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**Information and Communication Technology (ICT) in
Bangladesh : Can it Help in Reducing Corruption?**

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Introduction

Recent years have seen revolutionary developments in Information and Technology (ICT) all over the world. The impact of these developments has been felt in all spheres of day-to-day lives of billions of people all over the world. Bangladesh, although relatively late in reaping the benefits of ICT revolution, has of late, adopted ICT as one of the thrust sectors contributing to accelerated socio-economic development. This is reflected in the adoption of the Vision 2021 which envisages creation of Digital Bangladesh by 2021.

The year 2014 has a special significance for ICT in Bangladesh. This year, we are celebrating the golden jubilee of the installation of the first digital computer in the Country. The IBM 1620, a second generation mainframe computer was installed at the Atomic Energy Centre, Dhaka in late 1964. It was one of the first such computers in the whole of South Asia and South East Asian region. The computer was used not only by the researchers at the Atomic Energy Commission, but also by some faculty members and postgraduate students from Dhaka University and Engineering University. Around 1966, two of the private banks also installed computers which were used mainly for accounting. However, these were also used for preparing utility bills for Dhaka City Consumers. Maintenance of these became difficult after our independence in 1971, when the suppliers (viz. IBM and ICL) closed their offices in Dhaka.

The first third generation computer (IBM 360) was installed at the Bureau of Statistics inside Bangladesh Secretariat in 1973. Although students and teachers of universities could have access to the computer for research purposes, the location within the high security area of the Secretariat made it very difficult to gain entry.

Among the educational institutions, Dhaka University was the first to procure a computer around 1967. Unfortunately, the computer, which was made in Poland and procured under a barter deal, stopped functioning only a few days after installation. In 1968, BUET started trying to buy a mainframe computer. However, it took about 10 years to mobilize the large amount of money (around Tk. 1 crore) to buy the IBM 370 computer. The Computer Centre was located in the Civil Engineering Building. In addition to its use for teaching and research by faculty and students at BUET, it started offering its facilities to students and teachers from other universities. Besides, government as well as private sector agencies started using its services and it became the largest computing facility in the country. The BUET Computer Centre also introduced computer programming courses (teaching Fortran and Cobol languages) for interested persons from outside the University; some of these trainees went on to become heads of various computer centres in various organizations.

The demand for computer programmers in Fortran and Cobol also increased after the installation of large number of mini computers in government offices as well as private firms. The first desktop PC, an Apple Computer, was imported in late 1970s. This was followed by import of quite a large number of IBM PCs and their clones.

However, the growth was quite slow, particularly in the public sector. One reason was the requirement imposed by the government that any purchase of a computer would require prior approval of the National Computer Committee.

The early 1990s saw the rapid development in Internet in most countries of the world. However, the government was not interested in getting the Country connected to the global information highway, thereby depriving the users from accessing or exchanging information using internet or email. The Caretaker government was able to overcome

the resistance and Bangladesh became directly connected to internet using VSAT in June, 1996. However, it took another eight years for Bangladesh to get directly connected to the global information super highway through submarine cable SEA-ME-WE 4. Thus has led to a decrease in the bandwidth charges resulting in rapid growth of internet users in the country.

The purpose of this paper is to identify some of the applications of ICT which have been successful in reducing corruption in other countries and how these can be used in Bangladesh.

Types of Corruption

Researchers have tried to classify the different types of corruption from various considerations. The one which is commonly used classifies corruption into two major types, viz.

1. *incidental corruption* e.g. petty graft, small scale embezzlement, favouritism (sometimes referred to as “retail corruption”); and
2. *systemic corruption* e.g. large scale embezzlement, misappropriation, sometimes referred to as “wholesale corruption”.

The approaches to application of ICT in reducing corruption of the two types are different. Most of the success applications in other countries are for the first type, viz. *retail corruption*.

e-Government and Reduction of Corruption

e-Government refers to government’s use of ICTs to work more effectively, share information and deliver better services to the public. e-Government is more about government -the process of reform and resulting benefits - than about the technology. By providing access to government policy documents online and allowing users to submit queries through websites, the government can not only increase its efficiency but also achieve the goals of transparency, accountability and empowerment of common citizens. It should be remembered that in introduction of e-Government is not computerizing the existing work methodology designed for manual processing, but very often required re-engineering the whole work-flow and procedures.

