

REFORMS IN THE DIRECT TAX STRUCTURE IN BANGLADESH THROUGH COMPUTERIZATION

*Shahid Hasan**

Introduction

The efficacy of fiscal policy depends on the country's taxation structure. "The importance of taxation is that the state enforces and act of savings, whereas the act of investment can be public, private, or a mixed institutional arrangement." As the Economic Bulletin for Asia and the Far East states : " Taxation, therefore remains as the only effective financial instrument for reducing private consumption and investment, and transferring resources to government for economic development." For the purpose of promoting a country's economic development, taxation may be used to achieve the following objectives : (i) To put a curb on consumption and thus transfer resources from consumption to investment ; (ii) to increase the incentives to save and invest ; (iii) to transfer resources from the hands of the public to the hands of the government in order to make public investment possible ; (iv) to modify the pattern of investment; (v) to reduce economic inequalities: and above all, (vi) to mobilize economic surplus.

A good tax system should meet the following tests : First, it should not discourage production to the minimum. Second, it should reduce less essential types of consumption. Third, it should mobilize economic surplus which is not being utilized for

** Joint Commissioner of Taxes.*

Copy02000 by the Bangladesh Public Administration Training Centre.
All rights of reproduction in any form reserved.

productive investment. Fourth, it should tax each person according to his ability to contribute to economic development. Fifth, it should not distort the economy by misallocation resources. Sixth, it should prevent consumption from increasing proportionately with increase in income. As national income rises, the share of taxation in national income should rise more than proportionately. This will reduce credit inflation and this acts as a cyclical stabilizer. Last but not the least, the tax system should satisfy the principle of economy.

This paper outlines the current organisational structure of direct tax system and procedures in order to identify the problems of the present tax system specially the age old manual system. Specifically, this relates to computerization drive in National Board of Revenue (NBR) and its drawback, and propose a new organisational setup.

Thus the scope of the paper is to bring area to reform the existing system. As information technology can provide more timely and accurate information, so it has been chosen as the instrument to change the existing direct tax revenue administration.

Organisation Structure and Functions

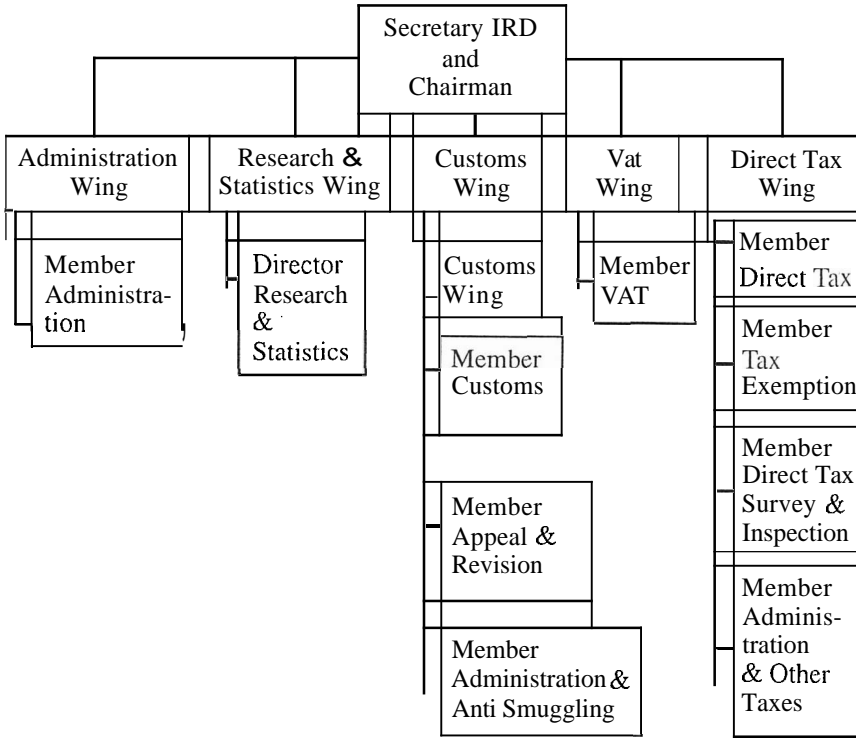
The National Board of Revenue (NBR) was established under Presidents order No. 16 (The National Board of Revenue Order, 1972) with specific direct tax related goals :

- Collect direct taxes i.e., income tax
- Prepare and execute various tax laws.
- Look after day to day administration and functioning
- Provide confidential data for national Budget.

