PRACTICAL TRAINING

REPORT

by: Zaiton Mohd Salleh

PRACTICAL TRAINING

REPORT

at

THE COMPUTER CENTRE

MARA INSTITUTE OF TECHNOLOGY

SHAH ALAM

SELANGOR

by

Zaiton Mohd Salleh

Diploma in Computer Science

Year 3 Part V6

PREFACE

As part of the curriculum of the course in Diploma in Conputer Science, students in their final year are required to undergo a 3-months practical training at various places either in privatee firms, quasi-government firms, government agencies or institutions of higher learning.

One of the main objectives of the training is to provide the students actual working environment, exposing them to computer applications in various fields. This report was written after I did my my practical training at the Computer Centre, Mara Institute of Technology in Shah Alam. This report relates the work (assignments) I did during the training, in collaboration with my working partner, Mohd Ghazali Husin who provide his part of the assignment.

Mara Institute of Technology Shah Alam Selangor Zaiton Mohd Salleh 12th April 1978

ACKNOWLEDGEMENTS

Firstly, I would like to thank Encik Nassir Lanjong, Head School of Mathematical Sciences and Computing and Puan Normah Darby, Statistical Officer, Statistical Centre of ITM for providing me a practical training place at the Computer Centre ITM.

I also would like to thank the Following people who have helped us (Mohd Ghazali Husin and myself) during our training:

En. Azizi Ngah Tasir

- Coordinator

En. Azmin Mattersha

- Assistant Coordinator

En. Kamaruddin Shaarani

- Supervisor

I would also like to express my gratitude to En. Ahmad Fisal Abdul Rahman, Bursar ITM for trusting us in allowing us to do a feasibility study of the Accounting System of the Finance Department. Also, To all the staff of the Finance Department who have gladly provide us with information during the study carried out and to all the various people who have helped us, in one way or another, in making this practical training an unforgetable experience for both of us.

Thank you and may Allah bless you all.

Zaiton Mohd Salleh

CONTENTS

L	
1	INTRODUCTION
	1.1 The Computer Centre2
2	COMPUTER CONEIGURATION
	2.1 Background
	2.2 DP Equipment
3	ASSIGNMENT PROPER
4	
	4.1 Objectives of the assignment
	4.2 The Organization set—up of the Finance Department7 4.3 The Current System
	4.4 Standards8
	4.5 Documentation and Filing;
	4.6 Machines
	4.7 Observations on Methods Employed11
	4.8 Shortcomings and Drawbacks
	4.9 Conclusion
_	
5	4
	5.1 Request for Purchase
	5.2 Report of Investigation
	5.3 Recommendations
	5.4 Form Design
	5.5 Processes and Procedures
	5.6 Procedures in filling the form
6	BILLS AND PAYMENTS SECTION
	6.1 Current System32
	6.2 Observation on Current Method used
	6.3 Remarks36
	6.4 Recommendations

· ·		
7	ACCOUNTS SECTION (CHEQUE PREPARATION SECTION)	
	7.1 Process Procedures	4
	7.2 Current System41	
	7.3 Observation on Current System43	
8	ACCOUNTS SECTION	
	8.1 The Current System46	
	8.2 Observations51	,
9	SUMMARY	
	9.1 Summary of interviews with the user/requesting department53	a
	9.2 Remarks54	
	9.4 General Comments and Observation on present system54	
10	REMARKS ON THE PRACTICAL TRAINING EXERCISE57	
	APPENDICES	
*		
h		

1 INTRODUCTION

The Computer Centre was set up to cater for students of the Diploma in Computer Science. Later, it was utilised by students from other schools in ITM such as School of Accountancy, School of Engeering and School of Architecture. Although the Centre can function independently, it has to be under the jurisdiction of School of Mathematical Sciences and Computing for a smooth and effective management of the Centre. The Figure 1.1 shows the organization set—up of the School of Mathematical Sciences and Computing and the position of the Computer Centre in the set—up.

The organization indicates that the Coordinator has to report directly to the Head of School. This is necessary since one of the main objectives of the setting-up of the Computer Centre is to fulfil the needs of the students of the School particularly in programming techniques and computer applications.

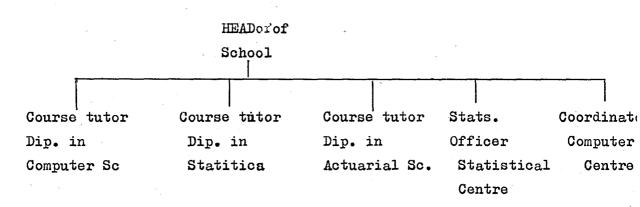


Figure 1.1 Organization set-up

1.1 The Computer Centre

The Computer Centre has a relatively small number of personnel although its workload is heavy. The number of staff will gradually be increased in the near future to meet with increasing workload. Figure 1.2 shows the organization set—up of the Computer Centre.

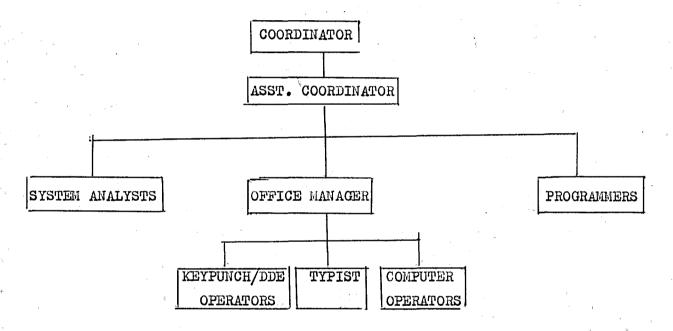


Figure 1.2 Organization set-up of Computer Centre

Presently, the staff of the Computer Centre is made up of;

- 1 Coordinator
- 1 Assistant Coordinator
- 2 System Analysts (one on secondment to Bahagian Akademik)
- 3 Programmers
- 3 Keypunch/DDE Operators
- 4 Computer Opertators
- 1 Typist

2 COMPUTER CONFIGURATION

2.1 Background

Prior to the installation of the ICL 2904 computer system, the Computer Centre was using the NOVA 1220 and IBM 360/20. When the new computer system was installed in September 1977, the lease on IBM 360/20 machne was discontinued. The NOVA 1220 is no longer fully utilised and is only made full use by the final year Computer Science students to run their program assignments.

2.2 DP Equipment

2.2.1 Model of computer

The new system is an ICL 2904 model and the operating system is Executive 2. The system has a memory size of 132k. The hardware has an access time per word of 570 nanosecond.

2.2.2 Central Processing Unit

The C.P.U. consists of a unit made up of 48K and 84K processor. The word size is 4 characters or 24 bits.

2.2.3 Disk and Disk Drives

Each Disk pack has a capacity of 200 mega-bytes and each module has 406 cylinders. The average acces time is 62.5 ms and average latency time is 10 ms. The average seek time is 25 ms.

2.2.4 Magnetic Tape and Tape Drives

The magnetic tape is a 9-track tape and has a recording density of 800 bytes/inch and 1800 bytes/inch. The tape speed is 37 inch/sec and the start-stop time is 17 ms.

2.2.5 Terminals

There are 14 terminals. Each terminal screen has a display format of 80 characters per line and 25 lines per screen.

2.2.6 Line Printers

There are 2 line printers, capable of speeds of 300 lines per minute and 1200 lines per minute and has 2 print positions of 132 and 160 characters per line.

2.2.7 Card Readers

There are 3 card readers; 2 of them has a speed of 300 cards per minute of an 80-column card and the other a speed of 1200 cards per minute.

