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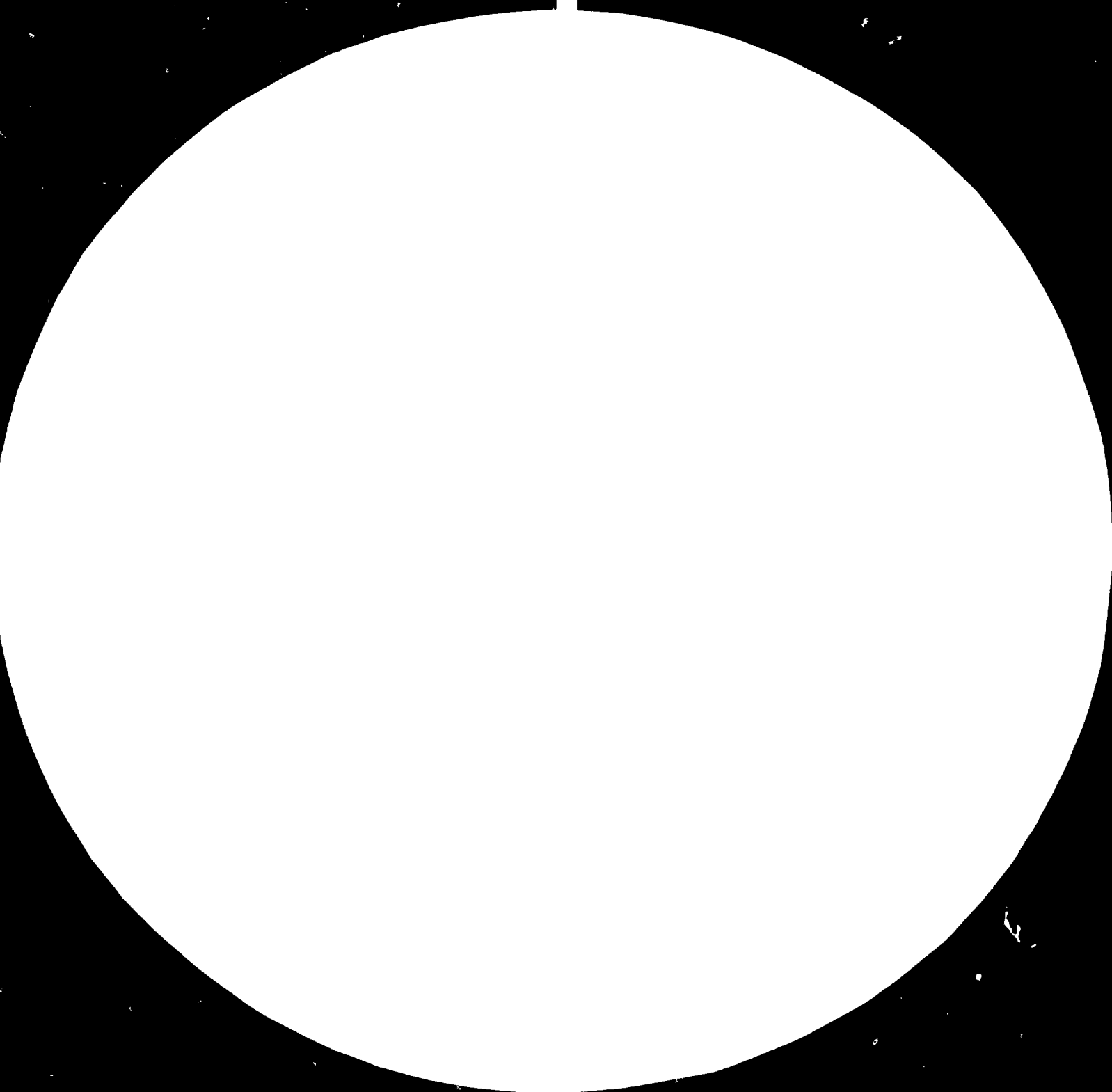
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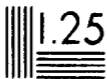
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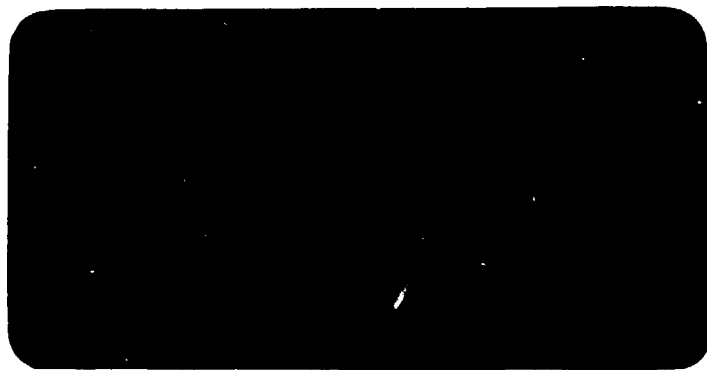


1.8 2.5



Figure 1. Resolution test targets used to measure the resolution of the system. The resolution of the system is defined as the resolution of the target that is just resolved.

WHITEHEAD



HAROLD
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& PARTNERS
LIMITED

10653 (1 of 7)

CHAPTER 1

SUMERBANK, Turkey
MANAGEMENT SUMMARY
OF THE PROJECT

VOLUME 1 OF 7

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PART A : INTRODUCTION

Background

- 1.1 As part of the on-going assistance programmes that are conducted in Turkey and financed by UNIDO, Sumerbank sought assistance with respect to Financial Management and Planning Systems Development within the Cotton Textile Division.
- 1.2 Harold Whitehead and Partners, a specialist U. K. management consultancy company was subsequently invited to undertake this project and on-site field work was completed between the 4th May and 15th October, 1980.
- 1.3 We set out the content of our reports as follows :-
- Chapter 1 ; Management Summary of the Project
 - Chapter 2 ; The Management Information System
 - Chapter 3 ; Inventory Control
 - Chapter 4 ; A. S. M.
 - Chapter 5 ; Capital Project Control
 - Chapter 6 ; Costing of Textile Manufacturers
 - Chapter 7 ; Financial Management Organisation

Terms of Reference

- 1.4 The original terms of reference against which tenders were submitted are reproduced at Appendix 1.1. These were subsequently modified to permit a concentration of effort with respect to costing, cash flow and inventory control in Eregli and the exclusion of the proposed garment systems work in

Manisa. The letter which confirmed this change in project emphasis is reproduced as Appendix 1.2 of this chapter.

1.5 The work content set out in the terms of reference can be summarised into six main segments :

- management information system, including both financial planning and control and cash flow planning and control
- inventory control procedures
- a review of ASM reporting and planning methods
- planning and control of capital projects
- costing procedures within textile manufacture at Eregli
- financial management organisation requirements.

1.6 Within these topics for study, the terms of reference called for two types of consultancy activity; firstly, a review of current procedures leading to development of enhanced methods and secondly, implementation where possible of new systems developments.

Summary of Achievements (Appendix 1.3)

1.7 We set out below a clear statement of achievements with respect to the terms of reference :

Costing procedures :

Current methods have been thoroughly reviewed and amendments proposed. Although these could

possibly be simplified, the consequential loss of accuracy and skew will be too great. Data collection exercise of production activities have been initiated and this will be crucial if really significant benefits and improvements are to be realised

Inventory Control

Current procedures reviewed and proposals in revised methods made.

Counterparts are establishing required inventory levels at Eregli and certain key inventory levels are now reported on a daily basis.

Project Control

Detailed planning and control procedures developed and counterparts are currently developing RMP planning data for these procedures.

ASM

Procedures have been examined and amendments proposed.

However, timely generation of data requires considerably re-organisation of ASM operating methods and structures. We have therefore, carried out an in-depth analysis of operating methods and offer appropriate comment and recommendations. These in our view, must be undertaken before effective and timely procedures can be sensibly implemented.

Management Information Systems

Current planning and control procedures have been reviewed and new systems developed

In order to implement these procedures, the following two pre-requisites must be fulfilled:

Commitment on implementation of a divisional CTD organisation

Recruitment of CTD corporate personnel

Two further conditions must also be met before even a trial mill implementation can sibsibly be contemplated. They are :

- short term cash flow cannot be attempted until meaningful mill budgets are established
- accurate mill budgets cannot be developed until mill standards are up-dated. Errors of 50% are reported to exist in current standards

Financial Management Structure

We have developed the financial management structure needs for a divisionalised CTD function together with detailed job descriptions etc. Provisional establishment levels have also been postulated but these will depend on the eventual degree of implementation

The same comments on MIS implementation prospects are also valid in this study area.

- 1.8 The counterparts have been involved during the diagnostic and systems development stages and are correspondingly conversant with the new methods.

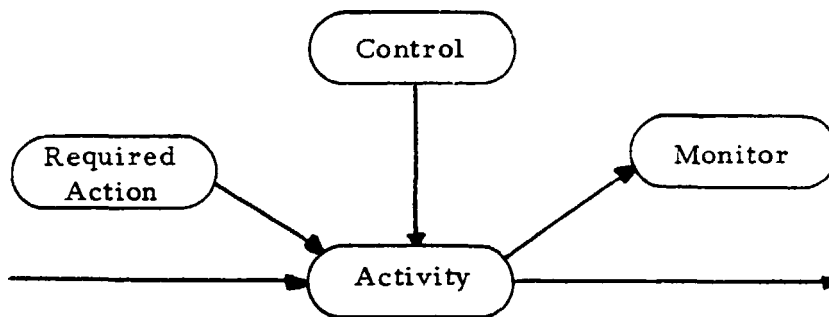
PART B : THE MANAGEMENT INFORMATION SYSTEM

1. THE OVERALL SYSTEM

The Needs and the Background

- 1.9 No Management Information System (MIS) will be effective in its operation without the full understanding and enthusiastic co-operation of management at all levels. Nor will any M. I. S. proposal for CTD succeed without the necessary strategy, planning, training and information processing capability. In short, therefore, there has to be a total commitment of resources (men, money and machines) to make the M. I. S. an effective and practical reality.
- 1.10 The problems that will face C. T. D. in implementing and operating an MIS are not an appreciation of the benefits of enhanced budgeting, managerial control aspects or the availability of data, but rather of it's organisation, handling and timely production.
- 1.11 The object of the system is to provide qualitative and information which in turn is used by management for control purposes in order that a business may be profitably developed. It is vital therefore that objectives are set and that the results are monitored against these objectives (figure 1.1)
- 1.12 The problems within the current situation include :
- inaccuracy of basic budgets even realisation against revised budgets can be as low as 46%
 - planning information is not produced in a form where comparison with actual results can easily be achieved. The effects of latest trends are therefore too infrequently incorporated into revised budgets.

BEFORE



AFTER

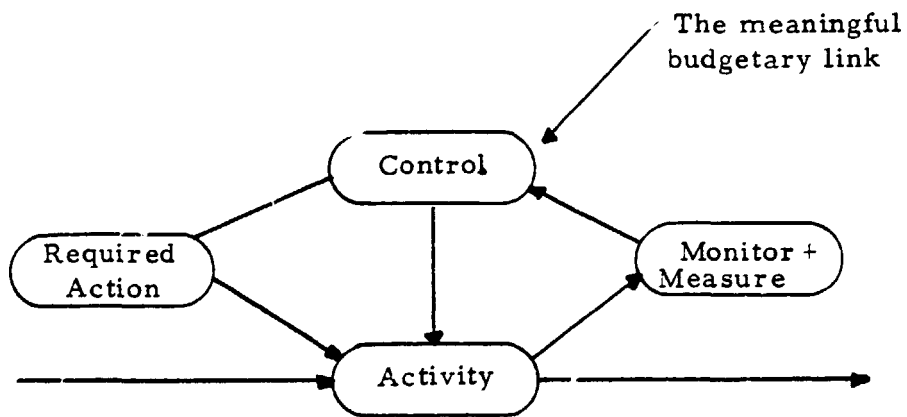


FIGURE 1.1 : The Importance of the Budgetary Link

- untimely production of performance reporting gives management little chance to take corrective action

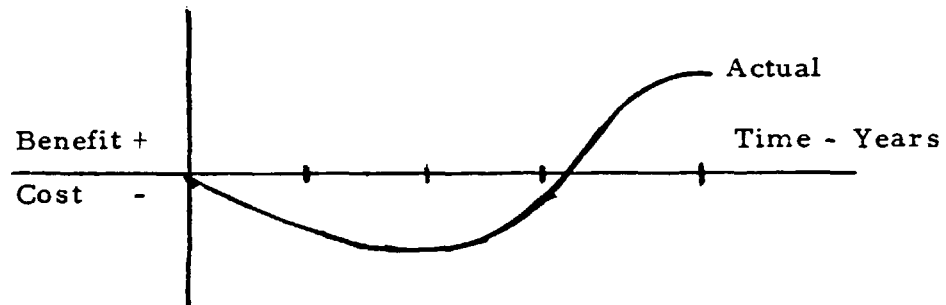
- too much detailed data is generated and is not used. Subject to legal reporting requirements, a concise and well structured disseminated information system should direct management attention to problems speedily

- lack of management accountability and performance measurement

- little co-ordination between market needs and production schedules

1.13 Many evaluations of the tangible cost/profit benefits of the introduction of well structured MIS procedures have been made and all follow the typical curves shown in Figure 1.2 below.

FIGURE 1.2 : The Cost/Benefit of MIS Introduction



1.14 C. T. D. monitor each month the yearly performance standards set down by the C. T. D. Chief Executive. Areas to be included in this review could cover :-

- Profitability and Financial Performance
- Market Standing
- Productivity
- Product Development
- Financial Resources
- Physical Resources
- Manager Performance and Development
- Worker Performance and Attitude

The Basis

1.15 The M. I. S. must have a solid foundation and must be related to:-

- overall Sumerbank corporate objectives
- C. T. D. policy and strategy
- C. T. D. decision making levels based on a sound organisation structure
- information requirements of the decision makers with respect to their areas and degree of responsibility
- availability of information and the current decision linking process
- ensuring management control within the framework of existing legislation
- possible mechanisation requirements within acceptable reporting requirements.

Information Selection

1.16 In determining the necessary and relevant information in any MIS the overall influence of the current complex world must be recognised (Figure 1.3) and in particular the potential impact on operations and of a high inflation environment.

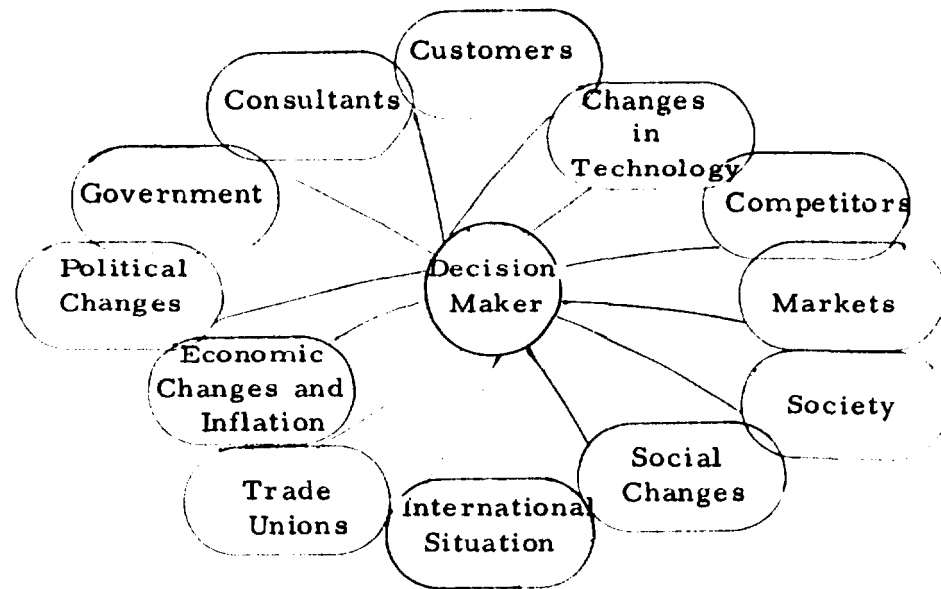


FIGURE 1.3 : The Impact of the Environment

1.17 Whilst we sympathise with managerial difficulties, in the attendant aspects of accuracy, of attempting to forecast inflation rates, it is imperative that these assumptions be incorporated into the planning process in order that the critical importance of the timing of the price rises be understood. In Figure 1.4 we illustrate a simplified relationship between the timing of price increases, the level of prices and cost of sales and profit (profit being the area beneath timing line and the price cost curve) - too late increases will result in unforeseen losses - basically the shaded areas above and below timing lines should at least cancel each other out.

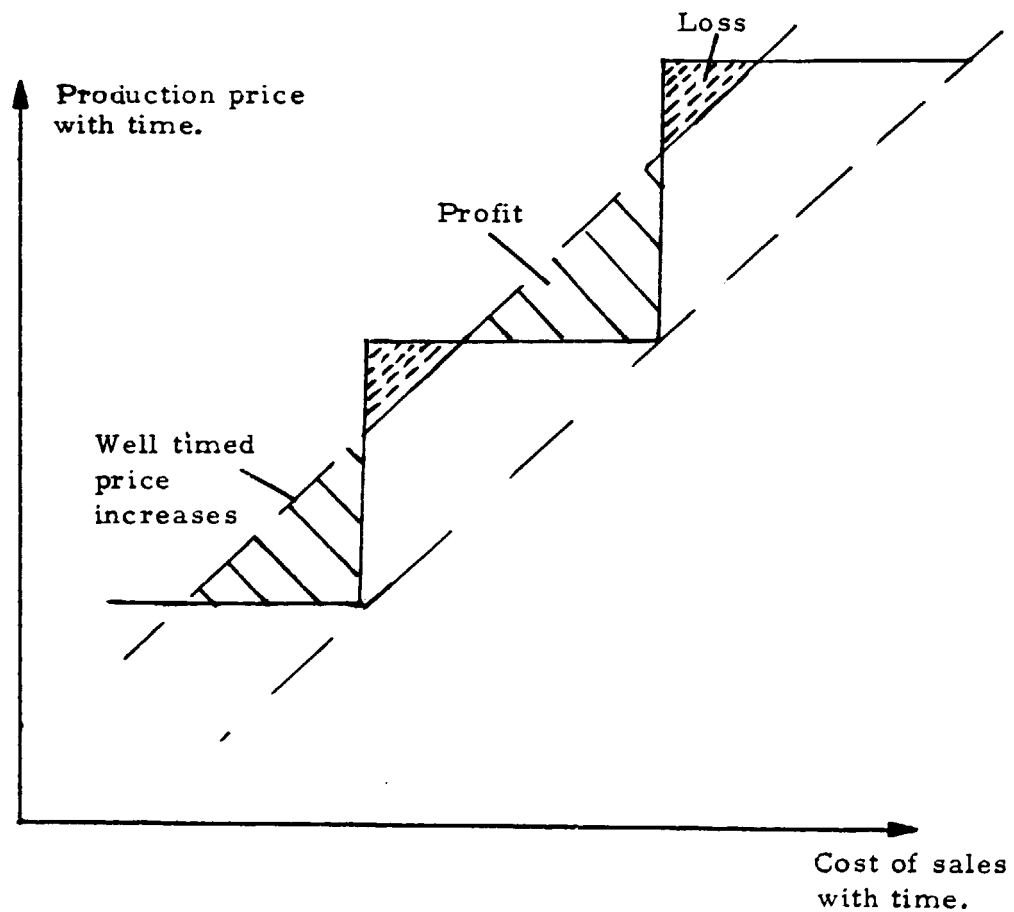
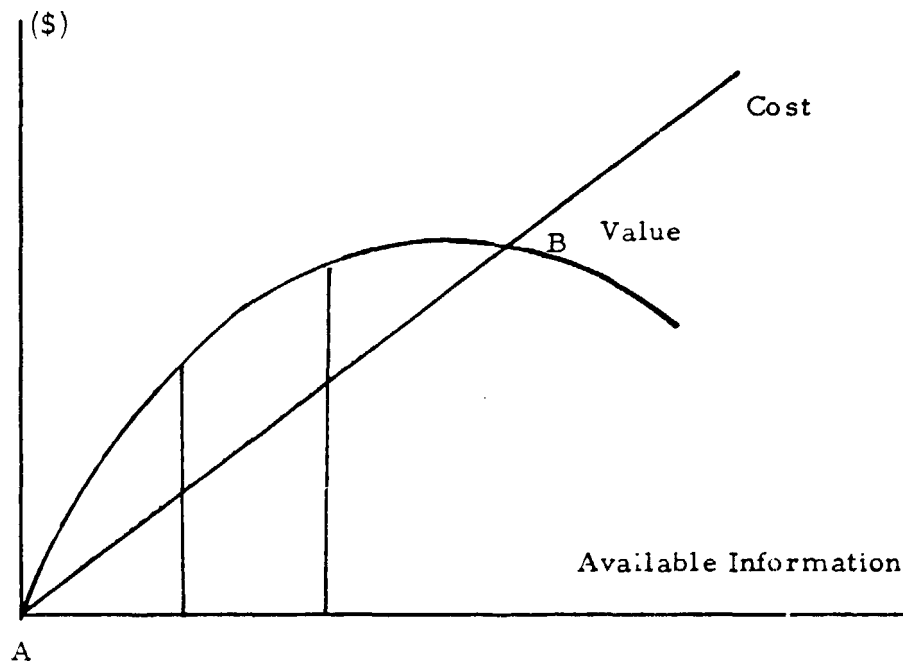


FIGURE 1.4 : Effective Timing of Price Increases

Further, in situations where there is a background of high inflation rates, depreciation can become critical and could affect levels of profitability. We propose that plant and machinery be revalued and entered into the balance sheet at replacement cost and that depreciation levels are based on those revised levels. We have submitted a schedule of such assets for re-evaluation to Gherzi for their expert judgement - it has however been agreed to delay a re-evaluation of assets until such time as the bids on the tenders have been received and considered.

- 1.18 Further more, the cost/value of providing and generating information must be thoughtfully understood and in Figure 1.5 we set out a typical format of this relationship with the comment that we believe Sumerbank to be currently near to point A i.e. there are still considerable cost benefits to be achieved. We have been highly conscious of this aspect when designing the system.

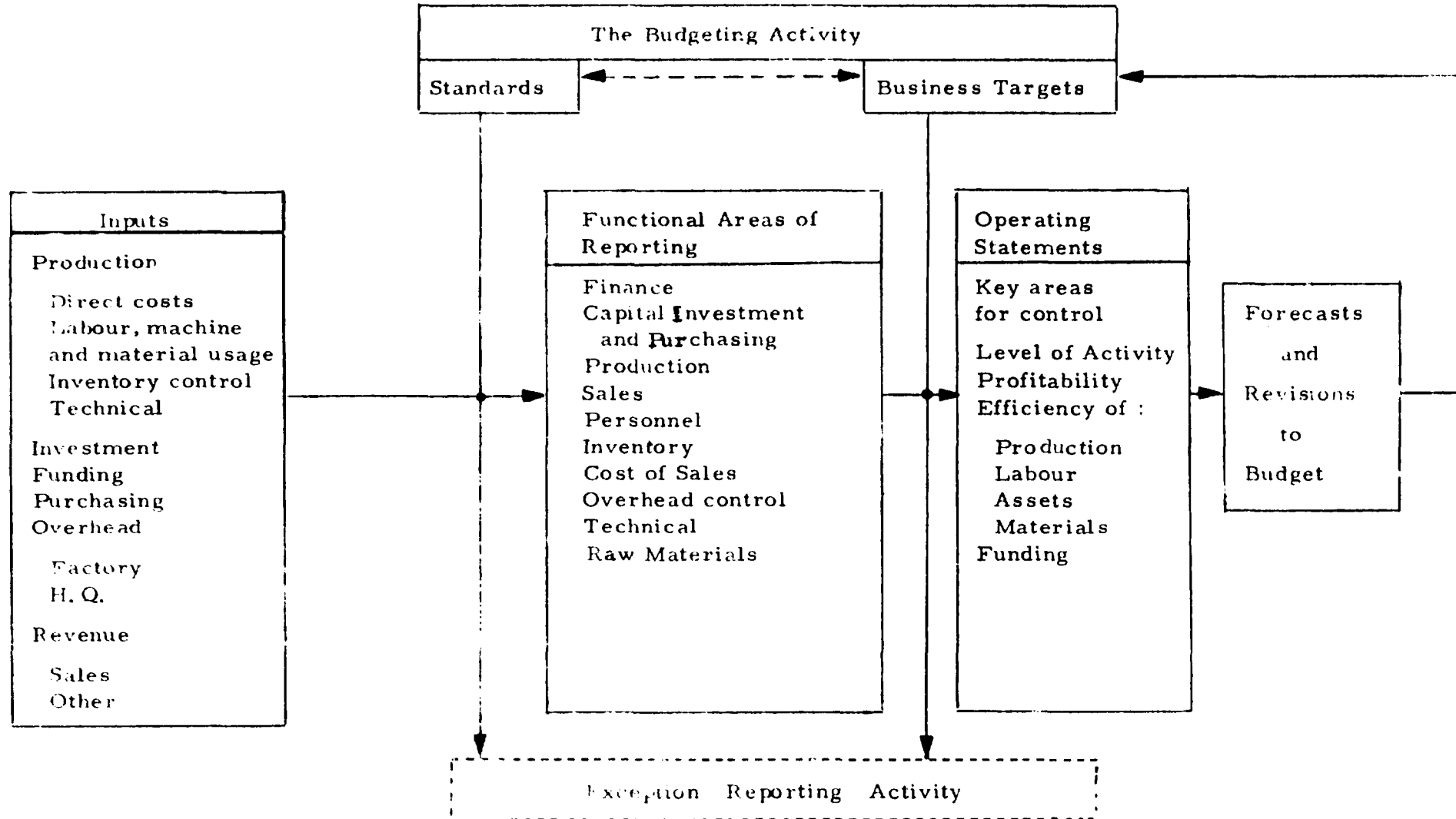
FIGURE 1.5 : Cost/Value Relationship of Generating Management Information



The Basic M. I. S. Outline

1.19 The outline M. I. S. proposal is set out in Figure 1.6 and illustrates the broad relationship between the key elements, i. e. budgeting, inputs, functional areas of reporting, key areas of control and subsequent revisions to budget, thus :

- divisional and mill 'business' budgets
- inputs, i. e. sales and dispatch attainments, production volumes, material and labour usage, stock levels, purchases, manufacturing and H. Q. overheads, etc.
- functional areas of reporting, financial performance, production and cost of sales, sales, personnel, inventory management, technical aspects (e. g. quality control)
- operating statements for control purposes monitoring key business parameters against budgets, e. g. levels of activity, profitability, efficiency, etc. Such statements at regular and pre-determined intervals would include balance sheets, income statements, production and sales summaries, material and labour utilisation assessments, inventory schedules, capital project and investment status reports, pricing/costing comparisons, personnel situation summaries, technical reviews, etc.
- new forecasts of business expectations and revision of budgets as dictated by the latest performance reports. A need to provide non-routine reports by exception must also be recognised, for example, special analysis into standards, say the effect of work study schemes or the re-evaluation of new projects



-14-

Areas of comparative analysis

1.20 The salient differences between the proposed M. I. S. and the current methods employed are as follows:-

- the budgeting process is essentially derived from market forecasts of what the market requires bearing in mind the product contracts of individual mills - i. e. manufacture what can be sold and not sell what can be manufactured.
- regular comparative analysis of actual performance against improved/enhanced budgeting processes, such comparative analysis would be both in terms of business performance aspects at mill and divisional levels and of standards at departmental levels.
- this regular comparative analysis activity will improve accountability with respect to performance and control of C. T. D. management at both corporate and mill level
- an enhanced method of the budgeting process whereby not only more realistic budgets are achieved but also the timing of price adjustments to reflect inflationary pressures and ensure that deficits are not achieved because of untimely/late price adjustments.
- operating statements be produced in a timely fashion in order that meaningful management decisions and corrective activity can be taken.

2 THE BUDGETING PROCESS

- 1.21 The budgeting process and preparation thereof in any major company is by nature, for reasons of accuracy and meaningful decision taking and setting of strategy, a lengthy process. It is re-iterative and normally extends over a 3-4 months period before a balanced programme is agreed and established in line with corporate objectives. It has been reported to us that in Sumerbank some mills complete this process in a day once the annual marketing/production meeting has established mill production targets.
- 1.22 The validity and realism of these targets must also be questioned. The levels of achievement by location in 1979 compared to their revised budgets, not the originals vary considerably. These realisations range from 46% to 230%.
- 1.23 The budgeting procedures that we have developed are essentially geared to market requirements bearing in mind individual mill production capacities. Our investigations in A.S. M. suggest that there are major discrepancies between actual production deliveries and that which A. S. M. seek. Production must meet market needs and not just produce goods which may enhance production utilisation statistics but are difficult to sell.
- 1.24 In addition to having a 'market orientation, we believe that the budgeting procedures that we have devised, incorporate the following additional features which are essential to the profitable development of C. T. D. They are :-
- assist C. T. D. management to establish and formulate cogent and profitable business strategies.
 - to improve the accuracy in setting business target expectations i. e. forecasts.

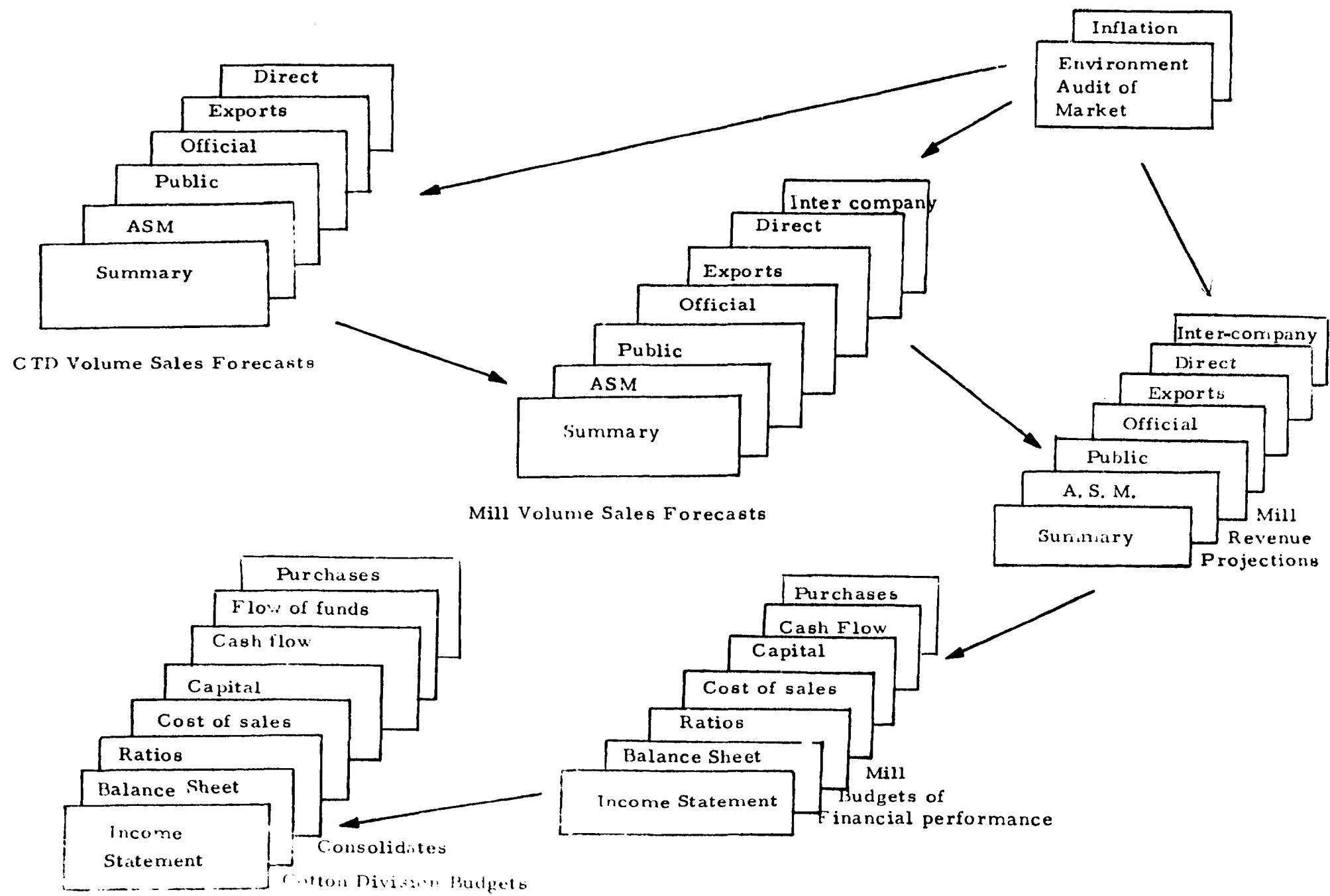
- to examine the profitability of sales on a more selective basis, i. e. by sector of sales, by product, etc. , and thereby better direct the marketing effort
- to facilitate easier review of performance at periodic intervals so that sensible and accurate re-forecasts can be accomplished during the year.
- to establish targets by which individual managers performance can be evaluated.
- to ensure, over a period of time that production capabilities are better geared to respond to market pressures and demand in terms of product/pricing requirements.

1.25 The outline and flow of the budgeting procedures are set out in Figure 1.7 and the salient steps are :-

- establishing company assumptions on external factors such as market sizes, inflation rates, etc. , and establishing pricing policy
- establishing C. T. D. forecast volume sales by sales sector, e. g. A. S. M., export, public, etc.
- determining individual Mill volume and stocking projections taking into account their production configurations and capacities.
- deriving mill revenue forecasts
- setting departmental mill budgets and requirements, raw material purchase schedules, etc.
- assembling complete mill financial schedules from revenue, cost of sales, investment schedules, cash flow, management ratios, etc.
- consolidating individual mill budgets into a single C. T. D. business projection.

THE BUDGET PROCESS

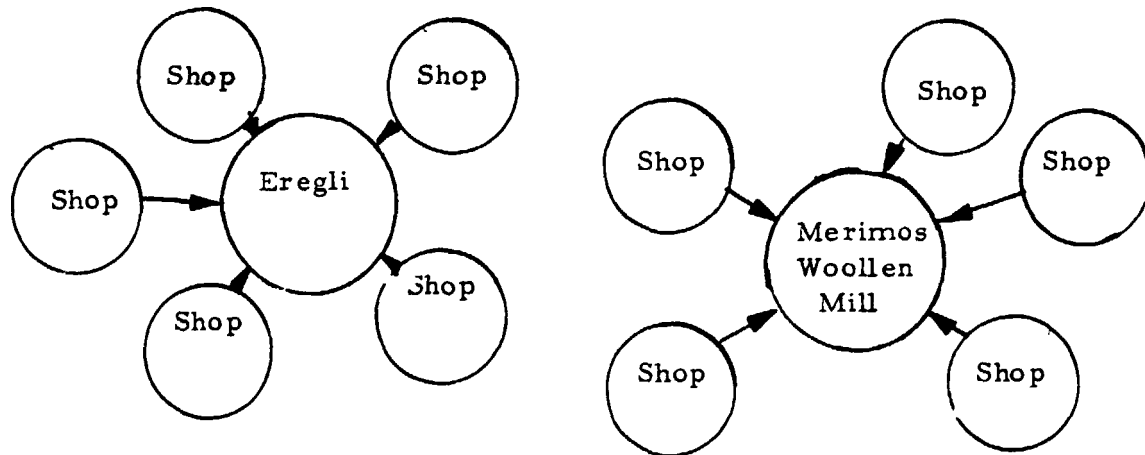
FIGURE 1.7



3

SHORT TERM CASH PLANNING AND CONTROL

- 1.26 Long/medium term cash flow planning and control, i. e. 5 yearly forecasts will readily fall out of the yearly planning processes together with the annual and periodic review procedures that are being developed for each mill and CTD.
- 1.27 However, because of the functionalised organisation structure of Sumerbank and the method of cash collection and short term cash flow movements (at monthly intervals) control can only be currently attempted for Sumerbank as a whole and not per division. Each shop which sells a variety of products (cotton, woollen, ceramic, footwear, leatherwear, etc.) is assigned to pay its receipts into a 'mill bank account' - this may be a Sumerbank branch or an interim Agriculture Bank branch in the absence of a local Sumerbank facility. There are some 40 mills each covering a particular manufacturing activity e. g.



- 1.28 Therefore, whilst this cash collection system is very efficient in terms of minimising working capital requirements, the mixing of a variety of product type cash sales from different product mills makes anything but a total Sumerbank cash control process very difficult and perhaps impractical.

1.29 Further, if cash collection were ever attempted on a divisionalised basis, the possible implications of increased working capital requirements must be very carefully considered.

1.30 We have therefore developed procedures for the short term planning and control of cash flow which reflect the actual method of cash collection and a brief description of the method follows .

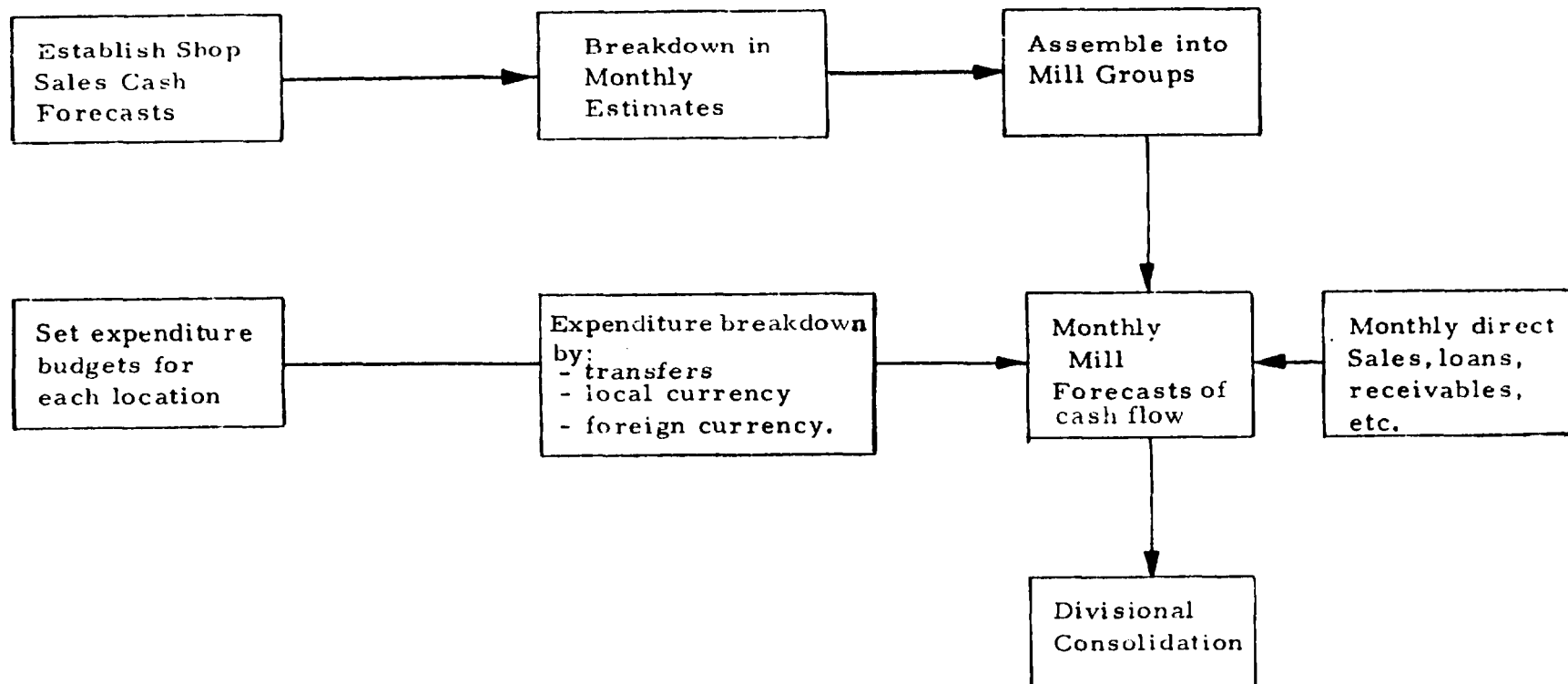
Systems Outline

1.31 A flow of the procedures is given in Figure 1. 8 and there are eight principal steps, which are as follows :

- establish six monthly/yearly shop cash sales forecasts
- derive monthly receipt forecasts for each shop
- assemble shops into requisite mill groupings and determine the monthly cash receipt forecasts for each mill
- determine the expenditure budgets by expense type for each location
- breakdown each of these location expenditure budgets into outgoings by :
 - periodic inter-company paper transfers e.g. electricity, inter-company processing, etc.
 - actual foreign currency cash outgoings
 - actual local currency cash outgoings.

SHORT TERM CASH FLOW METHOD

FIGURE 1.8



- assemble forecasts of direct sales, loans collections of receivables, etc.

- establish the short-term cash flow projections by mill

- establish consolidated CTD short-term cash flow requirements

COMMENTS ON IMPLEMENTATION

1.32 We have spent a considerable time in understanding the current methods and developing regional seasonality factors for shop cash sales. We have attempted to produce short term cash flow projections for Eregli but because of the inaccuracy of the budgets this is an inappropriate exercise at this time. Further we have not attempted to prepare accurate budgets for Eregli but because of very inaccurate standards this becomes a meaningless exercise until the standards are updated.

MANAGEMENT CONTROL PROCEDURES

1.33 A variety of management control reports will be required to be generated on either a daily, monthly or quarterly basis. These requirements are summarised in Table 1.1 Figure 1.10 and show the relationship between type of report, frequency and level of reporting (i.e. Department, Mill, ASM, or CTD, Head Office). They are :-

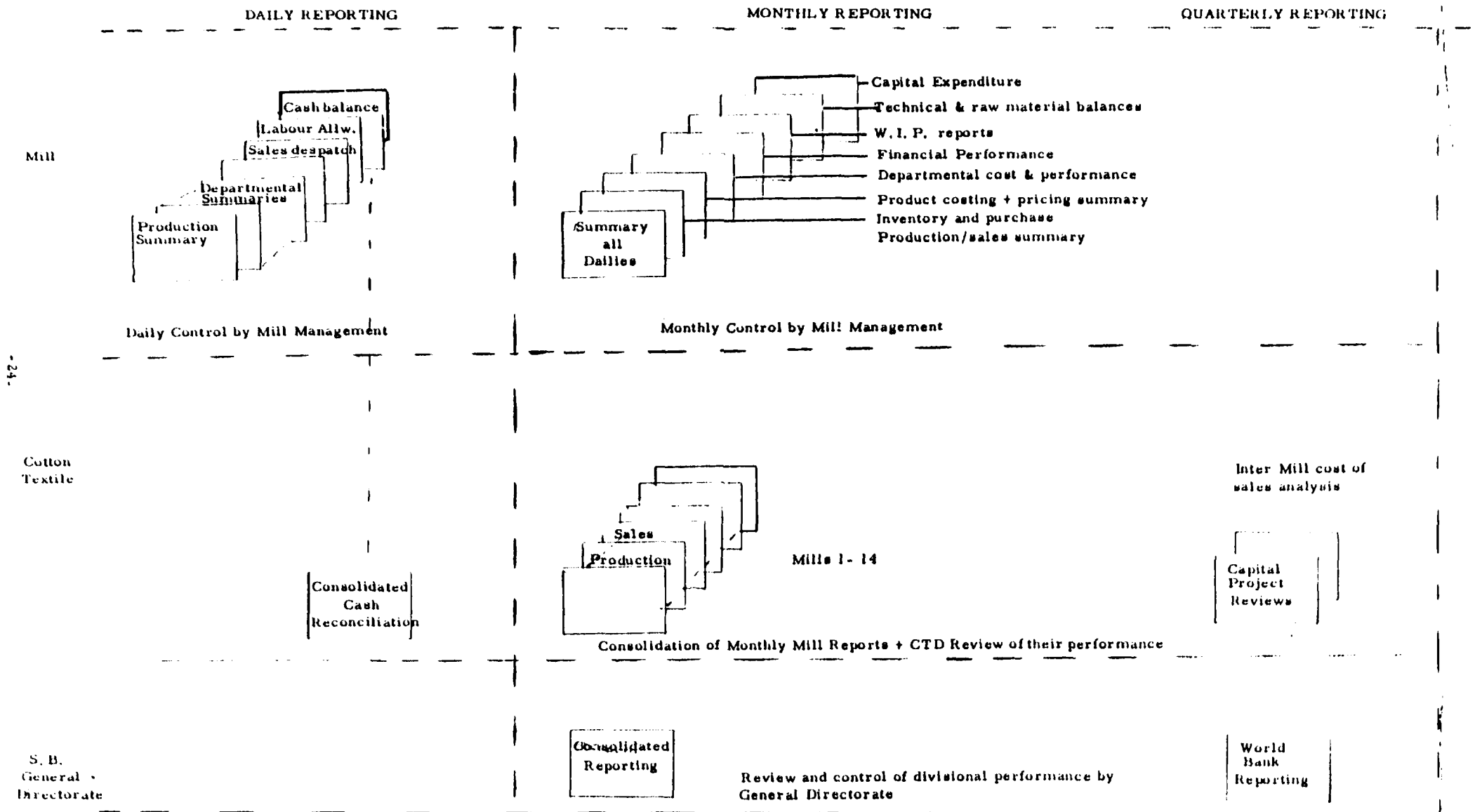
- daily at mill and departmental levels; departmental and mill production summaries, key inventory stock monitoring, sales and despatch performance, employee attendance analysis and bank reconciliation.
- monthly at mill and CTD Head Office levels; production and sales/despatch summaries, inventory and purchase summaries, product costing reports, departmental costing reports, income statements, balance sheets, key management ratio reports, cash flow status reports for individual mills and consolidated CTD with the significance of variances from budget being examined.
- quarterly; as per monthly reporting with additional capital project review reports as set out in Chapter 5 and inter mill cost comparisons.

1.34 Our proposed control procedures are the very minimum required for effective management review and control in order to ensure that targets are attained in a profitable manner or the impact of shortfalls or surpluses are understood and that management accountability is achieved.

1.35 In addition to reporting on operations in a systematic method, certain technical aspects of the operations must be monitored; these are to be determined by Gherzi.

THE REPORTING AND CONTROL INFORMATION STRUCTURE

Figure 1.9



- 24 -

Table 1.1

BROAD CONTROL REQUIREMENTS

Dep	Mill	ASM	HQ
-----	------	-----	----

<u>FINANCIAL</u>			
Income Statement	-	m	m
Balance Sheets	-	m	m
Flow of Funds/Cash Flow	-	m	m
Management Ratios	-	m	m
Costing/Pricing	-	m	m
Invest/Cap. and Capital Projects	-	m	m

<u>SALES</u>			
Budgets	} Comparisons	-	m
Actuals		-	m
Variances		-	d

<u>PRODUCTION</u>			
Levels of Departmental activity and efficiency Together with Budget Comparisons (M/C's, Labour, Materials), Cost Analysis.	}		m
			CM

<u>INVENTORIES</u>			
Selected Lines (I. M. /WIP/F. G/Spares)		d	d
Less Important Lines		-	m

<u>PURCHASES</u>			
R. M.	} Showing a split between domestic and imported purchase.	m	-
Equip.		m	-
Other		m	-

<u>PERSONNEL</u>			
No. s of Staff/Labour Etc. and Shortfall		d	m
Training		-	m

<u>TECHNICAL</u>			
As per Gherzi requirements		d	m

<u>PROJECT</u>			
Cost Accumulation		m	m
Review of Progress		Q	Q

d - Daily m - Monthly, CM - Consolidated Monthly, Q - Quarterly

5 TIMING & LEVEL OF REPORTING

Frequency/Timing of Reports

- 1.36 The frequency and timing of preparing budgets and routine operating reports/statements is of paramount importance - shutting the door after the horse has bolted cannot be accepted as a managerial excuse for non-performance.
- 1.37 We set out quite clearly the timing/frequency requirements of our proposals in a later section of this report. With respect to the current timing problems of producing information, it is our view that this is a problem of poor productivity. Further, we are also of the opinion that our MIS proposals should be within the scope of current manning/establishment levels. However we recognise the problems are due to understandable circumstances within the state economic enterprises and for this reason, namely the timely production of reports, mechanisation may be appropriate. We are currently seeking external funds for a technical assistance program to examine not just A. S. M. requirements, but total Sumerbank mechanisation/computer requirements; A. S. M. requirements may differ when the wider horizons are considered. Such schemes may employ regional micro-processing capabilities.
- 1.38 We have carefully considered the possibility of generating 'flash management reporting' to minimise the problems of untimely availability of management reporting. We do not believe this to be a satisfactory answer to Sumerbank management control problems. The requirements for effective control purposes centre around speed and timeliness and accuracy of reporting.

Management Levels of Reporting

- 1.39 The careful and well structured dissemination of information throughout any organisation is an essential element of successful control and delegation of responsibility. Otherwise executives become over-burdened with data and do not have time for mature consideration or they do not receive sufficient

or timely data in order to assess performance and required courses of action. The broad levels of management reporting requirements are summarised in Figure 1.9.

Management Review Groups

- 1.40 Not only must information be available to individual executives on a regular basis but, for the purposes of enhanced clarity direction, communication and co-ordination, the performance of specific aspects of the business must be reviewed at regular intervals by appropriate management review groups. These are set out in Chart 1.1.

MANAGEMENT REVIEW GROUPS

CHART 1.1

GROUP NO.	TITLE OR GROUP	PURPOSE OF GROUP	FREQUENCY OF REVIEWS NO. PER YEAR	MEMBERSHIP OF THE REVIEW GROUP		
				SBH	SBCTD HQ	SBCTD MILL
1	Executive	Review progress/ of CTD performance at Board level	6-12	General Directors 2 other SB Board members	Director of SBCTD Heads of Marketing, Finance Technical (Textile & Garment) and Personnel	
2	General Divisional Planning and Control	General strategy and direction of the business	12		As above plus the 2 Technical Production co-ordinators, Finance Planning & Control Manager and Treasurer	
3	Finance	Finance & Funding Review	12	Assistant General Director Admin- istration or deputy	Financial Controller Treasurer Finance Planning Managers Investment Planning Manager	
4	Labour Relations	Industrial Relations and Personnel Planning	3-6		Director of SBCTD Head of Personnel and Admin- istration (HQ)	2-3 Mill Managers 2-3 Mill Personnel Dept. Heads 4-8 Worker Representatives
5	Investment	Investment Planning and Control	4-6	Assistant General Director Technical	Financial Controller Investment Planning Manager both Textile/Garment Tech. Heads	Capital Project Managers as required
6	New Product	New Product Development	6-12		Product Development Manager Head of Marketing plus S. Market/Sales Deputy Heads Heads of Textile/Garment both Technical	Co-opted specialised Mill personnel as required
7	Production	Production Planning and Control	12		Both Technical Managers and Production Co-ordinators Marketing Managers Financial Planning Manager	Specific Mill Manager and Production Controllers as required
8	Marketing	Monitor Market Trends and SB performance	6-12	<u>ASM</u> Marketing Manager and Assistants	Marketing Management	Sales Managers
9	Mill	Day to day mill performance	12-24			All senior mill Management

PART C : CAPITAL PROJECT CONTROL

1 Introduction

1.41 The purpose of this phase of the assignment was to provide the Cotton Textile Division of the Sumerbank Group with an effective means of controlling capital project investment. In these times of high inflation any delays of implementation can cause a serious escalation of costs, thus emphasising the need for establishing tight financial control on all areas of investment.

1.42 With the commencement of the R. M. P. project, which is forecast to cost the equivalent of US \$ 106 millions in the next three years, it is imperative that simple, effective methods of control be introduced as soon as possible.

1.43 This short description outlines the steps taken since late May 1980 to study existing methods of control and develop a basic system that is suited to the textile mills within the Group. The integrated Mill at Eregli where spinning, weaving and processing activities take place was chosen as the operational unit for initial study. This is the mill where the specialist textile consultants Gherzi also carried out their studies.

2 Objectives

1.44 The objective of the system design are to :-

- provide a simple, accurate method of financial project control which is definitive in both time and financial commitment thus enabling management to exercise effective control

- limit the stages of authorisation and involvement to facilitate progress and limit the number of associated executives involved
- identify critical tasks where delay would seriously impinge upon progress
- highlight possible areas of major cost escalation to enable quick remedial action to be initiated
- provide authorisations procedures which are simple, clear and avoid unnecessary delays.
- initiate payment of invoices.

3 Broad System Structure

- 1.45 The essential philosophy of these procedures is to ensure that the necessary detailed planning and recording data required at "grass roots" level is compatible with executive review requirements. The managerial system objectives and needs embodied in this approach affecting the different management levels and locations are set out diagrammatically in Figure 1.10 and provide the following general structure :-

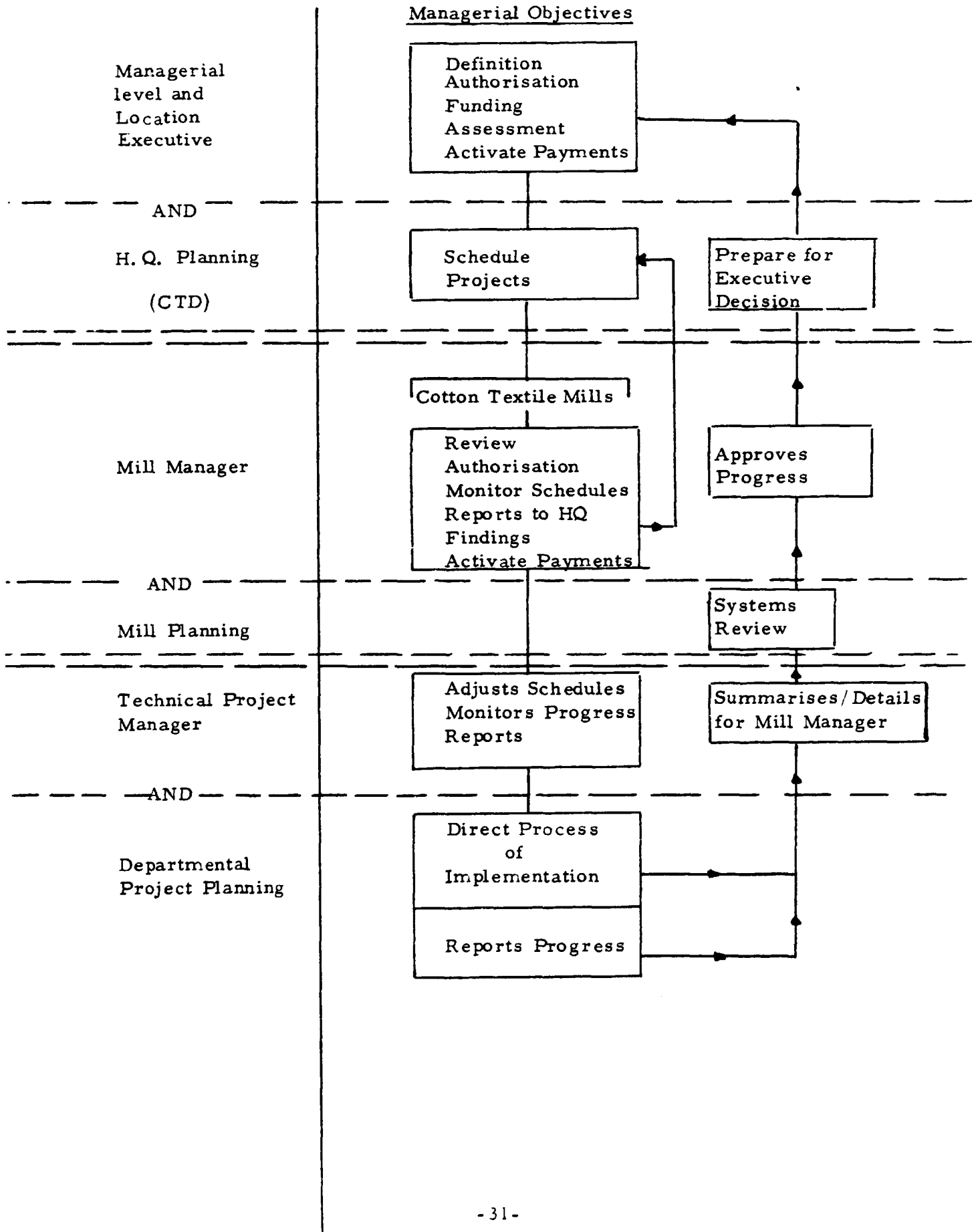
A : Mill Level

1.46 Departmental Project Planning

- develops and plans for implementation by the Mill Manager/Technical Manager
- adjusts plans in conjunction with other general and technical departments to fit overall Mill plan
- progresses and reports on implementation.

FIGURE 1.10

OVERALL PHILOSOPHY OF CAPITAL PROJECT CONTROL



1.47 Technical Project Manager (CTD)

- originates general project development plans
- prepares project plans with the help of technical department staff
- adjust plans to meet Mill objectives
- monitors project progress and reports regularly to Mill Manager
- prepares plans to minimise delays and impending implementation problems.

1.48 Mill Planning

- preparation of all project plans, progress reports and collection of necessary data

1.49 Mill Management

- review regularly all project progress
- reports regularly on project progress to HQ, commenting on delays and other factors likely to effect completion dates or increase costs
- submits plans for approval for new projects and major alterations to existing approved programmes, together with justifications for proposed action
- arranges for the preparation of plans and data in connection with projects requested by HQ.

1.50 Mill Investment Control Officer

To enable effective planning and control to be exercised over all project investment funds, it is essential that each Mill appoint an Investment Control Officer who will report directly to the Mill Manager for this work. His duty will be to plan and supervise the preparation of the necessary documents and reports required to operate an efficient control system as described in this report. He will also liaise closely with the Divisional HQ Planning and Control Department, particularly in relation to the planning and control of foreign currency purchases.

B : Headquarters Level (CTD)

1.51 H. Q. Technical Department

- vets all project plans and suggested amendments to projects already approved and duly approves, amends or rejects.

- together with the HQ Project Planning and Control Department plans the programmes for all overseas purchases for HQ Executives approval, detailing the estimated cost and timing (by month) of all funding requirements. This latter will include satisfying the following needs :-
 - total purchase price with details of any stage payment requirements
 - shipping and insurance charges
 - customs and excise payments
 - port dues
 - internal transport charges from port to individual Mills

1.52 H. Q. Accounting Department

- receives copies of all approved project plans with detailed information regarding budgetted funding requirements.
- receives immediate notification from HQ Project Planning and Control Department of the following for each and every item of foreign supply
 - date of arrival in Turkish Port of entry
 - time of customs clearance
 - date of arrival at Mill(s) at which machinery/supplies to be used.

1.53 Divisional H. Q. Project Investment Controller

It is essential that an Investment Controller who reports directly to the Divisional Financial Director be appointed to supervise, control and co-ordinate the Divisional Project Investment activities. His prime duty of co-ordinating all project activities and keeping the Divisional Executive regularly advised of progress necessitates that he maintain close contact with Investment Officers at each of the Mills where capital project work is in hand or being planned.

1.54 H. Q. Planning and Control

- receives from the Mills for review, comment and recommendation to the HQ Executive(after discussion with HQ Technical Department)the following :
 - project progress reports
 - proposed plans for future projects
 - special reports covering significant changes in timing and cost for approved projects already in hand.

- reviews for comment and recommendation the HQ progress control information on foreign purchases including transport expenditures incurring in moving the goods between ports of entry and the Mills. Subsequently consolidates this information with that covering local purchases received from the Mills.
- in respect of all foreign purchases, advises H. Q. Accounting Department immediately the plant or machinery arrives at :
 - Turkish port of entry
 - Mill or point of usage

and at any other stage specified by the Accounting Department for making adequate settlement of the invoices.
- prepares data and reports for all project reviews by the HQ Executive and any additional project information required by them.

1.55 H. Q. Executive

- reviews progress of all projects quarterly with the aid of Mill Management and HQ Planning, comments and recommendations
- authorises or otherwise, plans for projects submitted by Mill Managements if within limits of responsibility
- authorises the preparation of funding applications to Government Departments or other appropriate authorities when projects are approved in principal
- advises Mills on the decisions regarding all project requests received
- issues general instructions to Mills where alternative or remedial action is required on a project for any reason.

4 Existing Capital Projects

- 1.56 A short review of two on-going projects at the Izmir Plant which had started in 1976 and 1977 respectively showed that original costs had more than trebled largely due to completion delays. Thus emphasising the importance of careful initial planning and the need to meet or beat planned completion dates if serious cost escalation is to be avoided.

5 Initial Study of R. M. P. Programme

- 1.57 The latest plans prepared by the Gherzi Consultants dated April 1980 for the R. M. P. programme indicated that substantial planning work had been completed for all 19 Textile Mills in the Group.
- 1.58 Separate listings had been prepared for every department at every Mill where activities covered by the R. M. P. programme are to be undertaken. Against each item in the programme funding estimates had been made in both foreign and local currency for completing the work and the expected year in which the expenditure would be incurred had also been estimated.
- 1.59 Visits were made to the Eregli Mill in the early stages to discuss with both the Mill Management and the Gherzi consultants the extent to which detailed planning had been completed. This revealed that the development of installation costs was based on past experience and that no detailed plans at departmental level had been worked out with the Mill operating staff.

6 Prerequisites for Establishing Project Investment Controls

- 1.60 The preparation of a realistic funding forecast can only be completed after a detailed plan of all the physical tasks to be undertaken has been set out against a time scale. As this task had not been completed it was not possible to determine the month by month funding requirements for the RMP programme.

- 1.61 The Sumerbank RMP project leader was requested in July to arrange for each of the Mills to prepare its own plan for completing the work involved to enable the month by month funding requirements to be determined.
- 1.62 Forms were designed to assist the Mills in preparing their physical programme for completing the work involved and eventually in October Eregli Mill was requested to complete this task.
- 1.63 On 11th December 1980 the detailed plan for completing the RMP programme at Eregli Mill arrived at Headquarters and after checking of the Divisional Technical Department will be available for preparing the budgetted funding requirements which are the foundation for capital investment control.
- 1.64 When this initial task of preparing a detailed physical plan for completing the RMP programme has been carried out by each of the Mills, it will be possible to prepare the funding requirements for each Mill and for the Cotton Textile Division as a whole.
7. System Design
- 1.65 In order to provide a balanced system of planning and control the procedures have been designed so as to leave the responsibility for detail at Mill Departmental level, with summarised information being made available to enable the Divisional Executive to exercise overall general financial control.
- 1.66 A set of review documents together with information sheets have been designed to assist in providing effective management control over all capital projects. These include reports and returns required for monthly and quarterly reviews and reporting as well as those needed for initial project applications.

1.67 The main documents concerned are as follows :-

- Project Justification Sheet
- Cash Flow Forecast Sheet
- Funding Authorisation Sheet
- Quarterly Status Report
- Item Action Planning Sheet
- Departmental Planning Sheet
- Departmental Expenditure Sheets
- Mill Quarterly Summary Control Sheet
- Divisional Quarterly Progress Sheet
- Divisional Funding Requirements Sheets

Each Mill will prepare separate sheets covering each project in hand and Divisional Headquarter Project Planning Department will consolidate the results to provide summarised figures for the division as a whole. A summarised flow chart is shown in Chart 1.2 indicating the general usage pattern.

1.68 Arrangements have been made to provide the Divisional H. Q. Accounting Department with expenditure details allocated to existing investment accounting groups so that the existing capital project control procedures can be maintained.

1.69 Details of the proposed system are contained in the Capital Project Control Chapter.

8

Conclusion

- 1.70 The recording and reporting system that is recommended for capital project control will provide management with the means of exercising effective financial control. Provided the initial programming information is carefully prepared, the review data speedily made available and the management review procedures completed without delay, good results should be achieved. However the aim should always be to try and improve on the budgeted targets for both time and expenditure - this will provide the best results. Time is of the essence for achieving good results - in times of high inflation loss of time can lead to substantial increases of cost.

PART D : INVENTORY CONTROL

1 Introduction

- 1.71 In this element of the work program we designed an efficient system of Inventory Control that will enable each Mill within the Sumerbank Cotton Textile Division to minimise its investment in stocks whilst at the same time providing adequate stocks to avoid any significant losses of production or sales. It is a dynamic system in the sense that inventory levels are set against throughput volume targets.
- 1.72 It was agreed that a detailed study of inventory, production and sales levels should be made at Eregli Mill which was considered typical of the situation within the group. Inventory levels as at the end of 1979 together with the production and sales figures for the whole of that year were studied in detail and to a lesser extent the same data for the first six months of 1980 was also examined.
- 1.73 The study of existing levels of inventory, production and sales has made it possible to indicate the extent to which investment in stocks could be reduced by the introduction of more effective financial control. However, it should be understood that further checking of certain factors is required to establish more precisely the scope for revising stock levels proposed; in some areas it may be possible to increase the opportunities for saving whilst in others there may have to be reductions. In particular there should be a closer study of the following :
- limitations imposed on overseas purchases by shortage of foreign currency
 - the influence of the seasonal cotton crop on stock holding levels in mills that make direct purchases
 - annual material and spares usage figures to establish and confirm typical levels of usage
 - introduction of a central warehouse system for certain types of materials, e. g. spares, and imported raw materials, etc.

2. Existing Methods

- 1.74 Although the present system of stock control follows the generally accepted method for such operations, there are a number of factors which inhibit economic operation and these are briefly described below.
- 1.75 Stock card entries are only made at the end of each month and not as each issue or receipt transaction takes place, so that the actual true physical position at any time is rarely, if ever, recorded.
- 1.76 No policy exists for establishing
Maximum/minimum stock levels
Re-ordering levels/quantities
for all the material and spares items making up the inventory, which inevitably leads to shortages, surpluses and extra costs and excess and extra costs.
- 1.77 Re-ordering of spares only takes place every six months
- making it necessary to hold higher levels of stock than would otherwise be necessary
 - causing a peak load of ordering activity twice a year instead of spreading the work evenly over the year.
- 1.78 No effective system exists for periodically checking non-moving stocks which leads to increased investment in stocks.

3 Stock Investment Saving Opportunities

1.79 In order to assess the scope for reducing the level of investment, without impairing the production capability to meet sales needs, typical stock holding levels used in similar W. European operations were applied to the Eregli Mill results. In doing the same, allowance was made for the fact that foreign currency is in short supply and causing complications in obtaining goods from overseas.

1.80 The value of inventories at the end of 1979 was 363 million T. L. and the assessed savings opportunities valued at approximately 120 million T. L. are equivalent to 30% of the total.

1.81 The main areas of saving opportunity are as follows :-

<u>Inventory Group</u>	<u>Assessee Saving Potential</u>
170 Finished Goods	32,000,000 T. L.
155 Material Stocks	23,000,000 T. L.
150 Raw Materials	22,500,000 T. L.
182 Goods at Outside Processors	16,500,000 T. L.
160 Semi Finished Goods	11,500,000 T. L.
154 Auxiliary Raw Materials	9,000,000 T. L.
165 Work in Process	5,000,000 T. L.

For further details see the Inventory Control Manual.

4 Proposed Method

1.82 The proposed method for reducing inventory investment by improved control is based on the existing procedures, using stock cards, stock ledgers, bin cards, etc. The improvement in control will come from the introduction of :

- maximum/minimum stock levels
- economic re-ordering levels/quantities

- regular reviews and reporting on stock levels and usage, with high cost and critical items coming under most frequent review and every item being reviewed at least once a year.
- tight work in process target levels against which to plan and control production so as to minimise investment.
- the regular review of all items directly related to production, so that they effectively increase or decrease as production fluctuates to meet sales needs.

1.83 In order to achieve effective inventory control at each Mill and also at Divisional Headquarters we recommend the introduction of :

- a review usage for all items making up the inventory
- maximum/minimum stock levels
- re-ordering levels/quantities

More detailed recommendations for inventory control in the Cotton Textile Division effectively are contained in the Inventory Control Manual.

1.84 The introduction of more frequent monitoring of the high value and high usage items in the inventory will not lead to a large increase in the work load. This is because in general terms 75% to 80% of the total value of any group is covered by only 20% of the high value items. The three histograms showing the stocks as at 31.12.79 for :

- Dyestuffs
- Engineering Stores
- Finished Cloth

clearly illustrate the relatively small proportion of items that need to be checked for maintaining effective financial control of inventories. (Figure 1.11 to 1.13)

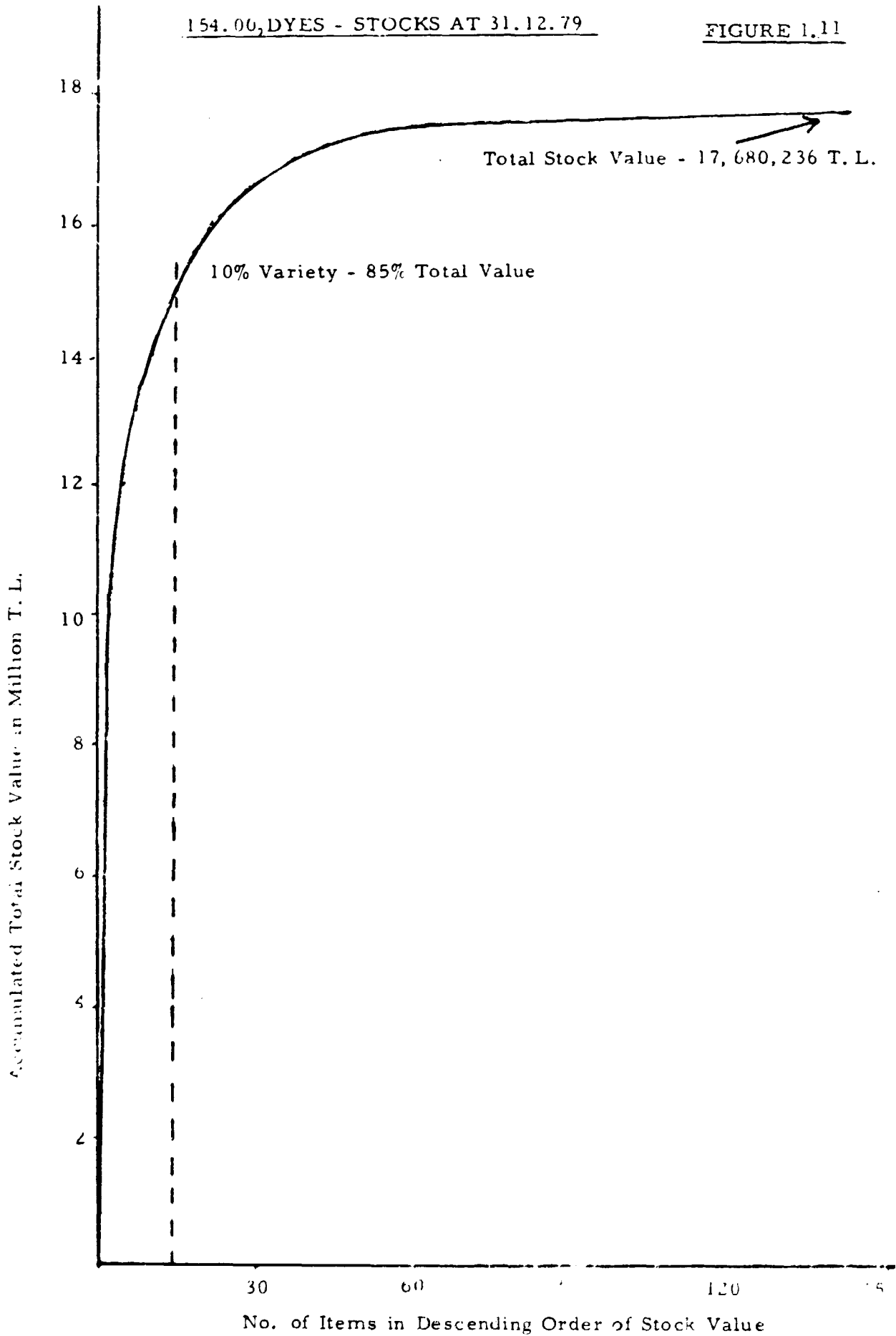
5 Summary

- 1.85 The review of inventory, production and sales levels during 1979 and the first half of 1980 has shown that considerable scope exists at the Eregli Mill for reducing the investment currently held in stocks. Since this Mill is considered typical of the situation throughout the Mills of the Cotton Textile Division the total scope for reducing inventory investment is substantial.
- 1.86 The modified system of control proposed in the Inventory Control Manual will provide management with the means of achieving these considerable savings, provided the standards recommended are applied and the review procedures speedily carried out at the frequency suggested. However, it needs to be emphasised that these savings will only come from management actions resulting from a review of the control data and not from the production of the figures themselves.
- 1.87 Further we believe there is a need for a central warehouse system which will further improve Sumerbank's utilisation of inventory assets. The scope for the savings will obviously depend on the commonality of the low usage inventories between the mills - this we cannot evaluate until other mill inventories have been examined but inventories that would be available include, for example - engineering and machinery spares and imported raw materials. To this end we have designed a comprehensive coding system embracing all the inventories for both ASM and the mills.

VARIETY/VALUE COMPARISON

154.00, DYES - STOCKS AT 31.12.79

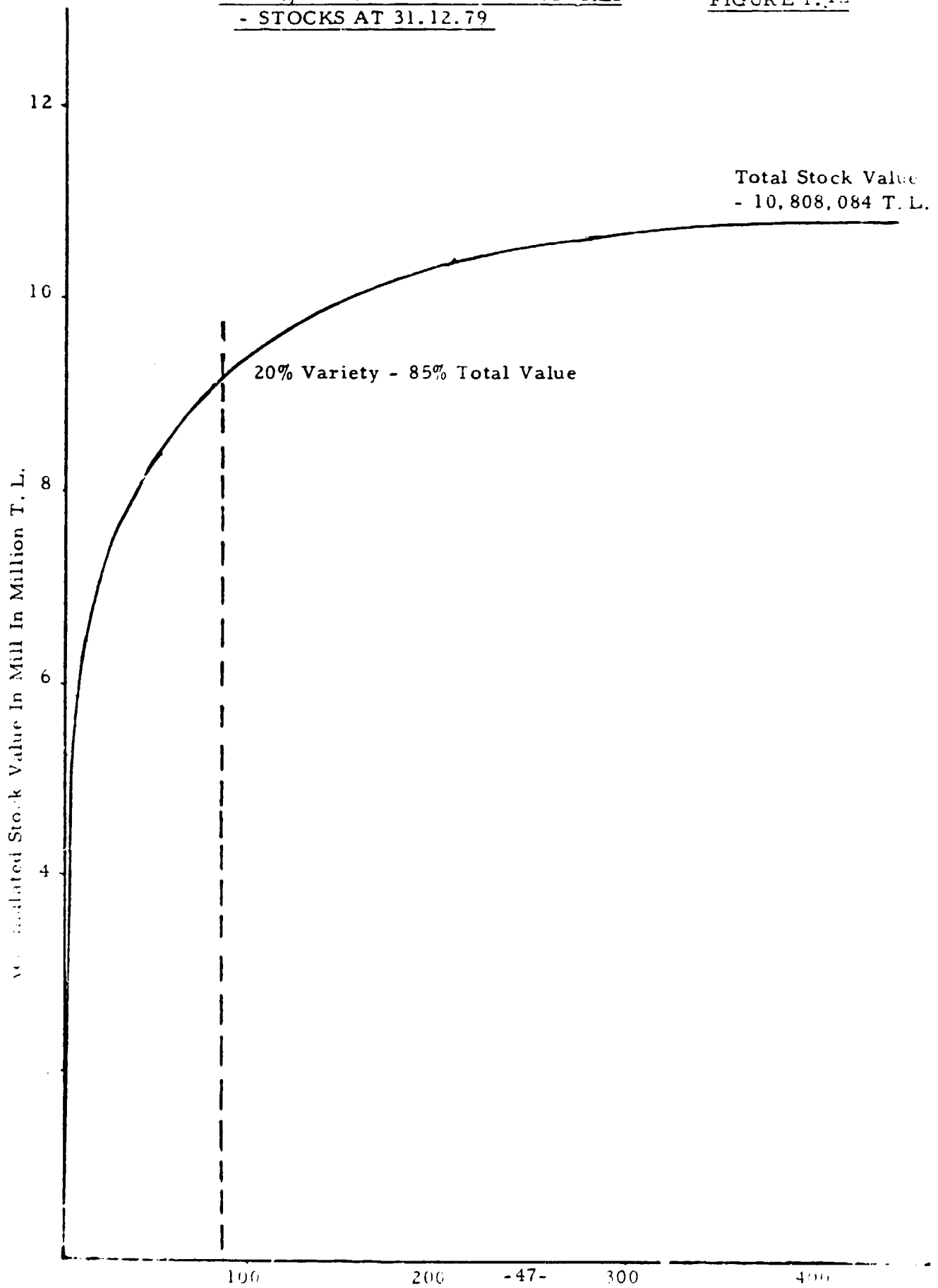
FIGURE 1.11



VARIETY/VALUE COMPARISON

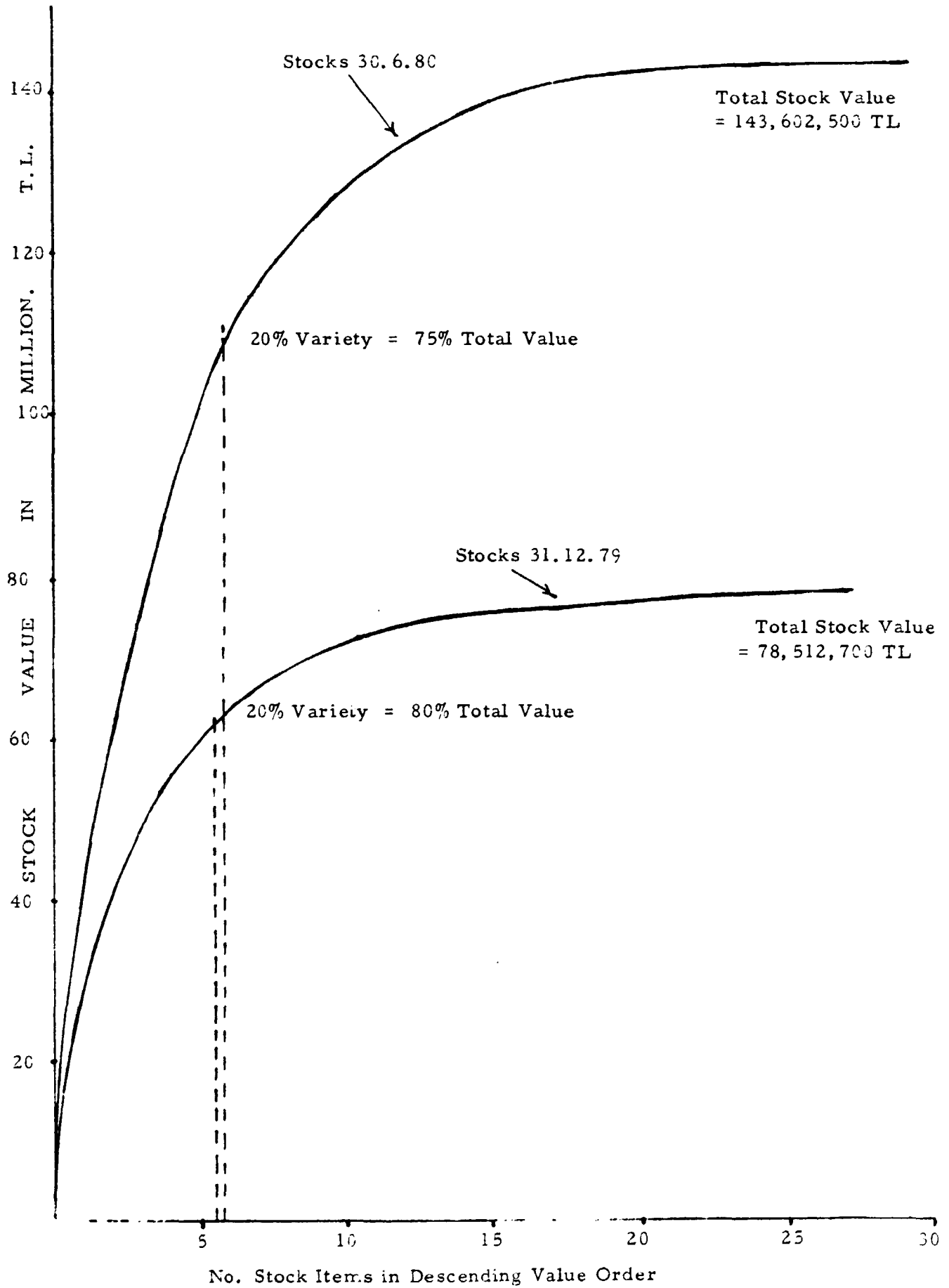
155.09, MISC. ENGINEERING SPARES
- STOCKS AT 31.12.79

FIGURE 1.12



FINISHED CLOTH STOCKS VARIETY/VALUE COMPARISON AT 31.12.79
and 30.6.80

FIGURE 1.13



1.88 The proposed method of establishing specific stock levels is based on a cover requirement related to forecast demand. In assessing the cover requirement, we have considered factors such as overseas ordering lead times, etc. Once the stock levels using this method have been reduced, our procedures will then permit the introduction of more refined equations to replace the broad cover method and these are also set out - this will lead to further reductions.

PART E : PRODUCT COSTING

1 Introduction

1.89 An actual method based on the relationship between machine hours and volume output has been developed and is described in Chapter 6 of this report.

1.90 We decided against the development of a standard costing system in the present circumstances for the following reasons :

- The use of standard costing as a cost accounting system in a situation of very high inflation would require such frequent revision of the cost standards as to be impractical.

- The determination of standard cost rates requires a level of accuracy in forecasting which Sumerbank have yet to attain.

1.91 However, this does not preclude the development of standards in various key control areas such as material waste, machine efficiency and labour efficiency, which would be useful aids to management control.

2 Cost Centres

1.92 In order to increase the accuracy of product costing, we have recommended the use of a larger number of cost centres rather than use the present method in which discrete activities are grouped together for costing purposes.

1.93 The cost centres we propose for use are readily distinguishable from the current system and are set out below :

- Spinning
 - opening and blow room
 - carding
 - combing
 - draw frames
 - speed frames
 - ring spinning

- Winding & rewinding
 - cone winding
 - doubling and twisting

- Weaving preparation
 - pirn winding
 - sectional warping
 - direct warping
 - sizing

- Weaving
 - loomshed

- Processing
 - singeing and bleaching
 - mercerising
 - dyeing
 - finishing and folding

- Sewing Thread
 - hank winding and singeing
 - bleaching and mercerising
 - dyeing
 - rewinding and packing.

3 Conversion Costs

1.94 We have reviewed the current 'cascade' system of reallocating the costs of auxiliary production services to direct production cost centres and, while we endorse the system in principle, we would observe that the order in which these costs are cascaded is very important.

1.95 The cascade order should be based upon the relative impact, in value terms, of each auxiliary cost centre on the other service departments. This is so that the order can be set to minimise the value of those cross-allocations which are prohibited by the system.

1.96 We have examined the basis currently used for allocating auxiliary conversion costs and recommend modifications in the bases for the following cost allocations; details of which are contained in Chapter 6, paragraphs 6.21, 6.22 and 6.23 of this report.

- Steam
- Maintenance Departments
- Management Services Departments (Planning, Production Management, Physical Lab., Chemical Lab.)

1.97 As previously stated, the allocation of conversion costs to products within each direct cost centre would be based upon the relationship between machine hours and volume output. This basis would apply in all cost centres except Cloth Bleaching, Dyeing and Finishing. In these areas there are a number of different process routings depending on the type of product and to accommodate this we recommend the use of a 'points' system of allocation to avoid further increasing the number of cost centres.

1.98 Before implementation, the regular monthly collection of data on actual machine hours per product in each cost centre must be established, together with the points per unit for each product in the three cost centres listed, according to the individual product routing.

4 Direct Labour

1.99 We recommend that the account for wages and related expenses be split to identify separately the direct and indirect labour costs. This will facilitate the provision of product costing data in which the direct labour cost content is identified, which will serve as a useful management aid.

1.100 It will also facilitate the allocation of direct labour separately from other conversion costs, according to recorded labour hours, in cost centres where product characteristics determine the deployment of direct labour.

5 Material Costs

1.101 The current treatment of material costs is, in the main, satisfactory although there appears to be some inconsistency in the treatment of processing materials. Whereas dyes and chemicals are treated as direct materials, starch and sizing materials are included as conversion costs. We recommend that all processing materials are treated consistently as direct materials.

1.102 In accounting for waste recycled in the Spinning Department it is necessary to deduct the cost of such waste in order that it can be reinput at the Blow Room Stage. This is because the waste from 'combed' material is reinput to 'carded' product and the cost transfer must be made in order to maintain the accuracy of product costs.

