

FRAMEWORK FOR DESIGN OF MANAGEMENT INFORMATION SYSTEM FOR TAX ADMINISTRATION: A CASE STUDY OF SOMALIA

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A Case Study of Somalia

The framework for a Management Information System (MIS) for tax administration is a conceptual model. It enables us to understand and communicate about the overall system. Also, it facilitates future discussions about different types of decisions and information requirements. The model takes note of the prevailing constraints and aims at understanding the impact of the organisational and operational effects of the system.

The MIS for tax administration in a developing country, such as Somalia, has to face innumerable constraints in organisational framework. Also, it leaves much to be desired on operational fronts. In fact, factors which are basic to proper administration of a tax in a developing country, are efficient collection, collation, and analysis of the available information. The prime requisite thus is an adequate information base which helps in an evaluation of the existing tax policy and the simulation of the effects of proposed

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legislative changes. An appropriate information base should, therefore, cover all major aspects of the tax administration for its effective enforcement, its reform and proper tax legislation.

An information base of the above dimensions is possible only with the help of Management Information System (MIS), a recent advance in computer technology which is designed to provide management with integrated, allencompassing information on the dynamics of an organisation in its entirety, in order to facilitate the decision-making process. The MIS has interrelated sub-systems constituting a built-in capability for inter-system transfer of data. The result is an output that provides management with meaningful data for effectively monitoring, administering and controlling departmental policies.

The MIS would be designed to serve a wide variety of objectives. First, it must enable evaluation of tax policy¹ and correct appraisal of alternative policy measures with the help of reliable statistical information. Second, the quality and quantum of information should also be of invaluable help in deriving insights into important facets of the economy. For example, statistics of income tax assessments should show the degree of inequality in the distribution of income over time, the efficiency of tax measures to promote desired objectives, their cost to the community, the size of the parallel economy and so on. Third, these statistics should also constitute one of the data sources for national income accounting. Finally, MIS should be a vital part of the support measures for effective enforcement of tax laws as well. However, accomplishment of the above objectives calls for an administrative system which would enable us to have a proper information flow.

^{1.} For details of the structure of these taxes, see Purohit, Mahesh C., "Somalia : Tax Reform in An Unconventional Economy", <u>International</u> <u>Bulletin for Fiscal Documentation</u>, Vol. 44, No.4, April 1990, Pp.185-193.

Existing Administrative Organisation

The existing administrative organisation is not geared to have a flow of information of the dimension mentioned above. However, it provides us with some data with reference to the yield of each of the taxes which are compiled and presented in the document titled "Budget of the Year and the Report of the Accountant General" (Ministry of Finance). This information emanates from the flow of data inherent in the administrative structure of headquarters as well as regional organisation.

Headquarters Organisation: The headquarters organisation, as depicted in Exhibit A, indicates that the Revenue Department is headed by the Director-General (D-G), assisted by two advisers in tax and legal matters, respectively. There are two administrative divisions relating to "Personnel and Training" and "Audit and Control". In addition, there are three Directorates relating to taxes, each of which is headed by a Director viz., Director of Direct Taxes, Director of Indirect Taxes and Director of Customs. Also, there is a division of Planning and Statistics.

There are three divisions under each Director of Taxes. Director of Direct Taxes administers divisions relating to (a) Business Profits Tax, (b) Property Tax and (c) Employment Tax. Director of Indirect Taxes has divisions relating to (a) Sales Tax, (b) Excise Tax and (c) Other indirect taxes. Unlike the division of these two Directorates, the divisions under the Directorate of Customs relate to areas such as (a) Area 1 Division covering Mogadishu Port, (b) Area 2 Division covering Southern Ports excluding Mogadishu Port, and (c) Area 3 Division covering all the Ports of the North-Eastern area.

EXHIBIT A

MINISTRY OF FINANCE AND TREASURY-DEPARTMENT OF REVENUE HEADOUARTERS ORGANISATION



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EDHIBIT B

NINISTRY OF FINANCE AND TREASURY: DEPARTMENT OF REVENUE



• Eacise work is not there in the district offices of Benadir Region.