The primary task of collecting revenue on budget of the government is NBR's main function. In order to perform its primary duty of direct tax collection it is currently operating from around 100 locations around the country. The process of collecting revenue is governed by 'The Income Tax Ordinance, 1984.

NBR consists of a Chairman supported by 9 Members. There are over 400 other staff under the direct supervision of Members to carry out various functions. In addition, a further 10,000 staff working at different levels throughout the country on tax related matters.

Organizational Structure of National Board of Revenue (upto member level)



Trend of revenue collection in Bangladesh and also the share of indirect and direct tax contribution in NBR were shown below. The trend shows that only 10-11% is the Tax/GDP ratio which is alarming. As system is faulty and run manually, hardly little improvement can be done in this manner.

Direct Tax Management

The Income Tax, Gift Tax and Travel Tax come under the direct tax management. All direct taxes are collected by the same office, which deals with the income tax for a taxpayer. To manage the tax collection functions, the whole country has been divided into Circle, Range and Zonal offices.

Direct tax field operations of National Board of Revenue (NBR) has 293 Circle, 53 Range and 15 Zone office. The Circle office functions as the primary source of contact for the tax payers, where most of the tax related information (income, wealth, gift) get processed, stored and updated. There are five different types of Circles, such as Taxes, Company, Salary, Contractor, and District name. The functions and projected revenue generation of each Circle is its type dependent. The primary functions of each Circle are to process tax returns, make assessments, collect tax, maintain registers, generate monthly returns for corresponding Range and Zone offices, bring new assess in to the Tax Net and appeal management. There are eight monthly returns reporting disposal of cases and revenue collection information. The Range office monitors the performance and revenue collection of all its Circles ; and also functions as the approval body of any assessed income, investment and/or refund above the power given by the commissioner. The Zone office monitors the performance of all its Range and Circle offices, refers case to the court, instructs to file second appeal to the Tribunal and prepares a set of consolidated monthly return for NBR. NBR analyzes these information for future revenue projection and policy decisions.

In most cases a Circle office is assigned an area to deal with the taxpayers in that area. However, for cities such as Dhaka, jurisdiction of different Circles are based on the following criteria :

Table 1 :Trend of Revenue Collection in Bangladesh 1993-94 to 1997-98

Financial Year	GDP (Market Price)	Total Revenue	Revenue/GDP Ratio	Total Tax Revenue	Tax revenue1 GDP Ratio
1993-94	103546.40	12388.53	11.96%	9724.74	9.39%
1994-95	108723.72	14089.53	12.96%	11356.03	10.44%
1995-96	130153.00	15408.04	11.84%	12174.10	9.35%
1996-97	140305.00	16663.90	11.88%	13452.92	9.59%
1997-98	154905.00	17589.75	11.36%	14792.83	9.55%

Table 2 : Share of Indirect and Direct Tax Contribution in NBR : 1993-94 to 1997-98

Financial Year	GDP (Market Price)	Total Revenue	Revenue/GDP Ratio	Total Tax Revenue	Tax revenue1 GDP Ratio
1993-94	8995.51	7140.60	79.38	1854.91	20.62
1994-95	10522.56	8850.06	84.11	1672.50	15.89
1995-96	11370.06	9639.91	84.78	1730.15	15.22
1996-97	12503.25	10625.98	84.99	1877.27	15.01
1997-98	13801.79	11625.90	84.23	2175.89	15.77

Source : NBR

- I By limited companies
- I Area such as Ward
 - Civil districts
 - Employees in an organization earning salaries and
- I Contractors

In some cases, the above criterion have been further divided, using the first alphabet of name of an organization. Therefore, company name beginning with 'A' 'F' 'J' and 'O' can be in a particular companies Circle office, whereas, companies name beginning with 'G' 'K' etc. in another Circle office.