1.103 However, we recommend that no value be deducted in the case of non-recycled waste. The current practice of reducing material cost by the estimated sales value of the non-recycled waste means that unit product costs will be affected by changes in the market price of waste, independent of any changes in efficiency, utilisation, etc. We feel this could detract from the usefulness of product cost data for control purposes although we have not included this change in the new methods at the request of management.

6 Implementation

1.104 The full costing method as set out in Chapter 6 provides product costing data in great detail by accumulating those costs by cost element - i. e. maintaining a breakdown by materials, production taxes, direct labour and other conversion costs.

1.105 We suggest, however, that this level of detail may not be practically attainable under the current manual methods but may rather be a feature which is added in the future with the introduction of mechanised systems.

1.106 In the interim, we suggest that costs be accumulated in total by cost centre in order to reduce greatly the number of calculations required and, hence, reduce the time taken to complete the monthly costing process.

1.107 It will be important during implementation that the principles of the system are fully understood by the appropriate Sumerbank personnel and that disruptions in accounting and reporting are minimised. Hence it would be beneficial to adopt a stage-by-stage approach aimed at gradually adapting the current system to conform to the principles set out in this report, rather than making sweeping wholesale changes which may lead to confusion among the staff involved and disruption to the accounting timetable.

PART F : CTD FINANCIAL MANAGEMENT STRUCTURE

1. Background

1.108 The current functionalised corporate and mill organisations are shown in Charts 1.3 and 1.4. Gherzi who are responsible for the overall reorganisation take the view that this functionalised approach significantly contributes towards :-

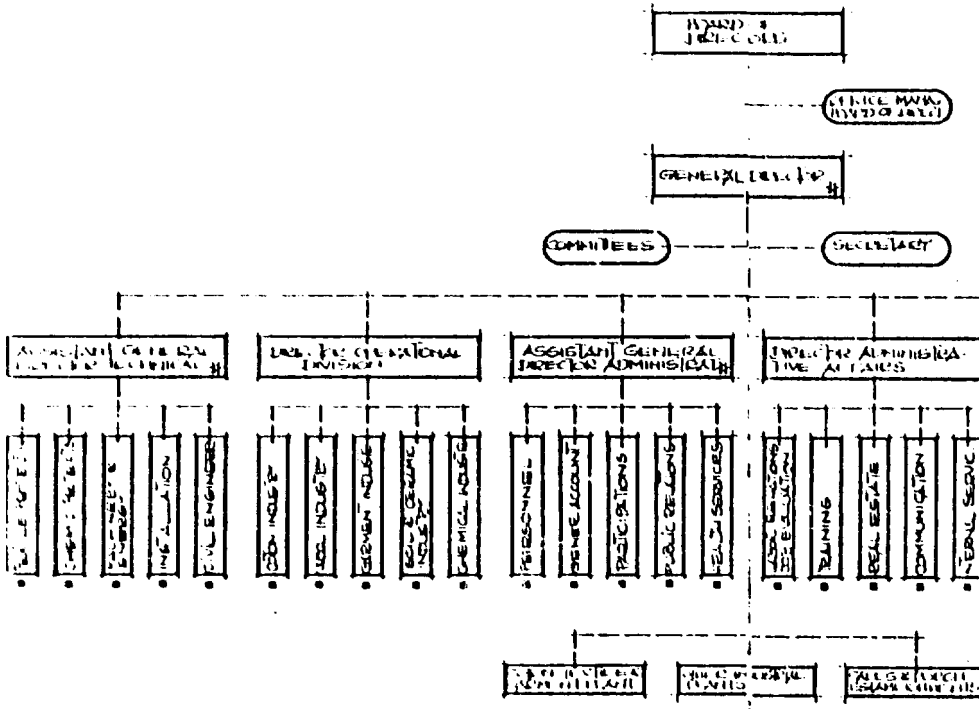
- blurred areas of responsibility and accountability from a planning and control standpoint which is accentuated by the lack of a strong financial function. The function is treated within a more general area, under the Assistant General Director for Administration.
- cumbersome reporting systems which lack structured dissemination. Further it does not necessarily produce information by the right time for effective control purposes thereby making cost and operational control difficult
- inability to change because of either market place pressures or general economic trends
- difficulties caused by burdensome span of control

1.109 Further we question the position of planning and control activities which are outside a strong line function and which have only partial responsibility for production information.

In SBCTD, we have adressed the financial controllership to accountability, for example, of :

- financial planning, budgeting and control
- investment planning and capital project cost control

SUPERVISORY CONTROL FUNCTIONS
 AND ADMINISTRATIVE CONTROL
 FUNCTIONS



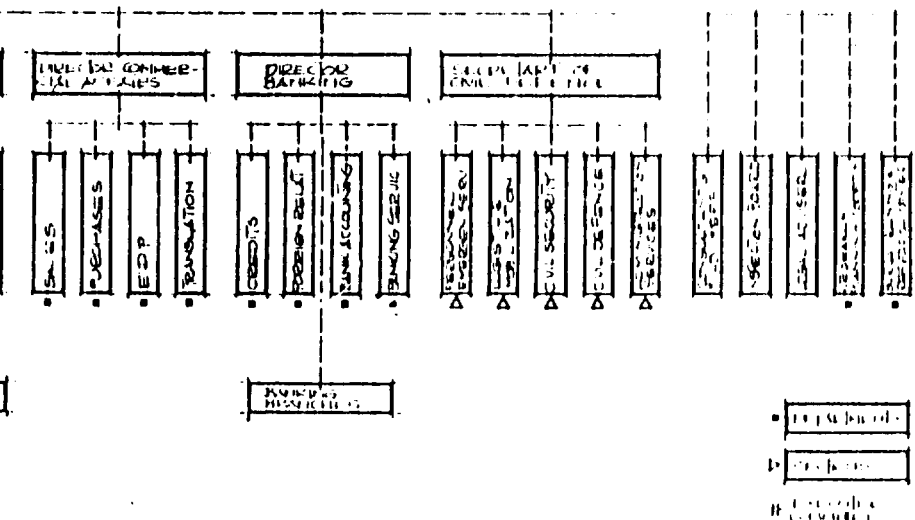


CHART 1.3

ORGANIZATION CHART

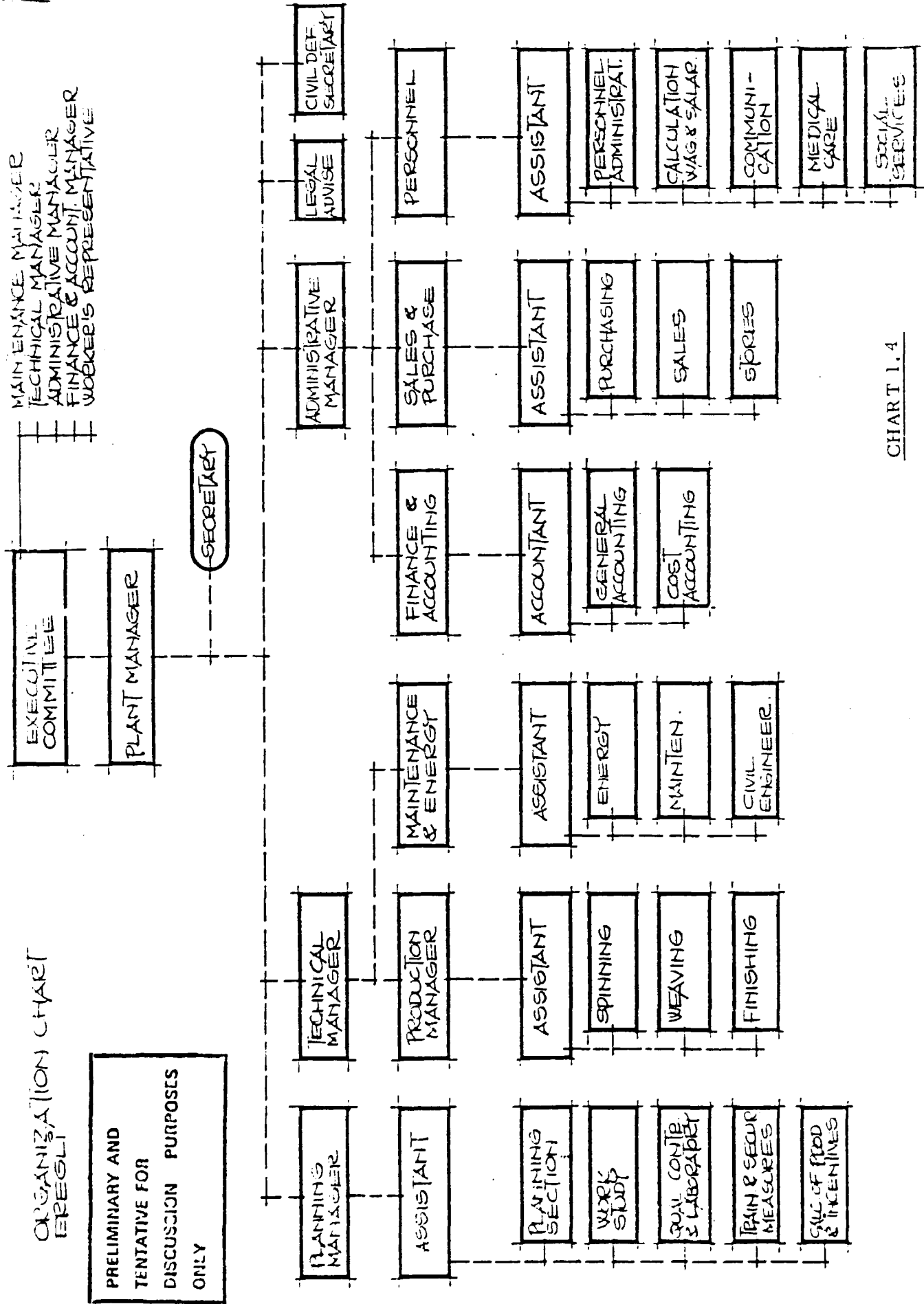


CHART 1.4

- accountancy (general/cost/management)
- taxation
- administration and other support functions
- special investigations.

2 General Organisation Proposals

1.110 In Charts 1.5 and 1.6 we give the Gherzi proposals for SBCTD Directorate and that for a mill. In essence CTD reports at S. B. H. Board level and is divisionalised within five major line functions

marketing, purchasing, production,
finance and personnel

A number of non-line supporting functions are also called for as set out in these charts.

3 The CTD Finance Function Requirements

1.111 Our organisational proposals for the finance function for both SBCTD HQ and mill levels are shown in Charts 1.7 and 1.8, and have been developed within the broad Gherzi recommendations.

Within the SBCTD, we envisage a strong finance division under the authoritative direction of a financial controller who would be a member of the 'SBCTD Board'. We propose that he control five departments :

- planning and control both of financial and investment activities together with SBH reporting and consolidation duties

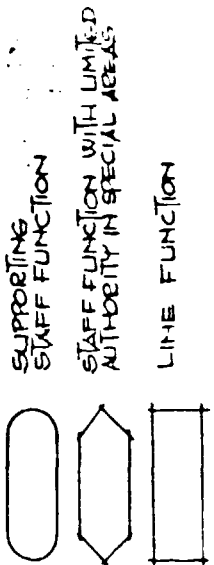
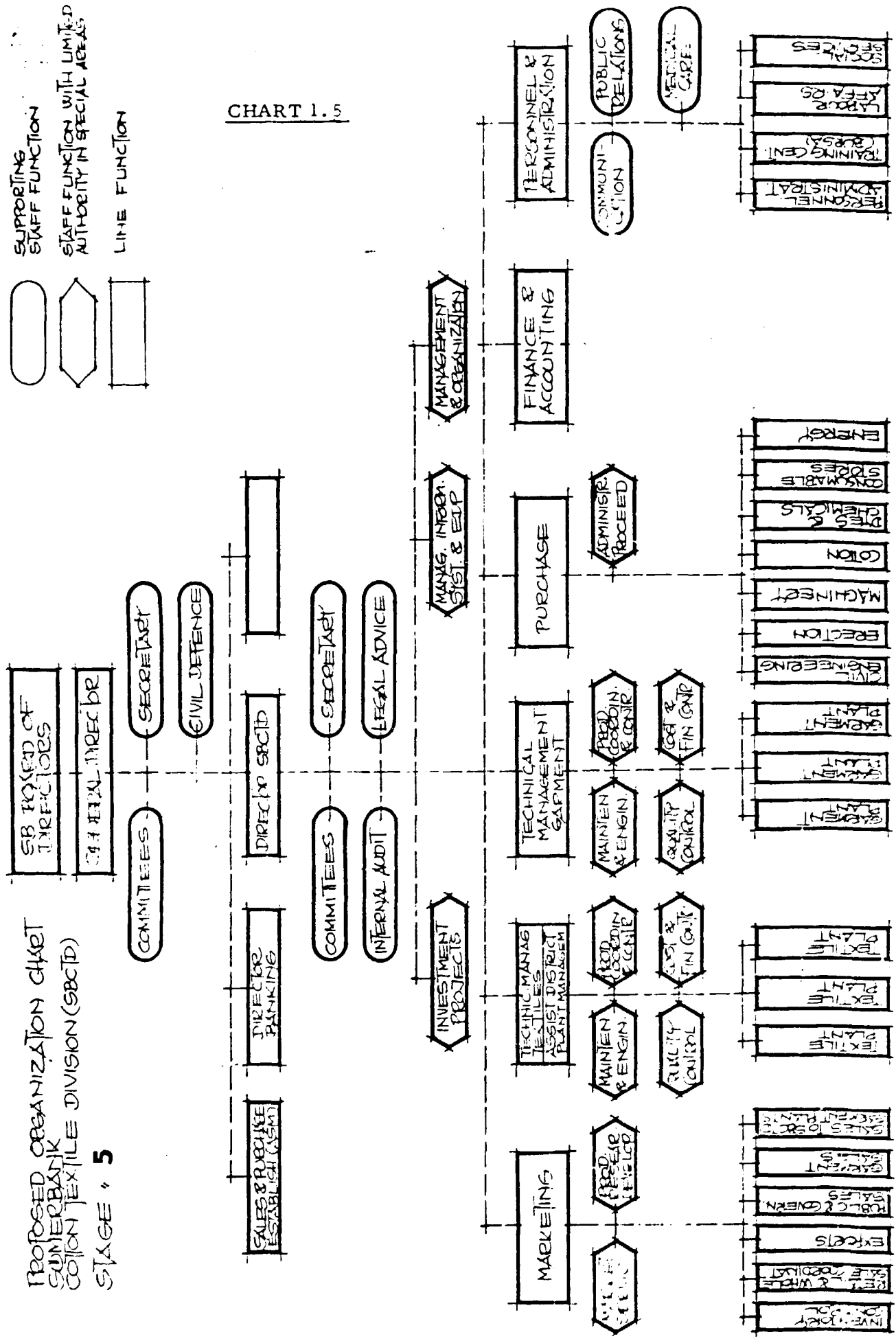


CHART 1.5

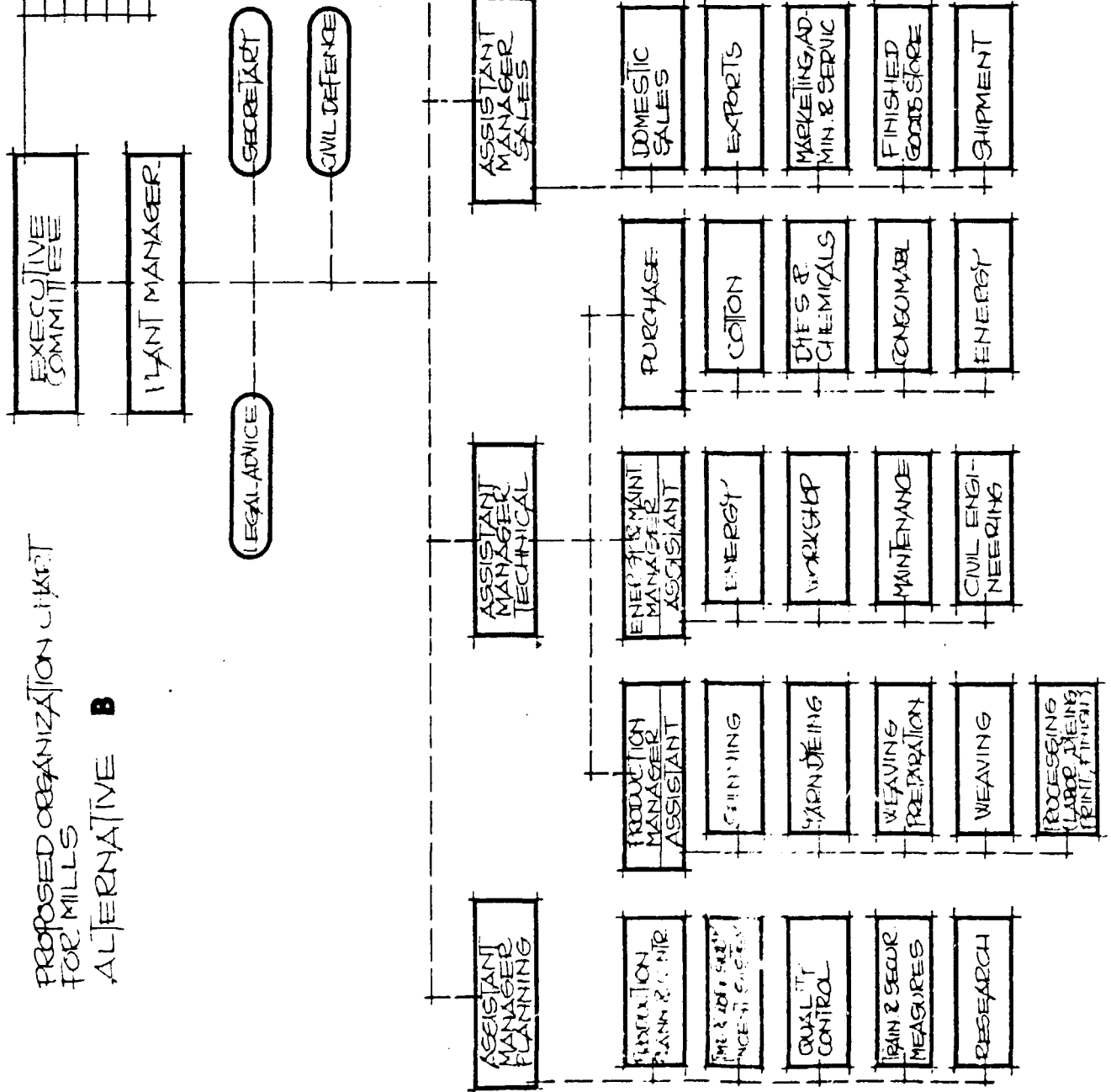
PROPOSED ORGANIZATION CHART
 SUNTERBANK
 COTTON TEXTILE DIVISION (SBCID)
 STAGE 5



PROPOSED ORGANIZATION CHART
FOR MILLS
ALTERNATIVE B

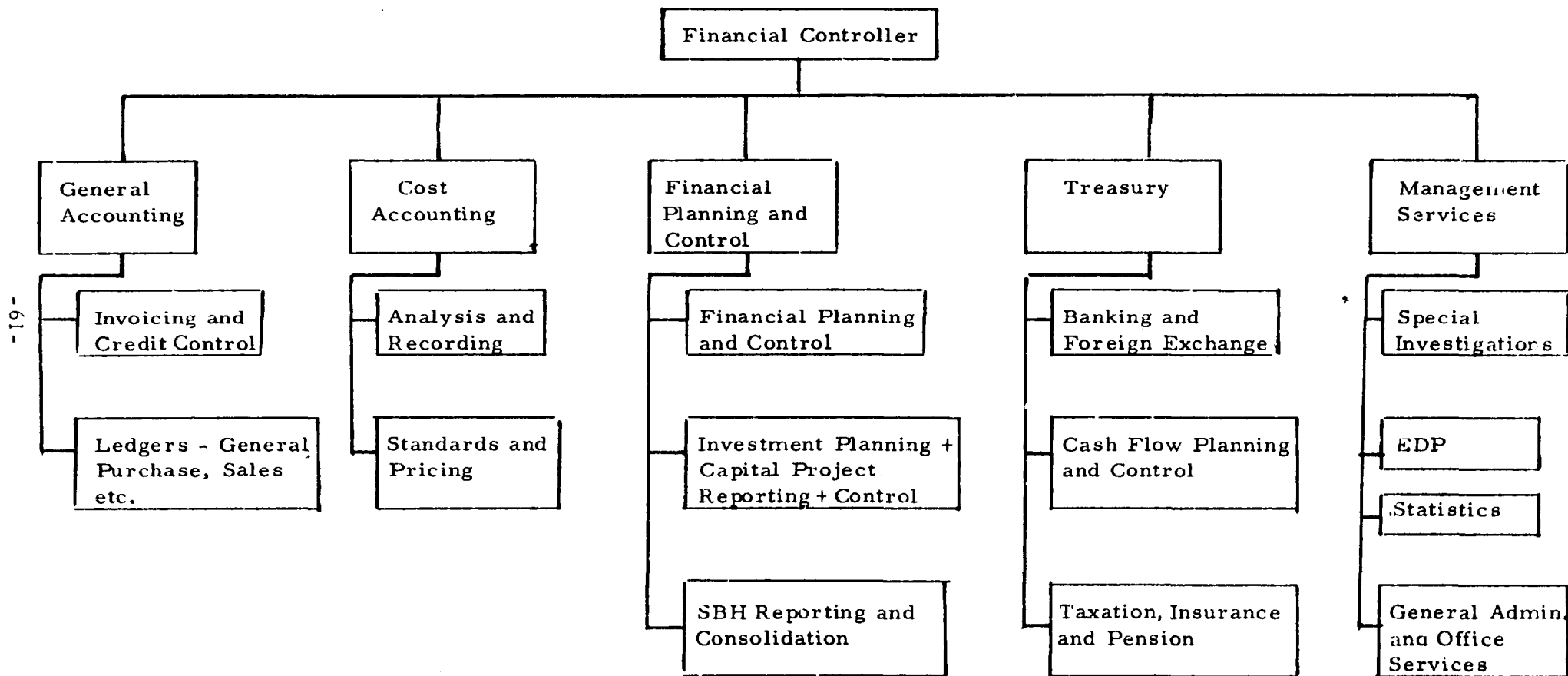
PLANT MANAGER
PLANNING MANAGER
TECHNICAL MANAGER
SALES MANAGER
ACCOUNTING & PURCHASE MANAGER
PERSONNEL & ADMINISTR. MANAGER
WORKER'S REPRESENTATIVE

CHART 1.6

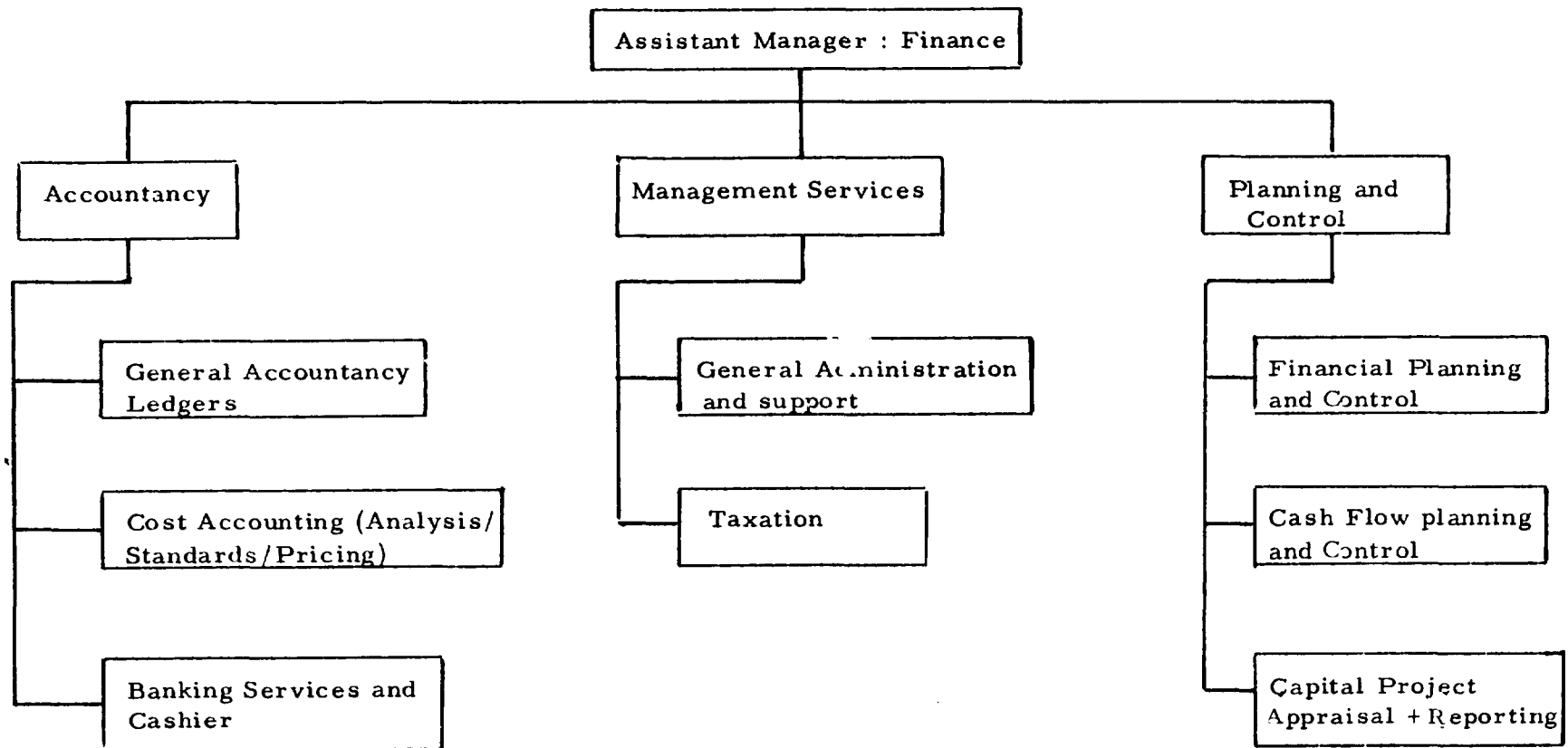


THE SBCTD H. Q. FINANCE FUNCTION

CHART 1.7



SBCTD MILL FINANCE DEPARTMENT



- treasury and in particular cash flow planning and control, banking and foreign exchange together with taxation, insurance and pension tasks of CTD.
- cost accounting including analysis and recording with particular regard to the impact on standard/marginal costing and consequential effect on prices and cost centres
- general accountancy; invoicing and credit control, maintenance of various ledgers
- management services, general administration and office service requirements, EDP etc, and a small special unit (for reporting, for example, effects of introducing incentive schemes and/or changes in production methods)

The corresponding finance department within a mill (Chart 1.7) thus includes :

- planning and control; finance, cash flow and investment (capital projects)
- accounting; general accounting and cost accounting (including standards and pricing)
- management services; general administration and support services and taxation

4. Staff Requirements

1.113 Establishment levels within each finance department have been indicated and Ministerial approval for nine senior financial executives (contracted personnel) has been given. The linking and recruitment of these personnel who will form the core of CTD finance has yet to be effected.

4 Job Descriptions

1.114 These have been fully detailed and are set out in Chapter 7.

PART G : A. S. M. ACTIVITIES

1 Introduction

1.115 The terms of reference called for an examination of the following activities within A. S. M. :

- financial reporting
- financial planning and control
- inventory control

2 Amendments to the Summary Report on A. S. M.

1.116 Our study concerned all A. S. M. functions and was approached by considering its compound products and corporate activity to meet market potential at minimum cost, recognising any imposed management constraints.

1.117 We became aware during the course of our investigations of a need for fundamental change in attitude and direction of the managerial control activities.

1.118 In our report we have described the work done to determine the optimum configuration of the marketing activities required to modernise A. S. M. systems, to meet its' retailing cotton textile product obligations. We therefore consider it appropriate to report on a number of specific subjects :

- structure, organisation, controls and responsibilities
- market potential, forecasting and budgets
- interface between marketing, manufacture and reconciliation

- product identification, classification and coding
- data processing, retrieval and management information systems
- financial inventory and operational accountability
- marketing performance/sales statistics co-related to manufacturer constraints and objectives

3 General Impressions and Comments

1.119 General impressions and principal conclusions are :

Management

We believe that the current organisation structure and establishment levels seriously overburden ASM H. O. management and as a consequence the ability and quality to plan and control is impaired for example :

- there is insufficient personal contact, regional movement communication and control by H. O. personnel on their selling activities
- a lack of time to consider market potential, trade pressures and product demand criteria
- information requests and accountability to be inconsistent and irregular especially on matters concerned with stock, turnover and profitability

Marketing

There exists an under utilisation of retail shops and use of selling capacity with inferior merchandising. There is a possibility to supplement Sumerbank weaknesses in maintaining supplies by externally purchasing from private sector which will improve utilisation and profitability and encourage and motivate sales staff.

Stock Levels and Rotation

Resulting from our studies we observed a complete ad hoc method of monitoring stock movement and volumes.

The district offices did not function as intermediaries moving stock from one retail area to another. Similarly ASM Planning were not responsible for ensuring correct allocation of product to district warehouses. The whole process of stock surplus and shortage was closely allied to the manufacturer deciding which location was the most convenient to discharge his product. Discussion between ASM and Mills seldom took place on distribution schedules.

Slow moving stock lines were not the subject of special action such as :

- sell surplus at discount/mark down price
- transfer from over stocked retail outlets to under stocked shops
- no seasonal sales to clear shift space were apparent
- arrange for bulk auction at a convenient central location

There is no provision in the warehouses to break bulk. This means retail shops have deposited with them considerably more products than their sales will allow. There again the size of a unit of turnover for distribution lies totally within the functions of the manufacturer. Separating rolled materials in transit warehouses unless already factory prepared is liable to cause deterioration in quality and difficulties of reconciliation.

Interface

Lengthy and inadequate lines of communication prevail between marketing (ASM), manufacturers and head office management which results in costly delays, misunderstanding and indecision on vital commercial issues.

A typical comparison of district office product requests and actual deliveries for Eregli, Manisa and Bergama is shown on Tables 1.2 to 1.4. However these results only indicate where the cloth qualities requested have been received but not whether the order/budget quantities specified were not.

Product

We investigated the product classification and coding system which is unique for ASM operational and statistical purposes and not in any way associated with manufacturers coding. The system used is illogical without any systematic reference to product characteristics such as material, colour, design, etc. Furthermore code numbers are not sequential and follow a suppliers mixed product range.

\ Supplied
 / Request

EREGLI FACTORY/ASM DISTRICTS COMPARISON OF PRODUCT REQUEST/SUPPLIED - 1980 Jan-Sept

Product Code	Adana	Ankara	Balikesir	Eursa	Diyarbakir	Elazig	Erzurum	Eskisehir	Gaziantep	Istanbul	Isparta	Izmir	Kars	Kayseri	Kocaeli	Konya	Nazilli	Samsun	Sivas	Tekirdag	Trabzon	Van	Zonguldak
231.239	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
335	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
228	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
370	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
372	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
378	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
410	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
517	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
518	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
523	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
527	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
548	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
755	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
759	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4904	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4905	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
328	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3285	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3286	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3287	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
758	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7584	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
522	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
549	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
748	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
860	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3284	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
239	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
241	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
250	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
359	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
396	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
566	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
376	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

TABLE 1.3

MANISA FACTORY/ASM DISTRICTS COMPARISON OF PRODUCT REQUEST/
SUPPLY 1980 JAN-SEPT.

District	347	426	551	641	770	11127	11130	11157	554	432	485	486	786	785	559	484	642	550	367
Adana	/	/																	
Ankara	/	/																	
Balikesir																			
Bursa																			
Diyarbakir																			
Elazig	/																		
Erzurum																			
Eskisehir	/	/																	
Gaziantep																			
Isparta	/																		
Istanbul	/	/																	
Izmir	X	/																	
Kocaeli	/																		
Kars																			
Konya	X	X																	
Kayseri	/																		
Nazilli	/																		
Samsun	/																		
Sivas	/																		
Tekirdag	/																		
Trabzon	/																		
Van																			
Zonguldak	/	/																	
B. Konak																			
TOTAL																			

/ Supplied
 \ Requested
 X Delivered

TABLE 1.4

BERGAMA FACTORY/ASM DISTRICT COMPARISON OF
PRODUCT REQUEST/SUPPLIED 1980 JAN-SEPT

District	430	607	756	990	996	991	762	705	981	Stock	Perf %
Adana	/	/	/				/				
Ankara	/	/	X				/	/			
Balikesir	/	/	X				/	/			
Bursa	/	/	/				/	/			
Diyarbakir	/	/	/				/				
Elazig	/	/	X				/				
Erzurum	/	/	X				/	/			
Eskisehir	/	/	X				/				
Gaziantep											
Isparta											
Istanbul											
Izmir	/	/	X				/	/			
Kocaeli	/	/	/				/	/			
Kars											
Konya											
Kayseri			X				/	/			
Nazilli											
Samsun			/								
Sivas	/	/	/				/	/			
Tekirdag	/	/	/				/	/			
Trabzon	/	/	X				/	/			
Van	/	/	/				/	/			
Zonguldak	/						/	/			
B. Konak											
TOTAL											

/ Requested

\ Supplied

X Delivered

Data Processing

Inspection of the facilities for computing data at Istanbul head office confirms the view that the configuration is too small and out moded for the service expectations. The computer which is an IBM 36020 model has been installed for 12 years and is limited to card input and sort and record facilities with a card capacity of 8K. It performs a back-up service to Accounts and Sales. Handicapped by its incapacity to process tape, and having no on-line interactive real time facilities, its usefulness therefore is very questionable. It is costly to operate and cuases considerable delay in providing information.

Accountability

We observed there is a framework in ASM to provide statutory accounts in accordance with Sumerbank directives and SEE regulations. The difficulties experienced are concerned with requirements to substantiate back up costs and sales figures for recent events and include :

- available information being three calendar months out of date
- difficulty in obtaining cost centre allocations for fixed and variable elements because no system exists for apportioning and allocating direct and indirect expenses
- with the data processing section coming under the control of the Accounts Department, processing priorities for Sales, Marketing and Purchasing figures could be adversely affected.

- the lack of provision of operational accounting information to back up budget variances by cost centre allocation.

Marketing/Sales Information

Certain statistical sales information is produced which assesses product sales, stock and manufacture (deliveries). Little use is made of this information because of untimely reporting, for example 1979 data was not available until September 1980 and on special request the 6 month statistics for 1980 were produced four months after the closing date.

We were of the opinion management had not determined what statistical information could assist them most on a routine basis ~~in order~~ to adjust these demands on suppliers.

4. Summary of Recommendations

1.119 These are set out below.

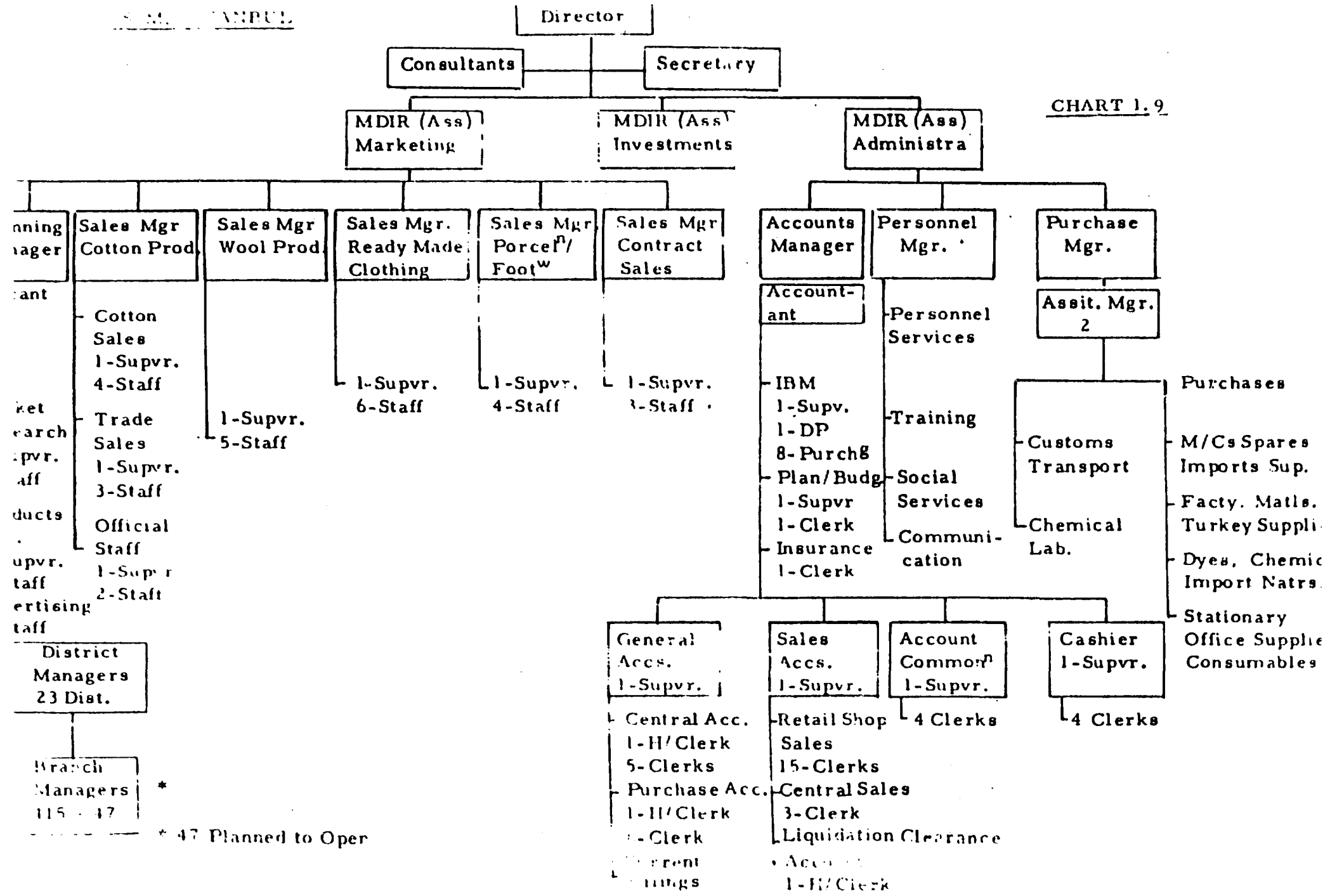
Organisation

1.120 There are two areas for revision. These are :-

a) Head Office A. S. M.

We suggest that the existing head office structure as shown in Chart 1.8 should be reviewed and replaced by our proposal as in Chart 1.9.

CHART 1.9



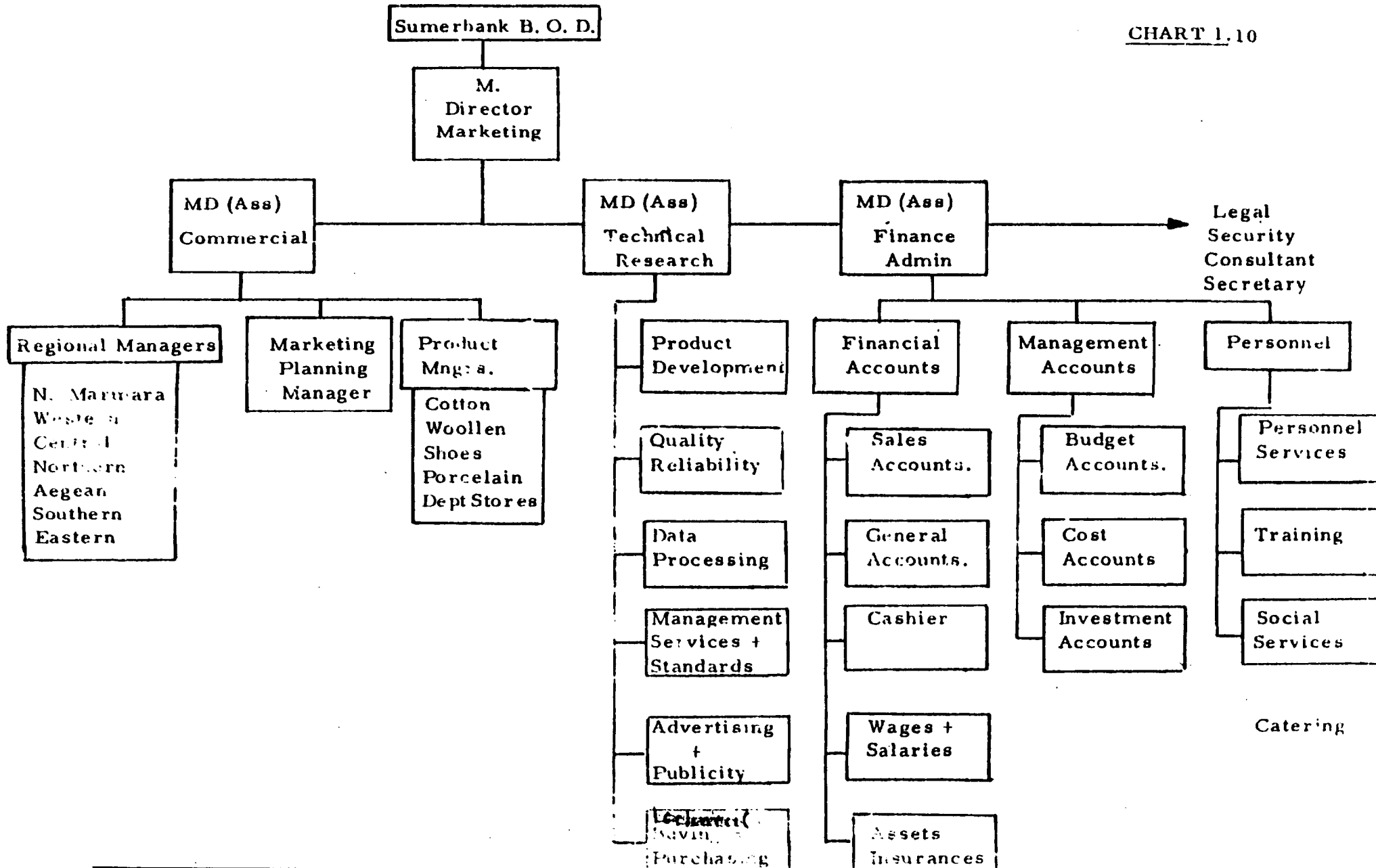
District Managers 23 Dist.

Branch Managers * 115 - 17

* 47 Planned to Oper

PROPOSAL - A. S. M. - ORGANISATION

CHART 1.10



1.121 The objective of the revised structure is to spread the responsibilities currently shared between the Administration Assistant Director and the Marketing Assistant Director in order to permit lighter managerial control. We have created a new position of Technical Research and Development Manager so as to support the considerable effort and authority demanded of our modernisation proposals in the fields of Computerisation, Systems, Purchasing and Product Development

1.122 With the advent of a new DP systems configuration, the emphasis on managerial quality in this section is of utmost importance. Systems design and rationalisation of existing procedures together with implementation will require complete dedication to new techniques.

1.123 Purchasing we believe is becoming more technical and should be the responsibility of a Technical Department as it is a crucial part of manufacture and marketing. This is likely to be much more significant as ASM enters deeper into the field of buying in products for retail sale from external manufacturers/suppliers. Already functioning is the Izmir Departmental Store and it is planned to introduce three more larger stores in 1981.

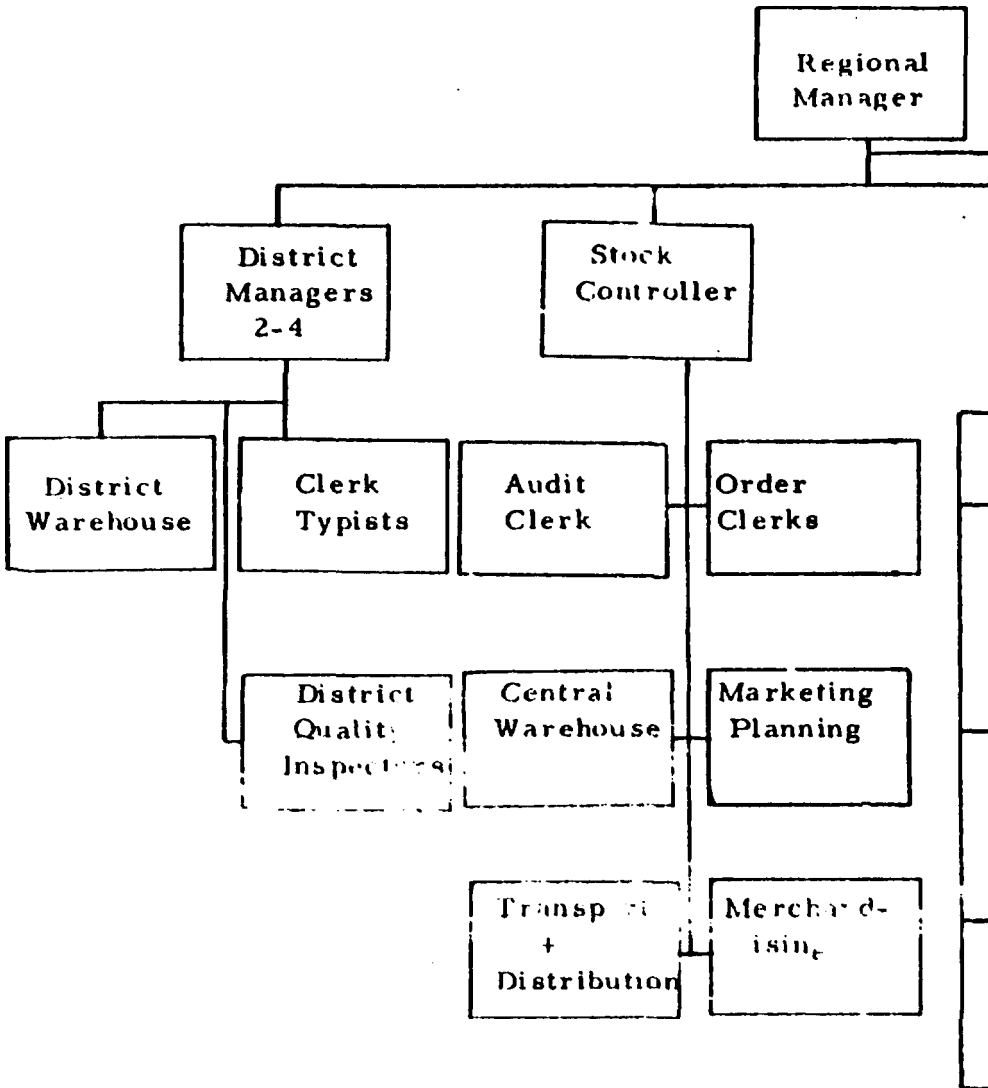
b) Regional Offices and Districts

1.124 Following our investigations we conclude that ASM Head Office in Istanbul cannot effectively manage and control 23 district administrations. We considered operating with managers centred at Istanbul, but regarded the travel difficulties as unacceptable. To maintain the level of controls we believe are essential to improve the profitability of ASM, regional knowledge linked with tight local control is of paramount importance.

We have indicated in Chart 1.10 an appropriate organisation structure for the newly conceived regional centres.

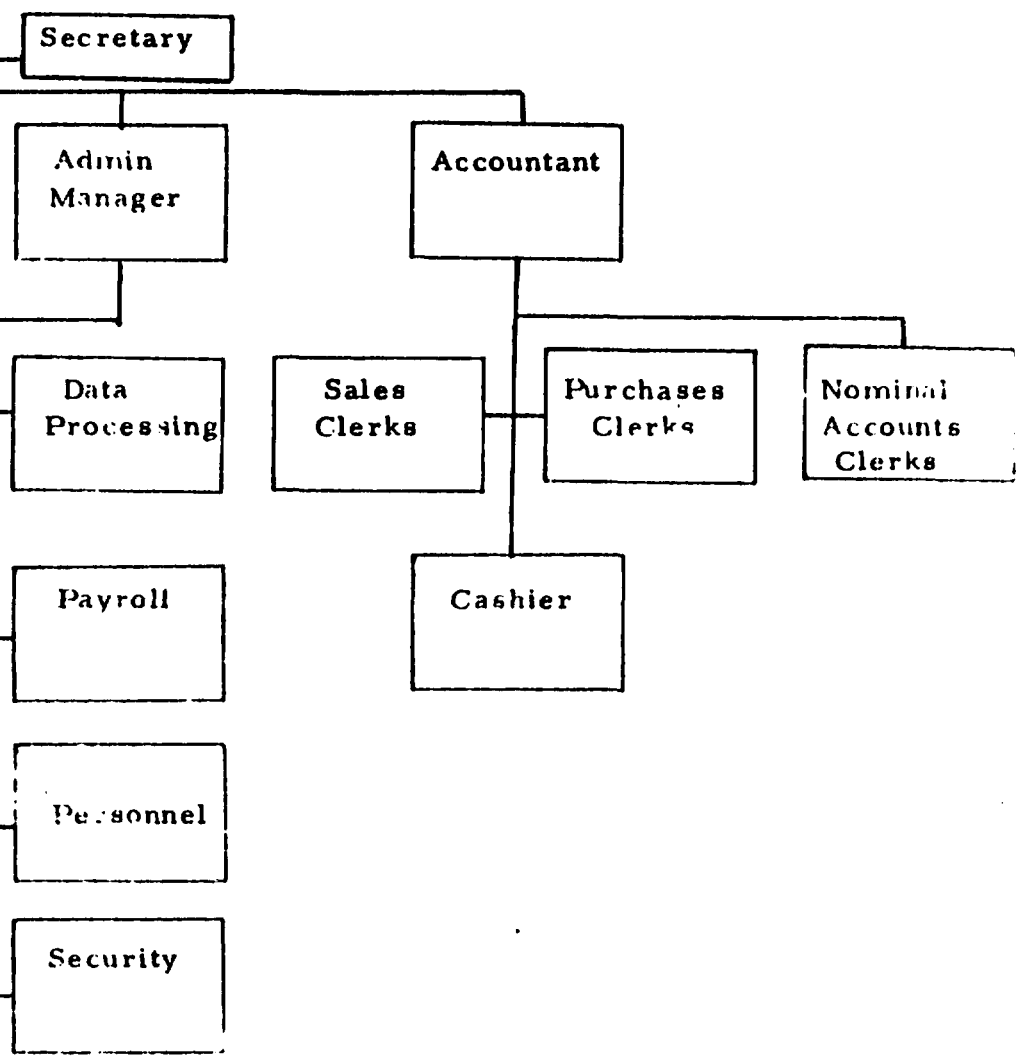
- 1.125 Each regional office will be equipped with a satellite data processing facility ; IBM 5280 or equivalent. Data processing of all retail shop invoices, credits, debits, stock, payroll, consignment notes, etc., will be covered within their own respective regional offices. A floppy mag-discette will be transported to ASM - head office for file up-dating and management information. This can be arranged to take place using the nearest airport facility.
- 1.126 The current districts would be merged into the new operating regions with some amendment to their functional activities. In certain cases the district will be a product inspection, selling and marketing authority, whilst in others they will need to be augmented by local, district warehouses. This will need careful consideration location by location before any closure of existing facilities is implemented.
- 1.127 However :-
- each region will be accountable for controlling sales budgets for all its products - woollen, cotton, porcelain, shoes, oils, etc.
 - staffing, employment, selection and review
 - expenses and control therein
 - merchandising
 - stocks
 - ordering

PROPOSAL : A. S. M.



REGIONAL OFFICES

CHART 1.11



- accountability
- authority

1.128 All contact between districts and A. S. M. H. Q. will be via Regional Management and regional demands on manufacturing will be conducted through ASM Head Office as will re-allocation of stocks, product mix, pricing, etc.

1.129 The proposed selection of district authorities into the new regions is illustrated in Charts 1.12 to 1.14 inclusive. We indicate the balance of contribution to revenue for 1979 with various comparisons in order to highlight the logic in proposing a change to region control offices, thus :

- Chart 1.12 ; Annual District revenue analysis with profit contribution
- Chart 1.13; Cotton product turnover by district as a percentage of the gross
- Chart 1.14 ; Cotton product stock and sales comparison for the first 6 months of 1980.

Data Processing and Provision of Management Information

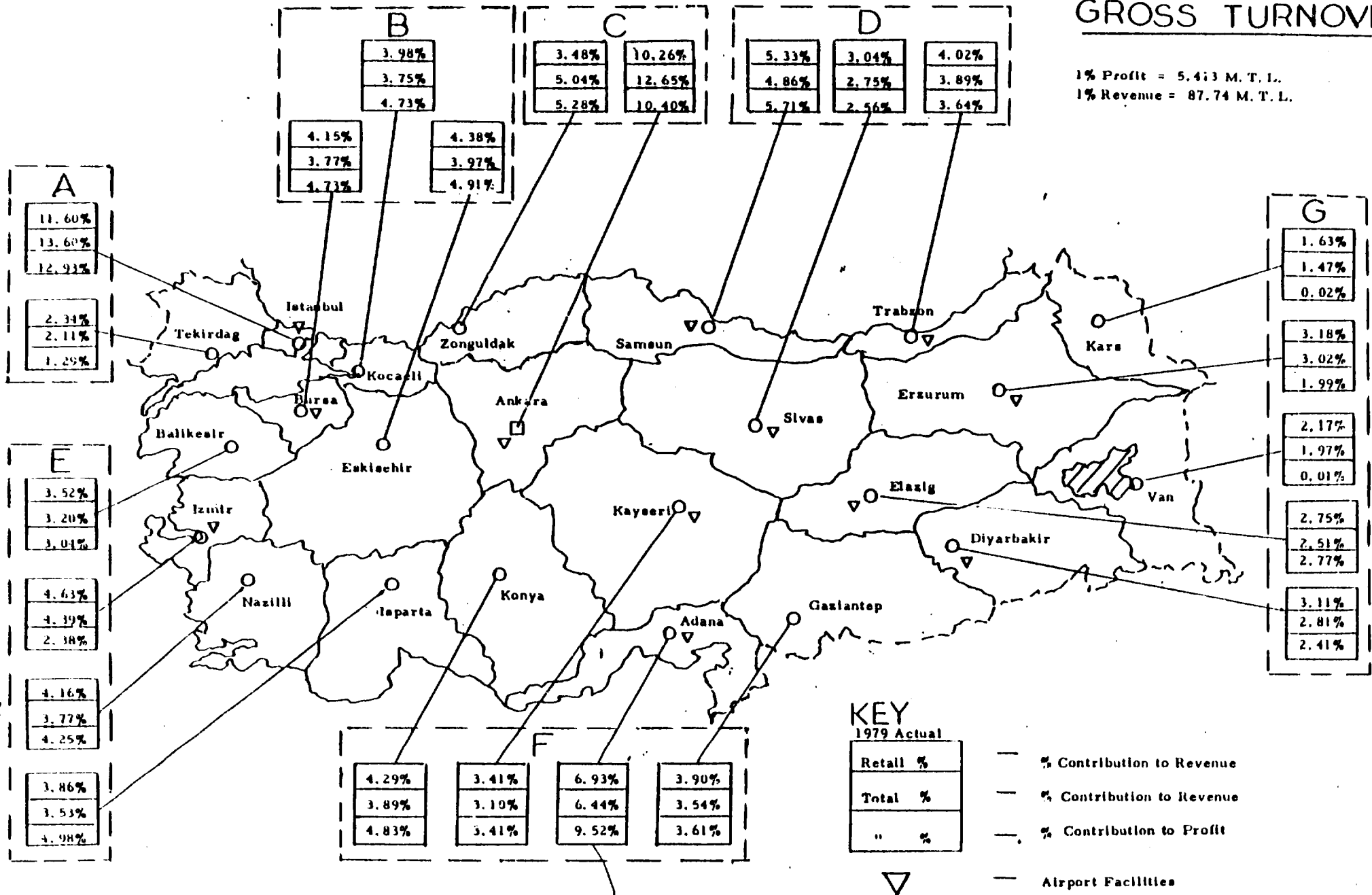
1.130 It is our recommendation that ASM/Sumerbank should invest in data processing equipment. The existing computer models are out-dated and too expensive to run. It is suggested that for no additional operating and rental hardware costs the substitutions of an IBM Systems 34 with visual display units would provide marked advantages - a cost comparison is shown in Table 1.5.

PROPOSED REGIONS EXISTING DISTRICTS

CHART 1.12

GROSS TURNOVE

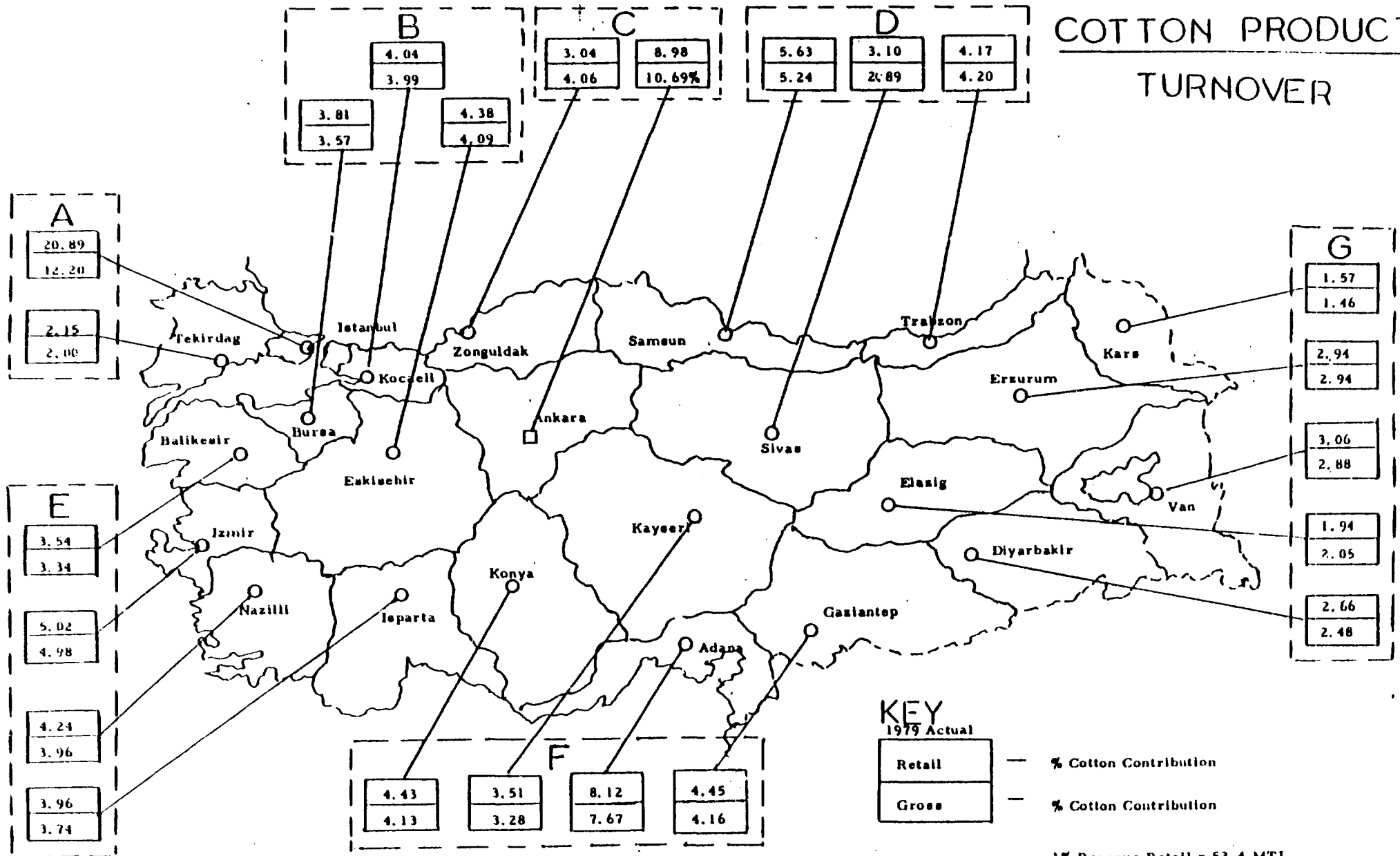
1% Profit = 5.413 M. T. L.
 1% Revenue = 87.74 M. T. L.



PROPOSED REGIONS - EXISTING DISTRICTS

CHART 1.13

COTTON PRODUCT
TURNOVER

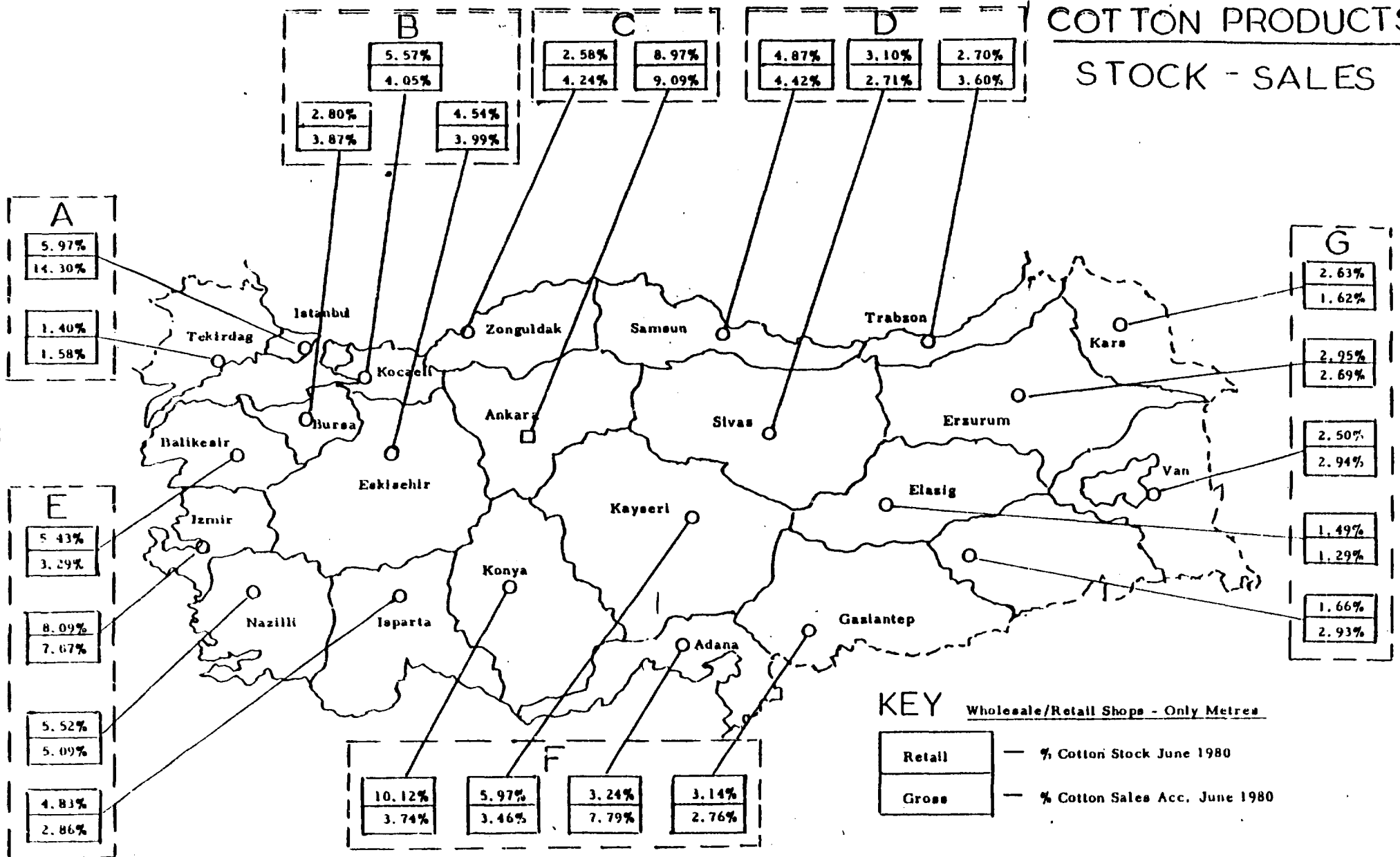


PROPOSED REGIONS - EXISTING DISTRICTS

CHART 1.14

COTTON PRODUCTS

STOCK - SALES



**MONTHLY RENTAL COST COMPARISONS OF ALTERNATIVE DATA
PROCESSING SYSTEMS**

TABLE 1.5

			Rental Per Month (\$/Month)	
1.	Existing system	360-20-8K processor and peripherals	3448	
		Card Expenditures	<u>3015</u>	
		Total	<u>6553</u>	
2. (a)	Proposed ASM H. Q. System	5340 - D34 processor		1959
		5211- 002 printer	396	396
		5252- 001 4 display/entry units	648	<u>648</u>
		Total		<u>3003</u>
(b)	Proposed Regional Office Equipment (per office)	5286 Data station and peripherals		362
		5282 "		<u>130</u>
		Total		<u>492</u>
	Total cost for six regions is therefore			2592
3.	Estimated basic gross saving incorporating ASM HQ and regional office equipment			<u>508</u>

- 1.131 The speeding up of data processing will improve the lines of communication making performance reports promptly available.

This improvement will further be enhanced by the introduction of pre-punched sales tags for cash part sales : These tags will be submitted to regional offices for direct input processing on their IBM 5280 units.

We recommend that Regional Offices should be equipped with IBM 5280 series data input and processing units fitted with online visual aid facilities.

- 1.132 Software preparation and systems development require specialist activities for which ASM must equip its management team. Some of the basic essential early developments can be provided from software packages, or, produced by recruiting the services of a system/programming software bureau.
- 1.133 Facilities must be made available to train existing DP staff on the use of the new equipment ; if internal courses can be arranged to meet ASM implementation programmes from a number of specialist companies and would be effective if coupled with lectures.
- 1.134 We propose that departments be provided with VDU facilities for monitoring data, entering details or, retrieving information on the following functional activities :
1. Sales performance by outlet
 2. Supplies and purchases
 3. Accounts, sales, purchases + nominal ledger calculations

4. Product costings
5. Personnel records
6. Wages and Salaries
7. Monthly budget/actual and variance comparisons
8. Product details, stock, sales, process, contribution, etc.

1.135 We have prepared and present in Chart 1.14 the flow diagram to meet ASM requirements. In the documentation flow we have retained all the current accepted accounting procedures only introduced the computer, VDU and the use of kimball stock tags.

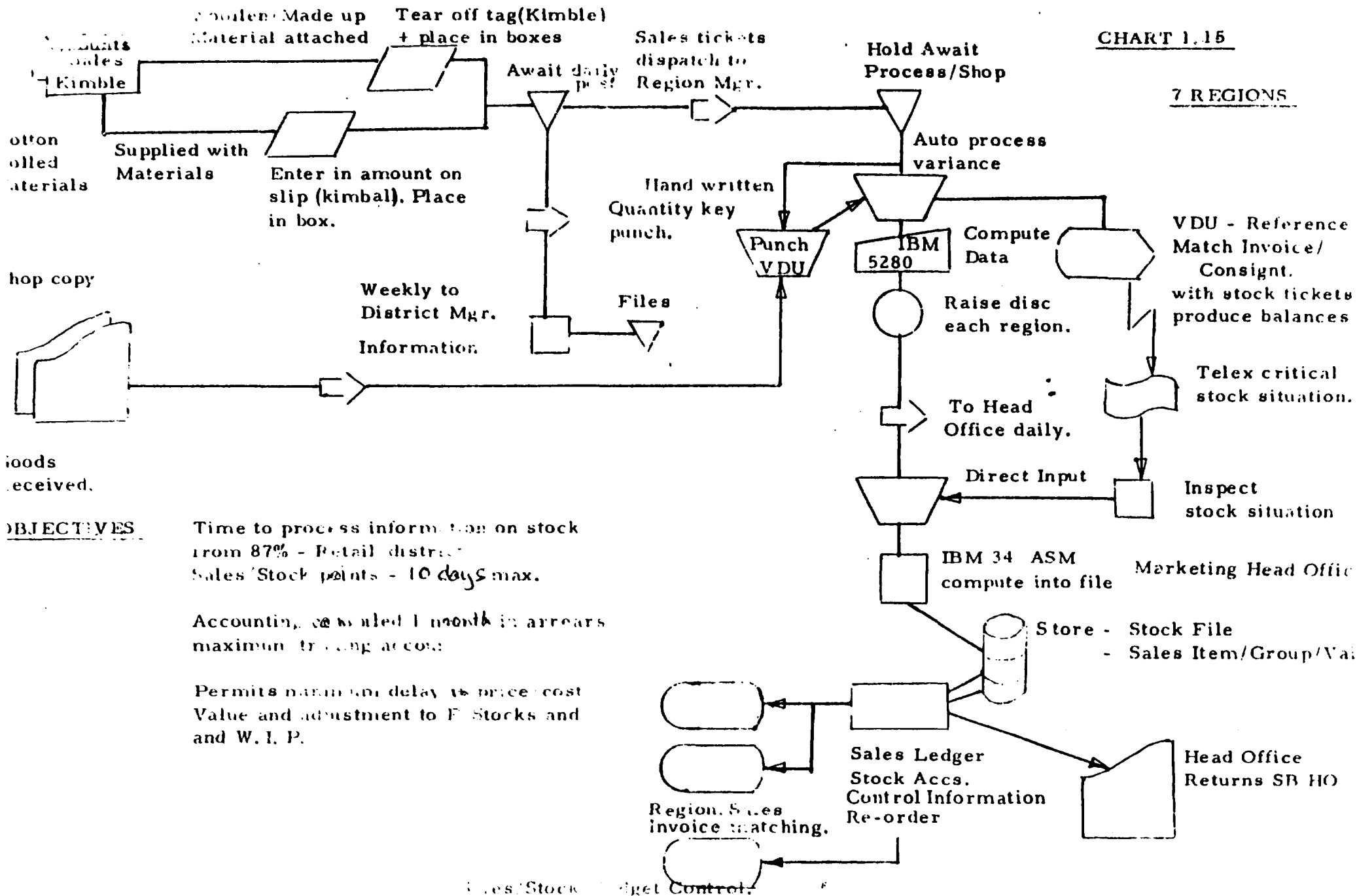
1.136 In the recommended developments for product identity and stock movement /cash trail we suggest the introductions of Kimball type pre-punched garment and material tags. The two part tags are produced for automatic insertion on materials and garments during manufacture. The details including classification, code, price, model, etc are retained with the product to point of sale when it is removed and sent to the regional office for automatic computer input and file creation.

BASIC DRAFT WORK FLOW

SYSTEMS 34/5280 - IBM ACTIVITIES

CHART 1.15

7 REGIONS



Classification and Coding

- 1.137 In order to provide an integrated factory and marketing reference a code must be designed for all manufacturing factories in Sumerbank so as to provide unique product identity as part of a complete integrated accounting - production and business control system.
- 1.138 The objectives therefore are to :
- codify the development process of the product to saleable finished product
 - interphase the manufacturing code with the marketing code in order to provide a combined single monitoring basis.
 - establish a code which has universal appeal possibly interphased with codes currently used in other SEE.
 - single out the cross reference opportunity for export trading and import items necessary to the commonality of simple trading references.
- 1.139 We have devised a code which works on a regular dual purpose technique. We have the same digit formula for all product description purposes and service needs
1. Manufacture, W. I. P. and finished stock identity
 2. Marketing, sales and stock reference.

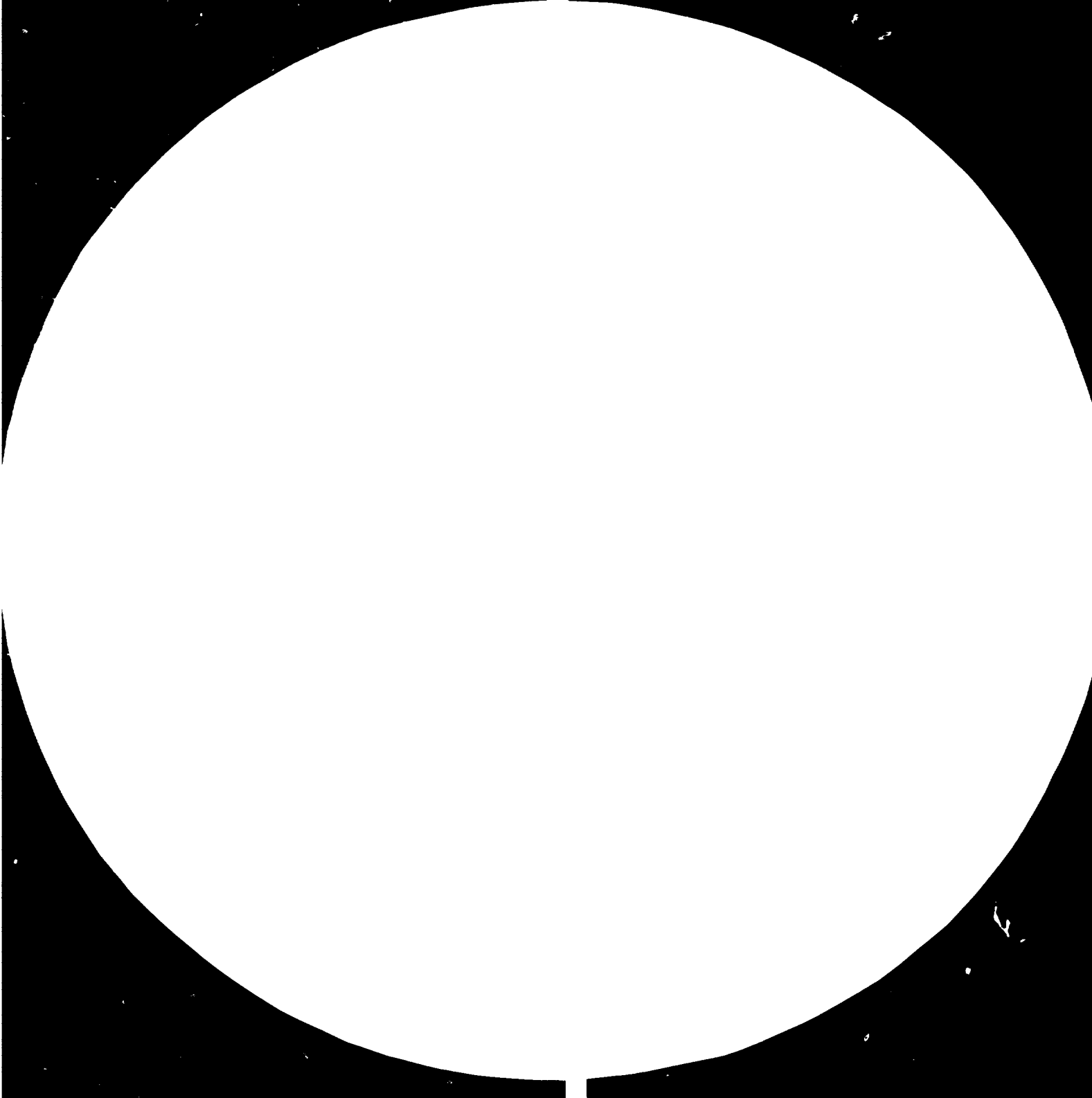
The code branches into all facets of product type, material, colour, design, size and price factors.

- 1.140 We have furthermore suggested that all other inventories such as service materials, spares and equipment could be itemised using the coding structure.
- 1.141 The coding screen layout for the various inventories which is suitable for use with the proposed digital system have been included in Chapter 4.

ASM/Factory Communications

- 1.142 Notwithstanding the production configuration limitations, the match between ASM ordering requirements and the individual mill despatches is not satisfactory and as a consequence:
- there should be at least bi-monthly review meetings between mill management and ASM to discuss the latest market trends and how production can best respond to variations in demand requirements.
 - mill management must continually monitor the numbers and levels of unfulfilled and/or unsatisfied demand requests. Subsequent changes to production programmes may have to be re-inforced by product development to meet changes in consumer demand and preference. Such a mill monitoring facility has been incorporated into our mill monitoring and reporting procedures.

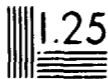
81-1229





2.8

2.5



Vertical resolution is indicated by the number to the right of the vertical lines. Horizontal resolution is indicated by the number to the right of the horizontal lines.

Forecasting and Performance/Budget Analysis

- 1.144 This we believe in A. S. M. will only be possible and effective if modern data processing facilities exist. A manual system will fall into disuse as the sheer volume of statistics and paper work to be processed is a constraint. Management must be given the opportunity to have timely information available for decision linking and direction of business.
- 1.145 A modern computing facility will provide a degree and speed of reporting not currently available in Sumerbank or ASM. Further it will provide a sound data base which will be essential in the preparation of meaningful budgets which reflect current market pressures.
- 1.146 The type and format of documents currently in use for budgeting and control purposes are adequate until such time as the processing capability is improved. Small amendments to the documentation can then be made at that time and provision made to monitor on a routine basis the comparison of actual results with budget incorporating variance criteria per product.
- 1.147 The publication of management information would be available monthly so that alterations to budgeted annual product requirements can be scheduled and made effective before manufacturing plans are finalised. Seasonality is extremely important in ASM's markets and trends of previous performance for specific product groups should be projected and formalised in a 5 year rolling forecast; these we have ascertained on a shop basis for cash flow purposes and must be computed for each product group.

Financial Reporting

- 1.148 We reviewed the content of the ledgers and financial documentation in A.S.M., which is principally a sectional responsibility to Sumerbank Head Office Ankara. We believe considerable improvement in reducing the delay of processing vital financial information is possible if the proposed systems and computer are introduced. Actual performance results and variance analysis will be readily available to enable relevant management decisions to be taken.
- 1.149 Cash flow details will be processed at Regional Offices and transported to head office as floppy diskettes. This will also avoid the processing and transportation of large volumes of paperwork.
- 1.150 We illustrate in Table 1.6 the magnitude of volumes of invoices raised in the existing district offices. When the balancing of invoices on this scale is attempted, the logical justification of proceeding to a mechanical processing system is clear.

TABLE 1.6

INVOICES RAISED BY RETAIL SHOPS - AVERAGE 1980

COTTON TEXTILE PRODUCTS

Number of Items Per Invoice - 2.43 Per Document

RETAIL SHOP CLASSIFICATION UNIT x 000												
District	No.	LARGE			MEDIUM				SMALL			
		High	Low	Ave.	No.	High	Low	Ave.	No.	High	Low	Ave.
Adana	1	-	-	247	7	113	63	90	9	66	16	44
Ankara	4	678	86	242	10	108	36	54	17	36	15	25
Balikesir	1	-	-	206	1	-	-	107	16	38	8	27
Bursa	1	-	-	385	2	65	40	52	8	64	40	50
Diyarbakir	1	-	-	872	0	-	-	-	16	114	16	65
Elazig	0	-	-	-	2	105	32	69	10	44	9	23
Erzurum	1	-	-	174	2	104	40	72	15	60	12	24
Eskisehir	1	-	-	110	3	118	110	113	12	58	12	26
Gaziantep	1	-	-	182	5	68	37	54	11	41	12	24
Isparta	0	-	-	-	3	110	61	79	13	50	5	27
Istanbul	4	780	212	379	15	204	80	125	10	92	58	74
Izmir	1	-	-	160	6	122	42	80	19	68	13	35
Kars	1	-	-	338	-	No Figures Available						
Kayseri	0	-	-	-	3	180	42	89	12	44	10	27
Kocaeli	2	105	168	286	3	98	60	79	8	52	30	39
Konya	1	-	-	267	2	50	34	42	16	96	14	32
Nazilli	0	-	-	-	7	104	42	73	12	56	13	28
Samsun	1	-	-	174	5	96	44	56	21	50	18	36
Sivas	0	-	-	-	3	150	42	99	17	42	14	28
Tekirdag	0	-	-	-	4	78	60	72	11	40	32	39
Trabzon	7	-	-	150	2	120	54	87	23	100	5	28
Van	0	-	-	-	3	88	34	59	14	34	3	16
Zonguldak*	1	-	-	158	2	74	54	64	4	38	20	29
B. Konak				107	Included in Survey							
Retail Shops Studied	23				90				86			
Overall Average				282				294				28

Note

* Only 7 shops made returns on invoices processed out of 15 in district.

PART H : FURTHER WORK AND CRITERIA FOR SUCCESS

- 1.151 There are in our view two distinct areas in which further work would be of benefit to Sumerbank. They are :-
- additional systems development. This work may well qualify for funding by an external aid organisation.
 - implementation of revised procedures for which funding has been included in the World Bank loan
- 1.152 The further work that would be of benefit to Sumerbank is the subject of FTA Phase II proposals and is set out in that document.
- 1.153 Sumerbank are currently planning to spend many millions of dollars on textile hardware. Much of the benefits of these purchases will not be realised unless other criteria are also satisfied. Indeed, Sumerbank, in our view, do not make best use of the resources currently at their disposal and given improvements to management systems, the capability of production management and general control and direction, significant improvements in the financial performance of Sumerbank could be achieved.
- 1.154 If the benefits of the proposed hardware expenditures are to be exploited, then we would regard the following tasks as essential elements within that programme:-
- the re-organisation of CTD into a divisional function with accountability for performance invested in key personnel. The lack of focus on performance is entirely due to the difused accountability/personnel relationship inherent in the current organisational structure.

- the availability of widespread computerisation to ensure that information is available in a timely fashion
- the up-dating of factory performance standards in order that more accurate and meaningful budgets can be assembled
- the complete rehabilitation of ASM to ensure that the current and modernised production facilities are fully exploited.
- strengthening the effectiveness of production management to ensure the reasonable levels of efficiency are achieved in a cost conscious manner
- reasons given for the difficulty of implementation should be used as the need for speedy and successful implementation rather than delay.

APPENDIX 1.1

The Original Terms of Reference

TERMS OF REFERENCE

PROJECT: TURKEY: FINANCIAL MANAGEMENT AND PLANNING SYSTEMS
DEVELOPMENT IN SUMERBANK - DP/TUR/79/023/A/01/37 -

A. Introduction and Background

Sumerbank (SB), one of the oldest and largest of Turkey's State Economic Enterprises (SEE) will be reorganized and modernized.

SB was founded in 1933 and has grown and diversified, particularly during the last 20 years, to a holding comprising 39 manufacturing enterprises (cotton, wool, shoes, chemicals, ceramics, building materials), 500 retail stores and a banking system with 40 branches, located in all parts of Turkey. 1979 total SB employment were 59,000 persons.

SB decided to start its Reorganization and Modernization Programme (RMP) in its Cotton Textile Division (SBCTD); this RMP could serve as a model for future restructuring of other SB operations or even of other SEE's.

SBCTD comprises about 27,000 employees, 400,000 spindles and 7,800 looms located in 19 mainly integrated mills. The yearly production is around 40,000 tons of yarn, 200 million m² of cotton fabric and 2 million pieces of garment. In the future, SBCTD will operate within SB as a separate division with own divisional authority and responsibility for operational and financial performance.

SBCTD is procuring most of its inputs and is selling most of its production through the SB Purchasing and Sales Division (ASM), which controls about 20 warehouses and 500 retail stores throughout Turkey.

RMP for SBCTD aims at (i) reorganization and rationalization, among other through provision of training and technical assistance to improve marketing, production planning and control, operational systems and procedures, quality control as well as related organizational structure and (ii) at reconditioning or replacement of obsolete equipment. RMP is planned in two phases, the first 1979-1983 and the second during 1984-1986. The cost of the first phase of RMP is estimated to be about US \$ 200 million

equivalent (TL 9.4 billion). A World Bank loan has been requested to finance, from around mid-1980, the major part of the foreign currency requirements of the first phase of RMP. In addition, technical assistance for essential project preparation is financed from the World Bank's Project Preparation Facility (PPF) prior to the expected availability of the proposed World Bank loan.

The UNDP/UNIDO technical assistance to SB is complementary to the assistance under World Bank PPF and concentrates in financial management systems. The principle areas of this UNDP/UNIDO assistance comprise the design of new or the improvement of existing systems. The design and partial implementation of financial systems are for financial planning and control, financial and cost accounting, financial reporting and financial management at the level of SBCTD Central Office, ASM as well as individual pilot mills. This project will also assist in immediate organizational arrangements at SBCTD, ASM and mill-level required in connexion with the new management systems.

While this project represents the initial, first stage of the assistance with an approximate duration of about 6-8 calendar months, a subsequent second stage between around mid-1980 and late 1983 is envisaged primarily for implementing the systems designed or improved under the first stage. The present contract is concerned only with the first stage without any commitment as to the second stage. However, the successful subcontractor of the first stage will be included in the list of consultants who will be invited to bid for the second stage.

In both stages the training of Turkish personnel for applying the designed systems represents an important element of assistance.

