knowledge requirement and an appropriate arch Information technology to support an equivalent are significant issues to be handled during this regard.

(5.) End-user Development of the Non-technical Staff: Banking being a industry, Information technology is that the staffs at counters that deliver the products. In Indian scenario, virtual banking is probably going to possess a couple of more years to determine. The dependence on counter staff is unavoidable. The staffs are large in number and therefore the major Information technology is non-technical. The customer satisfaction levels at the counter determine the last word benefit Information technology of data Technology offensive. Giving due consideration to the present aspect in choosing architecture Information technology in necessary.

Trends in Information Technology

Certain trends are visualized of data technology in banking sector everywhere the planet.

(1.) Outsourcing: Outsourcing is one among the foremost talked about as also a controversial issue. The drivers for getting into to outsourcing are many to incorporate gaps in Information Technology expectations and therefore the real Information technology, demystification of computerization generally and knowledge Technology in particulars, trend towards that specialize in core competencies, increased legimacy Information technology of outsourcing and intention of getting out of worries and type of up gradation of hardware and software versions. Not that the practice is new as earlier Information technology was refused to as 'buying time' or 'service bureau'. What's needed is that the beyond outsourcing, beside a define Information technology decide to be more completive Information technology after outsourcing. Information technology is important to possess checks and balances to minor Information technology vendor performance. Cost aspects merit consideration, as also a choice on the part of the method to be outsourced shall be significance. Ex Information technology route and resource on the amount of failure after outsourcing are the other issue to be looked onto. Notwithstanding Information technology these risks, outsourcing has come to say.

(2) Integration: one among the knowledge Technology trend is moving from hierarchy to team approach. the aim is to ascertain an alternate to retooling, to react speedily and to develop capabilities Information technology instead of exploring Information technology them. Such integration is important so on address to prevalent situations:
(a) Functions needing data and not getting from others.
(b) Sending data to those that don't want to need them.
(c) Global data exist but don't visit required business functions.

Indian banks seem to follow this trend through the sincere redesign as described earlier. rather than vertically divided pyramid type organizational set-ups, banks are now being to possess separate group like finance, international consumer banking, industrial/commercial credit etc.

(3.) From Solo to Partnership: With the event of data Technology, two things are happening simultaneously. The manpower as a percentage of total staff goes down and spending on Information Technology as percentage of total spending goes up. The sorts of partnership can include binding by superior service, accommodation in commission sharing network, equal partnership and situation, where survival is threatened. At times, the partnership becomes necessary to urge out of areas where there's no competitive advantage. Low development cost or wider geographical coverage is that the aspects that make such partnership. Instances aren't frequent, where joint ventures are found with the knowledge Technology vendors.

(4.) Distinctive Edge: Information technology is usually said that a lot of use but a couple of make use of data TECHNOLOGY. Historically, the stress is on using INFORMATION TECHNOLOGY for giant volumes like payrolls, balancing the books, the consolidation etc. That realization on having Information Technology as matter of competitive edge has happen very lately. Information technology is recognized that customer service isn't a simple thing to supply , but Information Technology is employed as a mean. Information technology does give value additions and erases barriers for competitive to enter. Banks understand that the value of cultivating the new customer is 5 to six times of retaining the old one. Customer normally switches banks thanks to poor service. The appreciation of those facts has compelled the banks world over to seem upon Information Technology as an instrument to make distinctive edge over competitions. The private sector banks that were established in 1990's as a neighborhood of finance sector reforms did observe of data Technology to possess a foothold over the others. The foreign banks operating in India have also been ready to market INFORMATION TECHNOLOGY superiority as a particular edge. the general public sector banks are still to form use of data TECHNOLOGY during this regard, although they're blessed huge information base all across the country. While steps are mooted during this direction by leading public sector banks, more offensive postures are necessary.

(5.) Information Technology as Profit Centre: within the embryonic phases, INFORMATION TECHNOLOGY was looked upon a way to urge obviate high processing cost and time and to convert the manual operation with high volume/low complexity in two mechanical ones. With the evolutionary the method , Information technology was seen because the best means of generating, MIS. an equivalent approach gave the status of DSS to Information Technology. All along, Information Technology has been recognized because the service function in Indian Banks. However, the new trend that's emerging is considering Information Technology as a profit centre. the value benefit analysis of getting Information Technology or otherwise in one part. But having Information Technology found out to get income for the organization is that the new beginning. Getting jobs from outside the bank for processing data and therefore the like are the present trends. The outsourcing done by others is that the business, cater to by these organizations the trend of this type isn't deserved in Indian situation particularly banks. The

Banks are ready to just manage what's to think about as their responsibility as Information Technology, within the individual banks.

