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A Computerized System to Administer the Goods and Services Tax for Sri Lanka

by

R.A.S.P. Ranaweera

Dissertation submitted to the Department of Mathematics of the University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka as a partial fulfilment of the requirements for the postgraduate Diploma in Industrial Mathematics.

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Declaration

I hereby declare that the project contexts for "Goods and Services Tax Computerized System" is developed by me.

.....
R.A.S.P. Ranaweera

Certification by the chief supervisor.

.....
Mr. H.L. Premaratne
Principal Supervisor

.....
Dr. Sunethra Weerakoon
Supervisor

.....
Dr. G.K. Watugala
Supervisor

PREFACE

The Inland Revenue Department administers several Taxes at present. One of the main taxes among these is the Goods and Services Tax (GST). Due to the absence of a foolproof, easily retrievable management information system, there is much confusion among taxpayers as well as in the Inland Revenue Department.

The general objective of this work would be to analyze the Goods and Services Tax act and to prepare a computerized system to meet the needs of both the Department of Inland Revenue and the Taxpayers in the administration of the GST system.

Therefore, we study the GST tax act and identify user requirements according to the act. On the basis of their requirements, we design the screen format which has to be used both by the Department of Inland Revenue as well as by the Taxpayers. According to this screen formats we develop the data flow process. Finally, we prepare a database consisting of 10 main tables with which the Inland Revenue Department can administrate the GST easily.

Abbreviations

GST	-	Goods and Services Tax
IRD	-	Department of Inland Revenue
CGIR	-	Commissioner General of Inland Revenue
DFD	-	Data Flow Diagram
TT	-	Turnover Tax
BOI	-	Board of Investment
RS	-	Sri Lankan Repees
		(All income/expenditure are given in Sri Lankan Rupees)

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Schedule	L -	Output Reports
Schedule	M -	Monthly Report

CHAPTER - 1

INTRODUCTION

1.1 An Overview

Government Implemented the Goods and Services Tax Act No. 34 of 1996 and it is now in operation with effect from the 1st of April 1998.

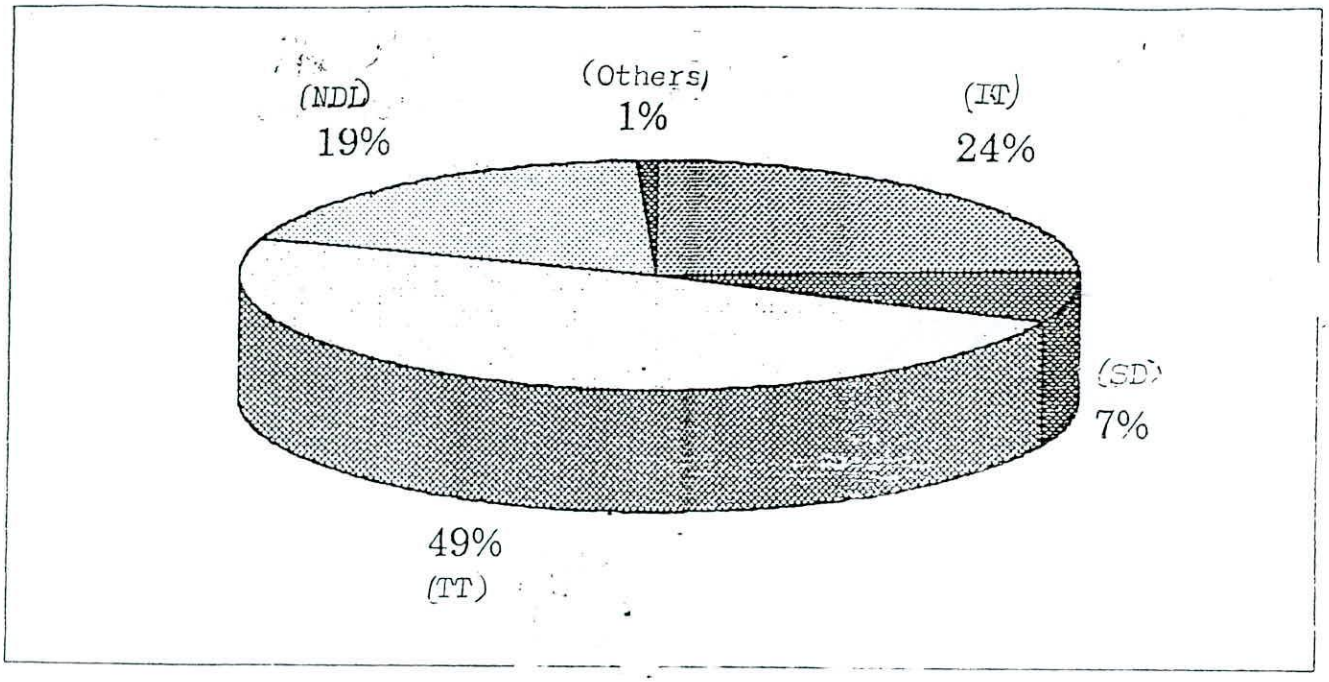
The Department of Inland Revenue is required to administor it smoothly & successfully, and therefore has decided to computerize the system. Through this project it is intended to generate a smoothly functioning computerized system.