B. Scope of Work for Financial Technical Assistance

As indicated under A., financial technical assistance through sub-contract during stage I but also during the subsequent second stage will be required for SBCTD, ASM and SBCTD mill-level. The activities underlined in the list below belong to the second phase and are only indicated for

.../...

the guidance of interested financial consultants whose offer should also include general concepts for assistance during the second phase.

The financial technical assistance from the successful contractor(s) for both phases will cover the subjects below; assistance under the second phase is marked by underlining:

1. SBCTD/DIVISIONAL LEVEL

The new, more autonomous status of SBCTD within SB will require:

- a) assistance in creating within the new SBCTD, for the Controlling Department (comprising cost accounting, financial planning, budgeting and control) and for the Accounting Department detailed organizational form, staffing requirements, job descriptions, personnel profiles;
- b) establishment and implementation of a financial reporting system consolidating financial statements and reports of individual plants. This system will include quarterly and annual income statements, balance sheets, fund flow statements, as well as monthly actual cash flow reports, monthly inventory status reports (in quantity and value) and monthly key ratio reports. A standard costing system will constitute the basis of this system;
- (c) design and implementation of a financial planning and budgeting system for the new SBCTD;
- (d) establishment and implementation of an investment planning system for the new SBCTD!
- (e) establishment and implementation of a monthly project cost reporting systems;
- (f) design and implementation of an annually updated 5 year-rolling financial projection system for the new SBCTD;
- (g) assistance in improving financial information feedback systems to individual cotton textile mills and to ASM.

2. INDIVIDUAL MILL LEVEL

On the level of individual mills, the required technical assistance in financial systems will include:

- (a) proposal for strengthening accounting department and financial planning department on the individual mill level; with appropriate preparation of job descriptions, personnel profiles and operational manuals;
- (b) improvement of present financial reporting system (both intra mill and to SBCTD);
- (c) assistance in devising a comprehensive standard costing system within individual mills' operational department; close cooperation with the technical consultant (GHERZI TEXTILE ORGANIZATION, Zürich, Switzerland) will be required;
- (d) improvement of the basic financial planning, budgeting and control systems; this work will concentrate initially on immediate possible improvements and will subsequently incorporate the new standard costing system of item (c) above;
- e) establishment and introduction of meaningful systems for financial ratios and targets for improved control purposes;
- f) improvement of the investment planning system on the mill level;
- g) establishment and introduction of a monthly project cost reporting systems;
- h) establishment and introduction of an annually updated 5 year-rolling financial projection systems for the mill level;
- i) introduction of an inventory cost control and reporting system;
- j) assistance in improvement of financial feed-back systems to SBCTD and ASM;

.../...

In carrying out technical assistance on the individual plant level, the consultant will concentrate on one fully integrated textile plant and one garment plant. In these two plants he will develop and implement, together with SB counterpart team and mill management the required systems and improvements. These systems and improvements will subsequently also be introduced in the other plants, of the new SBCTD during the second stage. During the entire period, the consultant(s) will assist in training personnel to implement and use the new or revised systems.

3. ASM/VARIOUS LEVELS

ASM, the principle link for SBCTD to supply and sales market, will require the following assistance through subcontracting:

- a) improvement of present financial reporting system (both intra-ASM and to mills and SB Headquarters. Emphasis will be on more speedy feed-back to plant and SBCTD);
- b) assistance in designing a more market-oriented budgeting system for ASM, which will involve, both at the preparation time and during subsequent budget control, SBCTD and individual plants;
- c) improvement of existing inventory planning control and reporting system; this work to be carried out in close cooperation with Gherzi Textile Organization.

C. Execution and Conditions of Work

The technical assistance activities will be coordinated by a director of the SB Counterpart Team which will (i) help to change the present SBCTD status within SB and (ii) implement the first phase of RMP. Principle counterpart entities for the financial consultant are the said Counterpart Team, as well as the financial sections of SB of SBCTD (after its creation), of the SBCTD-mills and of ASM.

.../...

SB will provide at least 5 competent counterpart personnel gradually, growing to about 15 persons. Moreover, secretarial and counterpart services, adequate work premises, office equipment and stationary will be provided to the contractor. SB will also arrange for necessary project travel within Turkey free of charge to the Financial Consultant.

The project leader of the Financial Consultant (Subcontractor) will directly relate to the Director of SB's counterpart team and furthermore to a Working Group consisting of himself and normally one representative each of UNIDO, UNDP and SUMERBANK.

In line with the scope of work in these terms of reference, and with the time schedule for SB-RMP, the project leader will design an initial detailed, work plan for the project and for individual experts. This plan will be updated on a monthly basis in consultation with the Working Group. The Working Group will convene at least once every month.

The work under the first stage of technical assistance is estimated to require about two man-years to be executed over a period of six to eight calendar months from early 1980.

A first, tentative estimate of required inputs of foreign technical assistance under this project is summarized below:

<u>CODE</u>	<u>ACTIVITY</u>	<u>ESTIMATED INPUT</u> (man-days)
1.	<u>SECTD Division</u>	
a)	Financial Organization	20
b)	Financial Report (cash-flow)	20
c)	Financial Planning, Budgeting and Control	70
d)	Project Cost Report	10
e)	Five-Year Projections	10
		<hr/> 130

.../...

<u>CODE</u>	<u>ACTIVITY</u>	<u>ESTIMATED INPUT</u> (man-days)
<u>2.</u>	<u>Integrated Textile Mill and Garment Plant</u>	
a)	Financial Organization	20
b)	Financial Reporting (cash-flow)	20
c)	Standard Costing	60
d)	Financial Planning Budgeting and Control	50
e)	Project Cost Report (based on investment planning)	20
h)	5-year Projections	25
i)	Inventory Reporting System	15
		<u>210</u>
<u>3.</u>	<u>ASM Division</u>	
a)	Financial Report (cash-flow)	20
b)	Financial Planning Budget and Control	50
c)	Inventory Reporting System	30
		<u>100</u>

From the above summary an estimated input of 440 expert-days of 88 man-week of five working days each or 1,7 man-years are required.

Project-coordination from the Subcontractor's side, periodical updating of the work plan, coordination with other, technical consultants and with the director of the SB Counterpart Team as well as the preparation of and the presence at the periodical Working Group meetings is expected to require an additional approximate of 0,3 man-years or 3,6 man-months.

The above scope of work indicates that the following main expertise is required from the Subcontractor's experts during the first phase:

- Organization and information required for financial departments in textile industry;
- Standard costing in textile industry;
- Financial Management at all stages of cottonprocessing and product marketing primarily financial budgeting, and preparation of financial projections including income statements cash-flow and balance sheets;
- Inventory management in integrated textile mills including cost control and reporting systems;

The working language will be English; this is also the language in which all the documentation, such as descriptions of organizations, staffing requirements, job descriptions and personal profiles will be prepared.

Each individual team member will prepare a brief report on his initial findings, his planned activities during his assignment and his expected achievements by the end of his involvement.

Upon completion of each of the tasks mentioned under the scope of work in these terms of reference, a short summary report will be prepared, complemented by attached forms, and/or instructions developed in the course of the financial technical assistance.

The consolidated Project Terminal Report will primarily be prepared by the Subcontractor's project leader towards the completion of the project. A draft report should be submitted to UNIDO Headquarters for comments and clearance not later than one month after termination of the first project phase. In this report, special emphasis will be given to showing the assistance and advice offered through the project and the achievements in designing and implementing those parts of the new (financial) management systems stipulated for the first phase of the project.

UNIDO will supply comments on the Subcontractor's draft Terminal Report not later than one month after its receipt.

The final Terminal Report is to be submitted in 50 copies if not otherwise agreed and not later than one month after receipt of UNIDO's comments.

All other reports excluding the draft Terminal Report should be submitted in three copies to UNIDO; the draft Terminal Report will be submitted in 10 copies for review by all parties concerned.

The team leader shall visit UNIDO Headquarters in Vienna for briefing during one day prior to the start of field activities under stage I. He shall return to Vienna for debriefing and discussion of the draft terminal report about two weeks after submission of this report to UNIDO.

APPENDIX 1.2

Authorisation Requesting a Change
of Emphasis in the Terms of
Reference.

S Ü M E R B A N K
GENEL MUDÜRLÜK

Telgraf : SÜMERBANK

No. : 396

Servis : R.M.P.

Ankara, 22.9.75

37517

Harold Whitehead and
Partners Ltd.
21 Wigmore Street
London W I H 9 L A
ENGLAND

Attn : Mr. Freeman, Director

Subject : exclusion of Manisa Plant from the initial stage of the
development exercises.

Dear Sir,

Following discussions with you and your team members, it has been mutually agreed that the pilot exercises to be carried out at plant level be concentrated at Ereğli and that Manisa be excluded from the initial stage of the Financial Management and planning systems development.

The reasons for this decision are :

- 1) To provide more assistance at this initial stage than had originally been envisaged, on the development of effective systems for the control of cash flow and inventories.
- 2) To enable the teams (consultants and counterparts) efforts to be concentrated on one plant and provide the opportunity to achieve more positive results.
- 3) To allow Manisa enough time, since the situation there requires more time to provide the necessary basic information for development work to proceed.

Yours Sincerely
SÜMERBANK
General Directorate

Note :

A copy of this letter is sent to the Ankara office of U.N.I.D.O. to advise them of this agreement.

Sedat BALAK Sabahattin DOĞUN

APPENDIX 1.3

Assessment Against Terms of Reference

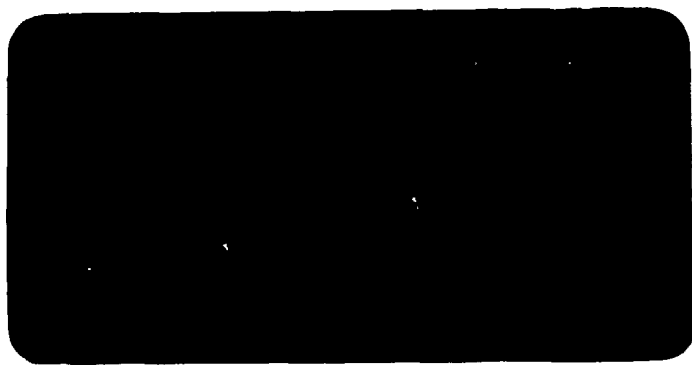
ASSESSMENT AGAINST TERMS OF REFERENCE

	Item of Terms of Reference	HWP Achievement
1. CTD	<p>(a) SBCTD Finance Function</p> <p>(b) Financial Reporting System</p> <p>(c) Financial Planning System</p> <p>(d) Investment/Project Planning System</p> <p>(e) Project Cost Reporting System</p> <p>(f) 5 Year Rolling Projection System</p> <p>(g) Mill / ASM FeedBack</p>	<p>Structure development with job descriptions, etc. Cannot implement until CTD is developed</p> <p>Systems designed. Await CTD staff and all mills to conform to system before effective implementation can be made. Have prepared consolidated income and balance sheet statements, etc.</p> <p>System designed. Implementation comment as 1 (b)</p> <p>Phase 2 Planning data RMP being gathered</p> <p>System awaits CTD staff. Includes quarterly review procedures.</p> <p>As 1 (e)</p> <p>Need to reorganise ASM first</p>

Item of Terms of Reference	HWP Achievement and Comments
<p>2. Mill</p> <p>(a) Mill Finance Function</p> <p>(b) Improvement of Present Financial Reporting System</p> <p>(c) Assistance in Developing Costing System</p> <p>(d) Financial Planning, Budgeting and Control System</p> <p>(e) Financial Ratios and Targets</p> <p>(f) Investment/Project Planning System</p> <p>(g) Project Cost Reporting</p>	<p>Structure developed along with job descriptions, etc. Awaits general implementation of new structures.</p> <p>Mechanisation required if timely reporting and performance and variance analysis to be achieved. Costing changes suggested.</p> <p>Costing system developed. Trial implementation illustrated need for care in collecting production data.</p> <p>New system developed incorporating the concept of standard rates Await accurate factory standards for implementation. Introducing daily monitoring reports in order to realise realistic volume projections.</p> <p>Phase 2</p> <p>System developed and being used for RMP</p> <p>System developed + RMP data being generated. Existing system good enough until new procedures introduced. Replacing part of existing system could upset remainder.</p>

Item of Terms of Reference	HWP Achievement and Comments
(h) 5 Year Rolling Forecasts	Developed. Implementation Phase 2.
(i) Inventory Control and Reporting	System developed. Accepted by mill management. Levels currently have been reworked following their suggestions. Implementation in progress
(j) Feedback with ASM	ASM restructuring necessary pre-requisite System for monitoring failure to meet ASM orders currently being introduced.
3. ASM (a) Financial Reporting and Feedback (b) Market Orientated Budgeting (c) Inventory Control and Reporting.	No help or implementation of responsive systems possible until radical restructuring of ASM takes place.

WHITEHEAD



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WHITEHEAD
& PARTNERS
LIMITED

10653 (2 of 7)

CHAPTER 2

THE MANAGEMENT INFORMATION
SYSTEM

VOLUME 2 OF 7

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2. THE MANAGEMENT INFORMATION SYSTEM

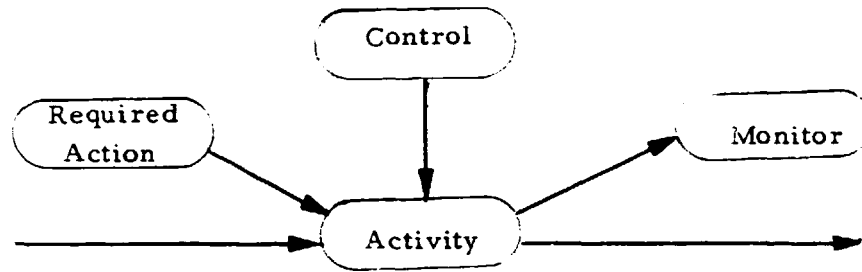
PART A : INTRODUCTION

The Needs

- 2.1 No Management Information System (MIS) will be effective in its operation without the full understanding and enthusiastic co-operation of management at all levels. Nor will any M. I. S. proposal for C. T. D. succeed without the necessary strategy, planning, training and information processing capability. In short, therefore, there has to be a total commitment of resources (men, money and machines) to make the M. I. S. an effective and practical reality.
- 2.2 The problems that will face C. T. D. in implementing and operating an M. I. S. are not an appreciation of the benefits of enhanced budgeting, managerial control aspects or the availability of data, but rather of its organisation, handling and timely production.
- 2.3 The object of the system is to provide information which in turn is used by management for control purposes (Figure 2.1). It is vital that objectives are set and that the results are monitored against these objectives, i. e. the provision of the meaningful link shown in Figure 2.1.
- 2.4 It is suggested that the C. T. D. Financial Controller should monitor each month the yearly performance standards set down by the C. T. D. Chief Executive. Areas to be included in this review could cover :-

Market Standing
Productivity
Product Development
Financial Resources
Physical Resources
Profitability
Manager Performance + Development
Worker Performance + Attitude

BEFORE



AFTER

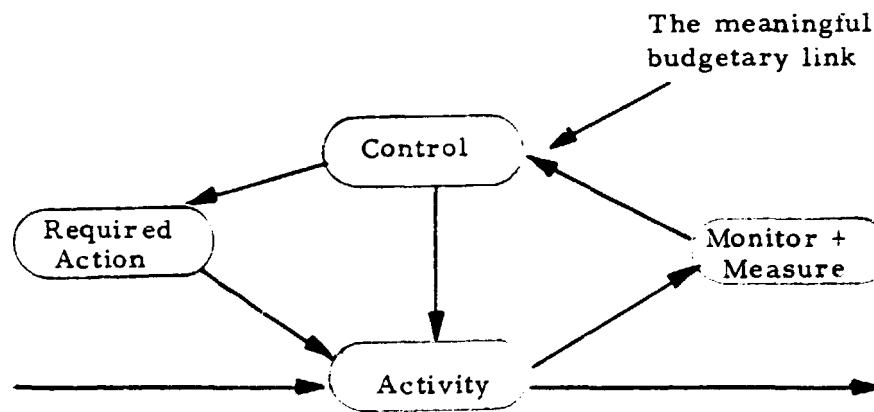


FIGURE 2.1. : The Importance of the Budgetary Link

The Basis

2.5 The M. I. S. must have a solid foundation and must be related to :

- overall Sumerbank corporate objectives
- C. T. D. policy and strategy
- C. T. D. decision making levels based on a sound organisation structure
- information requirements of the decision makers with respect to their areas and degree of responsibility
- availability of information and the current decision linking process
- ensuring management control within the framework of existing legislation
- performance measurement requirements
- possible mechanisation requirements within acceptable time reporting requirements.

Information Selection

2.6 In determining the necessary and relevant information in any M. I. S. the overall influence of the current complex world must be recognised (Figure 2.2) and in particular the potential impact on operations and of a high inflation environment.

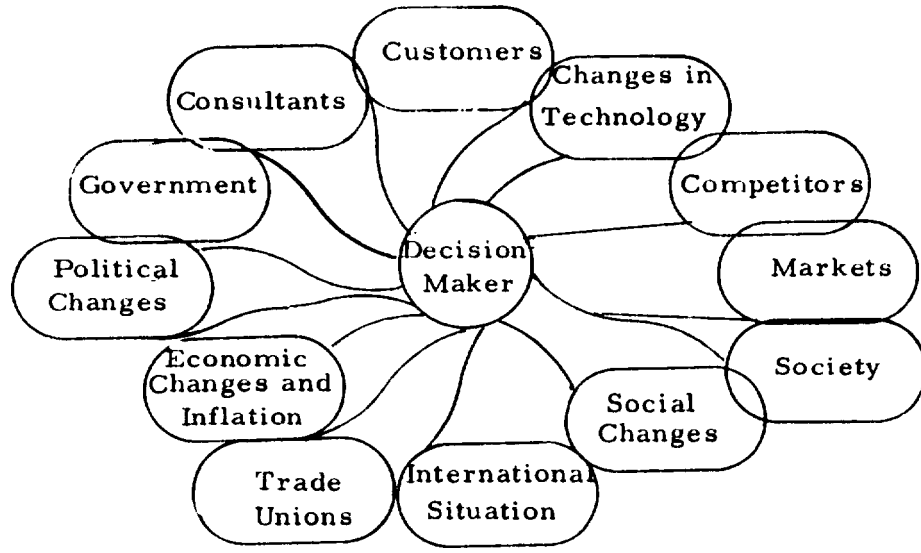


FIGURE 2.2 : The Impact of the Environment

2.7 Whilst we sympathise with managerial difficulties in the attendant aspects of accuracy of attempting to forecast inflation rates it is imperative that these assumptions be incorporated into the planning process in order that the critical importance of the timing of the price rises be understood. In Figure 2.3 we illustrate a simplified relationship between the timing of price increases, the level of prices and cost of sales and profit (profit being the area beneath timing line and the price cost curve) - too late increases will result in unforeseen losses - basically the shaded areas above and below timing line should at least cancel each other out.

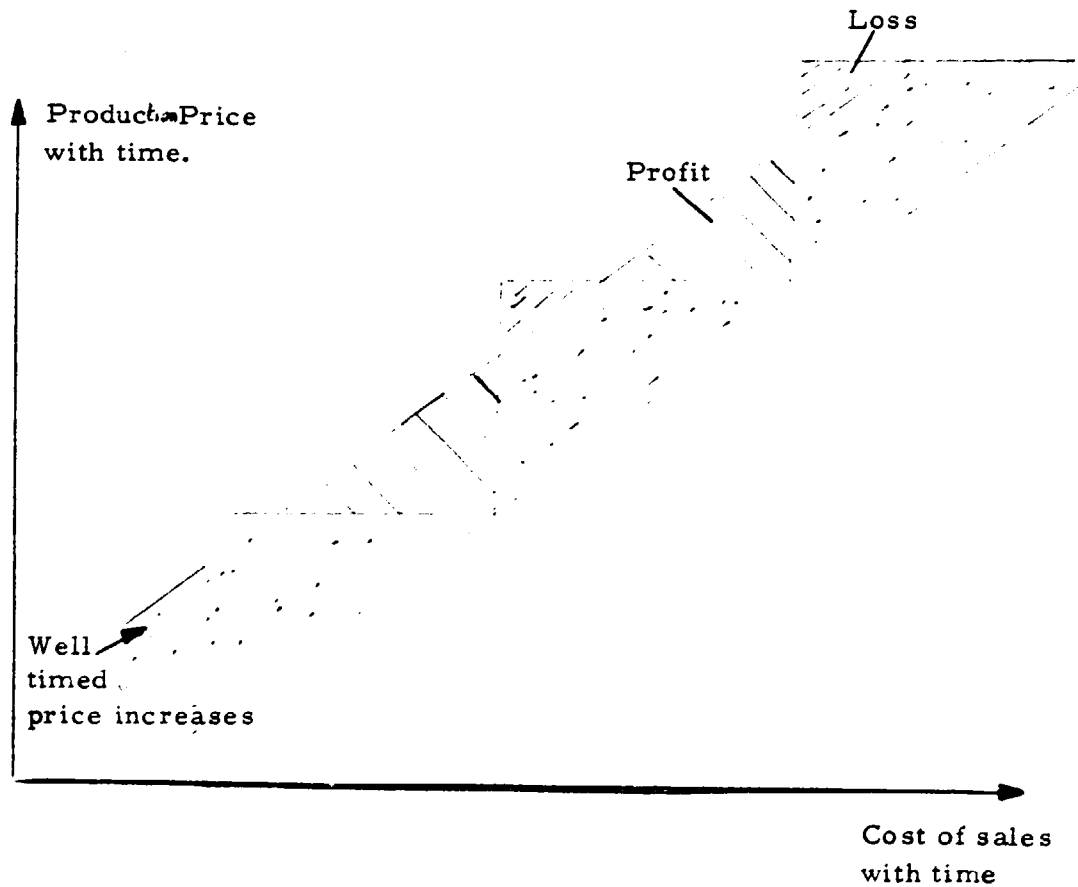
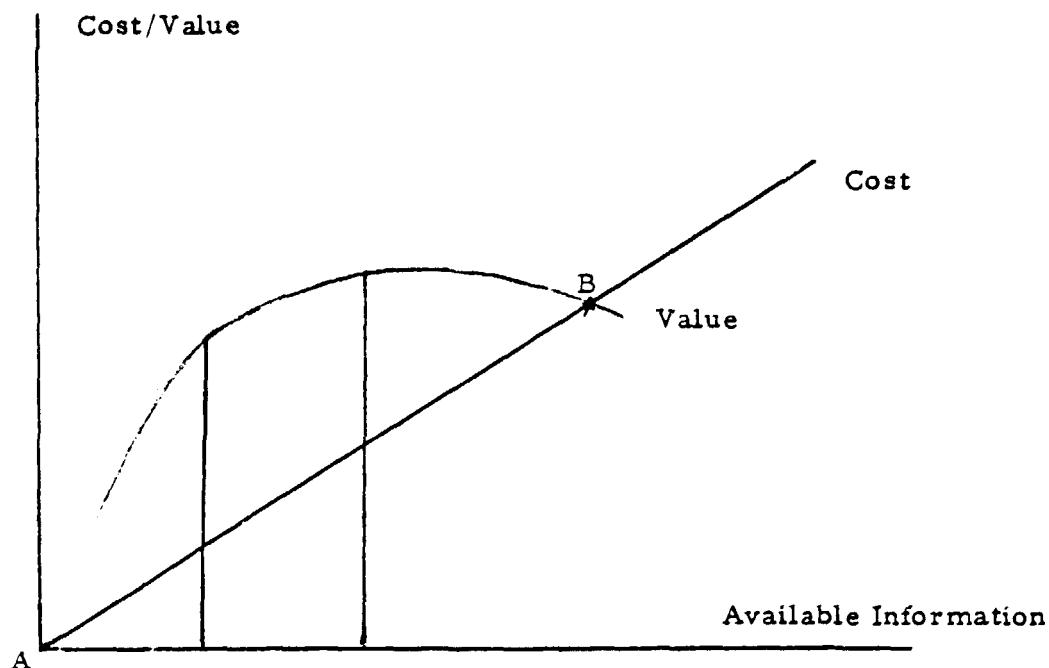


FIGURE 2.3 : Effective Timing of Price Increases

Further, in situations where there is a background of high inflation rates, depreciation can become critical and could affect levels of profitability. We propose that plant and machinery be revalued and entered into the balance sheet at replacement cost and that depreciation levels are based on those revised levels. We have submitted a schedule of such assets for re-evaluation to Gherzi for their expert judgement - it has however been agreed to delay a re-evaluation of assets until such time as the bids on the tenders have been received and considered.

- 2.8 Further more, the cost/value of providing and generating information must be thoughtfully understood and in Figure 2.4 we set out a typical format of this relationship with the comment that we believe Sumerbank to be currently near to point A, i.e. there are still considerable cost benefits to be achieved. We have been highly conscious of this aspect when designing the system.

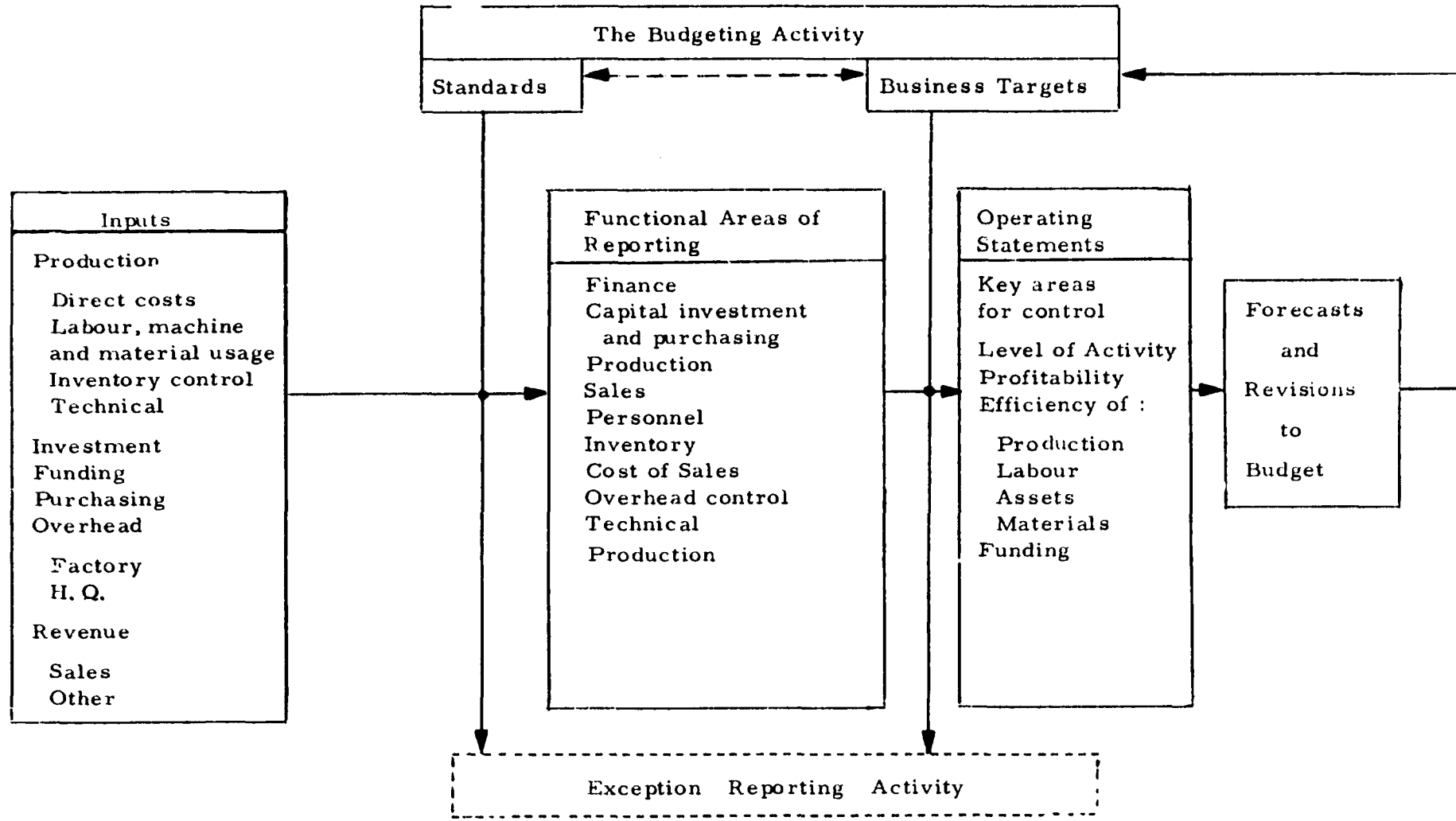
FIGURE 2.4. : Cost/Value Relationship of Generating Management Information



The Basic M. I. S. Outline

2.9 The outline M. I. S. proposal is set out in Figure 2.5 and illustrates the broad relationship between the key elements, i.e. budgeting, inputs, functional areas of reporting, key areas of control and subsequent revisions to budget, thus :

- divisional and mill 'business' budgets
- inputs, i.e. sales and dispatch attainments, production volumes, material and labour usage, stock levels, purchases, manufacturing and H. Q. overheads, etc.
- functional areas of reporting, financial performance, production and cost of sales, sales, personnel, inventory management, technical aspects (e.g. quality control)
- operating statements for control purposes monitoring key business parameters against budgets, e.g. levels of activity, profitability, efficiency, etc. Such statements at regular and pre-determined intervals would include balance sheets, income statements, production and sales summaries, material and labour utilisation assessments, inventory schedules, capital project and investment status reports, pricing/costing comparisons, personnel situation summaries, technical reviews, etc.
- new forecasts of business expectations and revision of budgets as dictated by the latest performance reports. A need to provide non-routine reports by exception must also be recognised, for example, special analysis into standards, say the effect of work study schemes or the re-evaluation of new projects



Key



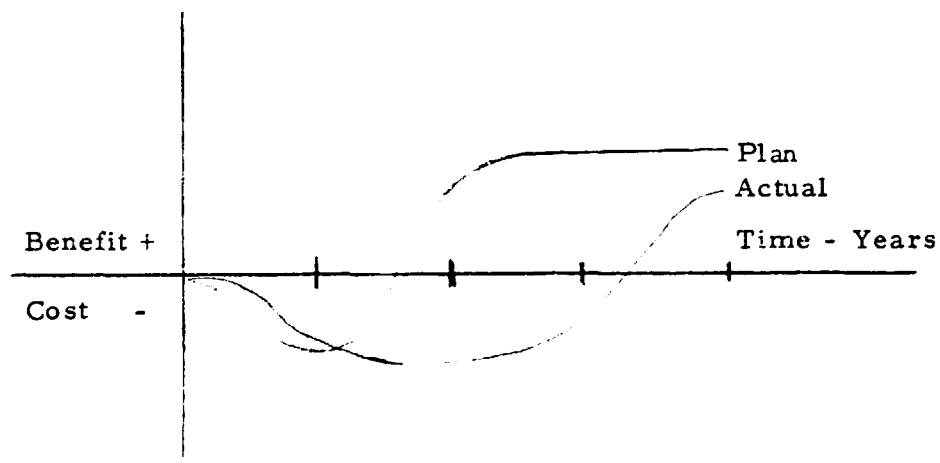
Areas of comparative analysis

2.10 The salient differences between the proposed M. I. S. and the current methods employed are as follows :-

- the budgeting process is essentially derived from market forecasts of what the market requires bearing in mind the production contracts of individual mills - i. e. manufacture what can be sold and not sell what can be manufactured.
- regular comparative analysis of actual performance against improved/enhanced budgeting processes, such comparative analysis would be both in terms of business performance aspects at mill and divisional levels and of standards at departmental levels.
- this regular comparative analysis activity will improve accountability with respect to performance and control of C. T. D. Management.
- an enhanced method of the budgeting process whereby not only more realistic budgets are achieved but also the timing of price adjustments to reflect inflationary pressures and ensure that deficits are not created because of untimely/late price adjustments.
- operating statements are produced in a timely fashion in order that meaningful management decisions and creative activity can be taken.

2.11 Many evaluations of the tangible cost/profit benefits of the introduction of well structured M.I.S. procedures have been made and all follow the typical curves shown in Figure 2.6 below.

FIGURE 2.6 : The Cost/Benefit of M.I.S. Introduction



Management Levels of Reporting

2.12 The careful and well structured dissemination of information throughout any organisation is an essential element of successful control and delegation of responsibility - otherwise executives become over-burdened with data and do not have time for mature consideration or alternatively they do not receive sufficient or timely data in order to assess performance and required courses of action.

Table 2.1 Actual Realisations Against Revised Budgets

Location	Percentage Realisation
Kayseri	79
K. Maras	46
Adana	87
Malatya	68
Erzincan	230
Izmir	80
Denizli	69
Bakirkoy	106
Eregli	61
Eskisehir	72
D. Bakir	81
Karaman	81
Nevsehir	46
Adiyaman	70
Antalya	121
Bergama	74
Manisa	112

PART B : THE BUDGETING PROCESS

Introduction

- 2.13 The budgeting process and preparation thereof in any major company is by nature, for reasons of accuracy and meaningful decision taking and setting of strategy, a lengthy process. It is re-iterative and normally extends over a 3-4 month period before a balanced programme is agreed and established in line with corporate objectives. It has been reported to us that in Sumerbank some mills complete this process in a day once the annual marketing/production has established mill production targets.
- 2.14 The validity and realism of these targets must also be questioned. We set out in Table 2.1. the levels of achievement by location in 1979 compared to their revised budgets, not the originals. The realisations range from 46% to 230%.
- 2.15 The budgeting procedures that we have developed are essentially geared to market requirements bearing in mind individual mill production capacities - our investigations in A. S. M. suggest that there are major discrepancies between actual production deliveries and that which A. S. M. seek. Production must meet market needs and not just produce goods which may enhance production utilisation statistics but are difficult to sell.
- 2.16 In addition to having a 'market orientation we believe that the budgeting procedures that we have devised incorporate the following additional features which are essential in the profitable development of C. T. D. They are :-
- assist C. T. D. management to establish and formulate cogent business strategies.
 - to improve the accuracy in setting business target expectations i.e. forecasts.

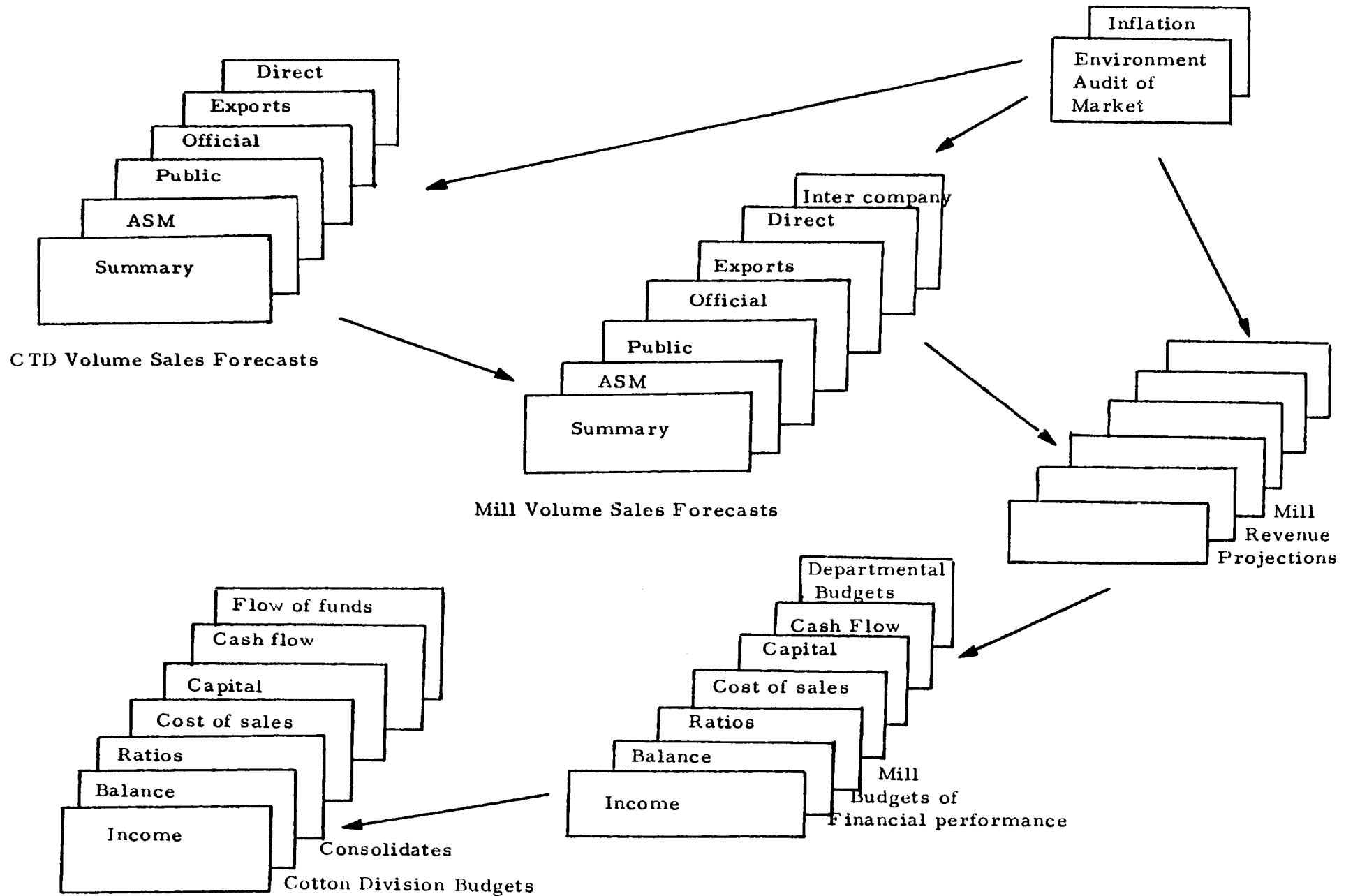
- to examine the profitability of sales on a more selective basis, i. e. by sector of sales, by product, etc., and thereby better direct the marketing effort
- to facilitate easier review of performance at periodic intervals so that sensible and accurate re-forecasts can be accomplished during the year.
- to establish targets by which individual manager's performance can be evaluated
- to ensure, over a period of time, that production capabilities are better geared to respond to market pressures and demand in terms of product/pricing requirements.

2.17 The outline and flow of the budgeting procedures are set out in Figure 2.7 and the salient steps are :-

- establishing company assumptions on external factors such as market sizes, inflation rates, etc., and establishing pricing policy
- establishing C. T. D. forecasts volume sales by sales sector, e. g. A. S. M., export, public, etc.
- determining individual Mill volume and stocking projections taking into account their production configurations and capacities.
- deriving mill revenue forecasts
- setting departmental mill budgets and requirements, raw material purchase schedules, etc.
- assembling complete mill financial schedules from revenue, cost of sales, investment schedules, cash flow, management ratios, etc.

THE BUDGET PROCESS

FIGURE 2.7



- consolidating individual mill budgets into a single C. T. D. business projection.

An Audit of the Environment

2.18 Each year during June - July the marketing executives of CTD should prepare a detailed review of the market and review future market prospects viz a viz the immediate past in terms of, for example :

- market sizes and trends by product (e. g. yarn, fabric type, sewing thread, knitted garments, etc.) and by sales sector (e. g. ASM, public, official, inter-company, etc.)
- competitive market shares
- a comprehensive review of the market pricing and margin structure e. g. Sumerbank v competitors both in the domestic and in the international markets.
- changes in channels and methods of distribution (e. g. chain stores, departmental stores, etc.)
- new product development in the market in terms of style, design, colour, fabric type, etc. and new Sumerbank product requirements.
- company assumptions with regard to medium term inflation rates (labour, electricity, raw materials, etc.)

Sales Volume Forecasts

- 2.19 On the basis of the above environmental audit and any major changes in the Divisions production capability, the marketing department (CTD) should at the end of July be in a position to assemble a total business sales forecast using the format set out in Schedule 2.1. This would provide projections for the next 12 months plus the following 4 year quantitative estimates for yarn, sewing thread, grey fabric, etc. - each product group would have sub-divisions - e.g. yarn count, type of garment, etc.
- 2.20 Five separate schedules would require completing, thus the total CTD estimate broken down by sales sector ASM, official, public, exports and direct mill deliveries.
- 2.21 Corresponding mill projections must then be derived using the same format schedule, again by similar product and sales sector splits; although at mill level an additional sales sector would be required - inter-company sales.
- 2.22 The derivation of Mill projections would require consultation and agreement with mill management during August; a divisional conference would be a suitable vehicle for this.

Planned Production Volume Throughputs

- 2.23 In the event that the mill sale volumes and mill production volumes are not the same, for example, radical de-stocking could give rise to significant difference between despatch and production volumes, schedule 2.2 should be completed to determine actual mill production requirements.
- 2.24 From the sales volume projections and inventory target levels (that are established from the sales volume projections), production throughput are simply calculated from the following basis :

$$\text{Production} = \text{sales} + \text{year opening stock} - \text{year closing stock target.}$$

- 2.25 These detailed planned mill volume throughputs can therefore be entered on Schedule 2.3.

Raw Material Budget Requirements

- 2.26 The mills maintain finished product raw material explosion breakdowns. Raw material budget requirements, which will form the basis of forecast purchasing schedules, can therefore be calculated from the production volume predictions (Schedule 2.3) and entered in on Schedule 2.4. and 2.4 (b).
- 2.27 All raw material forecasts entered on Schedule 2.4. should be volume units with the exception of indirect materials - i. e. from overalls to stationery, etc. By pricing materials we are talking of cottons and synthetic materials and within the auxiliary material group we would include dyes, chemicals, starches, etc.

Revenue Budgeting

- 2.28 A key task of a CTD marketing function, or for that matter A. S. M., will be the establishment of pricing and margin policies. In order to generate medium term revenue projections (4-5 years), price increases based on assumptions with respect to future inflation levels will have to be generated.
- 2.29 We set out in Schedule 2.5 a method by which the general trend of expected prices can be established. For each expense component of the cost of sales an assumption with regard to inflation can be made and appropriately entered on this schedule - the latest estimated (TL) for each expense component for the current year should also be entered. The future preliminary estimate for each element is therefore simply a multiple of the latest estimate and the inflation rate assumption for a particular year. Thus the provisional estimates for total expenses for each of the

succeeding 5 years can be determined and indexed back to the latest estimate for the current year. These indices can then be used to derive preliminary pricing estimates for the next five years (Schedule 2.6) by simply multiplying the current price by the index for a particular year. Note, these computations are not to establish accurate cost of sales projections but to determine the required trend and rate thereof for price decision making. Six Schedule 2.6's will require completing i. e. for the A. S. M., export, official, public sector, inter-company and direct mill sales sectors.

- 2.30 Mill production revenue projections can therefore be assembled for each of the six sales sectors and a Schedule 2.7 would be completed for each - revenue being a multiple of the appropriate price (Schedule 2.6) and the corresponding volume (Schedule 2.1). The six schedule 2.7's can then be summarised on the total mill revenue projection form (Schedule 2.8).

Mill Cost of Sales Budgeting

- 2.31 Prior to establishing cost of sales budgets further basic data must be generated. Firstly, establishment forecasts for each of the departments listed at Table 2.2 should be derived. (Schedule 2.9).
- 2.32 In conjunction with this, detailed production throughputs must be determined showing for each product in each production cost centre given in Table 2.2, the volume throughput and the corresponding machine hours required to produce that volume (Schedule 2.9 (b)).
- 2.33 On completion of these two schedules, a mill will then be in a position to complete the basic departmental budgeting document, Schedule 2.10.
- 2.34 As Sumerbank require detailed budgets in which both cost expense centres and product costs can be individually and accurately assembled, a large number of value/volume standards based on machine and raw material consumption standards will be required. Further, since one schedule is required for each department year, computerisation will be necessary although many rates will be common across the different products.

The order of assembling cost of sales budgets is :-

- the production service functions in order to determine forecast rates of these services
- spinning departments together with cone winding and doubling/twisting
- weaving preparation, weaving, processing and sewing thread.

2.35 Many simplified methods have been studied but they do not allow cost of sales by both expense centre and product cost centre to be determined.

2.36 Detailed departmental cost rates and standards for each mill have to be maintained. Thus detailed control can be exercised against a background of detailed value/volume standards. It should be noted that :

- non-recycled waste in our costing procedures has been treated as an absorbed cost. In the event that it will revert to a non-absorbed cost, provision under departmental receipts can accommodate such returns.
- monthly budgets for the forthcoming year can simply be determined by distributing that years total backward by revenue based seasonal factors.

2.37 The basic calculation format for expense centres that approximate to direct proportioning with volume is :-

Value = current TL/volume standard rate (based on appropriate machine and raw material standards)

x volume

x known or assumed inflation increase (from schedule 2.5)

2.38 The following expense centres are considered by management to approximate to direct volume fluctuations

- raw materials, semi finished materials, auxillary materials, contract work and production tax

- direct labour and related expenses
- certain production services; power, water, steam and the maintenance departments

2.39 The remaining expense centres will not vary in direct proportion with volume, that is, indirect materials, staff salaries, depreciation, canteen, building maintenance, planning and others. The method for determining these figures is :

$$\text{value} = \text{expenditure in the preceding 12 monthly period} \\ \times \text{inflationary percentage increase}$$

The expenses that are not found by the use of standard rates, should be distributed across the products on the basis of machine hour distributions.

2.40 Until mechanisation becomes effective, management may well find that a suitable short-cut to minimise the amount of calculations is to consider total volume throughputs rather than individual product volumes. There will of course be a loss of accuracy because 'average standards' rather than specific standards would be used.

2.41 On completion of these individual production services departmental budgets, they can then be cascaded in the accepted method and forecast rates of electric, steam, etc. determined. These figures can then be used in the departmental budgeting process.

2.42 The budgets for each production cost centre should then be derived and on completion the summary total entered on Schedule 2.10 (b) and could also be presented in a Schedule 2.11 format. The current standards are no longer valid and require up-dating by Gherzi as quickly as possible before any meaningful budgeting can be attempted.

- 2.43 Mill cost of sales by product (Schedule 2.12) and by sales sector (Schedule 2.13) can then be derived. Mill revenue and cost of sales projections by both product and sales sector will further assist and direct management toward setting/establishing more profitable mill and total CTD business strategies.

Non- Production Department Budgeting

- 2.44 These can also be determined using Schedule 2.10 with numbers of people rather than volume being the fluctuating parameter. The rate columns are redundant with value figure being determined on the basis of paragraph 2.34(f) and modified by numbers of people.

TABLE 2.2

LIST OF DEPARTMENTS FOR PLANNING / CONTROL PURPOSESMILL

<u>PRODUCTION</u>		<u>PRODUCTION SERVICES*</u>	<u>ADMINISTRATION+</u>	<u>HEAD QUARTERS*</u>
Spinning	Blow Room	Production Planning	Selling/Dispatch	Marketing
	Carding	Quality Control: (1)	Selling	Technical management
	Combing	(2)	Finished Goods	Textiles
	Speed Frames	Planning	Other	Garments
	Draw Frames	Prod'n management	Administration	Purchasing
	Ring Frames	Electric	Mill mgmt	Finance & Accounting
Weaving	Pirn Winding	Water	Security	Personnel & Administration
	Sectional Warping	Steam	Legal	Other
	Direct Warping (sizing)	Maintenance	Accounts	
	Loom Sheets	Electrical	Purchasing	
		Workshop	Raw materials	
Processing	Bleaching	Machine	Personnel	
	Dyeing	Building	Communications	
	Mercerising	Canteen	Welfare	
	Finishing			
Sew thread	Singeing/ Hankwinding			
	Bleaching/ Mercerising			
	Dyeing			
	Rewinding			
Cone Wind	Winding			
	Doubling/ Twisting			

Note

- * Cascade as per costing method when assembling departmental budget and allocate on same basis between departments
- + Recover on national cost per unit basis when setting budgets - not in cost of sales.
- + Recover on same basis as factory overheads split between factory on basis revenue apportionment.

Purchase Forecasts

2.45 Two different types of basic purchases are of interest.
They are :-

- material purchases
- capital expenditure purchases

2.46 Material purchases requirements for both domestically purchased items and imported raw materials are set out in the Schedule 24(b)'s.

2.47 Fixed capital purchases requirements should then be detailed by the following categories :

- plant and machinery
- land
- buildings

These should be set out in detail by category on Schedule 2.4(c), separating domestic and foreign currency requirements.

Financial Performance Budgeting

- 2.48 On completion of the detailed mill revenue and departmental budgets together with the cost of sales projections, financial performance forecasts can be derived at mill and CTD levels.

Budgeted Income Statement

- 2.49 This is set out in Schedule 2.14 and is straight forward - the items are similar in format to the uniform reporting schedules I-4 and I-5.

- 2.50 Both revenue and cost of sales should be broken down by sales sector to facilitate an easy H. Q. assessment of the relative sector gross profitabilities.

- 2.51 The difference between the mill and CTD consolidations is:

- mill statements contain inter-company business activity, i. e. CTD would be net of these
- consolidated general expenses would include, in addition to factory overhead, headquarter expenses.

Balance Sheet Projections

- 2.52 The five year projections are shown at Schedule 2.15 and in content is similar to uniform reporting Schedule I-1.
- 2.53 Consolidation projections would exclude inter-company payables and receivables.

Key Financial Management Ratios

2.54 These are shown at Schedule 2.16, they exclude technical ratios which are the domain of Gherzi responsibility. Each is defined and there are :

- seven operating ratios designed to guide profit improvement and enhanced asset management
- two financing ratios to control indebtedness
- two liquidity ratios
- two overhead measurement ratios to help management pin-point unwarranted overhead increases.

Capital Requirement Projections

2.55 Working and fixed capital requirements should be set out on Schedule 2.17. Working capital entries are straight forward.

2.56 Fixed capital requirements should be based on the formats of uniform reporting Schedules II-12 to 14 and supported by project justification proposals where necessary.

2.57 Depreciation estimates would of course be calculated using a working paper similar to II-18.

Cash Flow Forecasts

2.58 These projections are set out in Schedule 2.18 and show the movement between years; movement can be obviously upward or downward as indicated.

Cost of Sales Trends

2.59 Schedule 2.19 is merely an extraction from Schedule 2.11 of the percentage trends for each department and should enable corporate management to :

- identify faulty budgets
- suggest areas where cost reductions could be effected, given similar working practices in other like manufacturing environments. Latest cost levels in other parts of the world are given in Appendix 2.1
- suggest areas for investigations where adverse trends present themselves.

Overhead Recovery

2.60 Overhead recovery will be important in establishing appropriate pricing policies, this assumes market pressures would support unconstrained pricing policies.

2.61 We do not think it appropriate to recover overheads by allocating across departments and bringing it into the cost of sales - monthly variations in production due, to for example, labour unavailability could lead to misleading variations in cost.

2.62 An average recovery rate based on the yearly budget should be determined thus :

$$\text{Unit recovery} = \frac{\text{yearly factory overhead} + \text{share of H. Q. expenses}}{\text{yearly throughput}}$$

2.63 Pricing and /or costing is simply thus :

$$\text{unit price (cost)} = \text{unit cost of sales} + \text{unit overhead recovery} + \text{desired profit margins}$$

2.64 The method of allocation of overheads for pricing/costing purposes should be on the following basis :

- allocation of headquarters expenses to mills on the basis of the mill's revenue expressed as a proportion of total revenue of all mills

- allocation of factory overheads to departments on the basis of their respective cost proportions.

SCHEDULE 2.1

+ : * : COTTON SALES VOLUME PROJECTIONS :

PRODUCT AREA	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12					TOTAL
Yarn																	
Sewing Thread																	
Grey Fabric ¹																	
Finished Fabric ²																	
Carments ³																	
Knitted ⁴																	
Waste																	

-29-

+ state division or mill
 * insert sales sector
 All units 100 kg except 1 and 2 - million metres; 3 and 4 - 1000 pieces

Prepared by :
 Date :

* : PRODUCT / SALES / INVENTORY FORECASTS

PRODUCT	198			198			198			198			
	Year Beginning Stock	Prod'n	Sales	Year End Stock	Prod'n	Sales	Year End Stock	Prod'n	Sales	Year End Stock	Prod'n	Sales	Year End Stock
Yarn													
Sewing Thread													
Grey Fabric													
Finish Fabric													
Garments													
Knitted													

* Enter mill name ; units as per schedule 2.1

Prepared by :

Date :

-30-

SCHEDULE 2.3

* : PRODUCTION VOLUME PLANNED THROUGHPUTS

DEPARTMENT	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12					TOTAL
Spinning																	
Weaving ¹																	
Processing ²																	
Cone Winding																	
Sewing Thread																	

- 31 -

* Enter Mill
Units kg except 1 and 2 million metres

Prepared by :
Date :

SCHEDULE 2.4

* : RAW MATERIAL REQUIREMENTS

MATERIAL	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12					TOTAL
Primary (150)																	
Auxilliary (154)																	
Bought in and semi-finished (151)																	
Indirect (153) (not volume)																	
Supplies (155)																	

-32-

* Enter division or mill name

To be repeated for volume and value : and domestic and external

Prepared by :
Date :

*:BROAD RAW MATERIAL PURCHASE REQUIREMENTS

SCHEDULE 2. 4b

Material	198					198		
	Opening Stock	Prod. Needs	Purchase	Closing Stock		Prod. Needs	Purchase	Closing Stock
Primary (150)								
Auxiliary (154)								
Bought in (151)								
Indirect (153) (not volume)								
Supplies (155)								

- 33 -

* Enter division or mill name
To be repeated for volume and value

Prepared by:
Date :

BROAD CAPITAL EXPENDITURE REQUIREMENTS

SCHEDULE 2, 4c

Area of Expenditure	198	198	198	198	198
Plant and Machinery *					
Equipment/Spares*					
Land					
Buildings					
Other					
Total					

-34-

Notes

Units T. L.
To include commitments made from previous years
Itemise domestic v. foreign purchases.

Prepared by:
Date :

POTENTIAL EFFECT OF INFLATION ON SELLING PRICE TREND REQUIREMENTS

SCHEDULE 2.5

COST OF SALES ITEM
Cotton
Synthetic Fibres
Dyes
Chemicals
Other materials :
Indirect Fuels
Labour
Direct Labour
Indirect Labour
Staff
Other expenses
Production Services:
Production planning
Steam
Electric
Maintenance
Electric
Other
Taxes
Depreciation
Total Overhead

Latest Estimate for 198 (TL)

198		198		198		198		198	
I.R.	TL	I.R.	TL	I.R.	TL	I.R.	TL	I.R.	TL

Rate of Increase Relative to now

100 %

%	%	%	%	%
---	---	---	---	---

(I.R. is inflation rate)

Prepared by :
Date :

* : REQUIRED EX-FACTORY PRICES

PRODUCT	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12					TOTAL
Yarn																	
Sewing Thread																	
Grey Fabric																	
Finished Fabric																	
Garments																	
Knitted																	
Waste																	

-36-

* Enter sales sectors

Units : price per kg or metre

Prepared by :
Date :

SCHEDULE 2.7

+ : * : PRODUCT REVENUE PROJECTIONS

PRODUCT	198												198	198	198	198
	1	2	3	4	5	6	7	8	9	10	11	12				
Yarn																
Sewing Thread																
Grey Fabric																
Finished Fabric																
Garments																
Knitted																
Waste																

-37-

+ Enter mill name

* Sales sector

Units T.L.

Prepared by :

Date :

SCHEDULE 2.8

MILL REVENUE FORECAST BY SALES SECTOR

SALES TO	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12					TOTAL
ASM																	
Direct																	
Export																	
Official																	
Public																	
Inter-Company																	

- 38 -

Units T. L.

Prepared by :
Date :

Mill
Department

ESTABLISHMENT BUDGET FORECASTS

SCHEDULE 2.9

Level of Staff	198		198	198	198
	Plan	Actual Diff.	Plan Diff.	Plan Diff.	Plan Diff.
Management Grades					
Total					
Supervisors/Foreman					
Total					
Labour/Clerks Grades					
Total					
GRAND TOTAL					

-39-

Prepared by:
Date

Mill
Department

DEPARTMENTAL VOLUME AND MACHINE HOUR BUDGETS

SCHEDULE 2.9 (b)

Year	Production Volume and Machine Hour Requirements									
	Vol	Hrs.	Vol	Hrs	Vol	Hrs	Vol	Hrs	Vol	Hrs
198										
198										
198										
198										

Prepared By:
Date

Department
Year:

BASIC DEPARTMENTAL BUDGETING DOCUMENT

SCHEDULE 2.10 (a)

Expense Centre	Product								Total	
	Rate	Value	Rate	Value	Rate	Value	Rate	Value	Rate	Value
<u>Expense Centre</u>										
Volume										
Raw Materials										
Semi Finished										
Auxillary										
Bought in										
Production Tax										
Dir· ct Labour										
Other Related Expenses										
Staff										
Indirect Materials										
Depreciation										
Other										
Production Services										
Total										
Receipts										
GRAND TOTAL										

Mill:
Year:

COST OF SALES BY PRODUCTION CENTRE

SCHEDULE 2.13 (b)

Expense Centre	Blow Room Finishing	Total

Mill :
Year:

NON-PRODUCTION EXPENDITURE FORECASTS

SCHEDULE 2.10 (c)

Expense Centre	Selling/Despatch	ADMINISTRATION		CTD or SBOverhead	Total
	Sell/Desptach/Other	Mgt	Welfare		

NOTES ON SCHEDULE 2.10(a)

The projected cost rates where they cannot accurately be computed should simply be computed on the latest average rate modified by :-

- volume and/or manpower fluctuations from current levels
 - inflation rate assumptions
1. This should be split into the respective groupings management, direct, indirect.
 2. These are the costs of production services, i. e. production planning and quality control, steam, water, electricity, workshop, maintenance, canteen, etc.

SCHEDULE 2.11

* : COST OF SALES FORECASTS BY EXPENSE CONTROL

TYPE OF EXPENSE	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL				
<u>Materials</u>																	
Primary																	
Auxillary																	
Bought in																	
Indirect																	
<u>Labour</u>																	
Direct																	
Indirect																	
Staff																	
Other related																	
Production Services																	
Depreciation																	
Taxes																	

-45-

* Insert location and name of department.
Units are TL

Prepared by :
Date :

SCHEDULE 2,12

* : MILL COST OF SALES FORECAST BY PRODUCT

PRODUCT	198												198	198	198	198	
	1	2	3	4	5	6	7	8	9	10	11	12					TOTAL
Yarn																	
Sewing Thread																	
Grey Fabric																	
-46- Garments																	
Knitted																	
Other																	

* Enter mill
Units - TL

Prepared by :
Date :

SCHEDULE 2.13

* : MILL COST OF SALES FORECASTS BY SALES SECTOR

COST OF SALES TO
ASM
Direct
Export
Public
Official
Inter-Company

198												
1	2	3	4	5	6	7	8	9	10	11	12	TOTAL

198	198	198	198

-47-

* Enter mill name
Units - TL

Prepared by :
Date :

MILL/ CTD BUDGETED INCOML STATEMENT

Schedule 2.14

													Total	198		198		198		198	
	1	2	3	4	5	6	7	8	9	10	11	12	TL	TL	%	TL	%	TL	%	TL	%
Sales																					
Revenue by Sales Sector [†]																					
Government Subsidies																					
Tax Repayments																					
Total Gross Sales																					
Less																					
Discounts																					
Sales Tax																					
Other																					
Total Net Sales																					
Cost of Sales																					
Costs of Production [†]																					
(By Sales Sector*)																					
Other																					
Gross Profit																					
General Expenses																					
Administration																					
Marketing Sales																					
Retirement/Pensions																					
Other																					
Total General Expenses																					
Operating Profit(Loss)																					
Other Charges ²																					
Total Non Operational																					
Profit Before Tax																					
Legal Deductions ³																					
Net Profit/Loss																					

* Consolidated CTD Statement is net of inter-company business

† Consolidation would include HQ allocations/expenses

Prepared By: _____
Date: _____

NOTES ON SCHEDULE 2.14

1. Includes split by ASM, direct, official, export, public and inter-company.
2. Includes other revenues external and inter-company, interest and commission, prior years profits and written back bad debt reserves and other expenses (prior losses, bad debt provision and other).
3. Includes corporation tax, economic stabilisation tax, legal contributions to government institutions and other.

BUDGETED BALANCE SHEET

Schedule 2.15

ASSETS SCHEDULE	198	198	198	198	198
Current Assets					
Cash					
Securities and Bonds					
Receivables by sales sector					
Adjustments					
Inventories					
Other					
Total Current Assets					
Fixed Assets					
Long Term Fund Sources					
Land and Buildings					
New Buildings and Part Finished					
Plant and Equipment					
Fixtures and Fittings					
Other					
Depreciation (-)					
Other					
Total Fixed Assets					
Other					
Participations					
Goodwill					
Other					
TOTAL ASSETS					

LIABILITIES SCHEDULE	198	198	198	198	198
Current Liabilities					
Short Term Borrowing					
Accounts Payable - Government					
Inter-Company					
Other					
Advances/Deposits					
Taxation					
Other Accruals					
Total Current Liabilities					
Long Term Debt					
Loans					
Liabilities					
Deposits					
Other					
Total Long Term					
Equity					
Net Share Capital					
Revaluations					
Reserves					
Retained Earnings					
Other (inc. Minority interests)					
Total Shareholders Investment					
Losses					
TOTAL LIABILITIES					

- 50 -

* Consolidated statements would naturally exclude inter-company payables and receivables.

Prepared By:
Date

NOTES TO SCHEDULE 2.15

1. Includes ASM, official, public, direct, export and inter-company transaction splits.

KEY RATIOS : A SUMMARY OF MANAGEMENT OPERATING RATIOS

Schedule 2.16

A. Operating Ratios		
1.	Return on Sales	(Net profit/net sales)
2.	Gross Margin	(Net sales - cost of sales)/net sales
3.	Return on Assets	(Net profit/assets)
4.	Stockturn	(Cost of goods sold/av. inventory value)
5.	Acc. Rec. turn	(Net sales/Av. accounts receivable)
6.	Outstanding	(Av. Accounts receivable/av. daily sales)
7.	Fixed Asset Turn	(Net sales/av. Fixed assets)

198	198	198	198	198

B. Financing Ratios		
8.	Debt/Equity	(Total debt/equity)
9.	Debt. Servicing	(Net income + long term interest/long term interest)

--	--	--	--	--

C. Liquidity Ratios		
10.	Quick	(Cash + Securities + acc. recev.)/current liabilities)
11.	Current	(Current assets/current liabilities)

--	--	--	--	--

D. Overhead Ratios		
12.	Factory	(Factory charges/net sales)
13.	HQ Costs	(Allocation/net sales)

--	--	--	--	--

No Units - All Ratios

Prepared by :
Date

-30-

* : FORECAST CAPITAL REQUIREMENTS

Schedule 2.17

-53-

	198	198	198	198	198	198
Working Capital						
Raw Materials						
Work in Progress						
Supplies						
Finished Goods						
Other Inventories						
Current Assets*						
Current Liabilities						
Total						

Fixed Capital Requirements*						
Plant and Machinery						
Land						
Buildings						
Other						
Total						

* Net of inventories

+ Enter mill name

Prepared By:

Date:

CASH FLOW PROJECTIONS

SCHEDULE 2.18

Sources	198	198	198	198	198
Profit (loss)					
Depreciation					
Decreases in Assets ¹					
Increases in Liabilities ²					
Other ³					
Total					

Outgoings	198	198	198	198	198
Local Payments ⁴					
Increase in Assets ⁵					
Decrease in Liabilities ⁶					
Other					
Total					

Resultant Cash Flow					
---------------------	--	--	--	--	--

NOTES ON SCHEDULE 2.18

1. Includes decreases in cash, shares and bonds, advances and credits, claims on other organisations and inter-company, inventory movements and other asset decreases
2. Includes increases in external and inter-company debts, paid up capital and other liabilities
3. Includes reserves and others
4. Includes corporation tax, dividends and payments to various funds
5. Includes increases in cash, shares, claims on other organisation and inter-company, inventories, capital of participations and other asset increases.
6. Includes decrease in external and inter company debts and others.

BUDGETED TRENDS IN COST OF SALES PROPORTIONS

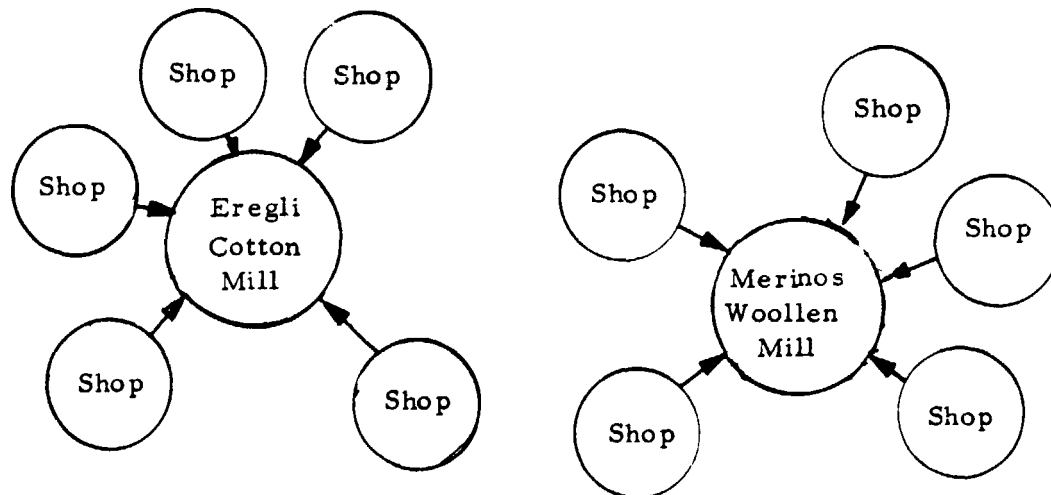
Mill:

Type of Cost of Sales Expense	Percentage of Budgeted Cost of Sales				
	198	198	198	198	198
Materials					
Primary					
Auxillary					
Bought in					
Indirect					
Total Percentage					
Labour					
Direct					
Indirect					
Staff					
Other Related					
Total Percentage					
Production Services					
Depreciation					
Taxes					
Total	100	100	100	100	100

Part C : Short Term Cash Planning and Control Procedures

Background

- 2.65 Long/medium term cash flow planning and control, i. e. 5 yearly forecasts will readily fall out of the yearly planning processes together with the annual and periodic review procedures that are being developed for each mill and CTD.
- 2.66 However, because of the functionalised organisation structure of Sumerbank and the method of cash collection, short term cash flow movements (at monthly intervals) and control can only be currently attempted for Sumerbank as a whole and not per division. Each shop which sells a variety of products (cotton, woollen, ceramic, footwear, leatherwear, etc.) is assigned to pay its receipts into a 'mill bank account' - this may be a Sumerbank branch or an interim Agriculture Bank branch in the absence of a local Sumerbank facility. There are some 40 mills each covering a particular manufacturing activity e. g.



- 2.67 Therefore, whilst this cash collection system is very efficient in terms of minimising working capital requirements, the mixing of a variety of product type cash sales with different product mills makes anything but a total Sumerbank cash control process very difficult and perhaps impractical.

2.68 Further, if cash collection were ever attempted on a divisionalised basis, the possible implications of increased working capital requirements must be very carefully considered.

2.69 We have therefore developed procedures for the short term planning and control of cash flow which reflect the actual method of cash collection and a brief description of the method follows.

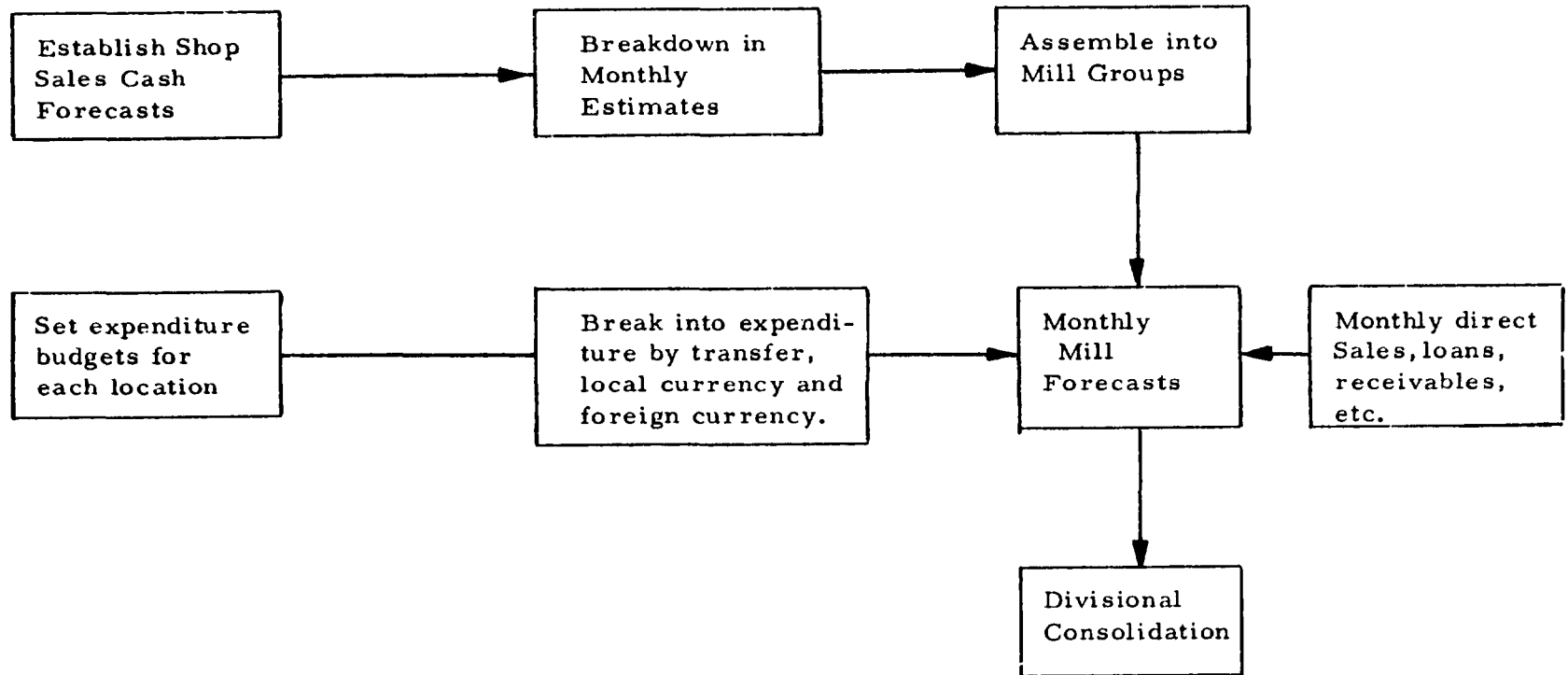
Systems Outline

2.70 A flow of the procedures is given in figure 2.8 and there are seven principal steps, thus :

- establish six monthly/yearly shop cash sales forecasts
- derive monthly receipt forecasts for each shop
- assemble shops into requisite mill groupings and determine the monthly cash receipt forecasts for each mill
- determine the expenditure budgets by expense type for each location
- breakdown each of these location expenditure budgets into outgoings by :
 - periodic inter-company paper transfers e.g. electricity, inter-company processing, etc.
 - actual foreign currency cash outgoings
 - actual local currency cash outgoings.

SHORT TERM CASH FLOW METHOD

FIGURE 2.8



- establish the short-term cash flow projections by mill
- establish consolidated CTD short-term cash flow requirements.

Shop Cash Sales Forecasts

- 2.71 A. S. M. marketing executives should provide the Accounting Directorate with shop cash sales forecasts for each shop using Schedule 2.20. Updates should be made at bi-monthly intervals - if actual shop receipts were maintained on a computer, exponentially smoothed forecasts could be easily made available.
- 2.72 These projections then require reconciling with the year projected cash sales of ASM and that of the total for each division separately.
- 2.73 Each shop cash sales forecast will then require breaking down into monthly projections using seasonal factors - these have been computed for each region and are set out in Appendix 2.2; factors on both value and volume have been calculated.

Shop Groupings into Mill Centres

- 2.74 There are currently around some 430 retail shops, each of which is assigned to a particular mill or headquarters location; there are some 40 mill and two headquarter locations (SBH in Ankara and ASM in Istanbul).
- 2.75 It is intended that these procedures will run on the headquarters computer in Ankara and thus it will be possible to evaluate the impact on cash flow, at a particular location, of alternative shop groupings with minimum clerical effort.

- 2.76 The projected cash receipts for each grouping is simply the summation of the yearly cash sales of the shops assigned to that mill group (Schedule 2.21).

Group Centre Expenditure Budgets.

- 2.77 The expenditure budgets for each of the 40 mills together with those of ASM, Istanbul and SBH, Ankara from the basis of the monthly cost expenditure projections.
- 2.78 Realistic yearly expenditure budgets for each location should therefore be extracted from the appropriate budget processes.

Breakdown of Mill Outgoings

- 2.79 Each group centre expenditure budget will then require breaking down into the following types of outgoing.
- expenditures effected by inter-company paper transactions and that are not 'cash' requirements
 - expenditures requiring foreign currency, e.g. the purchase of dyes, chemicals, machinery and spares
 - local currency expenditures.
- 2.80 These breakdowns should be entered on Schedules 2.22 (a to c) (note that three must be completed). In Appendix 2.3, we show the actual pattern of expenditure for Eregli in 1979 and these expenditure patterns throughout the year should be used to break down the normal recurring expenditures (e.g. salaries, power, materials, etc.)

Within these schedules, the composition of the expenditures will vary from mill to mill but in principle they will be as follows :-

- primary raw materials; all types of cotton and man-made fibres by type of material
- auxiliary raw materials; secondary production raw materials including chemicals, dyes starches, bobbins, etc.,
- operational supplies; basically fuel, coke and other materials required to uphold the basic factory operations
- loads and equipment; basically recurring spares and other purchases not regarded as non-investment expenditure
- other supplies and to include overalls, stationary, packaging material, construction supplies, etc.
- electricity (paper transfer only)
- labour and staff expenses; to be set out by direct labour wages, production and management salaries and related benefits such as bonus, fringe benefit and social security payments
- taxes; mill outgoings are primarily sales, production and employee taxations
- investment expenditure by equipment, land and buildings
- debit repayments as called for by loan servicing schedules
- others, for example, external commissions or dividends that are payable by a mill

- 2.81 Non-recurring or irregular outgoings such as investment expenditure or special material purchases should also be entered on these schedules as shown using management estimates as to the date of incurring expenditures.
- 2.82 Schedules 2.22 (a to c) are in fact working papers and should then be summarised on Schedules 2.23 (a-c) in the required formats - these schedules summarise the cash in flows, out flows and fund sourcing by:
- type of activity expenditure
 - method of sourcing, (paper transaction, domestic expenditure or foreign currency).
- 2.83 Not only can Schedules 2.23 be used to summarise each mill's requirements but each mill's requirement can in turn be consolidated into the total CTD requirement on Schedules 2.23.

Monthly Cash Flow Projections

- 2.84 Given the above projections in respect of receipts and outgoings for each mill the resultant cash flow projections can be entered on Schedules 2.23 and from the working papers (Schedules 2.22). These summarise the various types of cost movement by local, foreign and paper funding/expenditures.

Control Procedures

- 2.85 Daily and monthly returns of the cash position will be made by each group centre and compared with the expected position and corrective action taken.
- 2.86 Consistent surpluses or deficits may require a realignment and allocation of shops against particular group centres.

SHOP CASH SALES FORECASTS

Schedule 2.20

Shop Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total													

UNITS - TL.

Prepared by:
Date :

Notes to Schedule 2.20

Yearly estimate for each shop's cash sales should be made and entered in the total column on Schedule 2.20.

Estimates for monthly cash sales for each shop can then be derived thus:

$\frac{1}{2}$ x Year's estimate x appropriate regional
monthly seasonal factor set out in Appendix 2.2.

GROUP CENTRE SHOP SALES ESTIMATES Schedule 2.21

Mill :

Shop Name	Jan	Feb	Mar	Apr	May	June	July	Aug.	Sept	Oct.	Nov	Dec.	Total
Total													

UNITS TL

Prepared by :
Date :

Notes to 2.21

Enter each shop name assigned to a particular mill and enter from Schedule 2.20 the appropriate data for each column.

The total is merely the sum for all shops assigned to a mill.

MILL OUTGOINGS : LOCAL EXPENDITURE WORKING SHEET.

Schedule 2.22 (a)

Mill
Year

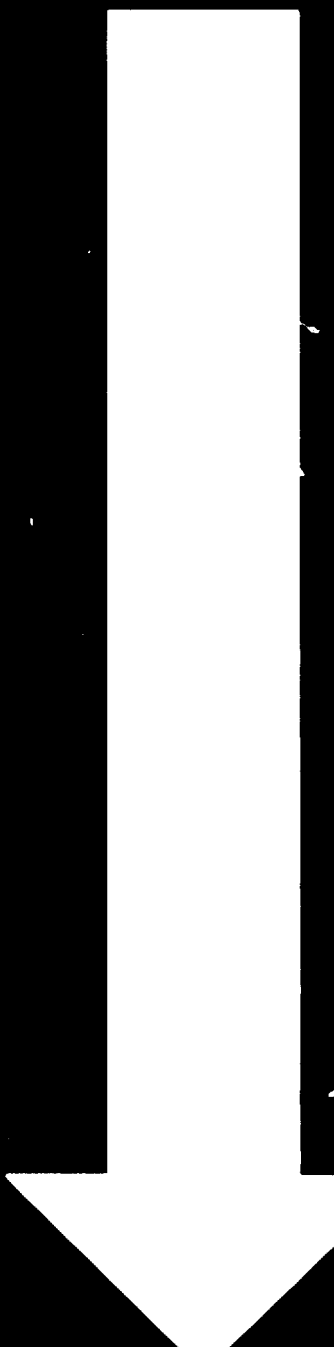
	Planning Period												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Expenditure Type													
Primary Raw Materials													
Auxillary Raw Materials													
Operational Supplies													
Tools/ Equipment													
Other Supplies													
Labour and Staff Schemes													
Taxes													
Debit Repayments													
Investment Expenditure													
Others													
Total													

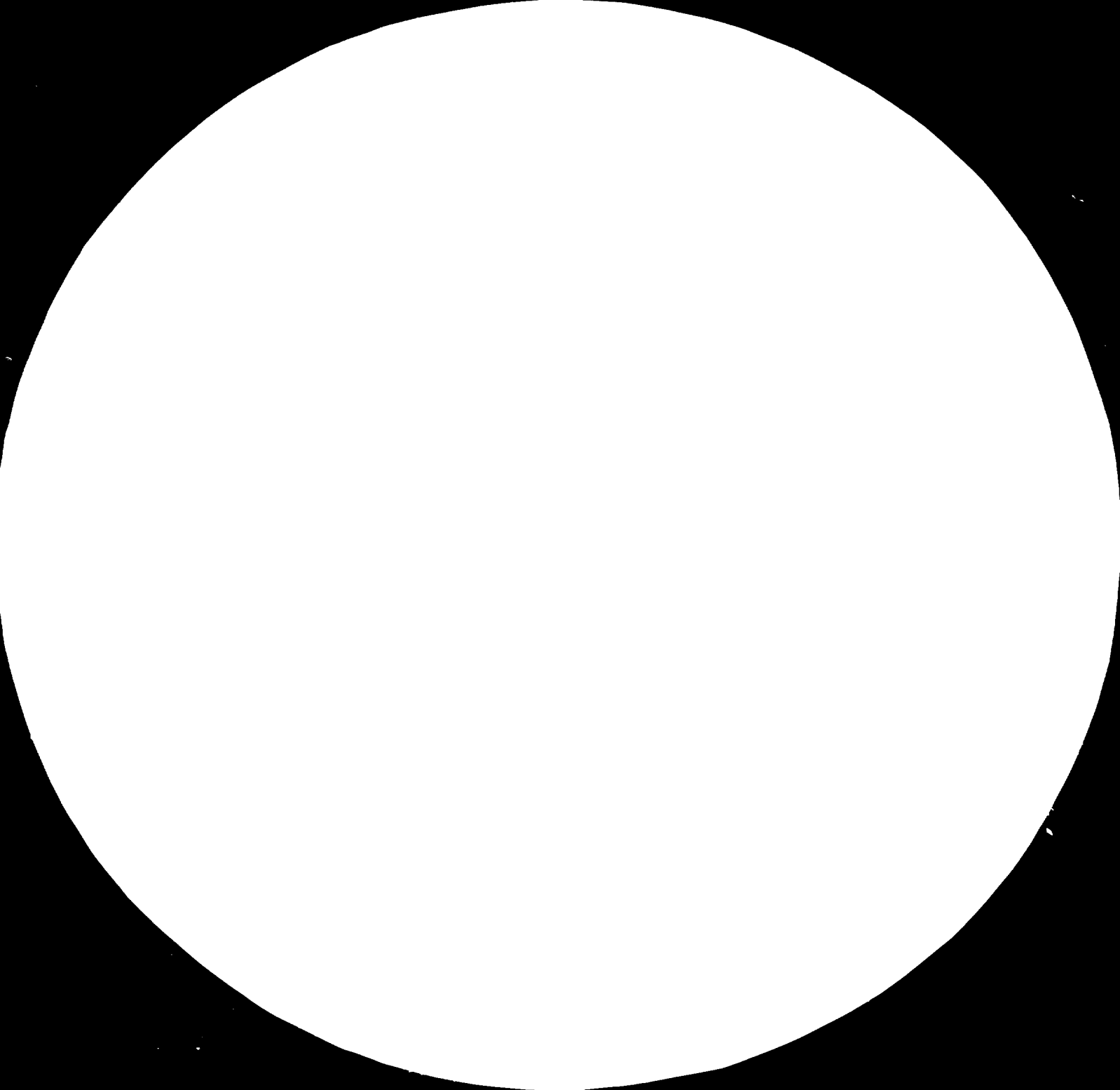
-67-

(Units TL)

Prepared By:
Date

81-1229







2.8



3.2



3.6



4.0



4.5



When used in accordance with the instructions in the accompanying literature, this target is suitable for the determination of the resolution of optical systems.

Mill
Year

MILL OUTGOINGS: FOREIGN EXPENDITURE WORKING SHEET

Schedule 2.22 (b)

	Planning Period												Total	
	1	2	3	4	5	6	7	8	9	10	11	12		
Expenditure Type														
Primary Raw Materials														
Auxillary Raw Materials														
Operational Supplies														
Tools/ Equipment														
Other Supplies														
Labour and Staff Schemes														
Taxes														
Debit Repayments														
Investment Expenditure														
Others														
Total														

-89-

(Units TL)

Prepared By:
Date:

Mill :
Year :

MILL OUTGOINGS : PAPER TRANSACTION WORKING SHEET

Schedule 2.22 (c)

	Planning Period												Total	
	1	2	3	4	5	6	7	8	9	10	11	12		
Expenditure Type														
Primary Raw Materials														
Auxillary Raw Materials														
Operational Supplies														
Tools/Equipment														
Other Supplies														
Labour and Staff Scheme														
Taxes														
Debit Repayments														
Investment Expenditure														
Others														
Electricity														
Totals														
(Units TL)														
													Prepared By: Date:	

- 69 -

Mill:
Year:

CASH OUTFLOW SUMMARY

Schedule 2.23 (a)

OutFlow	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Operating Total													
Primary raw materials													
Auxillary Supplies													
Power													
Staff Salaries													
Labour Wages													
Transport													
Rents													
Taxes													
General & R + D													
Total													
Investment													
Equipment & Materials													
Contractors Fees													
Other													
Total													
Repayments													
Treasury													
S. E. E.													
S. I. B.													
External													
Private Banks etc													
Other													
Total													
Other													
Grand Cash Outflow													
by: Domestic													
Foreign													
Paper Transactions													

Mil .
Year

CASH INFLOW SUMMARY

Schedule 2.23 (b)

Nature of Inflows	Jan	Feb	Mar	Apr	Jun	July	Aug	Sept	Oct	Nov	Dec	Total
CASH IN BANK												
SALES												
Goods Direct												
Goods A. S. M.												
Services												
Tax Returns												
Total												
RECEIVABLES												
Sales												
S. E. E.												
Notes Receivable;												
Participations												
Private												
Other Official												
Total												
LOANS												
State												
Private Banks												
External Loans												
Other Private												
Total												
Other												
GRAND INFLOW TOTAL												
by: Domestic												
Foreign												
Paper Transactions												

Mill:
Year

RESULTANT SHORT TERM CASH FLOW SUMMARY

Schedule 2.23(c)

Requirements & Methods of Sourcing	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Dec	Total
Total Inflows												
Total Outflows												
Resultant Flow												
Method of Injections												
Capital												
Loss												
Loans												
Subsidies												
Total												
Loans												
S. I. B.												
External Project Loan												
Special Funds												
Other Loans												
Total (Cash Supplies/ Drawn Out)												

PART D : MANAGEMENT CONTROL PROCEDURES

Introduction

- 2.87 A variety of management control reports will be required to be generated on either a daily, monthly or quarterly basis.
- 2.88 These requirements are summarised in Table 2.3 and Figure 2.9 and show the relationship between type of report, frequency and level of reporting (i. e. department, mill, ASM, or CTD, Head Office). They are :-
- daily at mill and departmental levels; departmental and mill production summaries, key inventory stock monitoring, sales and despatch performance, employee attendance analysis and bank reconciliation.
 - monthly at mill and CTD Head office levels; production and sales/despatch summaries, inventory and purchase summaries, product costing reports, departmental costing reports, income statements, balance sheets, key management ratio reports, cash flow status reports for individual mills and consolidated CTD.
 - quarterly; as per monthly with the additional capital project review reports as set out in Chapter
- 2.89 Our proposed control procedures are the very minimum required for effective management review and control in order to ensure that targets are attained in a profitable manner or the impact of shortfalls or surpluses are understood.
- 2.90 In addition to reporting on operations in a systematic method, certain technical aspects of the operations must be monitored; these are to be determined by Gerzi.