2.2.8 Type of other data entry equipment

One type of data entry utilised is the Direct Data Entry.

There are 5 DDE keystations placed around the Computer Centre.

2.2.9 Compilers

The system is capable of compiling programs in FORTRAN? COBOL, ALGOL, BASIC and RPG II.

3 ASSIGNMENT PROPER

Both of us, Mohd Ghazali and me, was assigned to study the Accounting System of ITM. We were first briefed by the Bursar, Encik Ahmad Fisal of the present Accounting System and he also point out his objectives for conducting the study.

The assignment report is divided into 3 parts. Part I is an overview of the Accounts Information System of which both of us draw up after a series of interviews with various people. After the overview, we split up to do further detail study. Part II is the report on what I had investigated of the Purchasing Section. Part III is the report drawn up by Mohd Ghazali and it has been included to provide continuity to the whole report on the Accounting Information System.

PART I

AN OVERVIEW OF THE ACCOUNTS INFORMATION SYSTEM

Ъу

MOHD GHAZALI HUSIN and ZAITON MOHD SALLEH

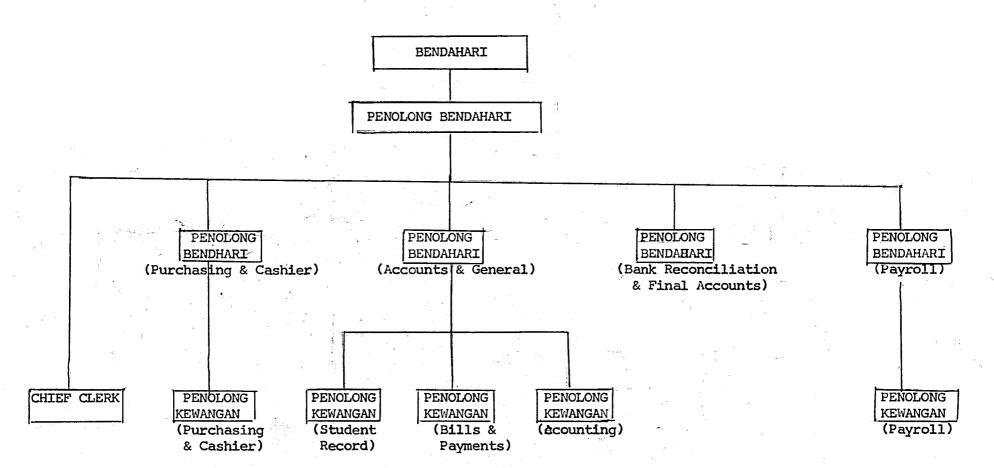
4 AN OVERVIEW OF THE ACCOUNTS INFORMATION SYSTEM

4.1 Objectives of the assignment

- (I) To study the present accounting system of the Finance Department of ITM
 - (i) To carry out an investigation of its activities by:
 - a) observations
 - b) interviews
 - c) collection of documents
 - (ii) From the investigation, to identify where possible the existence of the shortcomings and drawbacks in the system.
 - - a) simplification of methods and procedures
 - b) form designs
 - c) eliminate duplication of work
 - d) recommend new work flows
- (II) Draw up a report of the study carried out and make a conclusion from it.

INSTITIUT TEKNOLOGI MARA

BAHAGIAN KEWANGAN



4.2 The organisation set-up of the Finance Department

The Finance Department is headed by the Bendahari.He is supported in his daily tasks by the following staff and personnel under him:

- 1 Timbalan Bendahari
- 4 Penolong Bendahari
- 6 Penolong Kewangan
- 1 Ketua Kerani
- 2 Jurutrengkas
- 41 Kerani
- 10 Jurutaip
 - 2 Mesyin Operator
 - 2 Budak Pejabat

The main objective of the Finance Department is not stated in any document or the manual in the care of the Finance Department but the job descriptions of every head of sections are sufficiently mentioned. However, not all details of each job description were laid down in the manual, 'Buku Panduan Bahagian Kewangan '.

Each sub-section of the Finance Department is headed by a Penolong Bendahari. The sub-sections are :

- i) Purchasing & Cashier
- ii) Accounts & General
- iii) Bank Reconcialition & Final Accounts
 - iv) Payroll

4.3 The Current System

The current practice of expediting the work in this department is mainly by means of the manual procedures and to a certain extent by mere rule-of-the-thumb method. Each document has to undergo numerous processes of certifying and verifying. This invariably consumes a lot of working time and this mean that the personnel are tied down with routines and consequent delay in the overall system.

An example of such document is the Local Purchase Order form which is received in 4 copies. This form requires 3 different people to scrutinise its validity of contents as to its description, q uantity, price, amount and code had headings. Reasons given are the possibilities of human errors whether intentional or otherwise.

With the exception of the Payroll Section and the Accounts and General Section, the rest of the department is still doing their work manually. Where computations are involved, they have the accessibility of adding machines.

4.4 Standards

A fair amount of 'standardization' is being practised in this department. Forms designs appear to have clear instructions but there is an apparent lack of understanding on the part of the users.

Complacency and lack of communications between the department and the users are the contributing factors. There is also a lack of proper standards instructions given to the users relating to proper filling of forms, timing of sending the invoices, work completion certificates?

good receiving notes and other enquiries. A collour coding for various forms are also used to denote their functions, but it is not compulsory,

eg. Red denotes expenditure Blue denotes income

On the users part no form of standard is imposed and no uniformity in recording is required. Each individual user thus has his/her own method of recordikeeping, which seemingly are not very helpful to the Finance Department and at the same time the Department is unaware of the existence of such records.

4.5 Documentation and Filing

Most sections of the Finance Department is required to produce one form of report or another periodically; that is, monthly, yearly etc.

Sections	Frequency of report	
1. Cashier	Daily	
2. Bank Reconciliation and		
Final Accounts	Monthly, Semiannually,	
	Annually	
3. Accounts and General	Monthly	
4. Payroll	Monthly	

Forms and documents when duely processed are finally kept in files in the Finance Department. Due to the volume of the files kept and the

limted space of the filing room, these files are moved to the store room before the financial year has ended. During the auditing period, file location is practically inaccessible as the files are not sorted in proper order when transferred to the store room. Consequently, this could lead to missing information with far reaching effects on account catergories.

During processing documents(for example, for payments to suppliers), these documents are temporarily filed in chronological order. If one of the documents is removed and no indiaction is stated in its place, then the next process cannot proceed. An example of such occurrences is during the preparation, that is, coding of the source documents into record format for computer processing.

The Salary and Preparation of Accounts Sections have their monthly processed reports by the computer services bureau International Business Machines (IBM) in Petaling Jaya.

4.6 Machines

The number of machines used by the Finance Department are as follows:

Adding machines	36
Diskette machines	. 2
Typewriters	10
Cash Registers	2
Numbering Machines	2

4.7 Observations on Methods Employed

Throughout the preliminary investigation carried out, it was discovered that the personnel follow the manual and rule-of-the-thumb very closely. Flexibility in carrying out the work is very limited and initiative from the lower level is even more noticeably absent. Each section however, upon discovery of difficulties or snags will design a method/s to overcome them; and almost always these are only good for one's own section but not others, for example Payroll Section. This means that deviations from an assigned procedure affects subsequent processes.

Example 1

The Payroll Section faces the problems of doing corrections and amendments manually as and when such requirements are necessary. This gives the general impression of inadequate controls. The actual fact is that alterations are rectified at unpredictable times and no delays should occur in posting them as they involve payments to or from Payroll Section. Thus deductions or additions are made on the payroll report immediately but only entered into the employee's payslips and distributed the following month. This results intthe differnce between the payroll report to the Accounts Section and the reports from the Banks.

