

BANGLADESH COUNTRY PAPER ON  
**Why IT Projects Fail?**

Prepared for :  
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## **1. Introduction**

The INTOSAI 3rd Performance IT Auditing seminar on “IT Investment and Information Exchange” is going to take place in Ljubjana, Slovenia from 14 to 16 of May 2001. One of the lead papers prepared for this seminar is on the topic “Why IT Projects Fail”. This paper has been prepared by the National Audit Office (NAO) of UK. Bangladesh is a participating nation of this seminar and this paper has been prepared as its country paper on the topic “Why IT Projects Fail”. While preparing this paper, the above mentioned lead paper has been consulted and followed. The lead paper suggested a list of issues that the participating nation can consider while preparing the country paper on the topic “Why IT Projects Fail”.

## **2. IT Projects in Bangladesh**

Bangladesh is relatively a new-comer in the field of applying IT, specially in Government sectors. Private sector came up with the idea of using computers in day to day routine works since early 1980s. It took about a decade for the Government sector to do the same. But undertaking large scale IT projects for doing automation in the core functioning of the government began in the later part of 1990s. There are a number of reasons behind this slow pace of introducing IT. Some of these may be as follows:

- Shortage of funds and other resources
- Too much bureaucracy in public sector organisations
- Shortage of skilled people in system design and in IT
- Organisational inertia and problem of change
- Lack of political commitment

The above mentioned factors are still continuing to affect computerisation in a bigger scale. However, there is a positive sign that computerisation of different core functions of the Government is under process of computerisation. By now, a considerable number of public sector organisations have undertaken a good number of IT projects. Appendix-A shows a list of some completed and in-progress IT projects.

### 3. Stages in the development of an IT project and associated issues in Bangladesh perspective

The development of an IT Project involves four different phases namely:

- Initiation
- Development
- Implementation
- Operation and maintenance

**Initiation** arises due to the need to change an existing work system. Functionality or changes required in the new system are described in this phase and also identifying the people whom should be involved in deciding what to do. This may begin in either way, i.e. users may request the IT staff or the management to study a particular business problem, or IT staff may aware of an opportunity to improve business practice and efficiency of the personnel/organisation.

In Bangladesh, in early stages, people tended to over look this initiation stage of computerisation. A lot of departments bought considerable amount of hardware and software spending a huge amount of money without giving much thought about the real business needs. Things are changing now. But ideal situation is still yet to come. Projects are being undertaken without proper need analysis or without in-depth feasibility studies. User need analysis is very difficult here as the users, in general, are not very aware of or have very little knowledge about what good IT can bring to them. Feasibility studies are done but, in many cases, it is limited to financial feasibility only. Supplier selection is another problem area as Government has no definite set of rules for IT procurement.

The **Development** phase produces detailed requirement analysis of acquiring and configuring resources, i.e. hardware, software and other related resources needed to perform the required IT related functions and functions not directly related to IT as well. This phase starts by deciding how the computerised and manual parts of the proposed system will operate and then goes on to acquire the needed resources. Regardless of how the hardware and software are acquired and worked upon, this phase induces creating documentation explaining how both the work and information system are supposed to operate and also about system testing.

Though a number of large scale IT projects have already been in operation in Government sector and though they are running smoothly, it cannot be safely said that Bangladesh has no difficulty in developing sustainable IT projects. In fact, there is an acute shortage of skilled professionals in the field of system design and system development. A big problem area is that Government has a very poor salary structure for IT people working within the Government. The inevitable consequence is that there is an attrition of IT professionals working within government departments because they are attracted by high emoluments in countries where they are in great demand.

**Implementation** is the process of putting the intended system into operation in the organisation for which it was created. This phase starts from the point when the software runs on the computer and has been tested. Activities in this stage include planning, user training, and conversion to the new system and follow-up to make sure that the entire system is operating effectively.

Two major problems that exist in the implementation phase of any IT project are: (1) problem of change management and (2) inadequacy in employee training. Both the problems are present in Bangladesh context. Problem of change management is seriously affecting many projects' sustainability. In mid 1990s, a certain government organisation undertook an IT project with financial assistance of UNDP for making a computerised database. The system was developed and delivered to the users after proper testing. But, users didn't use it afterwards. They simply didn't like the change in their work pattern. Senior level management in Government sectors highly believes in bureaucracy and not in managerialism. This approach is detrimental to solve people problem.

**Operation and maintenance** phase starts after the users have accepted the new system. This phase can be divided into two broad areas: 'ongoing operation and support' and 'maintenance'. *Ongoing Operation and support* is the process of ensuring that the technical system/hardware/software components continue to operate correctly and that the users are using it effectively. It is the process of modifying the system over time to take account of errors or simply enhancement of functionality.

In Bangladesh perspective, it is harder to maintain a system than to develop it. This is because big projects on IT are being undertaken with financial assistance of different donor countries and multi-lateral agencies like World Bank. But after completion of the project, in many cases, Government cannot afford regular replacement of costly hardware and software. Sometimes, it is needed to change the system to correspond to the changes occurred in business needs. But, due to lack of skilled system designers and programmers, necessary changes are not done properly and thus the system gradually moves towards obsolescence.