* There are thirteen districts in the Benadir Region.

1 If the number of ports are more than one, there is a separate regional coordinator for custome.

- ** There are 18 regions excluding Benedir Region.
- fit Each region has a number of districts. The number depends upon location, area, population, communication and work land.

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Regional Organisation: The regional organisation for tax administration, as profiled in Exhibit B, shows that the administrative system is distinct for Mogadishu as against that for the rest of the country. Mogadishu region (called Benadir Region) has 13 districts, all of which have similar structures as well as both formal and informal links with the headquarters organisation; however, there is no coordinator for the districts. The regional organisation of the rest of the country is formalised through 18 regions, each of which has a coordinator for linkages between work pertaining to a division and that of the headquarters.

The structure of each of the districts in Benadir Region is bifurcated into two sections - for direct taxes and indirect taxes, respectively. Each section is headed by an in-charge who looks after its respective unit. The Direct Taxes section has three units, relating to income tax, property tax and employment tax. The Indirect Taxes section has only two units, viz., Sales Tax and Other Indirect Taxes. No work relating to excise has been delegated to the districts. The heads of both the direct and indirect taxes units may report to the section head of the district or direct to the section head of the headquarters organisation. Thus, the section head of the unit is not necessarily a link between the lowest unit of the district organisation of Benadir Region and the section head of the headquarters organisation of the country.

The structure of the districts in the other thirteen regions has a regional coordinator, through whose office all sectional heads are required to channel their activities. In a typical district of any region, there are three units, one each for Direct Taxes, Indirect Taxes and Customs. If the number of ports in any district is more than one, there could be a separate regional coordinator of customs. Similarly, the number of districts in a region could also vary according to location, area, population, communication system and work-load of the place.

Information Flow for Different Taxes

With the given administrative structure of the headquarters organisation and the regional organisation, the information flows through operations of each of the taxes. The procedures for operations of the taxes is as follows:

Business Profits Tax: This tax is paid by dealers who have crossed a particular exemption limit, viz., So.Sh. 2420 p.a. In the present economic conditions, price rise and the increase in money income levels, the prescribed exemption limit brings almost all dealers into the tax net. These dealers, originally registered with the local government, apply for registration with the tax department.² In the event of failure to apply, the assessor of the district traces the dealer on the basis of the information from the local government.

Business profits tax is paid yearly by a dealer. The financial year for the tax purpose is generally the calendar year, January to December, but in exceptional cases the Director of Direct Taxation can, on application, grant permission for a different financial year. Within four months following the end of the financial year, the dealer submits a return to the department and pays the amount of tax. The return form contains information on the activities of the dealer, as well as on gross revenue, expenditure, gross profits, net income and tax paid. The return is examined by the assessment order are filed in the tax file of the dealer.

<u>Employment Tax</u>: Employment tax is paid by the employer. The tax is basically a withholding of income tax at source on the income earned by the employee.

^{2.} All the dealers are compulsorily registered (being a legal requirement for opening a business) by local government and classified according to their size [as very big (A), medium (B), small (C) and very small (D) types of dealers]. This registration and categorisation by the local government is useful for the taxation department.

As the employers are collecting on pay-as-you-earn (PAYE) basis, the payment is made by them every month alongwith a monthly return.

<u>Property Tax</u>:³ Property tax is a tax on rental income of property,⁴ there being no tax on property as such. The tax is collected on the basis of rental lease of the property which is normally registered with the tax department. The tax is paid and a return submitted every quarter. In addition to the information on lease, the department tries to make use of the information available from the census of houses (MBTC).