Example 2

The Purchasing Section which is responsible for the bulk of the expenditure of ITM has not been able to delete unnecessary or excessive ordering of goods by the users. Generally, the officer-in- charge has the following checks to make on each requisition of the Local Order form:

- (a) Item description
- (b) Quantity
- (c) Price
- (d))Code headings
- (e) Authorised person ma king the order
- (f) Balance of allocation

Inspite of these, the officer-in-charge is unable to ascertain whether a purchase requisition is within its limited funds. The officer-in-charge has no knowledge of the existing balance of allocation of any department because the Vote Ledger is 3 months lagging and the user was not instructed to keep a record of balances in their allocations.

4.8 Shortcomings and drawbacks

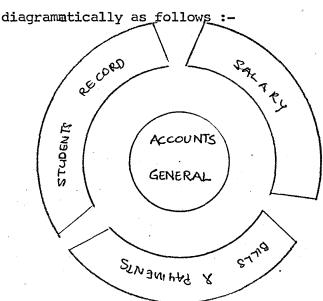
- (1) The Bills and Payments Section cannot enforce users to send in the works completion form or goods receiving notes promptly. This causes delay in payments to the suppliers or contractors.
- (2) Amendments and alterations to the payroll reports are done manually. This causes serious variations during reconciliation.

- (3) 'No cek' are left unfilled on the payroll report. Cheques issued are the are thus not easily traceable. This problem is corrected in the new payroll system presently being developed.
- (4) When cheques are to be posted into the personal accounts of the staff at certain banks, no indication is stated in the report.
- (5) Due to the large volume of Local Purchase Order forms daily, the code numbers are sometimes wrongly filled. Where items cannot be c categorised, these items are coded und er 'miscellaneous items'. This causes serious problems during reconciliation and auditing.
- (6) The requisition (Local Purchase Order) Form submitted by the users are sometimes in-adeq uately filled or item description is insufficient. This poses the problem during code filling and also during entering the transactions into the various accounts concerned.
- (7) The Vote Ledger and the General Ledger are not up-to-date and the ledgers could arrive as alte as 3 months later.

The main drawback of the present system is that the Bendahari is unable to obtain as accurately and as up-to-date the balance of accounts of ITM funds. The Bendahari's office is only able to know the year-to-date amount of expenditure and balance of funds nearly 3 months later. Thus the Bendahari is unable to utilise fully the funds of ITM.

4.9 Conclusion

- 1) From the above findings, it cam be concluded that the most essential output required of the Finance Department is to produce an up-to-date information of the Vote Ledger and General Ledger. It is also fecommended that a further investigation be carried out in the following areas:
 - i) Salary Section
 - ii) Bills and Payments Section
 - iii) Purchasing Section
 - iv) Cashier
 - v) Preparation of Accounts Section
 - vi) Some of the user departments
- 2) It is possible taht certain sections of the department could be computerised. The computerised system can be represented



The Accounts General Section is the nucleus of the whole system. The Students Record, Salary, Bills and Payments and Purchasing Sections are the sub-systems of the whole system.

Presently, the Students and Salary Sections are partly computerised.

With some modifications, both sections could be incorporated to be sub-systems of the Accounts Information System. The other sections,

Bills and Payments and Purchasing, will be required to be computerised.

Since this section is a major sub-system of the nuckeus, that is the Accounts Section, then a thorough investigation needs to be done before the sub-system can be designed. Other factors that contribute to this sub-system such as mentioned in 9(1) needs also to be further investigated to fully justify the proposed system.

PART II

PURCHASING SECTION

bу

Zaiton Mohd Salleh

5 PURCHASING SECTION

5.1 Req uest for Purchase

5.1.1 Filling in the Local Purchase Order

User Department

- Originator 1. Fills in the name and address of suggested supplier.
 - 2. Enters date of filling form.
 - 3. Enters serial number to indicate the number of different items ordered.
 - 4. Enters detail description of each item.
 - 5. Enters quantity of the item to be ordered.
 - 6..Quote the price per unit.

 (for example, \$1.20 each, \$154/1000, \$75/set, etc)
 - 7. Enters extended price by multiplying price per unit with q uantity ordered.
 - 8. Enters total price of alltitemsng price
 - 9. Indicate if goods/services are to be delivered/
 completed before a certain date.
 - 10. Indicate where goods/services are to be delivered/ rendered.
 - 11. If goods/services ordered are from a contract supplier, enters contract number. Otherwise left blank.

^{1.} See Appendix 1A.

Head of 12. Obtain signature and stamp chop of department or that Department of an authorised person.

5.1.2 Process Procedures 2

Finance Department.

Clerk

- 1. Check supplier's name. If new supplier, must be accompanied by a price list.
 If not request one from originator.
- 2. Provide allocation & department codes.
- 3. Check for computation. Any amendments, inform the Purchasing Officer.

Purchasing Officer

- 4. Examine Local Order. Reject if
 - i) unnecessary orders.
- or ii) budget allocation is exhausted

 Rejected requests are returned to originator.
 - 5. Check for details.
- 6a. All details correct, approve and initialise.
- 6b. If details not correct, check whether amendments to be made.
- 7a. If too many amendments, return Local Order forms to originator department to be cancelled and fill in a new set of Local Order.

^{2 :} See Appendix 1B

- 7b. Make necessary amendments, approve and initialise.
- 8. Retains 1 copy.
- 9. Dedpatch the other 3 copies to originator department.

Originator

10. File one copy

department

11. Send 2 copies to supplier.

5.1.3 After foods/services have been delivered/rendered Finance Department.

Clerk 12. Receives invoices and original copy from (Bills & Payment supplier.

Section)

13. Receives Goods Receive Note or Works Completion
Form from originator department.

Clerk 14. Receives request from Bills and Payment Section

(Purchasing to extract control copy.

Section)

15. Despatch control copy to Bills and Payment Section.

5.2 Report of Investigation.

5.2.1 Introduction

The main feature observed during the investigation is the lack of communications between the users of the Local Order and the Finance Department, particularly the Purchasing and the Bills and Payments Sections. In the first instance, users are not informed of how to use the Local Order nor is there any form of circulars or user's manual on how to use the Local Ofder form. The users either use common sense or ask people who have used the Local Order in filling them. There is no indication of the goods available from the Central Store and the users know through experience or by enquiring.

The user departments are not required to keep proper stock records and this indicates lack of control since the user departments can order as often as possible. There are some departments that maintain stock records for their own purposes and producess an expenditure report at the end of the year or maintains an expenditure account but of which the Figance Department are not aware of and not informed.

It was found that some user departments are aware of the allocation codes and uses them but some do not bother about those code numbers.

5.2.2 Present System Advantages and Disadvantages.

The present system allows every department to request for purchase from suppliers of their own choice. Usually the department make orders from the same supplier and this breeds familiarity. The supplier will be able to deliver the goods promptly and the user department will hand in the Local Order personally to the supplier. This familiarity might also lead to the fact that the department can make orders and send in the Goods Receive Notes to the Finance Department but instead the goods were not delivered at all.

When departments can shoose any supplier, they will have preference for certain suppliers and thus different departments can be ordering the same goods from different suppliers at different prices. The department can place unnecessary orders since no proper stock record is maintained. As the budget have been allocated for these items, some departments will place orders until the allocation has been exhausted although this might create a stockpile of goods. There is also the possibility that the goods might be used for individual purposes.