A tax payer in normal circumstances always deals with a circle office which is headed by a Deputy Assistant Commissioner of Taxes (DCT), Assistant Commissioner of Taxes (ACT) or Extra Assistant Commissioner of Taxes (EACT). All files related to a taxpayer are stored in a circle office. All companies must submit a Tax Return by December 31; in other cases the returns are submitted by September 15 every year.

If a tax payer do not agree with the assessment order, he can appeal against it in the respective Appeal office. If the decision of a commissioner goes against a tax payer he can then apply to other authorities as such courts.

Survey Zone and Training Academy

The primary activity of a survey zone is to bring individual, companies, firms etc to register as a tax payer. The training academy based in Dhaka city provides training to all officers of different levels with special emphasis to new recruits. The academy also provides a very useful Tax Counseling service to the public.

Presently the total number of assess is around 7.5 lakh. This is a very low figure compared to other developing nations. If we take

into account the number of assessee above TK. 10 lakh, the situation is more alarming ; only 3486 assess are above the level. If we take for example the administrative division of Rajshahi, we see that the number of assessee is only 98228 which is less than one lakh. These situations never depict the actual scenario. Though manually different measures were taken to enhance these parameters, attempts went in vein. Till now, there in only marginal increase the number of assessee who has submitted returns under the self assessment scheme. It is around 1 lakh 25 thousand. If we could redesign and simplify different tax proceeding, then it would be easier for the common people to have access through it. Even if use different tax incentives through internet, then it will be possible for the citizen, home and abroad, to abide by the rules and remit money through proper channel. Even foreign investors who are interested in investing in Bangladesh will also be inspired by these activities. As administration is being decentralized and new division such as Sylhet and Barisal are functioning; revenue earnings from these two head quarters are insignificant. Modernization through computerization can do the function properly. Now-a-days the whole procedure is such that there is enormous possibility of harassment during the assessment procedure. So the gap between the assessee and the assessor increases and touts, in the form middleman, exploit both the assessee and the administration.

Protection of Information : In the income tax department strong measures are there to protect the information relating to a tax payer. The Income Tax Ordinance, 1984 (XXXVI of 1984) in its section 163 narrates the following 163. Statements, returns, etc to be confidential.- (i) Save as provided in this section, all particulars of information contained in the following shall be confidential and shall not be disclosed, namely :-

- (a) Any statement made, return furnished or accounts or documents produced under the provisions of this ordinance;

- (b) Any evidence given, or affidavit or disposition made in the course of any proceedings under this ordinance other than proceeding relating to the recovery of demand under this ordinance.

Previous Computerization

Under the International Development Association (IDA) Technical Assistance Credit Program, Excess, Tax and Customs (ETAC) Project started in 1989. It has led the revenue administration to realize the need for computerization. It was a step towards efficient, accurate and effective management. Some pockets of application were developed, but the real information system had not been planned of and designed at all.

ETAC-Direct Tax Hardware Distribution List :

Office and Location	Computer, printer, UPS (each)
National Board of Revenue	18
Taxes Zone-1, Dhaka	3
Taxes zone-2, Dhaka	4
Taxes zone-3, Dhaka	2
Taxes zone-4, Dhaka	2
Taxes zone-5, Dhaka	1
Taxes zone-6, Dhaka	2
Taxes zone-7, Dhaka	2
Taxes zone-8, Dhaka	3
Intt. & Inv. Directorate	2
Central Survey Zone, Dhaka	1
Taxes Zone-1, Ctg.	2
Taxes Zone-2, Ctg.	2
Taxes Zone-3, Ctg.	2
Taxes zone Khulna	1
Taxes Zone Rajshahi	2
Office of the Dir. Gen of Inspection.	1
Dir. of Training/B.C.S Taxation Academy	1
Total	61