Experience of countries which have introduced e-government shows that it can help reduce corruption in several ways:

- **Prevention:** e-Government provides an opportunity to simplify rules and procedures. Successful applications are mostly based on re-engineering the existing processes and systems. The use of computers and online transactions eliminate the necessity of direct face-to face interaction for people seeking information reduces abuse of discretion by officials and opportunities for corruption.
- **Enforcement:** By enabling tracking of computerized procedures, it is possible to track decisions and actions. This serves as a deterrent to corruption.
- **Access to Information and Empowerment:** Publishing of government information online builds accountability by providing documentation to citizens to substantiate their complaints against corrupt practices.

The benefits resulting from e-Government include: increased efficiency in governments' functions; greater trust between government and citizens from increased transparency; empowerment of citizens through access to information; and contributions to overall economic growth.

The example of OPEN Initiative, Republic of Korea may be cited. In 1998, the Mayor of Seoul in South Korea initiated an anti-corruption programme, the "Online Procedures Enhancement for Civil Applications (OPEN) Initiative", which opened up governmental procedures to the public. This project is widely recognized as an effective example of political and managerial commitment to transparency and for its impact on corruption.

A review team analyzed the entire civil applications for permits and approvals, and identified different categories of civil applications that most frequently caused irregularities and inconvenience to citizens. A development team prioritized the details to be made public on a web portal. For each of the 56 civil application categories, the OPEN web portal contains information on application procedures and contact information of departmental persons-in-charge so that citizens can monitor applications and raise questions in the event any irregularities are detected. Examples of civil applications include: building permits and inspection; and decision and change of urban development plans.

A major part of the OPEN Initiative was focused on the simplification of regulations and procedures, reengineering of work practices, transparency in procedures, effective communication with the citizens, and training, rather than the technology. The technology was used as a tool to achieve its goal.

Another successful application of ICT is the *Bhoomi* Project in India. It is an online system that delivers land records to the farmers in Karnataka. Prior to the Bhoomi Project, an estimated 9,000 village accountants (each serving 3-4 villages) maintained the land records in Karnataka. These records were not open to the public and farmers had to bribe the accountants to obtain a copy of the Record of Rights, Tenancy and Crops (RTC), a record that is mandatory for various purposes such as bank loan application. Moreover, requests to alter records (upon sale or inheritance of a land parcel), which officially requires a maximum of 30 days, is at the discretion of the Revenue Inspector responsible for verifying the validity of the request, and could take one to two years to process.

The Bhoomi Project computerized 20 million land records by capturing legacy data records maintained by the village accountants. Now, a copy of the RTC can be obtained by anyone after providing the name of the owner or plot number and a fee of Rs. 5 at computerized kiosks in the 180 sub-district offices. The clients can also see the transaction online through a second computer screen facing them. When a change of ownership takes place through sale or inheritance, farmers can file an application at the kiosk.

ICT Policy 2009 and Action Plan

In June, 2008, the government appointed a Committee to review the IT Policy (formulated in 2000 and formally approved in 2002), the progress of implementation and suggest changes. The members of the Committee concluded that it would be better to draft a completely new policy rather than revise the all policy. The draft of the policy was submitted to the government in October 2008. The (Caretaker) government decided to leave the responsibility of review and formal approval to the elected government. The present government approved the draft policy in March 2009. In addition to the policy,

which has 10 objectives and 56 strategic themes, the Committee recommended 306 action items grouped under the strategic themes. One of the objectives of the policy is to ensure '**Integrity**', under which there are 3 strategic themes which has a number of action items directly aimed at reduction of corruption in government. One specific item, viz. action item no. 67, states "Allow citizens to report cases of corruption electronically this would empower citizens by giving them a voice in fighting corruption, thus helping the government fight corruption more effectively". It was a "short-term action" (to be implemented within 18 months) with ACC identified as the principal implementing agency.