<u>Customs</u>: Cargo manifest received from a ship is in the form of computer printout and contains all information about laden goods. This manifest is incorporated into their own documents (forms) by the Somali Shipping Agency. While transferring such information, some classification is done according to importers. The basic document relating to stamp duty is Form 2 and is used to fill in the information relating to the manifest of goods arrived in customs and for the collection of stamp duty on manifest.⁵

The document containing information relating to customs is Form 50 A. This is used to record goods liable to duty,⁶ and is, in effect, an

4. Although the tax could be collected on the assumed rental value of a self-occupied house, the operation of the tax on such property has been suspended on instruction by the Minister of Finance.

^{3.} These three taxes on income, viz., business profits tax, employment tax and property tax, are normally paid by the same taxpayers inasmuch as these form different sources of income. Hence three separate returns duplicate the work of the taxpayers as well as of the tax department. The magnitude of duplication is unknown. In fact, there is no information available on the total number of taxpayers.

^{5.} Every manifest is filled up in four copies: the Master copy, two with the Master's Manifest for the Manifest office, a third for accounting and statistical purposes, and the fourth is used as a counterfoil of the book of manifests.

assessment form comprising all relevant information. It is initially filled in by the owner of the ship or its agent who furnishes details such as the name of the importer, information about the forwarding agent, origin of goods and also of volume, value and description of goods. The date of arrival of goods and warehouse number are ascertained through the warehouse keeper, who functions under the port authorities, and enters these in one of the columns of Form 50 A. The importer/agent presents this information to the bank, with shipping letter, letter of credit and declaration for exchange control. Thus, the information on foreign exchange is checked and recorded in this Form. Manifest section then checks from the manifest and enters manifest number on this form. Thereafter, the examiners begin their work of verifying the type of goods and description with details given in the Form 50 A. The rate of tax and the valuation determines the import duty. This too is entered in Form 50 A.

Form 22D is used to collect tax in cases of under-assessment, that is, the customs officer issues a collection bill in this form to recover tax from the importer if the value assessed is more than the value declared by the importer. This form, therefore, gives information on the difference between the admitted and the assessed tax.⁷ There is some coordination with the excise department and an excise department clerk fills in a form to be sent to the

^{6.} If the goods are imported under Article 20 of the Customs Law, i.e., imported duty free, Form 50 is used. It is important to note that if goods imported duty free, for some special purpose or for use of some particular functionary, are used for some other purpose or in breach of the special condition or by some other person, they shall be forfeited and any person involved in the use of such goods shall be liable to the penalties for smuggling. Such goods may be sold, transferred or used for different purpose if customs duty assessed in accordance to the value at the time of sale, is paid to the customs authorities. Duty will be paid before the sale of goods.

^{7.} This form is in four copies: one for audit, another for office of the director, customs office, the third for importer and one as counterfoil.

excise department for their information.

In addition, there are forms to be used for export duty and registration fee. Form 10 dealing with sailing manifests, is used to collect stamp duty and contains the information relating to quantity and quality of goods, name of the shipper and stamp duty. Form 21D deals with temporary imports; Form 8 with imports; Form 25 for collection of import duty and accessory fees from travellers and on post parcels; Form 24 for import duty and accessory fees in the customs offices of 2nd, 4th category and for travellers and post parcels; Form 20 for foreign goods sent from a customs office to another; and Form 23 as passnote for coastal trade. All these forms contain the relevant information and one copy of each is sent to the statistics office for compilation.

Excise Duty: There are 60 taxable manufacturers in Somalia. All are registered with the department. A manufacturer submits a monthly statement of output and since there is no prescribed form by the department, the Statement varies from one manufacturer to another. A system of annual return does not On the basis of this monthly statement, the department sends a form exist. for the payment of tax. This form contains details of (i) registration number of the manufacturer alongwith his name and address, (ii) type of goods, (iii) rate of tax, (iv) quantity and value of inventory, new goods manufactured and sold during the month, and (v) tax amount. The monthly form submitted by the manufacturer is assumed to be a return and tax is levied on the basis of this statement.⁶ The Department presumes that 80 to 90 per cent of the manufacturers normally submit their statements without default. However, no statistical information is collected because of low staff strength and inadequately trained existing staff. The key document giving information about excise duty is the form for payment of tax.