1.2 Present status of the IRD

The IRD comes under the supervision of the Finance Ministry. The Head of the Department is the Commissioner General of Inland Revenue (CGIR). There are ten commissioners under the CGIR. The IRD administrates several taxes at present.

These are
1. Income Tax
2. Turnover Tax
3. Goods and Services Tax (GST)
4. Defence levy
5. Save the nation contribution fund
6. Stamp duty

According to the Administration Report of the Commissioner General of Inland Revenue for the year of 1997 the composition of the tax collections is illustrated by the chart given below.



1.3 Introduction to the Inland Revenue Department

History

The Department of Inland Revenue was established in 1932 under the British Government. It was established under a British Commissioner named Mr. H.K. Huxham for the collection of revenue for the Government. Subsequently with the expansion of the economy the government introduced various other taxes.

For the year 1997 total collection of IRD represents 52% of the total government revenue. 49% of the IRD income were collected from Turnover Tax which now is replaced by the GST. The GST is the most important tax for the government.

1.4 Brief Introduction to Income Tax

Income tax is charged for every year of assessment in respect of the profits and income of a person above a certain level as determined by the Parliament. Year of assessment means a period of 12 months from the 1st of April of a year to the 31st of March of the following year.

For the year of assessment 96/97 the exemption limit is 144,000/- for an individual

Special characteristics of income tax in Sri Lanka

- An indivdiual is required to pay tax under the self assessment scheme. Under this system tax payer has two main obligations

  (1) Returns to be furnished on;
  (2) Tax/penalty to be paid on;
  Or before the due date

- Husband and wife are treated as separate individuals for tax purposes.

- Tax is based only on receipts which can be taxed as income,

  However, the following gains are not considered as the income tax.

  - lottery winnings
  - windfalls

- Peopie liable to pay tax are required to pay tax according to the tax table published by the IRD for each Year of Assessment (Y/A)

eg. Y/A – 96/97

taxable income	tax rate
0 to 35,000	10%
35,000 to 70,000	15%
70,000 to 105,000	25%
105,000 upwards	35%

Importance of these rates is that people having higher income have to pay tax at higher rates.

- Income Tax Act is a very comprehensive and complex one.

1.5 Brief introduction of Trunover Tax (TT)

The government introduced TT in 1963 as a temporary tax. But it was continued due to the high revenue potential.

- Tax obligation

Any person who carried any undertakings in Sri Lanka is requried to pay turnover tax on a quarterly basis if his/her turnover exceeded 25,000/- per quarter as of 1963.
A quarter means a 3 month period for each year ending on the last day of the months of March, June, September and December.

eg. 1st quarter for any year means;
period from the 1st of January to the 31st of March

If the turnover exceeded 5 million per quarter the tax payer had to pay tax on a monthly basis.

But considering the economy of the country the government decided to exempt some goods and undertakings which have indirectly made the calculation of tax cumbersome and complex both for the IRD and the customer/client.

eg. Books, bread, medical drugs, tea, pepar sacks and manufactured goods are exempted.

Under the TT there were several tax rates according to the nature of the business done.

From the 1st of April 1998 GST has been implemented by the government exception for the financial services as a replacement of Turnover Tax.
After studying the tax structure of other countries the government decided to introduce GST. GST is a value added tax taken at one point. This was something new to the Sri Lankan tax payer leading to confusion both at

IRD level and to the client. This calls for a computerised data base management system and software development.

1.6 Statement of the Problem

GST is introduced under the GST Act No. 34 of 1996. The Department of Inland Revenue Administers the GST. It was implemented from April 01, 1998.

GST is a tax on consumption or spending. The tax is borne by the final consumer of goods and services, because it is included in the price paid. It is not a tax on the seller of the goods of the provider of the services. He simply collects GST on behalf of the Government.

This has led to much confusion among tax payers as well as the IRD due to the absence of a foolproof, easily retrievable management information system. This was due to the fact that the GST was a complete departure from the earlier system. Further the increase in the number and interaction with the client needed a computerised system that will be efficient and foolproof because otherwise it will loose face in the eyes of the Tax Payer. The present attempt is to fill this vacuum. There have been complaints from taxpayers and objections have been raised in Parliament both by the government and the opposition to revert to the earlier system because of the fact that much misunderstanding has taken place due to the absence of a foolproof system that addresses the needs of the client, and other stakeholders. What is needed here is to have a database, a system of computation and a operation system that allows stakeholders to obtain the necessary information on GST.

This task has not been easy as the Department did not have a computer software programme to retrieve necessary data quickly and accurately.

1.7 Objectives of the Project

The objectives of the project are as follows.

1. Study of the Goods and Services Tax Act
2. Identify the stakeholders and their requirements
3. Analyse and construct the work flow process and decide on the design requirements
4. Identify the entities and the relationship among the entities
5. Design a system to meet their requirements

1.8 Scope of the Project

The scope of the project is to study the newly introduced GST Act and determine the requirements of the officials of the IRD to execute the GST and to establish a computerized database system for efficient administration of the GST at national and sub national levels.

1.9 Method and implementation procedures

- Identifying the requirements of the Government in terms of the GST Act.
- Interviewing the Department officers
- Making reference to the documents, manuals, forms issued by the GST unit.