Action item no. 66 states "Allow online issuance/renewal of trade license", this is aimed at ensuring transparency in the trade license issuance system since there will be no room for bribery or nepotism, thus reducing illegal trades. The agencies responsible for implementation are the City Corporations.

Some other action items in the ICT Policy listed below, if implemented, are likely to lead to reduction in corruption:

- "Register businesses/NGOs online"; this will lead to reduction in time and paperwork by providing rules, regulations and requirements online. The implementing agency is Registrar of Joint Stock Companies...
- "Issue property registration certificates online" (Dept of Registration). This would reduce corruption by giving detailed records of individual property and assets. The implementing agency is the Dept. of Registration...
- "Computerize land management and registration system". Since the greatest number of criminal cases is associated with land related issues, digitization of land records will save citizens from tremendous hassle, corruption and harassment. The implementing agency is the Ministry of Land.
- "Promote online publishing of and adherence to Citizens' Charters". This recommended action is to be implemented by all ministries, divisions, departments.
- "Make all public tenders available online". This will increase transparency in government purchases. This recommendation is to be implemented by all public sector organization.

Some of these recommendations have already been fully or partially implemented; e.g. registration of companies online and e-procurement.

A major part of corruption not only in Bangladesh but also globally, is related to procurement of goods, works and services. Experience of other countries shows that use of e-procurement, (i.e. providing access to tender documents and allowing submission of tenders, without physically visiting the office of procuring entity, helps in making the process hassle free and eliminates the risk of manipulation by vested quarters.

Any local tender package up to Tk. 500 million for goods or works and up to Tk. 100 million for services can now be processed through Bangladesh national e-GP portal. Recently introduced on-line payment of all fees through banks will further reduce the hassle for users of this system.

National e-GP Portal of Bangladesh has been inaugurated on 2 June 2011. Portal is now open for all for 'Registration' and taking part in the e-Tendering process to complete the procurement cycle.

Corruption in Election Process

Another area of major corruption is the elections at national and local levels. A number of steps using ICT taken by the election commission during the last five years are likely to help in reducing corruption.

The preparation of voter database with photograph, and biometric data (viz. finger prints) and signature of more than 80 million voters during 2007-08, in response to the demand of some major political parties, has received global recognition as one of the success stories. No other country in the world has success in their efforts in such a short time (less than 18 months).

For the first time in the history of Bangladesh, the Rules formulated by Election Commission before the 2008 Parliamentary Elections made it mandatory for all candidates to submit their wealth statements and income-tax returns. Moreover, all these statements have been scanned and are publicly accessible online through the EC website.

This may be cited as a very important step (taken by EC on the recommendation of civil society bodies). Assuming that the wealth statements submitted by candidates in 2008 are correct, the voters and civil society organizations will have an opportunity of finding out how much additional wealth the candidates have acquired in 5 years.

Smart Phones and Social Media

Over the last few years the capability of handheld wireless devices for accessing and exchanging information has improved tremendously. Additional features like touch sensitive large screens, cameras (still and video), scanning of bar codes and geolocations capabilities in "smart phones", coupled with powerful computing capabilities have enabled these devices to rapidly replace the traditional desktop, laptop and other forms of computing devices. Although millions of "Application Software" are being developed and downloaded all over the world to solve specific problems, the full capabilities of the powerful smart phones are yet to be exploited. The phenomenal growth in use of mobile cellular telephones in Bangladesh during the last decade provides an opportunity for raising awareness about corruption and using the device to reduce corruption. Almost instantaneous exchange of information (including still and video images) among millions of users with the help of social media websites like *facebook* and *twitter* has enabled rapid mobilization of mass support and triggered revolutions in a number of countries, particularly in North Africa and Middle East. Efforts are now going on to use the social media for identifying corrupt practices.