^{8.} This form is submitted in three copies: one for the cashier, the second for office of the director, excise, and the third for the factory.

Sales Tax: All importers, manufacturers, wholesalers and hoteliers pay this tax. Although there is no system of registration of dealers by the Department and no clear mechanism for the Department either to identify the dealers or their turnover, all the dealers come to the Department and pay the tax to the cashier. While paying the tax, the assessing officer fills in a return and an assessment form for the dealers who pay the tax regularly (known as regular dealers). The return form of such dealers gives information about gross turnover, taxable turnover and amount of tax paid. The return for the non-regular dealers contains information on business classification (viz., individual, partnership, etc., according to ownership, and importer, wholesaler or producer, according to activity etc.); gross turnover and purchases; sales tax, and taxable turnover with details of exemption.

Constraints in Developing a Requisite Information System

A proposed information system has to consider several aspects of the given administrative system. It is neither feasible nor advisable to recommend a system that is entirely different from the prevailing one. Hence, to evolve a requisite management information system for Somalia, we have to reckon with the following constraints: First, it is important to recognise that it is not feasible to overhaul the entire tax administrative system. The government is neither mentally prepared nor adequately equipped to effect major changes. Nevertheless, it is extremely important both from the point of view of strengthening the Department of Revenue in tax administration and from the point of rationalising tax policy of the country, that a beginning is made in the direction of collecting, collating, compiling and making the requisite information available to administrators and policy formulators of the country. Secondly, in the context of both economic growth and the situation of unemployment in the Somalian economy, it is rational to reject any suggestion for complete automation or computerisation. In fact, any system of computerisation needs to be adapted to Somalian conditions. Hence, the Department of Revenue, Ministry of Finance would be strengthened in tax policy

formulation and in tax administration provided the proposed MIS is ultimately understood, managed and controlled by the departmental personnel. A major computerisation scheme would be contrary to this objective. Thirdly, computerisation is not a one-shot operation and hence the training of departmental personnel associated with the system should be a continuous one. Also, computerisation is no substitute for the normal method of assessment and enforcement; it is to be looked upon as an aid to proper understanding, evaluation and enforcement of a given tax system. And finally, the success of computerisation programme will depend upon (a) developing a proper system of different forms and returns, (b) coordination between districts and proper flow of information from districts to the computer centre, and (c) an appropriate training programme of the personnel looking after computerisation.

Development of Suitable Mechanism

Within the above constraints, it is important to devise a suitable mechanism that would enable the structuring of the required information system, with some minor changes, as detailed below:

First, the Return has to be the basic input in each tax. Under the existing tax system, given the deadline for submission of return, the information needs to be submitted to the Statistician to compile the data within a reasonable period of time. This method would have the merit of providing a means of estimating the taxpayer population in the country with some confidence, and thus lay down the basis for carrying out sampling on scientific lines whenever necessary. Here it is important to note that reliance on return figures would not be misleading because the variation between sales/income returned and assessed is normally not large in the aggregate (not more than 10 per cent).

Second, a quick flow of information based on tax return can be organised in two ways: (i) A summary sheet may be prescribed for putting down information on specified items. The sheet will be attached to the return but with perforation so that it can be easily detached. Taxpayers (or assessors, whosoever fills in the return form) may be asked to fill up this sheet along with the return so that it can be forwarded to the computer section directly by the assessor (assessing officer) as soon as the return is filed. (ii) Alternatively, it may be made obligatory that the return forms would be submitted in duplicate.

Third, in order to obtain information on all items considered important, the return forms are required to be redesigned. In the forms now in use, no details have been prescribed. A summary of the income under different heads is required to be given for income tax. For example, annexures are required to be given for setting out the computation of income under each head. Details regarding the deductions claimed in the computation of income under different heads have to be given in the relevant annexures. Since assessment forms will not be used as input for statistical data, it would be necessary to introduce this in the return form itself. This can be done by expanding either the form or giving annexures. The additions required would however be only marginal and should not lead to any appreciable increase in the length of the forms.