The main advantage of the present system is that the major workload of purchasing is borne by the user departments. The Purchasing Section has only to check and approve the

Local Order whilst the various user departments have to fill in the Local Order, find their own suppliers, make the orders a and received the goods.

5.2.3 Comments

It is of great interest to note that about 40 Local Orders are received daily by the Purchasing Section while the Bills & Payments Section processes about 25 invoices daily. On investigation, it was found that the user departments have not send in the Goods Receive Note although goods have been delivered and the Bills and Payments Section have already received the invoices from the suppliers. There have also been instances when payments cannot be made as the invoices sedd in by the suppliers are not accompanied by the original copy of the Local Order. Due to these reasons, some accounts are outstanding for many months asppayments cannot be made unless all these documents; the Goods Receive Note. The original copy of the Local Order and the invoice have been received.

It is also noticed that the clerk in the Purchasing Section provides the allocation code and this is checked by the Penblong Bendahari for Purchasing. Sometimes, the Bills and Payments Section finds that the allocation is wrongly coded. This indicates

slackness on the part of the Purchasing Section.

The Purshasing Section is also required to check the vote allocation for every Local Order. This is to check that the budget allocatednfor particular items have not been exhausted or overspent. Presently, this is impossible as the Vote Ledger report is 3 months lagging.

5.3 Recommendations

- 1. First of all, the users must be informed of the importance of the role they play in effective use of the budget allocated in achieving the objectives of ITM fully, and in keeping in line with its policies and how they can help in relieving and expediting the workload of the Finance Department.
- 2 . A user's manual must be produced to provide a means of refer
 "Ind" whenever in doubt in filling the Local Order. It must also
 indicate what goods are available from the Central Store. This
 manual will also help a person who has been newly appointed or
 authorised to make Local Orders. Circulars or notices must be
 produced from time to time and circulated to all departments
 and staff concerned; informing of any new amendments or developments
 in the processes and procedures of the Fina nce Department.

- 3. It mist be pointed out to the user departments that the Goods Receive Notes that are promptly delivered will expedite the work of the Finance Department in processing payments. Actions should be taken against departments who send in the Goods Receive Note late. Such actions could be; not approving the next Local Order unless the last Goods Receive Note/s have been submitted.
- 4. The miser departments should be required to maintain a form of stock record and this record should be checked regularly. A yearly report of stock-in-hand should be produced for auditing purposes and to keep track of ITM assets in every department.
- 5. The present Local Order forms should be redesigned to allocate the following:
 - i) a unique number to identify the form from other forms utilised by the Finance Department.
 - ii) an indication of the supplier's copy, control copy, original copy and buff copy,
 - iii) clear instructions must be stated so that they would not be overlooked by the suppliers.
 - iv) all forms used in the Finance Department should have standard size/s.
- 6. The staff must be properly trained in their working capacity to cut down errors committed and produce effective work habits that

are efficiently carried out. A manual must be produced indicating detail job descriptions, procedures, amount of responsibility and degree of authority delegated to each worker. This manua 1 will also help a new employee of the procedures and the work he or she has to do.

7. The Vote Ledger which is an important control in approving the Local Order, can be produced up-to-date. The Purchasing Section processes about 40 Local Orders daily or approximately 200-250 weekly. It will be more efficient to computerise this Section whereby the data is keyed-in at this stage daily or weekly and entered in an Accounts General file. The Purchasing Officer can obtain the Vote Ledger Information by using a terminal. The computerised sub-system would look as illustrated in Figure 5.1.

5.4 Form Design

1.0

The recommended Local Purchase Order form has been formatted such that it provides a clear and concise picture of the requirements and data necessary both to the user department and the Finance Department, particularly the Purchasing Section. Important data such as the contract number, department and allocation codes, receiving department and also an indication that the invoice should be accompanied by the original copy of the Local Order; are placed

at the top of the form so that these data will not miss the attention of the person/s using or handling the form.

5.4.1 Form description *4

- 1. Firstly, the Finance Department must decide on standard size/s of the forms used in and around the Department. This is for easy filing and whenever different forms are to be clipped together, the forms would be nicely stacked.
- 2. Every form used in the Finance Department must have a letterhead and logo of ITM (see b(i) and b(ii)). Also, forms must bear a name such as 'PESANAN JABATAN' (see b(iii)).
- 3. Forms must have a unique identification number to differentiate between one form from another (see c).
- 4. In the Local Order form each copy of the form (there are 5 copies altogether) must be stated its termination point (see a). That is;
 - i) SALINAN ASAL original copy
 - ii) SALINAN PEMBEKAL supplier's copy
 - iiii) SALINAN KAWALAN control copy
 - iv) SALINAN JABATAN originator's copy
 - v) SALINAN BUKU buff copy

Present copies of the form are coloured differently to differentiate between one copy from another. This method

^{4:} See Appendix 1D

is inefficient since only a person who have handled the Local Order frequently are able to know where each copy is to be sent to its respective termination points. The recommended format of inserting the 'SALINAN.....' besides being self-instructed will also help people handling the Local Order who are colour-blind.

- 5. The Local Order form will also contain a serial number at the top right-hand corner for easy retrieval as well as for identification purposes (see d).
- 6. The box (e) contains:
 - i) NO KONTREK contract number
 - ii) TARIKH date of filling form
 - iii) the receiving department
 - iv) an instruction to the supplier to send in the original copy together with the invoice to the Finance Department.

These data are very important particularly the contract number, the receiving department and the instruction (iv) above, and are therefore placed at such a prominent place so as not to miss the attention of the supplier.

- 7. tThe box (f) consists of:
 - i) KOD JABATAN

- department code
- ii) KOD PERUNTOKAN (KOSONGKAN)- allocation code@left blank)

These information are necessary to the Purchasing Section as well as the Bills and Payments Section. These codes are used as a key for accessing records during computer process.

The allocation code box f(ii) above is to be left blank by the originator department and only filled by Purchasing Section. This practice id to be continued until the Purchasing Section is satisfied the originator departments have been fully educated of the use of the allocation codes according to 'TRANSALATION OF TREASURY CIRCULAR NO 7 OF 1974'. This is to cut down errors in providing the codes. The Purchasing Section must be proficient also in the code allocation so that the Bills and Payments Section do not have any reason to recorrect the codes.

- 8. The description in the present form is stated as 'JENIS BARANG-BARANG' *5. As the Local Order is also used for construction works, it is more appropriate to put 'BUTIRAN' (or DESCRIPTIONS) to cater for order of goods as well as for construction works (see g).
- 9. Contents of the box h are:
 - i) DILULUSKAN signature of approval by the
 Purchasing Officer.
 - ii) TARIKH date of approval.
 - iii) DIREKODKAN date of recording the Local Order

into certain books or when transferring data into computer input.

- iv) TARIKH to indicate the day data was recorded for easy reference.
 - Order form for the Purchasing Officer to record down. If the Local Order is rejected, the Purchasing Officer could provide a short narrative of the reasons for the rejection. Possibly, the Purchasing Officer has to state that although the budget for a particular allocation has been exhausted, the Local Order has been approved as the goods were to be used immediately.

5.5 Processes and Procedures

In the processing of the Local Order at the Finance Department point, the Purchasing Officer and the clerk mostly do checking work and allocation of the various codes, namely the allocation and department codes. The providing of the codes can be done at the originator point if the various departments have been informed of the various codes by use of a handbook or a manual that is to be produced by the Finance Department. Providing of department codes would not pose any problem to the originator department as there is only one code for each department. Where allocation codes are

concerned, the originator department must be fully informed and educated of its usses.