Table 2.3

BROAD CONTROL REQUIREMENTS

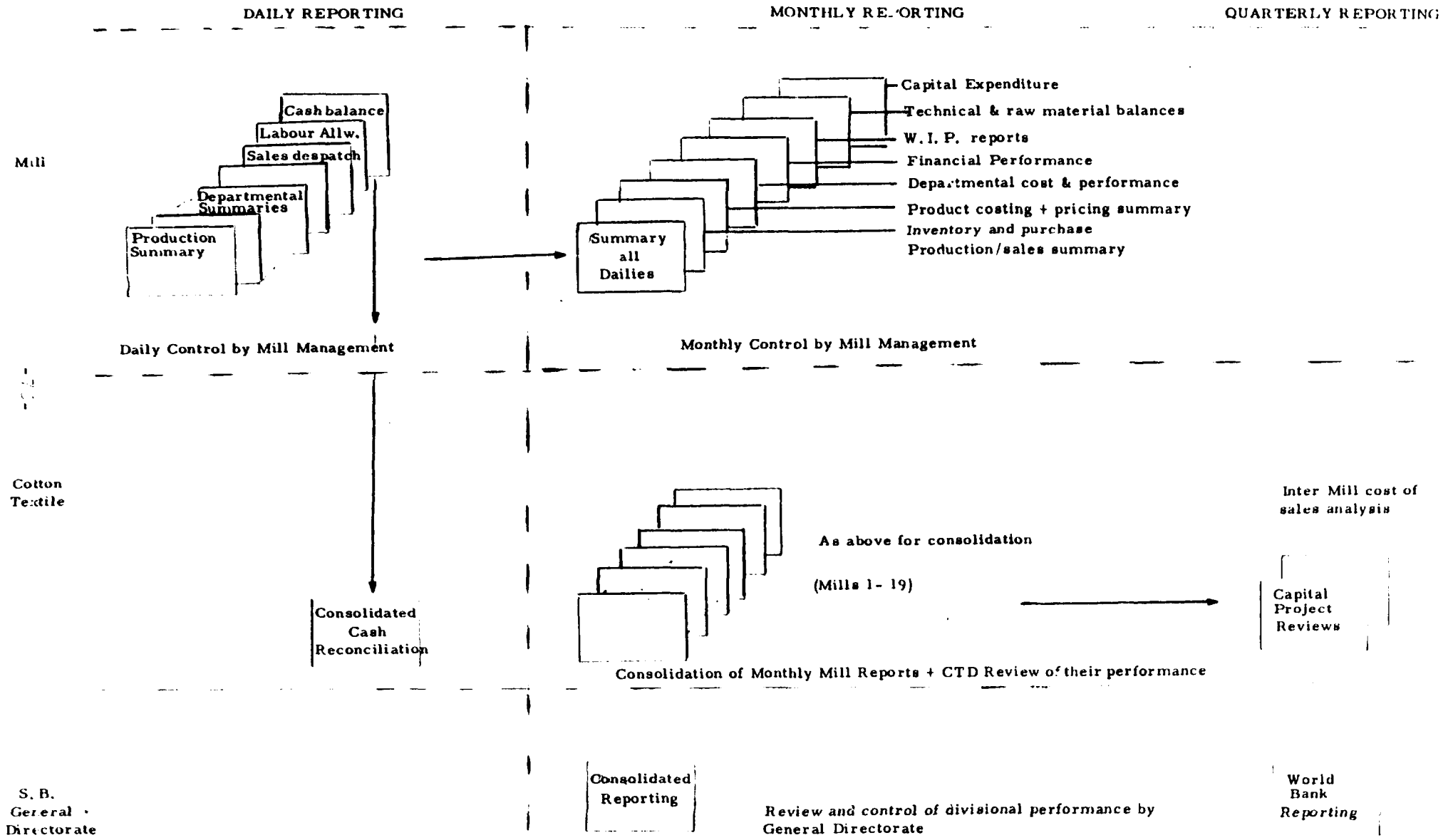
Dep Mill ASM HQ

		Dep	Mill	ASM	HQ
<u>FINANCIAL</u>					
Income Statement		-	M	M	
Balance Sheets		-	M	M	
Flow of Funds/Cash Flow		-	M	M	CM
Management Ratios		-	M	M	
Costing/Pricing		-	M	M	
Invest/Cap. and Capital Projects		-	M	M	
<u>SALES</u>					
Budgets/ Revisions	}	-	M	M	CM
Actuals		-	D	M	
Variances					
<u>PRODUCTION</u>					
Levels of Departmental activity and efficiency		D by		-	
Together with Budget Comparisons		Cost D	M		CM
(M/C's, Labour, Materials), Cost Analysis.		Centre		-	
<u>INVENTORIES</u>					
Selected Lines (R. M. /WIP/F. G/SPARES/Other		D	D	M	CM
Less Important Lines		-	M	M	M
<u>PURCHASES</u>					
R. M.	} Showing a split between domestic and imported purchases		M	-	CM
Equip.			M	-	M
Other			M	-	
<u>PERSONNEL</u>					
No. s of Staff/Labour Etc. and Shortfall		D	M	M	CM
Training		-	M	M	M
<u>TECHNICAL</u>					
As per Gherzi requirements		D	M	M	CM
<u>PROJECT</u>					
Cost Accumulation		M	M		M
Review of Progress		Q	Q		Q

Key D - Daily, M - Monthly, CM - Consolidated Monthly, Q - Quarterly

THE REPORTING AND CONTROL INFORMATION STRUCTURE

Figure 2.9



Daily Control Reporting

- 2.91 We envisage the following types of daily mill reports to monitor production, inventory, despatch, labour attendance, and if necessary bank reconciliation.

Departmental Production Summary

- 2.92 In order that production management can adequately assess the performance of a department and that their attention be directed towards areas for improvement, schedule 2.24 should be completed for each shift and would indicate by machine :

- month to-date production, target against actual
- daily throughput of comparison of actual against planned
- levels of efficiency in terms of availability capacity utilisation and overall utilisation.

- 2.93 Availability is simply a percentage of the time that a machine is available for production i.e.

$$100 \times \frac{\text{Shift Length} - \text{Down time for breakdown or lack of Spares}}{\text{Shift Length}}$$

- 2.94 Capacity utilisation is then a function of actual production viz a viz theoretical

$$\frac{\text{Actual Achievement}}{\text{Theoretical Achievement}} \times 100$$

- 2.95 Overall utilisation is simply a product of the two.

Daily Mill Production Summary

- 2.96 Schedule 2.25 is of key interest to both the mill manager and the production manager in monitoring levels of production and efficiency against pre-set targets. The content is similar to schedule 2.24 except that it is looking at departmental activity rather than machine performance.
- 2.97 The mill manager and other interested management can then refer to the schedule for specific problem areas and then particular staff as required.

Key Inventory Stock Levels

- 2.98 The key inventory stock levels can be monitored at a specific time each day by entering from the appropriate record cards, the relevant figures.
- 2.99 We envisage that some 30 items per mill should be monitored (not reconciliation). These will form our inventory work and account for some 80% of the inventory values.
- 2.100 Apart from restricting and reducing inventory levels, management can also be in a position to detect potential shortfalls in key raw materials which could adversely affect production and in finished goods which could in turn inhibit despatches.
- 2.101 The proposed daily return schedule 2.26 sets out upper, lower and mid budget levels, the actual level and production intent.

Daily Sales/Despatch Performance

- 2.102 Not only must a mill attain specific production targets to maintain profitable production but it must achieve particular sales and despatch targets. Schedule 2.27 will assist management to monitor progress and assess impact of any deviations from budget at an early stage.

2.103 The daily return would indicate by each main product area for specific lines the following :

- volume targets, both daily and monthly to-date in terms of budget and actual comparisons
- unfulfilled orders; this will be useful in directing production activity.

Daily Establishment Attendance Reporting

2.104 In order to monitor attendance levels and degree of absenteeism schedule 2.28 should be introduced. For each department in the mill the information shown should be entered i. e.

- numbers of personnel; for both staff and operatives a comparison of budget against actual
- budget/actual comparison of flows marked for the operators.

Bank Reconciliation

2.105 Mills are required to maintain bank reconciliations in ledgers. Where this is not adequately accomplished a daily record as set out in schedule 2.29 should be maintained.

2.106 The daily balance should be transmitted to the corporate finance office if the levels exceed a pre-determined level of surplus.

Monthly Reporting Requirements

Mill Production and Sales/Despatch Summary

- 2.107 For each mill, we propose that a production and sales/despatch summary be prepared; schedule 2.30 sets out the information requirements, namely :

monthly and year to-date comparisons of budget against actual at product level for production throughput and sales despatch

Inventory and Purchases Summaries

- 2.108 These schedules are set out at schedules 2.31a and 2.31b namely

- mill inventory and attendant purchase report (2.31a)
- Building, plant and machinery report (2.31b)

Inventory returns would be on two levels, the key inventory lines and then others within each of the inventory categories.

Product Costing Report

- 2.109 In order to constantly monitor profitability on gross margin terms, schedule 2.32 should be completed. This highlights for each product :

- current cost of sales

- current commercial cost (i. e. cost of sales plus overhead recovery)
- factory despatch price.

2.110 Adverse differences at product level will then become readily apparent and appropriate action considered and taken.

Monthly Departmental Summary

2.111 If departmental management is to be made accountable for the cost effective running of their departments, then monthly statements of departmental performance and comparisons with budgeted targets must be produced.

2.112 For each of the departments set out in Table 2.2, Schedule 2.33 should be produced. If local administration offices cannot cope with this level of detail, i. e. reporting on 30 plus departments, until mechanisation is available, then such departmental cost analysis summaries should be constrained to the following levels; Spinning, weaving, processing, sewing thread together with the distributed production services, administration and sales/marketing/despatch.

Raw Materials Utilisation and Technical Aspects

2.113 Raw materials utilisation reports will be required together with routine reports with respect to technical topics (e. g. quality control). The format and content of these reports will be determined by Gherzi, the technical consultants, during their implementation phases.

2.114 Our involvement with raw material utilisation is solely concerned with wastage in the costing procedures and this is described in Chapter 6.

A Condensed Mill Summary of Activity

- 2.115 Management may find it convenient to produce, for control purposes, a condensed summary of activity for each of the three main production areas, for example, spinning, weaving and processing which summarises production, sales, technical cost of sales and efficiency (Schedules 2.33a, 2.33b and 2.33c).
- 2.116 Particular comments to be noted in terms of calculations are :
- efficiency is defined as actual units per machine hour with respect to a pre-set standard
 - hours available is machine hours actually available with respect to total machine hours that could be available assuming no unservicability of machines
 - overall utilisation being defined as the product of capacity or efficiency utilisation and machine hours availability.
- 2.117 The other entries are self explanatory and should be readily available from the routine sales and cost/expenditure analysis reports and Gherzi technical reporting.

Income Statements

2.118 The format of the mill income statement is shown in Schedule 2.34 and each items shows :

- this month's actual against budget comparison
- similar analysis for the year to-date
- assessment based on the above variances on year end realisations.

Balance Sheet

2.119 This is set out in schedule 2.35 and for each item compares latest value with the budget level.

Key Management Operating Ratios

2.120 The required reporting format is set out in schedule 2.36 Fourteen ratios should be calculated :

- eight operating ratios
- two financing ratios
- two liquidity measurements
- two overhead ratios

2.121 Again, there will be a requirement for technical ratios and these will be set down by Gherzi.

Cash Flow Table

2.122 This is described format-wise in schedule 3.37 and for sources of funds, disbursements and the resultant cash flow sets out :

- budget against actual comparisons for current month and year to-date
- estimated year end projections

2.123 Further, mills should also submit reasons as appropriate to their short term cash requirements as set out in Part C of this chapter.

Consolidated Divisional Statements

2.124 Schedules 2.30 through to 2.32 should then be consolidated to form the performance report of C. T. D. together with short term cash flow amendments. These are straight forward combinations which subject to the following adjustments will reflect net consolidation figures. The latest consolidated income and balance sheet statements (Jan-Sept 1980) are set out in Appendix 2.

A Adjustment for Inter-company Sales

Sales

Deduct total sales value of inter-company sales from:

Inter-company sales
Total Gross sales
Total Net sales

Cost of Sales

Deduct total sales value of inter-company sales from

Total cost of Sales

Deduct total cost of inter-company sales value from intercompany cost of sales

Pro-rate difference across external cost of sales accounts according to their Cost of Sales sub totals.

B Adjustment for Increase/Decrease in Intercompany Profit in Stock

Increase

Add the value of the increase to Cost of Sales total, and pro-rate across external cost of sales accounts according to their C of S sub totals

Decrease

Deduct the value of the decrease from Cost of Sales total and pro-rate across external cost of sales accounts according to their cost of sales sub totals.

C. General Expense

Must include corporate headquarters expenses.

Quarterly Reporting Requirements

- 2.125 In addition to the normal monthly reporting routine, progress on capital projects would be reviewed, and the reporting summaries are described in Chapter 5, together with an inter-mill cost of sales comparison.
- 2.126 For each of the main production departments it will be easy to assemble an inter-mill cost comparison of unit costs of manufacture, Schedule 2.38, and should be undertaken at least once a quarter. Such an analysis should enhance the profitable allocation of production between the mills and institute cost reduction activities.

World Bank Reporting Requirements

- 2.127 The supplementary letters to the World Bank call for quarterly reports - the reporting areas to include :-
- the progress of the RMP project
 - the performance of CTD
- 2.128 Further it is important that these reporting requirements do not impose an additional load on the accountancy function.
- 2.129 The forms have been designed so that each quarter the following routine consolidated reports can be forwarded to the World Bank :
- consolidated income statement
 - consolidated balance sheet
 - consolidated key management ratios
 - consolidated cash flow report
 - quarterly RMP progress summary.

PART E: THE TIMING & DISSEMINATION OF INFORMATION

Dissemination

- 2.130 The dissemination of information in terms of content and detail with respect to level of management must be carefully structured.
- 2.131 We set out in Table 2.5 how the various budgeting and control documentation should be distributed by the management review groups and by reference to their composition and frequency of review, and in Table 2.4, the distribution by specific management.

Timing of Reporting

- 2.132 The frequency and timing of preparing budgets and routine operating reports/statements is of paramount importance - shutting the door after the horse has bolted cannot be accepted as a managerial excuse for non-performance.
- 2.133 With respect to the current timing problems of producing information, it is our view that this is a problem of poor productivity. Further, we are also of the opinion that our M. I. S. proposals should be within the scope of current manning/establishment levels. However we recognise the problem of motivation is due to understandable circumstances within the state economic enterprises and for this reason, namely the timely production of reports, mechanisation may be appropriate. We are currently seeking external funds in the guise of a technical assistance program to examine not just A. S. M. requirements, but total Sumerbank mechanisation/computer requirements; A. S. M. requirements may differ when the wider horizons are considered. Such schemes may employ regional micro-processing capabilities.

2.134 We have carefully considered the possibility of generating 'flash management reporting' to minimise the problems of untimely availability of management reporting. We do not believe this to be a satisfactory answer to Sumerbank management control problems. The requirements for effective control purposes must centre around enhanced information content and accuracy by improved productivity or mechanisation.

2.135 During a typical month and we would expect that during the :

- first week the following activities would be completed :

data preparation by mill accounting and
production planning departments

closing and balancing of expense accounts

- second week the costing requirements would be undertaken and completed
- third week management accounting information and operational analysis would be completed and despatched to Ankara
- fourth week, consolidation of mill results into a CTD performance review.

MANAGEMENT REVIEW GROUPS

TABLE 2.4

GROUP NO.	TITLE OR GROUP	PURPOSE OF GROUP	FREQUENCY OF REVIEWS NO. PER YEAR	MEMBERSHIP OF THE REVIEW GROUP		
				SBH	SBCTD HQ	SBCTD MILL
1	Executive	Review progress/ of CTD performance at Board level	6-12	General Directors 2 other SB Board members	Director of SBCTD Heads of Marketing, Finance Technical (Textile & Garment) and Personnel	
2	General Divisional Planning and Control	General strategy and direction of the business	12		As above plus the 2 Technical Production co-ordinators, Finance Planning & Control Manager and Treasurer	
3	Finance	Finance & Funding Review	12	Assistant General Director Admin- istration or deputy	Financial Controller Treasurer Finance Planning Managers Investment Planning Manager	
4	Labour Relations	Industrial Relations and Personnel Planning	3-6		Director of SBCTD Head of Personnel and Admin- istration (HQ)	2-3 Mill Managers 2-3 Mill Personnel Dept Head 4-8 Worker Representatives
5	Investment	Investment Planning and Control	4-6	Assistant General Director Technical	Financial Controller Investment Planning Manager both Textile/Garment Tech. Heads	Capital Project Managers as required
6	New Product	New Product Development	6-12		Product Development Manager Head of Marketing plus S. Market/Sales Deputy Heads Heads of Textile/Garment both Technical	Co-opted specialised Mill personnel as required
7	Production	Production Planning and Control	12		Both Technical Managers and Production Colorinators Marketing Managers Financial Planning Manager	Specific Mill Manager and Production Controllers as required
8	Marketing	Monitor Market Trends and SB performance	6-12	<u>ASM</u> Marketing Manager and Assistants	Marketing Management	Sales Managers
9	Mill	Day to day mill	12-24			All senior mill Management

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Budgeting Documentation	Control Documentation
<u>CTD Group</u> <u>Executive</u> Consolidated schedules 2.1 to 2.19. Capital Project Justifications.	Consolidated Schedules 2.30 to 2.38 (not 2.33) Capital Project Review
<u>Planning Control</u> Above plus similar mill schedules	Above plus similar mill schedules.
<u>Finance</u> C. T. D. and mill Schedules 2.6 to 2.23 (not 2.9) Capital Project Justifications	CTD and mill schedules 2.31, 2.32, 2.34 to 2.37 and revisions to 2.20 to 2.23 as appropriate. Capital Project Reviews
<u>Investment</u> Capital Project Justifications CTD and Mill Schedules 2.4, 2.17 and 2.28	Capital Project Reviews CTD and Mill Schedules 2.31
<u>Production</u> CTD and Mill Schedules 2.1 to 2.4	CTD and Mill Schedules 2.30, 2.31, 2.33 and 2.38 Costing Reports when necessary
<u>Marketing/ASM</u> CTD and Mill Schedules 2.1 to 2.8 and 2.12 to 2.14 (not 2.4)	CTD and Mill Schedules 2.30, 2.32, 2.33 and 2.34 and 2.26 and 2.27 as appropriate
<u>Mill Management</u> Schedules 2.1 to 2.23. Capital Project Reports where relevant.	Schedules 2.24 to 2.36. Capital Project Reviews Costing Reports
<u>Local Production/Department Heads</u> Schedules 2.3, 2.9 and 2.10	Schedules 2.24, 2.25, 2.26, 2.28, 2.33 (2.38 may also be appropriate on a non-routine basis.

DEPARTMENTAL SHIFT PRODUCTION SUMMARY

Schedule 2.24

Department	Date	Shift
------------	------	-------

MACHINE	Volume		Product Name	Throughput Level		Hrs in Production	Efficiency		
	Month To-Date	Actual		Budget	Yesterday		Availability	Capacity	Overall
	Plan				Actual				
TOTAL									

COMMENTS

-06-

PRODUCT PRODUCTION : STATUS REPORT

Schedule 2.24 (b)

Date

	Month To- Date	
	Plan	Actual
PRODUCT		
YARN		
GREY FABRIC		
FINISHED FABRIC		
SEWING THREAD		

DAILY MILL PRODUCTION SUMMARY

Schedule 2.25

	Monthly Totodate		Daily Volume		Availability	Efficiency	Overall	Comments
	Plan	Actual	Budget	Yesterday Actual		Capacity		
<u>SPINNING</u> Blow Room Carding Combing Draw Speed Ring Total								
<u>WEAVING</u> Pirm Warping Loom Sheds Total								
<u>PROCESSING</u> Bleach Dye Mercerising Finish Total								
<u>SEWING THREAD</u> Singeing/Hank Winding Mercerising/Bleaching Dyeing Packing and Rewinding Total								

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Remarks

KEY INVENTORY STOCK LEVELS : Date

Schedule 2. 26

RAW MATERIALS
Primary
Auxiliary
Fuels

Budget Levels Upper/Normal/Longer

Yesterdays 4 p. m. Reading

Scheduled Production within 2 days

Comments

FINISHED GOODS
Yarn
Fabric Grey
Finsiehd Fabric
Sewing Thread

--

--

--

--

DAILY SALES / DESPATCH PERFORMANCE : DATE

Schedule 2.27

PRODUCT	Daily Volume Analysis		Volume This Month		Unfulfilled Orders	Comments
	Budget	Actual	Target	Actual To-Date		
Yarn						
Total						
Sewing Thread						
Total						
Grey Fabric						
Total						
Finished Fabric						
Total						

DAILY ESTABLISHMENT ATTENDANCE LEVELS

Schedule 2.28

LOCATION	Number of Staff				Operators Hours Worked	
	Budget		Actual		Budget	Actual
	Staff	Operatives	Staff	Operatives		
Spinning						
Total						
Weaving						
Total						
Processing						
Total						
Sewing Thread						
Total						
Administration/Others						
Total						
Total						

BANK RECONCILIATION

Schedule 2.29

Previous Balance

Add : Receipts (per Cash Book)

Less: Payments (per Cash Book)

Current Balance

Balance at Bank

Less: Cheques not Presented

<u>Cheque No.</u>	<u>Payee</u>	<u>Value</u>
-------------------	--------------	--------------

Add: Deposits not Cleared :

<u>Doc. No.</u>	<u>Payer</u>	<u>Value</u>
-----------------	--------------	--------------

Balance

Mill
Month

A COMPARISON OF MILL PRODUCTION AND SALES VOLUME ACHIEVEMENTS

Schedule 230

PRODUCT	PRODUCTION						SALES					
	The Month			Year To-Date			The Month			Year To-Date		
	Plan	Actual	% Difference	Plan	Actual	% Difference	Plan	Actual	% Difference	Plan	Actual	% Difference
Yarn												
Total												
Sew Thread												
Total												
Woven Fabric												
Total												
Finished Fabrics												
Total												
Garments												
Total												
Knit												
Total												
Waste												
Total												

Mill
Month

INVENTORY AND ATTENDANT PURCHASES REPORT

Types of Inventories	Purchases			Inventory and Control Levels		
	Volume	Value		Actual	Upper Level	Lower Level
		Domestic TL	Import \$			
Raw Materials						
Other						
Total						
Semi Finished						
Other						
Total						
Auxiliary Materials						
Other						
Total						
Finished Goods						
Other						
Total						
Supplies						
Other						
Total						
W. I. P.						
Other						
Total						
Part Processed Goods						
Spare						
Total						

Mill
Month

MILL PLANT AND MACHINERY PURCHASE REPORT

Schedule 2.31b

Description of Item	Date of Purchase	Value		Method of Payment	Total Purchase	
		Domestic	Imported		Budget	Actual
Plant and Machinery						
-66- Building Works						
Total						

DEPARTMENTAL COST ANALYSIS SUMMARY

Schedule 2.33

Level of Activity ¹	Year To-Date		Month		M/C Availability	Efficiency Capacity	Total
	Plan	Actual	Plan	Actual			
Volume							

Key Cost Analysis	This Month				Year To-Date			
	Actual		Plan		Actual		Plan	
	TL	%	TL	%	TL	%	TL	%
Primary Raw Materials ¹								
Auxiliary Raw Materials ¹								
Indirect Materials ²								
Direct Labour								
Indirect Labour								
Production Management ¹								
Other Related Expenses								
Taxes ^{1, 3}								
Bought in Services ¹								
Depreciation								
Production Services								
Maintenance								
Electricity								
Water								
Steam								
Canteen								
Planning/Quality Control ¹								
Total								

NOTES ON SCHEDULE 2.33

1. This data requirement can only be completed for production departments. For production service and non-production functions the entries to be completed are labour and related expenses, employee taxation, depreciation, indirect materials and the appropriate allocation of production services.
2. Does not include operation supplies such as fuels, etc for heating etc.
3. Enter taxation splits as relevant, production for example.

This analysis should be undertaken for all the cost centres listed in Table 2.2. Groupings of cost centres should be entered if there is insufficient administrative support to produce this detail until such time as mechanisation is effected.

The plan figures can be extracted from Schedule 2.10(B) and actuals from uniform accounting reporting VII-2.

A CONDENSED MILL SUMMARY OF ACTIVITY

Schedule 2.33a

Mill :

Month:

Year:

No. of Days Worked:

Hours Worked:

SPINNING					
Outputs	Budget kg	Production kg	SPI Worked	g/SPI-H	Efficiency %
Cotton					
M. M. Fibres					
Blends					
TOTAL					
Average Count:			g/SPI-H @ NE20 :		
Spindle Hours Available		%	Overall Utilisation %:		
Range of Counts : Cotton :		M. M. Fibres		Blends	
No. of Workers Employed :		Budget		Variance	
<u>Waste Losses</u>	Actual		Standard		Variance
Cotton					
M. M. Fibres					
Blends					
TOTAL					
<u>SALES (YARN)</u>	<u>Budget</u>		<u>Actual</u>		
	kg	T. L.	kg	T. L.	
Inter-Mill					
Direct					
ASM					
Official					
Export					
Public Sector					
TOTAL					
<u>UNIT COSTS OF MANUFACTURE</u>			Budget	Actual	
			T. L.	T. L.	
Raw Materials (Fibres)					
Labour Costs					
Staff Salaries					
Fuel Oil + Heating					
Electricity					
Depreciation					
Maintenance					
Others					
Total (Excluding Administration					
General Expenses					
<u>UNIT COSTS</u>			T. L.		
Unit Manufacturing Costs (Excluding Raw Mats)			TL/Kg Yarn		
Unit Budget Manufacturing Costs			TL/Kg Yarn		
Unit Cost Variance			TL/Kg Yarn		

GENERAL REMARKS

A CONDENSED MILL SUMMARY OF ACTIVITY

Schedule 2.33b

Mill :

Month:

Year :

No. of Days Worked:

<u>WEAVING</u>					
<u>OUTPUTS</u>	Budget Total	Production Metres	Loom Hrs Worked	Metre . Loom Hrs	Efficiency %
Cotton					
M. M. Fibres					
Blends					
TOTAL					
Average P. P. cm :			M/Loom Hours @ 20 PPcm :		
Loom Hours Available:		%	Overall Utilisation % :		
Range of Widths Woven :			Range of Weights g/m ² :		
No. of Workers Employed:			Budget:	Variance:	
<u>SECOND QUALITY CLOTHS</u>	<u>Actual</u>	<u>Budget</u>	<u>Variance</u>		
Cotton					
M. M. Fibres					
Blends					
Total					
<u>SALES (GREY CLOTHS)</u>		<u>Budget</u>		<u>Actual</u>	
		Metres T. L.		Metres T. L.	
Inter-Mill					
Direct					
ASM					
Official					
Export					
Public Sector					
TOTAL					
<u>UNIT COSTS OF MANUFACTURE</u>			<u>Budget</u>		<u>Actual</u>
			TL		TL
Sizing Materials					
Labour Costs					
Staff Salaries					
Fuel Oil Heating and Steam					
Electricity					
Depreciation					
Maintenance					
Others					
Total (Excluding Administration)					
General Expenses					
<u>UNIT COSTS</u>					T. L.
Unit Manufacturing Costs (Excluding Raw Material)			TL/M Grey Cloth		
Unit Budget Manufacturing Costs			TL/M Grey Cloth		
Unit Cost Variance			TL/M Grey Cloth		

GENERAL REMARKS

A CONDENSED MILL SUMMARY OF ACTIVITY

Schedule 2.33c

Mill: _____ Month: _____ Year: _____
 No. of Days Worked: _____

<u>PROCESSING</u>						
PRODUCTION Metres	Budget Total	Bleached	Dyed	Col. Woven	Printed	Total
Cotton						
M. M. Fibres						
Blends						
TOTAL						
Average g/m :		Average Production M/L :				
Capacity Available %:		Capacity Utilisation % :				
Range of Widths		Range of Weights g/m ² :				
No. of Workers Employed :		Budget :		Variance:		
<u>SECOND QUALITY CLOTH</u>		Actual		Standard		Budget
Cotton						
M. M. Fibres						
Blends						
TOTAL						
<u>SALES (FINISHED CLOTH)</u>		Budget		Actual		
		Metres	T. L.	Metres	T. L.	
Inter-Mill						
Direct						
ASM						
Official						
Export						
Public Sector						
TOTAL						
<u>UNIT COSTS OF MANUFACTURE</u>				Budget	Actual	
				TL	TL	
Raw Materils (Dyes & Chemicals)						
Labour Costs						
Staff Salaries						
Process Steam						
Electricity						
Depreciation						
Maintenance						
Others						
Total (Excluding Administration)						
General Expenses						
<u>UNIT COSTS</u>					TL	TL
Unit Manufacturing Cost (Ex. Raw Materials)				TL/M Finished	TL/Kg Fin.	
				Finished Cloth	Cloth	
Unit Budget Manufacturing Cost						
Unit Cost Variance						

GENERAL REMARKS

CTD/MILL INCOME STATEMENT REPORT

Schedule 2, 3^d

Month :
Mill :

This Month				Month Cumulative			Year End Forecast		
Actual	Budget	Variance		Actual	Budget	Variance	Forecast	Budget	Variance
			<u>SALES</u>						
			A. S. M.						
			Government, etc.						
			Other External Sales						
			Sundry (Waste, etc.)						
			Inter-company						
			Other						
			Total Gross Sales						
			Sales Tax						
			Other						
			Total Net Sales						
			<u>COST OF SALES</u>						
			A. S. M.						
			Government, etc.						
			Other External Sales						
			Inter-company						
			Cost of Goods Sold						
			Gross Margin						
			<u>GENERAL EXPENSES</u>						
			Administration						
			Selling						
			Retirement/Pension Fund						
			Other						
			Total General Expenses						
			<u>OPERATING PROFIT (LOSS)</u>						
			Other Income ²						
			Other Charges ³						
			<u>PROFIT BEFORE TAX</u>						

NOTES ON SCHEDULE 2.34

1. Includes split by ASM, direct, official, export, public and inter-company.
2. Includes other revenues external and inter-company, interest and commission, prior years profits and written back bad debts reserves and other expenses (prior losses, bad debt provision and other).
3. Includes corporation tax, economic stabilisation tax, legal contributions to government institutions and other.

CTD/M BALANCE SHEET REPORT

Schedule 2.35

Assets Schedule	Current Month	
	Plan	Actual
Current Assets		
Cash		
Security + bonds		
Receivables ¹		
Adjustments		
Inventories		
Other		
Total Current Assets		
Fixed Assets		
Long term funds		
Land and building		
New Construction		
Plant and Machinery		
Fixtures & Fittings		
Other		
Total Fixed Assets		
Other		
Participations		
Goodwill		
Other		
Total Other		
TOTAL ASSETS		

Liabilities Schedule	Current Month	
	Plan	Actual
Current Liabilities		
Short term borrowing		
Accounts payable		
Advances/deposits		
Retirement Schemes		
Taxation		
Other		
Total Current Liabilities		
Long Term debt		
Loans		
Liabilities		
Deposits		
Other		
Total Long Term		
Equity		
Net Share capital		
Revaluations		
Reserves		
Retainer earnings		
Other (inc. investments)		
Total Shareholders		
TOTAL LIABILITIES		

NOTES TO SCHEDULE 2.35

1. Includes ASM, official, public, direct, export and inter-company transaction splits.

KEY RATIOS : A SUMMARY OF MANAGEMENT OPERATING RATIOS

Schedule 2.36

A. OPERATING RATIOS		YEAR TO-DATE		YEAR END	
		Plan	Actual	Plan	Actual
1.	Return on Sales (Net profit/net sales)				
2.	Gross Margin (Net sales - cost of sales/net sales)				
3.	Return on Assets (Net profit/assets)				
4.	Stockturn (Cost of goods sold/av. inventory value)				
5.	Acc. Rec. turn (Net sales/av. accounts receivable)				
6.	Outstanding (Av. accounts receivable/av. daily sales)				
7.	Fixed Asset Turn (Net sales/av. fixed assets)				
8.	W. I. P. W. I. P. /net sales				
B. FINANCING RATIOS					
9.	Debt/Equity (Total debt/equity)				
10.	Debt. Servicing (Net income + long term interest/long term interest)				
C. LIQUIDITY RATIOS					
11.	Quick (Cash + securities + acc. recei.)/current liabilities)				
12.	Current (Current assets/current liabilities)				
D. OVERHEAD RATIOS					
13.	Factory (Factory overhead/net sales)				
14.	Headquarters (C. T. D. allocation/net sales)				
E. TECHNICAL RATIOS					
	To be set by Gherzi				

NOTES TO SCHEDULE 2.37

1. Includes decreases in cash, shares and bonds, advances and credits, claims on other organisations and inter-company, inventory movements and other asset decreases.
2. Includes increases in external and inter-company debts, paid up capital and other liabilities.
3. Includes reserves and others
4. Includes corporation tax, dividends and payments to various funds.
5. Includes increases in cash, shares, claims on other organisation and inter-company, inventories, capital of participations and other asset increases.
6. Includes decrease in external and inter-company debts and others.

INTER-MILL COMPARISON OF UNIT COSTS OF MANUFACTURE

Schedule 2.38

Department:

Month:

Expense Type *	MILLS																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Aux. Raw Materials																			
Labour Costs																			
Staff Salaries																			
Electricity																			
Steam																			
Maintenance																			
Others																			
Total Cost of Sales																			
General Expenses																			

Unit all costs are TL/Unit

APPENDIX 2.1

Reproduction of IFCATI Review of
Production Costs in Selected Countries

C O N T E N T S

PAGE

PREFACE

OBJECTIVES

HOW TO READ THE PRODUCTION COST COMPARISON

COST FACTORS : SPINNING

COST FACTORS : WEAVING

EXPLANATION OF COST FACTORS

COMMENTARY TO MANUFACTURING COSTS : SPINNING

MANUFACTURING COSTS : SPINNING

COMMENTARY TO MANUFACTURING COSTS : WEAVING

MANUFACTURING COSTS : WEAVING

EXPLANATION OF MANUFACTURING COST ELEMENTS

COMMENTARY TO CIF (GERMANY) COSTS

CIF (GERMANY) COST STRUCTURE - YARN

CIF (GERMANY) COST STRUCTURE - FABRIC

PREFACE

This study has mainly been undertaken with a view to revising and up-dating the 1972/73 production cost comparison. Production costs are but one element entering the sales price calculation for yarns and fabrics, others being:

- RAW MATERIAL COSTS
- OVERHEADS
- FREIGHT/INSURANCE
- IMPORT DUTY
- EXPORT SUBSIDIES (direct or indirect by way of tax and other incentive systems)

Production costs alone may deviate substantially from the results obtained in this study if the manufacturer is entitled to draw on financial aid in the form of

- CAPITAL INTEREST BELOW MARKET RATE (important because of high capital intensity)
- DIRECT OR INDIRECT SUBSIDIES (by way of tax and other incentive systems)

The competitive position in the market place finally is determined by a whole host of additional factors such as

- QUALITY and STYLE
- RELIABILITY and PROMPTNESS OF DELIVERY
- FLEXIBILITY ETC.

It will be appreciated that it is totally impossible, within the context of this study, to attempt to quantify all the different aspects referred to above. In order to give the reader however an idea about the relative competitive position of each country, an attempt has been made in the last section of this study to determine the CIF (Germany) cost pattern of yarns and fabrics manufactured in Brazil, India, Korea and USA and to compare this with the German production costs. This can never be more than an approximation to the real market situation, which, as stated, is determined by many more variables.

OBJECTIVES

In 1972/73 IFCATI published for the first time a study in which the production costs in the spinning and weaving industries of West in Europe, Japan and Korea/Taiwan were compared.

Since that time the world economy has undergone a number of radical changes which have had far-reaching consequences for the textile industry. Developments in the fields of energy, monetary, labour and social policies have amongst others resulted in a dramatic realignment of production cost patterns internationally which quickly rendered the 1972/73 calculations obsolete.

The main purpose of the present study is two-fold:

- to extend the coverage to make the comparison more representative in geographical terms (Brazil, Germany, India, Korea, USA)
- to bring the production cost factors up-to-date to reflect the cost factor situation as it exists at the beginning of 1979.

Moreover - and in response to comments received on the first study - an additional section has this time been included in which the GFR (Germany) costs per kg/yarn and per yard/fabric produced in the other participating countries are compared with the German production costs. This is to give an indication of the relative competitive position in the market with the highest production costs.

For a correct interpretation of this study it is essential that the conditions on which the calculations are based are constantly kept in mind. With this proviso, the experienced reader may find the comparison of interest.

The cooperation in the compilation of this study by Maschinenfabrik Rieter AG and Gebrüder Sulzer AG, both of Winterthur, Switzerland, is gratefully acknowledged.

HOW TO READ THE PRODUCTION COST COMPARISON

GEOGRAPHICAL COVERAGE

The study compares production costs in the following 5 countries:

Brazil
Fed. Rep. Germany
India
Rep. Korea
USA

These countries participate actively in international textile trade as exporters and/or importers and are all in membership of the International Textile Manufacturers Federation (ITMF).

BASIS OF CALCULATION

- The comparison is based on average 1973 cost factors for the countries concerned, assuming that yarn and cloth are produced in a new mill equipped with Rieter and Sulzer machinery. The data base has been derived from a large number of studies carried out by the two machinery producers for individual client companies in the countries concerned. The reader may find however that conditions in his mill(s) differ in one or more respects from those used in the comparison. The same computer programmes as used for clients' manufacturing cost studies were used for this production cost comparison.
- The same basic cost factors have been used throughout for the spinning and weaving sectors, except for the productivity factor in weaving which has been rated higher in the United States.
- The data have to be read carefully against the explanations given for the various cost factors.

IT IS IMPORTANT TO NOTE THAT

No duty has been calculated on the import of machinery into each participating country

Overheads (management, accountancy, sales) have not been included. Since, from experience, this cost factor differs widely from one company to the other, its impact on total costing structure may clearly be considerable.

Depreciation for machinery

Given the high capital intensity of new spinning and weaving installations the depreciation period for machinery clearly has a major impact on the final production costs. This factor is of particular importance in the case of Korea where calculations have been based on a depreciation period of 7 years, which seems to be commonly used in that country. If depreciation were extended to 10 years, as in all other producing countries with the exception of the USA, manufacturing costs in Korea would be considerably lower.

Exchange Rates

In order to permit an easier comparison in this study a US Dollar base is used. Since the cost calculations are based on Swiss-made spinning and weaving machines the price of the equipment was converted into US Dollars at the following rate:

1 US Dollar = 1.80 Swiss Francs

As far as the cost factors in the various countries are concerned these were converted into Dollars at the rates below:

Brazil :	1 US Dollar	=	15.80 Cruzeiros
Germany:	1 US Dollar	=	2 DM
India :	1 US Dollar	=	8.21 Rupees
Korea :	1 US Dollar	=	4.80 Won

YARN SPINNING

SIZE OF SPINNING 2.732 RIETER RING SPINDLES

YARN DATA: RAW MATERIAL - 100% COTTON
 STAPLE LENGTH - 1 3/32"
 YARN COUNT - NE 24 CARDED

PRODUCTION COST FACTORS	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
HOURLY WAGE FOR SKILLED PERSONNEL (US\$)	2.70	9.20	0.65	0.90	5.70
HOURLY WAGE FOR MACHINE TENDERS (US\$)	1.55	8.80	0.55	0.60	5.40
HOURLY WAGE FOR UNSKILLED PERSONNEL (US\$)	1.30	8.00	0.50	0.40	4.90
PERSONNEL IN RESERVE (%)	10	10	10	10	10
PRODUCTIVITY FACTOR	0.8	1.0	0.5	0.6	1.0
NUMBER OF SHIFTS PER DAY	3	3	3	3	3
OPERATING HOURS PER YEAR	6,700	5,800	7,200	7,200	6,300
COST OF ELECTRIC POWER (US\$/kwh)	0.027	0.060	0.030	0.030	0.020
COST OF BUILDINGS (US\$/m ²)	330	420	180	180	180
ANNUAL BUILDING MAINTENANCE (%)	1.5	1.5	1.5	1.5	1.5
DEPRECIATION PERCENTAGE PER YEAR	10	10	10	7	10
DEPRECIATION PERIOD FOR ACCESSORIES (YEARS)	5	5	5	5	6
DEPRECIATION PERIOD FOR BUILDINGS (YEARS)	20	30	25	20	20
CUSTOMS, SALES TAX, ETC. (% OF MACHINE PRICE)	0	0	0	0	0
CAPITAL INVESTMENT PER SPINNING SPINDLE (US\$)	12.0	10	16.0	19.0	10.0
CIF COST FACTORS	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
RAW MATERIAL COST (COTTON) (1) PER KG. YARN (US\$)	1.6493	1.7771	1.3254	1.7737	1.6635
FREIGHT/INSURANCE COST PER KG. YARN (2) TO GERMANY FROM SOURCE (US\$)	0.2482	-	0.2216	0.3879	0.4271
EEC DUTY PER KG. YARN (3)	7.0	--	7.0	7.0	7.0

(1) Raw Material Costs

All quotations as at November 30, 1978 in U.S. dollars.

- Brazil:** Sao Paulo 100% cotton, 1978/79, 100% (5.0) 492 per 15 kgs. plus national surcharge (10% of FOB) = 5.492 US\$.
- India:** Official cotton price for 1978/79, 100% (5.0) 81.00 cents per lb plus official surcharge (10% of FOB) = 0.50 cts.
- Korea:** 80% cotton, 100% representative for 1978/79, 100% (5.0) 127.00 per 100 lbs (100% of FOB) = 127.00 US\$.
- USA:** 100% cotton, 1978/79, 100% (5.0) 100.00 per 100 lbs (100% of FOB) = 100.00 US\$.

Note: Scrap waste costs are 5% of raw material cost per kg. yarn is equal to above quotations.

Freight/Insurance Costs

The freight costs for yarn and the insurance on the following conference rates, including all adjustment fees and surcharges. The rate has in all cases been converted to US\$ per kg. of yarn fabric value.

	Fabric
Brazil: Sao Paulo 100% cotton, 1978/79, 100% (5.0) 492 per 15 kgs. plus national surcharge (10% of FOB) = 5.492 US\$.	
India: Official cotton price for 1978/79, 100% (5.0) 81.00 cents per lb plus official surcharge (10% of FOB) = 0.50 cts.	
Korea: 80% cotton, 100% representative for 1978/79, 100% (5.0) 127.00 per 100 lbs (100% of FOB) = 127.00 US\$.	
USA: 100% cotton, 1978/79, 100% (5.0) 100.00 per 100 lbs (100% of FOB) = 100.00 US\$.	

COST FACTORS - WEAVING

SIZE OF MILL: 140 SPINNER TYPE 150 ES & 10
 LOCAL STAPLET TREADING MOTIONS and
 WEAVING PREPARATION and
 CLOTH INSPECTION

FABRIC DATA: CLOTH TYPE - AVERAGE QUALITY
 CONSTRUCTION - 76/84 TWEED PER
 YARN TYPE - 10 COTTON
 YARN COUNT - NE 24 WARP & WEFT
 GREY WIDTH - 59"

RATE OF OUTPUT - 11.484 YDS. OF FABRIC PER HOUR PER MACHINE

PRODUCTION COST FACTORS	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
HOURLY WAGE FOR VERY GOOD SKILLED PERSONNEL (US\$)	2.70	9.20	0.65	0.90	5.70
HOURLY WAGE FOR SKILLED PERSONNEL (US\$)	1.55	8.80	0.55	0.65	5.40
HOURLY WAGE FOR UNSKILLED PERSONNEL (US\$)	1.30	8.00	0.50	0.60	4.90
TOTAL WORKFORCE	125	100	100	164	87
- OF WHICH VERY GOOD SKILLED	18	15	25	25	12
SKILLED	73	55	109	91	48
UNSKILLED	34	30	62	48	27
PERSONNEL IN RESERVE (%)	10	10	10	10	10
PRODUCTIVITY FACTOR	0.8	1.0	0.5	0.6	1.2
NUMBER OF SHIFTS PER DAY	3	3	3	3	3
OPERATING HOURS PER YEAR	6,700	5,800	7,200	7,200	6,700

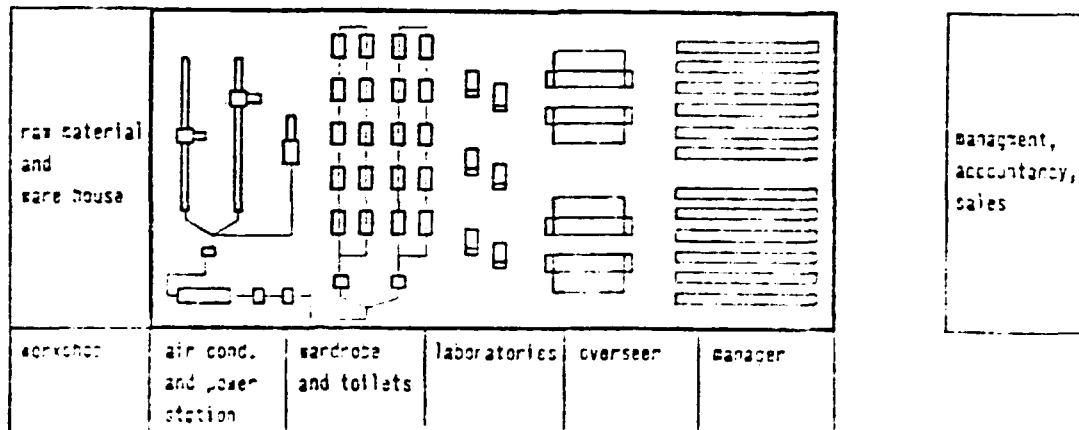
ENERGY PER YARD (MILLION YELS)	76.800	66.800	37.000	11.000	27.000
ENERGY PER YARD (MILLION YELS)	10.772	9.325	11.576	11.576	10.129
COST OF ELECTRIC POWER (US\$/kW)	0.027	0.069	0.030	0.030	0.020
COST OF WATER (US\$/m ³)	0.1	0.4	0.6	0.3	0.2
COST OF COTTON (US\$/LB. YARN)	0.06	0.06	0.06	0.06	0.04
YARN PREMIUM COST (US\$/LB. YARN)	0.15	0.12	0.20	0.18	0.15
COST OF HEATING OIL (US\$/kg)	-	0.17	-	0.17	0.08
COST OF BUILDINGS (US\$/m ²)	330	420	180	180	380
BUILDING SPACE (m ²)	4,850	4,700	5,000	5,000	4,700
ANNUAL BUILDING MAINTENANCE (%)	1.0	1.0	1.0	1.0	1.0
DEPRECIATION PERIOD FOR MACHINERY (YEARS)	10	10	10	7	12
DEPRECIATION PERIOD FOR ACCESSORIES (YEARS)	5	5	5	3	6
DEPRECIATION PERIOD FOR BUILDINGS (YEARS)	0	30	25	20	25
CUSTOMS, SALES TAX, ETC. (% OF MACHINE PRICE)	0	0	0	0	0
CAPITAL INTEREST RATE (%)	12.0	7.0	16.0	18.0	10.0

CIF COST FACTORS	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
RAW MATERIAL COSTS (COTTON) PER YARD OF FABRIC (US\$)	0.2000	0.2345	0.2840	0.3302	0.2097
YARN COSTS* PER YARD OF FABRIC (COTTON) FROM YARN MFG. COST COMPARISON (US\$)	0.0000	0.0000	0.1566	0.1768	0.1670
PROPERTY INSURANCE COSTS PER YARD OF FABRIC TO GERMANY FROM ... (US\$)	0.0000	-	0.0076	0.0454	0.0197
... PER YARD OF FABRIC ...	16.0	-	16.0	16.0	16.0

EXPLANATION OF COST FACTORS

SCOPE OF COVERAGE

The study yields information on expenditure and manufacturing costs within the production area, (i.e. excluding overheads). For spinning this is illustrated graphically below.



COST FACTORS

Wages

Wages include social charges and skill work premiums.

Operating personnel

The number of operatives required are determined by work study methods. The individual times are according to Rieter & Sulzer standards. Overlookers and supervisors, as well as staff for laboratories, workshops, despatch, etc., are not included.

Overhaul and maintenance personnel

The requirements of skilled and unskilled workers for machine maintenance are determined according to Rieter & Sulzer standards for the

overhaul and maintenance of their machines. The values indicated give the requirements per shift, similar to those for operatives.

Installed power for machines

The indicated figures comprise the installed electric power of all motors built into the machines.

Installed power for illumination

(3) The installed power for illumination is based on current standard values for illumination intensity.

Installed power for air conditioning

(The installed power for air conditioning is in direct relation to the heat generated by the motors of the machines, and by the illumination; as well as considerations of space requirements, relative humidity, etc. Basically a central air conditioning plant with recycling is envisaged.

Necessary floor space including gangways and reserve

(The necessary average floor space for machines, gangways and reserve (car space etc.) has been evaluated from a great number of spinning and weaving mill layouts. Certain alterations may arise, according to specific machinery layouts.

Building costs

The cost of the buildings refers to the production area only and includes the costs for the air conditioning ducts for supply and recycled air; the lighting system, the installations for high and low voltage electricity-supply; fire protection; etc. The dimension of the air conditioning installation is in direct relation to the specific climatic conditions in the respective countries.

COMMENTARY TO MANUFACTURING COSTS : SPINNING

Germany has the highest total manufacturing costs with US\$ 1.2292 per kg yarn, followed by USA (-21.0%), Korea (-22.8%), Brazil (-26.1%) and India (-31.6%).

The high production costs in Germany are mainly the result of high wage costs, where this element amounts to 38.5% of total production costs, as against 29.9% for the USA, 11.7% for Brazil, 7.1% for India and 6.2% for Korea.

Germany also has the highest energy costs of all countries compared, followed by India, Korea, Brazil and the USA. Whereas in Germany energy costs account for 11.5% of total manufacturing costs, they represent 7% in Brazil, and only 4.9% in the USA.

Auxiliary material costs are highest in Brazil, with Germany coming second, the USA third, and Korea and India fourth at virtually the same level.

In contrast, Germany enjoys an advantage over its competitors in capital costs. Its share in total manufacturing costs amounts to 34.8% in Germany as against 67.4% for Korea (7 years depreciation!!), 63.1% for India, 60.3% for Brazil and 46.3% for the USA. Germany has also the lowest capital costs in absolute terms with US\$ 0.4275 per kg yarn.

MANUFACTURING COSTS : SPINNING

US\$ per kg. of yarn

COST ELEMENT	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
WASTE COSTS	0.1474	0.1474	0.1474	0.1474	0.1474
WAGE COSTS	0.1067	0.4728	0.0594	0.0591	0.2901
ENERGY COSTS	0.0642	0.1419	0.0709	0.0708	0.0471
AUXILIARY MATERIAL COSTS	0.0427	0.0396	0.0329	0.0323	0.0372
CAPITAL COSTS	0.5478	0.4275	0.5306	0.6396	0.4496
TOTAL MANUFACTURING COSTS (Index in brackets)	0.9080 (73.9)	1.2292 (100)	0.8406 (68.4)	0.2492 (20.2)	0.9714 (79.0)

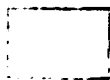
COST ELEMENT



CAPITAL



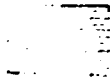
AUXILIARY MATERIAL



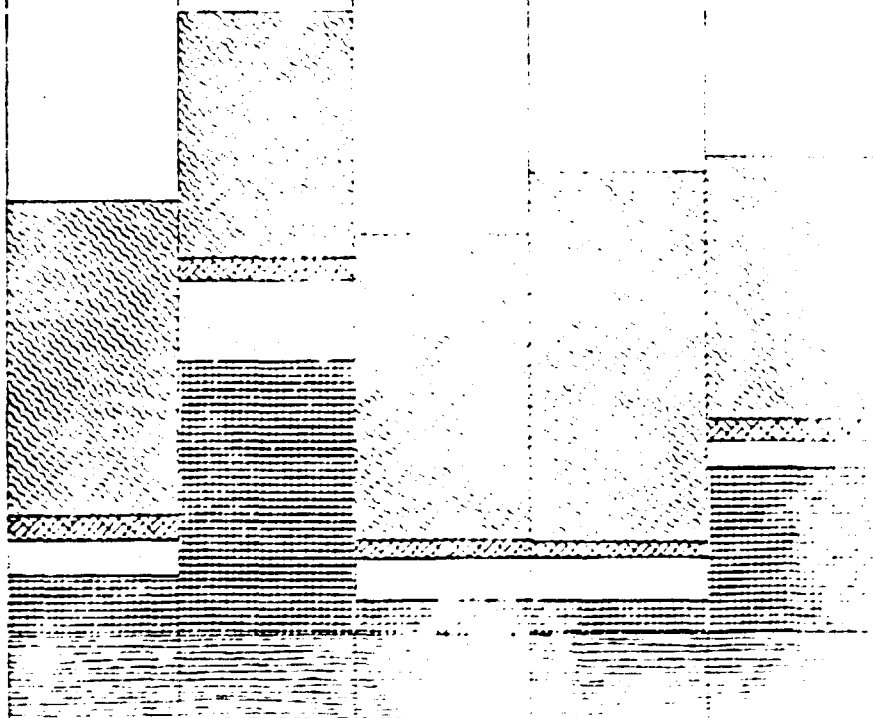
ENERGY



WAGES



WASTE



COMMENTARY TO MANUFACTURING COSTS : WEAVING

In weaving, the manufacturing cost situation appears to be very similar to the spinning sector. Germany again heads the list as the most expensive producer of fabrics, followed by Korea (-19.9%), the USA (-27.4%), Brazil (-29.5%) and India (-31.3%). The relatively high total manufacturing costs in Korea are again mainly the result of the short (7 years) depreciation period.

Germany's position is heavily influenced by high wage costs which account for 46.7% of total manufacturing costs. This compares with 34.4% for the USA, 15.8% for Brazil, 8.5% for India and 7.5% for Korea. Total wage costs are lowest in India, but Korea's are only marginally higher. Brazil's wage costs are 86% higher than Korea's.

Germany has the highest energy costs which account for 10.7% of total manufacturing costs, followed by Korea (9.1%), India (10.2%), Brazil (9.4%) and the USA (6.5%).

The country with the highest auxiliary material costs is India, where this cost element ranks second only to capital costs (19.5% of total manufacturing costs). It is followed by Korea (15.6%), Brazil (15.3%) and the USA (11.9%).

The capital cost element is highest in Korea (67.8% of total manufacturing costs), followed by India (61.9%), Brazil (59.9%), USA (47.3%) and Germany (34.0%).

MANUFACTURING COSTS : WEAVING

US\$ per yard of fabric

COST ELEMENT	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
WAGE COSTS	0.0470	0.1966	0.0244	0.0252	0.1049
ENERGY COSTS	0.0278	0.0450	0.0293	0.0306	0.0199
AUXILIARY MATERIAL COSTS	0.0443	0.0362	0.0563	0.0526	0.0364
CAPITAL COSTS	0.1777	0.1430	0.1789	0.2287	0.1442
TOTAL MANUFACTURING COSTS (Index in brackets)	0.2968 (70.5)	0.4208 (100)	0.2889 (68.7)	0.3371 (80.1)	0.3054 (70.6)

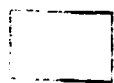
COST ELEMENT



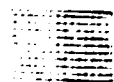
CAPITAL



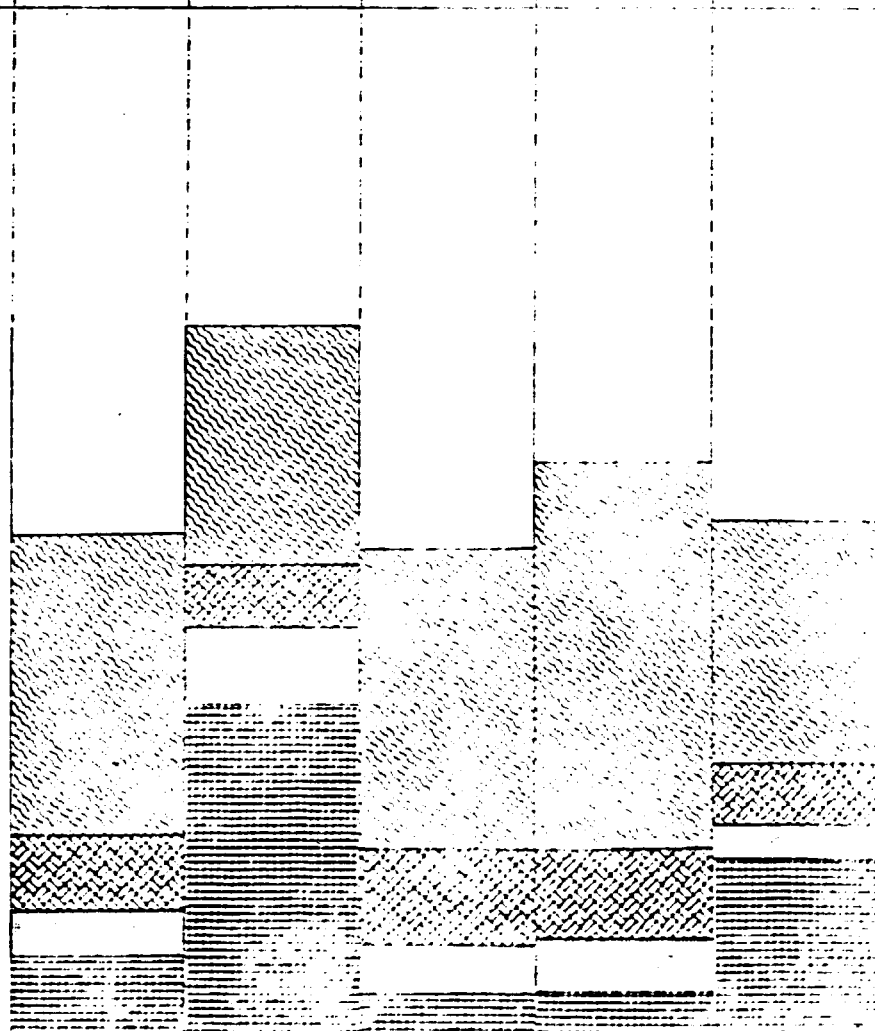
AUXILIARY MATERIALS



ENERGY



WAGES



EXPLANATION OF MANUFACTURING COST ELEMENTS

Waste costs

In spinning revenue from the sale of waste (waste from slivers, filters, flats and grid droppings, etc.) is considered when calculating the waste costs.

Wage costs

The wage costs are calculated from the wages paid to operatives, and to skilled and unskilled labour for maintenance work. All social charges and shift work premiums are included. For reserve personnel a percentage figure is added.

Energy costs

The energy costs include the costs based on the actual power consumption of the machines, the illumination, the air conditioning plant, steam and heating. It is assumed that the mill is lit for the entire production time.

Costs for auxiliary material

The costs for spare parts, lubricants, cleaning materials, and maintenance work on the buildings represent the costs for auxiliary material.

In addition this cost element also includes yarn preparation costs.

Capital costs

The capital costs include capital interest and depreciation of machines, accessories and buildings. For the determination of the machinery costs (for free delivery to the mill, erection included), an additional charge for customs duty, taxes and sundry must be added.

Manufacturing costs : total

The sum of the above cost groups gives the total manufacturing costs.

COMMENTARY TO CIF (GERMANY) COSTS

GENERAL OBSERVATIONS

In order to interpret the CIF (Germany) cost structure correctly, it is essential that the results be read against the explanations in the "Preface" (page 1) and the footnotes to the "Cost Factors: Spinning" (page 9). The results of the calculations are heavily influenced by raw material and freight costs. In this latter respect, official Conference rates (including adjustment fees and surcharges) have been taken as the basis. Some of these rates are negotiable, especially those from Southern US ports. In addition, there exist many anomalies in Conference rate structure. Freight charges to Europe would be lower from Brazil than India and Korea, but recent reductions in fabric shipment rates from Asian and Far Eastern origins have resulted in an anomaly: fabric can now be shipped at proportionally lower cost from both India and Korea than from Brazil.

YARN

The CIF (Germany) cost structure per kg yarn manufactured in Brazil, India, Korea and the United States radically improves Germany's competitive position, when compared with its manufacturing costs. Whereas the competitive cost advantages in manufacturing enjoyed by Korea and the US has turned into a disadvantage (-10.6% and -8.3% respectively), the rather large manufacturing cost advantages of Brazil and India have narrowed the gap considerably to between 0.8% and 4.9% in their favour. Taking into consideration that Korean manufacturing costs are to a large extent influenced by the short depreciation period for machinery, one may conclude from the comparison that none of the 4 non-European countries enjoys a competitive advantage of any significance over Germany in terms of CIF (Germany) costs per kg yarn.

FABRICS

The results of the CIF (Germany) cost calculation for fabrics are somewhat different from the yarn CIF cost structure. India enjoys the largest advantage over fabrics produced in Germany (-9.6%) and Korea suffers the greatest disadvantage (+2.2%). The difference between German fabric manufacturing costs and the CIF (Germany) costs of Brazilian and American fabrics is negligible (-1.5% and -0.7% respectively).

CIF (GERMANY) COST STRUCTURE - YARN

(REFER AGAINST EXPLANATIONS IN "PREFACE" PAGE 1 AND "COMMENTARY" PAGE 19)

US\$ per kg. of yarn

COST ELEMENT	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
RAW MATERIAL COSTS (COTTON) PER KG. YARN	1.6493	1.7971	1.5254	1.7737	1.6635
TOTAL MANUFACTURING COSTS PER KG. YARN	0.9088	1.2292	0.8406	0.9422	0.9714
FREIGHT/INSURANCE COSTS PER KG. YARN TO GERMANY FROM	0.2482	--	0.3325	0.3879	0.4271
SUB TOTAL	2.8063	3.0263	2.6885	3.1108	3.0620
E.E.E. DUTY PER KG. YARN	0.1964	--	0.1382	0.2178	0.2143
TOTAL CIF (GERMANY) DUTY PAID COSTS PER KG. YARN (INDEX IN BRACKETS)	3.0027 (99.2)	3.0263 (100)	2.8767 (95.1)	3.3286 (110.0)	3.2763 (108.3)

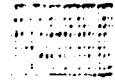
COST ELEMENT



EEC DUTY



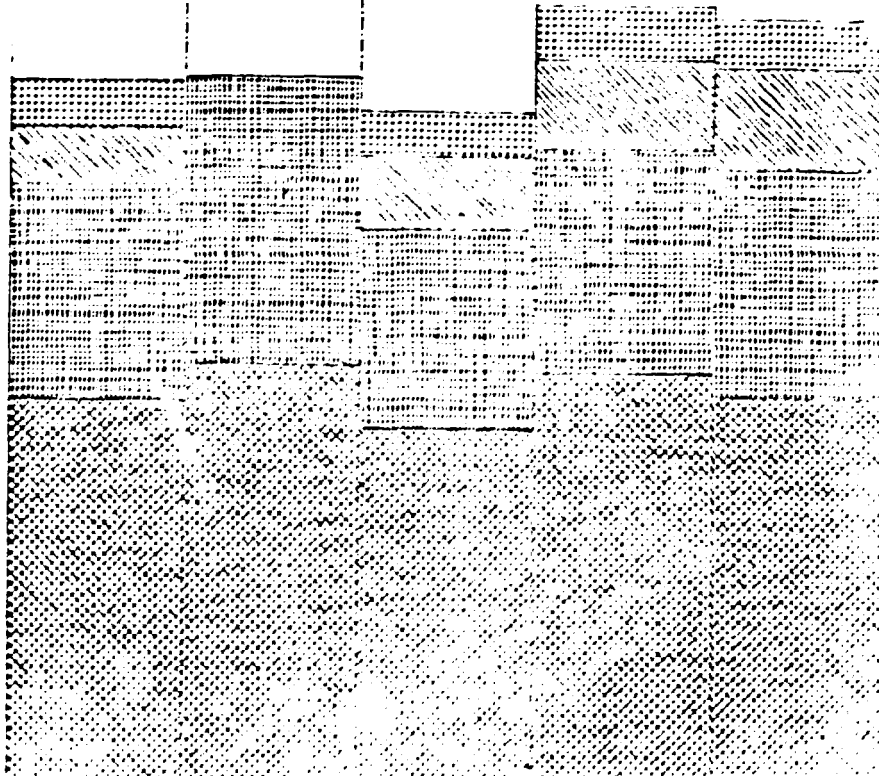
FREIGHT INSURANCE COSTS



MANUFACTURING COSTS



RAW MATERIAL COSTS



CIF (GERMANY) COST STRUCTURE - FABRIC

(READ AGAINST EXPLANATIONS IN "PREFACE" PAGE 1 AND "COMMENTARY" PAGE 19)

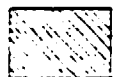
US\$ per yard of fabric

COST ELEMENT	BRAZIL	GERMANY	INDIA	KOREA	U.S.A.
RAW MATERIAL COSTS (COTTON) PER YARD OF FABRIC	0.3070	0.3345	0.2840	0.3302	0.3097
YARN COSTS* PER YARD OF FABRIC (DERIVED FROM YARN MFG. COST COMPARISON)	0.1693	0.2290	0.1566	0.1768	0.1810
TOTAL MANUFACTURING COSTS PER YARD OF FABRIC	0.2968	0.4208	0.2889	0.3371	0.3054
FREIGHT/INSURANCE COSTS PER YARD OF FABRIC TO GERMANY FROM ...	0.0630	--	0.0378	0.0454	0.0497
SUB TOTAL	0.8361	0.9843	0.7673	0.8895	0.8458
E.E.C. DUTY PER YARD OF FABRIC	0.1338	--	0.1228	0.1423	0.1350
TOTAL CIF (GERMANY) DUTY PAID COSTS PER YARD OF FABRIC (INDEX IN BRACKETS)	0.9699 (98.5)	0.9843 (100)	0.8901 (90.4)	1.0318 (103.2)	0.9811 (99.7)

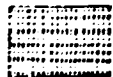
COST ELEMENT



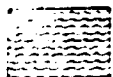
EEC DUTY



FREIGHT/INSURANCE COSTS



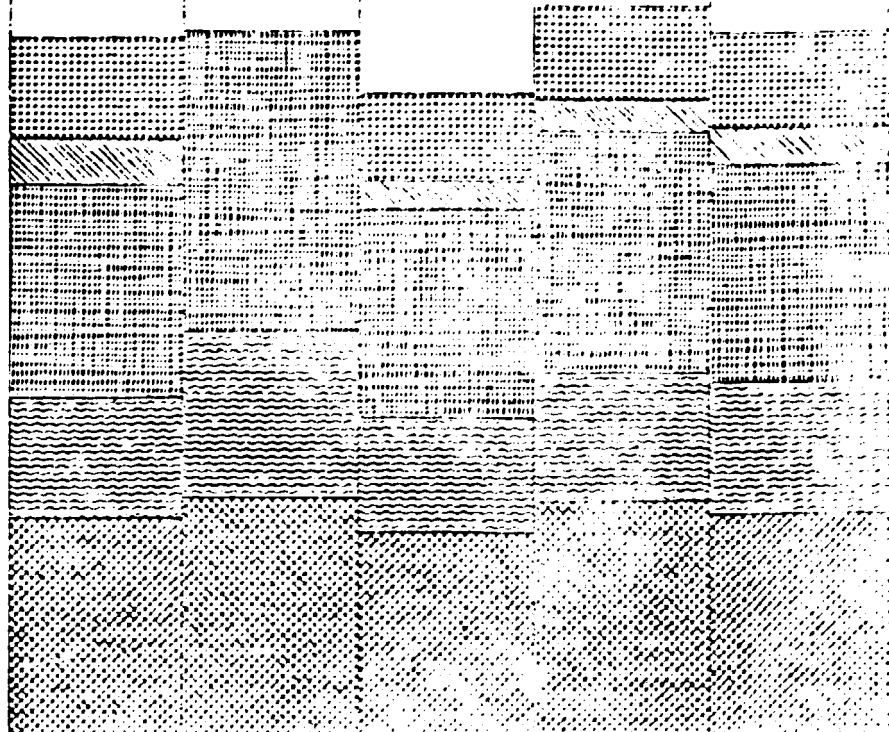
MANUFACTURING COSTS



YARN COSTS



RAW MATERIAL COSTS



*Manufacturing costs excluding overheads

APPENDIX 2.2

Sales Seasonality Factors

A. THE A. S. M. SEASONALITY FACTORS BASED ON COST SALES : 1979

	1	2	3	4	5	6	7	8	9	10	11	12	Total
Adana	0.79	0.74	0.88	0.91	1.09	1.14	1.14	1.34	1.12	1.21	0.80	0.84	36030926
Ankara	0.79	0.75	0.84	0.78	0.90	1.06	0.92	1.20	1.26	1.41	1.20	0.93	40826107
Balikesir	0.60	0.60	0.81	0.83	0.96	0.92	1.01	1.31	1.26	1.60	0.92	1.22	15797311
Bursa	0.61	0.54	0.74	1.10	0.10	0.79	0.73	1.10	1.50	1.60	1.14	1.26	17277022
Diyarbakir	0.65	0.60	0.88	0.81	0.84	0.96	1.00	1.20	1.22	1.55	1.20	1.15	11894106
Elazig	0.90	0.70	0.77	0.70	0.90	0.90	0.90	1.23	1.20	1.60	1.20	1.13	13647456
Erzurum	0.76	0.64	0.71	0.60	1.00	1.01	0.91	0.90	1.10	1.71	1.34	1.34	13074477
Eskisehir	0.78	0.64	0.80	0.82	0.86	0.90	1.20	1.15	1.30	1.61	1.05	1.13	19772109
Gaziantep	0.50	0.50	0.80	1.00	1.00	1.00	1.30	1.30	1.10	1.42	1.26	1.10	19439561
Isparta	0.64	0.72	0.84	0.70	1.00	1.00	1.14	0.74	1.16	2.14	1.01	1.00	17680150
Istanbul	0.84	0.81	1.16	1.07	1.20	0.73	0.43	0.71	1.35	1.46	1.04	1.18	48603522
Izmir	0.70	0.68	1.00	1.00	1.04	0.80	0.53	0.80	1.32	1.62	1.14	1.45	22458524
Kars	0.80	0.70	0.80	0.61	0.77	1.06	0.54	1.01	1.20	1.64	1.50	1.45	6841756
Kayseri	0.70	0.60	0.75	0.74	0.81	0.86	1.10	1.34	1.24	1.50	1.22	1.22	15488829
Kocaeli	0.71	0.64	0.85	0.90	0.90	1.75	0.85	0.81	1.27	1.50	1.22	1.20	18016889
Konya	0.64	0.60	0.83	0.66	0.75	0.90	0.90	1.32	1.27	1.57	1.12	1.43	19749358
Nazilli	0.61	0.63	0.77	0.74	0.89	0.90	0.95	1.30	1.37	1.37	1.36	1.10	18941089
Samsun	0.65	0.68	0.70	0.70	0.94	1.01	1.02	1.13	1.25	1.65	1.18	1.07	24111171
Sivas	0.71	0.60	0.78	0.70	0.81	1.00	1.18	1.26	1.68	1.17	1.15	1.17	13897760
Tekirdag	0.61	0.511	0.74	0.82	1.02	1.11	1.20	1.40	1.18	1.65	1.00	1.86	9623252
Trabzon	0.90	0.70	0.72	0.74	0.80	1.00	0.90	1.15	1.28	1.42	1.11	1.33	18660638
Van	0.65	0.55	0.61	0.57	0.74	0.76	0.86	1.22	1.32	2.21	1.27	1.24	8820790
Zonguldak	0.80	0.80	1.05	1.00	0.87	0.78	1.02	1.25	1.23	1.32	0.91	1.00	15500526
Konak	0.56	0.51	0.60	0.63	0.71	0.81	0.80	1.33	1.31	1.60	1.70	1.50	5610515
	0.72	0.70	0.85	0.83	0.94	0.94	0.90	1.11	1.25	1.54	1.12	1.14	451763852

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B.

THE A. S. M. REGIONAL SEASONALITY FACTORS BASED ON QUANTITY
SALES : 1978

	1	2	3	4	5	6	7	8	9	10	11	12	
ADANA	0.9050	0.7142	0.9230	0.9842	1.1090	1.1830	1.1574	1.3656	1.0752	1.1040	0.7375	0.7419	901.379,1666
ANKARA	0.9536	0.7428	1.0466	0.9567	0.9969	1.1426	1.0051	1.1794	1.1795	1.1806	0.8374	0.7788	915.500,25
BALIKESİR	0.7213	0.5882	0.9290	1.0768	0.9665	0.8942	1.0547	1.3162	1.2038	1.4037	0.8154	1.0302	384.404,8333
BURSA	0.8243	0.6443	0.9241	0.9338	1.0904	0.7845	0.8053	1.1025	1.3502	1.4326	1.0195	1.0885	375.486,8333
DIYARBAKIR	0.7736	0.5863	0.8926	0.8066	0.8719	0.9614	0.9972	1.1834	1.2015	1.3814	1.2369	1.0992	320.210,5
ELAZIĞ	0.9317	0.3623	0.4693	1.9714	0.4992	1.0309	0.9509	1.2003	1.2265	1.4990	0.9914	0.8671	313.580,6666
ERZURUM	0.9528	0.6678	0.7810	0.6476	0.9377	1.0582	0.9525	0.8510	1.0563	1.5865	1.2772	1.2314	310.655,8333
ESKİŞEHİR	0.9537	0.6684	0.9471	0.9537	0.9303	0.9621	0.9949	1.1133	1.1604	1.2891	1.0315	0.9955	427.052,3333
GAZİANTEP	0.5359	0.5056	0.9642	1.0032	1.0610	1.1202	1.3842	1.4486	0.7078	1.7307	0.8264	0.7122	546.445
ISPARTA	0.8000	0.7381	0.9263	0.7635	0.9745	1.0012	1.1590	0.6895	1.1288	1.9365	0.9171	0.9655	425.446,75
İSTANBUL	0.9947	0.8807	1.3459	1.2454	1.2100	0.7428	0.4628	0.6974	1.2073	1.2257	0.8980	1.0893	1.259.331,75
İZMİR	0.8562	0.7404	1.0398	1.1678	1.1185	0.7693	0.5275	0.7852	1.2427	1.4162	1.0910	1.2454	521.454,0833
KARS	0.8499	0.6034	1.2137	0.6974	0.8185	1.0985	0.5545	0.8222	0.9254	1.5989	1.4118	1.4058	176.061,75
KAYSERİ	0.7666	0.6194	0.8095	0.7738	0.8550	0.9409	1.1064	1.3116	1.1703	1.3791	1.1336	1.1738	350.110,4166
KOCAELİ	0.9223	0.7059	1.0409	1.1093	0.8943	1.3066	0.7578	0.7797	1.1739	1.1323	1.1002	1.0762	428.115,5
KONYA	0.7288	0.6559	0.9184	0.7554	0.7790	0.9337	0.9178	1.3428	1.2507	1.4457	1.0216	1.2502	441.496,4166
NAZİLLİ	0.7514	0.6439	0.8779	0.8606	0.9644	0.9166	0.9597	1.3285	1.2326	1.2028	1.1976	1.0640	460.194,6667
SAMSUN	0.7399	0.7894	0.8216	0.7823	0.9974	0.9702	0.9877	1.0905	1.2746	1.4390	1.1141	0.9933	625.383,5
SİVAS	0.8153	0.7524	0.9538	0.8554	0.9609	1.0148	1.0214	1.2401	1.0148	1.5351	0.9908	0.8452	332.710,3333
TEKİRDAĞ	0.7113	0.5846	0.7594	0.9396	1.0719	1.1209	1.1579	1.3694	1.0933	1.5133	0.8379	0.8405	270.788,5833
TRABZON	1.1455	0.7957	0.8247	0.7911	0.8239	1.0310	0.9805	1.3762	0.8503	1.2865	0.9874	1.1072	473.887,5833
VAN	0.6703	0.5239	0.4676	0.6748	0.7732	0.7671	0.8983	1.1301	1.5456	2.2163	1.1812	1.1516	221.059,9166
ZONGULDAK	0.9703	0.8716	1.1415	0.8705	1.1889	0.8617	0.9491	1.2014	1.0953	1.2054	0.7519	0.8924	399.248,9166
KONAK	0.6325	0.4414	0.6702	0.6877	0.7054	0.9056	0.9481	1.7039	1.1818	1.4743	1.3950	1.2541	87.955,9167
	0.8553	0.6985	0.9606	0.9691	0.9912	0.9792	0.9270	1.1148	1.1463	1.3788	0.9789	1.0003	10.927.661,25

APPENDIX 2.3

1979 Eregli Expenditure Pattern.

(Working Days)	Jan (26)	Feb (24)	Mar (26)
<u>Raw Materials & Supplies:</u>			
Cotton (Adana Ginning)	31005632	28620584	31005632
Viscose (Gemlik)	1807940	1668867	1807940
Grey Cloth (Adana)	15152027	13986486	14142027
<u>Work Shop Materials</u>	130000	130000	130000
From A. S. M.			
From Other Mills			
<u>Dyestuffs</u>	1888514	1743243	1888514
Other Mills			
Domestic Market (A. S. M.)			
Import			
<u>Chemicals</u>	3053770	2818865	3053770
Other Mills			
Domestic Market (A. S. M.)			
Import			
<u>Other Auxiliary Materials:</u>	1436149	1325676	1436149
Other Mills			
Domestic Market (A. S. M.)			
Import			
Electricity	2960000	2960000	2960000
<u>Payroll Deductions :</u>			
Wages	37506000	37506000	37506000
Salaries	1406000	1048000	1732000
<u>Operational Materials</u>			
Other Mills			
Domestic Market (A. S. M.)			
Import			
<u>Spare, Tools and Equipment</u>			
Other Mills			
Domestic Market (A. S. M.)			
Import			
<u>Various Supplies</u>			
Other Mills			
A. S. M.			

APPENDIX 2.4

CONSOLIDATED CTD
INCOME AND BALANCE SHEET
STATEMENTS

January - September 1980

CONSOLIDATED CTD INCOME STATEMENT

(FOR 1980 JAN - SEP)

	Erzincan	Kayseri	Dergama	Adana Girgir	Nazilli	K. Maras	Malatya	Denizli	Izmir	Eskise- hir	Adiya- man	Kara- nlan	Eregli	Diyar- bakir	Adana	Nevse- hir	Ant. ya
ross Sales	597.5	989.8	562.4	1879.7	985.8	894.5	1026.7	578.3	1475.9	1220.7	190.4	307.6	762.1	100.5	612.7	358.1	726.
dd.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dd Tax	1.0	-	-	-	0.9	-	0.5	-	36.6	18.6	0.5	24.6	0.3	-	5.9	-	-
ebates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
les Rev.	598.5	989.8	562.4	1878.7	986.7	894.5	1026.9	578.3	1412.5	1239.3	190.9	332.2	762.4	100.5	618.6	358.1	726.
ales Tax	(38.7)	-	-	-	-	-	-	(28.8)	-	-	(37.1)	(18.0)	(7.9)	(23.1)	(58.2)	(81.9)	-
ther dedu-	(2.5)	(3.6)	(4.1)	-	-	(4.1)	(0.1)	(8.9)	(1.9)	(2.0)	-	-	(1.8)	-	(0.2)	(0.3)	(8.
itions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
et Sales	566.3	986.2	558.3	1879.7	986.7	890.4	1026.8	548.6	1510.6	1237.3	153.8	314.2	752.7	77.4	560.2	275.9	717.
ost of	(414.2)	(720.8)	(351.7)	(1842.8)	(875.1)	(568.9)	(1038.5)	(444.9)	(1051.6)	(832.4)	(121.7)	(254.7)	(569.0)	(125.3)	(566.6)	(255.6)	(474
ross Sold	142.1	265.4	206.6	26.9	111.6	321.5	(11.7)	103.7	459.0	404.9	32.1	48.5	183.7	(47.9)	(0.4)	50.3	243
ross Profit	(4.8)	(11.8)	(3.6)	(6.3)	(10.0)	(1.9)	(16.9)	(2.2)	(20.6)	(15.4)	(3.0)	(12.6)	(15.0)	(6.2)	(7.6)	(1.8)	(10
arketing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
elling	(40.4)	(58.8)	(29.1)	(34.4)	(63.2)	(43.2)	(87.9)	(46.3)	(71.0)	(42.4)	(23.6)	(42.6)	(63.0)	(35.4)	(62.1)	(17.8)	(38.
. Admin.	(45.2)	(70.6)	(32.7)	(40.7)	(73.2)	(45.1)	(104.8)	(48.5)	(91.6)	(57.8)	(26.6)	(55.2)	(68.0)	(41.6)	(69.7)	(19.6)	(68.
xpenses of	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ie period	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
perational	96.9	194.8	173.9	(13.8)	38.4	276.4	(116.5)	55.2	367.4	347.1	5.5	(6.7)	115.7	(89.5)	(76.1)	30.7	174.
rofit:	-	-	0.9	-	-	0.1	-	7.5	-	0.1	-	-	-	-	2.0	-	0.
ev. Int ¹	-	-	0.9	-	-	0.1	-	7.5	-	0.1	-	-	-	-	2.0	-	0.
Com.	-	-	0.9	-	-	0.1	-	7.5	-	0.1	-	-	-	-	2.0	-	0.
ev. from	0.2	-	0.3	-	0.3	0.8	3.9	0.7	2.6	1.9	-	15.9	2.0	-	0.3	0.1	-
rior year	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ther	0.1	1.9	-	0.2	12.5	1.5	0.1	0.7	3.5	1.1	1.0	0.6	2.0	1.1	6.7	0.3	2.
venues	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
on-Operat-	0.3	1.9	1.2	0.2	12.8	2.4	4.0	8.9	6.1	3.1	1.0	16.5	4.0	1.1	9.0	0.4	2.
ional Profit	-	(74.8)	(4.4)	(5.1)	-	(29.8)	-	-	-	-	-	(4.6)	(0.7)	-	(9.7)	-	-
on-Operat-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ional Exps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
nt. + Com-	(1.9)	-	(24.8)	-	-	(0.6)	(0.7)	-	(5.3)	(5.1)	(5.7)	(4.3)	(6.0)	-	(11.5)	(0.4)	-
mission ³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paid	(23.4)	(23.3)	(22.2)	(3.7)	(54.8)	-	(117.9)	(45.6)	(60.8)	(32.3)	(8.9)	(30.8)	(57.7)	-	(23.1)	(1.9)	(34.
rior Yr's ⁴	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
osses	(0.5)	(1.4)	-	(0.1)	1.8	(0.1)	(0.4)	(0.9)	(1.7)	(1.0)	(0.2)	(0.7)	(0.1)	(0.3)	(1.4)	(0.2)	-
ther	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
xpenses	(24.8)	(99.4)	(41.4)	(8.9)	(56.6)	(29.5)	(119.0)	(46.5)	(67.8)	(38.4)	(14.8)	(40.4)	(64.5)	(0.3)	(45.7)	(2.5)	(34.
Non	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
perational	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
osses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PROFIT/ LOSS	71.4	97.2	123.7	(22.5)	5.4	289.3	(231.5)	17.6	305.7	311.7	8.3	30.6	55.2	88.7	112.8	28.6	142.

Note

- 1 - Other Revenues/interests/commissions
- 2 - Other Revenues from prior years
- 3 - Interests/commissions paid
- 4 - Prior year losses

Continued /...