Fourth, in order that the number of pages for which duplicate copies will be provided in the return do not exceed three or four, the return forms may have to be redesigned by re-arranging the order of the different parts and the annexures. The items in the return forms should be coded for facilitating punching and computerisation.

Fifth, different return forms are now prescribed for different categories of income taxpayers (i.e., business income, employment tax and building tax) and for different taxes on commodities and services. It is necessary to have a composite return for taxes on income and property. Similarly, there could be a composite form for taxes on commodities and

services.

Sixth, it is necessary that some statements are required to be filled in by the tax department. These statements must reach the Statistician regularly and in time. There has to be adequate monitoring to ensure timely flow of these statements inasmuch as they form a very valuable source of information for assessment as well as for statistical purposes.

Seventh, for keeping a watch over the submission of information required for statistical purposes, it would be useful to have a statistician posted in each district's charge. The statistician would be working under the Dy. Director of Research and Statistics. He may also scrutinise the inputs and get errors or inadequacies corrected by the officers concerned. A statistician in the Director's office with necessary complement of staff would be needed also to help organise sample surveys from time to time. Such a unit can render valuable help also in the compilation of reports and returns required to be submitted periodically.

Finally, a prerequisite for an efficient statistical system is an efficient arrangement for record-keeping. Even if the system of compilation of statistics is reformed towards greater reliance on return figures, it will not be possible to collect information on all items which might possibly be required for a specific purpose. That would make the return forms unduly lengthy and the task of compilation unmanageable. It is worth noting that even in advanced countries like the United States where the tax statistics give detailed information on many points relevant for research and analysis (e.g., the return costs of allowances and reliefs), there are a fairly large number of items on which no estimates are furnished. There is no way of gathering information on such items except possibly through sample surveys. Proper maintenance of records is essential if such surveys are to be carried out. Efficient record-keeping and documentation is also required if selection is to be made in a scientific manner for scrutinising accounts of assessments

completed under the summary scheme. Such selection is indispensable if the summary assessment scheme is to operate successfully without opening up scope for abuse. It may be worth noting that the practice followed in the USA for picking up cases for "audit" (i.e., scrutinising) is based on scientific sampling.

Proposed MIS For Tax Administration

The existing flow of data is virtually unsupported by any statistical information system. It is therefore important to develop a system which seeks to recognise and circumvent the constraints outlined in the preceding section. The requisite system could be on the lines suggested below.

First, it is essential to the building up of Management Information System that the data collection systems and the related systems of conducting surveys, etc. are brought under the control of a single authority. The Directors of different taxes have to make more effective use of the data.

It is important to initiate and effect structural changes at the Headquarters Organisation relating to Research and Statistics. Presently, there is a Directorate of "Planning and Statistics". Its Director's functions and activities are said to include: (1) Empirically examining representations and suggestions to amend tax laws and enforcement procedures with a view to assessing their impact on the tax yield; (2) Analysing and empirically examining budget proposals/tax proposals with a view to estimating their effects on the tax yield and the economic policy; (3) To plan and evaluate development projects; (4) To make/execute plans for the offices of the Minister in the regions and districts throughout the country; (5) To prepare ordinary budget and development budget; (6) To conduct correspondence with international agencies in order to get educational and material assistance; (7) To coordinate different projects; (8) To coordinate with the Ministry of National Planning; (9) Developing and maintaining proper Management

Information System for the Ministry of Finance and Revenue; (10) To prepare annual report of the various aspects of the Ministry with the help of other departments of the Ministry; (11) To analyse and make recommendations on problems identified in collection of revenue; (12) To prepare an annual plan for the Ministry; and (13) To assist training programmes conducted for the Ministry of Finance and Revenue by the Ministry of Education.

The wide range of the functions and duties of the Planning and Statistics wing at the Headquarters, as outlined above, shows that the Directorate is entrusted with enormous responsibilities without the means of fulfilling them properly with trained personnel. Consequently, there is no output from this Directorate in regard to most of the functions including Management Information System; MIS, in fact, does not exist.