The success of a computer project can not be measured by the number of computers purchased, but focus must be on what computer applications are needed and the personnel skill must be developed. Now-a-days only one major system to generate Tax Identification Number (TIN) with associated reporting is in operation and also to assign a TIN code. To develop the IT system, a system design has started working with some programmers. All tasks are entirely dependent on the movement of files and information systems had not really been planned or designed at all, but have evolved as stand alone systems to solve isolated organizational problem. All computers are primarily being used as an 'Electronic Typewriter'. There are little facilities for the Head office or field office to view and retrieve any information from any system. Whenever any data is entered into a database, it is under the control of a computer operator. Hardly a Head of a Zone i.e.; commissioner can retrieve data from a computer. Though many officers have been trained at home and abroad on information technology, but after their return they were not properly utilized. For example, an official who has gone abroad for training have been posted in a remote area. May be he will never be posted in a computer based desks. If by chance he gets a posting in the longrun, the skill he had developed will vanish like anything. It is essential, before any system is developed, appropriate specifications must be prepared. Writing a computer program without any agreed specification can be compared to tax officials collecting taxes without any governing tax laws.

Proposed New Framework for Computerisation

From the observation it was clear that hardly any computerization has taken place to automate the major functions of

direct tax. There should be a management information system. The system, once developed, can be in operation over the next 5 years without making any major modifications. This will eliminate the need for any development work on a year to year basis.

The Revenue Information Software (RIS)

The RIS system will provide the following functionality :

- I All registration process is taxpayers registration.
- Maintenance of all income tax rates when required.
- Maintain records of payments of all refunds.

The RIS system will maintain a **central master database** for all taxpayers which will primary store raw data. The database maintained by the RIS system will be functioned by circle offices from their **local database**.

The following section describe how the new framework will operate :

Taxes Zone :

The task of maintaining information related to tax is quite complex. Today a great deal of information is in textual form. Therefore, it is proposed that all post assessment order be prepared using a word processor. This will save time to prepare an assessment order. Within the word processor the assessment orders should be stored in a structured environment rather than saving it anywhere within a computer. This will help retrieve and view an assessment order easily. For the numeric data, it is proposed that a local database will be created at the circle level. The database will primarily be an analytical database where, numerical data collecting can be processed. In order to facilitate the data entry and to provide easy assess to the database some relevant matrices

should be developed to help maintain and process taxpayers return forms at the circle offices.

Survey Zone and Appeal Zone :

The survey zone offices will require to have a system to maintain a local database for the taxpayers under their jurisdiction. It is important for the Appeal Zone to dispose of the appeal cases as soon as possible. Now-a-days all the appeal orders are in textual form. Therefore, it is proposed that a system should be developed and implemented at the Appeal Zone office.

Benefits of the Proposed System

The new framework will assist the users to realize the following.

Operation efficiency improvement : by providing more accurate and timely information to the management to help decision making.

■ **Easier Data sharing between all the offices :** will allow information to be processed quickly. The data will be available in the central master database for processing by the income tax department. Therefore, it is possible that the officials from the department will have the monthly and annual information.

■ **Improvement in service level :** to the taxpayers by providing timely and detailed statements of tax paid and outstanding.

Efficient audit mechanism : by having a number of built in procedures within the system. This will also help to reduce leakage of revenue through the manual procedure.

Faster report generation : by having access to the data as and when needed basis.

Protection of information for the taxpayers as required by law, using the built in security.

- **Efficient access to historical information since,** the proposed framework will automatically manage and maintain all past data in a database.

Operating Environment

In order to support the proposed framework, this portion focuses the system software and hardware issues.