(6.) Prospering in Down Market: The trend suggests that when there's a down turn within the market place, Pro-active corporations take the advantage of available unutilized resources to upgrade and revisit Information technology issues. this is often seen because the right time to determine the R & D centre for Information Technology. There are false notions about technology and its capability. Some misconceptions include:

• Best-fit technology possible technology is implemented.
• System solution is sweet enough and there's got to check out user expectations.
• Innovations are generally successful.
• Success is said only to novel ideas.
• Technology is that the sole determinant of business success, and
• Measures and standards i.e. audit and inspection issues substitute the way of innovation.

The time available to debate on similar issues is ample and these false notions get clarified during the down market. Eventually, the choice makers reach a consensus that Information Technology isn't a panacea but Information technology is an enabler that too when well supported by BRP (Business Process Re-engineering), human resources initiatives, physical infrastructure and responsive organization found out .

(7.) Leading to Downsizing: The Information Technology initiative is making the organization lean and flat. For Information Technology functionaries downsizing means transferring computing power from mainframe to the personal computer and workstations. Downsizing is a typical issue faced with associated problems. Absence of top management commitment, lack of understanding of the prevalent Information Technology infrastructure, doing too much and too fast and undertaking the exercise without a framework for controlling the downsizing operations are primarily the situations that create adversities in downsizing. In any case the trend of downsizing is very much existent in the Information Technology environment.

(8.) Getting Competitive Intelligence: Information Technology is now seen as a resource for gathering and dissemination of executive information system (EIS). The purpose is to minimize that the bombarding and focusing on the relevance, accuracy and timeliness of the information particularly about the competitive such information enhances follow up and tracks early warning on competitor move and also customer expectations.

As far as Indian banks are concerned individually, they have to compete with other banking industry participants as also with other players in the financial sector. The completion from for insurance and government notes and saving, mutual funds and the like is always forthcoming particularly because of attendant tax benefits. Collection of required information and using the same for business purpose is constrained by the availability of the information, its

volume and diversity. As such it may take some time for this trend to be visible in Indian banking scenario.

Recent Developments in Banking Sector

(1.) Internet: Internet is a networking of computers. In this marketing message can be transferred and received worldwide. The data can be sent and received in any part of the world. In no time, internet facility can do many a job for us. Information technology includes the following:

• This net can work as electronic mailing system.

• Information technology can have access to the distant database, which may be a newspaper of foreign country.

• We can exchange our ideas through Internet. We can make contact with anyone who is a linked with internet.

• On internet, we can exchange letters, figures/diagrams and music recording.

Internet is a fast developing net and is of utmost important for public sector undertaking, Education Institutions, Research Organization etc.

(2.) Society for Worldwide Inter-bank Financial Telecommunications (SWIFT): SWIFT, as a co-operative society was formed in May 1973 with 239 participating banks from 15 countries with its headquarters at Brussels. It started functioning in May 1977. RBI and 27 other public sector banks as well as 8 foreign banks in India have obtained the membership of the SWIFT. SWIFT provides have rapid, secure, reliable and cost effective mode of transmitting the financial messages worldwide. At present more than 3000 banks are the members of the network. To cater to the growth in messages, SWIFT was upgrade in the 80s and this version is called SWIFT-II. Banks in India are hooked to SWIFT-II system.

SWIFT is a method of the sophisticated message transmission of international repute. This is highly cost effective, reliable and safe means of fund transfer.

• This network also facilitates the transfer of messages relating to fixed deposit, interest payment; debit –credit statements, foreign exchange etc.

• This service is available throughout the year, 24 hours a day.

• This system ensure against any loss of mutilation against transmission.

• Information technology serves almost all financial institution and selected range of other users.

Information technology is clear from the above benefit of SWIFT that Information technology is very beneficial in effective customer service. SWIFT has extended its range to users like brokers, trust and other agents.

(3.) Automated Teller Machine (ATM): ATM is an electronic machine, which is operated by the customer himself to make deposits, withdrawals and other financial transactions. ATM is a step in improvement in customer service. ATM facility is available to the customer 24 hours a day.

The customer is issued an ATM card. This is a plastic card, which bears the customer's name. This card is magnetically coded and can be read by this machine. Each cardholder is provided with a secret personal identification number (PIN). When the customer wants to use the card, he has to insert his plastic card in the slot of the machine. After the card is a recognized by the machine, the customer enters his personal identification number. After establishing the authentication of the customers, the ATM follows the customer to enter the amount to be withdrawn by him. After processing that transaction and finding sufficient balances in his account, the output slot of ATM give the required cash to him. When the transaction is completed, the ATM ejects the customer's card.