As the need for an information system is becoming increasingly crucial and inevitable, it is recommended that a separate Research and Statistics Wing (RSW) must be established in each of the tax Directorates. It should be headed by a senior official from the Department, and the required support staff should include a fully trained statistician. It is proposed that three such persons be employed for the tax Directorates.

The relationship between the RSW, the computer centre, the districts and the Directors of different taxes, as shown in Exhibit C, would be a two-way linkage. The RSW would send instructions to the districts and get feedback and information. The RSW would have another link with the Director and the districts through computer which would have units related to inputs, processing and data storage functions. The Director and the Director-General would have direct access to the output of the computer for policy making, analysis and sampling for auditing.

For each of the directorates, it would be necessary to have an appropriate computer unit of the capacity to handle its requirements. Hence, there should be one computer for direct taxes, one for indirect taxes and three for customs, the ports being situated at distant locations. It would be necessary to have trained computer personnel for the five computer centres. As three computers would be located at Headquarters (Mogadishu), it would be possible to have one computer specialist (Systems Analyst) for the Headquarters. It would be necessary to have two specialists at the other two locations for customs. Also, requisite trained personnel for data entry and programming have to be employed for each of the computers. In addition, each centre, would call for two persons for entry and one for programming. The total requirement would thus be for 10 persons for data entry and 5 for programming.

The personnel at the higher levels in the RSW should be qualified both in economics and statistics. They should have the competence to get necessary statistics collected and fruitfully analyse the same. The links of the RSW, as presented in Exhibits C and D, would be properly used only when in each of these districts one statistical assistant is employed to work exclusively for the RSW and the computer centre⁹. This would be essential to maintain a regular and timely flow of data from the units to the computer centre, the need for which cannot be overemphasised. To enable the RSW to have full

^{9.} Data Flow Diagrams (DFDs - a technique commanly used in the development of Software Systems - could be applied to represent the problem in 'Analysis Phase', before code is developed. The advantage in DFDs is that the activities could be parallelly carried out, which is different from the normal flow charting technique where a top-down hierachy of functions is followed. We could also supper impose DFDs in Exhibit D but it is not necessarily going to add to a better understanding of the Information System, in a big way.

SCHIBIT C

MINISTRY (INANCE: DEPARTMENT OF REVENUE

PROPOSED INFORMATION SYSTEM FOR A TYPICAL TAX DIRECTORATE



PURCHIT SON/86/003

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EXHIBIT D

AN OVERVIEW OFLINKS WITH THE INPUTS AND PROCESSING SYSTEM



control over the functioning of the statistical assistants in different districts, these persons must be in the service of the RSW only, that is, the service file of these persons would be with the Dy.Director Research and Statistics, and the transfer of these persons would be done (only with the consent of the Dy. Director) by the Head of the RSW.

The RSW would, on the one hand, be collecting, collating and compiling data with the help of the proposed system, but on the other would also be conducting surveys to obtain specific information about any special group of commodities or persons. This would be helpful to policy-makers in getting afeel of the effects of tax policies on revenue as well on the economy. It would help the administration to estimate extent of evasion as well as avoidance of the tax. The RSW would have to coordinate the statistical work between the districts and the computer, on the one hand, and the Director and the Computer on the other hand. Changes in the format for collecting data, and in the forms and returns used by the Headquarters as well as districts, would be influenced by the requirements of the RSW. With the availability of the proposed manpower, this wing would not only be able to get requisite information but also be able to empirically analyse the impact of governmental policies on different sectors of the economy. In addition to the requirement of staff for the establishment of RSW, statistical staff have to be employed in each of the districts; at least one such person would be required.