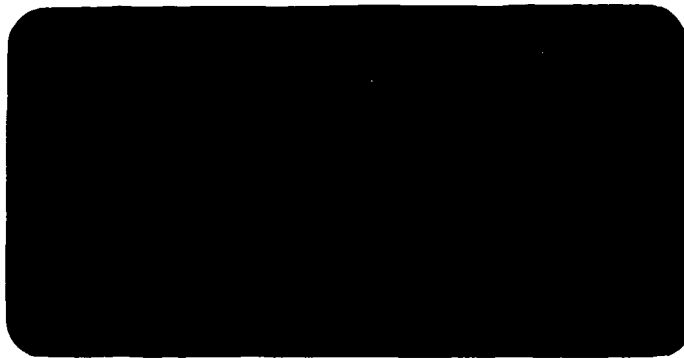
CTD CONSOLIDATED INCOME/EXPENDITURE / January - September 1980

	Manisa	Bakirkoy	Total
Gross Sales	808.5	1049.0	15136.0
Add,	-	-	-
Add Tax Rebates	-	-	88.9
Sales Rev.	808.5	1059.0	15224.9
Sales Tax	-	(13.0)	(309.7)
Other Deductions	(5.9)	(10.0)	(45.8)
Net Sales	802.6	1036.0	14871.4
Cost of Goods Sold	(506.7)	(539.1)	(11546.2)
Gross Profit	<u>294.9</u>	<u>496.9</u>	<u>3325.2</u>
Marketing, Selling	(5.8)	(11.2)	(157.0)
G. Admin	(39.9)	(81.4)	(940.7)
Expenses of the period	(45.7)	(92.6)	(1097.7)
Operational Profit	<u>249.2</u>	<u>404.3</u>	<u>2227.5</u>
Revenue (interest/commission)	-	-	10.9
Revenue from prior years	-	4.4	33.4
Other Revenues	0.2	0.3	35.9
Non-operational benefits	0.2	4.7	80.2
Non-operating expenses	(2.9)	-	(131.0)
Interest/Commission paid	(9.0)	-	(75.3)
Prior year's losses	(10.6)	(18.1)	(569.9)
Other Expenses	(1.0)	(1.3)	(13.11)
Non-operational losses	(23.5)	(19.4)	(789.3)
Profit/Loss	<u>225.9</u>	<u>389.6</u>	<u>1518.4</u>

CONSOLIDATED CTD BALANCE STATEMENT : JAN - SEPT 1980

	Kay- seri	K. Maras	Adana	Malatya	Erzincan	Izmir	Denizli	Nazilli	Bakir- koy	Eregli	Eskise- hir	Adana Ginning	Diyar Bakir	Kara- man	Nevse- hir	Adiya- man	Antalya	Berga- ma	Mamsa	Total
ASSETS																				
Current Assets																				
Cash	20.0	4.5	6.3	8.6	10.7	9.7	12.1	9.3	10.3	10.1	38.1	173.1	1.9	3.9	1.7	4.6	6.2	16.1	156.5	503.7
Receivables																				
- Government	138.4	9.0	2.3	16.9	190.9	9.5	117.2	1.1	4.1	10.4	9.5	3.0	1.2	4.8	0.3	41.6	40.0	103.0	69.6	772.3
- Inter Comp.	78.5	304.3	60.9	9.9	36.3	122.6	86.3	241.1	1832.2	1480.1	1874.8	3797.2	50.0	45.7	223.4	49.8	148.2	-	-	10,441.1
- Domestic	0.8	0.8	-	-	-	-	-	-	14.1	-	0.1	14.7	-	-	-	-	-	-	0.6	31.1
- Foreign	-	21.4	-	-	-	81.0	-	1.7	-	-	0.8	-	-	30.5	-	2.0	-	-	-	137.1
- Other	1.6	72.3	5.3	1.4	0.3	8.1	0.7	14.3	26.9	2.2	0.5	1.5	1.5	13.3	1.5	3.8	0.4	2.6	15.0	173.1
Deposits Given	39.8	47.9	83.2	172.0	19.7	119.2	33.9	134.2	60.1	51.3	91.1	7.3	2.8	8.3	12.2	28.1	39.8	56.0	62.3	1,069.1
Inventories																				
- R. M. & Supplies	356.6	137.8	103.4	274.2	54.5	357.7	60.9	205.6	208.0	193.3	191.7	162.4	55.6	136.4	39.5	56.4	148.5	147.4	117.1	3,017.0
- W. I. P.	39.4	197.7	41.9	143.0	7.6	304.0	13.8	95.9	145.0	124.9	101.5	-	2.2	13.5	3.5	33.3	172.2	152.7	148.8	1,741.0
- Finished Good	374.3	31.5	77.8	179.4	235.5	192.3	232.3	56.3	497.3	202.8	78.4	7.3	32.6	351.2	24.6	52.6	83.5	168.7	107.5	2,986.1
- Other	29.7	54.6	63.2	134.8	37.2	68.3	51.6	45.2	171.9	120.3	64.2	10.6	17.7	15.4	11.9	35.7	15.7	59.0	41.0	1,048.0
Total Current Assets	1080.1	881.8	444.3	941.2	592.2	1272.2	617.8	804.7	2969.9	2195.4	2450.8	4177.1	165.5	623.0	318.6	307.9	654.5	705.5	718.4	21,920.1
Fixed Assets																				
Bonds	0.5	-	-	-	-	2.3	-	1.0	-	-	0.6	-	-	-	-	-	2.5	1.4	0.3	8.1
Long Term receivables	-	-	-	-	-	0.9	2.2	3.0	-	-	0.6	-	-	1.7	0.1	-	1.3	-	2.5	12.1
Property, Plant and Equipment - Cost	103.4	1152.0	535.3	145.5	180.8	413.6	72.4	186.1	68.1	143.8	206.3	18.5	442.3	507.2	61.4	193.0	88.3	107.2	171.2	4,797.1
Less Accumulated depre	(46.1)	(157.7)	(181.2)	(106.6)	(47.7)	(81.1)	(59.8)	(38.3)	(36.9)	(103.8)	(117.0)	(8.6)	(45.7)	(97.1)	(30.6)	(48.9)	(74.2)	(52.2)	(86.3)	(1,419.1)
Net prop plant + Equip.	57.3	994.3	354.1	40.0	133.1	332.5	12.6	147.8	31.2	40.0	89.3	9.9	396.6	410.1	30.8	144.5	14.1	55.0	84.9	3,378.0
TOTAL ASSETS	1137.9	1876.1	798.4	981.2	725.3	1607.9	632.6	956.5	3001.1	2235.4	2541.3	4187.0	562.1	1034.8	349.5	452.4	672.4	761.9	806.1	25,319.9
Liabilities																				
Current Liabilities																				
Short term bank borrowing	-	135.2	84.6	42.9	9.6	98.3	12.5	-	-	1100.4	1456.1	-	90.4	195.6	-	65.8	-	180.8	3.9	3,476.1
Payables																				
- Government	175.2	49.0	20.0	76.3	4.3	7.3	26.3	23.2	44.2	3.0	62.3	24.1	15.6	8.0	37.7	4.7	34.9	111.8	220.3	948.1
- Inter Company	366.2	0.8	160.6	365.2	210.8	212.6	98.6	291.6	1936.4	454.7	158.2	3192.1	96.8	243.1	57.1	107.3	-	-	-	7,962.1
- Other	6.5	16.4	9.9	20.2	2.1	41.2	22.1	31.7	10.6	13.0	5.8	958.4	2.1	33.4	2.4	70.0	6.0	60.9	-	1,315.0
Advance received	1.9	-	-	-	18.7	-	-	-	3.9	-	0.2	-	-	-	-	-	-	2.1	-	26.8
Taxation payables	101.6	241.4	198.7	388.6	190.3	296.3	267.8	234.2	229.7	243.3	266.8	2.0	42.9	98.3	137.6	87.6	191.6	167.0	54.1	3,439.5
Accruals	20.5	26.6	154.9	291.0	58.5	147.4	83.5	143.3	80.2	125.0	115.4	7.4	22.8	58.7	40.8	31.8	72.1	68.1	90.2	1,638.2
Total Current Liability	671.9	469.4	628.7	1184.2	494.0	803.1	510.8	724.0	2305.0	1939.4	2064.8	4184.0	270.6	647.1	275.5	299.6	368.6	535.8	429.4	18,805.9
Long Term Debt																				
Bank borrowing	-	806.8	172.7	-	125.8	180.4	-	-	-	3.5	-	-	122.4	51.6	-	4.2	-	1.4	30.0	1,498.8
Other	-	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7
Total L. T. Depts	-	809.5	172.7	-	125.8	180.4	-	-	-	3.5	-	-	122.4	51.6	-	4.2	-	1.4	30.0	1,501.5
Share Capital	300.0	300.0	450.0	90.0	50.0	200.0	85.0	250.0	250.0	350.0	110.0	25.0	300.0	550.0	150.0	400.0	80.0	35.0	65.0	4,040.0
Retained Earnings	166.0	297.2	9453.0	(293.0)	55.5	424.4	36.8	(17.5)	446.1	(57.5)	366.5	(22.0)	(130.9)	(213.9)	(76.0)	(251.4)	223.8	189.7	281.7	972.5
Total Shareholders Invest.	466.0	597.2	(3.0)	(203.0)	105.5	624.4	121.8	232.5	696.1	292.5	476.5	3.0	169.1	336.1	74.0	148.6	303.8	224.7	346.7	5,012.5
Total Liabilities	1137.9	1876.1	798.4	981.2	725.3	1607.9	632.6	956.5	3001.1	2235.4	2541.3	4187.0	562.1	1034.8	349.5	452.4	672.4	761.9	806.1	25,319.9

WHITEHEAD



HAROLD
WHITEHEAD
& PARTNERS
LIMITED

10653

CHAPTER 3 (3 of 7)

INVENTORY CONTROL

VOLUME 3 OF 7

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1. INTRODUCTION

- 3.1 The purpose of this report is to outline an efficient system of inventory control to enable each Mill within the Sumerbank Group to minimise investment whilst ensuring flexibility of supply to avoid production delays and limit costs.
- 3.2 This has been developed by reference to the existing system operated at the Eregli Mill, which we understand is typical, and by highlighting those parts of the system which are adequate and those which offer scope for improving control and reducing investment in stocks. The performance figures for 1979 together with the inventory levels as at 31st December, 1979 have been analysed in detail to provide the necessary background information to evaluate present methods, as well as to provide a datum line against which to measure the opportunity for improved financial control and reductions in stock investment.
- 3.3 For ease of assimilation this report is sub-divided into the following parts:-
- present methods and results
 - proposed methods and forecast savings.

PART I : PRESENT METHODS AND RESULTS AT EREGLI
MILL

2.1 General

3.4 The effective control of inventories significantly contributes to minimising funds tied up in raw materials, spares, work in progress, finished stocks, etc. and at the same time minimises the chance of production delays, due to shortages of supplies, and therefore lost sales.

3.5 In the sections below the inventory results at the end of 1979 are discussed in some detail and provide a datum against which to project opportunities for future saving.

2.2 Summarised Inventory Results as at 31st December 1979

3.6 The summarised results at Eregli as at the end of 1979 are set out in tabular form in Table 3.1. In addition to the value figures and in some cases the quantities involved each group has been separately evaluated in terms of :-

- monthly or weekly usage
- the assessed level of stock in a comparable textile mill in Western Europe and the appropriate level of saving that such levels would have provided at the end of 1979.

3.7 It will be seen that opportunities existed for reducing the inventory levels by approximately 30% in value, which is equivalent to over 100 million TL by the application of efficient inventory control methods.

3.8 In making this assessment allowance has been made for the fact that certain key supplies have to be obtained from overseas, thus providing the additional complication of the need for foreign exchange which is usually in short supply. But

WESTERN EUROPEAN STOCK HOLDING LEVELS

TABLE 3.1

	Inventories as at 31.12.79		Stocks in Terms 1979 Annual Usage		Target Levels in 6mths/12mths	Saving on Basis of stocks on 6 mth target Level	
	Qty	Value - T. L.	Qty	Value			
150	RAW MATERIALS						
001	Cotton	238,274 ⁺ kg	13,963,848	6 weeks	4	4,500,000	<p><u>Note</u></p> <p>* According to the issues and receipts recorded in the individual quality ledgers for 1979 the total stock at 31.12.79 is 542,540 kg which is equivalent to approximately 31,795,000 TL or 3 months usage</p> <p>o According to the issues and receipts recorded in the individual quality ledgers for 1979 the total stock at 31.12.79 is :- 71,171 kg which is equivalent to 13,300,000 TL or 10 months Usage</p> <p>□ Where significantly different to existing Eregli levels these are targets to be achieved within 6 months and then 12 months.</p> <p>Reduction on levels that could be achieved in 12 months in some 90%, i.e. a further 10% on the initial 6 months target.</p>
003	Viscose	48,194 kg	5,429,542	15½ mths	6 2	2,000,000	
004	Polyester	133,882 ^o kg	23,974,698	19 mths	6 2	16,000,000	
005	Other		2,895	-			
151	YARN STOCKS		670,345	2 weeks			
153	WORKSHOP MATERIALS		234,383	20 mths			
154	AUXILIARY RAW MATERIALS						
000	Dyes	17,640,216		73 mths	36 12	9,000,000	
001	Chemicals	8,668,187		7 mths			
099	Misc. Mats.	4,594,774		21 mths	12		
155	MATERIAL STOCKS						
00,01,02	Coal + Fuel Oil + Benzine	880,705		3 weeks			
04	Lubricants	1,093,083		19 mths			
09	Misc. Engineering Spares	10,808,084		23 mths	12	5,000,000	
10	All Gps. Spares	22,661,182		25 mths	12	12,000,000	
12	Technical Equipment	7,289,181		24 mths	12	3,500,000	
22	Packing Materials	3,199,728		17 mths	12	1,000,000	
24	Workers Clothes	1,640,177		11 mths			
25	Electrical Spares	3,316,456		27 mths	12	1,750,000	
29	Cleaning Kitchen Materials	1,244,841		6 mths			
11,13 etc	All Other Spares (6 Gps)	3,601,434		3 mths			
160	SEMI FINISHED GOODS						
00	Cotton	5,218,248		1½ weeks			
02	Twisted Yarn	4,424,076		1½ weeks			
03	Bobbin Yarn	3,309,927		1 week			
06	Hank Bobbin Yarn	1,089,203		1 week			
15	Grey Cloth	500,560 m	23,161,429	3½ weeks	2½	6,500,000	
18	Finished Goods	421,250 m	19,085,083	2 weeks	1½	5,000,000	
165	WORK IN PROGRESS						
01	Ring Yarn	203,042					
02	Twisted Yarn	69,483					
07	Sewing Thread	1,556,260		1½ weeks			
20	Grey Cloth	427,700 m	19,383,963	2½ weeks	2	5,000,000	
170	FINISHED GOODS						
01	Yarn	25,160 kg	7,816,259	4 mths	3 1.5	2,250,000	
10	Sewing Thread	38,818 kg	17,738,333	14 weeks	8 4	7,500,000	
20	c Cotton Cloth	1,068,573 m	78,898,374	7 weeks	5 4	22,000,000	
30	Made-Up Goods		667,516	1 week			
122	BY-PRODUCTS		4,403,140	6 mths			
180	WIP STOCKS		1,450,000	17 mths	6		
180	GOODS IN TRANSIT		2,624,000	11 weeks			
182	GOODS FOR DELIVERING	415,163 m	40,94,500	10 weeks	6	16,500,000	
		362,962,500				Total	119,500,000 TL (Equivalent to 30% reduction)

for this latter problem the potential benefits would have been even greater.

- 3.9 Taking certain of the groups listed in Table 3.1 and analysing these in more detail, opportunities for improved control are discussed more fully.

2.3 Raw Materials (150)

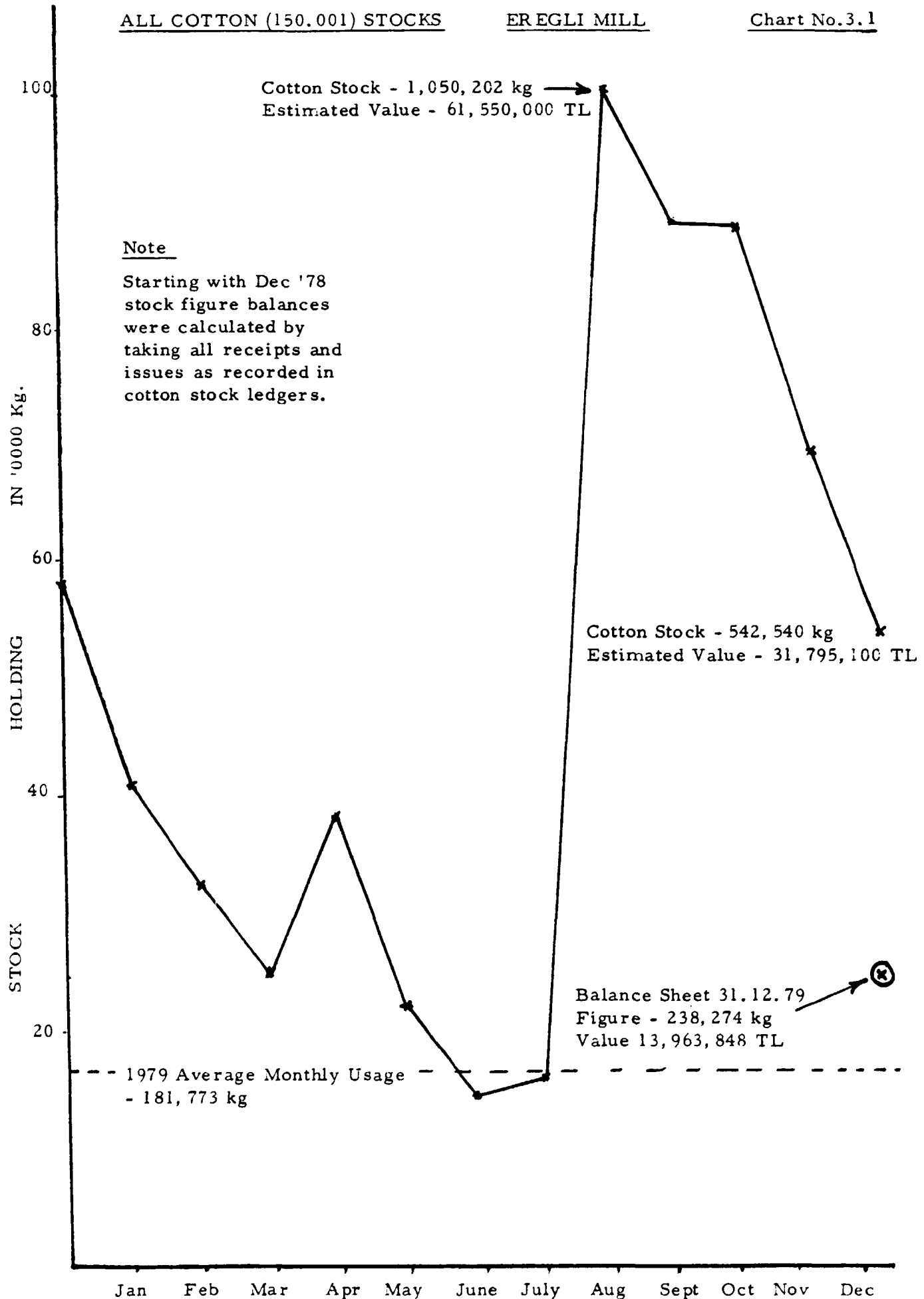
2.3.1 Cotton (150.001)

- 3.10 A careful study of the stock ledgers for each of the cotton quantities in stock or used during 1979, provides the monthly 'in stock' pattern as shown in Chart 3.1. The following is of particular note:-

- the book balance as at 31.12.79 is 542,540 kg, valued at approximately 31,795,100 T.L., where as the balance sheet figures are 238,274 kg valued at 13,963,848 T.L.
- the peak stock holding in August was 1,050,202kg valued at approximately 61m TL which is equivalent to approximately 5½ months usage.

Comment

1. It may well be that some entry has been missed in the stock ledgers thus causing the difference between the actual recordings and the balance sheet figures. The omission of such figures in a stock control system inevitably leads to loss of control and often results in either excesses or shortages.
2. While recognising the seasonal nature of cotton availability and the need for the Adana Ginning Factory to obtain cotton at competitive prices for supply throughout the year, it would be economically worthwhile if Ereğli stock did not exceed 3 months usage. Such a level would have reduced the maximum financial commitment in 1979 by nearly a half to approximately 35 mTL.



2.3.2 Viscose (150.003)

- 3.11 The amount of viscose stock held at the end of 1979 was equivalent to approximately $15\frac{1}{2}$ months usage and was valued at almost 5.5 m T.L. at that time.

Comment

- 3.12 Assuming that viscose is readily available in Turkey this would appear to be an excessive stock, which in normal circumstances could be reduced to a maximum of 6 months stock thus saving over 3 m T.L. investment.

2.3.3 Polyester (150.004)

- 3.13 The monthly stock levels of polyester fibres held during 1979 are shown in Chart No. 3.2. Of particular note are the following :-

- the stock ledgers indicate a stock level of 74,171 kg at 31.12.79, which is equivalent to $10\frac{1}{2}$ months usage, where as the balance sheet figure is 133,882 kg or $18\frac{1}{2}$ months usage valued at almost 24 m T. L.
- the peak stock holding as per the ledgers is 96,824 kgs or $13\frac{1}{2}$ months usage; in view of the year end stock adjustment mentioned above this may well have been higher.

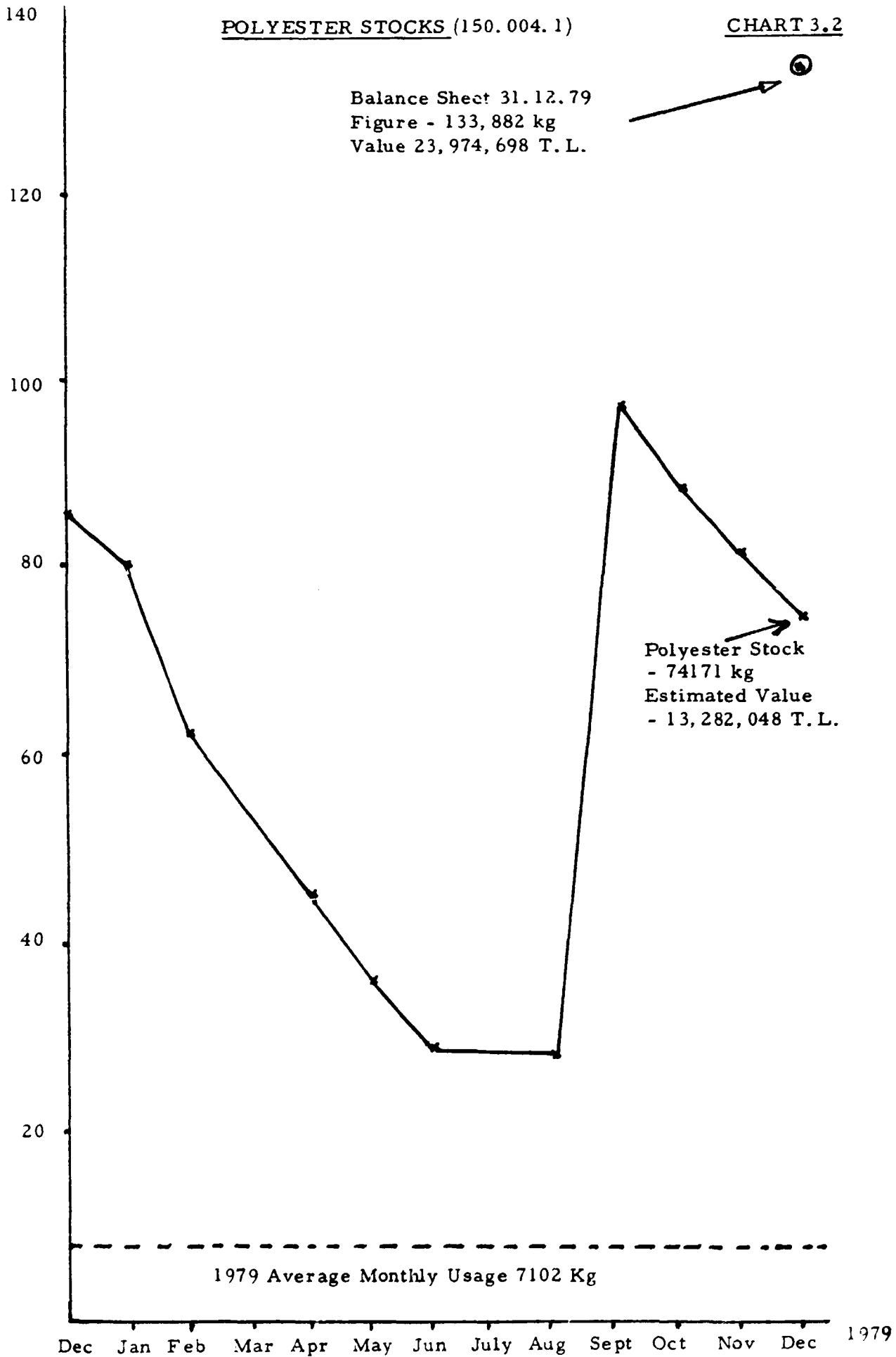
Comment

1. Again it is possible that ledger entries have been missed, thus providing two different year end stock figures. Such omissions in a stock control system prevent effective control as mentioned above.

POLYESTER STOCKS (150.004.1)

CHART 3.2

Balance Sheet 31.12.79
Figure - 133,882 kg
Value 23,974,698 T.L.



Polyester Stock
- 74171 kg
Estimated Value
- 13,282,048 T.L.



2. With polyester being available in Turkey, an immediate stock level target equivalent to six months usage would appear to be adequate and would have provided a reduction of some 16 m T. L. if applied at the end of 1979.

2.4 Auxiliary Raw Materials

2.4.1 Dyes (154.000)

- a) Chart number 3.3 provides a graph of the Variety/Value relationship for this group of materials, showing that the fifteen highest value items (10% of total variety) make up over 80% of the stock value at 31.12.79.
- b) Table No. 3.2 lists the fifteen highest value stock items in this group which totals over 15 m T. L. and also indicates the high value users.

Comments

1. The stocks of four items were the same at the end of the year as they were at the beginning - i. e. there as no usage during the year and these were valued at over 1.6 m T.L. Another item was received in April and not used during the remainder of the year.
2. Less than 1% of the large value items 21.91 valued at 7.5 m T. L. was used during the year.

154.00 DYES - STOCKS AT 31.12.79

CHART 3.3

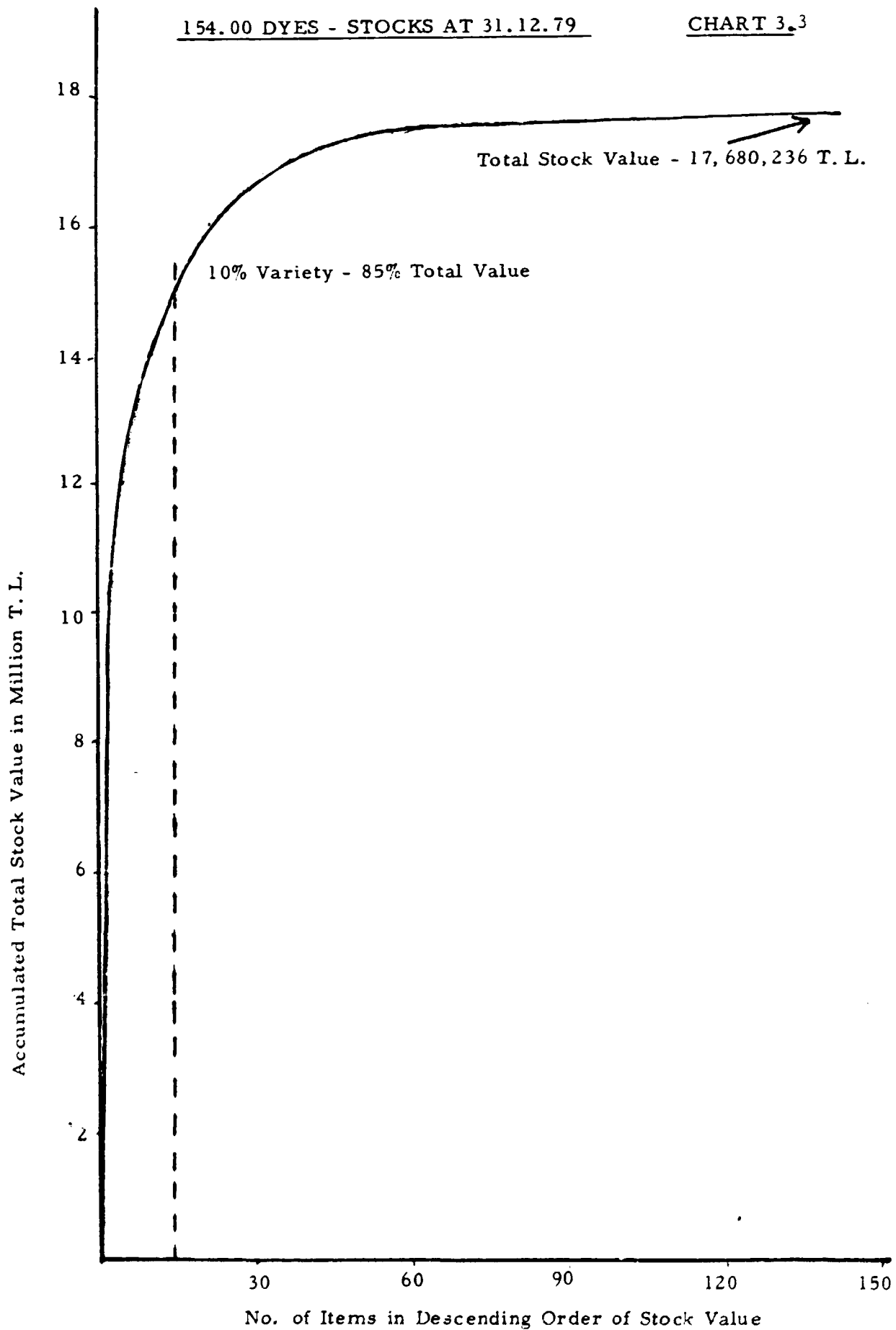


TABLE 3.2

HIGH VALUE STOCK HOLDINGS 31.12.79

154.000 DYESTUFFS

<u>Item</u>	<u>Stocks at 31.12.79</u>		<u>Annual Usage 1979</u>	
	<u>Qty</u>	<u>Value</u>	<u>Qty</u>	<u>Value</u>
21.91	5362	7,883,826 ^x	38	55,103
06.92	983	1,315,784 ^x	17	164,817 ^o
01.93	5000	1,019,689	Nil	(Received 8/79)
21.50A	1780	1,014,980 ^x	390	222,383
21.72	400	587,324 ^x	Nil	
08.50	139	558,795	82	124,715
21.70	275	403,768 ^x	Nil	
21.10B	990	398,361 ^x	Nil	
08.71A	104	377,170 ^x	16	10,182
01.19	1823	283,300	2603	404,271 ^o
03.90	5354	256,974	2353	112,975 ^o
06.52A	285	255,500 ^x	28	4,502
22.53A	400	239,160	Nil	(Received 4/79)
21.31	161	224,485 ^x	Nil	
06.71	143	206,713	82	59,068
	Total	15,025,829 T. L.		
19.93	364	108,584	451	134,785 ^o

Note

- x High stock levels
- o High usage levels

2.4.2 Chemicals (154.001)

3.14 Analysis of this group reveals that the seven highest value stock items (20% of total variety) account for over 88% of the total stock value of 8.6 m T. L. - see details in Table 6.3. The high value users are also noted on this table.

Comment

1. The stocks of 3/8 and 10/14 in particular are excessive.
2. The stocks of the high usage items appear to be under good control with the possible exception of 3/3.

2.5 Material Stocks (155)

2.5.1 General

3.15 The groups selected for study within this classification, which totals 54.5 m T. L., have been those with the largest value of stock holding at the end of 1979 and are as follows :-

<u>Group</u>	<u>Stock Value</u>
	<u>31,12,79</u>
09 Miscellaneous Engineering Stores	10,808,084
10.2 Weaving Spares - Local	4,475,969
10.6 Gear Wheels	4,529,550
10.7 Small Engineering Spares }	
12 Technical Equipment	7,289,182
25 Electrical Spares	3,316,456
Total	<u>30,419,241 TL</u>

TABLE 3.3

HIGH VALUE STOCK HOLDING - 31.12.79

154.001	<u>CHEMICALS</u>				
	<u>Item</u>	<u>Stocks at 31.12.79</u>		<u>Annual Usage 1979</u>	
	<u>Qty</u>	<u>Value</u>	<u>Qty</u>	<u>Value</u>	
10.4	9,638	3,095,268	?	?	
2.1A	20,463	1,763,095	201,841	4,504,407 ^o	
10.6	82,456	1,380,898	69,412	855,706 ^o	
3.8	26,466	631,587 ^x	5,007	93,250	
3.3	8,677	370,259	6,098	254,380 ^o	
10.14	1,000	236,159 ^x	100	19,600	
3.6	6,255	218,900	16,785	605,431 ^o	
	<u>Total</u>	<u>7,696,166 T. L.</u>			

Note

x High Stock Levels
o High Usage Levels.

2.5.2 Miscellaneous Engineering Spares (155.09)

3.16 This group was made up of 439 live items of which 89 valued at 9,2 m T. L. were analysed in detail.

- a) The graph in Chart 3.4 shows that 20% of the variety eighty eight items makes up nearly 85% of the total value of the stock.
- the 12 top value items total 6.5 m T. L.
- b) Table 3.4 lists the high value and high usage items.
- c) Several items for which stocks existed were re-ordered and new supplies received but no usage took place during 1979 and included :

<u>Item</u>	<u>Receipts</u>	
	<u>Qty</u>	<u>TL</u>
2.42	216,100	171,895
1.22	825,450	80,465
9.01	400	636,948

- d) An analysis of ledgers show that ninety-seven items valued at over 850,000 T. L. were not used at all in 1979. Some 0.75 m T. L. of this total was contained in 15 items only.

Comment

- 1. The high stock level items offering opportunity for reducing investment are marked on Table 3.4.
- 2. High usage items where closer control would yield savings are also marked on Table 3.4.

155.09 MISC. ENGINEERING STORE
- STOCKS AT 31.12.79

CHART 3.4

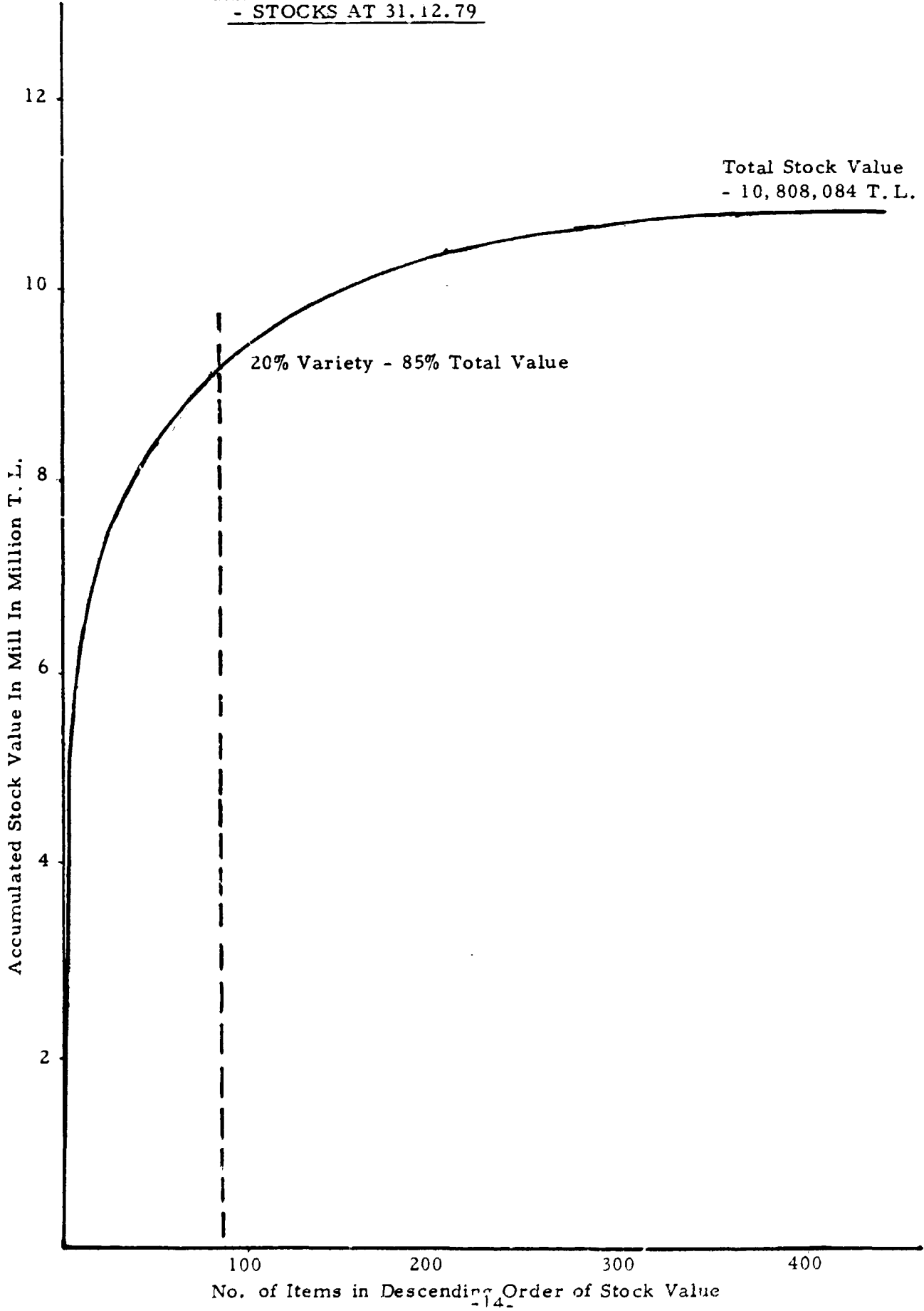


TABLE 3.4

HIGH VALUE STOCK HOLDINGS - 31.12.79

155.09 MISC. ENGINEERING SPARES

<u>Item</u>	<u>Stocks at 31.12.79</u>		<u>Annual Usage - 1979</u>	
	<u>Qty</u>	<u>Value</u>	<u>Qty</u>	<u>Value</u>
1.28	183,795	2,010,989 ^x	72,218	663,316 ^o
1.29	26,425	1,341,345	10,575	297,375 ^o
9.01	450	678,792 ^x	9	7,775
1.32	47,000	450,923	26,870	167,851
1.16	147,000	438,054	81,000	241,150 ^o
1.30	42,050	407,740	65,900	468,785 ^o
11.48	10	200,000	?	?
2.42	231,100	180,098 ^x	Nil	Nil
2.39	125,864	156,120 ^x	26,536	27,486
12.21	33,110	155,693	?	?
1.15	162,600	146,292	141,896	120,349
	Total	6,512,023 T. L.		

Note

x High Stock Levels
o High Usage Levels.

2.5.3 Gear Wheels + Engineering Spares (155.10.6 and 155.10.7)

3.17 This group consisting of one hundred and eighty-two live items and the fifty-five highest value items equivalent to 3.7 m T. L. or 81% of the total were analysed.

- a) The graph in Chart 3.5 shows that 20% of the variety (thirty-six items) makes up 3.3 m T. L. or 73% of the value.
- b) Table 3.5 lists both the high stock values and the high usage items.
- c) An analysis of the ledgers revealed that 65 items valued at over 0.5 m T. L. were not used at all during 1979. The bulk of the value (423.500 TL) was contained in eleven items.

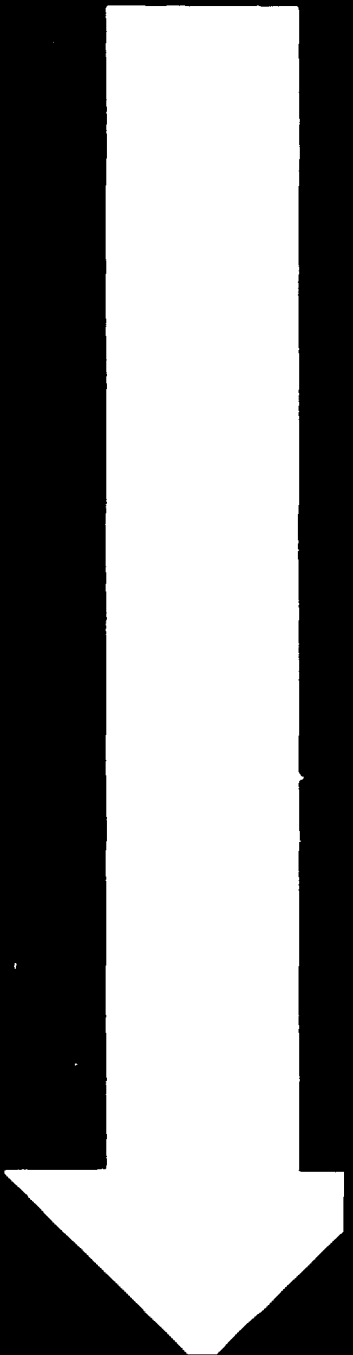
Comment

1. Opportunities exist for reducing stock investment by:
 - closer control of stock, see Table 3.5
 - disposal of some non-used stocks.

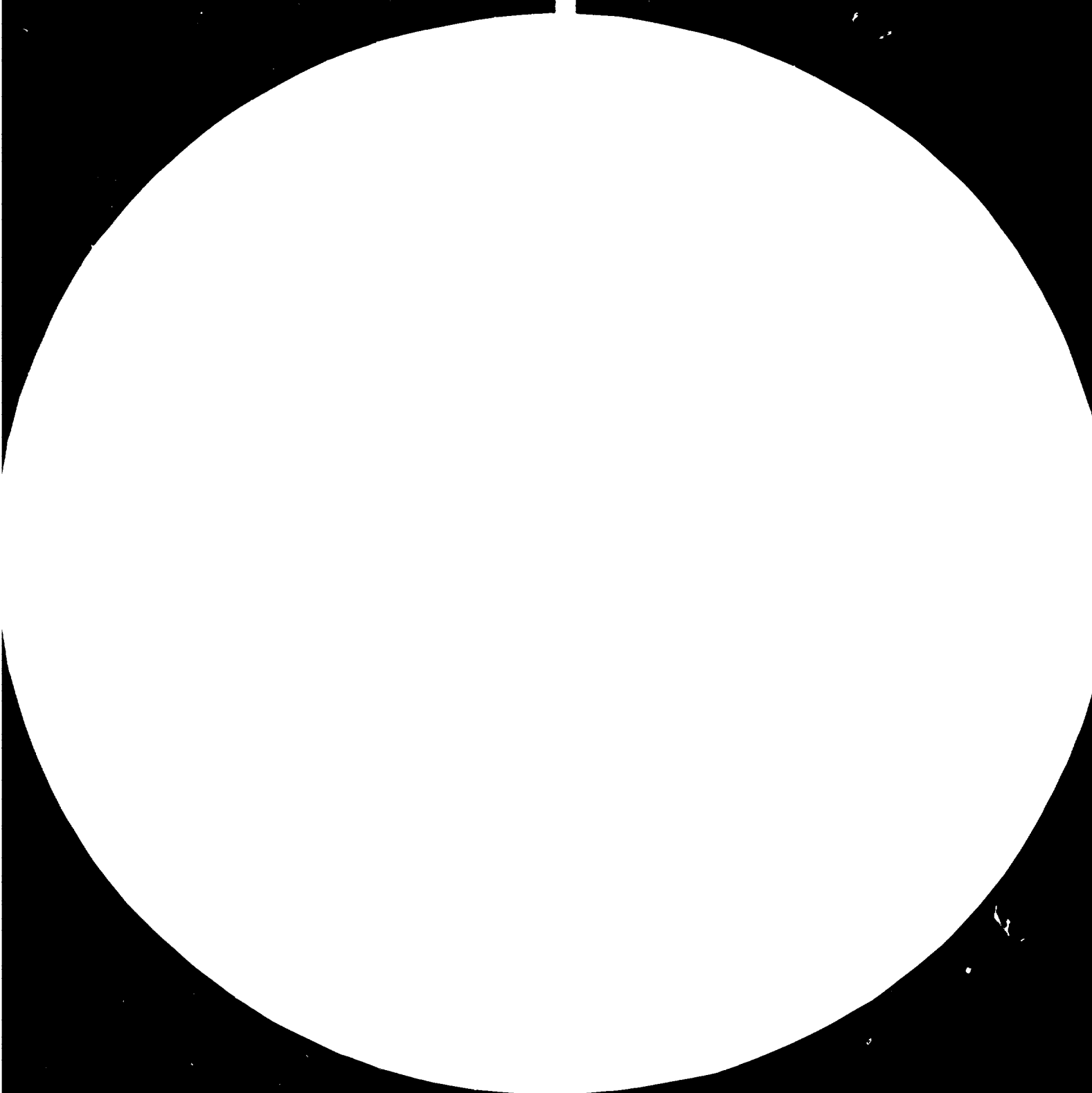
2.5.4 Local Weaving Spares (155.10.2)

3.18 This group contains over five hundred items totalling 4.475 m T. L. with only one item having a stock value in excess of 100,000 T. L.

- a) Only one item has an annual usage in excess of 50,000 T. L.



21129





2.8



3.2



4.0



5.0



Wavelength (micrometers) = 300 / (Resolution (cycles per millimeter))

155.10.6 + 155.10.7 GEAR WHEELS PLUS CHART 3.5
SMALL ENGINEERING SPARES STOCK 31.12.79

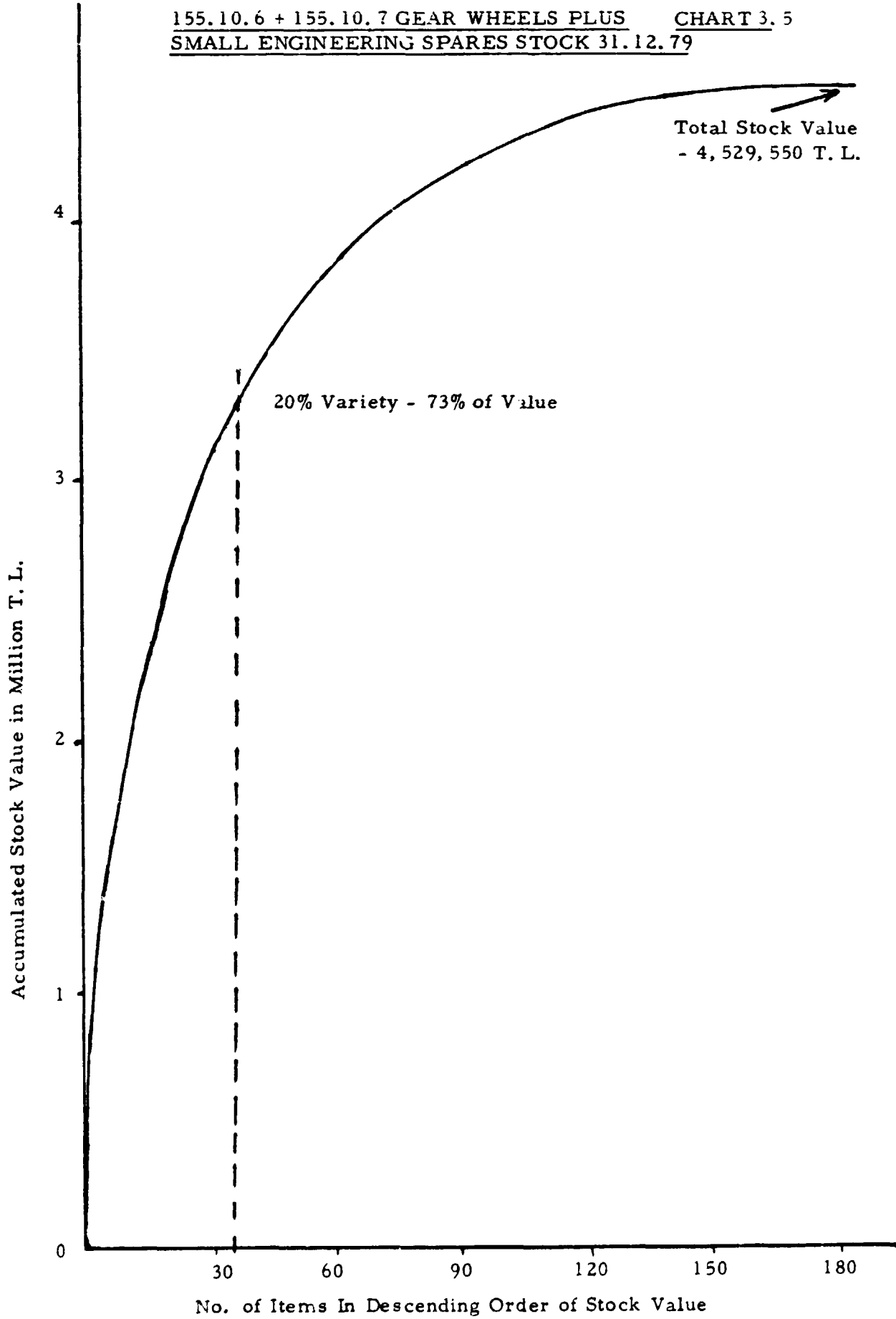


TABLE 3.5

HIGH VALUE STOCK HOLDINGS 31.12.79

155.10.6 GEAR WHEELS + 155.10.7 ENGSPARES

<u>Item</u>	<u>Stocks at 31.12.79</u>		<u>Annual Usage - 1979</u>	
	<u>Qty</u>	<u>Value</u>	<u>Qty</u>	<u>Value</u>
7.106	1157	529,514 ^x	55	8,686
7.1109	35	212,354	10	60,673
7.1111	26	211,464 ^x	4	32,536
7.1120	260	182,000 ^x	40	28,000
6.21	162	165,887	?	?
7.171	9282	129,058	8900	94,699 ^o
7.1102	110	110,052	100	100,048 ^o
7.238	39	104,876	9	19,463
7.339	27	101,304 ^x	5	18,760
	Total	1,746,509 T. L.		

Note

x High Stock Levels
o High Usage Levels

- b) An analysis of the ledger reveals that one-hundred and fifty five items valued at over 0.5 m T. L. were not used at all during 1979. More than half the amount was contained in ten items.

Comment

- 1. Opportunities exist for reducing stock investment by the disposal of some of the non-used stocks.

2.5.5. Technical Equipment (155.12)

3.19 This group consists of two hundred and thirty four live items out of which the sixty six (28%) highest stock value items were analysed.

- a) The graph in Chart 3.6 shows that the forty-seven (20%) highest value items represent 69% of the total stock value or 4.9 m T. L.
- b) Table 3.6 lists the high stock value and high usage items
- c) Eighty items valued at 0.75 m T. L. were not used at all during 1979 : over 80% of the value was contained in seventeen items only.

Comment

- 1. The disposal of some of the non used items would help reduce the stock investment.

CHART 3.6

155.12 TECHNICAL EQUIPMENT STOCKS AT 31.12.79

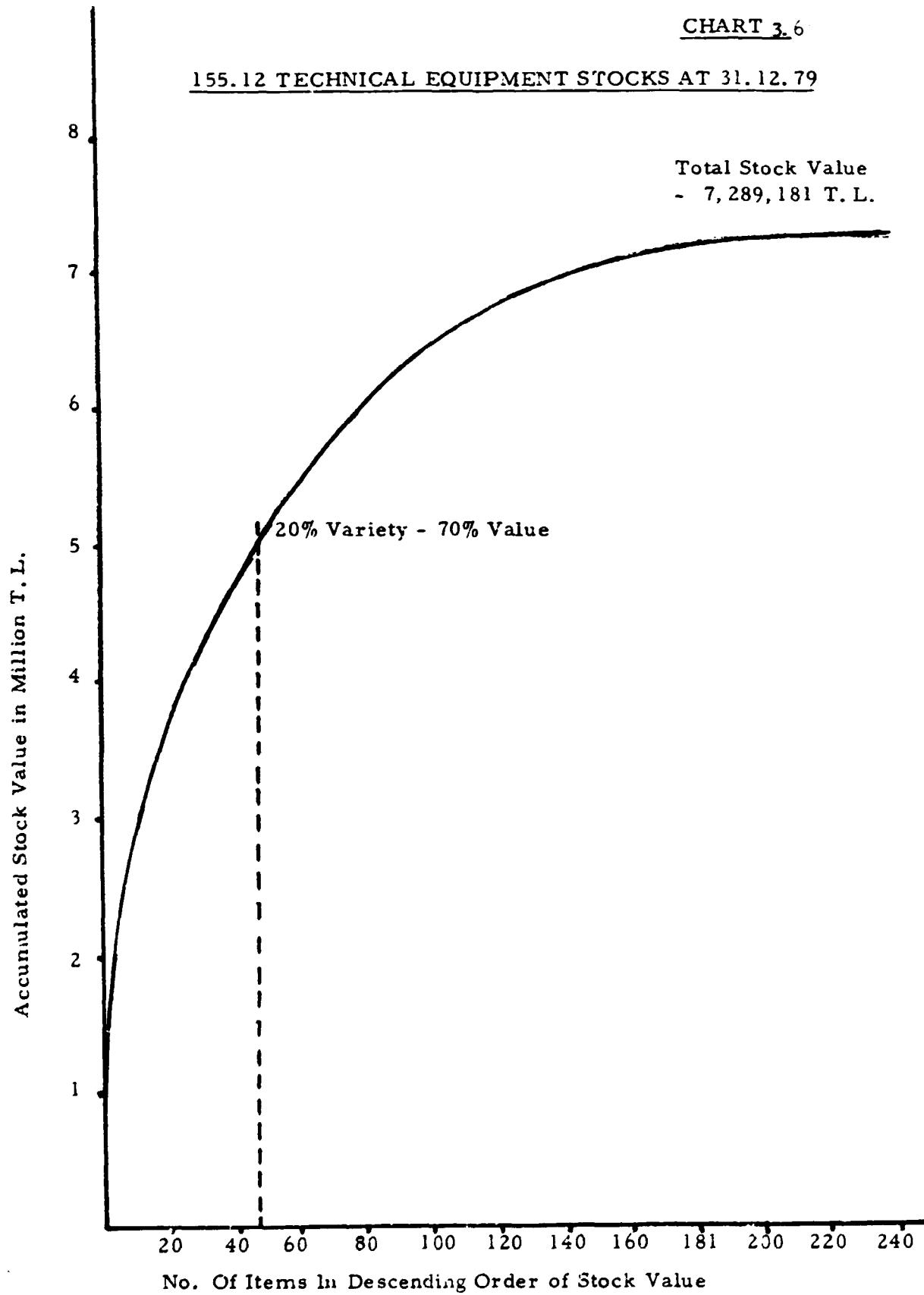


TABLE 3.6

HIGH VALUE STOCK HOLDINGS - 31.12.79

155.12 TECHNICAL EQUIPMENT

<u>Item</u>	<u>Stocks at 31.12.79</u>		<u>Annual Usage - 1979</u>	
	<u>Qty</u>	<u>Value</u>	<u>Qty</u>	<u>Value</u>
6.03	3,983	540,341 ^x	1,400	177,489 ^o
1.03	5,847	504,883	5,386	263,656 ^o
9.57	2,725	306,911	3,750	375,579 ^o
7.85	44,200	235,264	Not Available	
7.89	55,600	230,064	Nil	Nil
8.04	8,000	203,418	17,200	407,405 ^o
3.13	597	196,238	Nil	Nil
4.02	459,800	172,748	Not Available	
7.84	90,000	172,664	Not Available	
6.13	62,500	149,211 ^x	4,500	10,710
6.11	60,035	145,116	40,220	110,026 ^o
5.19	1,084	137,712	Nil	Nil
7.114	775,000	128,180	Not Available	
7.87	24,500	122,636	Not Available	
9.01	4,345	105,956	4,075	85,271
7.104	760,000	101,869 ^x	90,000	5,430
Total		3,448,211 T. L.		

HIGH USAGE ITEMS

6.94	500	51,563	2,250	232,632 ^o
9.132	60	36,675	272	122,980 ^o

Note x High Stock Levels
 o High Usage Levels

2.5.6 Electrical Spares (155.25)

3.20 This group totalling two hundred and fifty three live items has a stock value of 3.3 m T. L. out of which the fifty highest value items have been analysed and are worth 2.7 m T. L.

- a) The graph contained in Chart 3.7 shows that 20% of the variety - fifty items represents 80% of the total value.
- b) Table 3.7 lists the high stock values and high usage items.

2.6 Semi Finished Stocks (160)

Work in Process (165)

Goods at Outside Processors (182)

3.21 These three groups are best considered together for evaluating the goods that have already passed through weaving, which represents 80% of the total stock value of 77.5 m T. L.

The volume of cloth held is approximately :-

160.15	Grey Cloth	500,500 metres
160.18	Finished Goods	422,000 metres
165.20	Grey Cloth	428,000 metres
182.00	Goods for Printing and Making up	415,000 metres

which totals 20% of the annual output of finished cloth of 7,617,000 metres excluding the fabric sent for making up.

Comments

- 1. By European standards in a comparable textile industry a level of approximately 1,000,000 metres or some 12/13% would be expected for the same level of output.

CHART 3.7

155.25 ELECTRICAL SPARES STOCKS AT 31.12.79

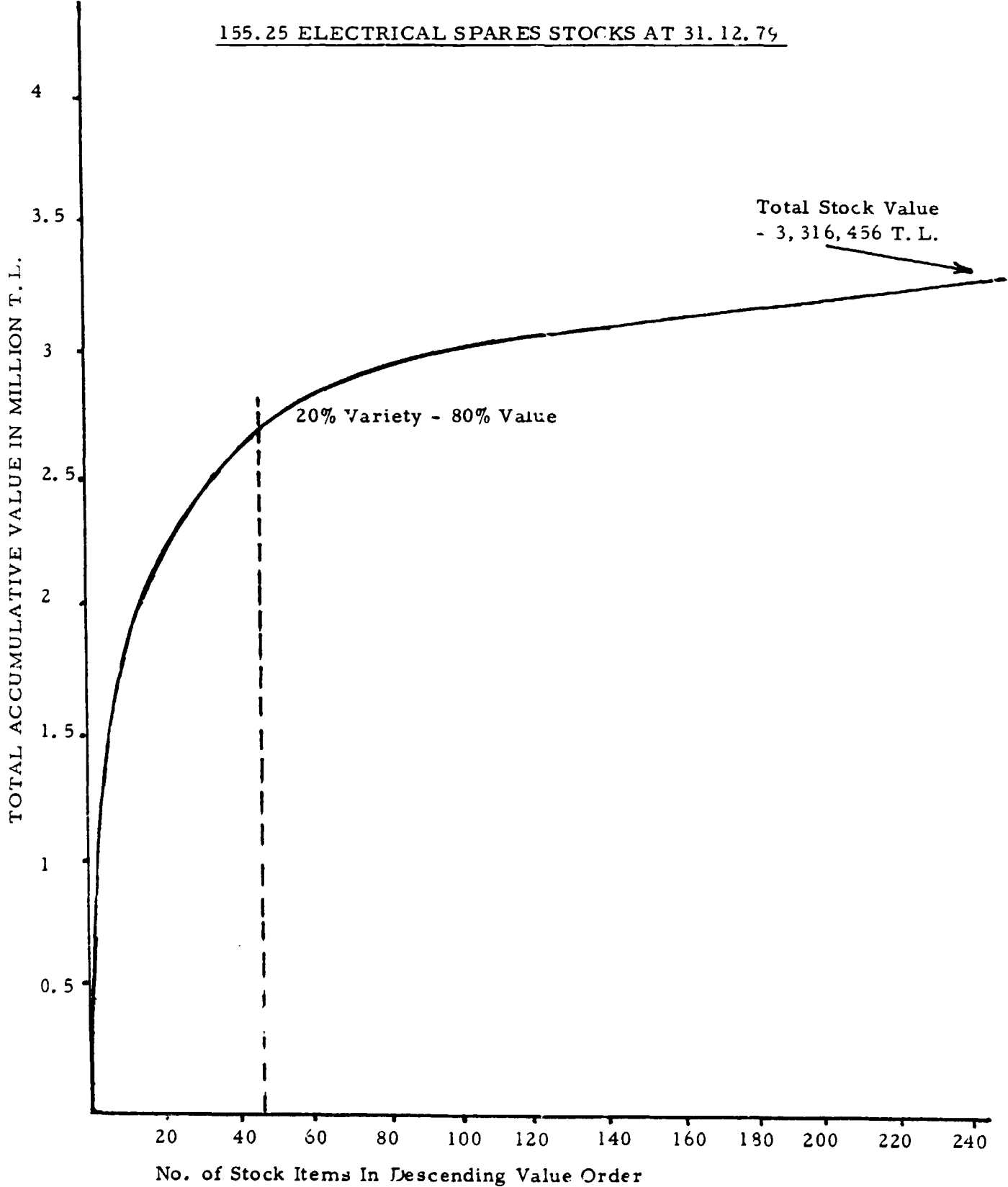


TABLE 3.7

HIGH VALUE STOCK HOLDINGS - 31.12.79

155.25 ELECTRICAL SPARES

	<u>Stock at 31.12.79</u>		<u>Annual Usage 1979</u>	
	<u>Qty</u>	<u>Value</u>	<u>Qty</u>	<u>Value</u>
1.07	.138	501,419 ^x	3	11,266
5.28	5,791	495,662 ^x	509	35,965
4.32	2,901	144,881	1809	83,169 ^o
1.135	44	138,696	13	47,706
1.09	50	126,044	9	22,596
1.148	37	99,522	5	8,482
1.124	27	99,260 ^x	3	10,740
1.150	33	79,407 ^x	2	4,372
9.22	331	61,494 ^x	30	6,810
1.147	81	61,237	158	119,189 ^o
1.239	27	52,807	2	3,800
		<u>Total</u>		<u>1,860,429 T. L.</u>

Note

- x High Stock Levels
- o High Usage Levels.

2.7 Finished Goods (170)

2.7.1 General

3.22 This is the largest group in terms of stock holding value at a total value in excess of 100 m T.L. The two main constituents are dealt with separately below, in order of stock holding value and importance.

2.7.2 Cotton Cloth 170.20

a) The graph shown in Chart 3.8 gives the value/variety pattern for stocks for both the end of 1979 and at 30.6.80. Of note are the following facts :-

- with approximately 1.25 m metres of cloth in store on each occasion the value of the stocks almost doubled between 31.12.79 and 30.6.80 from 78.5 m T.L. to 143.5 m T.L. i.e. cloth prices nearly doubled.
- five fabrics make up over 70% of the value of the total cloth stock holding both at the end of 1979 and also at the end of June 1980 - for details see Table 3.8 The only other cloths that have been selling over 100,000 metres a year or equivalent are Krep and Carsaflik.

Comments

1. Considerable scope exists for reducing stock investment by reducing excessive stock holdings as identified in Table 6.38. With most A.S.M. outlets being short of stocks the careful planning of production should enable these finished stocks to be reduced on average to 4 to 5 weeks at the most, thus releasing approximately 30% of the finished stock investment. This is equivalent to 22 m T.L. for the 1979 end of year stock holding and over 50 m T.L. for that existing at the end of June 1980.

Finished Cloth Stocks
Variety/Value Comparison
At 31.12.79 and 30.6.80

CHART 3.8

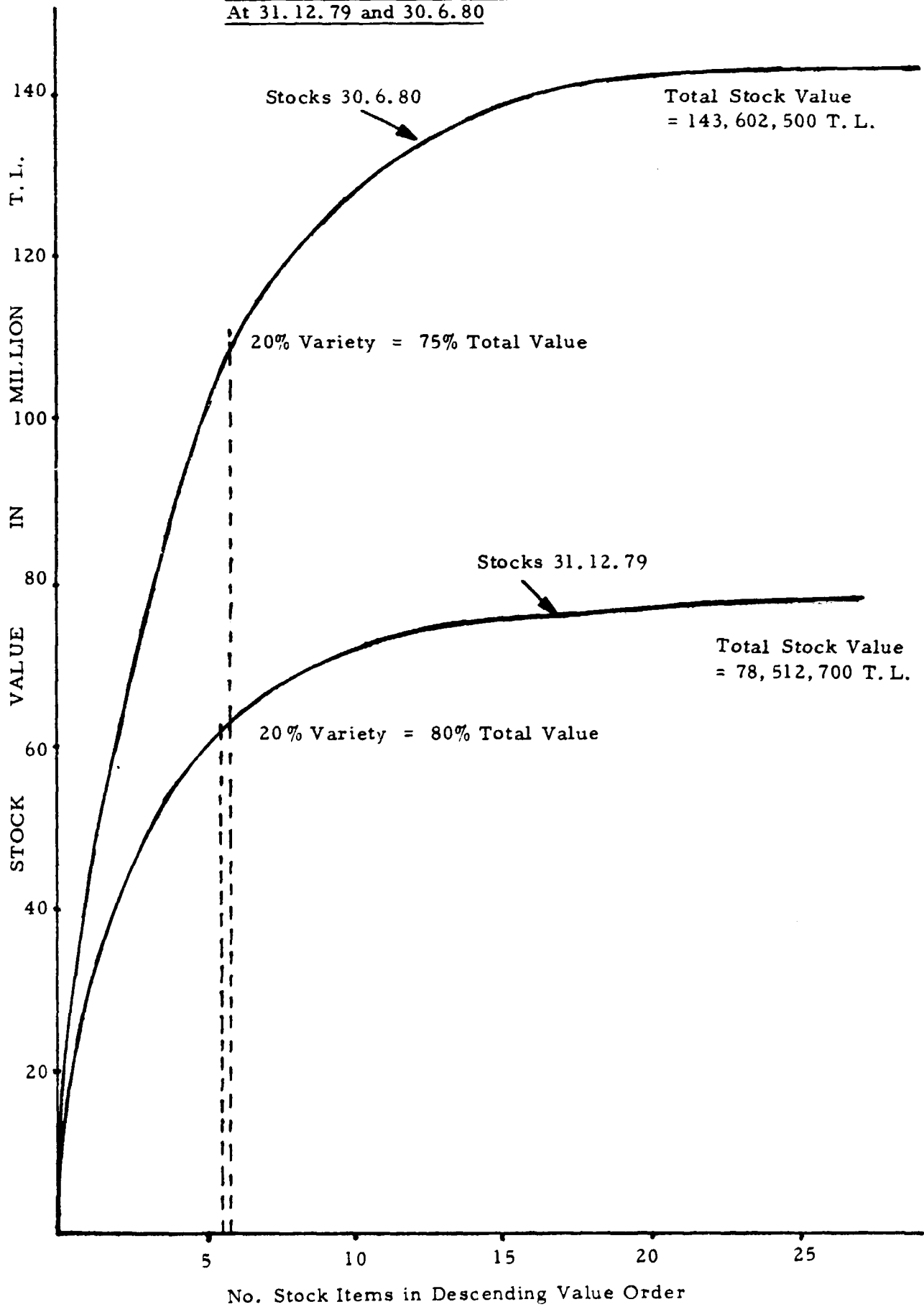


TABLE 3.8

HIGH VALUE STOCK HOLDING - 31.12.79 and 30.6.80

170.20 FINISHED COTTON CLOTH

Cloth		Stocks at 31.12.79		Total Sales 1979 12 mth Qty(M)	Stocks at 30.6.80		Total Sales Jan-Jun 80 (6 mths) Qty. (M)
No	Description	Qty M	Value T. L.		QTY M	Value T. L.	
517	Gabardin	278,656 ^x	26,017,600	287,597	113,632	15,348,600	351,940 ^o
372	Dar Hasse	376,592	12,475,600	2369,668 ^o	292,897 ^x	19,281,300	943,833 ^o
410	Alpaka	124,871 ^x	11,204,700	323,990 ^o	214,100 ^x	41,742,200	96,740
4904	Etamin	151,277 ^x	8,754,400	185,279	139,955 ^x	11,768,600	97,346
370	Genis Hasse	66,577	2,768,600	1501,160 ^o	158,909	13,602,600	494,950 ^o
	TOTAL		61,220,900			101,741,300	
	TOTAL STOCK VALUE		78,898,778			143,602,500	

OTHER CLOTHS SELLING OVER 100,000 METRES OR EQUIVALENT PER YEAR

755	Krep	14,429	838,900	140,130	45,780 ^x	6,999,200	
328	Carsaflik	27,323 ^x	1,586,600	89,507	5,730	190,700	74,291
3285							

2. A side issue that has been shown up in making this analysis is the extent of Seconds Manufacture on cloth production in excess of 65,000 metres during the six months ending 30.6.80 which is as follows :-

		<u>Total</u> <u>Manufacture</u>	<u>%Seconds</u>
370	Genis Hasse	629,299	6%
372	Dar Hasse	805,644	15%
410	Alpaka	251,647	46%
517	Gabardin	170,793	17%
715	Luks Satin	90,000	12%
755	Krep	69,500	25%
4904	Etamin	77,253	35%

- b) The graphs contained in Charts Nos. 3.9 to 11 show the monthly stock levels for the period end 1978 to June 1980 for the three largest stock holding items which are :-

372 Dar Hasse
410 Alpaka
517 Gabardin

Comment

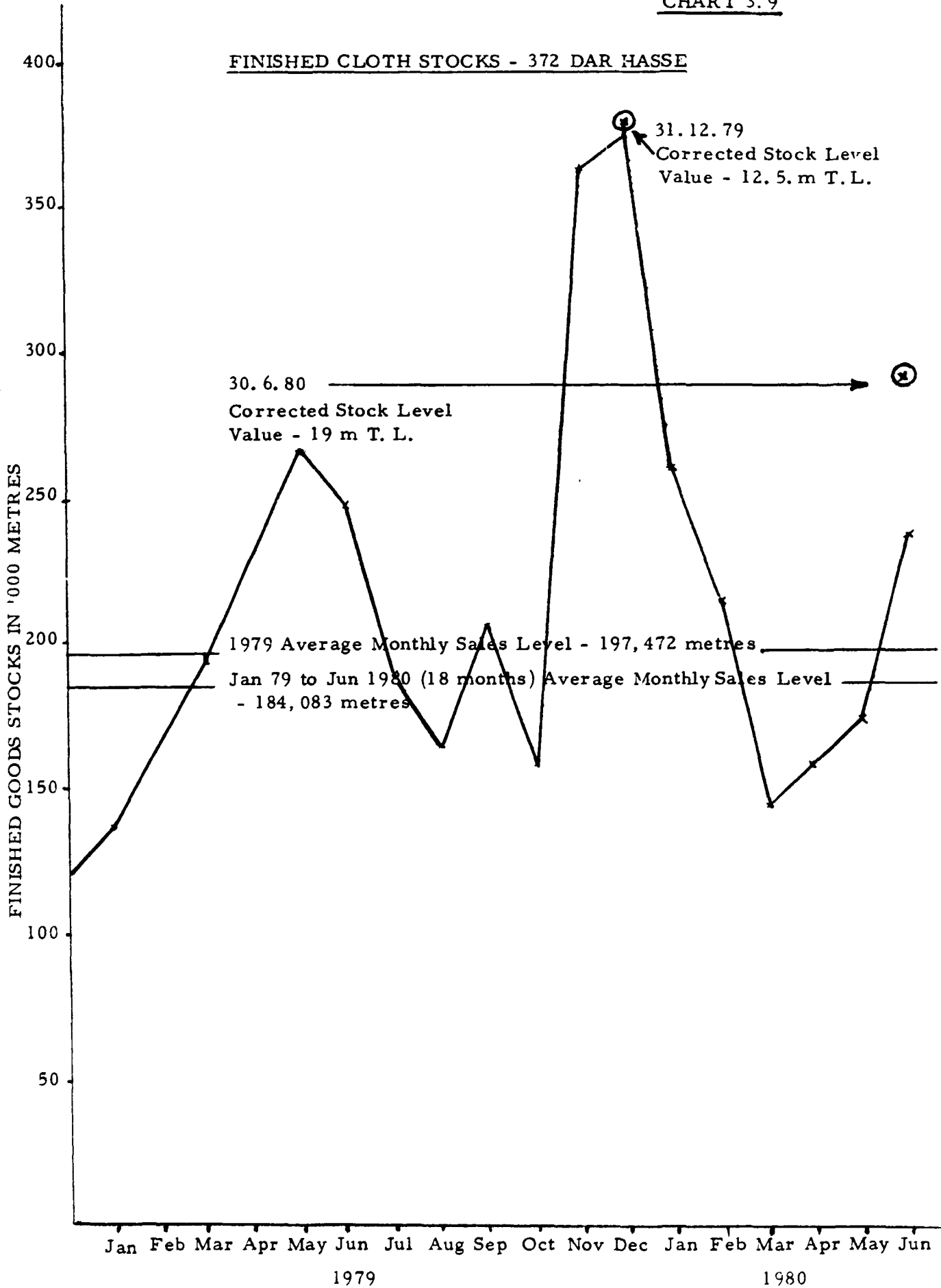
1. The control of 372 Dar Hasse appears to have been quite good apart from the months of November and December when stocks increased to the equivalent of approximately two months sales. Again at the end of June 1980 it was getting on the high side.
2. The stocks of both 410 Alpaka and 517 Gabardin show high level stocks being held over a period of many months thus tying up excessive amounts of capital which could be used more profitably elsewhere.

2.7.3 Sewing Thread 170.10

- 3.23 A stock level equivalent to 14 weeks sales valued at 17.7 m T. L. would appear to be excessive by normal standards. A reasonable maximum holding would appear to be equivalent to approximately 6 weeks sales, thus saving 10 m T. L. in stock investment.

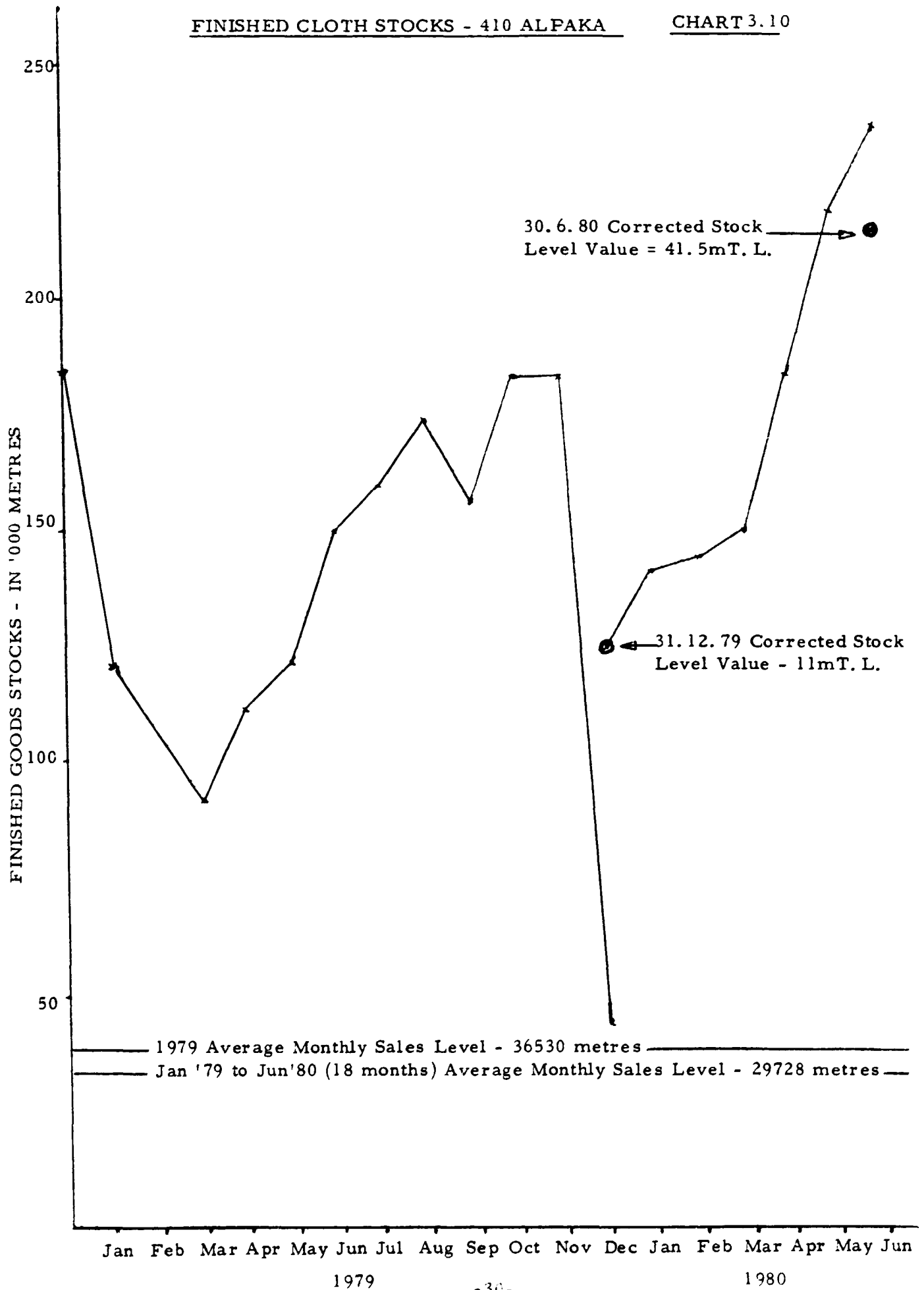
CHART 3.9

FINISHED CLOTH STOCKS - 372 DAR HASSE



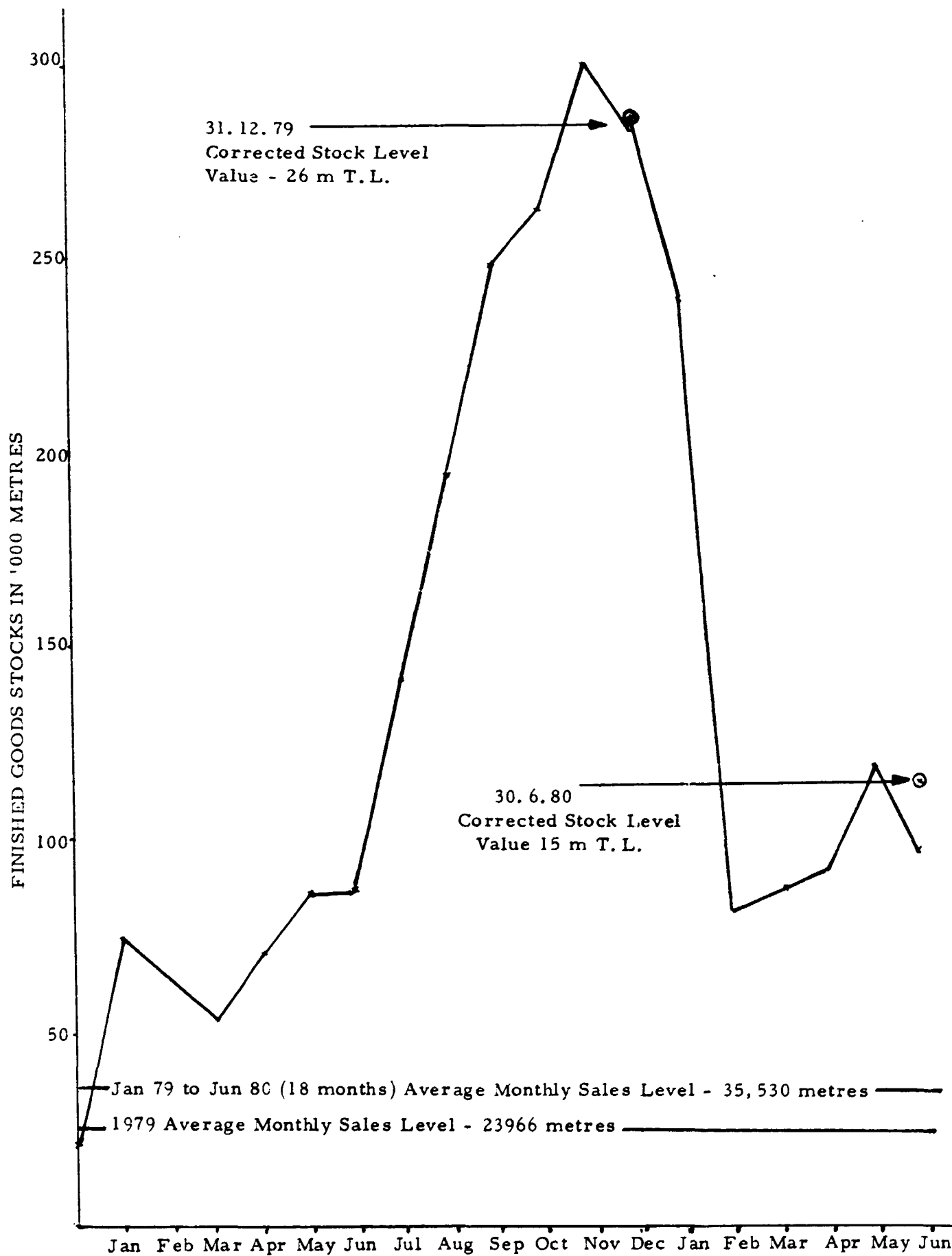
FINISHED CLOTH STOCKS - 410 ALPAKA

CHART 3.10



1979 Average Monthly Sales Level - 36530 metres

Jan '79 to Jun '80 (18 months) Average Monthly Sales Level - 29728 metres



2.8 Reconciliation of Recorded Stock Figures

3.24 When reviewing the results of 1979 and the stock levels as at 31.12.79 it was noted that Stock Ledger figures differed significantly from those recorded on the Balance Sheet in some cases. In particular the following differences were noted.

<u>Items</u>	<u>Stock Levels as at 31.12.79</u>	
	<u>As per Balance Sheet</u>	<u>As per Ledgers</u>
Cotton (150.001)	238,274 kg	542,540 kg
Polyester (150.004)	133,882 kg	74,171 kg
Finished Cloth Stocks (170)		
372 Dar Hasse ^x	290,000 ^x metres	240,000 ^x metres
410 Alpaka	125,000 metres	45,000 metres
Total Finished Cloth Stocks	1,068,573 metres	1,226,045 metres

Note

x These are figures covering the 30.6.80 situation.

3.25 Discrepancies of this type, for some of which there may well be good reasons, clearly indicate that scope exists for improving control and reducing investments in stock.

2.9 Present Procedures

- a) In general stock cards are only entered up once a month by totalling the separate records of individual issues and receipts which are required by the accounting department.

- b) At the end of each month the Accounts Department :
 - receive all the issue slips from the stores which they total and price and enter in the Stock Ledgers

 - price and total all the goods received slips for the month and enter in the Stock Ledger

 - balance the stock ledgers

- c) A separate stock count is made in each department at the end of each month to evaluate :
 - work in progress

 - semi-finished goods.

- d) An annual stock check and inventory reconciliation takes place only after the end of each financial year.

- e) The ordering of replacement stocks for spares, etc. only takes place twice a year i. e. at approximately six monthly intervals and not as a continuous process when re-ordering levels are reached, thus necessitating higher levels of stock holding than would otherwise be necessary.

PART III : PROPOSED INVENTORY CONTROL SYSTEM

3.1 General

- 3.24 The purpose of the proposed system, as stated earlier, is to minimise investment and cost whilst at the same time ensuring that adequate flexibility is provided to avoid any major production breakdowns or delays. This should be achieved by operating an efficient stock card system, with carefully calculated re-order levels and quantities based on expected usages, a regular monitoring system and an effective reconciliation approach. A general description of a suitable system, which is not greatly dissimilar to the existing methods, is given in the following sections with illustrations that are contained in Appendix I.

3.2 Documentation

3.2.1 Stock Cards - General

- 3.25 A suitable stock card design is given in Sheet I of Appendix I. This will include the recording of the following :-

- Part/item number
- Code Number (Finished and Semi-Finished Goods)
- Item Description
- Maximum/Minimum Stock Levels
- Re-order Level
- Re-order Quantity
- Location/Bin No.
- Receipts Qty. and date
- Issues Qty. and date
- Stock Qty.

3. 2. 2 Stock Cards - Finished Goods

3.26 A suitable sample design is given in Sheet 2 of Appendix I. and includes all the items listed above except that the stock recording is divided into two as described below .

3.27 When goods are planned for production they may be produced to meet :

- future orders
- a contract due for fulfillment by a particular date

3.28 To satisfy this need the stock situation is split into the following:

- Free Balance
- Free Stock

where Free Balance is the physical position in the store at any time and

Free Stock is the physical position less any future commitment already agreed with the customer, which can be another Sumerbank Mill, A. S. M. or an external customer,

3. 2. 3 Stock Card Entries

3.29 Each time an issue or a receipt takes place the appropriate entry should be made on the card and the balance adjusted in addition to the date being recorded. These entries should be made separately from the individual records that are maintained to provide the Accounts Department with the monthly record of total issues and receipts for the monthly accounts. At the time of stock-taking the card will be initialled as correct or initialled after necessary amendments.