Every beginning of the fiscal year, every department is provided with a budget allocation of all goods and services required within that year. These allocations are classified under various code headings as approved by the Finance Department. It is recommended that whenever the originator department places an order the allocation code of the goods or services ordered or te rendered, be filled in by the originator department by use of this allocation book. This will, of course cut down time in allocating both the department code and the allocation code and the need to recheck them.

The process chart as appeared in Appendix 4B is the present manual system of processing the Local Order. There is no possible way of down any processes or simplifying them. The only way of cutting down delay of processing the Local Order is as recommended above. It is recommended that whenever a Local Oreder is to be sent to the Finance Department, it goes straight to the Purchasing Section instead of having to pass through soem other clerks or office manager. That is, the clerk at the Purchasing Section will receive Local Order forms directly from the originator departments and any other forms or bills related to the Purchasing Section.

5.6 Procedures in filling the form, BORANG KW 8/1

Originator department: 1) Fills in the supplier's name and address.

- 2) If goods ordered are from a contract supplier, please quote contract number.
- 3) Fills in date.
- 4) Fills in receiving department's address.
- 5) Fills in department code.
- 6) Enter serial number of items ordered.
- 7) Enter quantity of item ordered.
- 8) Fill in a detail description of each item ordered.
- 9) Enter price per unit item.
- 10) Enter extended price of each item by multiplying price per unit item with quantity ordered.

Steps (6) tol(10) are to be repeated if there are more than one type of item to be ordered.

- 11) Total price is entered by adding all the amount in the extended price column.
- 12) The delivery due date is entered if necessary.
- 13) The head of department or any other authorised person making the order then approves for request to purchase.

 The department's name is stamped below the signature.

Note to users: Where clauses have an asterisk (*), please delate whichever is inappropriate.

PART III

BILLS AND PAYMENTS SECTION

ACCOUNTS SECTION (PREPARATION OF CHEQUES)

ACCOUNTS SECTION

SUMMARY

bу

Moha Ghazali Husin

6 BILLS AND PAYMENTS SECTION

6.1 Current System

The prerequisite for initial expediting work in this Section is to have every copy of the following documents attached together;

- a. Control copy of Local Order from Purchasing Section.
- b. Invoice/s from the supplier.
- c. Original copy of Local Oreder from the supplier.
- d. Goods REceive Note from the receiveing department.

If either one or all of (a), (b), (c) is/are missing, the respective originators are reminded by telephone or a letter (preprinted format). Upon receiving the above complete documents, a clerk will proceed to examine them for various details. The check includes the following items:

- a. Signature (authorized signature of user departments)
- b. Amount on Local Order and Invoice.
- c. Code numbers.
- d. Address of company of supplier.
- e. Invoice number.
- f. Local Order Number.

During this process, errors are frequently discovered, although they are very minimal in number due to an earlier seru scrutiny at the Purchasing Section. Nevertheless, they still need a fair amount of examination.

The table in Figure 6.1 shows the possible errors discovered at this stage and their methods of rectification.

Type of error

- t: Total amount in the 4 documents do not tally.
 - 2. Computations.
- 3. Code number.

Method of rectification

Choose the one with the lowest amount.

Delete and replace with this amount in the other 3 documents.

Delete and put in the correct value/s.

Delete the error and replace with the correct code number.

Figure 6.1

However, when no errors are discovered by the clerk, he will prepare a voucher in 3, copies (either form A for local purchase items or form B for non-local purchase items), and attach it with the set of documents. When this is done they are now passed to the Financial Assistant for his final scrutiny. At this stage he will almost repeat the same checking as done by the clerk. In addition now he will also has to check the voucher entries. If errors are discovered, the same methods of correction are applied as done by the clerk. However, when they are error-free, for which they should at this stage, the Financial Assistant will sign and approve for payment on all three copies of the vouchers.

Finally, the approved vouchers of payment are now sent to the Bendahari or his designated Penolong Bendahari for counter signature which concludes the actual process of the Bills and Payments Section. These completed documents which now comprise of the following sets of documents are sent to the Final Accounts Section for further action.

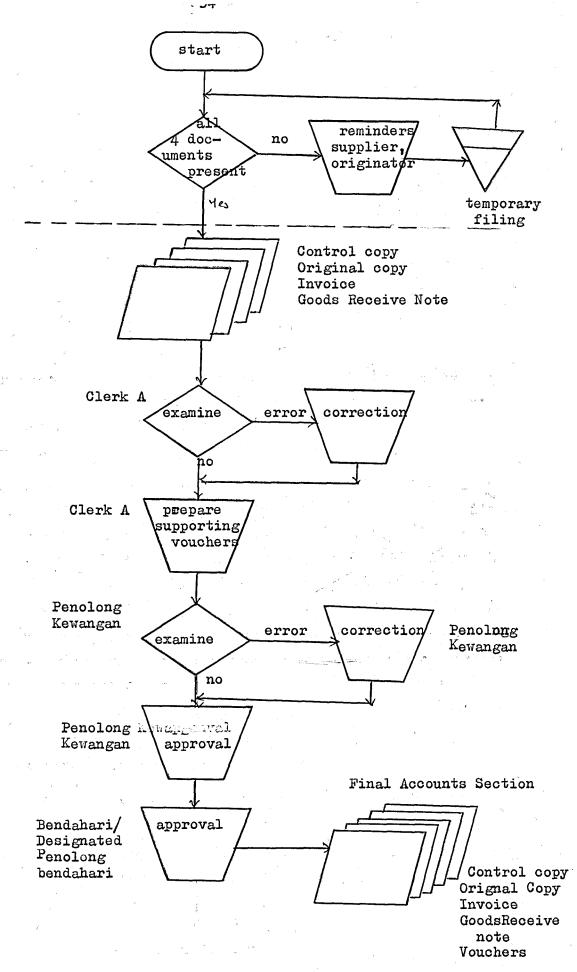


Figure 612 Activity Chart of Bills and Payments Section

The documents are;

a. Control copy of the Local Order - 1 copy

b. Invoice

c. Original copy of the Local Order - 1 copy

d. Goods Receive Note -2 copies

e. Voucher A or B

- 3 copies

6.2 Observations on the Current Method used

- 1. Throughout the processes, all operations are done manually, that is, collecting, checking, preparing, correcting, signing, retrieving and distributing of documents. Only when computations are involved is the adding machine used.
- 2. The element of duplication of work exists here. The clerk and his supervisor checks and examines for an almost the same kinds of details. While the approval of two different people are sought before the vouchers are released for payments; namely the Penolong Kewangan and the Bendahari or his designated Penolong Bendahari.
- 3. No automatic operations are available to assist in expediting the process as listed in (1) above to achieve quicker and more accurate results.
- 4. All the processes are confined to a small group of staff, all sitting within an audible distance from each other. (Voice communication is very easy).
- 5. Communications within the Finance Department and user department is very minimal.
- 6. The following booklets or documents are kept;

(a) Reference

- i) Code Book
- ii) Authorised signatures
- iii) Contract Agreement

(b) Recording

- i) Payment Voucher Record Book
 - ii) Fixed Asset Register
- 7. The number of completed bills for payment processed daily is between 20 30.
- 8. A big proportion of the bills are not attached with the required Goods Receive Note from the user department and to a lesser degree the suppliers too do not send in the original copy of the Local Order form when submitting their invoices. This greatly slow down the payment process.