It is important to make some changes in the system of documentation. The submission of a monthly return by each taxpayer is a normal requirement. In addition to securing regular flow of revenue to the Government, this provision is useful for maintaining up-to-date monthly data on certain aspects of operation of taxes. However, some changes in the system are called for. Although the monthly return would be submitted by the taxpayer, as is the case today, to the district office, an interaction between the office and the computer centre would, however, be necessary. With this in mind, the return should include a summary form to be sent to the computer centre. The summary form should contain the following information: (i) name and the code of the taxpayer, (ii) address of the taxpayer, (iii) income/turnover or output/import (as the case may be), (iv) taxable income/turnover etc, (v) tax paid, (vi) detailed information on (iii), (iv), and (v) above. A revised monthly return would include a section containing the above information. The district office would compare the entries of the amount of tax paid and endorse the same and forward this portion to the computer centre.

The flow of information could be used in two ways: First, entries would be made in the master file of the taxpayer. Second, the computer would indicate the files of those taxpayers who have either not paid the tax or have not submitted the return to the district office. The computer centre would then issue reminders directly to the taxpayer.¹⁰

Presently, there is no prescribed annual return for most of the taxes. It would be a useful practice to make a beginning in this direction. This return not only allows dealers to make necessary changes in the statements made in the monthly returns, but would also be a source of much needed statistical information. The return should contain the following information:

- (1) Gross income/turnover or import/output,
- (2) Deductions,
- (3) Sales/output/import of tax free goods,
- (4) Exports,
- (5) Taxable income/turnover or output/import; and
- (6) Amount of tax paid.

10. It is a recognised fact that the failure of the Department to promptly handle delinquents is a major factor in delays in realising revenue. Experience has shown that about 20 per cent of the dealers are usually delinquent. The reminders from the computer centre would reduce the rate of delinquency.

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It would be further useful if a few select commodities that are important from the point of tax yield are earmarked for detailed commoditywise information in regard to the items enumerated above.

The proposed annual return should be submitted in duplicate by the taxpayer. The duplicate copy of the return should be sent by the district office to the computer centre.

In addition to abstracting statistics from the return, it is important to collect some information after the assessments have been completed. To collect such information, a new proforma is required to be devised separately for each tax. This proforma should be sent by the district office to the computer centre, giving further details about the assessment of a dealer as and when the assessment is completed. This should include information about assessed income/turnover or output/import, assessed gross and net of these items, assessed tax amount, etc.

As it is important to consider the taxpayer as the basic unit for analysing the tax data, a system needs to be developed for registration. Therefore, a Master File should be prepared in the computer for each taxpayer with some permanent alphanumeric index number, on the lines giving below:

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i	i		i	i		i	i

The first box (\$) would refer to the type of tax being paid by a taxpayer, that is to say, all the income taxpayers have one code number and the other taxpayers should have a distinctly separate code as follows:

Business Income Tax	=	A
Property Tax	=	В
Employment Tax	=	С

Along these lines there could be a serial number for all taxes. The second box (#) would refer to the region (viz., Mogadishu as 11, and Barou as 22 etc). The third box (@) would represent the unit of administration, i.e., the code of the district, the fourth(*) would refer to the type of activity (viz., manufacturer (M), wholesaler (W), retailer (R), importer (I), hotel-restaurant (H) etc). Finally, the box (**) would be the index number of the taxpayer. As this file would be maintained in the computer, the information on taxpayers, as they are registered, and on any changes in districts/regions would be regularly sent to the computer centre by the concerned districts.

Information on various aspects of each of the taxpayers would be fed into the Master File of the computer. This has to be done at regular intervals. Since the computer centre would have no operational control over taxpayers, the information has to be sent from the unit to the centre. An important task of the MIS is to work out an arrangement that would ensure the flow of information at fairly frequent intervals. Such an arrangement would call for some changes in the present documentation, content and periodicity of return and also in certain aspects of the operations of each of the taxes.

The proposed information system assumes three types of returns: Monthly, Quarterly and Annual. These returns would be submitted to the district office for further transmission to the computer centre. Also, additional information would be sent by the district offices on new taxpayers (registrations), completed assessments (when assessment is different from return), arrears of tax and of assessments, etc.