3. 2. 4 Bin Cards

3. 30 Simple Bin Cards - see Appendix I Sheet 3 - should be located with each item at its individual location which records :

Bin Number
Item Code Number
Item Description
Receipt Qty. and Date
Issue Qty. and Date
Balance

3. 31 Whenever issues are made or goods received these will be entered on the Bin Card together with the date and the balance adjusted.

3. 32 At the time of stock-taking the Bin Cards are initialled after checking and correcting if amendment is necessary.

3. 2. 5 Stores Issue Slips

3. 33 Every issue from the Stores is recorded on a Stores Issue Slip - see Appendix I Sheet 3 - in duplicate and records the following :

Item Code Number
Description
Qty. Issued and Date
Receiving Department/Section

3. 34 At the end of the month the top copy of the Issue Slips will be sent to the Accounts Department for summarising and entering in the Stock Ledgers.

3. 2. 6 Stores Receipts

3. 35 In the normal way all incoming goods will be accompanied by a Goods In Slip the second copy of which will be initialled and sent to the Accounts Department after checking. Any discrepancies

should be followed up with the supplier and the Accounts Department advised of any shortages/excesses/damage.

3. 2. 7 Accounts Department Stock Ledgers

3. 36 At the end of each month the Accounts Department receives all the Issue Slips from the Stores. These together with the copy of the Goods in Slips for receipts are summarised and entered on the appropriate Stock Ledgers which record the following for each discrete item for the month:

Qty Received
Qty. Issued
Stock Balance (calculated)

3. 37 Receipts/Issues/Balances are then costed so as to provide valuations for the monthly balance sheets and stock control ledgers.

3. 3 Levels of Control

3. 3. 1 General

3. 38 In order to exercise effective control of inventories, without excessive expense, thus permitting the optimisation of financial results, it is necessary to treat groups of items differently. In particular those items which are critical for keeping the plant working efficiently and those of high value should be reviewed more frequently. It is recommended that the following frequency of checking should be carried out:

- Daily High Value/High Usage items where the supply position can become critical and including :

Cotton
Polyester
Viscose
Fuel Oil
Caustic Soda

- Weekly Finished Cloth items with usage in excess of 15,000 metres per month
- Monthly Semi - Finished Goods (160)
Work in Process (165)
Goods at outside Processors (182)
Dyestuffs } Annual usage in excess
Chemicals } of 500,000 T.L. per year.
Materials }
Spares }
- Quarterly Dyestuffs } Annual usage between
Chemicals } 200,000 T.L. and
Materials } 500,000 T.L. per year.
Spares }
- Yearly All other items.

3.3.2 Inventory Progress Reporting

3.39 The Mill Inventory Control Officer will be responsible for organising and controlling these reviews and will provide the Mill Managers with a summarised report of the findings with appropriate recommendations for rectifying deficiencies, etc. In each case he will report on :

- the actual stock holdings and the current level of usage they represent
- stock holdings that have fallen below re-order level and not been re-ordered
- stock holdings that exceed maximum stock level and the action proposed for rectifying the position.

3.40 Reference to Tables 3.4 to 3.7 and Charts 3.4 to 3.6 in Part I of this report show that the number of high value user items is fairly limited, so that the amount of checking involved is not excessive.

3.4 Maximum and Minimum Stock Levels

3.4.1 General

3.41 For efficient economic working different segments of Mill inventories require to have different maximum/minimum stock levels. These segments have been split into the following pages :

- Raw Materials (150)
- Auxiliary Materials (154)
Materials (155)
- Semi Finished Goods (160)
Work in Process (165)
Goods at Outside Processors (182)
- Finished Goods (170)

and the proposed levels of operating are given in the sections below:-

3.4.2 Raw Materials (150)

a) General

Since the usage of each of the three main materials - cotton, polyester and viscose - is reasonably predictable, it should be possible to plan the future monthly requirements with fair accuracy. In this way phased supplies can be arranged without building up excessive stocks as happened with both Cotton and Polyester in 1979 - see Charts 3.1 and 3.2 in Part 1. Because of the high investment involved every possible avenue for reducing stocks without impairing production performance should be investigated.

b) Cotton (150.001)

Despite the fact that cotton is a seasonal crop it is understood that supplies can be obtained on a month to month basis from Adana Mill. If this is so then it is suggested that the following levels of stock should be used :

Maximum 6 weeks usage

Minimum 3 weeks usage

In this way it will be possible to avoid an excessive investment in cotton as was the case in 1979 when the equivalent of $5\frac{1}{2}$ months stock represented 61 m T. L.

c) Polyester (150.004)

This is a material which is understood to be readily available in Turkey at all times and with a predictable usage the following levels of stock are recommended:

Maximum 8 weeks usage

Minimum 3 weeks usage

The high stock level, equivalent to 24m T. L. as at 31.12.79 (as per balance sheet) will then be avoided in future.

d) Viscose (150.003)

With this material being readily available in Turkey it is recommended that these stocks be held at the following levels :

Maximum 8 weeks usage

Minimum 3 weeks usage

In this way the high level of investment on this item as experienced at the end of 1979 - 15½ months usage valued at 5.5 m T. L. will be avoided.

3.4.3 Auxiliary Materials (154) and Materials and Spares (155)

3.42 It is proposed that the following Maximum and Minimum stock levels be instituted to bring the investment in stocks in these groups under improved control.

a) Foreign Supplies

Because of the longer period of time required to obtain supplies from overseas and the limitations due to the shortage of foreign currency it is necessary for the stocks to be larger than those for local supplies. The following levels are recommended :

Maximum equivalent to 18 months usage

Minimum equivalent to 3 months usage

b) Local Supplies

Maximum over 0.5 T. L. Annual usage
- 4 months usage

 between 0.2m T. L. and 0.5m
T. L. Annual usage
- 6 months usage

 under 0.2 m T. L. Annual usage
- 12 months usage

Minimum over 0.5 T. L. Annual usage
- 1 month usage

 all others
- 2 months usage

3.4.4 Semi Finished Goods (160)
Work in Process (165)
Goods at Outside Processors (182)

3.43 At the end of 1979 over 85% of the investment tied up in these groups was in cloth and it is this part of the inventory in particular that requires special attention. Effective control can be exercised by setting arbitrary targets against which to monitor progress. Based on similar textile operations in Europe a target of between 12½% and 15% of total annual production would appear to be practical.

3.44 With the stock holding of cloth at 31.12.79 of 1.765 million metres, representing over 20% of the 1979 finished cloth output and valued at over 100 million T. L. these groups clearly offer a good opportunity for reducing the funds tied up in Work in Process.

3.4.5 Finished Goods (170)

3.45 The finished cotton cloth 170.20 is by far the largest value item in the whole inventory being valued at 79 million T. L. at 31.12.79 and having increased to 143.5 million T. L. at 30.6.80. Again using European standards as a guide it should be possible to operate effectively by keeping stocks at a level equivalent to 4 or 5 weeks sales. Compared with the stocks held at the end of 1979 this offers a substantial saving of over 20 million T. L. at that time before prices had almost doubled. There would also appear to be scope for substantially reducing the stock holdings of both sewing thread and yarn both of which were equivalent to about 4 months sales at the end of 1979.

3.5 Re-ordering

3.5.1 General

3.46 In order to enable maximum economy in the administration and control of stocks it is recommended that the re-ordering of goods be dealt with as follows :

Raw Materials (150)	Monthly	
Auxiliary Raw		} as and when each item reaches the reordering level
Materials (154)		
Materials and Spares (155)		

3.47 By dealing with re-ordering in this way, instead of restricting the main ordering activities to twice a year i. e. every six months, the following benefits accrue :-

- lower minimum/maximum stock levels can be instituted, thus reducing capital investment
- the task of re-ordering is spread evenly over the year instead of providing two peak periods.

3.5.2 Stages of Control

3.48 Initially it is proposed that certain arbitrary re-ordering levels and re-ordering quantities should be instituted to bring stock holding under improved control and the suggested parameters are given below. At a later stage a more sophisticated approach could be introduced based on the supply lead time of an item and the forecast usage of each while awaiting the arrival of goods ordered - for further details see Appendix II. This latter method would provide the means of obtaining maximum economy in inventory investment.

3.5.3 Re-ordering Levels

3.49 The proposed re-ordering levels for immediate introduction on each item are as follows :

- a) Foreign Goods - when stock fall to a level of 6 months forecast usage

b) Local Goods purchased in Turkey:-

- i) Annual usage over 0.5 million T. L.
 - When stocks fall to 2 months forecast usage
- ii) Annual usage between 0.2 million T. L. and 0.5 million T. L.
 - When stocks fall to 10 weeks forecast usage
- iii) Annual usage under 0.2 million T. L.
 - When stocks fall to 3 months forecast usage.

3.5.4 Re-ordering Quantities

3.50 The proposed re-ordering quantities for immediate introduction on each item are as follows :-

- a) Foreign Goods - 1 years usage or minimum order quantity
- b) Local Goods purchased in Turkey
 - Annual usage over 0.5 million T. L. 3 months usage or minimum order quantity
 - Annual usage between 0.2 million T. L. and 0.5 million T. L. - 6 months usage or minimum order quantity
 - Annual usage under 0.2 million T. L. - 1 years usage or minimum order quantity.

3.6 Stock Taking and Stock Reconciliation

3.6.1 General

3.51 The effective control of stocks requires that the physical quantities held in stores be reconciled with stock card totals once a year as at present. However it is preferable, in the interests of both speed and work content, that this be carried out before the end of the financial year, in say November, rather than after the year end as at present.

3.6.2 Stock Take Listings

3.52 Separate lists will be prepared in each store at the time of the physical stock check, listing for each item the following :

Location/Bin Number
Code Number
Quantity
Date of check

3.53 At the same time as the items are checked, the Bin Cards will be marked up and initialled with balances corrected when necessary.

3.6.3 Stock Card Up-Dating

3.54 The Stock Lists once prepared will immediately be passed to the Stores for checking and up-dating all the Stock Cards and afterwards be passed to the Accounts Department for checking/correcting the Stock Ledgers.

3.6.4 Stock Discrepancies

3.55 Whenever major discrepancies arise between recorded and actual stock, checks should be made to ascertain the cause and the reasons marked on the Stock Lists, as well as being notified on the Mill Inventory Control Officers report.

3.6.5 Treatment of High Value Items

3.56 In addition to the annual stock-taking it is desirable that certain high value items have their physical quantity reconciled with the recorded stock card totals more frequently, These should include the following :-

Weekly - Fuel oil
- L. P. Gas
- Caustic Soda
- Other critical chemicals

Monthly - Finished Goods

Quarterly All goods with annual usage over 0.5 m T. L.

3.7 Non-Moving Stock

3.57 At the end of each year a list should be prepared of all the items in the Auxiliary Raw Materials (154) and Materials and Spares Stocks (155) that have not been used during the year. These should be reviewed and assessed for possible future usage and all those unlikely to be required sold off or transferred to other Mills within the Group who require them. It may be desirable that such items be withdrawn from the main stores area and placed together in a separate section for disposal.

3.58 While checking the 1979 results a considerable number of non-moving stocks valued at several million T. L. were identified - see Sections 2.4 and 2.5 of this chapter.

3.8 Central Stocks

3.59 With similar types of plant and machinery being used at a number of Mills within the Group, it is likely that scope exists for making further economies by holding certain machinery spares for such equipment at a central depot. Perhaps a single spare of some items can be held at each Mill with back up stocks at a central depot. This is clearly an area which should be investigated in more detail for achieving reduction in investment, particularly in the case of the more expensive spares.

3.9 Management Structure for Inventory Control

3.60 a) With large sums of money tied up in inventories at all mills within the Cotton Textile Division of Sumerbank, effective control can best be exercised by appointing an Inventory Control Officer at each. He should report directly to the Mill Manager and be responsible for ensuring that stock levels of raw materials, spare parts, work-in-progress and finished goods are kept within the prescribed guide lines for minimising investment and expense as laid down,

b) A Divisional Inventory Officer for co-ordinating the activities of all the separate Mills is also desirable. He would assist with such activities as :

- bulk purchasing
- disposal of surplus stocks (which may be of use at other Mills)
- establishment of centralised stores, for holding certain spares used by some/all Mills.

In addition he would take the lead in having policies discussed and up-dated as conditions change.

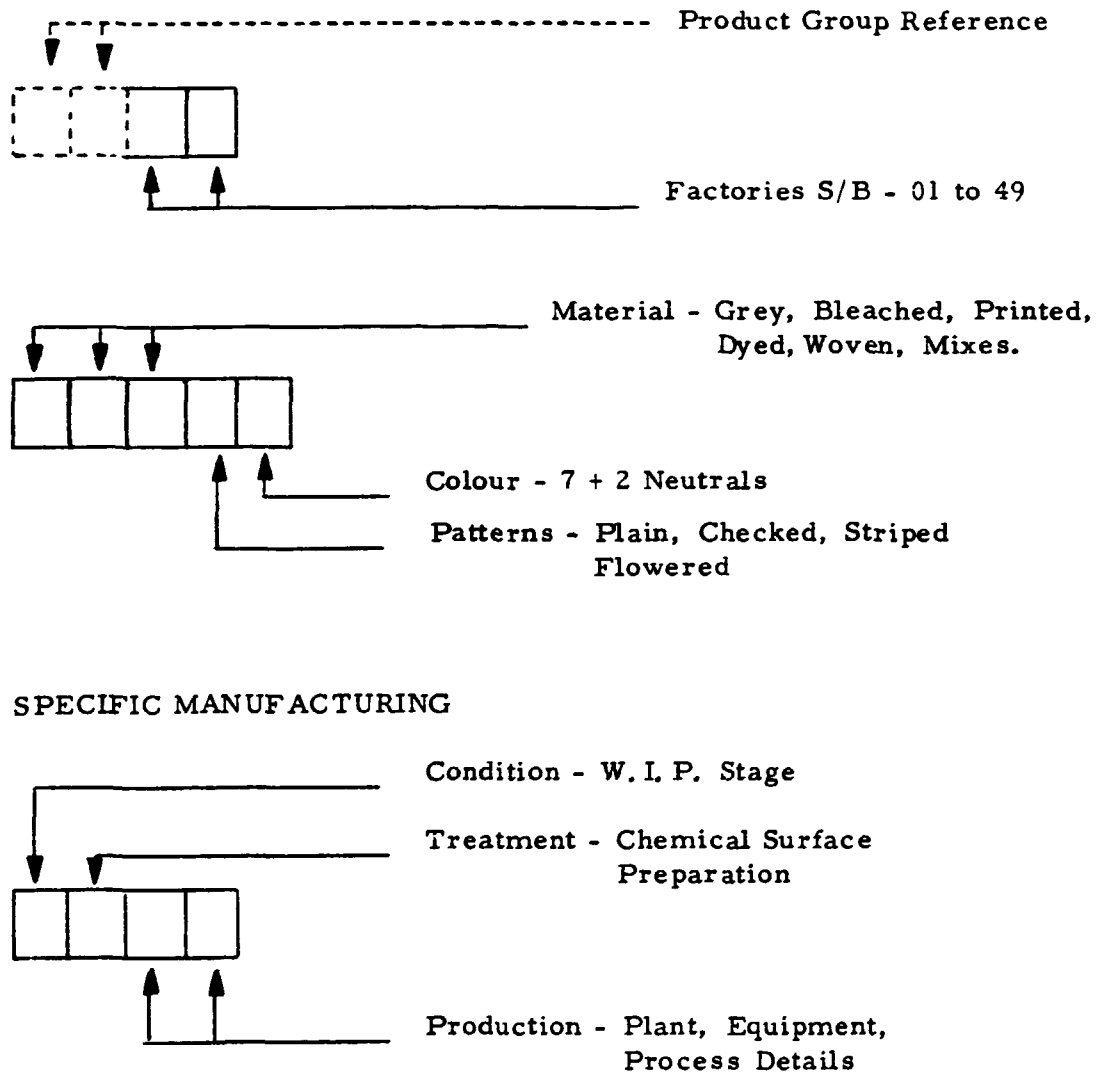
3.10 Product Classification and Coding

- 3.61 Effective product control necessitates the design and use of a coding system for all Sumerbank factories which is suitable for use and identification throughout the organisation as part of an integrated accounting, production and business control system. This should identify the product at each stage of processing, at the same time interphasing with the marketing code in order to provide a single monitoring basis whilst limiting the number of digits used to a minimum.

A suitable factory coding system is outlined in Table 9 using three groups of digits with four, five and four digits in each.

TABLE 3.9

PROPOSED FACTORY CODING SYSTEM



NOTE

This is a common code for factories and A. S. M.

4. SUMMARY

3. 62 The study of inventory levels in relation to manufacturing and sales activities for 1979 at the Eregli Mill has shown that considerable scope exists for reducing the level of investment tied up in stocks. This can be achieved by the early application of an inventory control system along the lines set out in this report. However the improved results should only be achieved provided the management operate the system as recommended ensuring that maximum/minimum stock levels and re-ordering levels and quantities are adhered to.

3. 63 We have set two-stage target stock levels in order that considerable stock reductions can be accomplished :

- those to be achieved within 6 months
- additional reductions to be realised within 12 months

3. 64 Once these targets have been met, further reductions may be obtainable by considering tight empirical relationships between lead time, order quantities, re-order levels and required usage levels. (Appendix II)

3. 65 In Eregli, we are informed that all cotton supplies are sourced from the ginning mill. In those factories where direct cotton purchases are made, allowances will have to be made for the seasonal unavailability of cotton - such cases will have to be examined and catered for as they are encountered.

3.66 A central warehouse should be considered for certain types of stock, but until other mill inventories have been studied the scope, nature and location of such facilities cannot reasonably be established. However inventory lines that may be appropriate for such treatment include :-

- multi-mill usage of low volume imported raw materials such as dyes, chemicals and other material stocks

- low volume usage of locally purchased or imported spares and equipment.

3.67 Clearly for fast moving items orders should not be raised for each delivered - bulk orders will be negotiated and placed for delivery against agreed delivery schedules. This will further reduce order placing and processing costs and reduce management supervision/involvement with day-to-day inventory tasks.

APPENDIX I

Inventory Stock Records and Bin Cards

<p>FREE STOCK = Receipts Minus Issues</p> <p>FREE BALANCE = Receipts Minus Issues and Reservations</p>	<p><u>FINISHED GOODS</u> <u>STOCK CARD</u></p>	<p>Code No.</p> <hr/> <p>Description</p> <hr/> <p>Annual Usage</p>
	<p>Min Stock</p>	<p>Max Stock</p>

Date	Order No.	Receipts	Issue	Free Stock	Reservations		Free Balance	Notes
					Date Req.	Qty.		

DESCRIPTION			<u>BIN CARD</u>			PART No.			
Date	Order No.	In	Out	Balance	Date	Order No.	In	Out	Balance

<u>ISSUE SLIP</u>	Date of Issue
	Issued to
Part No.	Quantity
Desc. tion	Signed -----

APPENDIX II

RE-ORDERING QUANTITIES AND LEVELS

Once stock holdings have been brought under improved control by introducing the arbitrary re-ordering levels and quantities set out in the report it is recommended that further savings can be achieved by adapting the following formulae:-

- Economic Order Quantities (E. O. Q.)

$$\text{E. O. Q.} = \sqrt{\frac{2AB}{C.I.}}$$

Where :

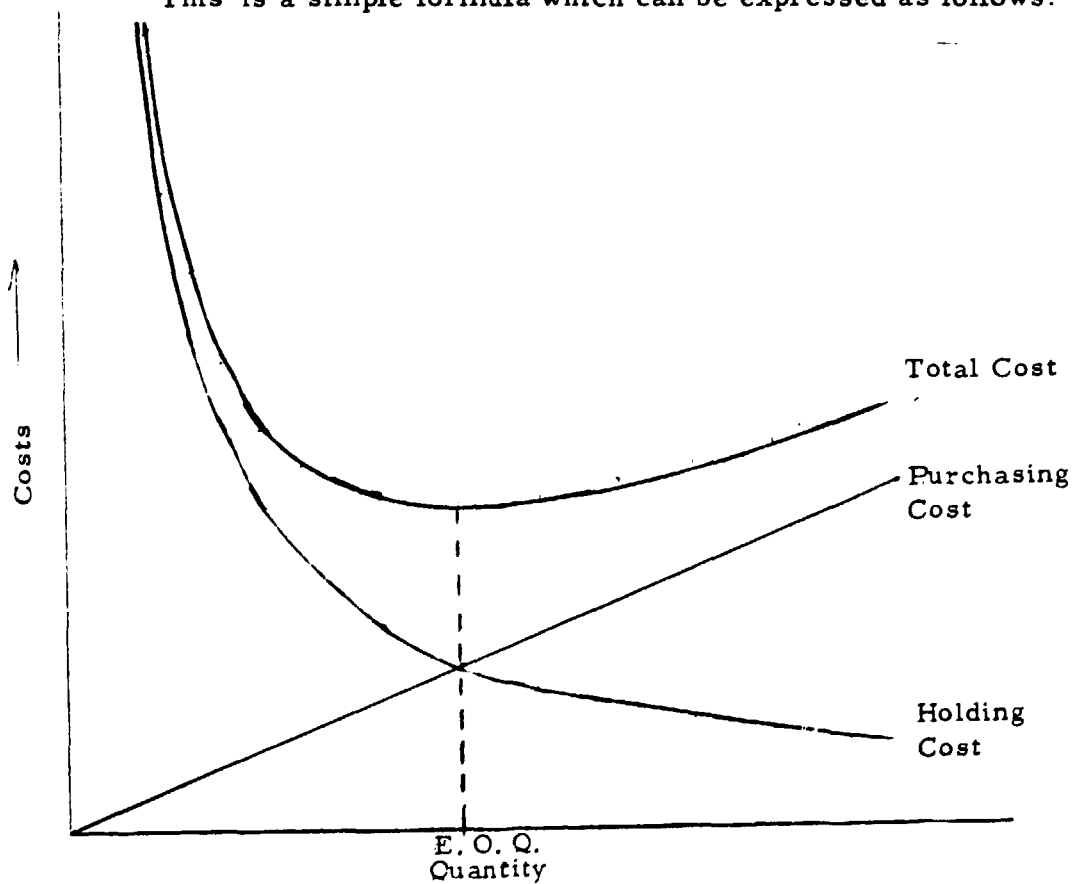
A = annual usage

B = cost per order

C = value per item

I = inventory holding cost per year as a fraction of the value of the total inventory.

This is a simple formula which can be expressed as follows:



This basic formula can be modified to deal effectively with such things as :-

- multiple deliveries
- quantity discounts etc.

- Reordering Point (R. P.)

$$R. P. = A/52 \times L + B$$

A = Annual usage

L = Lead time in weeks

B = Buffer or safety stock (to be set by management in the light of sourcing problems, levels of usage and the importance of otherwise of an "out of stock" position developing).

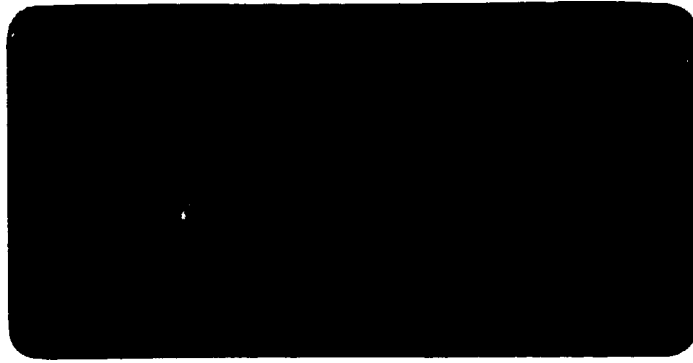
In establishing buffer stock levels the following factors need to be considered :

- uncertainty of demand
- uncertainty of lead time
- technical importance
- usage value
- shelf life and storage limitations

Adequate cover is essential for items which could cause major production delays.

In some cases it will also be possible to achieve additional economy by placing bulk orders with delivery schedules for items in more regular use. This will reduce the order placing cost as well as providing suppliers with a programme of forward requirements.

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& PARTNERS
LIMITED

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CHAPTER 4 (4 of 7)

A. S. M. OPERATION

VOLUME 4 OF 7

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4. A. S. M. OPERATIONS

Introduction

4.1 As part of the development of an overall programme for modernisation we have carried out an investigation into A. S. M. activities with Terms of Reference which cover:-

- Financial reporting
- Financial planning and control
- Inventory control

4.2 These tasks have significant systems implications in terms of both management information processing and communication and also the management process itself in ensuring that procedures are adhered to.

4.3 It was necessary, therefore, to consider the complete span of operations within A. S. M. and the links with manufacturers and suppliers to obtain a proper view of how A. S. M. functioned as a wholesale and retail organisation.

Method of Investigation

4.4 Our review and analysis of A. S. M. operations covered the following broad areas :

- organisation structure
- management information and control systems
- statistical analyses of operational and planning data.

4.5 In assessing the interaction between C. T. D. and A. S. M. it is important to realise that :-

- a) C. T. D. products account for 72% of A. S. M. turnover only
- b) A. S. M. selling operations cover only 66% of C. T. D. 's output of manufactured products
- c) Official sales requirements with programmed priority have to be taken into account

4.6 Because A. S. M. sells a wide range of non-CTD products such as woollens, shoes, porcelain, garments and accessories it is not feasible to specifically identify administrative, marketing and technical operations and associated costs with C. T. D. products only. Such an allocation would be extremely arbitrary.

4.7 Our operational audit was carried out at A. S. M. Head Office, certain District Offices and various Retail shops. The investigations were directed at the following main functions :

- Management Structure
- Marketing and Business Management
- Marketing Planning
- Budgetting
- Stock and Inventory Controls
- Management Controls

- Classification and Coding of Products
- Data Processing
- Accountancy and Administration
- Operational Activities in Districts and Retail Outlets

Each of these are discussed in detail below.

Management Structure

4.8 The existing organisation chart for A. S. M. is shown in Figure 4.1. Significant features of this structure are :

- a) Assistant Managing Director (Marketing) has 29 Executives reporting directly to him:
 - 23 District Managers
 - Planning Manager
 - 5 Sales Managers
- b) District Managers have responsibility for, on average, 20 Branch Managers
- c) Sales Management at Head Office is organised mainly on a product type basis :
 - Cotton
 - Wool
 - Ready Made Clothing
 - Porcelain and Footwear
 - Contract Sales

ORGANISATION STRUCTURE - A.S.M. ISTANBUL

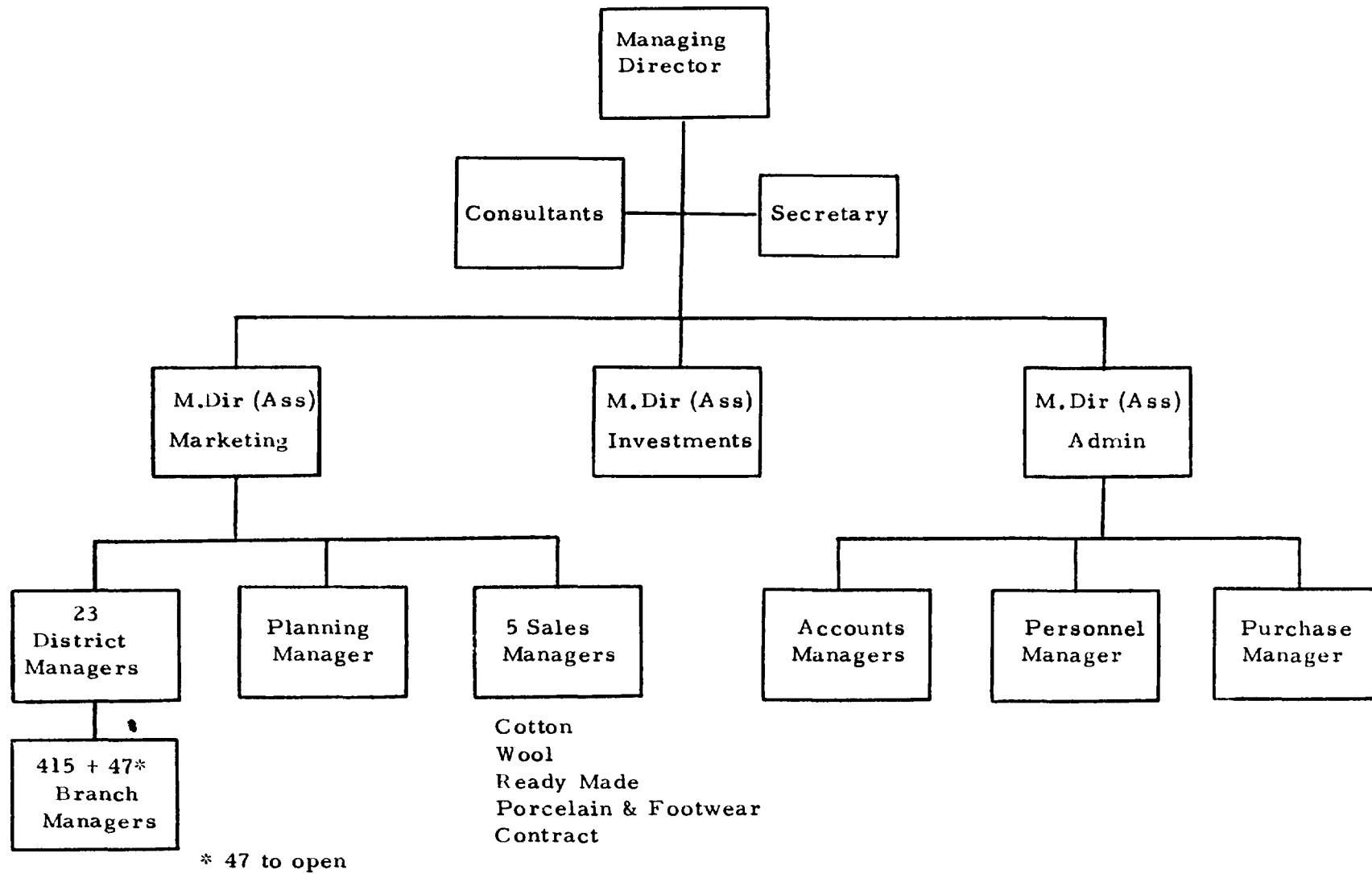


FIGURE 4.1

d) Assistant Managing Director Administration has 3 Executives reporting to him :

- Accounts
- Personnel
- Purchasing

Marketing and Business Management

4.9 The main objectives of a sales and marketing operation such as A. S. M. must be to :

- provide customers with the products they want, where and when they want them at a price which is acceptable to the customers and the organisation
- ensure the long term survival of the organisation under the pressure of competition from other suppliers and retailers.

4.10 Management attention and expertise must be directed at a number of business and product requirements :

- continuity of supply
- quality
- pricing and cost control
- technical and product development
- demand forecasting
- promotion, merchandising, advertising
- stock control

- achievement of turnover and profit targets
- market research

4.11 Because of the very wide product range and geographic area with which A. S. M. is concerned, effective management requires sophisticated planning support and comprehensive management information and control systems.

Marketing Planning

4.12 We have reviewed the departmental 'job' description for the Planning Department (Appendix 4. 1). This specifies that virtually all marketing management information is to be directed through the planning function for processing and interpretation into marketing recommendations and policies.

4.13 In particular the supply and demand balance, including stock levels and liaison with manufacturing in the planning of production falls within this department's responsibility.

4.14 The Planning Department, therefore, plays an essential role in the operational management of A. S. M.

4.15 Our investigation showed that for many months until November 1980 the post of Planning Manager was vacant and the Assistant Managing Director Marketing was in direct charge of the activities of the Department.

4.16 During the period without a manager the Planning Department, which has an establishment of 25 posts, had 18 positions filled but 10 of these persons had been re-located to other departments. This left 8 staff operating in the planning function. As an example of the resultant lack of resources, one staff member was engaged on retail shop merchandising covering all districts and retail outlets.

4.17 Examination of the jobs which the 8 planning staff were associated with produced the following picture :

- 1 Supervisor
- 1. Retail Shop Planning Section
- 1 Fairs and Displays
- 1 Concessions to Employee Books
- 1 Sales Planning Research
- 1 Reporter - Service to Board/Committee
- 1 Typist
- 1 Communications

4.18 Product development, which appears in the Planning Department Job Description, is dominated by the manufacturers who submit samples to A.S.M. Marketing Managers for approval.

Budgetting

4.19 The preparation of annual budgets is based on :

- an assessment of opening stocks for the budget year
- analysis of present year's turnover, volume sales and stock position
- forecast output for each plant by product.

4.20 Budget pro-formas show

- Sheet 1 Stock Position
- 2 Sales Forecasts by manufactured products.

- 4.21 Our analysis indicates that sales forecasting only marginally influences the product volumes scheduled for production. These volumes are determined at plant level and dominated by previous performance.

Stock and Inventory Controls

- 4.22 The stock reporting system in A. S. M. is based on a Kalamazoo record retained at District Office. This record contains data on:-

- product description
- quantity
- value

and is based on a District Warehouse with details of the transactions for each shop within the District Administration.

- 4.23 Details of transactions to the stock ledgers are submitted to Head Office twice a year or as requested. Sales and deliveries of stock are posted to Accounts at A. S. M. Head Office monthly.
- 4.24 Using manual and computer based outputs a number of sales analyses reports are produced from sales, deliveries and stock information. These, however, are not very comprehensive.
- 4.25 A detailed product analysis was carried out for Eregli, Manisa and Bergama factories (Table 4.1) and comparisons made between volumes relating to :-

- District/Retail Shop Requests
- A. S. M. Budget
- Protocol Budget
- Volume Produced

EREGLI FACTORY

TABLE 4.1

SUPPLY - MANUFACTURE - DEMAND AS COMPARED WITH BUDGET UP TO 31-7-80

Oct. Records

'000s Metres

Code	District Shop Request	Budget		Produced	Sold in Previous Years	No. of Years	Stock Record IBM
		ASM	Protocol				
228	492	9	Nil	Nil	59	2	2
231	645	480	700	14	250-400	5	Nil
335	485	51	Nil	Nil	40	2	Nil
370	1688	1950	2825	724	1110-2000	7	195 -
372	2, 328	2950	1500	883	2300-4000	7	200
378	1216	4051	300	Nil	250-1100	7	2 -
410	349	200	200	119	150	5	Nil
4102	Nil	Nil	Nil	Nil	90	1	22
517	165	190	100	151	100-180	7	208
518	226	11	Nil	10	30-50	4	Nil
523	360	25	Nil	12	35-40	4	8
527	66	18	30	0. 5	14	2	16
548	654	43	80	43	120	2	5
755	542	100	500	76	180-220	4	52
759	279	Nil	Nil	Nil	40	2	Nil
4904	627	300	Nil	52	130-170	2	15
4905	18	35	40	5	20	2	Nil
328	96	60	50	41	40-60	4	Nil
3286	60	45	20	15	60	4	Nil
3287	40	45	53	13	22	2	Nil
758	65	20	35	Nil	45	5	Nil

EREGLI FACTORY

TABLE 4.1 cont.

Code	District Shop Request	Budget		Produced	Sold in Previous Years	No. of Years	Stock Record IBM
		ASM	Protocol				
7584	19	20	20	Nil	19	4	Nil
324	Nil	16	Nil	Nil	50	3	1
385	Nil	185	212	Nil	350-500	7	31
388	12	Nil	Nil	Nil	300-380	7	Nil
411	Nil	Nil	Nil	Nil	16-17	5	1
471	Nil	Nil	Nil	Nil	40-360	7	3
490	99	Nil	Nil	2	130-160	7	Nil
519	Nil	Nil	Nil	Nil	14-20	2	1.4
522	111	Nil	Nil	1.3	45-50	4	6
748	Nil	Nil	Nil	Nil	30-80	5	1
774	Nil	8.2	Nil	Nil	25	2	5
775	Nil	13	Nil	Nil	24	2	5
840-60	Nil	Nil	Nil	Nil	61-96	2-4	Nil
750-3234	Nil	Nil	Nil	Nil	61-96	2-4	Nil
3284	20	0-5	Nil	Nil	8	1	Nil
239	118	73	Nil	Nil	Nil	Nil	Nil
359/396	Nil	Nil	Nil	8	Nil	Nil	Nil
376-3764	Nil	900	5	16	Nil	Nil	Nil

APPRAISAL ON SUPPLY - MANUFACTURE - DEMAND COMPARED WITH BUDGETS UP TO 31-7-80

Oct. Records

'000's Metres

Code	District Shop Request	Budget		Produced	Sold in Previous Years	No. of Years	Stock Record
		ASM	Protocol				
347	445	400	320	647	737	1	21
426	0.3	85	60	290	116	2	49
551	10	56	Nil	Nil	126	1	20
641	370	260	300	Nil	131	1	0.2
770	441	160	160	68	149	2	24
11127	576	370	370	173	160-370	7	68
11130	Nil	15	Nil	Nil	80-190	7	11
11159	206	150	250	580	500-780	6	445
559	122	200	180	339	170	1	325
482	364	350	415	134	1	1	33
485	247	580	635	210	3	1	105
486	331	275	310	5	Nil	Nil	-
286	52	Nil	Nil	Nil	Nil	Nil	40
785	145	22	Nil	2	20	1	4
484	77	46	Nil	Nil	17	1	24
642	99	42	Nil	Nil	21	1	9
550	25	Nil	Nil	Nil	4	1	6
367	85	Nil	Nil	Nil	Nil	Nil	345

TABLE 4.1 cont.

BERGAMA FACTORY

APPRAISAL ON SUPPLY - MANUFACTURE - DEMAND COMPARED WITH BUDGET UP TO 31-7-80

Oct. Records

Code	District Shop Request	Budget		Produced	Sold in Previous Years	No. of Years	Stock Record
		ASM	Protocol				
430	350	24			151	7	13
607	316	17	250		200-320	7	10
756	560	310	300	90	240	7	14
990	-	Nil	88		10-70	7	3
996	-				30-130	7	0.3
991	-				20-50	6	-
462	-				6-8	7	0.1
705	297	250	300	14	50-380	7	18
981	158	-			16	1	0.7
556	-	60	Nil				
760	-	1667	Nil				
901	-	Nil	50				

- Volume Sold in Previous Years
- I. B. M. Stock Records

4.26 A further comprehensive analysis was made for the products with large volume sales for all the factories. Over 200 products were reviewed and assessments made of the volumes

- in stock at January 1980 and June 1980
- 6 month January-June sales volume
- budgets

(Sample analyses Table 4.2)

4.27 This investigation into stock and sales relationships was extended to cover cotton based products for each shop within each District. For each outlet data was collected for :

- 6 month cotton sales in metres: Jan-June 1980
- Cotton stocks : June 1980

While this data was being collected, the ratio of cotton sales turnover to total shop turnover was also identified. Sample analyses are shown in Table 4.3.

Management Controls

4.28 The main management information and control procedures are generated from a small number of basic source documents:

- Product consignment note
- Stock movement records
- Sales invoice receipts and bank payments
- Physical stock take
- Accounts ledger entries for payments/purchases

LARGE VOLUME SALES - JANUARY - JUNE SALES + STOCKS

Units Only 1. Denotes - Count - Items
 2. " - Metric-Mtrs.
 3. " - Square Mtrs. 000's

Factory Code	Type	Stock		Sales	Budget	Remarks				
		Jan-80	June-80	5mths	12mths	A	B	C	D	
<u>Maras - 1</u>										
3041	Plain Bed Sheet	21.4	6.3	24.4	60.0					
3042		11.9	1.4	20.7	50.0					
3044	Plain Pillow case	94.3	88.9	30.7	100.0					
3068	Printed Bed Sheet	15.2	3.6	11.7	35.0					
3069		17.7	3.4	14.3	17.0					
3071		16.3	11.8	23.5	80.0					
3072		13.1	8.1	34.0	60.0					
3080	Printed Pillow Case	54.7	48.8	58.5	100.0					
3185	Printed Bed Set Cover for Quilt and Pillow Case	12.4	7.6	36.4	97.2					
Sub-Total		257	175	251	599.2	31	13	7		0
Gross Total		323	209	292	835.4					
<u>Eregli - 1</u>										
7584	Striped Pillow Case	26.3	20.2	6.1	20.0					x Item Unscheduled
7504	" " "	13.4	6.0	7.5	-x-					
1328		25.0	44.5	22.4	60.0					
3285	Printed Bed Sheet	5.4	11.0	7.3	40.0					
3287	Quilt Cover and Pillow Case	1.8	2.2	12.8	45.0					
4905	Printed Table Cloth	8.3	5.8	9.3	35.0					
3286	Printed Pillow Case	28.7	27.2	27.0	45.0					
Sub-Total		109	89	118	245.0	28	9	14		8
Gross Total		123	138	95	265.9					

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TABLE 4.2

Factory Code	Type	Stock		Sales	Budget	Remarks			
		Jan-80	June-80			A	B	C	D
<u>Bakirkoy - 2</u>									
145	Grey Cloth	6.0	246.8	42.5	450				
303		0.4	60.1	11.0	x				
308	Bleached	0.1	108.0	178.6	1000				
313		11.0	83.6	53.4	x				
353	Bleached	-	85.8	213.3	x				
378	Book Muslin	-	37.7	205.9	625				
409	Lux. Flannel	0.9	57.1	64.7	400				
503	-	25.1	18.3	6.8	x				
504	-	18.4	14.4	4.0	x				
516	Muslin	9.7	135.3	713.5	1300				
630	Suit Linings Single Colour	3.8	444.3	247.2	600				
902	-	12.4	7.9	4.4	x				
952	-	7.6	5.8	82.2	x				
981	Thick Heavy Duty	2.5	125.8	39.9	250				
982	-	5.3	30.0	57.3	x				
Sub Total		106	1462	1924	4631	32	16	8	6
Gross Total		133	1517	1953	4942				
<u>Eregli - 2</u>									
228	Curtains	9.5	2.1	7.4	10				
231	Satin	24.3	2.0	34.5	490				
324	Printed Cloth	16.1	9.5	6.6	16				
335	Bleached	4.5	0.8	5.4	6				
370	"	300.5	194.9	555.4	1650				
372	"	229.5	233.9	835.0	2950				
378	Muslin	10.8	2.4	8.4	200				
385	Mercerized	36.3	21.3	15.0	185				
410	Single Colour	28.9	26.3	69.3	200				
517	Single Colour Medium Wt.	45.7	208.6	106.6	100				
522	"	4.5	6.3	8.1	21				
523	Poplin	14.6	8.0	7.8	26				
548	"	5.9	5.0	12.6	45				
755	Crepe	48.0	37.3	42.3	100				
774	"	11.0	5.1	5.9	8				
775	"	10.4	5.2	5.1	175				
4904	-	25.6	15.4	106.8	306				
Sub Total		819	787	1834	6482	42	12	14	6
Total		906	852	1853	6522				

Factory Code	Type	Stock		Sales	Budget	Remarks			
		Jan-80	June-80	5mths	12mths	A	B	C	D
<u>Bergama - 1</u>									
13705	Pyjamas	36.9	26.6	44.5					
15440	-	-	7.7	7.5					
15556	Shirts Plain Long Sleeved	11.6	44.2	45.0					
15558	Shirts. Checked. Pattern Long	5.5	3.3	8.0					
15559	Shirts Striped	6.9	12.9	15.1					
15705	Shirts. Long. Fancy	35.7	65.7	75.8					
15980	Shirts. Long. Fancy	24.8	29.3	23.2					
159.81	Shirts. Printed. Fancy. Long.	17.0	11.4	12.9					
16556	Shirts. Short Sleeves.	-	53.2	7.7					
16557	Shirts. Printed. Short Sleeves	-	8.2	1.3					
16981	Shirts. Printed. Fancy. Short Sleeves.	12.4	4.4	8.7					
16984	Shirts. Striped. Short Sleeves	9.7	7.7	2.2					
16901	Shirts. Check. Short Sleeves	5.0	5.0	3.0					
20430	Pyjamas	16.1	12.5	18.8					
22063	-	-	18.3	15.0					
30432	School girl black aprons.	21.0	19.3	1.7					
3243.	School boys black aprons.	10.9	10.0	1.6					
Sub-Total		214	336	293	Excluded	94	37	35	23
Gross Total		264	389	335					
<u>Manisa-1</u>									
Gross Total			3.3	-		9	0	0	9
<u>Izmir - 1</u>									
(Konf)	Pyjamas. Winter	8.3	5.4	12.3					
01286	Pyjamas. Winter	8.3	5.4	12.3					
21236	Pyjamas. Boys. Flannel	4.8	3.3	1.6					
30236	Pyjamas. Flannel. Women.	4.8	5.7	4.8					
31236	Pyjamas. Flannel. Girls	7.1	7.3	2.2					
Sub-Total		26	22	21		17	4	11	10
Gross Total		26	30	21					

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TABLE 4.2 cont.

Code		Jan-80	June-80
Bergama - 2			
430	Poplin	21.2	13.2
607	Opal	16.9	10.3
705	Poplin	9.9	17.8
756	Satin colour single	40.4	144.5
Sub-Total		88	185
Gross Total		95	190
Manisa - 2			
347	Bleached	159	21
367	"	-	245
426	Polyester B. J.	86	49
432	Alpaca	7	33
484	Crepe	46	25
485	Corded	21	105
551	Poplin	54	20
554	"	354	325
642	Heavy Blazor Single Black	39	9
770	Curtains	33	24
785	Satin	21	4
11043	Trousers	14	6
11127	Curtains	42	69
11130	Polyester Suits	16	11
11154	Trench coat	347	446
11158	-	-	9
Sub-Total		1251	1501
Gross Total		1270	1573

5 mths	12 mths	A	B	C	D
8.0	24				
8.2	17				
17.4	190				
77.5	310				
114	541	12	2	6	4
114	635				
141	400	x Item unscheduled			
181	x				
67	84				
6	350;				
21	45				
22	500				
34	95				
339	550				
29	42				
48	160				
17	21				
9	13				
145	370				
5	14				
359	500				
17	x				
1440	3131	39	13	14	9
1451	3645				

T

4.2 cont.

<u>Isparta - 2</u>	<u>Carpets</u>									
60405	Hand	1.4	1.8	1.4						
60422	Made	3.8	4.2	5.4						
60423		5.7	8.1	6.6						
60424	3.9	3.9	3.5	4.8						
67200		6.6	2.6	6.8						
Sub-Total		24	22	28	Excluded		24	17	5	1
Gross Total		29	27	32						
<u>Kahramanmaras</u>										
00229	Bleached	7.1	2.3	4.8	x					Item unscheduled
00318	Bleached	183.5	523.4	407.3	1650					
00325	"	304.6	695.6	667.3	3500					
Sub-Total		495	1221	1070			10	2	4	4
Gross Total		499	1224	1089	5164					
<u>Eskisehir</u>										
205	Printed	257.9	274.4	1316	2450					Items Unscheduled
212	"	7.5	166.3	46.3	325					
213	"	48.0	94.2	179.1	500					
214	"	208.9	171.4	327.2	1130					
217	"	27.4	82.9	192.2	100					
218	Polyester/satin printed	6.5	44.1	64.8	225					
220	Printed	-	71.6	42.2	x					
224	"	-	39.7	37.3	x					
225	"	88.7	58.0	31.4	87					
259	Half Pawama Printed	98.5	114.6	342.7	850					
281	Printed	-	35.5	10.5	x					
283	"	330.9	66.9	521.8	750					
287	Pyjamas	24.5	6.6	19.7	x					
290	Poplin Printed	660.0	1460.5	3097.3	7800					
293	Heavy Printed	322.2	481.8	1316.1	2750					
298	Satin Printed	-	86.1	26.4	x					
722	Satin for covers	153.7	107.7	481.5	1500					
262	" "	110.2	18.8 -	298.3 x	790					Incorrect Excluded.
Sub- Total		2744	3362	8352	19247		28	18	7	3
Gross Total		2751	3366	8354	19392					

TABLE 4.2 Cont.

JUNE 190 HALF YEAR TRADING BY DISTRICT / RETAIL SHOP
COTTON-SALES/ STOCK: COTTON AS % GROSS TURNOVER

B - Cotton Sales MTR x 000
 C - Cotton Sales % Gross Turnover

Adana District	A	B	C		A	B	C		A	B	C
Adana	31	371	69.03	Osmaniye	25	226	81.60	Anamur	36	133	81.65
Icel	34	398	67.67	Kadirli	48	142	83.91	Dortyol	39	176	77.95
Kurukopru	28	316	88.04	Iskenderun	28	294	76.20	Gulnar	54	63	76.59
Antakya	46	297	79.81	Kirikhan	38	178	84.57	Reyhanli	40	95	76.96
Ceyhan	51	182	76.68	Kozan	48	152	82.06				
Tarsus	17	246	76.96	Erdemli	12	136	83.06		686	3559	77.37
Silifke	43	139	87.57	Karatas	26	53	76.62				

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Erzurum District

Erzurum	38	347	53.40	Oltu	42	102	73.63	Kelkit	22	38	75.10
Erzincan	40	197	63.26	Cayirli	13	26	73.75	Marman	17	28	72.34
Agri (Kary)	62	81	72.23	Hinis	21	29	68.41	Ispir	49	29	74.88
Bayburt	34	75	72.82	Tortum	23	28	69.09	Eleskirt	28	32	65.51
Hasankale	29	32	62.68	Senkaya	31	27	74.57	Cat	21	17	68.03
Horasan	37	39	66.38	Tercan	23	26	74.24				
Askale	68	48	70.84	Siran	28	39	76.33				
									625	1242	60.33

TABLE 4.3 cont.

Tekirdag District					A	B	C		A	B	C
Edirne	31	80	47.54	Uzunkopru	23	64	59.86	Ipsala	24	32	66.25
Kirklareli	36	93	52.63	Luleburgaz	18	47	70.42	Hayrabolu	29	45	68.79
Tekirdag	38	96	55.42	Kesan	14	42	60.37	Pinarhisar	14	37	68.64
Corlu	20	67	55.93	Gelibolu	4	75	58.05	Muratli	23	36	60.81
Babaeski	12	32	56.98	Malkara	10	52	64.71				
									296	731	38.72
Trabzon	176	312	67.91	Of	98	39	75.47	Findikli	43	38	73.92
Rize	35	330	76.90	Arhavi	25	68	72.78	Caykara	16	26	83.42
Gumushane	37	42	74.48	Hopa	30	40	72.54	Savsat	19	38	74.58
Artvin	46	87	61.17	Ardesen	32	38	71.95	Surmene	10	39	78.07
Vakfikebir	16	44	66.86	Akcaabat	6	61	76.06	Tonya	26	27	66.20
Gorele	19	43	74.71	Borcka	35	35	74.17	Macka	11	44	82.34
Tirebolu	15	39	80.34	Eynesil	21	33	73.21	Besikduzu	26	37	80.16
Pazar	23	39	78.63	Arakli	8	46	80.39	Kalkandere	10	38	73.46
Cayeli	27	37	74.77	Espiye	9	45	80.15				
									572	1666	72.81
Van	205	261	51.89	Cukurca	11	11	24.37	Bulanik	21	41	59.97
Bitlis	23	56	57.60	Semdinli	29	9	28.14	Malazgirt	14	21	66.30
Mus	3	56	57.57	Beytusseban	6	14	28.34	Gevas	19	24	61.40
Hakkari	24	33	40.57	Baskale	17	31	58.68	Ahlat	16	37	70.25
Tatvan	34	53	52.19	Yuksekoa	28	21	33.41	Patnos	33	28	70.44
Ercis	21	56	60.57	Ozalp	4	25	57.92		23	25	57.09
									529	828	52.88

Nazilli District											
	A	B	C		A	B	C		A	B	C
Nazilli	28	232	70.91	Soke	40	166	73.60	Dalaman	29	44	79.25
Denizli	114	299	70.30	Bayindir	14	52	72.38	Guney	27	50	81.31
Aydin	422	228	67.01	Kusadasi	59	80	47.86	Sarigol	40	47	81.28
Mugla	26	184	76.85	Fethiye	45	144	79.84	Buldan	28	39	67.14
Odemis	38	108	80.50	Ortaca	25	54	69.42	Cal	19	63	84.61
Tire	89	107	72.71	Torbali	20	60	78.29	Cina	23	81	81.90
Milas	32	169	74.61	Marmaris	27	96	68.43	Koycegiz	27	53	77.77

1170 2353 71.99

Samsun District

Samsun	55	252	58.30	Fatsa	16	58	76.49	Golkoy	34	34	80.61
Amasya	33	110	64.65	Terme	27	68	64.15	Ladik	42	48	69.10
Giresun	66	128	58.91	Vezirkopru	17	50	73.50	Persembe	38	71	57.27
Ordu	45	108	21.75	Suluova	36	54	65.80	Gerze	19	65	88.84
Sinop	47	92	53.57	Alacam	15	42	63.49	Aybasti	24	42	75.76
Carsamba	23	74	70.44	Havza	44	58	67.70	Tasova	48	57	79.99
Bafra	25	72	78.62	Gumushacikoy	27	42	68.96	Dereli	21	32	85.39
Merzifon	40	68	68.28	Ayancik	52	55	83.36	Goynucek	56	14	70.21
Boyabat	67	68	75.85	Bulancak	34	50	60.47				
Unye	30	70	56.50	Osmancik	53	68	81.98				

1032 2041 70.61

Sivas District

Sivas	40	306	66.36	Sebinkarahisar	27	25	75.24	Akdagmadeni	28	36	71.07
Tokat	38	189	67.10	Erbaa	41	71	76.53	Divrigi	42	52	62.38
Yozgat	54	58	53.80	Sorgun	24	38	75.17	Cekerek	36	25	80.74
Zile	50	78	74.72	Zara	49	52	70.45	Sefaati	31	37	81.71
Turhal	27	65	81.72	Susehri	33	32	80.31	Alucra	39	24	89.01
Yerkoy	36	36	67.93	Resadiye	24	33	79.47	Gurun	24	22	75.11
Niksar	37	50	74.68	Mesudiye	16	25	73.30				

656 1254 70.07

These documents are processed and consolidated to provide management summaries and analysis reports.

4.29 Our investigations indicated that it is taking currently over 3 months to process these documents. This delay is caused by a number of distinct deficiencies :

- inadequate data processing capability
- incomplete and late returns from districts and factories
- absence of a standard product classification and coding system between Sumerbank and A. S. M.

Product Classification and Coding

4.30 The lack of a standard coding system complicates the tracking of products from manufacturing through all the distribution and storage stages to purchases in the retail outlet. The system presently used by A. S. M. is based on product codes which are identified for ordering, distribution, accounting and inventory purposes.

4.31 There is no conformity in coding between manufacturers and A. S. M. The codes used by A. S. M. do not have a logical structure in relation to product type, colour, style, etc.

Data Processing

4.32 The hardware for the A. S. M's computer system comprises :

- I. B. M. 360 - Model 20 - 8K
- Printer
- Card Sorting
- 8 Punch/Verifiers

4.33 The system is punched card orientated and requires considerable storage to maintain essential annual data for accounts and sales. System software is well produced and robust. The main operating systems and routines include :-

- Account records - ledgers - P/L statements
- Sales, stocks receipts by District
- Part payroll, Istanbul District
- Quarterly reports on profit, sales and reconciliations
- Year end physical inventory reports

Daily Compositions

1. Punch fee files - Accounting Office
2. Debit and credit summations
3. Error correction/amendments
4. Fee sort by account number/date

Monthly Balance

1. All compositions for current month and turnover last month
2. Produce turnover listing and detailed balance name cards
3. Provide turnover and ledger name cards
4. Create ledger, total balances and list.

Monthly Sales

1. Punch sales summary tables received from districts
2. Contract sort - shop/factory type
3. Provide cards for definite sales, returns, adjustments and turnover from previous month
4. Produce sales definite listing
5. Compare statement of account with definite sales list.

Shipping Invoices

1. Punch invoices received from factories
2. Draw invoice shipping programme
3. Produce invoice shipping list.

Transport and Insurance

1. Series drawn by invoicing program
2. Draw out list of transport and insurance

Goods Received

1. Punching of receipt payrolls collected from District Office
2. Sort into client/factory/type no. /shop and list
3. Enter transport and insurance charges

Sales Table

1. Punch all sales tables from accounts file
2. Sort - type of selling/group of product/unit
3. Produce sales table list
4. Sort turnover by group of product
5. Produce sales table summary lists

Accounts Excess and Deficits

1. Punch excess/deficit receipts to payrolls from shop
2. Sort by shop - by factory - by type
3. Produce excess and deficit summary program

Intermediate Country Product Movements

1. Punch files received from shops
2. Sort - Shop/factory
3. Price punch
4. Sort - factory/type/main shop/section

Monthly Goods Movement Table

1. Sales turnover of month - goods withdrawn
2. All shippings listed this month
3. Stock cards turned out last year
4. Sort unit/factory/type no.
5. Drawing by goods program, price/metre/m²/kg

End of Year Consolidations

Conclusions

Organisation and Business Management

- 4.34 There are a number of structural shortcomings which adversely effect the efficient execution of A. S. M. responsibilities. These fall into two main areas :
- relationships between A. S. M. and C. T. D.
 - the organisation of A. S. M.
- 4.35 Because A. S. M. turnover is only 72% provided by C. T. D. products, A. S. M. has to develop systems of planning and control and an organisation which must cater for its own needs although clearly relationships with C. T. D. must be of fundamental importance.
- 4.36 The programmed priority for official sales requirements adversely interfere with A. S. M. retail marketing, stock management and scheduled distribution to shops.
- 4.37 Product planning, development and purchasing policies are severely restricted by the dominance of the manufacturing organisation. The supply side of the equation appears stronger than the sales and marketing function.
- 4.38 An integrated philosophy for modernisation requires a careful study of the strategic objectives and options of the manufacturing and selling organisations as well as coordination of operating systems for mutual benefit.
- 4.39 The internal structure of A. S. M. shows fundamental weaknesses, particularly on the marketing side, with 29 executives reporting to the Assistant M. D. Marketing. This is clearly an unwieldy management situation. The Assistant Managing Director Marketing cannot reasonably monitor and control the District operations through 23 managers even if perfect management

and control systems existed. District visits are seldom made even once a year and shops even less frequently. No regular pattern of District meetings takes place.

- 4.40 Coupled with, and probably caused by this structure is a lack of clear definition of responsibilities and roles for the various managers leading to limited authority. Man management is ineffective.
- 4.41 Because of the geographical spread and range of products in both the manufacturing and selling areas, communications and forward planning are of paramount importance. The long absence of a Planning Manager and the considerable diminution of staff in the Planning Department must have caused serious difficulties for efficient management and extra workload on the Assistant Managing Director Marketing. The Administration function is more adequately staffed than the line operations.
- 4.42 The A. S. M. organisation at District level and below also demonstrates similar problems to those which exist between Assistant Managing Director Marketing and the 29 executives. It must be difficult for District Managers to control up to 20 Branch Managers effectively.
- 4.43 With operations spanning a large geographical area and a wide product range, an overloaded management structure and underdeveloped systems, it is not surprising that serious shortcomings in planning and controlling the A. S. M. operation arise.
- 4.44 The formulation of a coherent set of marketing policies is virtually impossible when :
- product availability and development is mainly determined by manufacturing functions
 - essential planning and marketing information is of poor quality or non-existent

- senior management has little time, because of running day-to-day operations, to create and communicate longer term strategies and tactics.

- 4.45 In addition there are problems due to lack of motivation and limited technical competence in the staff which mitigates against the critical review of business operations necessary for the development of new ideas and systems. Career development and training is poor. Individual progression is inhibited by the manner in which appointments are made.
- 4.46 This lack of motivation can be explained by the general attitude that 'nothing much can be done to change things'. There is a common complaint that shops have little say in what products they are to receive. Districts complain about the lack of support given to their requests for adequate stocks of the right products.
- 4.47 The detailed analysis of sales, production and stock data demonstrated clearly the lack of logical correspondence and balance at factory, District and shop level which supports these generally held views. There appears little attempt to produce to the real needs of the market and this in itself is enough to demotivate marketing and sales personnel.
- 4.48 There is a prime area for improvement in the supply of goods to Districts and Shops :
- on time to meet seasonal demand
 - in good condition
 - of the correct required product description
- 4.49 There is evidence that transport difficulties have a major influence in determining whether stocks will be delivered to Districts and Shops or not. This manifests itself in considerable out of stock positions for the more inaccessible locations. This makes them appear less profitable than the market situation would suggest.

4.50 The poor level of motivation, planning and control can be seen in the two District Offices and Shops which were inspected, in Istanbul and Bursa. These showed :

- inefficient utilisation of space
- considerable stocks of products which were showing signs of deterioration due to lengthy storage
- significant volumes of shoes of out of date design and materials
- expensive carpets with little protection from dust and damage and some being stored folded
- cotton and woollen materials stored without adequate protection
- most requests for particular goods and materials being met by supplying the 'nearest equivalent'
- little confidence is expressed by District Managers in the ability of A. S. M. Head Office to provide overall authority in controlling its business
- delays in the recruitment of replacements and staff meant that supervisory and office staff were filling-in for manual labour to help maintain deliveries. Operational management consequently suffered.
- window displays were very unattractive and did not promote the variety of products available
- displays in the shops were very dull.

Management Controls

- 4.51 Examination of the A. S. M. organisation shows that Systems Design and Development does not exist as an identifiable activity. With an operation of the size and diversity of S. A. S. M. it would be expected that systems management would receive more serious attention.
- 4.52 The existing data processing service is inadequate for A. S. M.'s needs. Monthly information is produced some four months after the period being processed. Annual figures are not complete until 10 months after year end.
- 4.53 Even when reports are nominally produced they are often incomplete because of delays in receipt of returns from Districts. It is difficult to compare trends, products, areas, etc., because of incompatible data.
- 4.54 The information is usually too late to allow management to take positive action to correct for surpluses or shortages of products between Districts or Shops.
- 4.55 In effect the major contribution which an effective information system can make to product and business management is not being provided to A. S. M. staff.

Product Classification and Coding

- 4.56 The lack of a coherent, structured coding system within A. S. M. and between A. S. M. and its suppliers is a major shortcoming. This must be overcome before any serious attempt can be made to improve information processing.

Data Processing

- 4.57 The data processing capacity of A. S. M. cannot meet the real needs of the operation. It is expensive to operate and lacks the facilities which can be made available, to process and sort information quickly to provide essential statistical data in a fast-moving product environment.

Financial Reporting System

- 4.58 The existing reporting system does not produce trading information fast enough to be a basis for decision making.
- 4.59 Reports are often incomplete because returns are not received in time to be included.
- 4.60 Rapidly changing prices make comparison and control more difficult.
- 4.61 Valuation of inventory during inflation is difficult. Inter company profit included in ASM inventory bought from associated companies is difficult to calculate accurately.
- 4.62 Inter company accounts with associated companies are difficult to manage as many entries are outside the control of ASM.
- 4.63 Balance Sheet information is often too late to be useful for company management.
- 4.64 Comprehensive timetables for the preparation of monthly accounts with responsibilities clearly defined are not utilised.
- 4.65 Inflation reduces the value of accounts prepared on an historical basis.

Budgeting

- 4.66 Existing budget procedures are largely based on a retrospective analysis of historical results and an estimate of the remainder of the current year rather than an appraisal of future prospects.
- 4.67 Up to date information on sales by product is scarce and often statistics are a whole season late.

- 4.68 Liaison with the manufacturing organisations tends to give a budget based on what can be produced and not on what can be sold (i.e. what the customer wants).
- 4.69 The assignment of responsibility for performance is difficult when that performance is influenced by factors outside the manager's control.
- 4.70 The annual budget is not sufficiently integrated into long or short term plans.
- 4.71 A diagram of the budgeting process within ASM is included as Figure 4.2.

Inventory Planning, Control & Reporting

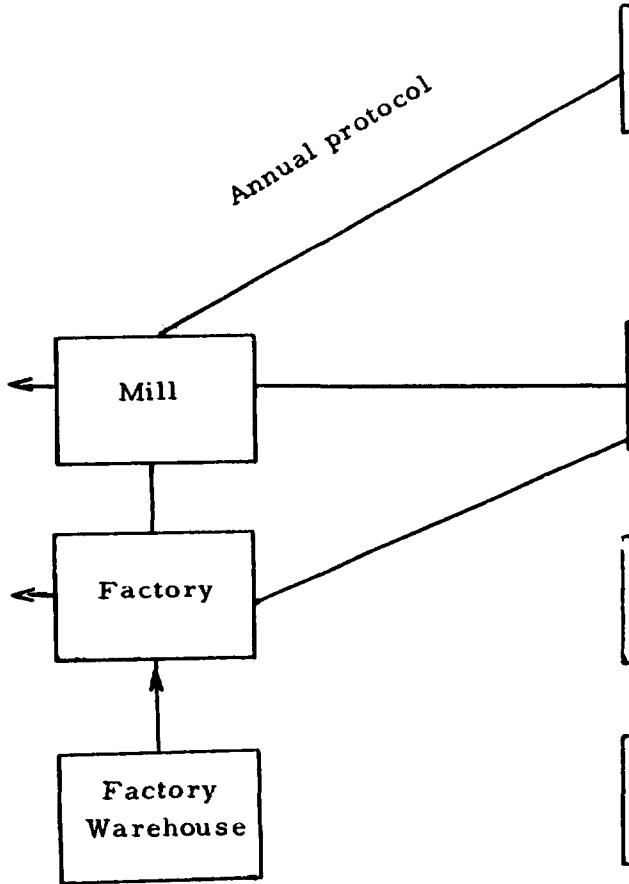
- 4.72 At the shops, popular lines are often unavailable (Table 4.4).
- 4.73 Shops hold high levels of slow selling goods.
- 4.74 Goods ordered are often delayed or never delivered.
- 4.75 Goods not ordered are delivered and accepted by ASM.
- 4.76 Transport facilities between warehouses and shops are sometimes inadequate. There can be up to five weeks delay between the product being available to ASM and its arrival at the point of sale.
- 4.77 Sales statistics by line are produced too late for efficient procurement (even up to one season late).

Production
Capacity
Materials

- 33 -

Production
Capacity
Garments

Production
Capacity
Garments



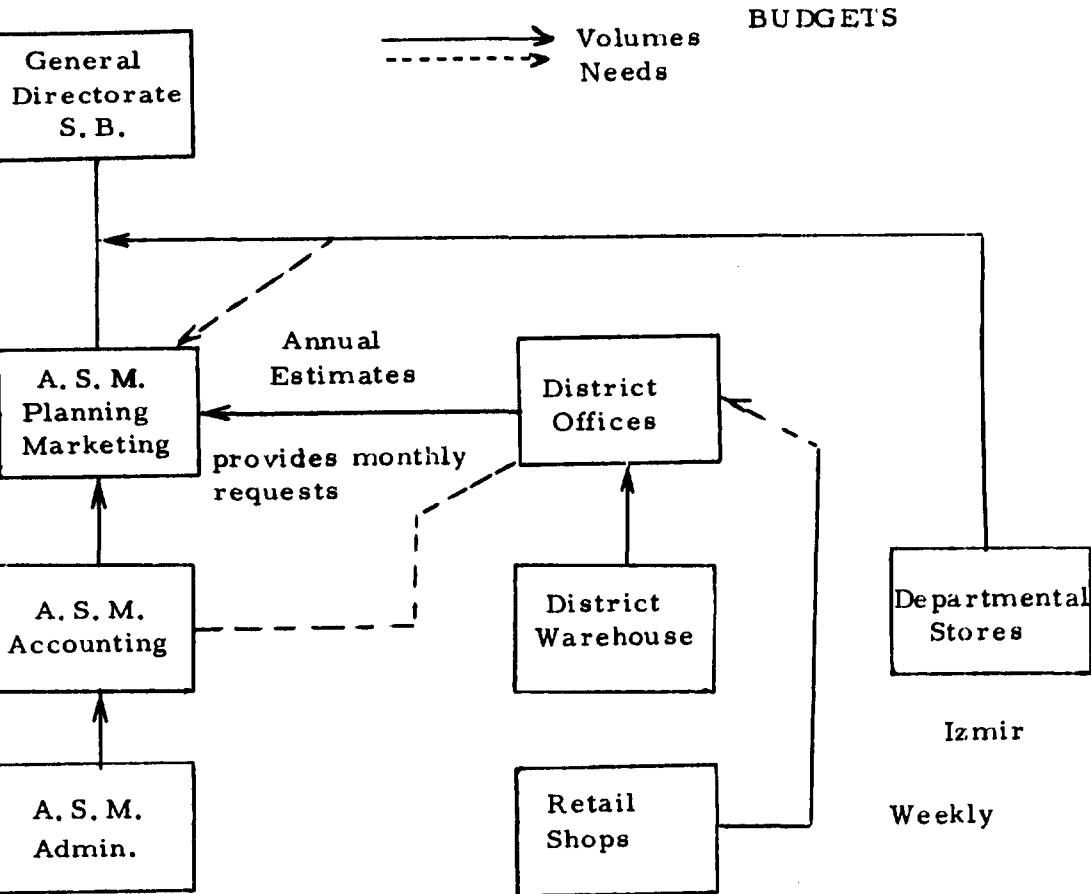


FIGURE 4.2

TABLE 4.4

District	MTR Cotton Stock	MTR Cotton Sales	Ratio	Ave. mths. Total Invoices	Business %
Adana	85690	3599450	0.19	107000	7.8
Ankara	1901112	4200654	0.45	176000	9.1
Balikesir	1154811	1520860	0.75	59000	3.2
Bursa	593273	1788148	0.33	72000	4.2
Diyarbakir	351966	1357725	0.26	151000	2.9
Elazig	314716	1354813	0.23	85000	2.9
Erzurum	625421	1242089	0.50	43000	2.6
Eskisehir	961380	1844448	0.52	68000	3.9
Gaziantep	664400	1277936	0.52	51000	2.7
Isparta	1022362	1393043	0.73	42000	2.9
Istanbul	1264806	6614970	0.19	319000	14.3
Izmir	1713491	3266561	0.52	106000	7.1
Kocaeli	1179703	1872539	0.36	74000	4.4
Kars	555973	746771	0.74	N. A.	1.6
Konya	2143925	1724643	1.25	69000	4.0
Kayseri	1265180	1598835	0.79	42000	3.4
Nazilli	1170147	2353241	0.50	70000	5.1
Samsun	1032275	2041205	0.51	45000	4.4
Sivas	656397	1253506	0.52	54000	2.7
Tekirdag	296225	730678	0.41	46000	1.5
Trabzon	571906	1665952	0.34	70000	3.5
Van	529899	827888	0.63	31000	1.7
Zonguldak	546859	2004165	0.27	N. A.	4.3
Totals	21203917	46326387	0.46		

N. B. The overall situation on stock is low at 2.07 weeks average throughout the districts and indicates too little product availability and a state of stock out on popular lines.

- 4.78 There appears to be no formal system of reviewing product lines to assess if their sales volume justifies their continued holding.
- 4.79 The absence of a uniform coding system makes detailed classification of stock difficult.
- 4.80 Recording of stock movements is delayed so that stock records are always accurate.
- 4.81 The ordering of large quantities of a product once or twice a year leads to high stockholdings or shortages.
- 4.82 Warehouses do not match their surplus stocks with shortages at other locations.

Recommendations

- 4.83 In order to achieve significant operational and financial benefits we recommend that ASM should proceed with the introduction of radical changes in the following main areas :
- Organisation structure including Sumerbank functions
 - Management information and control systems
 - Definitions of management responsibilities

Our investigations into these areas have been detailed in this chapter and in the interim reports issued earlier. There are also implications for ASM in other chapters of this report.

Organisation Structure

- 4.84 To realise firmer control of the marketing and distribution functions of ASM we recommend that a new level of geographical and functional management shall be introduced in the form of

seven new operational regions. The revised organisation chart for the regions is shown in Figure 4.3. The regions should be as follows :

1. North Marmara
2. Western
3. Central
4. Northern
5. Aegean
6. Southern
7. Eastern

4.85 The site of the regional office should be near to an airport for ease of communication.

4.86 Figure 4.4 shows how total turnover for ASM is split between these new regions.

Regional Office

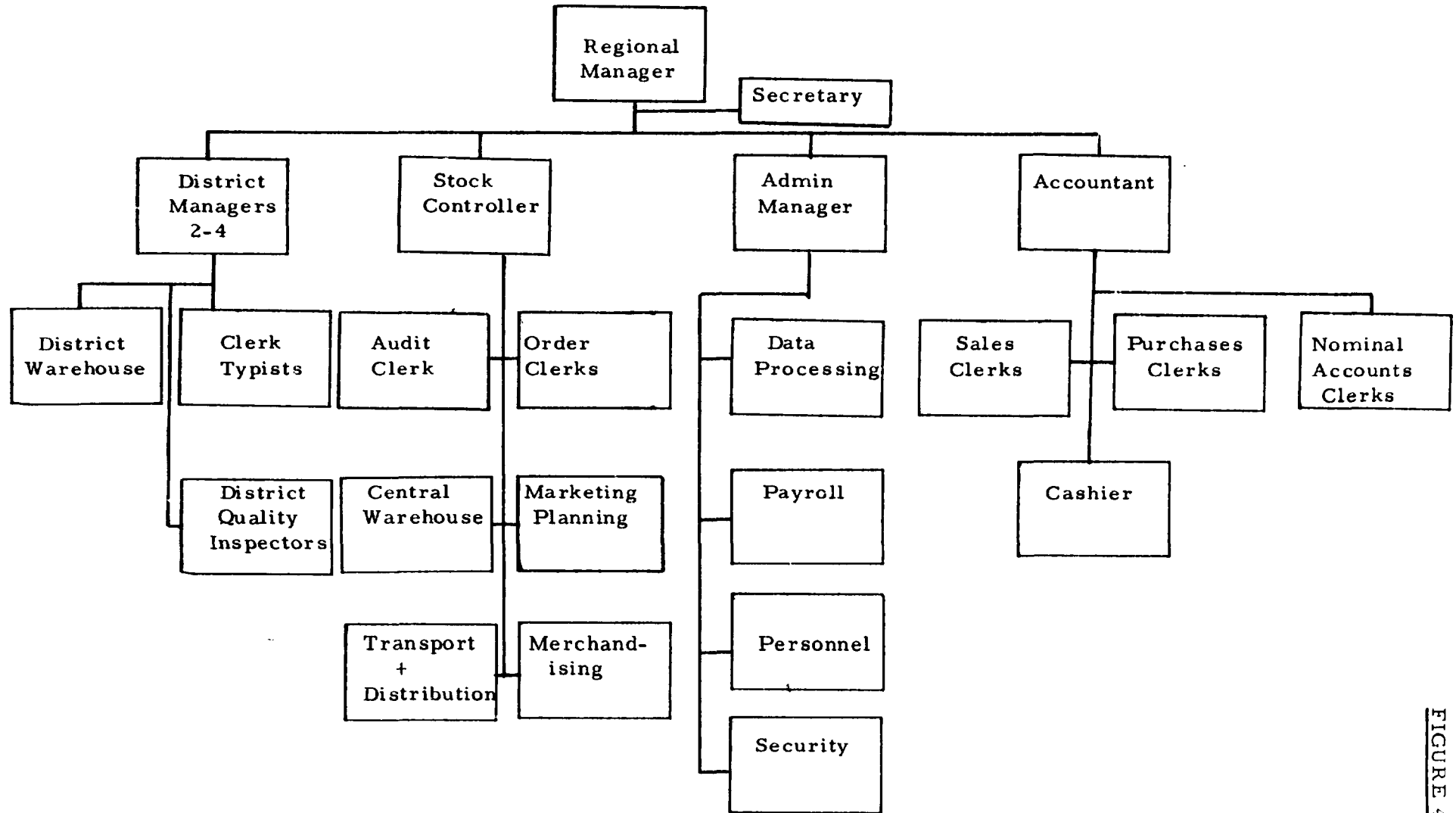
4.87 Each region should be conceived as a complete business unit with all the necessary resources, controls and authority.

4.88 We recommend that these regions should be developed in a two phase programme.

Phase 1 - incorporating comprehensive marketing responsibilities, including all responsibility for district operations. They would also assume a considerable proportion of ASM's routine head office activities.

Phase 2 - incorporating more general functions including liaison with manufacturing units and suppliers, purchasing, stock control, personnel and financial responsibilities.

PROPOSAL : A. S. M. REGIONAL OFFICES



PROPOSED REGIONS - EXISTING DISTRICTS

GROSS TURNOVER

1% Profit = 5.413 M. T. L.
 1% Revenue = 87.74 M. T. L.

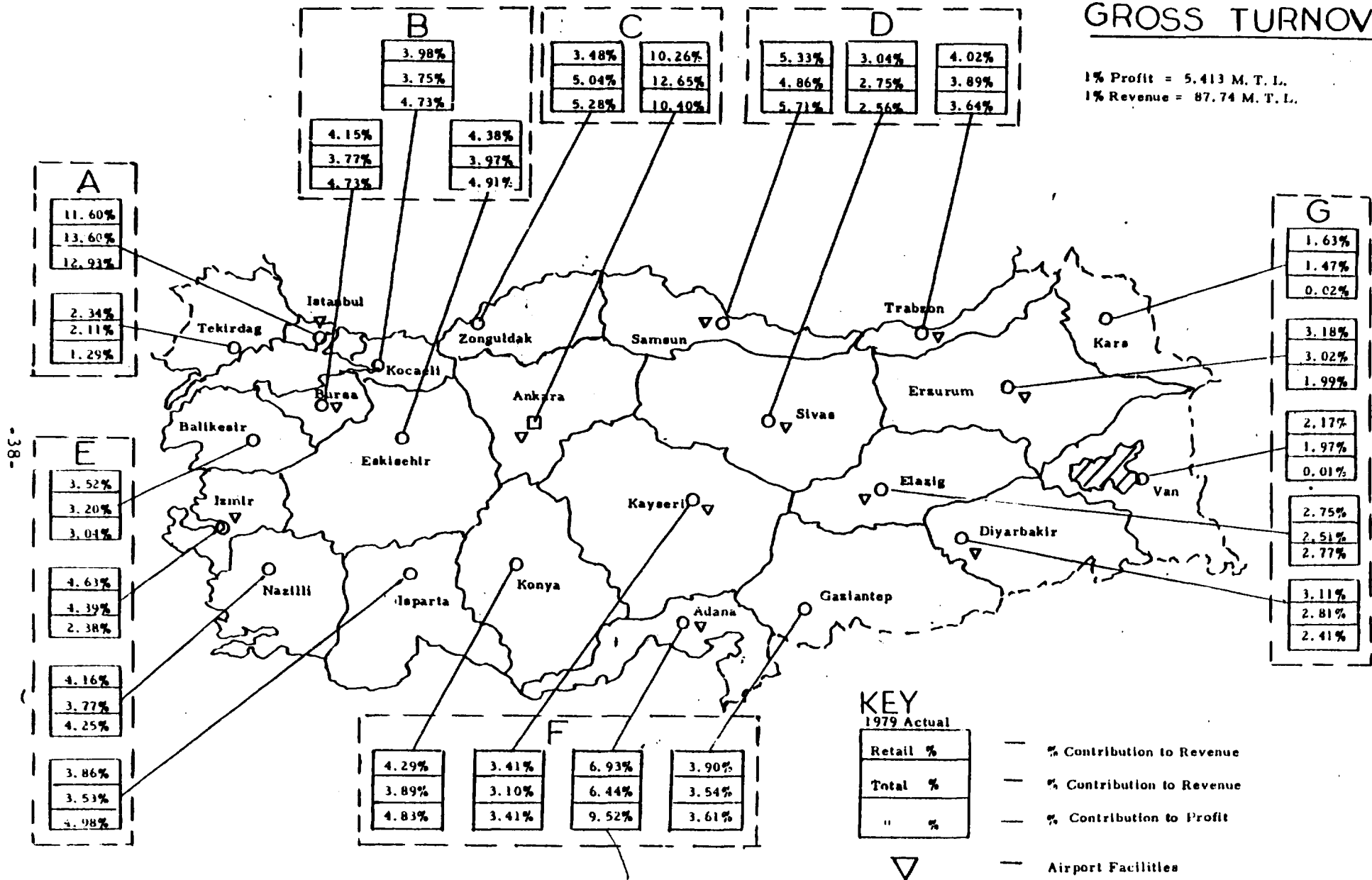
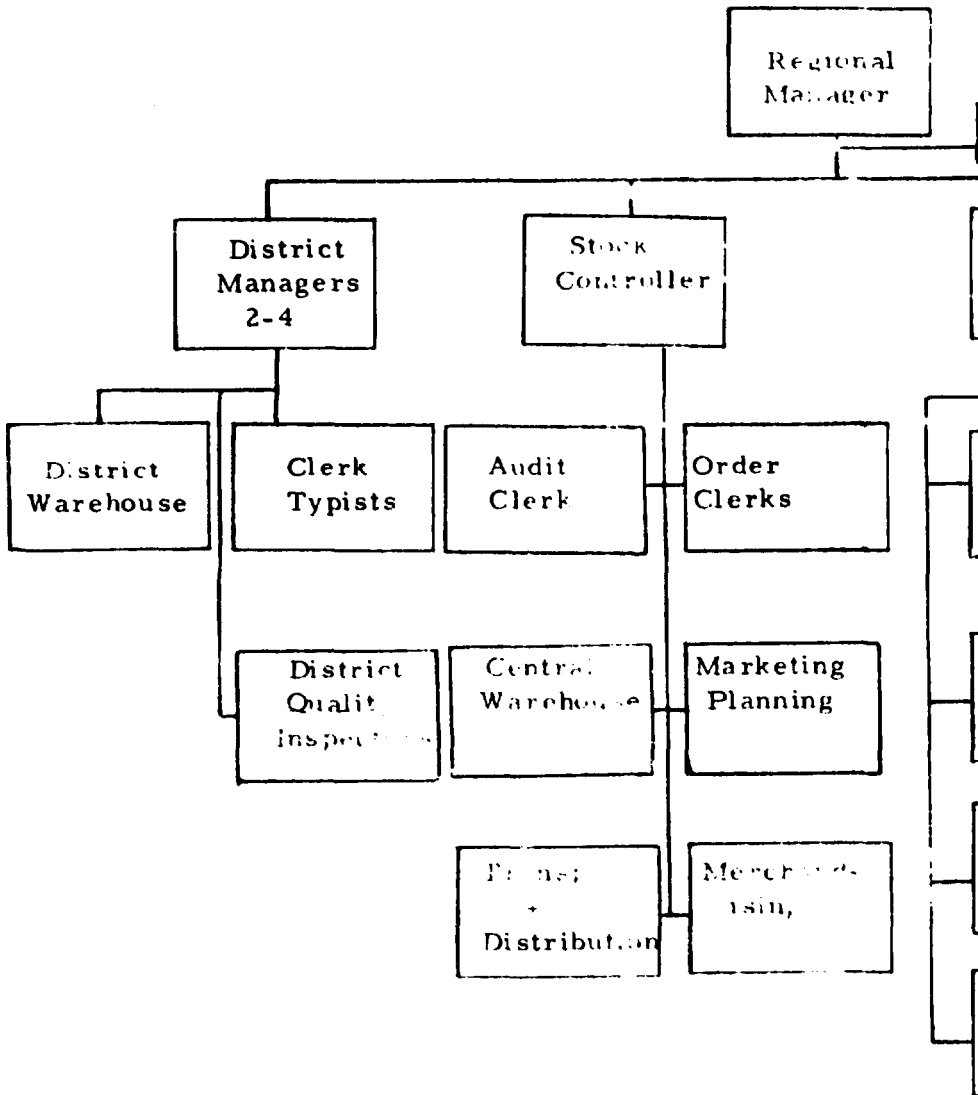


FIGURE 4.4

- 4.89 Because of the need to monitor the market potential at the retail level and in difficult geographical areas we recommend that the number of districts should be increased from 23 to 38.
- 4.90 In Appendix 4.2 we show the proposal allocations of retail shops into Regions and Districts. This indicates that District management should be responsible for between ten to eighteen units depending upon size and location.
- 4.91 We suggest that each unit should be visited on a four to six weekly basis.
- 4.92 Regional offices should be responsible eventually for all planning, marketing, stock control, warehousing, transport, personnel and financial functions for their region. We also recommend that each regional office should be equipped with its own computing facilities to capture locally generated data, check and process it, provide reports as necessary and produce output for transmission to the ASM Head office computer system.
- 4.93 Our proposals for the organisational structure of each Regional office are shown as Figure 4.5.

District Offices

- 4.94 The role of the District Office should remain unchanged except that it will be influenced by the changes introduced as the Regional offices are developed.
- 4.95 We feel that there is a need for greater supervision at the shop level and therefore suggest that districts are divided into sections.
- 4.96 Section managers should introduce closer supervision with regular weekly visits to each location. Their task will be to improve the standard of retailing in every location.