Application Software

The NBR is the only organization of its type in the country, therefore, packaged software are not available for its application. Therefore it will need to continue in-house development and work closely with local software houses to develop and maintain its application systems. All software development must be carried out using the object oriented technology. Word processor, spreadsheet and e-mail system must be installed for all users who are based in the Head Office. The word processor will provide both English and Bangla typing facilities. Data collection will continue to be based on the various forms completed by the taxpayers. All computers at the field level offices ie circle offices will have local databases for both data collection and retrieval purposes. They will have all necessary application software installed for processing the local databases. There will be one central computer. Data (Current and old) will be stored here. The primary advantage would be : easier to maintain and increase flexibility. The central computer will be connected to servers. The servers will have their own Local Area Network (LAN) to provide access to the users. As long as any

field office computer has access to a digital phone line, a modem can connect that computer to NBR-Tax Net server. There is a range of connection possible. NBR and all its zonal offices will need a network file server and circle and Range office will have stand alone micro computers. Keeping the security issues as an important factor for direct taxes, application software should be developed and maintained in that direction. This will control unauthorized access. If there are more than one PC then the concept WORKGROUP technology will be used to connect the computers. It is a collection of computers that appear under the same head. In Windows NT environment, a WORKGROUP is a collection of computers that appears under the same workgroup. As many personnel computers (PC) will be used in this process, the concept of WORKGROUP technology will be better. It will also be possible to share files and databases. All computers will have a networking card (LAN Card) and this will allow co-workers to share resources such as printers, modem and disc. All PC'S will require an Uninterruptable Power Supply (UPS) which must have built in voltage stabilizing capacity.

Proposed New Information System and Service Wing

NBR does not have an established computer department to look after the planning, execution and day-to-day affairs of computer related activities. At present only 17 permanent computer personnel including 2 systems analysts, 1 session programmer, 6 programmers and others as operators. These persons are employed under the Research and Statistics wing. None is under the director tax administration. So there is no proper line management structure and predefined responsibilities. There are around 100 computer operators employed under the ETAC project which ended in NBR, and operators getting their salary from the utilized government fund under the Internal Resources Division (IRD).

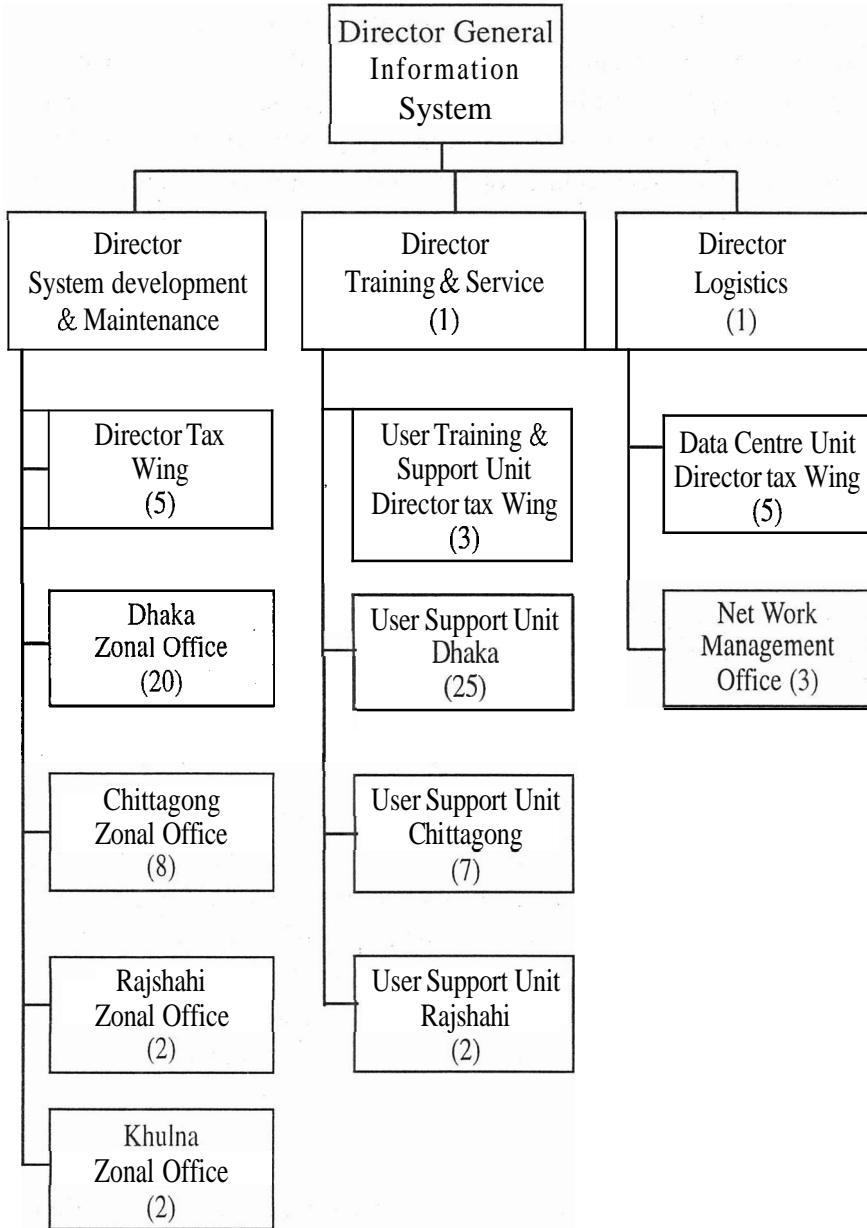
To enhance tax revenues, broaden the tax base and to facilitate the taxpayers with the latest technology available, it is proposed that a permanent Revenue Information Services (RIS) wing must be established to meet the following objectives:

Provide appropriate IT education and to encourage the use of IT.

- Look after computer operations in NBR and throughout direct tax system.
- Work under senior management to define direction, strategy and implementation paths.

The new RIS wing should be under the control of a Director General. A Director-Systems Development, a Director-Training and support and director-Logistics, would assist him. The Director General will report directly to the Chairman. The following schematic diagram shows the proposed structure.

Management Structure of the Proposed New RIS Wing



The figures in the bracket represent overall expected number of professional staff required. All new recruitment must be carried out according to the government notification on The Computer Personnel (Government and Local Authorities) Recruitment Rules, 1985. The requirement for the system development staff may vary, if there is change in the organization set up in the near future. The requirement for the computer operators has not been covered, since most of the data entry will be carried out at the Circle offices. It is recommended that wherever possible existing stenographers and steno-typists be trained to operate computers. In the zonal level, to run the office and tax related function, one assistant programmer, one hardware engineer and one assistant hardware engineer would be necessary. Specially as it was seen earlier that the service of the hardware engineer is very essential. Because when the process of computerization starts, then there is probable chance of mishandling of hardware by both technical and non technical persons. One thing is very important that those who will be recruited will have to give a bond of working in NBR at least for five years, otherwise the process of computerization will face obstacles.

Director- System Development & Maintenance

The primary objective of this group would be to analysis, design, develop and test application systems. An Engineering software should be used to carryout all analysis and design work. On completion of system development the user manual/operation manual must be prepared. Once the system has been accepted, it should be handed over to the training group. The core personnel for this group would be system analysis and programmers.

Director-Training

The primary responsibility of this group would be to look after an application system that is ready to go into operation. This group

will carry out support and maintenance of the database. All system that are running in line must be supported by this group. This group will consist of specialist trainers, Senior programmers and operators.

Director-Logistics

The proposed framework for the application software and hardware will require an infrastructure to support it. The main aim of this group is to provide all logistic support required to keep the new framework in operation. Procurement and maintenance of all computer hardware and stationary such as disks will be done by this group. This group should keep close eye over the network including functioning of telephone line.

Training Requirements For The Wing

Under the project, the officers and staffs of the taxation cadre were given computer training. Due to lack of computer facilities, these training went in vain. It is proposed that first of all the government computer personnel will be given training both on home and abroad. The IT personnel with their special training can give training to general cadre officials and staffs step by step. Though at the beginning, IT personnel will done the computer work but in the long run the officers will have to know technical know how so that they can retrieve data at anytime and do not depend on computer operators and steno-typists or graphers.