6.3 Remarks

- 1. This Section cannot begin the bills payment process unless they are accompanied by the original copy of the Local Order form, control copy of the Local Order and the Goods Receive Note. A majority of the bills are delayed in payments because one or more of these documents is/are missing. Subsequently, a reminder is made through the telephone or by letter to the departments or suppliers concerned.
- 2. Quite frequently, invoices are sent directly to the requesting department instead of the Finance Department.
- 3. Supplier do not always send their invoices to the Finance Department. Instead they are sent to the department making the order. Departments on the other hand do not notify the Finance Department of the situation. Only when credit advices are recieved do the Bills and Payments Section realised the situation. Two or more weeks could have easily elaspsed between sending the reminders and receiving the invoices. When payments

take too long to clear, ITM could lose money in these forms;

- a. Discount privelege forfeited by suppliers.
- b. Interest is levied on the amount purchased.
- 4. This Section does not retain or file incoming documents. They are sent to the Accounts Section for further processing. A temporary file is only kept for incomplete sets of documents.

6.4 Recommendations

The suppliers and requesting departments must be made aware of the requirements and the role they play in the immediate clearance of bills and invoice. To do so, the following steps ought to be taken:

1. The original copy of the Local Order form must contain the following notations in bold letters at the right-hand corner to attract the attention of the suppliers:

SALINAN PEMBEKAL:

SALIMAN INI HENDAKLAH DIKEMBALIKAN BESERTA DENGAN INBOIS/BILL UNTOK PEMBAYARAN.

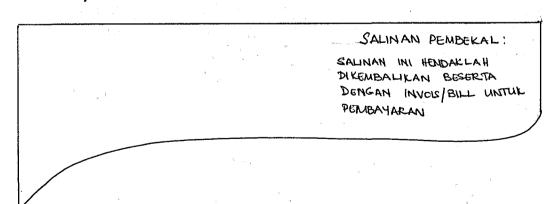


Figure 6.2 An amended layout of the Local Order (Pesanan Jabatan)

- 2. Communication between the Finance Department and the other departments must be established. Frequent communication can help to eradicate misunderstanding, abguity and doubts. User departments usually delegate untrained typists or clerks to fill in the Local Order form, keep stock record and maintain vote expenses. They are not informed of the proper instructions regarding these jobs. To overcome this, circulars, notices and manuals must be published and distributed. This will attract the attention to the requirements of the Finance Department. Meetings with heads of department should also be carried out. Topics like prompt submission of Goods Receive Note must be emphasised.
- 3. The requesting department must be made to attach a loose note printed with these words; to further remind the suppliers when sending the original copy of the Local Order form:

INSTITIUT TEKNOLOGI MARA

* MUSTAHAK

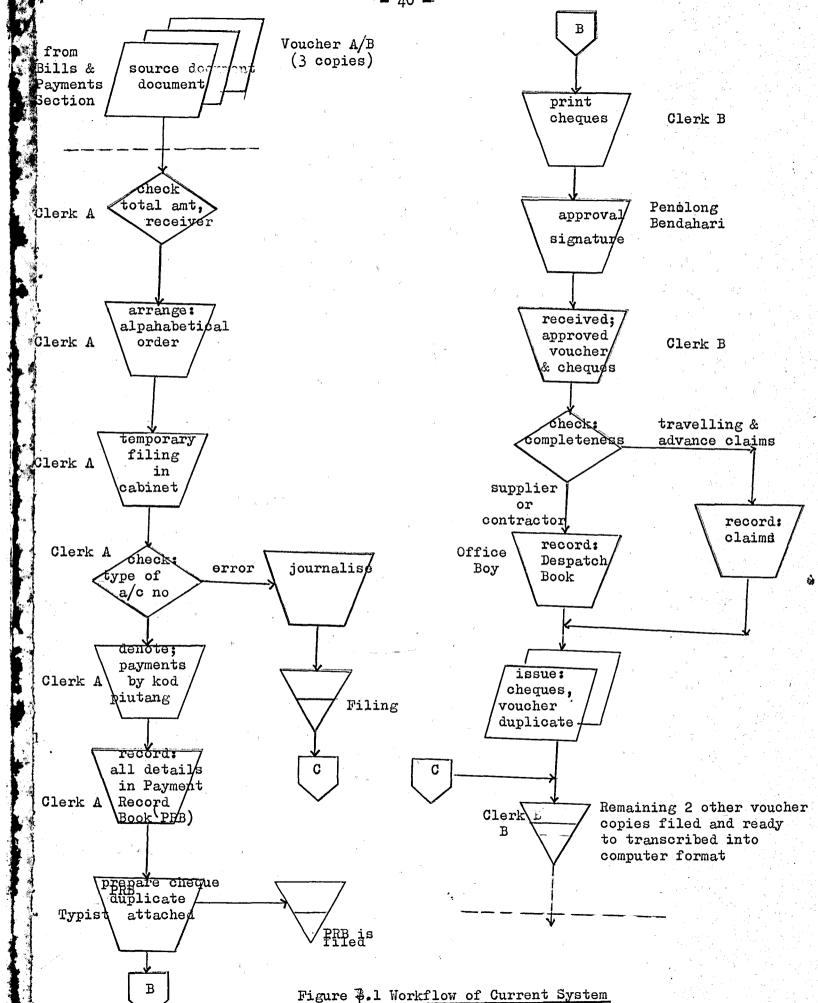
UNTUK MENERIMA PEMBAYARAN SEGERA, SERTAKAN INVOIS BILL ANDA DENGAN BARLINAN ASAL BORANG PESANAN ITM.

Figure 6.3 Attached note to original copy of Local Order

ACCOUNTS SECTION (CHEQUE PREPARATION SECTION)

7.1 Process Procedures

- Receives a) Payment Voucher A or Payment Voucher B from
 Bills and Payment Section.
 - b) Subsistence and mileage claims and Advance Advice from the chief clerk.
- 2. Checks vouchers for amount and receiver's name.
- 3. Arrange vouchers in alphabetical order.
- 4. Group different vouchers under receiver's name if applicable.
- 5. File vouchers in filing cabinet.
- 6. Check vouchers for an 'URGENT' payment. Expedite this with first priority.
 - 7. Check vouchers for cash (cheque) or credit payments.
 - B. Allocate vouchers with 'CREDITOR'S CODE' (KOD PIUTANG).
 - 9. Record voucher number, cheque number, amount, account number and receiver's name in a 'PAYMENT RECORD BOOK' (BUKU REKOD PEMBAYARAN).
- 1D. A duplicate of 'PAYMENT RECORD BOOK' kept in temporary filing.
- 11. Cheques are prepared and details daretfilled using duplicate copy.
- 12. Cheques are printed with required details.
- E3. Vouchers and cheques are ready and signature of a Penolong Bendahari is obtained.



- 14. Record the payments made into the following books;
 - a) Dispatch Book for cills settlement
 - b) Advance and Journey Book @ for claims
- 15. Voucher (1 copy) and cheque are then sent to the supplier.
- 16. Vouchers (2 copies) are temporarily filed for data transcription into computer forms at a later date.

Figure 4.1 shows the workflow of the cheque preparation.

7.2 Current System

The procedures for this sub-section is given in the 'BUKU PANDUAN KEWANGAN'. Quite a number of sequences are either by-passed or overlooked which render the manual ineffective. Some forms which are stated in the manual and are incolonger in use as they have been replaced by new ones.

Approved Payment Vouchers (in 3 copies) when received are checked for the amount and name of receivers. They are temporarily filed in accordance with the date received and in alphabetical order of receiver's name. A journal entry is made in the journal vouchers when errors occur, for example cancellation of cheques. However, when no mistakes are found, the next thing to do is to indicate the creditor's code in the 'KOD PIUTANG' column of the vouchers A or B. The list of creditor's names is kept in a booklet form and kept in this section for reference.