Specification of Outputs

The above system would generate the first important output relating to general characteristics of the taxpayers. The output should contain information for each of the taxes as follows:

For Taxes on Income and Property:

- (i) Number of taxpayers at the beginning of the year;
- (ii) New taxpayers added during the year;
- (iii) Number of taxpayers becoming non-taxpayer (cancellations);
- (iv) Number of taxpayers at the end of the year;
- (v) Distribution of taxpayers by region and district;
- (vi) Distribution of taxpayers by type of ownership (viz., partnership firm, private company, public limited company, government company, etc.);
- (vii) Distribution of taxpayers by income, property and number of employees; and
- (viii) Distribution of taxpayers according to effective rate of tax.

For Import and Export Duties:

- (i) Bills of entry for importation status report, outstanding B/E;
 notice to be issued for B/E not filed;
- (ii) Short-landing and short-delivery reports;
- (iii) Daily collection classified by commodities imported and by import duty rates;
- (iv) Duty-free import by type of importers;
- (v) Penalty for various delays;
- (vi) Assessment report and its effect on tax collection;
- (vii) Valuation of imports and update with international market;
- (viii) Status report on shipping bills; and
 - (ix) Commoditywise and tariffwise yield from export duty.

For Other Taxes on Commodities and Services:

- (i) Number of dealers at the beginning of the year;
- (ii) Number of new dealers added during the year (new registrations);
- (iii) Number of registrations cancelled during the year;
- (iv) Number of registered dealers active at the end of the year;
- (v) Number of total dealers at the end of the year;
- (vi) Distribution of dealers by region and district;
- (vii) Distribution of dealers by type of business, viz., manufacturer, importer, wholesaler, retailer, hotel-restaurant, etc.;
- (viii) Distribution of dealers by type of ownership, viz., proprietorship, firm, company, etc.;
 - (ix) Distribution of manufacturers by output, value-added and employment;
 - (x) Revenue/Production/Clearance statistics at region/district level;
 - (xi) Analysis of revenue from excise by commodities and rate of tax;
- (xii) Industrywise analysis of use of input and relationship with imports and clearances; and
- (xiii) Distribution of other dealers by turnover, preferably by turnover of a few select commodities.

For All Taxes

An important output for all taxpayers relates to the assessment record. It should contain information about the assessments pending at the beginning of the year, assessments completed during the year, and arrears of assessment at the end of the year.

Arrears of tax revenue should constitute next output. In fact, the computer output should enable to tell the Director to read off the age of pending assessment cases and of pending tax arrears. This information should be made available by districts. Finally, taxpayers falling below the turnover of So.Sh. 2,000,000 should be excluded for full assessment. The computer could select 10 per cent of the dealers every year on a sample basis for full assessment. Sampling method could be adapted according to the available statistics.

Conclusion

The outputs specified in the preceding section are user-oriented. These could be changed according to requirements. In fact, the decision-maker, not the system designer, defines and uses information. Hence, it is extremely important for users of an information system to be aware of the various types of information and to think about how they interpret that information.

The suggested framework for an information system for tax administration is a conceptual model. It enables one to understand and communicate about the system. Also, it facilitates future discussions about different types of decisions and information requirements. The model takes note of the prevailing constraints and aims at understanding the impact of the organisational and operational effects of the system.

The proposed information system is thus a set of organised procedures that, when executed, provides information to support decision-making and proper administrative control in the Department. It is certainly not necessary that the information system ought to be computer-based. But the objectives of information system are fully achieved only when we are able to generate better and accurate result quickly on time. This could be achieved through automation only. The chances of errors in the manual system will be many times more than that of automated system. We should therefore, think of an automated information system considering the proven higher efficiency of a computer-based information system. However, considering particular condition of a country it is possible to have an admixture of the two systems. The proposed rational admixture in partially adopting computers for the information system could surely facilitate effective use of information technology in the tax administration of all developing countries, such as Somalia.

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