Implementation Plan

This section provides an overall implementation plan to computerize the direct tax department. The training should be given to the government technical personnel only since a good number of

officers and staff has already been given training. The appropriate application software must be developed and identify the users. Based on the number of users, appropriate schedule must be prepared and training should be carried accordingly. Therefore, the users training must be carried out as and when needed basis. The activities can be performed in parallel, how in most cases the tasks within the activities are dependent on each other.

Step-I : Short Run

The step one plan is expected to cover about 15 months. The following activities have been identified for this period :

- Setting up of the proposed RIS Wing.
- Procurement of equipment
Preparation of sites.
- Training requirements.
- Software development

It is proposed that the personnel computers and associated peripherals should be purchased in phases under short, medium and long term.

Step-II : Mid Term

The mid term plan is expected to cover 24 months in second and third years following step one. During the period the following activities need to be carried out :

- Procurement of further equipment
- Software development and maintenance
- Training

There is likely to be more maintenance work required. There will be a need for ongoing training. Procurement and software development task will be similar to the tasks described in the Step-I. The Information System & Service (IS & S) wing should be fully operational by end of the mid term plan.

Step-I11 : Long Term

The long term plan is expected to cover a period of 24 months. This is the fourth and fifth years following the mid term plan.

Identify/upgrade requirements for computer and associated peripherals.

Procurement of further equipment

■ Software maintenance

Training

Conclusion

National Board of Revenue is the main organ of the government in terms of collection of revenue. But most of the activities at the head office and also in the field offices are done manually. As pressure on internal resource mobilization is mounting high day by day, so the age old manual operation method can not explain the present day situation. Most of the rules and procedures are based on the Income Tax Act, 1922 of the British era. Though lot of modifications are done in 1984, but still these can not always explain the present day situations.

With the advancement of information technology, our nation can not stand alone. Now-a-days business and economic activities are done on e-mail, internet or through website. If our old system of manual tax collection can not brought under technological shelter, then firstly the authority will not be able to understand the business itself, secondly, it can not identify the nature, volume and dimension of the business. If authority fails to address the business activity, then there is no question of assessment. So, there will be huge amount of revenue leakage. Another thing is that, most of the forms and returns are so cumbersome that the authorities are sometime confused with the clarifications. So these forms and returns should be computerized so that people can take help of

information technology and thus communicate with office through computers. Several times it has occurred that the assessee who has already paid taxes were listed as default taxpayers and notices were delivered/reminders were given to pay the taxes again. Sometimes a dead man is served with a notice. The problem is not one sided. Knowing about the manual operational environment, the assessee also takes advantage of it and evades tax. If one assessee, with huge amount of taxes unpaid, moves away from one district to another, it is very hard for the office to identify the person concerned. Sometimes if any official with malintention misplaces a file, then it becomes hard for the office to identify it.

With this end in view, the present revenue administration should be computerized thoroughly. Though a computerization project was taken in NBR, ~~due to lack of~~ proper guidelines the whole process went is vain. The process could only address isolated problems.

National Board of Revenue (NBR) is the main contributor in the national revenue earnings, around Tk. 2000 crore is earned through this wing. An estimated expenditure of Tk. 20 crore each year on computerization for a period of five years may benefit the nation in the following Way.

- ◆ Director tax collection will be quadrupled.
- ✚ The tax base will broaden four times.
- ✚ Government can save huge of amount time by avoiding unnecessary official activities.
- ◆ NBR can make a bridge between the assessee and the assessor.

REFERENCES

- Government of Bangladesh, The Income Tax Ordinance, 1984*
(XXXIV of 1984)
- Mr. Faiz Khan, 1996, "ETAC Direct Tax Data Computerization"
Report on *Information Systems and Service*
Strategy - by Datanet Ltd. 1996.
- World Ban, K 1991; *Government that works - Reforming the*
Public Sector.
- Tax chronicle - A *Quarterly Journal of the B.C.S* (Taxation).
Annual report, 1998-99, Research and statistics Wing, National
Board of Revenue.