As the documents are now proceed, a clerk will record details of vouchers and cheques in the Payment Record Book (Buku Rekod Pembayaran) containing the following items;

- a. Voucher number
- b. Cheque number
- c. Amount
- d. Account number
- e. Date
- f. Name of receiver

The following diagram (Figure 7.2 shows the Payment Record Book layout.

		:	rekod pembayaran			
The second secon	Date	Cheque	Receiver's Name	Account No.	Amount	Voucher
					N et	
			s t		ž (

Figure 7.2 Payment Record Book layout

The duplicates from the Payment Record_Book is passed to the typist who makes use of the details to type the particulars into the chuques. When these are done, a clerk will further v verify the cheques for amount and dates before the figures are printed. By now, the cheques are fully prepared.

The voucherc and the cheques are thus handed to the Penolong Bendahari in-charge of this Section for his approval and signature. The vouchers by this time are error-free thus religving the burden for further checkings. Before the cheques are issued to the receivers, details of payments are further recorded into the following books; a. Despatch Book

- for suppliers/contractors
- b. Advance & Journey Book
- for claims by staff

A supplier's or contractor's cheques are attached with the duplicates of the vouchers A or B, while the remaining two copies of each type of voucher ore temporarily filed, before t their data are transcribed into computer input forms for further processing which is handled by another sub-section.

When there are cases of urgent payments to be made, these supercede all other routine payments. A priority treatment is given. However, the procedure still remains the same. (An urgent payment is indicated by the 'URGENT' label attached to the voucher)

7.3 Observations on Current System

1. The activities of this sub-section does not involve decision making and can be easily generalised as shown in the diagram in Figure 7.3

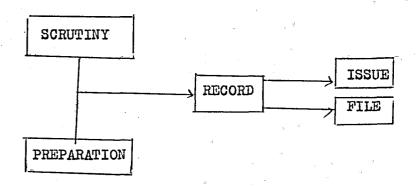
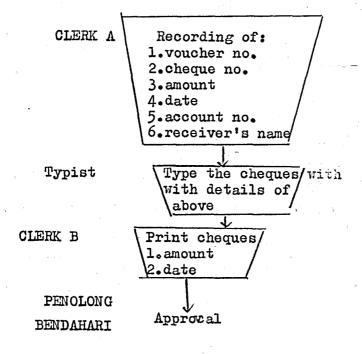


Figure 7.3 A simplified activity of cheque preparationssection

- 2. In order to process the cheques for payment, it is necessary for this Section to prepare and thus transact all entries into one or both of the following record books;
 - Journal Vouchers involving the correction
 of errors inot the payment
 vouchers.
 - 2. Payment Record Book outlining the details of cheques to be prepared.
- 3. The main activities in the whole process are centred in the cheque preparation itself. Here the operations involve four different people, each handling a different kind of jobs; the next person depending on the previous before expediting his part. This is illustrated in Figure 7.4 below;



Clerk A above is observed to have the heaviest workload.

He finalises all the ground work before each cheque is prepared.

This involves the following;

- Receiving and segregating of source documents accordingly.
- 2. Filing.
- 3. Journal Voucher entries.
- 4. Recording of vouchers and cheques details.
- 5. General Checking of entries.
- 4. Also, generally the functions of this Section are to prepare and make issues of payments cheques and to facilitate data entries into the computer input format.
- 5. It was observed that daily there are about 20 different incoming stes of vouchers received from the Bills and Payments S Section for processing without abnormal interruption. These documents are able to be duly completed at the end of each day.
- 6. The earlier part of the process completely relies on the skill of the clerk who develops it through experience. Here, it is seen that a lot of time is saved by avoiding the use of the code book, by segregating the files and making the right checks on the documents. But when there is a replace, the volume of output may be cut due seriously.

8 ACCOUNTS SECTION

8.1 The Current System

- 1. Different completed sets of documents are received from different sources within the Finance Department, namely:
 - a. General Bayment Voucher from Bills and Payments Section
 - b. Students Payment Voucher from Student Section
 - c. Summary of Monthly Salary from Payroll Section
 - d. Journal Vouchers from accounts and Payroll Section
 - e. Bank Draft/debit Statement from Overseas Student Section
 - f. Daily Cash Report from Counter (Purchasing Section)
- 2. The required information from the above documents are entered into the transaction cards (that is form 2.4: see appendix) which specify the following details:

	1	I		T	l = 1===		I I mart ata
CODE	ACCOUNT	EX	DESCRIPTION	REF	DATE	ACC	BATCH NO
	NO	CODE		NO			
					1:		ģ.
	,	_					
		`					
لر			**				

Figure 8.1 Transaction Card layout

- 3. A batch number is given at the right-hand corner when each page has been completely filled by a clerk.
- 4. The transaction card and batch total is now checked for accuracy by another clerk.
- 5. The batches are now ready to be transcribed into diskettes.
- 6. The keypunchers punch and verify the data as they enter them into the diskettes.
- 7. Completed data entries for each month are now sent to IBM for processing.
- 8. IBM will produce a report called Batch Edit List and return it to the Finance Department.
- 9. When the Batch Edit List is returned, errors are indicated in the column called 'Remark'. The Financial Assistant will check and correct these errors an the list itself.
- 10. The punch operators willmake the corrections on the diskette from the corrected Batch Edit List give by the Financial Assistant.
- 11. The diskette is again sent to IBM for a final run to produce a Transaction Register under the following headings;
 - a. Vote Ledger
 - b. eneral Ledger
 orificial Balance

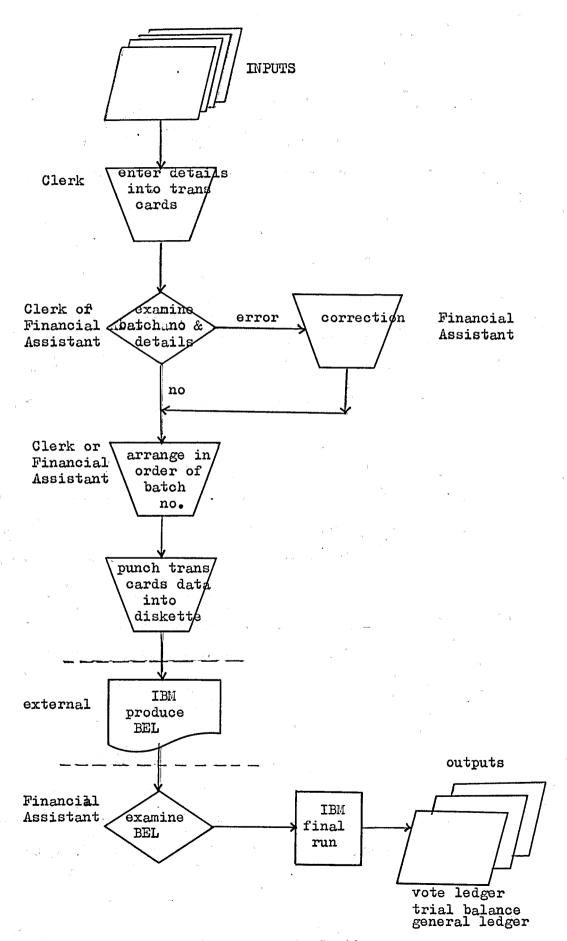


Figure 8.2 Workflow of Accounts Section

The objective of this Section is to prepare monthly reports necessary for management purposes to indicate the institute's expenditure. These reports are namely;

- a. Vote Ledger
- b. General Ledger
- c. Trial Balance

During the day to day operations, this Section recieves completed sets of documents from sources within the Finance Department. When source documents are received, they are error-free, thus no checkings are necessary to validate them.