REGIONAL OFFICES

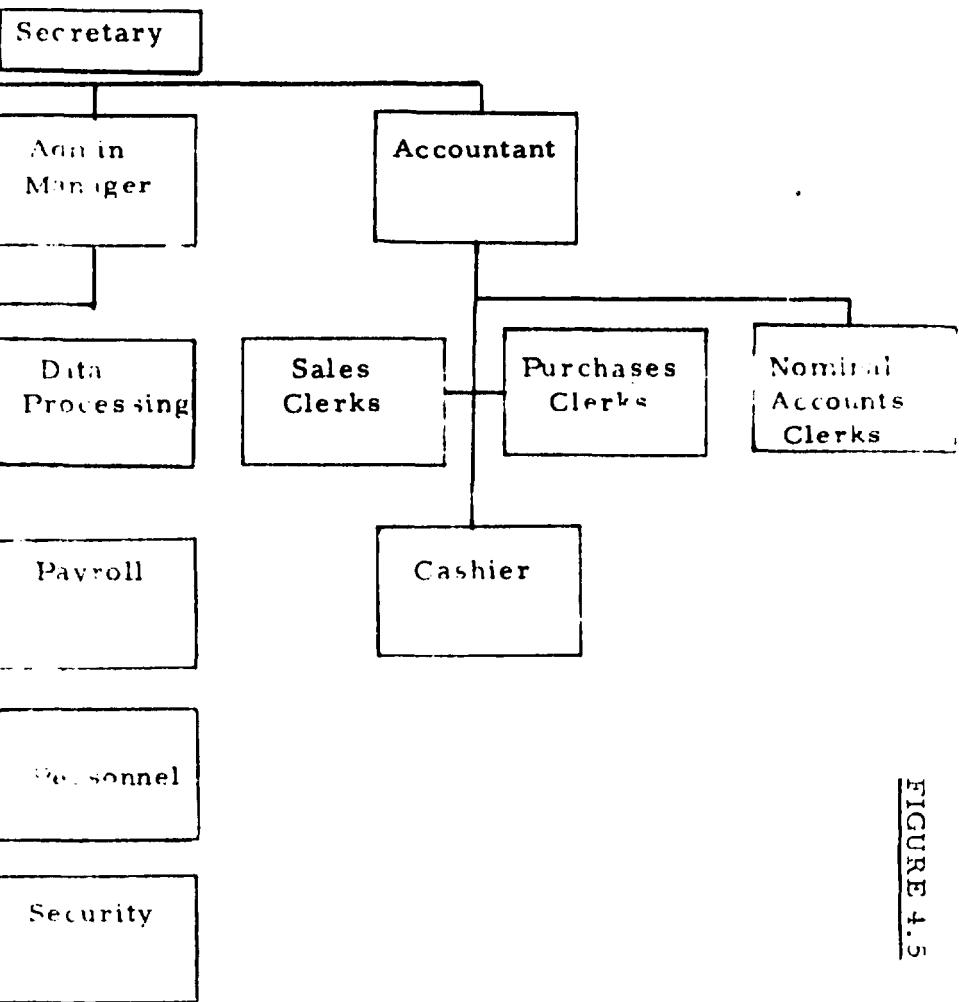


FIGURE 4.5

ASM Head Office

- 4.97 In conjunction with our recommendations for the establishment of seven new regions, we recommend that the functions of ASM Head Office should be concentrated in the long term strategy and policy formulation areas along with top level financial management and central service functions. Our recommended organisation structure for Head Office is shown in Figure 4.6.
- 4.98 We also consider that activities presently carried out by ASM on behalf of other Sumerbank operations, like procurement, should be examined to see if they could be more efficiently executed by those operations directly.
- 4.99 We believe that the planning function should be strengthened by the appointment of a manager and the involvement of all senior managers within ASM in a formalised planning process.
- 4.100 A market research department should be established under the General Manager, Commercial. The function of this department would be to analyse the existing sales patterns in the context of a developing market so that information is available for the best possible selection and distribution of products.
- 4.101 A product development department should be established under the General Manager, Supply and Technical, to combine with market research and the supplier to ensure that ASM provides salable products to the retail outlets.
- 4.102 Personnel department should provide increased training and facilities as part of a programme to develop a pattern of career progression within ASM.

Management Information and Control Systems

- 4.103 As a first step we recommend that the existing systems and procedures should be accelerated by :
- Exploring alternative channels for sending information from the stores to the warehouse, to the District and to Head office

PROPOSAL - A. S. M. - ORGANISATION

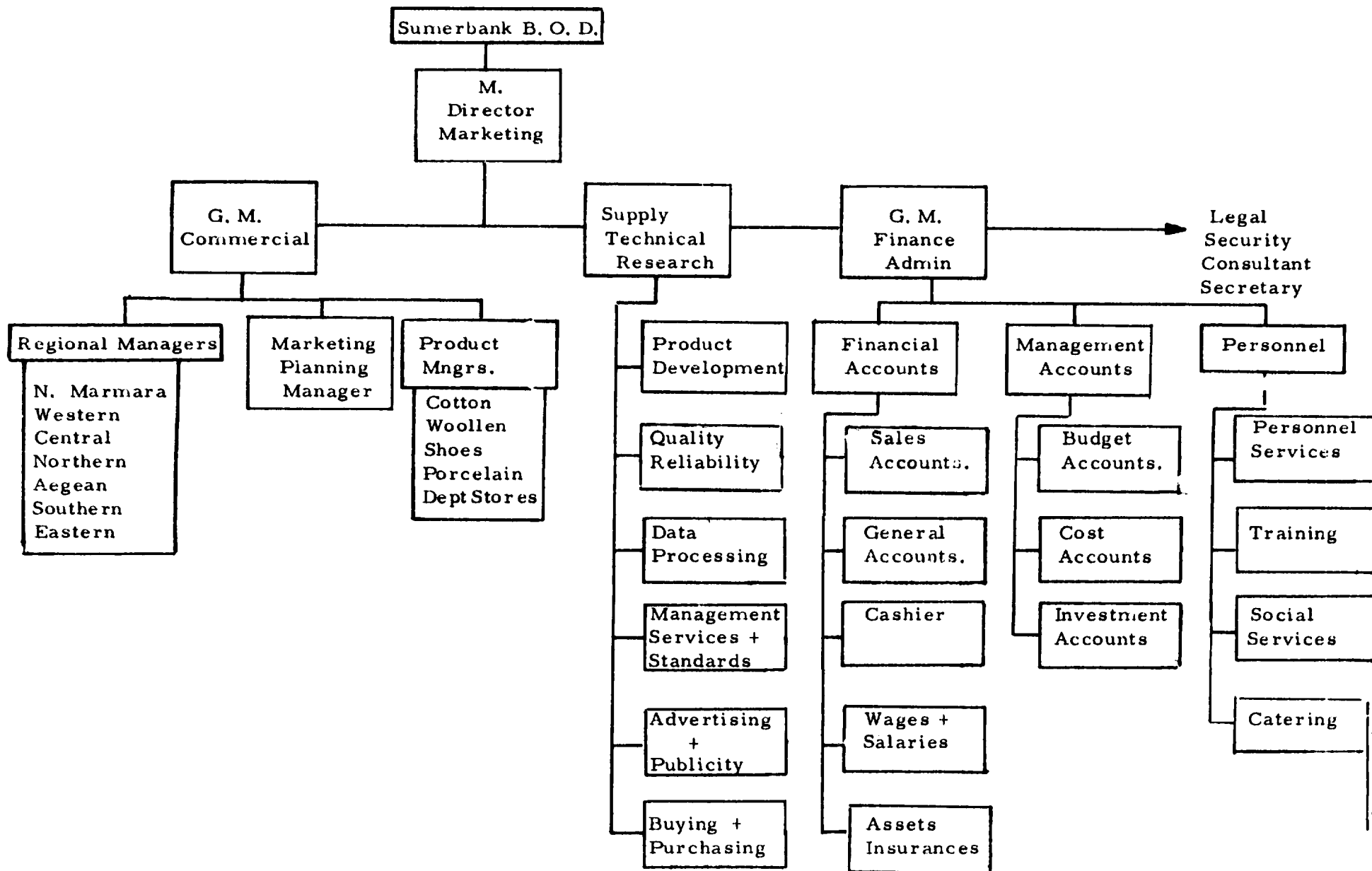


FIGURE 4.6

- Timetables for the submission of data being developed and enforced.

- 4.104 Information produced by the existing system should be summarised so that managers receive sufficient for their tasks and are not overwhelmed.
- 4.105 There should be a review of existing shops in the light of their profitability (Figure 4.7), social requirements and future potential.
- 4.106 A regular system of inventory review should check all old and obsolete stock at all locations.
- 4.107 We believe that managers should be able to reject goods they have not ordered or do not conform to specification.
- 4.108 There should be an examination of transport arrangements to see if it could be more efficiently organised. This should be related to the possible relocation of warehousing facilities.
- 4.109 We recommend that the Data Processing facilities are enhanced. A possible system is discussed in Appendix 4.3 and also its importance in connection with Financial, Inventory and Management information systems is covered in those sections.
- 4.110 We believe that the existing financial system provides a basis for future developments but that the organisation and discipline necessary to make full benefit of any data processing system must be introduced. These requirements and recommendations are covered in detail in Appendix 4.4.
- 4.111 Inventory control can be imposed and detailed comments and recommendations are in Appendix 4.5.
- 4.112 Budgetary control system should be developed in conjunction with improved marketing and financial systems.

FIGURE 4.7a

Loss Producing Retail Shops - Retail Sales Only
By District

- 1978 L - Denotes two years loss
 (-) 1979

			<u>T/O M</u>	<u>P/Loss M</u>
ADANA	- Karatas	76	4.5 (9.9)	110 (698)
ANKARA	- Y Porselen	70	11.9 (21.6)	(43) (1115)
	- Cubuk	59	5.0 (12.0)	90 (697)
	- Cerkes	71	4.1 (6.3)	103 (105) L
	- Kursunlu	74	3.4 (5.4)	150 (88) L
	- Bala	77	3.3 (4.1)	197 (114)
	- Iigaz	77	3.4 (4.8)	185 (232) L
	- Sincan	78	1.7 (8.0)	61 (413)
	- Gudul	79	- (3.7)	1 (207) L
BALIKESIR	- Bozcaada	66	1.6 (2.8)	337 (366) L
	- Gokceada	66	2.7 (2.8)	248 (531) L
	- Burhaniye	74	5.1 (8.9)	41 (226)
	- Ezine	77	4.5 (8.7)	74 (332)
	- Savastepe	77	5.9 (6.6)	154 (55)
	- Bayramic	79	- (12.7)	9 (1103)

FIGURE 4.7b

			<u>T/O M</u>	<u>P/Loss M</u>	
DIYARBAKIR	-	Batman	64	7.1 (22.1)	106 (1483)
	-	Mardin	55	8.0 (14.4)	241 (577)
	-	Siirt	54	7.7 (14.5)	82 (599)
	-	Silvan	64	6.9 (12.3)	18 (755)
	-	Midyat	74	3.5 (8.8)	330 (83)
	-	Cizre	74	2.2 (8.4)	358 (154)
	-	Nusaybin	75	4.4 (10.2)	240 (231)
	-	Kulp	77	4.1 (4.9)	146 (134) L
	-	Uludere	77	0.7 (2.2)	474 (568) L
	ERZURUM	-	Hasankale	58	4.2 (7.3)
-		Horasan	75	3.7 (6.6)	229 (11) L
-		Askale	76	4.4 (9.1)	125 (588)
-		Oltu	76	5.3 (12.2)	71 (635)
-		Cayirli	76	2.0 (4.3)	293 (198) L
-		Hinis	76	3.8 (6.7)	172 (27) L
-		Tortum	77	2.4 (4.1)	318 (182) L
-		Eleskirt	79	- (4.7)	7 (207)
-		Senkaya	77	0.5 (1.1)	566 (268) L
ESKISEHIR		-	Sivrihisar	75	4.0 (7.0)
	-	Bolvadin	77	4.4 (10.2)	42 (591)
	-	Cifteler	77	3.8 (7.3)	103 (178)

FIGURE 4.7c

			<u>T/O M</u>	<u>P/Loss M</u>
GAZIANTEP	- Kahta	76	3.6 (9.1)	50 (366)
BURSA	- Orhaneli	79	- (7.8)	15 (526)
	- Orhangazi	79	- (7.7)	6 (786)
ISPARTA	- Golhisar	78	2.0 (8.4)	250 (360)
KONYA	- Bozkir	77	4.0 (6.3)	70 (203)
	- Cihanbeyli	78	2.5 (8.5)	25 (503)
ELAZIG	- Kigi	76	2.0 (3.4)	102 (60) L
	- Pertek	79	- (4.8)	16 (289)
IZMIR	- Esrefpasa	55	5.7 (10.6)	53 (408)
	- Aliaga	72	3.6 (4.7)	166 (118) L
	- Saruhanli	76	4.3 (19.7)	38 (754)
	- Esme	77	4.4 (6.9)	31 (300)
	- Gordes	77	3.4 (7.5)	143 (303)
	- Cumaovasi	79	- (4.5)	4 (242)
	- Kirkagac	79	- (5.1)	14 (340)
KARS	- Kars	54	6.1 (29.4)	1496 (1637)
	- Sarikamis	59	1.4 (5.6)	519 (265)
	- Ardahan	68	2.6 (14.7)	614 (393)
	- Igdir	68	1.6 (12.1)	692 (418)
	- Kagizman	75	0.9 (6.9)	584 (109) L
	- Gole	78	1.1 (6.4)	396 (19) L
	- Cildir	76	0.7 (5.5)	530 (129) L
	- Tuzluca	77	1.0 (6.0)	372 (204) L

FIGURE 4.7d

			<u>T/O M</u>	<u>P/LOSS M</u>
	- Arpacay	77	0.9 (6.2)	526 (42) L
	- Posof	77	0.5 (5.6)	458 (152) L
	- Hanak	77	0.8 (4.3)	444 (134) L
	- Selim	77	0.9 (4.9)	499 (193) L
	- Digor	77	0.6 (4.1)	532 (216) L
	- Dogubeyazit	77	1.0 (7.5)	466 (51)
KAYSERI	- Bor	76	5.6 (12.6)	30 (824)
	- Hacibektas	76	3.0 (6.1)	121 (112)
	- Kozakli	76	4.3 (7.8)	84 (375)
	- Bogazliyan	76	4.7 (8.5)	65 (482)
	- Mucur	77	4.1 (7.1)	121 (224)
NAZILLI	- Torbali	75	4.0 (8.3)	92 (336)
	- Dalaman	77	3.7 (7.4)	77 (341)
	- Guney	77	2.5 (5.6)	264 (111)
	- Buldan	79	- (5.1)	45 (395)
	- Cal	79	- (5.8)	87 (526)
SAMSUN	- Alacam	75	3.9 (7.8)	45 (451)
	- Gumushacikoy	77	4.4 (8.0)	8 (498)
SIVAS	- Resadiye	77	3.6 (6.8)	126 (158)
	- Mesudiye	77	3.1 (4.3)	192 (160) L
	- Akdagmadeni	77	4.7 (5.7)	2 (24)
TRABZON	- Arhavi	74	5.5 (10.3)	136 (486)
	- Caykara	77	3.1 (5.0)	185 (108) L

FIGURE 4.7e

			<u>T/O M</u>	<u>P/Loss M</u>
	- Tonya	79	- (4.2)	28 (164) L
	- Macka	79	- (8.0)	15 (697)
	- Besikduzu	79	- (4.3)	14 (206)
	- Kalkandere	79	- (5.2)	24 (428)
	- Savsat	77	1.6 (4.3)	472 (24)
	- Gumushane	55	6.6 (12.3)	136 (382)
VAN	- Bitlis	56	9.2 (14.1)	246 (63) L
	- Mus	56	11.2 (15.8)	82 (154)
	- Hakkari	58	3.6 (7.2)	307 (388) L
	- Tatvan	71	7.0 (12.2)	77 (193)
	- Ercis	72	6.4 (10.9)	58 (427)
	- Cukurca	72	2.9 (2.9)	400 (615) L
	- Semdinli	72	3.5 (3.5)	295 (475) L
	- Beytusebah	72	1.7 (2.7)	464 (554) L
	- Baskala	72	5.1 (5.1)	264 (411) L
	- Yuksekova	74	4.9 (4.7)	231 (147)
	- Ozalp	74	6.0 (6.5)	177 (215) L
	- Bulanik	77	4.2 (7.0)	142 (49)
	- Malazgirt	77	2.3 (3.1)	334 (348) L
	- Patnos	79	- (5.1)	22 (349)
ZONGULDAK	- Akcakoca	77	5.0 (8.6)	46 (297)
	- Ulus	77	3.7 (7.7)	92 (374)

FIGURE 4.7f

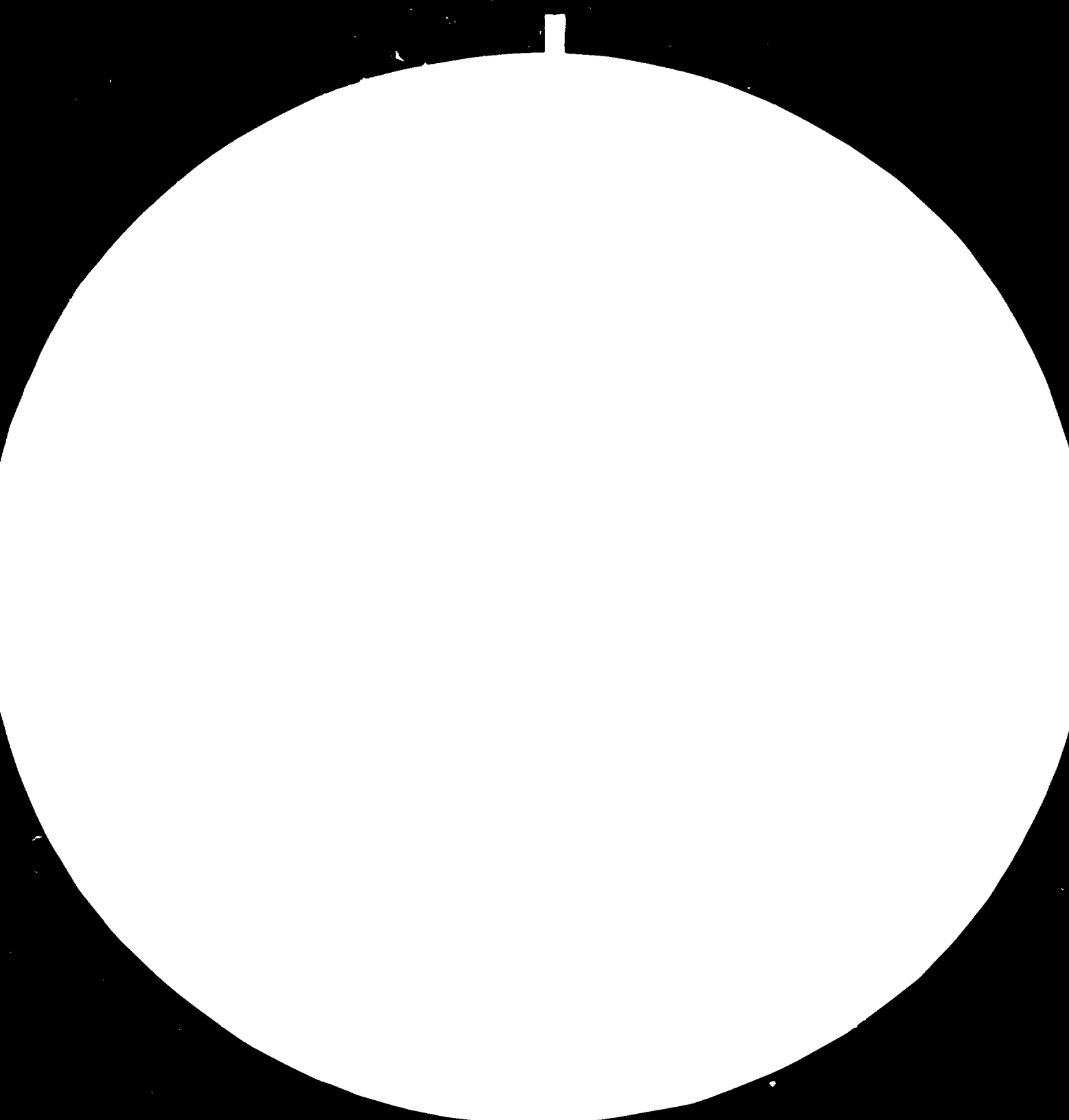
ADDITIONAL FOR 1979

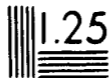
Loss Producing Retail Shops - Retail Sales Only

BY DISTRICT

			<u>T/O M</u>	<u>P/Loss M</u>
ANKARA	- Akdere	80	-	12
	- Kizilcahamam	80	-	60
	- Alaca	80	-	38
ERZURUM	- Ispir	78	4.9	10
	- Narman	78	3.8	150
	- Tercan	78	4.3	55
	- Senkaya	77	2.1	158
ESKISEHIR	- Sultandag	80	-	81
	- Cay	80	-	60
	- Golpazari	80	-	123
IZMIR	- Buca	70	8.7	336
SAMSUN	- Ulubey	80	-	1
	- Kavak	80	-	14
TRABZON	- Ardanuc	80	-	16
NAZILLI	- Bodrum	80	-	233
	- Acipayam	80	-	172
	- Yatagan	80	-	8
SIVAS	- Sebinkarahisar	74	5.8	45
TEKIRDAG	- Corlu	58	18.0	291

81-1229





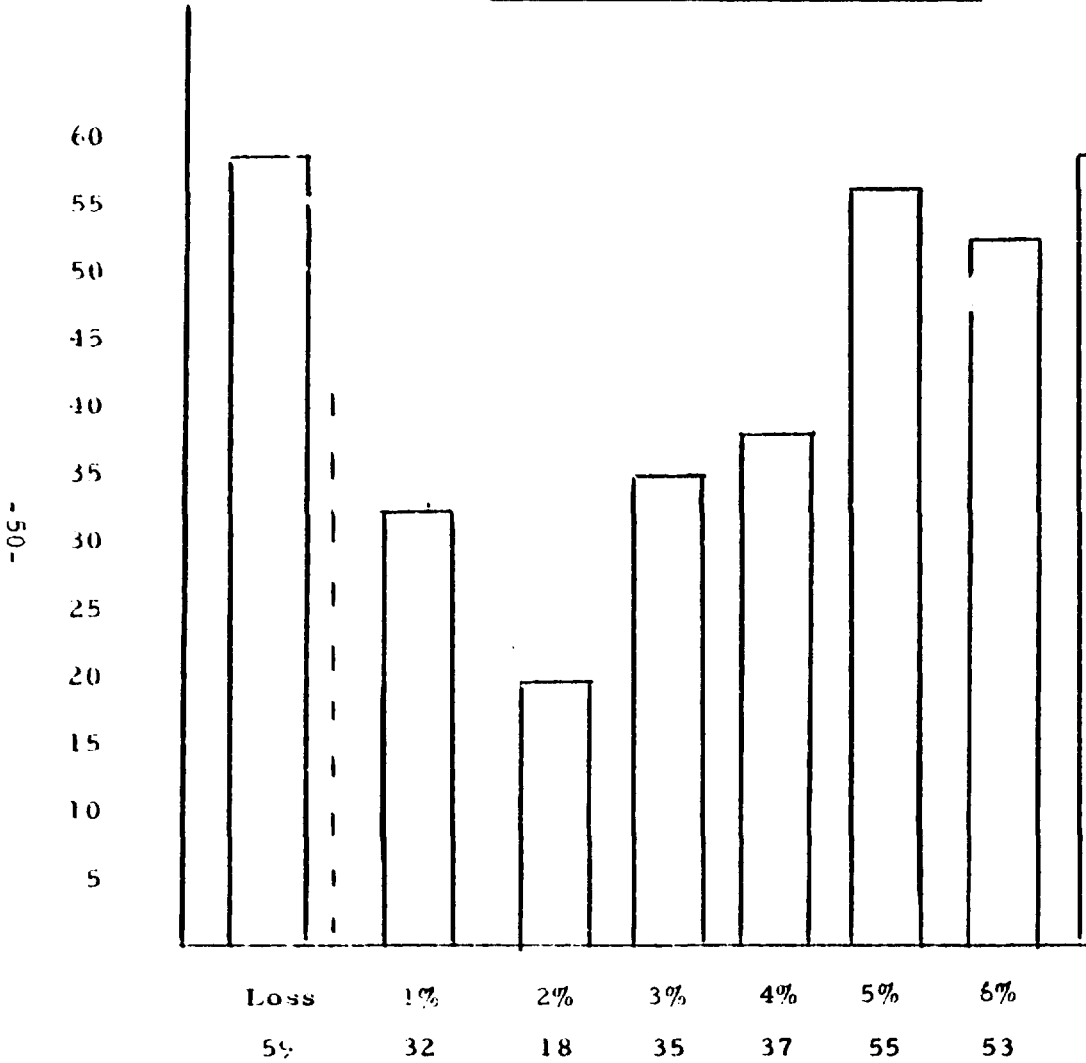
7

Resolution Test Chart

1.0 1.1 1.25 1.4 1.6 1.8 2.0 2.2 2.5 2.8

PROFIT SURVEY OF RETAIL SHOPS

(In 1979, Total 449 Retail Shops)



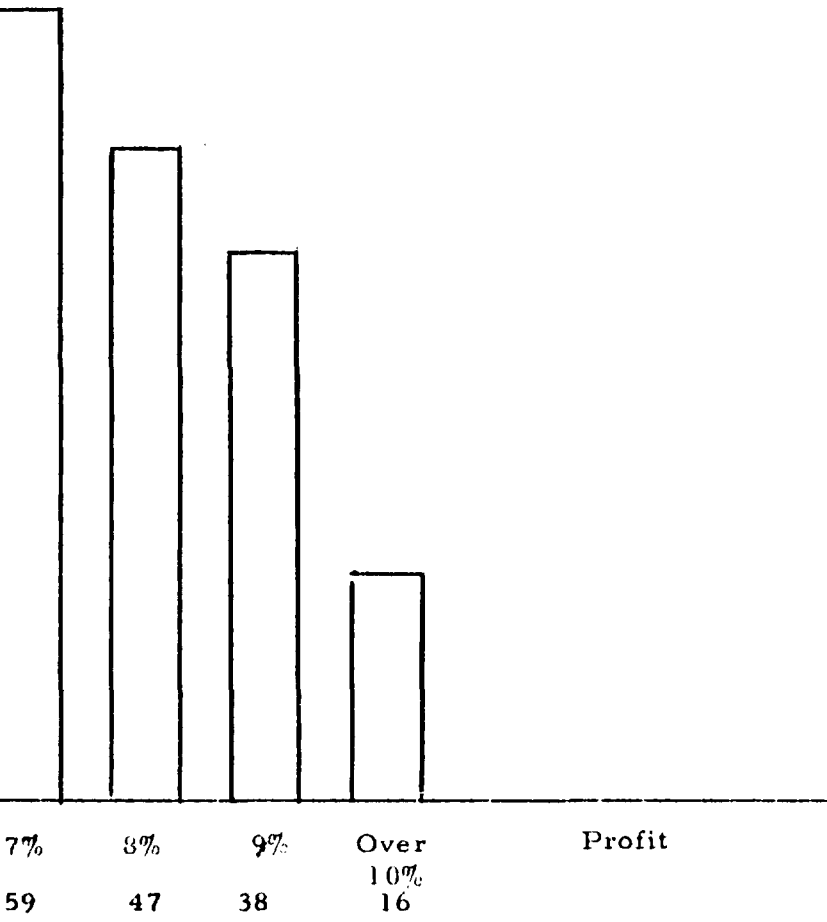


FIGURE 4.7g

SURVEY OF ESTABLISHED RETAIL SHOPS

ANNUAL P/LOSS

(375 SELECTED)

1978

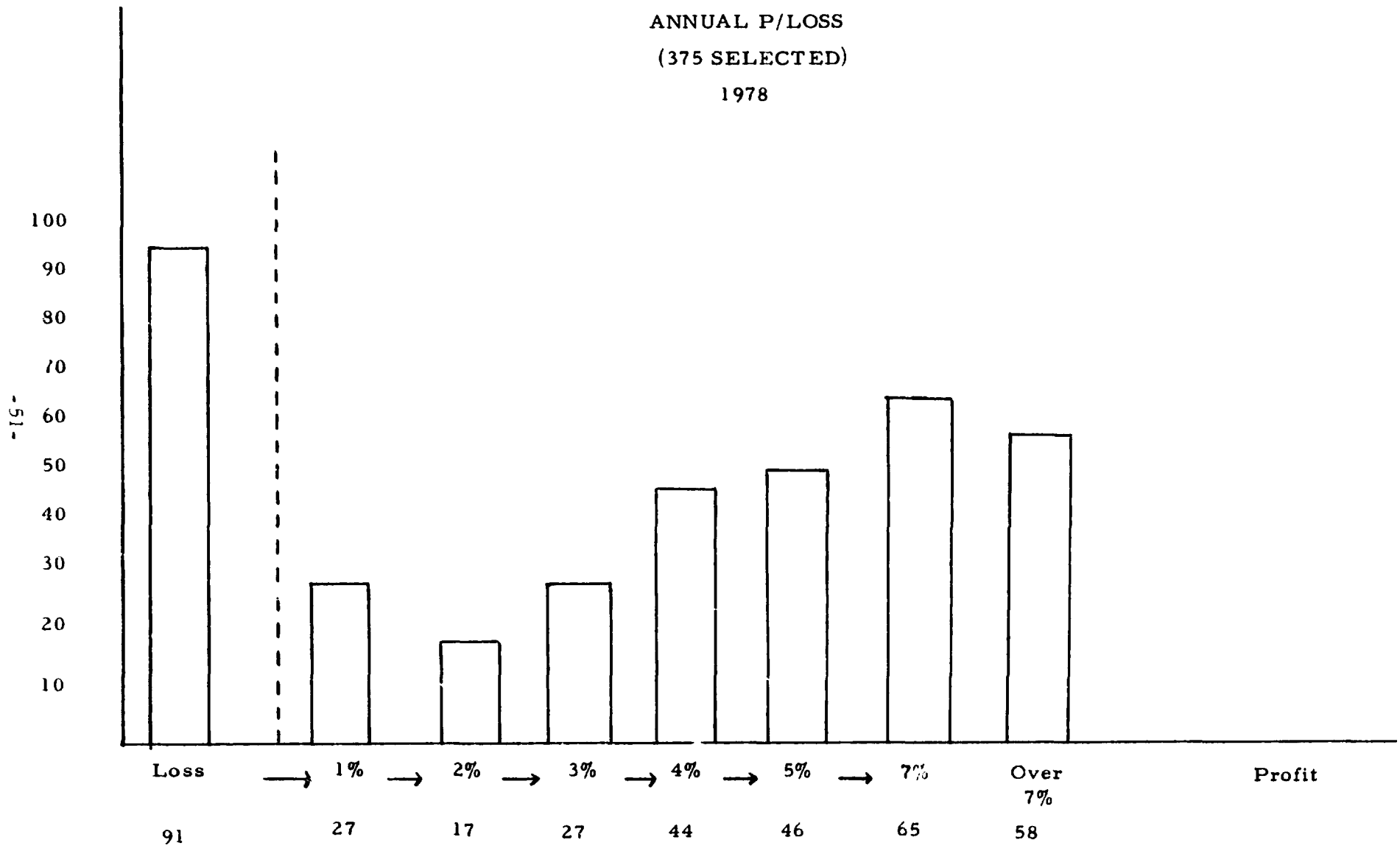


FIGURE 4.7h

4.113 We believe that cash flow planning within ASM should be enhanced by the improvement of individual functions as shown in Figure 4.8 and discussed in the interim reports.

4.114 A system of coding should be introduced to cover all products.

Management Responsibility

4.115 We recommend that all staff be made fully aware of their responsibilities and encouraged to act in a professional and commercial way within those responsibilities.

4.116 We believe that staff with ability, who achieve positive results, should be encouraged and rewarded.

4.117 We suggest that promotion should be seen as the result of individual merit.

4.118 There is too little emphasis within ASM on communication. We recommend that every manager should develop his formal and informal limits as part of the process of forming a corporate identity.

4.119 There should be at least bi-monthly meetings between mill management and ASM executives to discuss latest market trends and to resolve delivery problems.

SHORT TERM CASH FLOW PRESENTATION

CHART 1

Receipts

Data Source

ASM budgets.
(divisional).
Actual
cash receipts

Short Term
Shop Cash
Sales
Forecasts (A)

Add into Required
Mill Groupings (B)

Breakdown into
Required Monthly
Cash Sales Figures
(Seasonal Factors)(C)

Outgoing

Yearly
Budgets

Set Factory
Expenditure
Budgets (D)

Correct for H. Q.
Payment Expense
Centres (E)

Breakdown into Monthly
Expenditure Forecasts
(F)

Develop Schedule
of Irregular out-
goings (e. g. cotton)
(G)

Assemble Monthly
Cash Flow Forecasts
by Account Centre.
Develop Weekly if
Required (H)

FIGURE 4.8

APPENDIX 4.1

FUNCTIONS OF PLANNING DEPARTMENT - MARKETING

1. Demand analyses for the products.
2. Fixing the economic indications and the trends affecting these products.
3. Investigating the influence of the economic factors to the market and the sales.
4. Reviewing and examining the sales curves of A. S. M. products and comparing contrast with market share to the private sector products.
5. Investigating the market potential of the product within all districts and their hinterland.
6. Examining the developments occurring in the market share of A. S. M. products
7. Carry-out pricing research
8. Reviewing the costs.
9. Reviewing the sales with respect to Districts and Product Groups
10. Developing the distribution channels and systems
11. Follow-up the price movements of the products sold in and outside of Sumerbank
12. Investigate turnover and sale position of the new products.
13. Investigate the technical specification of the new products
14. Preparing sales projections with respect to the products with marketing research section
15. Reporting upon these sales projections. Prepare the sales/inventory budgets in co-ordination with the retail sales managers and the mills

16. According to these budgets establish the minimum regional stock levels by factories and then prepare annual production planning
17. Following up the realisation rates of the sales, production and inventories quarterly and quote the necessary quarterly qualifactions.
18. Follow-up the developments of the products marketed by A. S. M.
19. Examine the new products starting to be produced in this sector and investigate the possibilities of producing such products in our mills and also investigate their demand and if necessary fix specifications for their production.
20. In order to increase the market share of A. S. M. existing products, carryout a demand/motivation and sales production study for this and for those co-ordinating with the advertising and information section.
21. Perfection of A. S. M. products with respect to quality
22. Modification and classifaction of the information on sales and stocks sent by A. S. M. shops and districts
23. Modification and classification of all data sent by 24 A. S. M. mills submitting such data to related sales managers and to the director of A. S. M.
24. In order to interpret the data prepare some graphs, and fix their development rate by making necessary comparisons.
25. Preparing statistical data required and sending to General Directorates
26. Following up the publications on statistics, classifying the economic indications and textile statistics and evaluating these and sending them to the relevant departments and divisions in the form of monthly reports

27. In order to increase the sales and market share of all Sumerbank products plan the necessary advertising, information and propaganda activities and carry these out according to the general principles of marketing and the rules and regulations of A. S. M.
28. Planning the advertising activities, conducting research and questionnaires to select the products to be advertised.
29. Conducting subject research so that the advertising should get more attention and more public views
30. Conduct necessary research and questionnaires to measure the advertising effectiveness
31. To get in touch with the advertising firms and agree upon the theme of advertising
32. Carry out sales promotion studies and for this co-ordinate with production-planning and production development sections
33. Find an answer to the problems of sales and development in our retail shops
34. Arrange shop display and decoration
35. Organising the fairs and exhibition work by coordinating with selected sales departments
36. Following up the studies of fair and exhibitions within the country and abroad and conveying the information to the decision markets.

	REGION	DISTRICT	SECTION	RETAIL SHOPS - CURRENT AND PROJECTED
A	North Marmara	Istanbul (2)	Istanbul	Bahcekapi - Beyoglu - Kasimpasa - Uskudar - Aksaray - Besiktas - Eyup - Kadikoy Fatih - Gedikpasa - Toptan - Bakirkoy - Beykoz - Hardiye - Zeytinburnu Gaziosmanpasa - Kartal - Laleli (Kundura) - Beykoz (Kundura) - Bayrampasa Sariyer - Kucukcekmece - Findikzade - Umraniye - Gultepe - K. M. Pasa Kartal (Maltepe) - Gungoren - Catalca - Esenler
		Tekirdag (1)	Tekirdag Edirne Kirkklareli	Tekirdag - Corlu - Malkara - Hayrabolu - Muratli - Sarkoy - Saray - Gelibolu Edirne - Uzunkopru - Kesan - Ipsala - Kirkklareli - Batateski - Luleburgaz - Vize - Pinarhisar
B	Western	Bursa (1)	Bursa	Bursa - Inegol - M. K. Pasa - Yenisehir - Karacabey - Gemlik - Iznik - Orhaneli Orhangazi - Yalova - Erdek - Keles
		Kocaeli (1)	Kocaeli Bolu Sakarya	Izmir - Golcuk - Kandira - Gebze - Karamursel - Bolu - Duzce - Mudurnu - Goynuk - Sakarya - Geyve - Karasu - Akyazi - Hedek - Pamukova
		Eskisehir (1)	Eskisehir Afyon Bilecik Kutahya	Eskisehir - Sivrihisar - Cifteler - Afyon - Emirdag - Bolvadin - Cay - Sultandag Bilecik - Bozuyuk - Sogut - Golpazari Kutahya - Simav - Tavsanli - Gediz
C	Central	Ankara (3)	Ankara 1	Kirikkale - Polatli - Cubuk - Nallihan - Haymana - Beypazari - Serflukochisar Keskin - Bala - Sincan - Gudul - Kalecik - Sulakyut - Elmadag - Ayas - Kizilcahamam - Golbasi - Akdere
			Cankiri Corum	Cankiri - Cerkes - Kursunlu - Ilgaz - Eskipazar Corum - Sungurlu - Iskilip - Alaca - Kulu
			Ankara 2	Ulus - Samanpazari - Yenidogan - Yenimahalle - Ank. Toptan - Bahcelievler Cebece - Gulveran - Bakanliklar - Ulus (Kundura) - Yenisehir (Pors) - Mamak Mithatpasa - Siteler - Soguksu
		Zonguldak (2)	Zonguldak	Mengen - Gerede - Zonguldak - Karabuk - Bartin - Ereğli - Devrek - Akcakoca - Abana Ulus - Caycuma - Kilimli - Kozluk
		Kastamonu	Kastamonu - Inebolu - Tosya - Taskopru - Azdavay - Cide - Arac - Kure - Devrakani	

	REGION	DISTRICT	SECTION	RETAIL SHOPS- CURRENT AND PROJECTED		
D	Northern	Samsun (2)	Samsun	Samsun-Carsamba-Bafra-Terme-Vezirkopru-Alacan-Havza-Ladik-Kavak		
			Amasya	Amasya-Merzifon-Suluova-Gumushacikoy-Tasova-Osmancik-Goynucek		
			Giresun	Giresun-Bulancak-Dereli		
			Ordu	Ordu-Unye-Fatsa-Golkoy-Persembe-Aybasti-Ulubey-Bebinkarahisar		
	E	Aegean	Sinop (2)	Sinop	Sinop-Boyabat-Ayncik-Gerze-Mesudiye-Alucka	
				Sivas (2)	Sivas	Sivas-Zara-Susehri-Divrighi-Gurun-Kangal-Sarkisla-Imranli
				Tokat	Tokat-Zile-Zurhal-Niksar-Erbaa-Resadiye-	
				Yozgat	Yozgat-Yerkoy-Sorgun-Cekerek-Sefaati-Akdagmadeni	
				Trabzon (2)	Trabzon	Trabzon-Vakfikabir-of-Akcaabat-Arakli-Caykara-Surmene-Tonya
					Macka-Besikduzu	
Rize				Rize	Rize-Pazar-Cayali-Ardesen-Findikli-Kalkandere-Iyidere	
				Artvin	Artvin-Arhavi-Hopa-Borcka-Savsat-Ardanuc	
Ciresun				Ciresun	Gorele-Tirebolu-Eynesil-Espiye	
Izmir (2)	Balikesir	Balikesir-Gonen-Edremit-Susurluk-Ayvalik-Dursunbay-Sindirgi				
	Bigadic-Burhaniye-Savastepe-Manyas					
	Canakkale	Canakkale-Riga-Bozcaada-Gokceada-Can-Ezine-Bayramic				
	Izmir	Izmir 1	Kemeralti-Basmane-Esrefpasa-Tepeck-Karsiyaka-Izmir Toptan-Bornova			
		Izmir 2	Bergama-Menemen-Buca-Aliaga-Cumaovasi-Selcuk-Foca (Hatay-Camdibi)			
	Odemis-Tire					
Manisa	Manisa	Manisa-Akhisar-Salihli-Turgutlu-Alasehir-Demirci-Soma-Saruhanli				
	Kula-Esme-Kirkagac-Gordes-Golmarmara-Sarigol					
Nazilli (1)	Aydin	Nazilli-Aydin-Soke-Kusadasi-Cine				
	Denizli	Denizli-Guney-Buldan-Acipayan-Cal-Civil				
	Mugla	Mugla-Milas-Fethiye-Ortaca-Marmaris-Dalaman-Bodrum				
Isparta (1)	Isparta	Isparta-Yalvac-Uluborlu-Egridir-Yesilova				
	Antalya	Antalya-Alanya-Elmali-Manavgat-Serik-Korkutali				
	Burdur	Burdur-Bucak-Gollisar				
	Afyon	Dinar-Sandikli				

REGION	DISTRICT	SECTION	RETAIL SHOPS - CURRENT AND PROJECTED
F Southern	Adana (2)	Adana	Adana - Kozan - Osmaniye-Kadirli-Karatas-Haruniye-Kurukopru Ceyhan- Tufanbeyli
		Icel Hatay	Icel-Tarsus-Silifke-Erdemli-Anamur-Gulmar-Icel(2)-Mut Antakya-Iskenderun-Kirikhan - Dortyol-Samandag-Reyhanli
	Gaziantep (2)	Gaziantep Adiyaman K. Maras Urfa	Gaziantep-Kilis-Islahiye-Nizip Adiyaman-Besni-Kahta-Golbasi K. Maras-Goksun-Elbistan-Afsin Urfa-Viransehir-Surac-Ceylanpinar-Akcakale-Birecik-Siverek
	Kayseri (1)	Kayseri Nigde Nevsehir Kirsehir Yozcat	Kayseri-Devali-Yahyali-Pinarbasi-Yesilhisar-Tomarza Nigde-Aksaray-Bor Nevsehir-Hacibektas-Kozakli-Derinkuyu-Gulsehir Kirsehir -Kaman- Mucur Bogazliyan
	Konya (1)	Konya	Konya-Karaman-Eregli-Aksehir-Beysehir-Cumra-Seydisehir-Karapinar -Kadinhani-Ilgin-Kunak-Bozkir-Cihanbeyli-Ermevek-Doganhisar-Sarayono
G Eastern	Elazig (1)	Elazig Malatya Bingol Tunceli	Elazig-Palu-Karakocan - Maden Malatya-Arapgir-Dogansehir Bingol-Kigi-Genc Tunceli-Pertek
	Diyarbakir (2)	Diyarbakir Siirt Mardin	Diyarbakir-Silvan-Ergani-Kulp-Lice-Cermik-Bismil-Hani Siirt-Batman-Kozluk-Sirnak-Uludere Mardin-Midyat-Kiziltepe-Cizre-Nusaybin-Derik
	Van (2)	Van Bitlis Mus Hakkari	Van-Ercis-Baskale-Ozalp-Gevas-Muradiye-Catale-Bahcesaray-Patnos Bitlis-Tatvan-Ahlat Mus-Bulanik-Malazgirt Hakkari-Cukurca-Semdinla-Beytussebap-Yuksekoa

REGION	DISTRICT	SECTION	RETAIL SHOPS - CURRENT AND PROJECTED
G Cont 'd	Erzurum (2)	Erzurum	Erzurum-Hasankale-Horasan -Askale-Oltu-Hinis-Tortum Senkaya-Mazman-Ispir-Cat
		Erzincan Agri Ghmushane	Erzincan-Cayirli-Tercan Agri-Eleskirt Bayburt-Siran-Kelkit
	Kars (2)	Kars	Kars-Sarikamis-Ardahan-Igdir-Kagizman-Gole-Cildir-Tuzluca Arpacay-Posof-Hanak-Selim-Digor-Aralik

PROPOSED DATA PROCESSING SYSTEM

As the existing data processing facilities are near the end of their useful life we recommend that A. S. M. investigate alternative methods of processing the information with a view to improving the level of service available to managers. As technical improvements are rapidly increasing and changing the power of computers the choice of system for an organisation of the size, complexity and geographical dispersion of A. S. M. is extremely difficult.

We recommend that the main machine should be sited at A. S. M. Head Office where existing facilities and expertise are located.

We suggest that smaller machines are set up in the Regional Offices to service each region and to meet the increased requirements of local management.

It is desirable that the machines at Head Office and Regional Offices are compatible.

Software should be provided by the manufacturer. Data will be transmitted on standardised, pre-numbered forms from the Shops and Districts to the region. It will be punched, verified and stored on floppy discs.

Data will be processed in the regions to produce all necessary financial, inventory and statistical reports required by local management. Summary data, in standardised format on floppy discs will be carried from the Regional Office to Head Office for consolidation with Head Office data to produce reports required for A. S. M. top management.

The up-grading of requirements and the equipment will require considerable training effort to ensure that the Data Processing Department can provide the management and technical skills necessary to operate a distributed data processing system.

A flow chart of a possible system is shown on Figure 4.9. The system configuration and costs are given on Figure 4.10. Further system details are shown on Figures 4.11.

BASIC DRAFT WORK FLOW

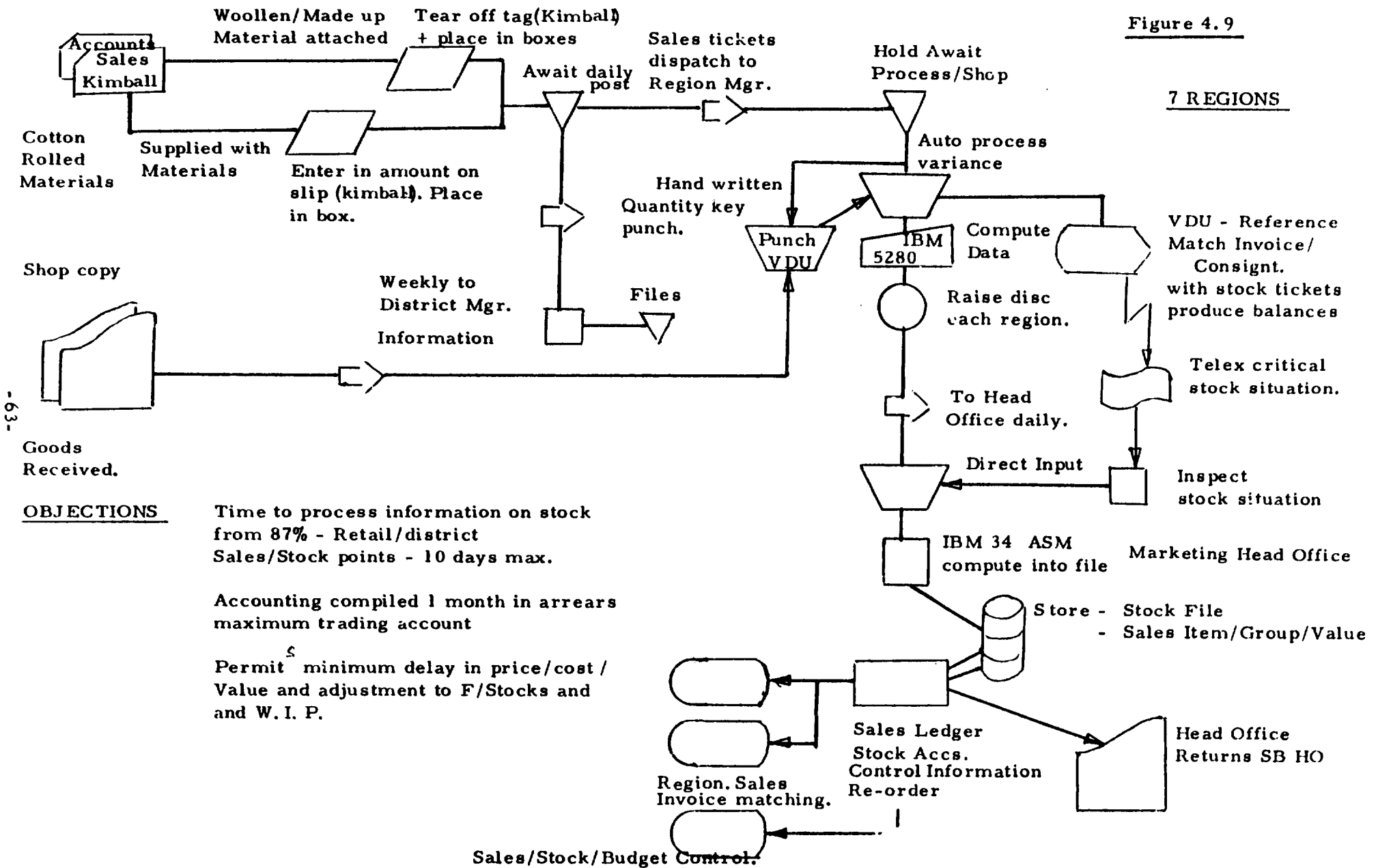
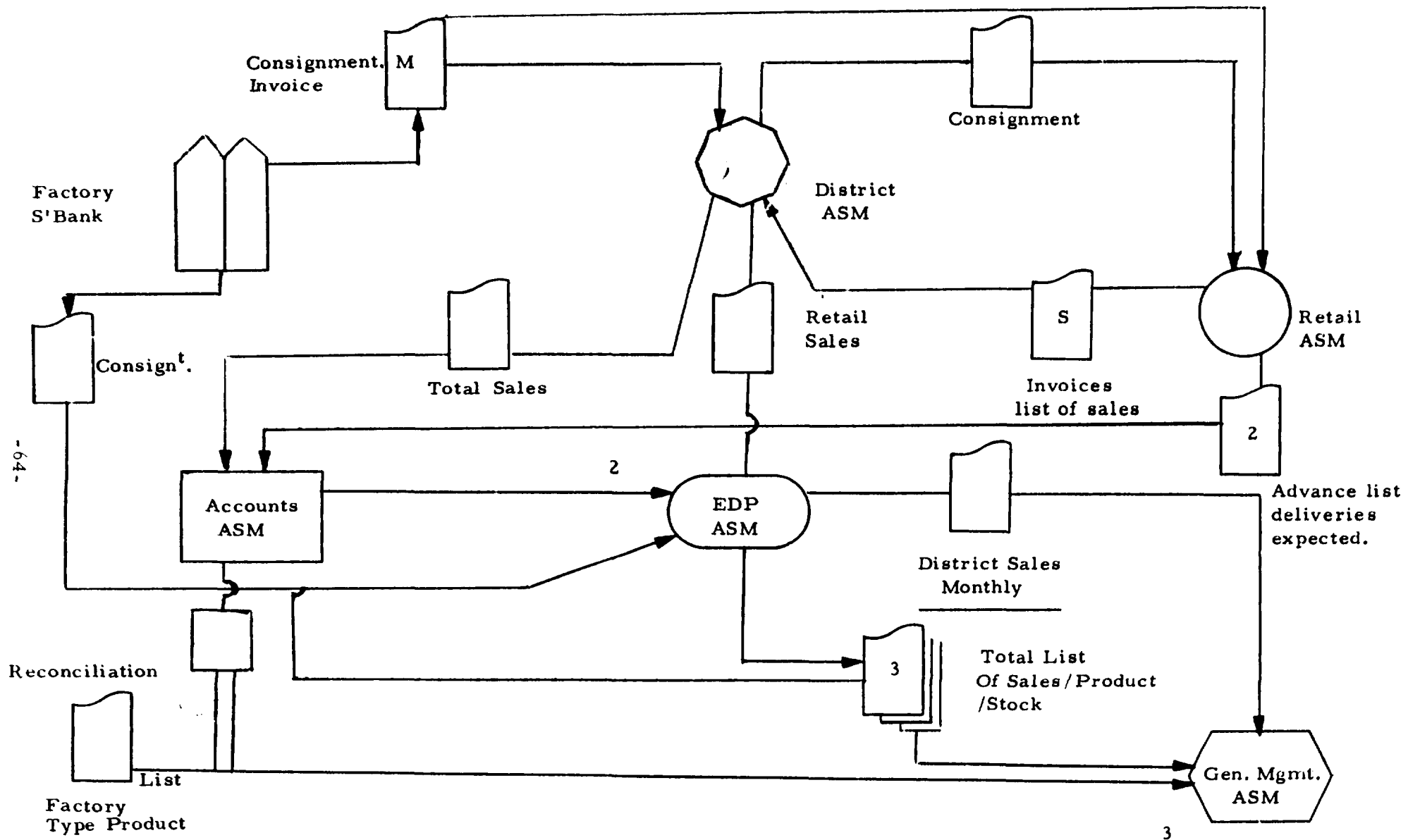


Figure 4.9

-63-



-64-

EDP - SYSTEM FOR DATA FLOW - PRODUCTS / SALES

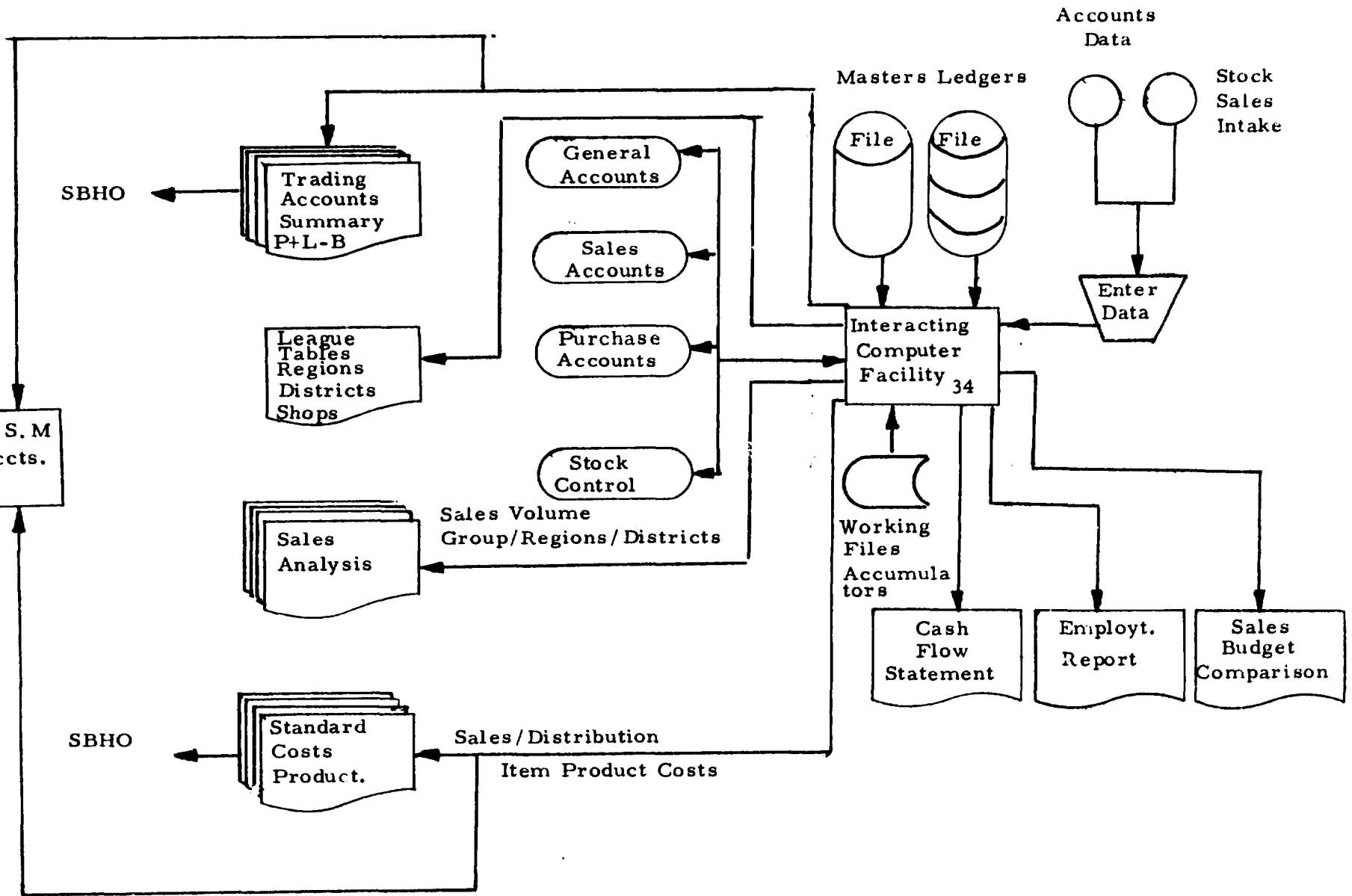
Figure 4.9b

Factory
Type Product
Price
Quality
Total Volume

**MONTHLY RENTAL COST COMPARISONS OF ALTERNATIVE DATA
PROCESSING SYSTEMS**

Figure 4.10

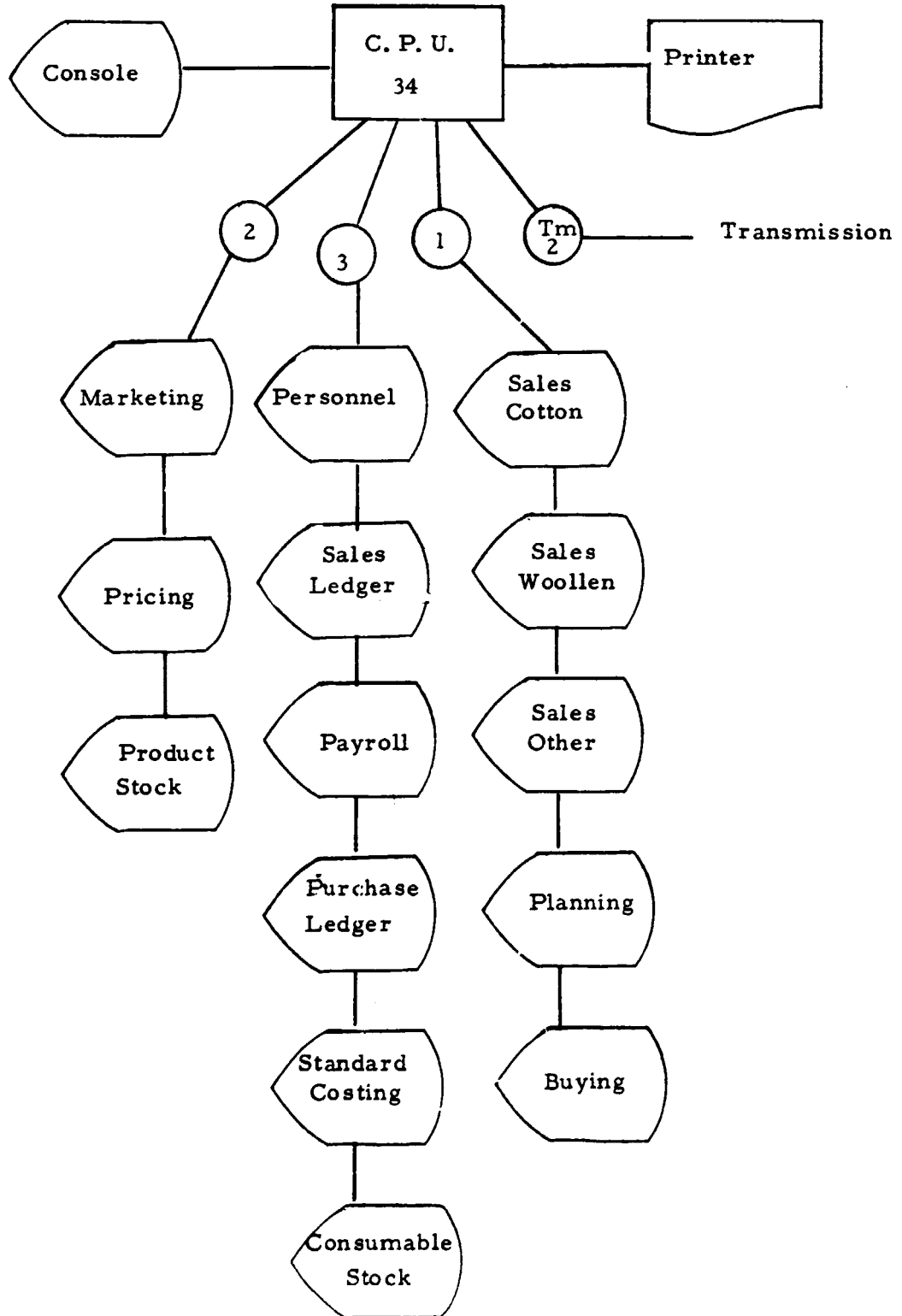
		<u>Rental per Month (\$/Month)</u>
1.	Existing system	
	520-20-8K processor and peripherals	3448
	Card Expenditures	<u>3015</u>
	Total	<u>6553</u>
2. (a)	Proposed ASM H. Q. System	
	5340 - D34 processor	1959
	5211- 002 printer	396
	5252- 001 4 display/entry units	<u>648</u>
	Total	<u>3003</u>
2. (b)	Proposed Regional Office Equipment (per office)	
	5286 Data station and peripherals	362
	5282 " "	<u>130</u>
	Total	<u>492</u>
	Total cost for six regions is therefore (492 x 6)	<u>2952</u>
3.	Estimated basic gross saving incorporating ASM HQ and regional office equipment	<u>598</u>



SCHEMATIC MARKETING DIVISION HEAD OFFICE

Figure 4. 11a

V. D. U.
Allocation



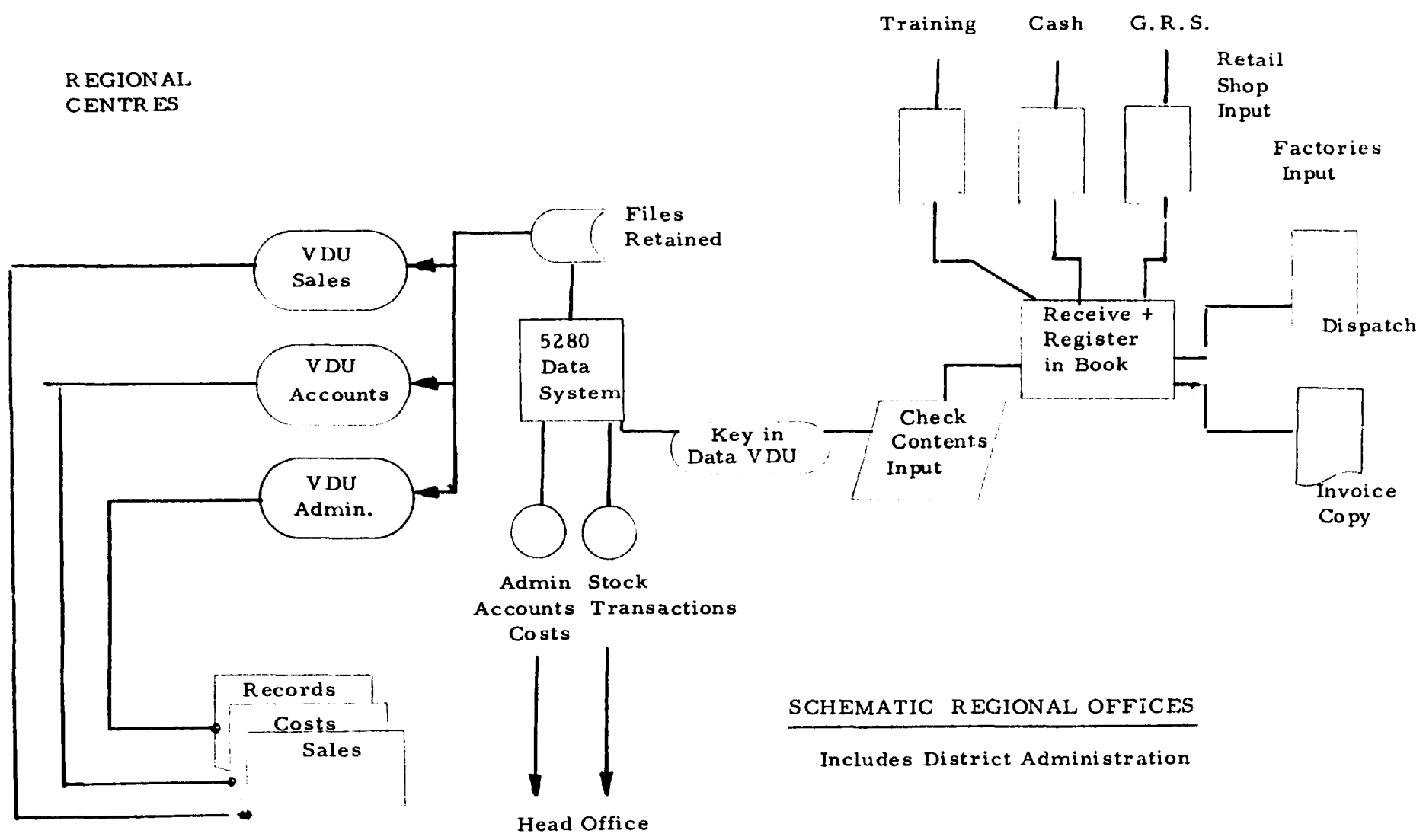


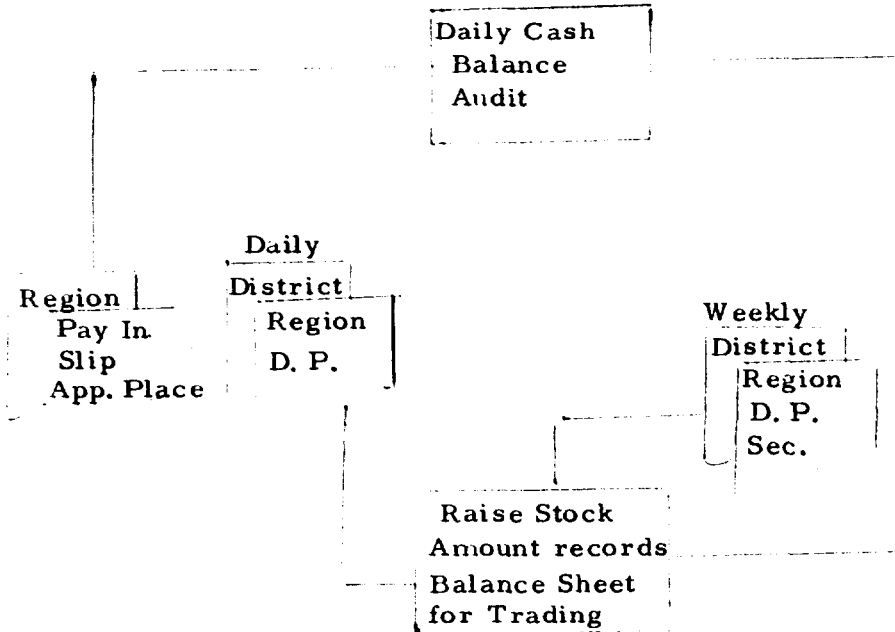
Figure 4.11c

N. B. : One additional regional office could use Head Office facilities.

SCHEMATIC

RETAIL SHOP

-69-



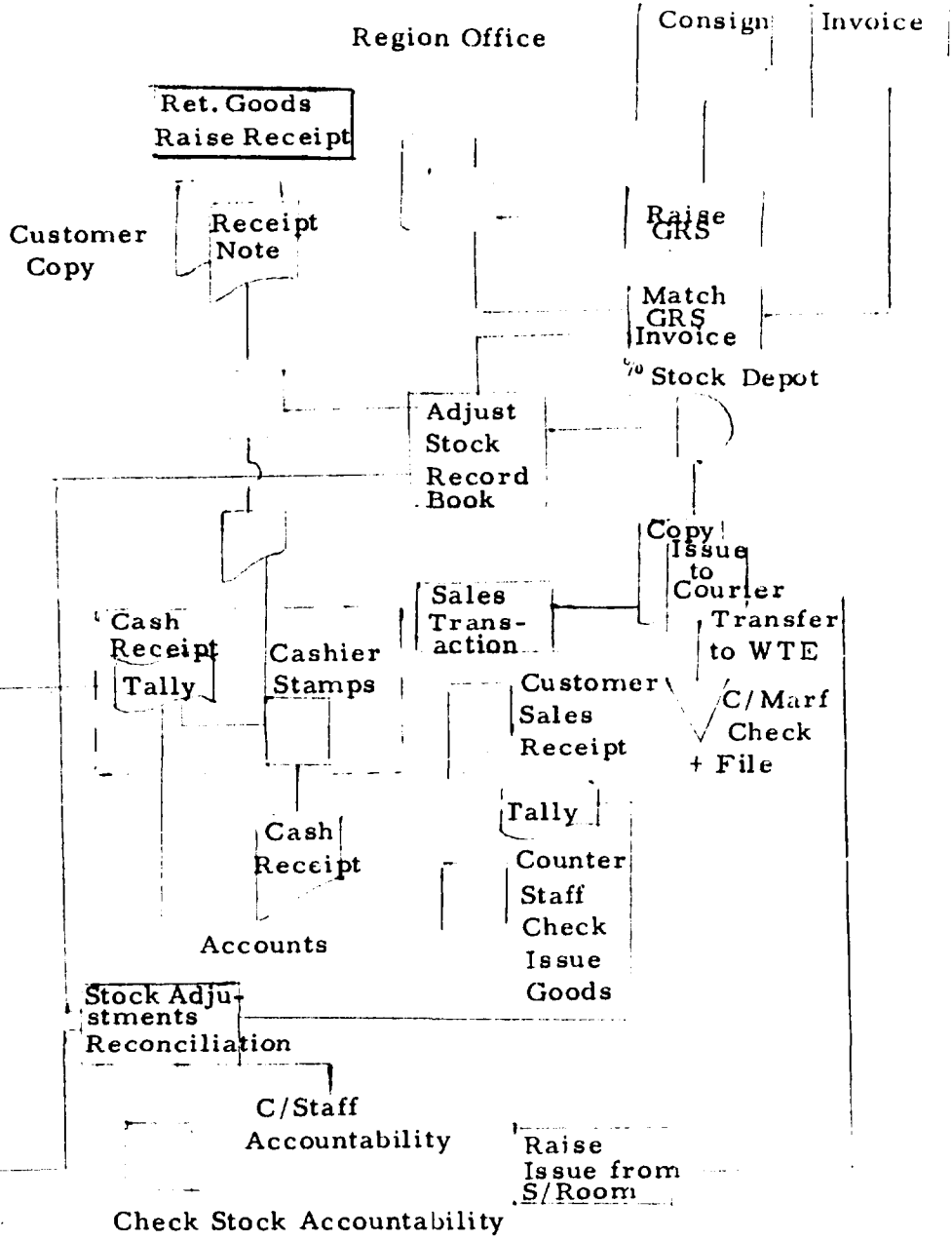


Figure 4.11c

A. S. M.

FINANCIAL CONTROL SYSTEMS

We believe that existing financial control systems are regarded as unsatisfactory by A. S. M. management in that insufficient correct information is made available within a reasonable time. Management cannot utilise this information because it has become out-dated and overall company performance suffers.

Therefore we have looked at the activities of A. S. M. which cover :-

- a) Retail
- b) Distribution
- c) Warehousing
- d) Others

The Shop

For each shop we suggest that they complete a weekly return that is sent direct to the district office (or the regional office when that is established). The form should cover the points on Figure 4.12. A copy of this will be retained in the shop.

If shops have credit sales then special arrangements will have to be made.

Stock should be ordered from the district (or regions) every week using standard pre-numbered order forms (Figure 4.13a)

Goods delivered by district or regional warehouse will be accompanied by the delivery note. The shop manager should check the goods and sign the delivery note. One copy should be retained in the shop and one copy returned to the warehouse.

Sales will be at the standard list price.

The shop manager has no other records to keep but it is important that there are regular stock counts at least twice a year by district staff. The shop manager should not be involved in the stock count but should agree the result before district staff leave.

Warehouse

The warehouse provides a service to each shop within the region in that it orders bulk supplies from manufacturers, stores them and then distributes the goods ordered by each shop to that shop.

In the long term we would like each of the seven regions to operate individually and order their own supplies direct from the manufacturer. They should order as and where necessary. In many cases this will involve estimating future requirements.

The order forms will be similar to Figure 4.14a.

On receipt of goods from the manufacturer they should be checked to ensure they conform with all the specifications on the order before the warehouse manager signs the supplies delivery note and the A. S. M. goods received note Figure 4.14b.

The goods received note details should then be entered into the stock records. The note itself will then pass to the accounts department to be matched with the supplier's invoice. When the supplier's invoice has been approved payment by cash, cheque or inter-company transfer can be made.

When orders are received from the stores they are made up and items not available are noted. The delivery note (invoice) for each store is then prepared and goes with the goods in the delivery van.

The goods are valued at latest cost price and is debited to the shop's account with the warehouse.

The value of sales from the weekly returns (Figure 4.12) is credited to the account each week and the balance on the account will represent Gross Profit and stock at its purchase price. The physical quantities of stock should be verified and valued at regular counts taken by District Management. Any differences, after reconciliations, will be carried by stock losses or price changes and should be investigated.

Stock records at the warehouse will give quantities on hand for every item. There should be regular counts to verify these figures and changes will only be made to the stock records after thorough investigation.

The results of stock counts should be valued and any differences with the theoretical value derived by using an estimated gross margin should be included in the accounts.

In view of rapidly changing prices we suggest that A. S. M. Head Office circulate a monthly listing of all products and their prices. We also believe that an enhanced data processing system should include a 'price file' giving details of the product, its code number, latest cost price, transfer price from warehouse to shop and recommended resale price.

In addition to the costs of raw materials each warehouse and regional office will have their own expenses. We recommend that these are classified into standard expense codes which apply throughout the organisation. They should be shown on input documents similar to those used by the shops but having greater emphasis on expenses.

We also recommend that the Head Office insist that all operations have similar cost centres showing the same code. Data should therefore be submitted in a format that is already coded by location, period and cost centre.

These codes can be automatically verified using the input programs at the Regional Office. Providing submission timetables are complied with the Region they should be able to produce all the necessary information for local management together with the summary information required by Head Office (Figures 15 and 16).

A. S. M. Head Office

Management control should be exercised through decisions based on the summary reports coming in from the Regional Offices.

In addition Head Office will have to add its own expenses, balance sheet movements and details of any other activities to produce consolidated accounts for the Sumerbank board. The layout of these reports should conform with Sumerbank requirements.

A. S. M.

Figure 4.14a

WAREHOUSE ORDER FORM

Location:		Date :	
Units	Description	Code No.	Price
Signature :			

A. S. M.

Figure 4.14b

GOODS RECEIVED NOTE

Location:		Date :	
Units	Description	Code No.	
Signature :			

A.S.M.

Figure 4.15

REGIONAL TRADING & PROFIT/LOSS A/C
FOR MONTH & YEAR TO-DATE

	Month		Year To-Date	
	Actual	Budget	Actual	Budget
Sales (1)				
Less cost of sales (2)				
Gross Profit				
Gross profit % of Sales (3)	%	%	%	%
Wages Direct				
Indirect				
Delivery Costs				
Other Expenses				
Total Expenses				
Net Profit				
Net Profit % of sales				

Notes

1. Total of all shop sales in region
2. Estimate based on experience ± stock surpluses and shortfalls shown by regular counts in each shop and warehouse.
3. Important ratio to two decimal places.

A. S. M.

Figure 4.16a

REGIONAL SHOP RESULTS

	Sq. Metres	Sales T. L.			
		Month		Year To-Date	
		Actual	Budget	Actual	Budget
Shops A					
B					
C					
Total					

A. S. M.

Figure 4.16b

STOCKHOLDING

	T. L.
Shops A	
B	
C	
Total as selling price	
Shops at estimated cost	
Warehouse at estimated cost	
Regional Stocks	

Note 1 - Estimated cost \approx selling price $\times \frac{100 - GP\%}{100}$

Figure 4.17

A. S. M.
CONSOLIDATED PROFIT AND LOSS ACCOUNT
For Month and Year To-Date

	Month		Year To-Date	
	Actual	Budget	Actual	Budget
Sales				
Less cost of sales				
Gross Profit				
Expenses				
Interest				
Net Profit before tax				
Taxation				
Net Profit.				

APPENDIX 4.5

INVENTORY CONTROL SYSTEM

Following our investigations we believe that significant benefits could be achieved if the Inventory Control System is improved. Details of the general principles were given in the interim reports and the interface between the inventory system and other information systems has been mentioned in relevant sections of this report.

We recommend that an A. S. M. product coding and classification system be introduced to replace the existing illogical practice. Details of our recommended system, covering both retail and manufacturing operations in Sumerbank are shown in Appendix 4.6.

We suggest that existing forms are converted so that they become input documents for enhanced data processing facilities.

Standard communication procedures should be developed so that all stock movements are recorded as early as possible at the warehouse and regional office. The regional office will then be able to supply timely and accurate information to A. S. M. Head Office.

Existing manual recording systems should be replaced as soon as possible in the Regional Offices and Head Office. Bulk data in the form of ledgers and cards makes the abstraction of information difficult and time consuming.

Managers of shops and warehouse should be able to refuse delivery of goods that they have not ordered or do not conform to specification. This should mean that A. S. M. does not accept the change for these goods but this must be discussed with Sumerbank and the associated manufacturing organisations.

Warehouses should provide a facility to shops whereby bulk deliveries from the manufacturer are broken down into more readily saleable sizes.

There should be a regular review of obsolete and slow moving stock which should be disposed if necessary.

Communications between warehouses could be improved so that shortages in one could be balanced with surpluses in others. This facility should be designed into the programs. Procurement procedures should be reviewed so that the rate of delivery to A. S. M. is more closely related to the rate of sale at the shops.

Basic requirements for individual product records are discussed in the chapter on inventory control and A. S. M. requirements are basically similar.

We recommend that a tagging system similar to that shown in Appendix 4. 7 could be most useful in monitoring the progress of products through the system.

APPENDIX 4.6

CLASSIFICATION AND CODING

TO PROVIDE INTEGRATED FACTORY/MARKETING REFERENCE

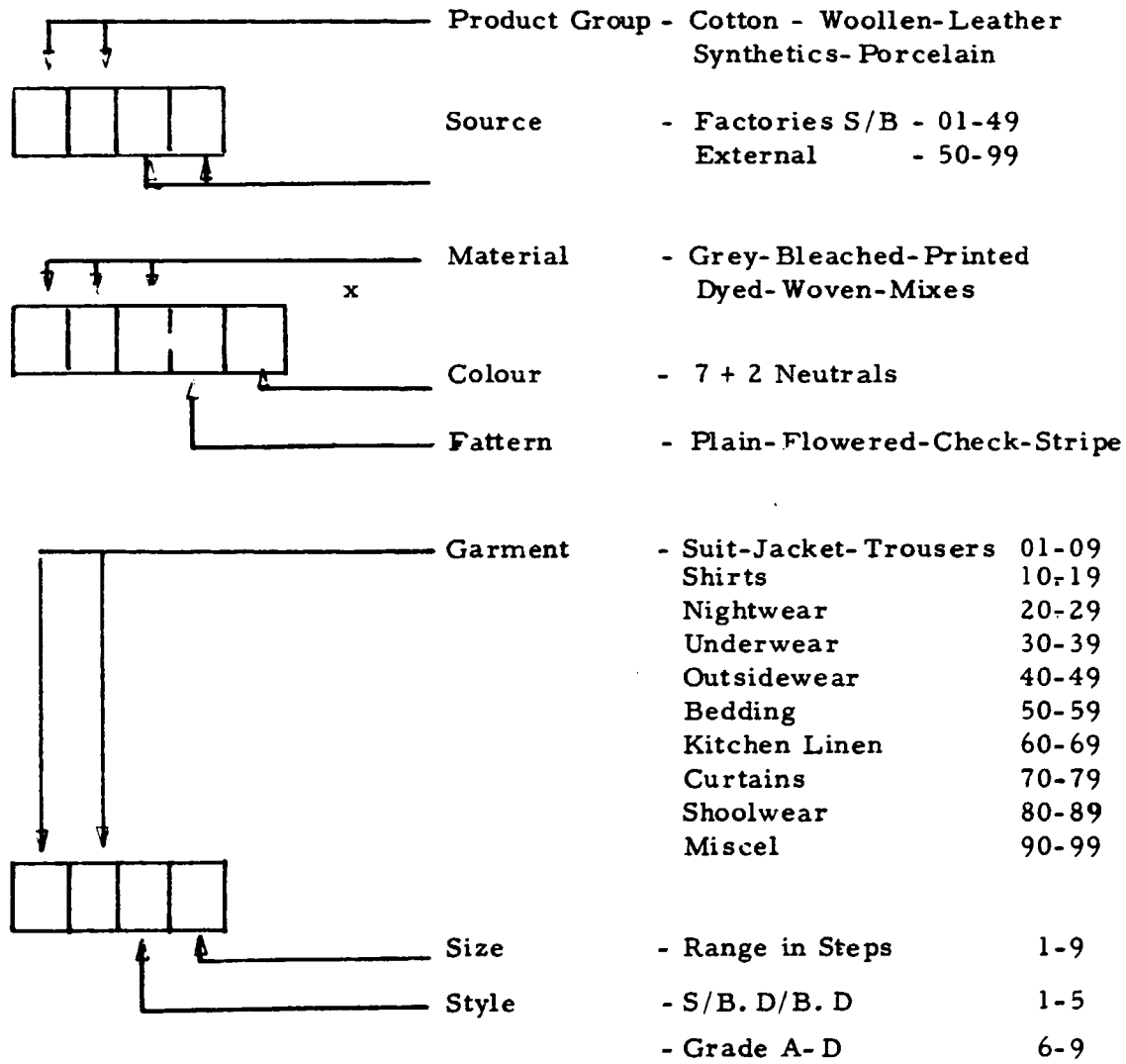
Definition

Design a code for all manufacturing factories in Sumerbank so as to provide unique product identity as part of a complete integrated accounting - production and business control system.

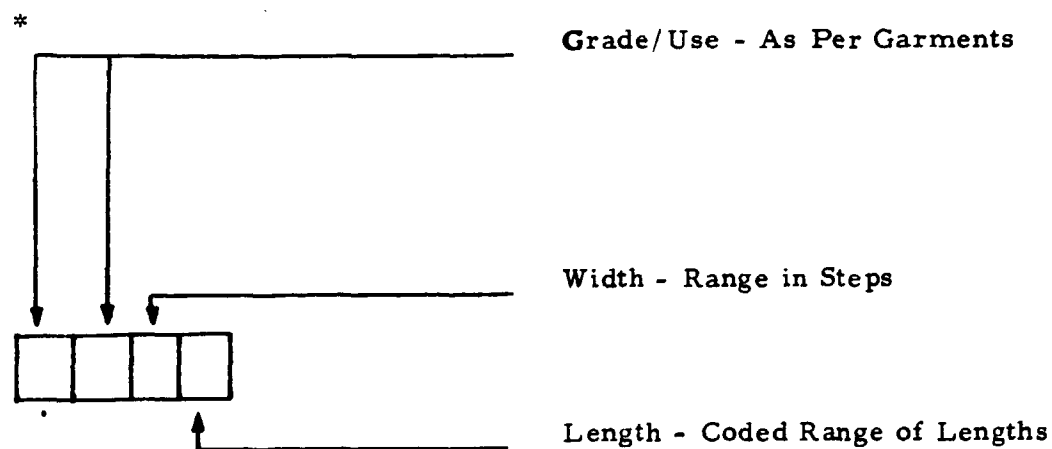
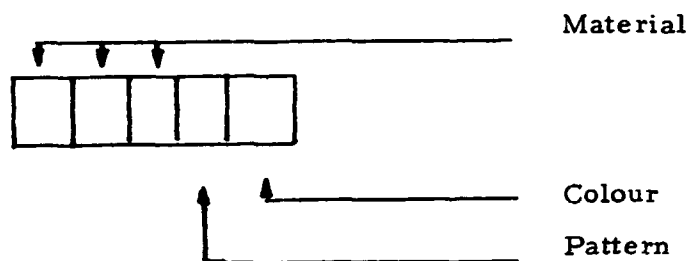
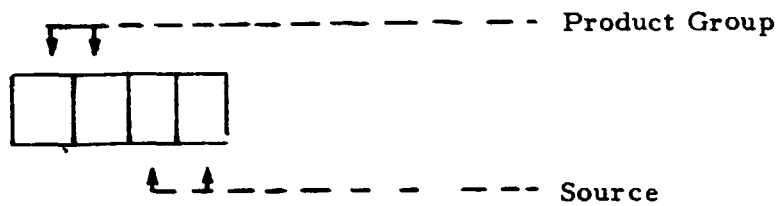
Objectives

1. To codify the development process of the product to saleable finished product.
2. To interphase the manufacturing code with the marketing code in order to provide a combined single monitoring basis.
3. Establish a code which has universal appeal possibly interphased with codes currently used in other SEE.
4. Single out the cross reference opportunity for export trading and import items necessary to the commonality of simple trading references.