(4.) Cash Dispensers: Cash withdrawal is the basic service rendered by the bank branches. The cash payment is made by the cashier or teller of the cash dispenses is an alternate to time saving. The operations by this machine are cheaper than manual operations and this machine is cheaper and fast than that of ATM. The customer is provided with a plastic card, which is magnetically coated. After completing the formalities, the machine allows the machine the transactions for required amount.

(5.) Electronic Clearing Service: In 1994, RBI appointed a committee to review the mechanization in the banks and also to review the electronic clearing service. The committee recommended in Its report that electronic clearing service-credit clearing facilities should be made available to all corporate bodies/Government institution for making repetitive low value payment like dividend, interest, refund, salary, pension or commission, Information technology was also recommended by the committee Electronic Clearing Service-Debit clearing may be introduced for pre-authorized debits for payments of utility bills, insurance premium and installments to leasing and financing companies. RBI has been necessary step to introduce these schemes, initially in Chennai, Mumbai, Calcutta and New Delhi.

(6.) Bank net: Bank net is a first national level network in India, which was commissioned in February 1991. Information technology is communication network established by RBI on the basis of recommendation of the committee appointed by Information technology under the chairmanship of the executive director T.N.A. Lyre. Bank net has two phases: Bank net-I and Bank net- II.

Areas of Operation and Application of Bank net:

• The message of banking transaction is often transferred within the sort of codes from the town to the opposite.

• Quick settlement of transactions and advices. • Improvement in customer service-withdrawal of funds is feasible from any member branch.

• Easy transfer of knowledge and other statements to RBI.

• Useful in exchange dealings.

• Access to SWIFT through Bank net is definitely possible.

(7.) Chip Card: The customer of the bank is given a special sort of MasterCard which bears customer's name, code etc. The credit amount of the customer account is written on the cardboard with magnetic methods. The pc can read these magnetic spots. When the customer uses this card, the credit amount written on the cardboard starts decreasing. After use of number of times, at one stage, the balance becomes nil on the cardboard . At that juncture, the cardboard is of no use. The customer has got to deposit take advantage his account for re-use of the cardboard. Again the credit amount is written on the cardboard by magnetic means.

(8.) Phone Banking: Customers can now dial up the bank's designed phone number and he by dialing his ID number are going to be ready to get connectivity to bank's designated computer. The software provided within the machine interactive with the pc asking him to dial the code number of service required by him and suitably answers him. By using Automatic voice recorder (AVR) for easy queries and transactions and manned phone terminals for sophisticated queries and transactions, the customer can actually do entire non-cash relating banking on telephone: Anywhere, Anytime.

(9.) Tele-banking: Tele banking is another innovation, which provided the power of 24 hour banking to the customer. Tele-banking is predicated on the voice processing facility available on bank computers. The caller usually a customer calls the bank anytime and may enquire balance in his account or other transaction history. during this system, the computers at bank are connected to a telephone link with the assistance of a modem. Voice processing facility provided within the software. This software identifies the voice of caller and provides him suitable reply. Some banks also use telephonic electronic device but this is often limited to some brief functions. This is often only telephone answering system and now Tele-banking. Tele banking is becoming popular since queries at ATM's are now becoming too long.

(10.) Internet Banking: Internet banking enables a customer to try to to banking transactions through the bank's website on the web. Information technology may be a system of accessing accounts and general information on bank products and services through a computer while sitting in Information technologies office or home. this is often also called virtual banking. it's more or less bringing the bank to your computer. In traditional banking one has got to approach the branch face to face , to withdraw cash or deposit a cheque or request a press release of accounts etc. but internet banking has changed the way of banking. nobody can operate of these sort of transactions on his computer through website of bank. All such transactions are encrypted; using sophisticated multi-layered security architecture, including firewalls and filters. One is often rest assured that one's transactions are secure and confidential.

(11.) Mobile Banking: Mobile banking facility is an extension of internet banking. The bank is in association with the cellular service providers' offer this service. For this service, mobile should either be SMS or WAP enabled. These facilities are available even to those customers with only MasterCard accounts with the bank.

(12.) Any where Banking: With expansion of technology, Information technology is now possible to get financial details from the bank from remote locations. Basic transactions are often effected from faraway places. Cash machine Machines are playing a crucial role in providing remote services to the purchasers. Withdrawals from other stations are possible thanks to inter-station connectivity of ATM's. The Rangarajan committee had also suggested the installation of ATM at non-branch locations, airports, hotels, Railway stations, Office Computers, Remote Banking is being further extended to the customer's office and residential.

(13.) Voice Mail: Talking of answering systems, there are several banks mainly foreign banks now offering very advanced touch tone telephone answering service which route the customer call on to the department concerned and permit the customer to go away a message for the concerned desk or department, if the person isn't available.

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