

- 3.1 Although the Financial Sector Technology (FST) Vision Document of 2005 provided a broad outline of the direction to be followed in the implementation of IT based initiatives, there were certain specific activities which were envisaged to be completed during the currency of the document (i.e. 2005-2008).
- 3.2 A broad review of the goal sets and the current status indicate that most of the targets set forth have either been achieved or are at varied stages of implementation. This would indicate that the basic approaches of the FST Vision Document were reflective of trends in the IT sector and match the business objectives of the constituents of the financial sector as well.
- 3.3 Most of the IT backed initiatives of the Reserve Bank and the innovations in Payment and Settlement Systems - which have IT as an integral and substantial component - follow the path set out in the FST Vision document.
- 3.4 The details in respect of these aspects are as outlined in the paragraphs to follow.

***3.4.1 Technology and Technology related aspects:***

- 3.4.1.1 The trend of computing power increasing by leaps and storage capacities growing at phenomenal rates have resulted in users migrating back to centralisation. Data Processing Centres (DPCs) (where all computer based processing was performed) which were the characteristic feature of the late eighties of the twentieth century changed over to localised operations and the current trend is to centralise processing capabilities in Data Centres, again. The Reserve Bank, too has adopted this approach for its own operational requirements, in a manner similar to other banks in the country.

- 3.4.1.2 One of the major developments in technology was the migration witnessed towards more open and less proprietary systems. In this area too, commercial users and businesses cannot depend on freeware and therefore require paid, support-based services. Following this trend, some of academically oriented operating system technologies such as Linux have metamorphosised into support based systems which are gaining ground.
- 3.4.1.3 Availability of technically skilled resources is another factor which has a significant impact on the financial sector. With IT not being the core competency of such organisations, the trend to outsourcing non-core functions has emerged as the trend witnessed the world over. The full benefits of outsourcing in the Indian context have not yet been clearly proven and a mix of internal expertise clubbed with judicious outsourcing seems to be emerging as the optimal approach for central banks world over.
- 3.4.1.4 The IT systems of central banks generally do not have parallels in many countries and IT solution providers generally do not perceive value from such systems. This results in such systems to be developed from the base level entailing higher costs, lesser domain knowledge amongst the IT service providers and the consequent delays in implementation.
- 3.4.1.5 As far as commercial banks in the country is concerned, the position is slightly different with most standardised off-the-shelf solutions (especially for Core Banking) not exactly meeting the requirements of Indian Banking which has not only a large pervasive branch network but also specific tailored requirements to meet the requirements of the common person of the country.

3.4.1.6 The large scale spread of mobile telephony has opened up new vistas for banking in the form of mobile banking and the potential in this new sphere is enormous; adequate steps to ensure safety and security in a mobile based computing / communicating environment have to, however, be made.

**3.4.2 Attitudinal and HR related Issues:**

3.4.2.1 The resistance to computerization which was witnessed in the Banking sector has vanished many years ago, but resistance by customers to changed modes of operations has not yet been conquered. Today, electronic funds transfers are only slowly gaining ground and is looked upon with some hesitation; acceptance of electronic processing modes is yet to make great inroads even in the Government and the advantages of 'anywhere' and 'anytime' banking have not really percolated to the banking masses of the country.

3.4.2.2 One major handicap in this entire chain is the absence of (or inadequate) Business process Re-engineering consequent upon computerisation. Thus most efforts have turned out to be mere mechanisation of functions with no great value addition to either the process owner or the user.

3.4.2.3 IT related skill sets are not readily available in the banking sector and certain sections of banks have to contend with challenges relating to the retention of such skilled manpower. Coupled with this is the fact that there has been addition of new types of businesses without either changes in work processes or adequate manpower resulting in a negative impact on service delivery offerings.

3.4.2.4 HR still continues to follow the traditional approaches in most of the banks and unless changes occur in the mindset of all concerned, significant internal improvements would be hard to come by.

### **3.4.3 *Technology obsolescence and replacement:***

- 3.4.3.1 While managing technology implementation is a major activity which has to be done with reasonable care, managing the rapid developments taking place in technology is a bigger challenge. The high rates of technological obsolescence and the consequent need for periodical upgradation have had an impact on the achievement of some of the milestones forming part of the FST Vision, 2005.
- 3.4.3.2 While the need to take care of hardware related technological obsolescence has not greatly impacted the progress achieved, there have been issues related software obsolescence which had to be tackled.
- 3.4.3.3 Some of the activities which had to be taken up included the need to migrate the application software systems from the then current versions of Operating Systems and Data base to the later versions which required time and efforts.
- 3.4.3.4 Replacement costs do have a role to play in the final decision taken by organisations. Costs arising out of technological obsolescence tend to follow patterns which may not have been foreseen by the user entities resulting in the need to re-draw not only the implementation plans but budgetary requirements as well.
- 3.4.3.5 Yet another aspect which has witnessed an impact is the need to ensure that the banking sector as a whole gets service support across common platform levels. It may not be feasible (or possible either) to ensure that all banks in the country migrate to the latest technology levels at all points of time. The Reserve Bank, therefore, reviews the impact of technological developments, the value benefits arising out of improvements juxtaposed with the costs involved in migration / acquisition of new systems etc., and provides solutions which are optimal fits for the banking system as a whole.

### **3.4.4 *Outsourcing related challenges***

- 3.4.4.1 Although outsourcing has come to stay and has many advantages, the challenges arising out of outsourcing need to be tackled well.
- 3.4.4.2 One of the main challenge relating to outsourcing pertains to the levels of accountability and responsibility of the users vis-à-vis the outsourced teams. The responsibility of ownership still rests with the business process owner who has to ensure that outsourcing does not in any way result in abdication of the powers and responsibilities.
- 3.4.4.3 Many IT related tasks in banks have been outsourced, including hosting critical IT systems from locations which are not those of the banks concerned. While such approaches may have points of advantage to the respective banks, the activity which is outsourced needs to be monitored closely and any aberrations need to be set right with dexterity.
- 3.4.4.4 While outsourcing as a task has become an acceptable norm, the introduction of outsourcing in any sphere of activity requires relatively a longer time period in the first instance; this has been observed in the course of implementation of the plans outlined in the FST Vision document as well.

3.5 All the above factors have resulted in changes to some of the time frames originally set as part of the measures aimed at achieving the objectives of the FST Vision, 2005.