#### **4. Main Causes of IT project failure**

There are lot of reasons that can make the efforts of building an IS (Information System) futile. Gregory Parker in an on-line article ([www.vbpmj.com/articles/whyprojectfail.htm](http://www.vbpmj.com/articles/whyprojectfail.htm)) mentioned about a study conducted by Pete Marwick of KPMG, Canada's largest professional organisation. The study revealed the following factors as causes of IS failure. Percentages indicate the response rate of the study for each individual cause.

- Project objectives not fully specified (51%)
- Bad planning and estimating (48%)
- Technology new to organisatrion (45%)
- Inadequate/No Project Management Methodology (42%)
- Insufficient senior staff in the team (42%)
- Poor performance by the suppliers of hardware/software (42%)

Of course these reasons are not exhaustive. There are some other important factors that can lead to failure or inefficiency in IS systems. The UK Lead Paper mentioned the following factors:

- Systems are not based on clear business needs
- Lacking the ability to analyse and understand the full implications of introducing IT
- Project plans do not ensure appropriate project management
- Undertaking projects in one go that are too ambitious

- Slow pace in project implementation makes it technologically obsolete
- Non-involvement of senior management
- Absence of project management skill within the government
- Absence of contingency plan
- Contracts between departments and suppliers are not clearly set out

## 5. **IT Projects failure – Bangladesh Perspective**

Bangladesh is yet to go a long way for using IT in all spheres within the Government. Time hasn't come yet to comment on why IT projects may fail in Bangladesh. A number of suspected issues discussed in the foregoing part of this report are also true in the case of Bangladesh. Yet there remains a number of other issues that can contribute to unsuccessful end to any IT project.

Since we have very few skilled professionals on IT, sometimes we find it easier to change our business needs to fit them with the technology to be used. The result is that we get technology driven systems, not business needs driven. Technology driven systems are vulnerable because in such a system many business issues are simply ignored.

Government has not yet set standards for issues relating to development of IT projects. A separate procurement policy for IT is essential. The current practice of following the general procurement policy for IT purchases may frequently lead to selecting the wrong supplier and acquiring sub standard hardware and software.

Government needs to immediately modify the pay structure for IT people working within Government. For increasing the sustainability of all IT projects, Government has to stop drainage of skilled IT people and to attract more skilled IT people to join in departments where there is applications of IT. Otherwise the systems will always remain vulnerable on technical grounds.

One very important thing is to prepare a National IT Strategy for Government Departments. The sooner Government attempts to do such a thing, the better will be the overall situation of IT projects. The strategy should include issues like, IT

procurement policy, IT personnel policy, standardisation of hardware and software, project management methodology, system development methodology, change management, replacement/upgradation of hardware and software, Interface between Bangla (the national language) and English languages etc. Currently, Bangladesh Computer Council (BCC), an autonomous body created by parliament act, is providing some guidance for government departments in IT related activities. But, it doesn't have a comprehensive IT policy that department can follow. It only has a general wish list but no authority or monitoring mechanism.

## **6. IT Auditing in Bangladesh**

So far statutory auditing in Bangladesh is concerned, financial and compliance audit continue to be the main approach of auditing. All projects are being audited including IT projects. But, emphasis is being given on compliance to rules, not on strategic performance issues like, how sustainable is the outcome of the project. Nevertheless, the Audit Office of Bangladesh is very keen to introduce performance auditing at least in limited areas. In-depth training on performance auditing issues are underway. A number of pilot performance audits have already been undertaken. The results are encouraging. With the success of these activities regarding performance auditing, it can be said that undertaking a performance audit of an IT project will soon be in the agenda of the Auditor General of Bangladesh.

## **7. Conclusion**

Performance audit of IT projects is very important. Whether to start such audit in Bangladesh right now is a decision that involves two distinct questions: (1) are there sufficient number of completed IT projects within the Government that are ready to be reviewed? (2) are we sufficiently skilled and knowledgeable about issues relating to an IT project? The answer to the first question is 'yes' but it is 'no' for the second question. Not only that we yet have to develop 'IT Audit Standards' before going for such kind of audit. We also need to develop our own IT infrastructure to analyse data and information received from our clients' systems. So, it is not something that we are ready to do right away. But, we have to start thinking about it right away.

## **Appendix-A**

1. Consolidation of Government Accounts (Office of the Controller General of Accounts)
2. Preparation of Government Budget (Ministry of Finance)
3. Computerisation of Accounting for Government Investment Projects (Line Ministries)
4. Railway Ticket System and Reservation System
5. Systems for Utility billing in T&T department, Water And Sewerage Authority (WASA), Dhaka Electricity Supply Authority (DESA) and Titas Gas
6. National Census System
7. Ticket System and Reservation System for the National Airlines
8. Systems in Nationalised Banks
9. System for Civil Service Examination Processing
10. National Voter Database
11. Database for Personnel Management (Ministry of Establishment)
12. Database for Personnel Management (Audit Department)
13. Audit Monitoring System (Audit Department)
14. Projects Monitoring System (Local Government Engineering Division)
15. National Database
16. Roads and Highways Division
17. Electricity Transmission System
18. National Board of Revenue (NBR)
19. Family Planning Department
20. Agricultural Census