1. **Background**

This paper has been prepared for the INTOSAI 3rd Performance IT Auditing Seminar on “IT Investment and Information Exchange” to be held in Ljubjana, Slovenia from 14 to 16 of May 2001. Office of the Auditor General of Canada has prepared the lead paper on this topic incorporating a series of issues that SAIs can address in their country papers. Many of these issues discussed in the lead paper have been directly addressed in this country paper while a number of other issues have been indirectly addressed.

2. **Introduction**

Procurement of IT goods and services is a major area of concern now a days for Governments across the world. Procurement of goods and services of technical nature involves more complicated and lengthier process than procuring other general goods and services. Government of Bangladesh has a set policy for large scale procurement irrespective of whether those are IT related goods and services or not. Like countries in the developed world, Bangladesh is also getting involved in increasing investment in IT sector. The success of any investment primarily depends on the economy in acquiring inputs needed for the stated purpose. In case of any IT project, the possibility of success is better ensured if the procurement of necessary hardware and software and other services can be made in an economic way without compromising with quality of goods and services. This paper mainly deals with two issues: (1) current scenario of Bangladesh regarding policies followed by Government sector organisations in procuring IT goods and services and (2) things to be considered regarding IT procurement while performing an audit of an IT project.

3. **IT procurement - practices in Bangladesh**

IT is a dominant factor, like countries across the word, for the Government of Bangladesh. The scenario of 1990s was much different than that of 1980s regarding use of IT in different Government departments. Undertaking large scale IT projects for doing automation in the core functioning of the government began in 1990s. Gradually Government feels the need of bringing things under some policy
framework for various issues relating to IT. One of the most important issues is IT procurement for Government departments or public sector IT projects. Till now, Government is following one set of procurement policy for all sorts of procurements irrespective of whether purchasing IT goods and services or others. However, there exist some peculiarities in case of purchasing IT goods and services. Here is a general picture of how it is done in Bangladesh:

- Needs analysis and feasibility study are done. In most of the cases, these two services are procured through hiring consultants on related fields. In fewer cases, these are done by in-house people where there are in-house technical group of people. In case of hiring consultants, the controlling authority of the project and the representative of the donor agency (in case of a foreign assisted projects) play the main role. It is very common that in every area of work in an IT project, three people work together: one expatriate consultant (selected by the donor agency), one national consultant (recruited by the project authority) and one counterpart officer (a government official working in the project on secondment).

- Publication of tender notices for necessary hardware, software and services like system development, users training etc. A detailed tender document or bidding document is prepared for the prospective bidders covering all aspects of any individual bidding. The important items that this document generally includes are:
  - Specifications of hardware and software requirements for the system
  - Description of the system to be developed
  - Training to be delivered
  - Bidders’ qualifications
  - Conditions of contract
  - Terms of reference
  - Other general instructions for the bidder

The preparation of the bidding documents involves people from the project controlling unit, respective consultants (if there is any) and optionally representatives from the Bangladesh Computer Council and other recognised IT bodies of the country and also representatives from IT faculties of national universities.
• Bidding is invited in ‘two-envelope’ system meaning that bidders will bid their technical capability and credibility and their financial offers separately. Once a certain bidder is accepted on technical ground, only then his financial offer will be considered.

• A high level tender committee is responsible to scrutinize the individual bidding and finally recommend one bidder as the winner. Sometimes, several bidders may win different components of the whole work. It is a normal practice that the bidder offering the required goods and services at lowest amount is accepted as the winner of the bidding. Tender committee has the right to do otherwise with necessary explanations.

• The recommendation of the tender committee comes into effect after the Government/donor agency finally accepts it.

• A contract is signed between the bid winner and the Government.

4. **Role of Bangladesh Computer Council**

Bangladesh Computer Council (BCC) was established under “Bangladesh Computer Council (BCC) Act, 1990”. The main objective of establishing BCC was to ensure the effective application and expansion of the use of information technology. In view of this BCC has been formulating appropriate policies and implementing them since its inception.

BCC as the organization of the government entrusted with the responsibility to deal with matters related to computerization, renders advisory services to different government departments, organizations and autonomous bodies. It has contributed in computerization of about one hundred and forty organizations during the period of 1990-91 to 1996-97. The list of organizations includes the ministries, directorates, projects, autonomous bodies, schools, colleges, and many other types of organizations.