The relevant data from these source documents are transcribed into the transaction card (that is FORM 2.4 - computer input format) manually. Since there are six different sources of incoming documennts, the transaction cards are divided into different types namely;

- a. Bills and Payments
- b. Students Payments
- c. Payroll Summary
- d. Journal Voucher
- e. Bank Draft/Debit Advice
- f. Daily Cash Report.

By doing this, the account number are thus systematically arranged. This greatly helps to save time in subsequent checking and verifying. IBM is involved in two different processes of

producing reports. aThe first report called the Batch Edit List is only produced when the diskettes are recieved. Here the main function of the report is to pin-point the existence of errors of the transaction cards if any. All errors are indicated conspicuously in the report (by a series ao asterisks) to facilitate cerrections. The When such a situation occurs, the transaction cards and the diskettes are manually corrected by looking back into the source documents. This is how calssifying the source documents into the various groups help to cut down the searching process. The Batch Edit List consist of the following specifications. (Figure 8.3 Batch Edit List)

And to		BAT	CH EDIT LIST FOR	GEN ERAL	LEDGE	i K			
CODE	ACC	EX COD	DESCRIPTIONS	REF NO	DATE	DEBIT	CREDIT	BATCH NO	REMARK
,			. 1. 1.						: :
			X						

The diskette which by now has been corrected at the Accounts be Section is again sent to IBM for a final Transaction Report to produce the following; a. General Ledger

b. Vote Ledger

c. Trial Balance

The report is now returned to the Accounts Section for their compilation and filing as necessary.

8.2 Observations

- 1. Compilation of the reports are done monthly, but no dateline is set for any particular job.
- 2. Two people are involved in producing the transaction cards.

 One does the coding while the other does the checking.
- 3. Despite of scrutiny as mentioned in (2) above, the Batch Edit List can still come up with numerous errors. A sample Batch Edit List were seen to contain 17 different kinds of errors.
- 4. Punch operators will have no work if the transaction cards are fully prepared.
- 5. Each set of source document is filed under its own group of accounts number.
- 6. For each type of report, IBM takes approximately 2 days to process. This takes a toatl of 4 days; there being two different types of reports.
- 7. Vote Ledger is 3 months behind time. Reasons given were because when they first started in 1976, mainly backlog were the bulk. With time. as more backlog has been cleared the delay in producing the ledger is begginning to fall short of 3 months.

Given 2 to 3 years it is possible that the ledger will finally be one month late.

- 8. The machines at disposal are calculators and two IBM dis-tte kette machines.
- 9. In the day to day routine, this Section raises 4 different forms to compliment the source documents, namely;
 - a. Transaction Card (FORM 2.4)
 - b. Batch Control Card (FORM 2.3)
 - c. Vote Ledger master file
 - d. General Ledger master file

19 SUMMARY

19.1 Summary of interviews with the user/requesting departments

During the course of the investigation of the Finance Department, a few user departments were also interviewed. Their general opinions of the curfent practise by the Finance Department were revealed.

Most of the departments agreed that the Finance Department does not provide sufficient instructions as to the proper filling of forms; notably the Local Order Form. Being the most important of all documents, it is rather strange that such an act is left unchecked. It was also agreed that communications regarding purchasing matters is very minimal. It is reduced to matters concerning reminders only (by letter or through telephone). There is a marked absence of instruction books or manuals produced by the Finance Department. The user departments were thus assumed to have a knowledgeable idea of the requirements. This definitely is not true as the user departments must delegate their tasks to untrained clerks or typists.

Record keeping and maintainence are mostly neglected by the u user departments. They adopt a complacency attitude. This stems up from the fact that their work are neither checked nor queried by the Finance Department. The types of record kept are barely adequate and they are left to the imaginary of each department. As a result there is an obvious absence of common standards between departments.

9).2 Remarks

The above observations illustrate the lack of control on the requesting departments. Though far flung and independent, nevertheless they do contribute towards the achievements of the goals of the Finance Department, that is up-to-date management information. This is easily understood as the whole process as "assembly line" type where one section depends on the previous section for a smooth flow. In this case, the requesting department being the initial starting point.

9).3 General comments and observations on the present system

- 1. Lack of communications pertaining to the proper use and procedure to be followed by the user or requesting departments.
- 2. Insufficient means of instruction to these departments whether in the form of notices, booklets, manual, etc.
- 3. Indifferent attitude at the user or requesting departments level regarding record keeping and maintainence.
- 4. Frequent disruption of normal activities in the Finance

 Department due to enquiries, leave, replacements, rotation, etc.
- 5. Inefficient filing method either for purposes of temporary or permanent storage of information.
- 6. A process involves too many different persons, each

specialising on a very small proportion of the task. Quite commonly two or more persons scrutinise for the same details in certain processes.

- 7. Certain procedures and forms are designed on an ad hoc basis without giving due consideration to future adaptations.
- 8. There is total reliance on the IBM computer and diskette machines to produce the important reports such as the Vote Ledger and General Ledger.
- 9. Inspite of the aid of the IBM computers, the monthly payroll output reports are not satisfactory. Important details are left out. One glaring example is the 'No Cek' column. This important column is left blank. It affects the reconciliation of cheques and thus creates unnecessary problems to the Reconciliation Section.
- 10. The IBM-produced monthly salary reports are not being used as an aid for bank reconciliation. Instead a separate report is manually prepared by the Payroll Section which consists of extracts of the IBM computer reports. Relying on the IBM salary reports alone will result in an inaccurate bank reconciliation.
- 11. Since the incorporation of this system, only once has the

report given by the Payroll Section been correct when it reaches the Bank Reconciliation Section. It has been observed that gross errors and unreconciled figures are an acceptable bad practise.

12. Currently, the Student Section, Payroll Section and The Accounts Section are computerised. Being the more important sections as far as Vote Ledger and General Ledger are concerned, this step was rightly taken. Nevertheless, other sections can tremendously boost the accuracy and speed of preparing these reports in addition to various other activities.

10 REMARKS ON THE PRACTICAL TRAINING EXERCISE

From the practical training, I had gained quite an experience in conducting a study and find out some of the problems and points. One of the main problem encountered is the reluctance of some officials to provide the information required but there were quite a number who very gladly helped us in unearthing some problems in the present Accounting System. Most of the time, the staff that we come in contact with, either at the Finance Department or the Computer Centre were very cooperative and helpful.

I fully support the practical training exercise since it expose the students to actual working environment. The report writing is an exercise to prepare the Diploma in Computer Science students in preparing reports for presentation when they are working as System Analyts or Programmers.

APPENDICES

APPENDICES TO PURCHASING SECTION

Appendix 1ABorang Pesanan Jabatan

Appendix 1B..... Process Chart forprocessing Local Purchse Order

Appendix 1D.....Form Design

SALINAN ASAL

SALINAN PEMBEKAL

SALINAN KAWALAN

SALINAN JABATAN

SALINAN BUKU

APPENDICES TO BILLS AND PAYMENTS SECTION

Appendix	2AWorkflow
Appendix	2BVoucher A
Appendix	2CVoucher B
Appendix	2DGoods Receive Note
Appendix	2E Works Completion Form
Appendix	2FNon-local Order
Appendix	2GBorang KW/6/77 (Cash Payments
Appendix	2HReminders to suppliers
Appendix	2IReminders to originator