Wikileaks and other "Whistleblowers"

About six years back, a team of journalists and computer hacker-activists, led by Julian Assange, launched the Wikileaks website, containing thousands of "secret" messages extracted from e-mails/cables and other contents online stored in computers servers around the world. These contained, *inter alia*, a large number of items related to corruption, both in the public and private sector, in various countries round the world. Similarly, Edward Snowden of USA managed to get access to a large number of

secret documents from CIA and other government agencies and published some of these.

Many of the governments felt deeply embarrassed by the revelation of the information made possible by ICT and efforts are still on-going to initiate legal action against Assange. Some other whistleblower websites have been set-up in various countries during the last few years.

Whistleblower Protection

Protection of “whistleblower” is very important to ensure that the identity of the person providing information is not divulged without his/her consent and no litigation is initiated against him/her.

The Parliament has recently enacted an act for protection of “whistleblower” (Act of 2011). This is likely to encourage members of the public as well as officials to come forward with any information they may have on corruption taking place even in remote areas.

Indian Experiences

The Central Vigilance Commission in India publishes list of corrupt officials in its website. One of the Indian websites, ipaidabribe.com, has used the “crowd sourcing” method for collecting information from millions of citizens who are forced to pay a bribe to public officials. These range from Rs. 100 (e.g. traffic offence) to thousands of rupees (e.g. for land registration).

Anonymity of Complainants

Anti-corruption agencies of governments in a number of countries have set up websites, which enable any citizen to submit complaints to the agency anonymously. This has increased the number of complaints lodged with the agencies. A successful example is the Kenyan website Business Keeper Monitoring System BKMS (www.bkms-system.net) set up by Kenyan Ethics and Anti Corruption Commission with the help of GTZ (now renamed GIZ).

Right to Information Act

The Right to Information Act (RTI) enacted in 2009 can play a very important role in curbing corruption. The Information Commission has been active in publicizing the rights of citizens to seek information from government, autonomous, statutory organizations and private institutions by sending millions of SMS to cell phone users all over the country. A number of NGOs, particularly, *Manusher Janyo*, has also been active in raising public awareness about RTI. Unfortunately the number of people who have sought information from various agencies under RTI is still very small.

Research Initiatives Bangladesh (RIB) has been active in encouraging people, particularly from the poorer section of the society including “Dalits’ and “Adivasis’ to seek information under RTI and have achieved success in exposing corrupt practices leading to deprivation of their legal rights and forcing the agencies to provide their due share of government benefits.

Use of ICT in corrupt practices

Like many other technology, the developments in ICT have major negative impacts in various sectors, including uses in helping corrupt practices. With easy access to word processing and image processing software, forgery of documents has become much more rampant. Taking advantage of the ignorance of common citizen in various intricacies of ICT, computer professionals are able to manipulate information for their personal gain. One of the first such attempts in Bangladesh was made about 25 years back, when not many people were familiar with computers. In the guise of holding a computerized lottery for allotment of shares of a public sector company in an IPO in DSE, attempts were made to allocate shares to applicants in return of bribes. Fortunately, this was detected on time and the lottery was cancelled.

Concluding Remarks

Recent developments of ICT, and the repaid increase of Bangladeshis accessing internet/e-mail, mostly using hand-held devices, have opened up new avenues for application leading to reduction of corruption. The implementation of recommendation of the Action Plan of ICT Policy 2009, some of which are directly related to reduction of corruption, will help in identifying and reducing corruption. ACC can prepare a strategic plan for harnessing the full potential of ICT in its activities, both in prevention and enforcement. The experience of other countries, some of which has been presented in this paper, can help in this. The enactment of some recent legislation (e.g. RTI and Whistleblower protection Acts) should encourage individuals and organizations to come forward with incidence of corrupt practices. Computerizing all government procurement by fully implementing the e-GP portal should also help in eliminating major corruption in procurement.

It should be noted that while it is possible to achieve success in tackling incidental or *retail* corruption by applying ICT, reducing systemic (or *wholesale*) corruption is much more difficult. In fact, with large-scale use of ICT, professionals who have mastery over manipulation of on-line information may resort to high-level large-scale corruption which may be more difficult to detect.