One of the major roles that BCC used to play and still is playing is to guide organisation in IT procurement. Though not mandatory for Government departments to abide by the guidance of BCC, but in every large scale purchases of IT goods and
services, Government departments invite representations from the BCC. The inclusion of BCC’s representation in bidding document formulation team or in tender committee increases the acceptability of the procurement because BCC is highly regarded as a body that has the technical capability of judging merit of IT goods and services.

5. **Auditing IT procurements in the Government**

Auditing organisations where IT is in application involves specialized knowledge and skill on the part of the auditor. There are five areas related to IT procurement that the lead paper on the topic has identified that should be looked into when doing an audit. These are:

- analyzing and reporting information on IT procurement
- acquiring goods and services for large IT projects
- supplying hardware
- purchasing software products and related services
- contracting for IT professional services

*Analyzing and reporting information on IT procurement* refers to questions like who are buying IT goods and services within the Government? what is the volume of purchasing? and what goods they are actually buying? Bangladesh started buying IT systems in Government departments since late 1990s. But, there is no coordinated effort to keep central information regarding these issues. Government needs to seriously think about it and make some steps towards making an IT investment database. The ministry of Science and Technology can act as the coordinator for this purpose.

*Acquiring goods and services for large IT projects* is one of the important issues of the time so far performance auditing is concerned. Audit should analyse failed IT projects and sort out the problems or weaknesses related to procurement stages that caused the failure. Such work-outs will definitely enhance the capability of auditors in dealing with the issues under concern.
Supplying hardware is relatively a less concerned area for performance auditing. It refers to routine purchases of hardware for use in isolation, not for building an IT system. However, audit has to look for clues whether purchases were made economically and whether sufficient technical backup has been ensured in the contract. In Bangladesh, supply of hardware is a common type of IT procurement. Small departments are primarily interested in buying hardware for making their working environment easier. Education department has recently bought a large number of PCs to be used in schools all over the country for educational purpose.

Purchasing software products and related services is more complex and demands more attention from auditors while auditing such purchases. A number of important issues should be considered by auditors. Audit should be satisfied that purchasing department ensures that the software fully conforms to the business needs of the organisation. In case, it fails to produce desired results, there should be remedy in the contract. It is also noted that at times, over customisation of application to suit detailed working practices makes the system complex and risky. In Bangladesh, Government departments, frequently, are not fully aware of such issues as they do not have adequate numbers of skilled people on IT.

Contracting for IT professional services also requires that departments are fully aware of the consequences if the services do not produce desired results afterwards. Professional services refer to system development, system maintenance, user training and so on. Making a contract is very crucial because if the contract does not include appropriate and sufficient clauses that help the organisation to get things done and also protect legal rights in case something goes wrong, then the whole purpose of contracting will be a failure.

6. Conclusion

Procurement of IT goods and services in any government department in large scale is not an easy task. Such a procurement has so many dimensions that any little weakness may prove to be fatal and lead to failure of the whole IT project. Bangladesh is in the field of procuring large scale IT goods and services since late 1990s. Time has not yet
come to make comment on how well Bangladesh is doing in such procurement processes. If we analyse IT projects that failed to achieve their objectives, we would see that there exist a number of reasons, in Bangladesh context, that lead to inefficient procurement of IT goods and services. Some of the reasons may be as follows:

- Government departments, in general, do not have adequate number of skilled IT personnel. Without having skilled and technically knowledgeable workforce, it is very difficult for the purchasing departments to prepare proper bidding documents, scrutinising technical and financial bids and to draft contracts with the suppliers.
- There is no national level IT procurement policy for government departments. Without having a central policy, departments get very little guidance and direction regarding what to buy, how to buy and when to buy. There is no harmony in selecting hardware and software platforms among IT projects.
- Industry for IT goods and services in Bangladesh is not sufficiently developed. Hardware industry often requires a huge capital investment. Government is required to develop a mechanism so that entrepreneurs can get capital in easy terms and conditions. Development of software requires small capital, but it needs dedicated and skilled programmers. It is possible to develop a wide software industry in Bangladesh.
- Departments do not have experience in large scale purchases of IT goods and services. This is because large scale IT procurements are relatively new in Bangladesh. This problem will be over gradually over time.
- Another problem area is that the public sector in Bangladesh suffers from bureaucratic red-tapism which delays decision making in purchases. There is a rapid technological advancement in IT industry and, therefore, fast and appropriate decisions are necessary. In case of delay in decision making, the procurement may not keep pace with the changes.

Audit should be very careful about these areas when doing an audit of an IT project. The existence of a strong and efficient audit will cause project authorities to be more careful in procurement of hardware, software and other IT services.