CODING - A.S.M.



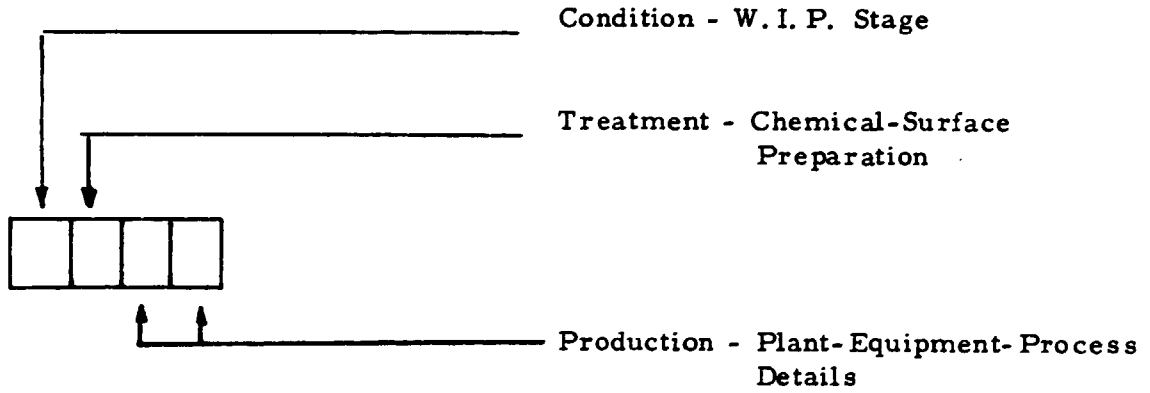
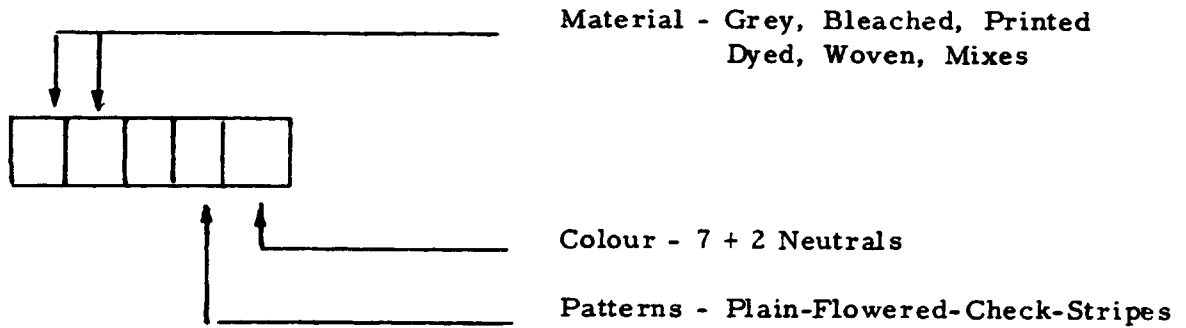
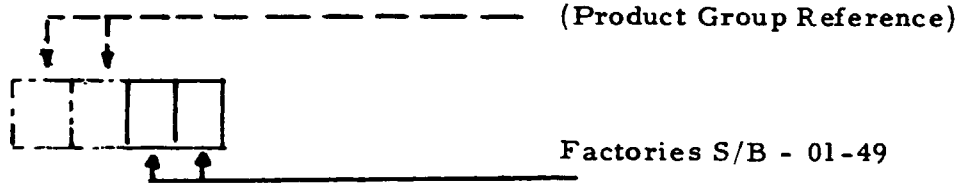
x Typical for garments ready made for retail



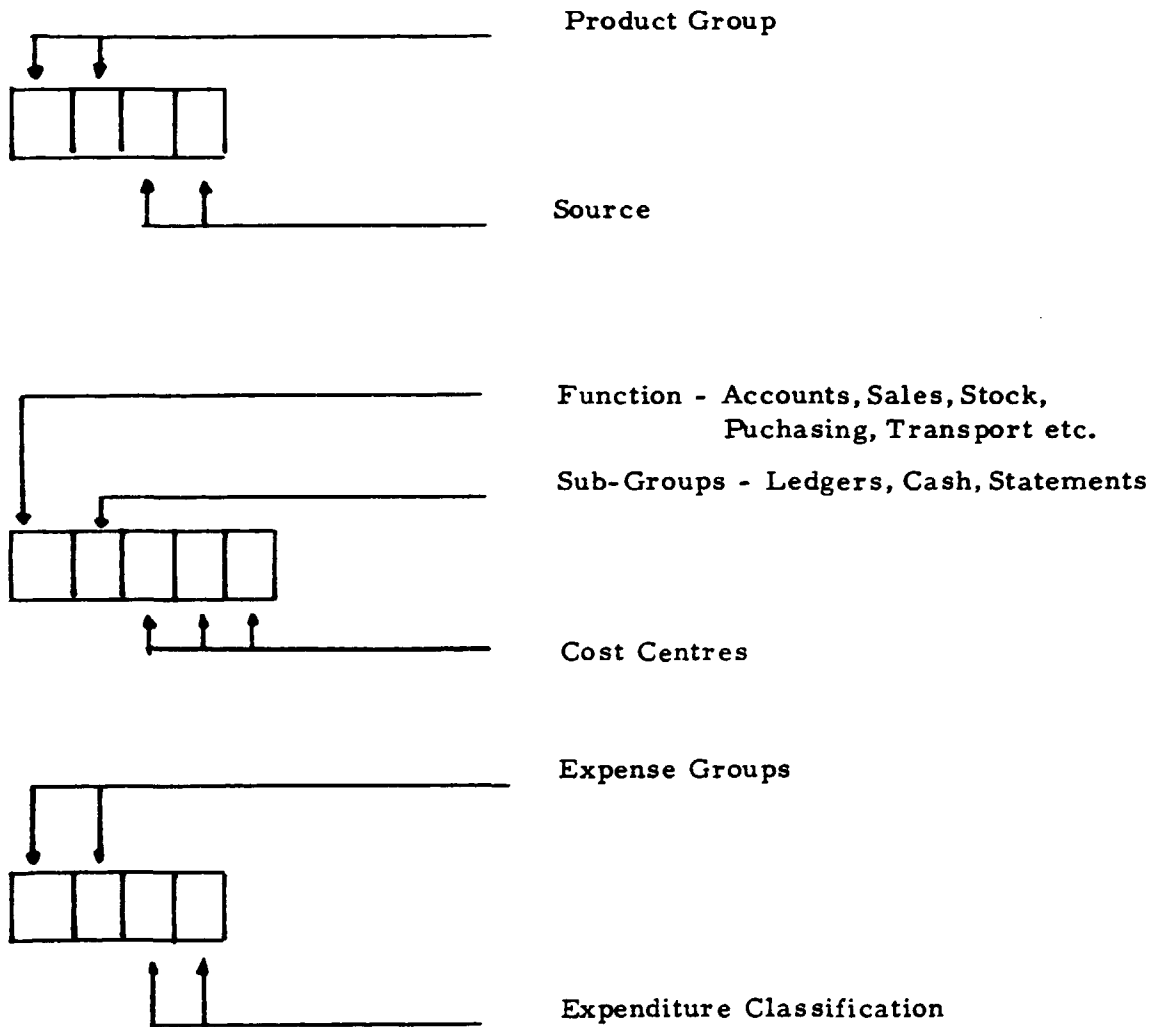
* Typical for Materials for Tailoring to Requirement.

CODING - FACTORY

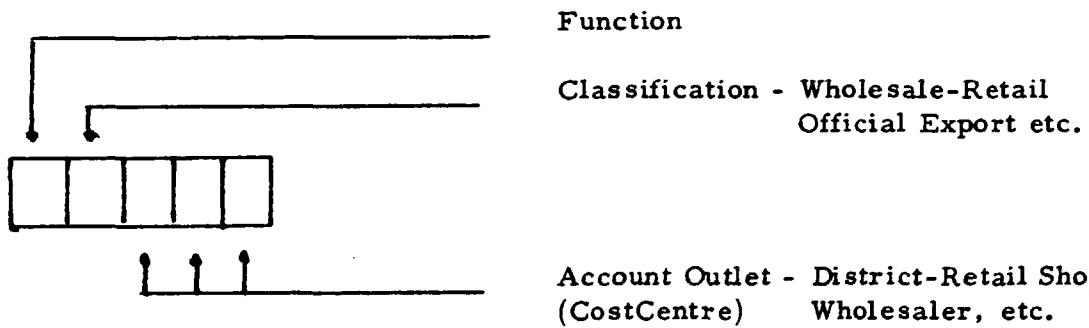
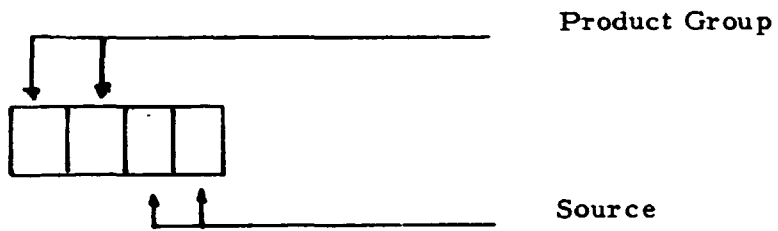
COMMON CODE A. S. M. / FACTORY



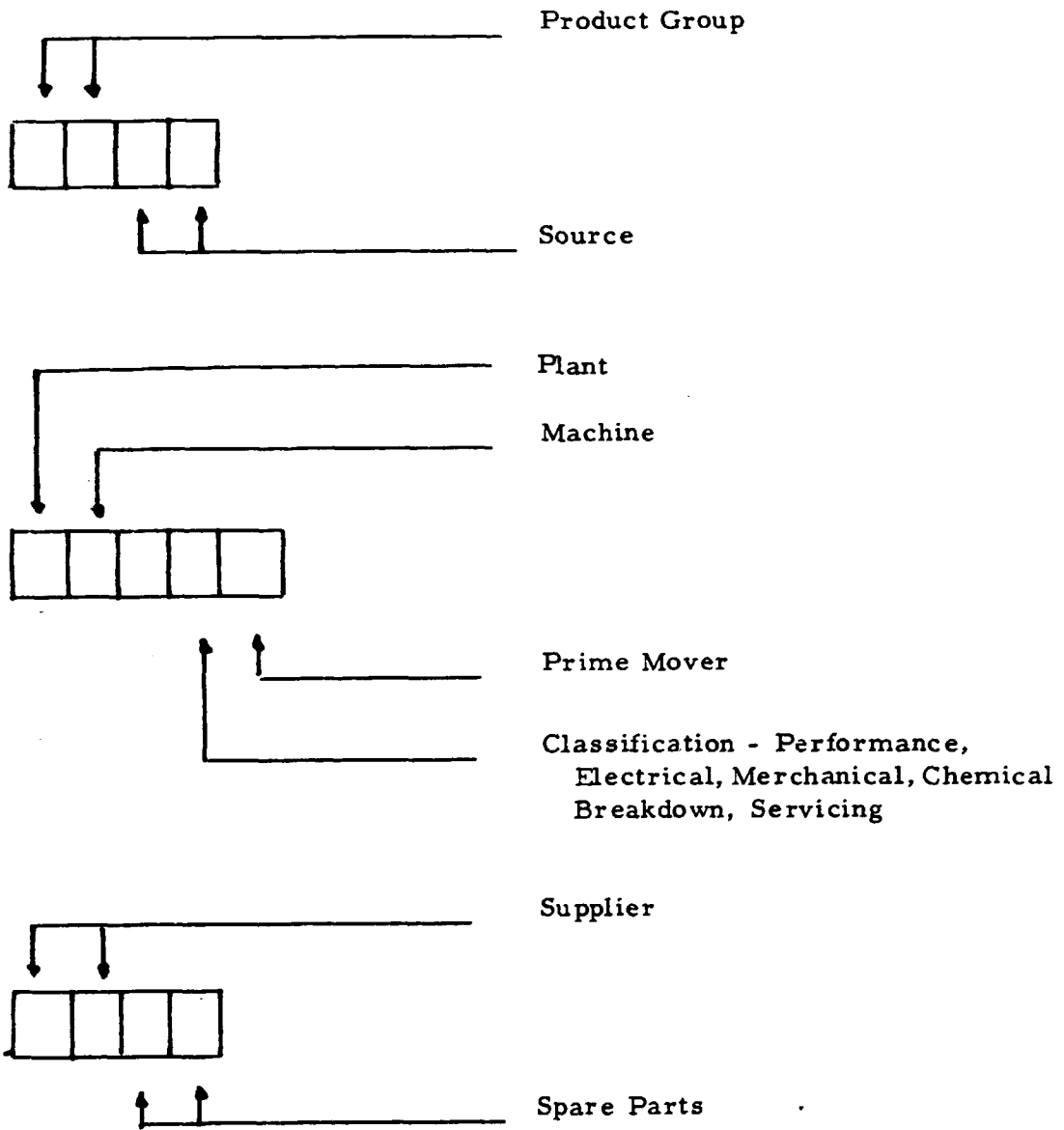
CODING - ACCOUNTS



CODING - MARKETING



CODING - TECHNICAL



APPENDIX 4.7

KIMBALL TAGS, PREPUNCHED AND ATTACHED TO PRODUCTS

In order to reduce the volume and complexity of stock recording; inventory control, reconciliation and transacted cash and the frequent errors in recording correctly product orders and description, we have examined various pre-prepared tickets. The most likely to achieve Sumerbank s needs will be of the "Kimball" tag form. As shown in the sketch this is a two part ticket prepunched with the products unique code, manufacturer and basic price.

The ticket blanks are purchased in bulk and equipment is required to punch the unique code at the manufacturers for attachment to the product by manual or automatic system.

The ticket has two identical parts. One is used for stock control purposes the other for actual consumer sales confirmation.

We suggest in the case of baled, or, rolled cloth that a block of identical tickets be issued for each unit placed on sale. The sales clerk can then withdraw on each sale from the roll a ticket and insert the length purchased. This detail can then be inserted into an inventory control process and the issues reconciled with the sales.

The equipment estimated price is as follows :

P. M. 75 Ticket Punch	\$ 19,975
Read Mag-Tape Unit H5	\$ 84,600
(A slower Mag-Tape Read is available @	\$ 30,550)
	<hr/>
Estimated cost	\$ 104,575

It is conceivable to have a head office department which specialises on the preparation and development of the kimball tags making the above cost relatively cheap for a series of manufactured products.

We examined the alternative possibilities of using magnetic sensed tags. Although in the next few years this system may be universally adapted, current users have found them unreliable and difficult to operate.

Where a system of point of sale can be used such as at a supermarket/departmental stores where the cash point is automatically tied to a computer data input receiver, and file up-dating is on line, then automatic stock and sales transactions can be incorporated on the sensed magnetic strip taken off the garment at the cash point. We believe this innovation which can have wide application should be considered for a later development.

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10652

CHAPTER 5 (5 of 7)

CAPITAL PROJECT PLANNING
AND CONTROL

VOLUME 5 OF 7

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Sheet No. 6	Mill Quarterly Summary Control Sheet (SB/P/6)
Sheet No. 7	Divisional Project Quarterly Control Sheet (SB/P/7)
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Sheet No. 2	Project Cash Flow Forecasts (SB/P/102)
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Sheet No. 5	Bar Chart/ Pert Network Examples (SB/P/105)

1. INTRODUCTION

5.1 This report describes in detail a comprehensive Planning and Control System, which has been designed to assist the Sumerbank Group obtain effective investment control over all capital project work.

5.2 The proposed documentation, it's method of compilation and the general levels of responsibility are all set out in detail.

5.3 For ease of assimilation the report is sub-divided into the following three parts :-

- General Overall Description and Comments
- Mill Operating Procedures
- Group Headquarters Operating Procedures.

2. CURRENT SITUATION AND NEED FOR CONTROL

5.4 In an environment of high inflation, the careful control of high cost capital projects is essential if excessive cost escalation is to be avoided. Significant increases in budget costs can be caused by unnecessary delays arising from poor control and leading to such adverse trends as :

- increases in foreign capital requirements due to a deterioration in the exchange rate
- increases in local currency needs caused by high domestic inflation rates.

5.5 In Table 1, overpage, the original budgets together with subsequent revisions for the garment and printing projects at Izmir are set out. The salient features to note from this table are :-

- the Garment Project (No. 77CO400 20) was commenced in 1977 with a budgetted cost of 55.9 m TL and planned originally for completion in 1979. As of November, 1980, the latest estimate of project completion cost is 446.5m TL an increase of 800% with foreign currency needs increasing 10 fold and local currency requirements sevenfold. It should be noted that the scope of this project was extended recently, thus substantially increasing the total cost of the work. However, the original estimate had already more than doubled before this modification was incorporated.
- the Printing Project (No. 76 CO400 20) exhibits similar characteristics and was originally planned for completion in 1978 at a total cost of 64.9 m TL. The latest estimated completion cost for this project is 204m TL with a 300% increase of cost in both foreign and local currencies.

SOME CAPITAL PROJECT EXPENDITURE BUDGETS

TABLE 1

PROJECT	ESTIMATED COMPLETION COSTS IN PARTICULAR YEARS											
	1977			1978			1979			1980		
	F. C.	L. C.	Total	F. C.	L. C.	Total	F. C.	L. C.	Total	F. C.	L. C.	Total
Izmir Garments (77 CO400 20)	16.4	39.5	55.9	41.0	82.5	123.5	41.0	82.5	123.6	163.6	282.9	446.5
Izmir Printing (76 CO400 20)	35.7	29.2	64.9	53.3	41.8	95.1	53.4	41.8	95.2	109.9	94.2	204.1
R. M. P. (80 CO400 40)	-	-	-	-	-	-	-	-	-	* 106.0	3650	-

Note : All figures in million TL except * US \$ M.

5.6 The phase of the R. M. P. Project planned for completion in the four year period 1980-83 has been budgetted at a cost of US \$ 106 m for foreign currency and 3650 m TL local currency (conversion rate 82 TL = 1 US\$). These very substantial levels of expenditure and possible failures to meet originally planned target completion dates will inevitably result in very considerable increases of cost.

5.7 It is imperative, therefore, that timely capital project control and reporting procedures meet the required co-ordination and management control needs. The monthly and quarterly reports that are required to achieve this control should include :-

- progress to-date covering :
 - building construction work
 - machinery and equipment installation
 - services supplies (power, steam, etc)
- actual expenditures to-date
- budgetted expenditures for 12 months ahead.
- details of expected revisions to completion dates and likely impact on original budgets (when appropriate).

5.8 The procedures developed take into account the need for:

- variance reporting, covering costs and timing with explanations
- individual accountability rather than diffused departmental responsibilities
- regular review and co-ordination meetings
- revision of plans accompanied by explanatory notes and the re-evaluation of economic viability where necessary.

PART I : GENERAL DESCRIPTION

3. OBJECTIVE

5.9 The main purpose of this system is to :

- provide a simple, accurate method of project control, which is definitive in both time and financial commitment, to enable management to:-
 - appraise project progress effectively on a regular, routine basis
 - understand clearly where any delays or deviations of major significance are likely to occur and the effects these may have on completion dates, overall costs and project performance.
- limit the stages of authorisation and involvement to facilitate progress and minimise the number of associated executives
- identify all critical tasks where delay in execution or completion will seriously impinge upon the overall progress or completion of a project
- highlight possible areas of major cost escalation to enable remedial action to be initiated without delay
- provide authorisation procedures to enable a carefully phased approach to all project programmes.

4. METHOD

5.10 The system has been designed to :-

- minimise documentation
- simplify entry requirements
- retain the same key factors throughout both in the interests of speed and minimising cost, as well as enabling the maximum use of non-specialist staff for completing all necessary documentation and entry tasks.

5.11 In designing the forms and procedures it has been assumed that the generally accepted principles for efficient capital project control are both accepted and used. These include :

- firm direction from the Divisional Executive to ensure project plans are prepared well in advance
- making adequate allowance in the budgets for inflation
- prompt preparation of progress data and reports.
- speedy review of progress reports by the Divisional Executive
- continuous Top Management support and interest in project progress

5. BROAD SYSTEM STRUCTURE

- 5.12 The essential philosophy of these procedures is to ensure that the necessary detailed planning and recording data required at "grass roots" level is compatible with executive review requirements. The managerial system objectives and needs embodied in this approach affecting the different management levels and locations are set out diagrammatically in Chart No. 5.1 and provide the following general structure :-

A: Mill Level

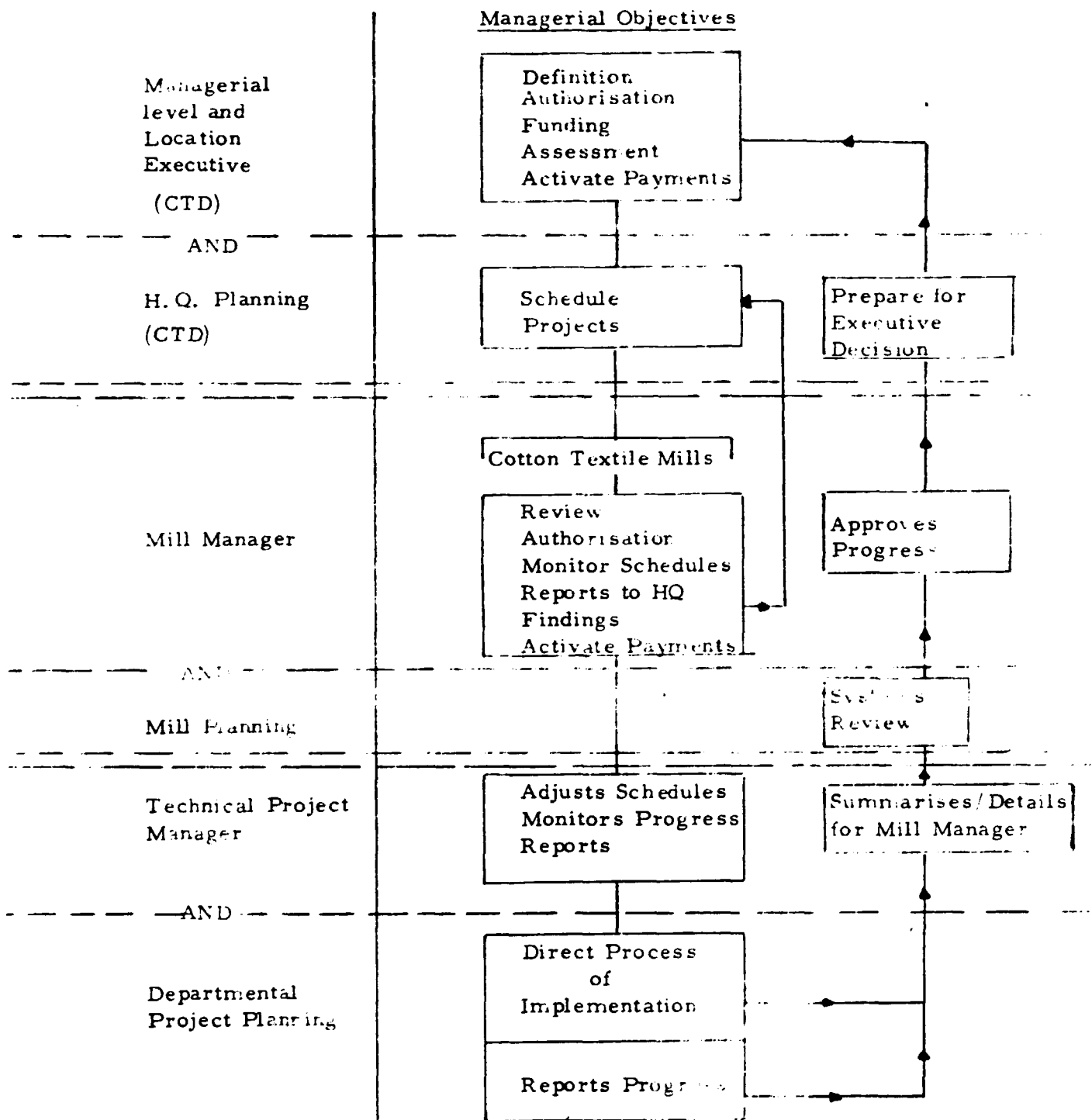
5.13 Departmental Project Planning

- develops and plans for implementation by the Mill Manager/Technical Manager.
- adjusts plans in conjunction with other general and technical departments to fit overall Mill plan
- progresses and reports on implementation.

5.14 Technical Project Manager

- originates general project development plans
- prepares project plans with the help of technical department staff
- adjust plans to meet Mill objectives
- monitors project progress and reports regularly to Mill Manager
- prepares plans to minimise delays and impending implementation problems.

OVERALL PHILOSOPHY OF CAPITAL PROJECT CONTROL



5.15 Mill Planning

- preparation of all project plans, progress reports and collection of necessary data.

5.16 Mill Management

- review regularly all project progress
- reports regularly on project progress to HQ, commenting on delays and other factors likely to effect completion dates or increase costs.
- submits plans for approval for new projects and major alterations to existing approved programmes, together with justifications for proposed action.
- advises HQ Planning Department immediately on receipt of all plant and machinery to activate settlement of invoices
- arranges for the preparation of plans and data in connection with projects requested by HQ.

5.17 Mill Investment Control Officer

To enable effective planning and control to be exercised over all project investment funds, it is essential that each Mill appoint an Investment Control Officer who will report directly to the Mill Manager for this work. His duty will be to plan and supervise the preparation of the necessary documents and reports required to operate an efficient control system as described in this report. He will also liaise closely with the Divisional HQ Planning and Control Department, particularly in relation to the planning and control of foreign currency purchases.

B : Headquarters Level (CTD)

5.18 H. Q. Technical Department (CTD)

- vets all project plans and suggested amendments to projects already approved and duly approves, amends or rejects.
- together with the HQ Project Planning and Control Department plans the programmes for all overseas purchases for HQ Executive approval, detailing the estimated cost and timing (by month) of all funding requirements. This latter will include satisfying the following needs :
 - total purchase price with details of any stage payment requirements.
 - shipping and insurance charges
 - customs and excise payments
 - port dues
 - internal transport charges from port to individual Mills

5.19 H. Q. Accounting Department (CTD)

- receives copies of all approved project plans with detailed information regarding budgetted funding requirements.
- receives immediate notification from HQ Project Planning and Control Department of the following for each and every item of foreign supply
 - date of arrival in Turkish Port of entry

- time of customs clearance
- date of arrival at Mill(s) at which machinery/supplies to be used

5.20 Divisional H. Q. Project Investment Controller (CTD)

It is desirable that an Investment Controller who reports directly to the Divisional Financial Director be appointed to supervise, control and co-ordinate the Divisional Project Investment activities. His prime duty of co-ordinating all project activities and keeping the Divisional Executive regularly advised of progress necessitates that he maintain close contact with Investment Officers at each of the Mills where capital project work is in hand or being planned.

5.21 H. Q. Planning and Control (CTD)

- receives from the Mills for review, comment and recommendation to the HQ Executive after discussion with HQ Technical Department the following :
 - project progress reports
 - proposed plans for future projects
 - special reports covering significant changes in timing and cost for approved projects already in hand
- reviews for comment and recommendation the HQ progress control information on foreign purchases including transport expenditures incurred in moving the goods between ports of entry and the Mills. Subsequently consolidates this information with that covering local purchases received from the Mills.
- in respect of all foreign purchases advises H. Q. Accounting Department immediately the plant or machinery arrives at :
 - Turkish port of entry
 - Mill or point of usage
 and at any other stage specified by the Accounting Department for making adequate settlement of the invoices.
- prepares data and reports for all project reviews by the HQ Executive and any additional project information required by this latter body

5.22 H. Q. Executive (CTD) ,

- reviews progress of all projects quarterly with the aid of Mill Management and HQ Planning comments and recommendations
- authorises or otherwise, plans for projects submitted by Mill Managements if within limits of responsibility
- authorises the preparation of funding applications to Government Departments or other appropriate authorities when projects are approved in principal
- advises Mills on the decisions regarding all project requests received.
- issues general instructions to Mills where alternative or remedial action is required on a project for any reason.

C : General Comments

5.23 The main documents required to provide an effective initial appraisal/viability system for new projects are also included in this report. These will need to be augmented by detailed back up sheets providing further information regarding methods, plant and equipment details and cost/saving calculations.

5.24 Capitalisation

As each project is planned the Divisional Executive needs to indicate which items of expense in setting up new facilities or modifying existing plant should be capitalised.

5.25 Expense Allocation

In addition, guide lines as to how expenses for such items as planning and control should be allocated, must be established before each project is put in hand. For example which expenses for planning and control should be allocated to Divisional HQ and which to Mills.

6. DOCUMENTATION

A:General Control

5.26 A series of forms have been designed to provide an effective means of planning and control from the "grass roots" Shop Floor level up to the Sumerbank Group Executive level. Briefly this consists of the following set of forms :-

- Mill and Headquarters Level :
 - Item Action Planning Sheet
 - Departmental Planning Sheet
 - Departmental Actual Expenditures (3 sheets)
 - Mill Quarterly Summary Control Sheet

- Headquarter Level (CTD)
 - Divisional Quarterly Progress Sheet
 - Division Funding Requirements (4 sheets).

5.27 Samples of the above forms are contained in Appendix I sheets 1 to 11 at the end of this chapter and detailed information regarding the entering up of forms and the preparation of reports, reviews, etc. is given in parts II+III of this chapter. Additionally a Document Flow Chart and Summary Document Listings are given in Appendix II sheets 1 to 3 indicating the general flow pattern of the forms required.

B : Mill Management Review Reporting

5.28 A set of review documents has been designed to enable Mill Management to submit to the HQ Executive meaningful :-

- quarterly progress reports on approved projects already in hand
- initial proposals for new projects.

These consist of the following :-

- Justification Report
- Cash Flow Forecasts
- Funding Authorisation Sheet
- Quarterly Status Report

A set of these documents is contained in Appendix III of this chapter.

7. FREQUENCY OF REVIEW

- 5.29 In broad principle the H. Q. Executive will review Project Progress every quarter and Mill Management will formally check progress every month. Of the documents mentioned above the first five forms listed will be up-dated or prepared monthly and the remainder including all Management Review Forms will be prepared at the end of each quarter. For effective management control all documents should be ready for the Mill Management Review ten working days after the end of the month or quarter and for the HQ Executive and HQ Accounting Department by twenty working days after the end of the quarter.

In addition to the regular reviews mentioned above it is essential that the HQ Accounting Department be advised immediately of the following :

- a) By H. Q. Planning and Control
 - the arrival of each and every overseas consignment
 - the customs clearance of each and every overseas consignment.

- b) By Individual Mills
 - the arrival of each and every item from overseas sources
 - any other point during the installation phase up to full commissioning that is critical in relation to stage payments

8. LEVELS OF ACCOUNTABILITY

5.30 While several levels of Managers and Supervisors will contribute towards the preparation of project planning, justification data and progress evaluation, final accountability for the reliability of both the figures and the recommendations made rests with the following :-

- at Departmental level the appropriate Departmental Manager

- at Mill level the Mill Manager.

All expenditures required for Capital Project implementation must be approved by the Divisional Executive and any necessary Governmental or other Authority prior to use.

9. CODING

5.31 It is proposed that all projects be identified by a main three digit code as follows :-

x ..

where:

x denotes the Division of Sumerbank and

.. identifies the specific project number

and a subsidiary five digit code as follows:-

oo + □□

where :-

oo identifies the Mill or location

+ denotes the Department within the Mill or Location

□□ indicates the Number of the particular item in a Department for a particular project.

Example - C 12/04 3 25

C Cotton Textile Division (CTD)

12 No. 12 Project

04 Eregli Mill

3 Weaving Department

25 Item No. 25 in the weaving department at Eregli Mill on Project No. 12

PART II : MILL OPERATING PROCEDURES

10. GENERAL

- 5.32 The purpose of this section of the report is to describe in detail how the system that has been designed for effective Capital Project Control within each Mill or Factory, is planned to operate. The methods of entry and usage for each of the forms is set out in some detail to act as a guide.

A : Documentation

11. GENERAL

5.33 The documents concerned are as follows :-

SB/P/1 Project Item Action Planning Sheet

SB/P/2 Departmental Planning Sheet

SB/P/3 Departmental Itemised Expenditure Sheet

SB/P/4 Departmental Actual Cost Expenditure Sheet

SB/P/5 Departmental Expenditure by Investment Accounting Groups

SB/P/6 Mill Project Quarterly Summary Control Sheet.

In practice it may be found helpful to augment form SB/P/1 to facilitate the easy compilation of information on large or complicated items. Furthermore the forms have been designed so that maximum usage can be made of each, e. g. form SB/P/2 can be adapted for use in developing the physical planning schedules, as well as the financial schedules for which it is primarily designed. Each of the forms enumerated above is described in some detail in the succeeding sections.

12. PROJECT ITEM ACTION PLANNING SHEET (SB/P/1)

5.34 The purpose of this form is two-fold namely :-

- to assist the Mill technical and departmental staff plan and evaluate in detail the needs of each discrete item in any project, e. g. the installation of a Pirnwinding Machine, the transference of a Dyeing Machine to a new location or the removal and scrapping of 25 looms. It will exclude all tasks involved in getting machinery, supplies, etc. from overseas to the Mills where they are to be used and is concerned with local currency operations only.
- to assist HQ Project Planning and Control Department plan and control all steps involved in securing overseas supplies up to the point that the goods arrive at the Mill(s) where they are to be used. This will cover all the foreign currency activities, and the port expenses and transport needs to the Mills in local currency.

5.35 Each item in each department at each Mill needs to be broken down into small tasks, e. g. if a new machine is being installed the work will include :

- clearing the site
- preparing foundations
- installing machine(s)
- arranging for the supply of necessary services (electricity, gas, water, compressed air, etc.)
- testing and commissioning

- 5.36 The details to be worked out on the sheet for each foreign acquisition will include :-
- estimated time to carry out tender activities up to the point of awarding the contract
 - estimated time required from time of placing firm order to receipt of goods at Turkish Port of Entry.
 - estimated time required to clear customs and transport goods to point of usage
- 5.37 Only in this way is it possible to arrive at a realistic assessment of the necessary funding for each item on the project by enabling the labour, material and timing needs to be evaluated for each task, as well as the cost of machines, equipment, etc.
- 5.38 Having listed all the items, excluding the purchase of foreign machinery and supplies, to be completed as indicated above, entries are made on the right-hand side enumerating the tasks to be completed including the labour and material requirements. The labour evaluation will indicate the type and quantity of personnel and the length of their involvement and the material content will list the types and quantities required. Finally the labour and material requirements are costed for overall evaluation.
- 5.39 When calculating the earliest possible starting dates at the bottom of the sheet, account must be taken of labour availability, bearing in mind that each plant will usually have a priority to maintain Mill production and extra suitable labour, either temporary or permanent, is only likely to be available in a limited quantity or to be non-existent.
- 5.40 As is common on any project, the staff of the Technical Department and the Engineering Services will co-operate with the relevant Departmental Staff to arrive at the estimated time and cost required to accomplish the effective completion of the tasks. Thus enabling Management to

make an overall feasibility evaluation. The assistance of the Costing and Work Study Departments will also be used where appropriate to provide time standards and costing information.

5.41 In the case of the acquisition of foreign machinery or supplies all the stages of operation up to the arrival of the goods at the Mill or location of usage are costed. This will include the following :-

- all tender activities up to time of placing the order
- estimated cost of goods and details of any necessary stage payments
- shipping and insurance expenses
- customs and port dues
- local transport from port to point of usage.

13. DEPARTMENTAL PLANNING SHEET (SB/P/2)
- 5.41 The purpose of this form is to assist with the planning of the work - both physical and financial - for each particular project at Mill departmental level, as well as at Divisional Headquarter level (all foreign purchases).
- 5.42 This will be done by setting up all the work against a time scale to enable visual adjustment of individual items in the programmes, to avoid both over and under loading. Additionally the plans prepared for the purchases of overseas machinery and supplies by Divisional Headquarters will have to be co-ordinated with the installation plans at the appropriate Mills to ensure, as far as possible, that delays are avoided because of the late or early arrival of machinery at the point of use.
- 5.43 Having established and agreed the overall physical timing programme, funding requirements can be entered up on a monthly basis showing, foreign currency (US \$ Dollars) and local currency (TL Turkish Lira) separately.
- 5.44 The sheet lists of all the items to be completed within the department for the project and monthly funding requirements are listed against the expected months of need.
- 5.45 Having listed all the items with the aid of the appropriate Project Action Planning Sheets enter up in "bar chart" form the period during which the work will be completed. After carrying out any readjustment of timing to avoid labour under loading or over loading or lack of necessary material requirements, the months when funding will be needed, can be marked up against each item together with the assessed amounts of money.
- 5.46 In determining the time of supply and amount of money required, care must be taken to phase the supply of funds to meet suppliers requirements. For example, when ordering looms for overseas it may be necessary to make a percentage down payment and another stage payment may be required prior to the despatch of goods. In both cases quoted, funds will be required some months before installation commences.

- 5.47 In practice it will probably be necessary to readjust original timing plans for items on any particular project to avoid over or under loading, whilst still enabling the department to maintain an adequate production performance.
- 5.48 At the end of each quarter a summary figure of monthly funding requirements for each department for the next twelve months will be prepared for the Mill Managers and the Divisional Executives Quarterly Review.

14. DEPARTMENTAL ITEMISED EXPENDITURE SHEET (SB/P/3)

- 5.49 The purpose of this sheet is to provide a record of actual expenditure incurred every month against each item, showing the foreign expenditure (US Dollars) separately from the local expenditure (TL Turkish Lira).
- 5.50 Separate sheets will be prepared as follows :-
- at Divisional Headquarters level covering all foreign currency expenditures plus local currency expenditures incurred in getting foreign purchases to the Mill where they are to be used
 - at individual Mills for each department covering all local expenditure
- 5.51 The sheet lists all the items to be completed in the department for the particular project and should be up-dated by the Divisional Headquarters and Mill Project Planning and Control Departments at the end of each month.
- 5.52 Actual expenditures against each item on a project can be obtained from the Divisional Headquarters Accounting Department for all foreign currency transactions and local currency transactions from the port of entry to Mills or other usage points. All other local currency expenditures incurred within a particular plant will be obtained from Mill Accounting Departments. Each entry will be made on the first free column available and will record the month of spending and the amount e. g. 12/80 75,000 T. L.
- 5.53 The Divisional Headquarters Planning and Control Department will coordinate the HQ and Mill statistics to provide a record of total expenditure in both foreign and local currencies, for each department in each Mill.

15. DEPARTMENTAL ACTUAL COST EXPENDITURE SHEET
(SB/P/4)

5.54 The purpose of this sheet is to provide a summarised departmental record of actual expenditure in both foreign and local currencies for each Mill that is working on a project. This will give the total budget, actual and variance totals to-date from the start of the work, as well as similar results for each month in the last quarter for both foreign and local currency. The individual Mill copies will exclude the foreign currency and the consolidated copies for each Mill will be prepared by the Divisional H.Q. Planning and Control Department who handle the foreign currency items.

5.55 The sheet lists all the items to be completed in a department on a particular project and should be up-dated at the end of each month as follows :-

- local currency activities - Mill Project Planning Dept.
 - foreign currency activities
 - consolidated sheet for each department
at each mill
- } Divisional
H. Q. Planning
and Control
Dept.

16. DEPARTMENTAL EXPENDITURE BY INVESTMENT
ACCOUNTING GROUPS (SUB/P/5)

- 5.56 The purpose of this sheet is to provide the Divisional H. Q. Accounting Department with a monthly statement of actual expenditures in both foreign and local currencies to fit into the existing Investment Control procedures.
- 5.57 The local expenditures will be entered up by the Accounting Departments at Mill level and then passed on to the Divisional H. Q. Planning and Control Department who will complete the entries for foreign currency expenditures with the assistance of the Divisional Accounting Department before finally passing the sheets to this latter department.
- 5.58 The primary function of this sheet is to provide the Divisional Accounting Department with details of expenditures at the end of each month. However the form has been designed so that six months results can be recorded on the same sheet as it is considered this may be helpful for overall control.

17. MILL PROJECT QUARTERLY SUMMARY CONTROL SHEET
(SB/P/6)

5. 59 The purpose of this sheet is to summarise the quarterly progress of every Mill on each project by recording budgetted, actual and variance expenditures, as well as budgetted expenditures for the next four quarters.
5. 60 In this way an effective mechanism for exercising financial control over project expenditure is provided, with Mill Managements controlling local expenditures and Divisional Headquarters Planning and Control Department handling foreign expenditures.
5. 61 A co-ordinated sheet is prepared for each Mill by the Divisional H. Q. Planning and Control Department for submission to the Divisional Executive for project progress reporting purposes. This is accompanied by a report explaining variations from programme and remedial action being taken or recommended for correcting delays or deficiencies. For details see the section on Management Review Reporting.
5. 62 Close liaison will be maintained between the individual Mills and Divisional Headquarters so as to ensure that both levels fully comprehend the overall position covering both foreign and local expenditures. Effective control at both levels is dependent upon understanding the total budgetted and actual picture.

B : MILL MANAGEMENT REVIEW REPORTING

18. GENERAL

5.63 As mentioned earlier in this report the Mill Manager will review the progress of each project already approved and in hand as follows :-

- at the end of each month with the aid of forms 1 to 4
- at the end of each quarter with the aid of forms 1, 2, 3, 4, and 6.

In each case copies of forms SB/P/2, SB/P/4 covering foreign purchases prepared by Divisional H. Q. Planning and Control Department will be supplied to enable the Mill Manager to study the complete position when making this review.

5.64 New projects to be submitted for H. Q. Executive approval will be evaluated as required prior to submission.

5.65 All the above reviews will generate a set of reports for consideration by the Divisional Executive. These will be submitted on the appropriate forms contained in Appendix III which are as follows :

- SB/P/101 Project Cost Justification Report
- SB/P/102 Project Cash Flow Forecasts
- SB/P/103 Project Funding Authorisation Schedule
- SB/P/104 Quarterly Project Status Report
- SB/P/105 Sample Bar Chart/Pert Network.

Each of the forms enumerated above is described in some detail in the succeeding sections.

19. PROJECT COST JUSTIFICATION REPORT (SB/P/101)

- 5.66 The purpose of this report is to set out the main objective of the work concerned, the associated forecast costs and the financial implications of the proposal. It is proposed and submitted together with forms 102 and 103 (described below) which provide detailed cost/profitability data and an itemised list of requirements.
- 5.67 The sections of this report are fairly explicit with financial projections being obtained from forms 102 and 103.
- 5.68 The decision regarding the proposed timing is a subjective one and must acknowledge the need to maintain production facilities to meet Group budgets, as well as planned progress on projects already approved and in hand. Having discussed the alternatives with his various technical colleagues the Mill Manager will usually recommend the timing that appears to provide the best economic advantage.

20. PROJECT CASH FLOW FORECASTS (SB/P/102)

5.69 The purpose of this sheet is to provide a realistic assessment of expected costs, additional sales, increased operating costs, investment needs, etc., so as to arrive at a realistic profit/loss projection for the years ahead. This should take into account expected inflationary trends, which are likely to be significantly different for local as distinct from foreign expenditures.

5.70 The figures for Section A of this form will be obtained from Form SB/P/2 Capital Project Departmental Planning Sheets for the appropriate departments. Section B will be provided by the Sales Department and Sections C and D calculated by the Manufacturing Department in co operation with the Engineering and Planning Sections and the Costing Department. Section G will be filled in with the help of the Accounting Department. All the other sections are completed by addition or subtraction - see the form for details.

21. PROJECT FUNDING AUTHORISATION SCHEDULE (SB/P/103)

5.71 The purpose of this form is to provide a breakdown of the budgetted cost for all the main items in the project. This is both helpful to Mill Management when building up the project costs and to the Divisional Executive when reviewing and authorising the original application. After full consideration of a project by the HQ Executive a copy of this form is duly returned signed up as approved or rejected.

5.72 This form is prepared with the aid of forms 1 and 2 - the Item Action Planning Sheet and -the Departmental Planning Sheet.

22. QUARTERLY PROJECT STATUS REPORT (SB/P/104)

- 5.73 The purpose of this document is to provide Top Management with a meaningful financial report on the progress of every project at the end of each quarter. It identifies areas of delay and over-spending or possible overspending and indicates the causes or likely causes of such deviations in the planned programme, as well as indicating proposed remedial action and the cost implications of such action.
- 5.74 The Financial figures required are obtained from sheets 3, 4 and 6 - the Itemised Expenditure Sheets and the Mill Summary Control Sheet.

The remainder of the report is filled in by the Mill Manager following consultation with his technical colleagues.

- 5.75 In presenting his case the Mill Manager will find it essential to use a Bar Chart and/or Pert Network - for examples see Sheet 105 in Appendix III. Continuous effective control of projects requires that the Bar Charts used to establish the departmental funding requirements with any associated Pert Networks be reworked every quarter.

23. BAR CHART/ PERT NETWORKS

- 5.76 A sample Bar Chart and Pert Network are included in Appendix III as SB/P/105 to illustrate two useful methods of supplementing, the Management Review documents that have been described in this section of the report.
- 5.77 Only by using one or both of these methods is it possible to plan and control effectively the sequence and timing of detailed inter-linked actions which are inevitably involved in carrying out capital project programmes.

24. TIMING

- 5.78 In order to provide effective control all forms No. s 1 to 6 should be up-dated in time to enable the Mill Manager to start his Quarterly Review not later than 10 working days after the end of the Quarter. The Management Review Reports for the Divisional Executives should be available for submission to headquarters not later than 20 working days after the end of the quarter.

PART III : GROUP HEADQUARTERS OPERATING PROCEDURES

25. GENERAL

5. 79 The purpose of this section of the report is to describe in detail how the Capital Project Control System is planned to operate at Divisional Headquarters level.
5. 80 The Divisional H. Q. Planning and Control Department will be responsible for the effective planning and control of all foreign currency purchases of machinery and supplies. This will be carried out in close co-operation with the individual Mill Managements so as to ensure the supply of such items fits in with the installation plans at the point of usage. Only in this way is it possible to avoid extra costs resulting from delays of supply or installation. Comments regarding the forms used are made in the Documentation Section
5. 81 Forms, Status Reports and original Project Requests, as described earlier and further discussed below, are received by the Divisional H. Q. Planning and Control Department from each Mill on a monthly and/or quarterly basis for all project work. After consolidating all the individual Mill results on a quarterly basis with its own figures for all foreign currency transactions, the department reviews each project and prepares a report containing recommendations and comments for presentation to the Divisional H. Q. Executive.

A : Documentation

26. GENERAL

- 5.82 Each month a copy of the Departmental Monthly Expenditure by Investment Accounting Groups Sheets (SB/P/5) will be forwarded to the Divisional H. Q. Accounting Department for up dating existing control procedures.
- 5.83 At the end of every quarter each Mill working on an authorised "on going" project will provide the Divisional HQ Planning and Control Department with copies of the following up-dated forms :
- Mill Departmental Planning Sheets (SB/P/2)
 - Mill Departmental Quarterly Expenditure Sheets (SB/P/4)
 - Mill Summary Control Sheet (SB/P/6)
 - Project Quarterly Status Report (SB/P/104)
- 5.84 After consolidating the foreign currency figures with the local currency figures provided by the Mills, the H. Q. Planning and Control Department will originate the following documents to summarise the results for all the Mills in the Division.
- Divisional Project Quarterly Summary Progress Sheet (SB/P/7)
 - Divisional Funding Requirements
 - Monthly for Next Year (SB/P/8)
 - Quarterly for Project Duration (SB/P/9)

Note

A separate sheet will be prepared for Foreign currency (F. C.)
- US \$ and Local Currency (L. C.) - T. L., for SB/P/8 and SB/P/9.

27. FOREIGN CURRENCY CONTROL

5.85 The control of all imported machinery and supplies paid for in foreign currency can most effectively be carried out by the Divisional H.Q. Planning and Control Department. The physical planning together with the financial controls can be developed using the same forms as those used by the individual Mills as described above, namely :-

- SB/P/1 Item Action Planning Sheet
- SB/P/2 Departmental Planning Sheet
by liaising with the appropriate Mill(s). The timing of actions can be agreed so that supplies of machinery are arranged to fit in with the plans for installation.
- SB/P/3 Itemised Expenditure Sheet
(Foreign Currency)
- SB/P/4 Departmental Expenditure Sheet
(Foreign Currency)

H. Q. Planning and Control will co-ordinate the foreign and local currency data to provide a control sheet covering all expenditures.

- SB/P/5 Departmental Expenditure by
Investment Accounting Groups.

For further details concerning the raising of these documents see Sections 12 to 16 earlier in this report.

28. DIVISIONAL PROJECT QUARTERLY PROGRESS SHEET
(SB/P/7)

5.86 The purpose of this document is to provide Top Management with summarised actual and variance results covering all the projects being handled by the Division.

5.87 On receipt of the Mill Summary Control Sheets (SB/P/6) the H. Q. Planning Section will consolidate all the results for one project and subsequently all projects within the Division on to one Divisional Project Progress Sheet (SB/P/7).

29. DIVISIONAL FUNDING REQUIREMENTS - Monthly for next
12 months (SB/P/8) - Quarterly for length of project (SB/P/9)

5.88 The purpose of these forms is to provide Top Management with a summary of the funding requirements for all outstanding projects. In the short term it is possible to be more precise about immediate needs hence a monthly prediction for up to 12 months ahead. However in the case of projects of long duration practical assessments can only be realistically made on a quarterly basis. Separate sheets are prepared for Foreign Currency and Local Currency expenditures.

5.89 These forms can be completed with the aid of the Mill Summary Control Sheet (SB/P/6) and the summarised version of the Mill Departmental Planning Sheet (SB/P/2).

30. NEW PROJECT APPLICATIONS

5.90 When requesting authorisation for a new project each Mill will prepare the following documents.

- Project Cost Justification Report (SB/P/101)
- Project Cash Flow Forecasts (SB/P/102)
- Project Funding Authorisation Schedule (SB/P/103)

Prior to submission these will be discussed with Divisional H. Q. Technical Department and also Divisional H. Q. Planning and Control, particularly in relation to any Foreign Currency purchases that are visualised.

B : Project Review at Headquarters

31. GENERAL

- 5.91 On receipt of the quarterly project status progress reports and their accompanying statistics the H. Q. Planning will consolidate the results with their own foreign currency data, as described above and having reviewed all the data, prepare a short report for the H. Q. Executive. This latter report should highlight the most significant factors, such as major delays, overspending forecasts and any development that is likely to influence significantly Divisional funding requirements, particularly in relation to overspending whether actual or prospective.
- 5.92 When a new project for the H. Q. Executive's consideration comes to hand the H. Q. Planning Section will review the proposal and attach their comments before sending forward.

32. DIVISIONAL EXECUTIVE REVIEW

5.93 At the end of each quarter summarised progress results in relation to all project work being undertaken within each Division are submitted for the H. Q. Executive Financial and Technical Review. Additionally consideration is given to initial project requests usually at the time of the quarterly review and in exceptional cases of urgency, at specially convened meetings.

5.94 The following documents are received for the quarterly progress review in respect of each "on-going" project :

- Divisional Project Quarterly Summary Progress Sheet (SB/P/7)
- Divisional Funding Requirements
 - Monthly for Next Year (SB/P/8)
 - Quarterly for Project Duration (SB/P/9)
- H. Q. Planning and Control Project Quarterly Review Report
- Mill Managers Project Status Reports (SB/P/104) (when appropriate)

5.95 The following documents are received with an initial application for funds for a new Capital Project :-

- Project Cost Justification Report (SB/P/101)
- Project Cash Flow Forecast (SB/P/102)
- Project Funding Authorisation Schedule (SB/P/102)

5.96 In addition to the normal monitoring of all decisions taken at the Capital Project Quarterly Review Meeting in respect of :-

- applications for funding
- forecast over-spending due to timing delays or other actions

the Divisional Executive will take steps to :-

- apply to Governmental or other appropriate authorities for funding required to carry out approved projects or increased spending on authorised projects already in hand.
- advise Mill Managements of decisions taken in respect of applications made and actions required as a result of reviewing Project Status Reports.

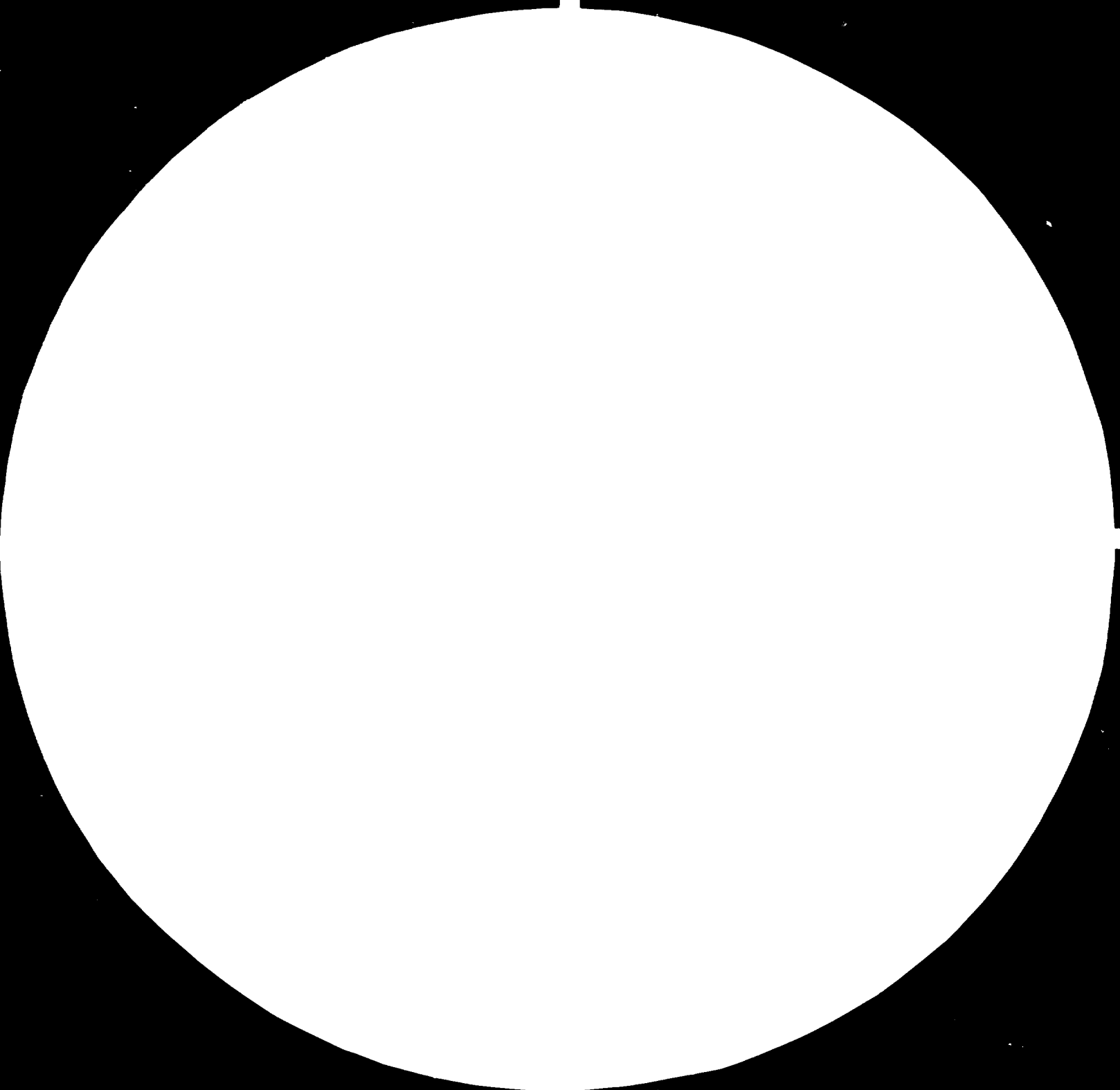
33. CONCLUSION

5.97 This report outlines a regular system of recording and reporting which can provide management with the data necessary for maintaining effective control of capital project expenditures. However, the usefulness of the system is dependent upon reports and returns being made speedily available at the end of each period and management reviewing and acting upon the information without delay. The reports and figures achieve nothing by themselves but are the means by which management can achieve effective control if prepared on time and acted upon speedily. Speed is of essence in achieving good results and avoiding cost escalation.

APPENDIX 1

General Control Documentation

81-1229





2.8



3.2



3.6



4.0



Minimum resolvable spatial frequency (cycles/mm) = $\frac{1}{\text{line spacing (mm)}}$

Resolution test target 1.0 is the minimum resolution of the eye.

ITEM	Project No.		Sheet No.		PROJECT DEPARTMENTAL MONTHLY EXPENDITURE BY INVESTMENT ACCOUNTING GROUP						Mont'	
	Mill		Department		3.		4.		5.		6.	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.
INVESTMENT ACCOUNTING GROUPS												
1. Study and Project Expenditure												
2. Site Expenses - Site Value - Purchased Lands - Land Clearance Exp.												
3. Site Preparation												
4. Water Source Development												
5. Building Expenditure - Main Buildings - Auxiliary Buildings - Warehouses - Administrative Build - Misc. Expenses												
6. Road Construction - Internal Roads - External Roads												
7. Machinery - Domestic M/C - Foreign M/C												
8. Services - Water - Electrical - Steam - Air Conditioning - Misc. Services												
9. Transportation Chgs - Foreign Trade + Ins. - Domestic Trade + Ins.												
10. Machinery Installation - In-plant Inst. Wages - Other Inst. Exps.												
11. Fixed Assets												
12. Import and Customs Expenses - Customs Duties - Dues, Fees, Brokerage, etc.												
13. Miscellaneous Expenses												
14. Investment Interest												
15. Commissioning Expenses												
16. General Management Expenses												
TOTAL												

MILL SUMMARY CONTROL SHEET

Present Quarter

APPENDIX I SHEET No 6

Division		Total Project Cost				Total Expenditure To-Date		Expenditure Current Qtr.		Planned Quarterly Expenditure for Next Year								Outstanding Expenditure Balance	
Project		F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.	F. C.	L. C.		
Mill																			
Department																			
Spinning	Budget																		
	Actual																		
	Variance +																		
Weaving	Budget																		
	Actual																		
	Variance +																		
Processing	Budget																		
	Actual																		
	Variance +																		
Garments	Budget																		
	Actual																		
	Variance +																		
Other	Budget																		
	Actual																		
	Variance +																		
Total	Budget																		
	Actual																		
	Variance +																		

Note

F. C. - Foreign Currency -- U. S. \$ '000
 L. C. - Local Currency -- T. L. '000

Prepared By

Date

Date of Next Revision

NOV 1980

APPENDIX II

Document Flow Charts and Listings

DIVISIONAL CAPITAL PROJECT CONTROL DOCUMENTATION

<u>Document</u>	<u>Action By</u>	<u>Usage</u>
Project Item Action Planning Sheet SB/P/1	<u>Raise</u> a. <u>Local Currency</u> Dept Project Planning Sections Assisted by Tech. Proj. Mngr. b. <u>Foreign Currency</u> H. Q. Planning Dept.	1. Initial planning of itemised programme.
Capital Project Departmental Planning Sheet SB/P/2	<u>Raise</u> Dept. Project Planning Assisted by Mill Planning Dept., Tech. Proj. Mngr. and H. Q. Planning Dept.	1. Reviewed monthly by Mill Mngr. and adjusted for timing + content as agreed between Mill Mngr./ Tech. Mngr/Dept Mngr. 2. Summary of future funding requirements by Depts prepared at end of each quarter for H. Q. Planning.
Capital Project Departmental Itemised Expenditure SB/P/3	<u>Raise</u> Mill Project Planning Assisted by Acc. Dept. and H. Q. Planning Dept.	
Capital Project Departmental Monthly Expenditure SB/P/4	<u>Raise</u> Mill Project Planning	1. Consolidation from SB/P/3. 2. Copy to H. Q. Planning for Quarterly Review.
Capital Project Departmental Expenditure by Investment Accounting GPs SB/P/5	<u>Raise</u> a. <u>Local Currency</u> Mill Project Planning b. <u>Foreign Currency</u> H. Q. Planning Dept.	1. Prepared monthly to advise Divisional H. Q. of actual expenditures for existing financial controls.

Document

Action By

Usage

Capital Project
Mill Summary
Control Sheet
SB/P/6

Raise

Mill Project Planning

1. Consolidation of results from each Dept. for :-
 - Mill Managers Quarterly Review.
 - H.Q. Executive Quarterly Review.
2. Main document used to raise Mill Mngr. Project Quarterly Status Report.

Capital Project
Divisional Mill
Quarterly
Summary
Progress Sheet
SB/P/7

Raise

H. Q. Planning Dept.

1. Reviews results of SB/P/6 from all Mills together with their Project Quarterly Status Reports and consolidates into this sheet for the H. Q. Executive Quarterly Review.

2. Prepares own Quarterly Review covering all Mills on project for H. Q. Executive Review.

Capital Project
Monthly Funding
Requirement
Summary
Foreign Currency
SB/P/8a

Capital Project
Monthly Funding
Requirements
Summary
Local Currency
SB/P/8b

Raise

H. Q. Planning Dept.
(Consolidate results from each Mill)

1. Review overall requirements and comment where appropriate on facts to H. Q. Executive.
2. H. Q. Executive advise each Mill with copies of Sheets 8a and 8b of approved and amendments.

<u>Document</u>	<u>Action By</u>	<u>Usage</u>
<div style="border: 1px solid black; padding: 5px;"> Capital Project Quarterly Funding Summary Foreign Currency SB/P/9a </div>	<u>Raise</u> H. Q. Planning Dept. (Consolidate results for each Mill)	1. Review overall requirements and comment where appropriate on facts to H. Q. Executive. 2. H. Q. Executive
<div style="border: 1px solid black; padding: 5px;"> Capital Project Quarterly Funding Summary Local Currency SB/P/9b </div>		
<div style="border: 1px solid black; padding: 5px;"> Quarterly Project Status Report SB/P/104 </div>	<u>Raise</u> 1. Mill Manager with Assistance of Mill Planning Dept. 2. H. Q. Planning Summary Report for H. Q. Executive.	1. For reporting Project Progress at time of Quarterly Review to H. Q. Planning and H. Q. Executive. 2. For reporting Divisional Project Progress after reviewing all Mills position on project at end of each quarter.

INITIAL APPLICATION REQUEST DOCUMENTS

<u>Document</u>	<u>Action By</u>	<u>Usage</u>
Project Item Action Planning Sheet SB/P/1	<u>Raise</u> Dept. Project Planning Section Assisted by Mill Techni- cal Project Management + H. Q. Planning Dept.	1. Initial planning of itemised programme
Capital Project Departmental Planning Sheet SB/P/2 (Mill Copy)	<u>Raise</u> Dept. Project Planning Assisted by Mill Planning Dept. , Costing Dept. + Mill Technical Mgmt plus H. Q. Planning Dept.	1. Summary of funding requirements by Depts. is prepared for overall effective evaluation.
Capital Project Cost Justifica- tion Report SB/P/101	<u>Raise</u> Mill Mngr. Assisted by Mill Accounting, opera- tional, Planning + Tech- nical Depts. , plus H. Q. Planning Dept.	1. These three documents are submitted together to Divisional H. Q. for co- ordination, review and comment by H. Q. Planning Dept before submitting to the H. Q. Executive for approval. 2. A copy of Schedule SB/P/103 will be returned to the approp- riate Mill(s) duly approved or amended by H. Q. Executive 3. In the event of a project extending to more than one Mill, co-ordination of results will be necessary to arrive at overall evaluation and this is best achieved by H. Q. Planning who will raise the Divisional Results in forms 101, 102 and 103.
Capital Project Cash Flow Forecasts SB/P/102	<u>Raise</u> Mill Accounting and Planning Depts.	
Capital Project Funding Authori- sation Schedule SB/P/103	<u>Raise</u> Mill Planning Dept.	

Document

Action By

Usage

Capital Project
Cost Justifica-
tion Report
SB/P/101

Raise

H. Q. Planning Dept
(When Necessary)

1. Any additional comments for the H. Q. Executive consideration should be entered on a separate copy of form 101 marked H. Q. Planning Evaluation.

(H. Q. Planning Copy)

1. SUMMARY
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Capital Project
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- HQ Admin
- 30/1/04

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2. ADVISE INDIVIDUAL MILLS OF DECISIONS REGARDING
- FUNDING REQUESTS
- REVISIONS OR OTHER ACTIONS REQUIRED.
3. INITIATE APPLICATIONS TO APPROPRIATE GOVERNMENT
AUTHORITIES FOR APPROVED FUNDING NEEDS.

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NOTE THIS CHART SHOWS THE DOCUMENT FLOW
FOR ACTIVITIES CONTROLLED BY THE MILLS
I.E. LOCAL WARRANTY ITEMS.
IN THE CASE OF FOREIGN WARRANTY ACTIVITIES
DIVISIONAL HQ PLANNING DEPT WILL PREPARE
FORMS NOS 1 TO 5 IN CLOSE COORDINATION WITH
MILL MANAGERS.

FOR EACH DEMANDMENT.
1. LIST ALL ITEMS FROM 30/1/01 SHEETS
2. ADJUST FOR OVER/UNDER LINDS.

APPENDIX III

Project Management Review Reporting
Documentation

Division
Mill
Project No.

**PROJECT COST
JUSTIFICATION
REPORT**

Date of Preparation
Project Leader
Investment Officer

APPENDIX III SHEET No. 1

1. PROJECT DESCRIPTION

2. PROJECT PURPOSE

3. PROJECT JUSTIFICATION (See also attached Cash Flow Chart)

4. FUNDING REQUIREMENTS

- a) FOREIGN CURRENCY
- b) LOCAL CURRENCY

5. PROPOSED TIMING

Approved By:	Title	Date	
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Division
Mill
Project No.

**QUARTERLY PROJECT
STATUS REPORT**

Quarter Ending

APPENDIX III SHEET No. 4

1. CURRENT POSITION (See Attached Chart/Networks)					
2. IMPLICATION OF PROGRESS ON PLANNED COMPLETION DATE					
3. CRITICAL TASKS					
4. EXPENDITURE To-Date			5. FORWARD Funding Requirements		
Item	F. C.	L. C.	Qtr	198..	198..
				F. C.	L. C.
Budget			1		
Actual			2		
Variance ⁺ ₋			3		
Expected Total Cost			4		
% Completion			Total		
6. COMMENTS ON VARIANCES / OVERSPENDING					
7. REVISED ECONOMIC JUSTIFICATION (If Required)					
Approved By		Title	Date		

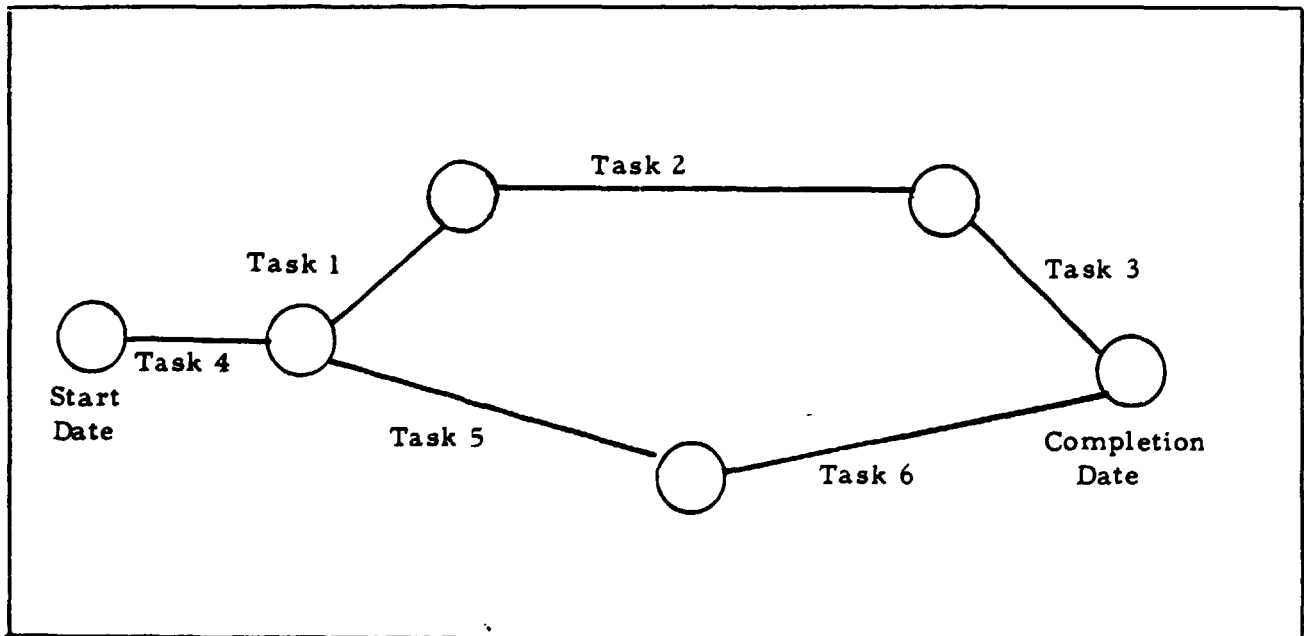
SAMPLE BAR CHART
AND
PERT NETWORK

APPENDIX III
SHEET No. 5

1. Sample Bar Chart

Activity	198_												198_											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1. Task 1			—	—	—																			
2. Task 2						—	—	—	—															
3. Task 3										—	—													
4. Task 4	—	—																						
5. Task 5			---	---	---	---	---	---	---	---	---	---												
6. Task 6								---	---	---	---	---												
7. Task 7																								
8.																								

2. Sample Pert Network



WHITEHEAD



HAROLD
WHITEHEAD
& PARTNERS
LIMITED

10653

CHAPTER 6 (6 of 7)

COSTING AT EREGLI

VOLUME 6 OF 7

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1.

INTRODUCTION

- 6.1 We have examined the current situation in Sumerbank, using the mill at Eregli for our detailed study, with a view to formulating an improved costing system and to assess the feasibility of introducing a standard costing system.
- 6.2 The development of standards in various key control areas such as material waste, machine efficiency and labour efficiency would be a useful aid to management control, but we believe that the use of standard costing as a cost accounting system in a situation of very high inflation would require the cost standards to be revised and up-dated so frequently as to make such a system impractical.
- 6.3 With the current high inflation rate in Turkey, in order that cost variances did not reach such a magnitude that they became meaningless for management control purposes, the cost standards would need to be revised at least every two months.
- 6.4 Also, standard costing requires the pre-determination of cost rates and this exercise can only be based upon forecast data. We feel that the present level of accuracy and reliability in forecasting and budgeting within Sumerbank would not be sufficient to provide an adequate basis for these calculations.
- 6.5 Because of these factors, we have directed our attention to developing an actual costing system which will provide product costs with more accuracy and to a greater level of detail than those provided by the current system.
- 6.6 Basically the procedures will determine manufactured cost as the cost of materials input plus production taxes plus conversion costs. By conversion costs we refer to direct labour and associated expenses, depreciation of production assets and the cost of auxiliary production services such as Maintenance, Production Planning and Management and Utilities (steam, electricity, water).

- 6.7 The basic production data will relate machine hours to volume throughput. Such a method will distribute costs more accurately by yarn count than the current use of such factors as yarn count times weight, man hours, etc., which skew the costs of high and low yarn counts.
- 6.8 In this section of the report we have set out the principles involved :-
- the cost centres
 - allocation of conversion costs
 - treatment of materials and waste.
- 6.9 This is followed by a commentary on the costing procedures involved and some observations on the implementation of such a system.
- 6.10 The Appendices contain formats which illustrate the procedures required. The formats for accumulating costs by cost centre (Appendix IV) are shown in the detail necessary to provide a breakdown of manufacturing cost by cost element, although we see this level of detail as attainable only with the introduction of a mechanised system and visualize that using manual methods the detail by cost element would not be calculated.

2.

COST CENTRES

- 6.11 In order to increase the accuracy of product costing, we recommend the use of a less coarse number of production cost centres rather than the present method in which discrete activities are grouped together for costing purposes.
- 6.12 The cost centres we propose for use are readily identifiable in the current system and are set out below.

- | | |
|-------------------------|--|
| - Spinning | opening and blow room
carding
combing
draw frames
ring spinning |
| - Winding and Rewinding | cone winding
doubling and twisting |
| - Weaving Preparation | pirn winding
sectional warping
direct warping
sizing |
| - Weaving | loomshed |
| - Processing | singeing and bleaching
mercerising
dyeing
finishing and folding |
| - Sewing Thread | hank winding and singeing
bleaching and mercerising
dyeing
rewinding and packing. |

3.

CONVERSION COSTS

Allocation to Cost Centres

6.13 The conversion costs incurred in Sumerbank fall into two main categories :

- Those which are directly attributable to production cost centres
- Those incurred in providing auxiliary production services.

6.14 In order to determine the total conversion cost for each production cost centre it is necessary to re-allocate the cost of providing the auxiliary services to the various direct cost centres.

6.15 There are two practical alternatives for doing this :

- Allocate the total cost of each auxiliary service department direct to the production cost centres
- Use a 'cascade' system of re-allocation to apportion service department costs to other service departments, where applicable, as well as to the production cost centres.

6.16 The use of a 'cascade' system of re-allocation results in the more accurate distribution of costs to production as the resultant total for each service department more truly reflects the cost of providing that service. However, even using the cascade system to re-allocate costs between the service departments there will be some inaccuracy as there will be some cross-allocations which cannot be made. It is therefore important to determine the most effective order for the allocation cascade so as to minimise this inherent distortion.

6.17 The cascade order should be based upon the relative impact, in value terms, of each service department on the other service departments. Then the order can be set so that the cross-allocations which are prohibited by the system are those of the smallest value.

6.18 From the information available to us at Eregli, the probable optimum order for cascading allocations at that mill would appear to be :-

- Canteen
- Electrical Maintenance
- Workshop Maintenance
- Machine Maintenance
- Building Maintenance
- Electricity
- Hard Water
- Soft Water
- Steam
- Management Services (Planning, Production Management, Physical Lab., Chemical Lab.)

6.19 This order is only the suggested order for the mill at Eregli and we would stress that each mill would need to carefully examine its own pattern of costs incurred in order to establish the optimum order. For example, at Eregli there is an electricity generating plant which would require maintenance and hence we have placed Electricity after Maintenance in the suggested cascade order, whereas at other mills where all electricity is purchased externally it would probably be more accurate to place Electricity before Maintenance in the order so that the various Maintenance departments can be rightly charged for their usage of electrical power.

6.20 We have examined the bases currently used for allocating the cost of each of the auxiliary services and for the most part they are reasonable and logical. The areas in which we would recommend a change in the basis of allocation are detailed below.

6.21 Steam :

There are two main factors which determine the usage of steam :

- The requirement for heating purposes
- The requirement for production purposes

Hence the total steam cost should be divided into these two categories and each allocated according to the appropriate usage indices.

We feel that the accurate measurement of steam usage according to these two factors would be impractical and recommend the use of engineering estimates to establish the proportions by which the total should be split and then apportioned to cost centres.

6.22 Maintenance departments :

Each of the maintenance departments provides a monthly analysis of the value of work carried out for each cost centre, and this breakdown should be used as the basis for allocating the actual total cost of the department for the month.

Under the current method the difference between total actual cost and the reported cost of work carried out is distributed according to the sub total of conversion costs already accumulated in

each cost centre up to that point in the costing process, and we can see no logical justification in this approach.

6.23 Management Services departments :

The current practice of allocating the cost of these departments according to the sub-total of conversion costs accumulated in each cost centre at that particular point in the costing process is, again, difficult to justify in logic. However, the rearrangement of the cascade order so that the Management Services departments are placed last would accommodate the justifiable use of such a method.

We feel that the cost of Planning, Production Management and the laboratories should be allocated to production cost centres based upon their relative levels of activity. We have considered various indicators which might be used for such apportionment, but here the problem is to find a common denominator - a factor which is strictly comparable between all the cost centres.

For this reason we feel the most practical measure would be Added Value (or, more strictly, Added Cost), which would be represented by total conversion cost excluding, of course, the Management Services departments which would not yet have been allocated.

Allocation to Products

- 6.24 Having allocated the conversion costs to production cost centres, the total for each cost centre must be allocated to the product output.
- 6.25 As we have stated in the introduction to this section of the report, we recommend that the distribution of conversion costs to product output should be based upon the relationship between machine hours and volume throughput.
- 6.26 This change in the basis of distributing conversion cost to products will require the collection of actual data on the machine hours incurred in the production of the reported output of each product, for each cost centre.
- 6.27 With this additional data available on a monthly basis it will be possible to calculate conversion cost for each cost centre as a rate per machine hour and allocate that cost to products according to the number of machine hours incurred on each product.
- 6.28 Exception to this method would need to be made in three cost centres - Cloth bleaching and singeing, Cloth dyeing, and Cloth finishing and folding. In these areas there are a number of different processes, and the route taken through these processes differs according to the type of material involved. Hence the conversion cost allocation in these cost centres should be based on a calculated points system which would take into account the various process routings of the products.
- 6.29 The definition of 'product' for costing purposes would be yarn count (for sewing thread departments) or fabric number (for cloth processes).

6.30 For cost centres before Ring Spinning the precise yarn count is not important as a cost determinant. In Blow Room, Carding, Combing and Draw Frames the product output need only be classified into the four broad types of material (carded, combed, polycotton and polyviscose), whilst in Speed Frames the only necessary division within these four categories is the split between yarn counts below 30 and those of 30 or more.

6.31 Appendix III illustrates the formats for calculating the apportionment of conversion costs to products.

Treatment of Direct Labour

6.32 We believe that, in the main, the determining factor in the incurrence of conversion costs is the time spent in processing the products, and hence our decision to allocate conversion costs according to machine hours, or processing hours.

6.33 However, in cost centres in which product type determines the deployment of direct labour it may be necessary to allocate direct labour cost according to recorded labour hours.

6.34 The two cost centres which seem most likely to require such treatment are Ring Spinning and Loomshed.

6.35 Whether the direct labour cost is apportioned according to actual labour hours booked, where necessary, or on processing hours, it would be useful to prepare the product costing data so as to show direct labour and other conversion costs separately. Hence in our illustration of the required costing formats (see Appendix III) we have allowed for the allocation of these two cost elements separately.

6.36 At present, the only categorisation of payroll costs in the costing system is that between salaries and wages. Hence the item "Wages and Related Expenses" includes both direct and indirect labour.

- 6.37 In order to accommodate the separate apportionment of direct labour cost it will be necessary to account for wage costs and related expenses separately for direct and indirect labour.

Also, for those cost centres in which actual labour hours are to be used for the allocation of direct labour cost, a mechanism for collecting reliable data on actual labour hours will need to be established.

- 6.38 In the interim, conversion costs should be apportioned in total.

4.

MATERIAL COSTS

Cottons and Man-made Fibres

- 6.39 The treatment of these raw materials in the current system is perfectly satisfactory, with the actual volume of raw materials issued available from the stock issue notes and the valuation of those materials being at average stock cost as calculated from the stock ledger.
- 6.40 The raw materials issued to the Blow Room each month are assigned to the four broad material categories - carded, combed, polycotton and polyviscose.

Waste

- 6.41 The total volume of material wastage for each cost centre can be calculated as the difference between the volume input and the volume output, adjusted for the change in the volume of work-in-progress. Where the waste is collected and measured separately for an individual cost centre, the detailed breakdown of total material losses is available.

Recycled Waste

- 6.42 In the course of recycling waste through the production process, there is a transfer of material between product categories. The waste which emanates from the combed material category, for instance, is recycled into the carded product category, For this reason it is necessary to ensure that the material value of the recycled waste is also transferred.
- 6.43 The volume of recycled waste input to the Blow Room process, and the usage of that waste into the product categories, is reported by the production department. Valuation of this input should be at the weighted average unit cost of material issues for the particular material type.

- 6.44 To complete the transfer of cost brought about by the recycling of waste, the value of recycled waste must be deducted from material costs in the cost centres from which that waste emanates. Where a breakdown of waste by cost centre is not available (i. e. where waste in the spinning cost centre is collected in total rather than by Blow Room, Carding, Combing, etc.), we suggest that until the measurement of waste by individual cost centre is introduced then the value should be apportioned according to the total calculated total waste in each cost centre.

Non-Recycled Waste

- 6.45 Current practice is to reduce material costs by the estimated sales value of non-recycled waste. This has the effect of slightly reducing unit material cost of product.
- 6.46 One of the dangers of this method of accounting for non-recycled waste is that a change in the market price of this waste will affect the amount by which material costs are reduced in the cost centres from which the waste emanates. Hence unit product costs may increase or decrease without any change in the level of efficiency, utilisation, etc. , and this should be borne in mind when reviewing product cost data for management control purposes.
- 6.47 The alternative method of accounting for non-recycled waste would be to assign no cost to this waste and thus recover total material costs in product cost, taking any revenue from the sale of waste as an addition to profit.
- 6.48 There are two reasons, however, why it may be necessary to continue the current treatment of non-recycled waste:-
- To show revenue from the sale of waste as pure profit is far from a true reflection of the situation, as the original cost of the waste material is far greater than its market price as scrap.

- Not reducing material cost of product by any amount for waste will have the effect of inflating production tax liability, unless the calculation of production tax is complicated to include a special allowance for waste.

For these reasons we appreciate the practicality of continuing the current method of accounting for non-recycled waste, but we stress the need to recognise the effect of changing waste prices on the material cost of product.

Processing Materials (dyes, chemicals, etc.)

- 6.49 The issues of processing materials such as dyes and chemicals to the production cost centres are notified to the Cost Department in the form of stores issues notes whilst the production department maintain material consumption cards showing the materials used in the various processes.
- 6.50 These two records should be reconciled each month-end. In the event of a difference between the two sources of data for a particular material, if an investigation does not reveal the cause of the discrepancy the actual stores issues as reported on the stores issue notes should be taken for usage and the difference pro-rated across the volume usages reported on the materials consumption cards.
- 6.51 In cost centres in which product movement is measured in metres, only the value of chemicals, etc., used need be added into the costing calculations, whereas in cost centres in which product movement is measured in kilograms the weight of the added materials must also be included.

5. THE COSTING METHOD

Data Required

6.52 The following data is required each month as input to the costing system.

- Materials flow for each cost centre, giving :
 - details of materials input, by product
 - work-in-progress, by product
 - waste, by product
 - product outputs
 - destination of the product outputs.
- Actual machine hours, by product
- Average stock cost of each material issued
- Analysis by cost centre of the value of maintenance work carried out, for each of the maintenance departments.
- Usage of utilities, by cost centre
- Details of expenses for the month, by cost centre.

6.53 The data listed below should be held on file in the Cost Department for use in the monthly costing calculations:

- Establishment headcount, by cost centre
- Yarn formula for each weaving product
- Engineering estimates for apportionment of steam usage.

Accumulation of Costs

- 6.54 As each product passes through the mill, the manufacturing cost incurred on that product increases. The manufacturing cost of product at each stage of production can therefore be calculated by adding the allocated conversion costs for that stage to the accumulated product cost up to that stage.
- 6.55 A more refined management control can be introduced by accumulating product costs by cost element, thus always maintaining a detailed breakdown of the total cost into Materials, Production Taxes, Direct Labour and other Conversion Costs.
- 6.56 When making cost comparisons between different products, between periods for the same product, or between mills, the use of the extra detail breakdown will highlight more clearly the pattern of cost changes. This additional detail is also useful for planning and forecasting purposes, as the cost components can be viewed separately, and hence the effect on product costs of forecast changes in raw material prices, production tax rates, etc., can be more accurately estimated.
- 6.57 The problem in implementing a costing system which provides this level of detail is that it involves a significant increase in the number of calculations required and also in the volume of data collected and held on file. For this reason we suggest that, for immediate implementation using manual methods, a simplified version involving cost accumulation in total would be most practical, with the addition of the extra levels of detail or some later stage in conjunction with the possible introduction of mechanised systems.

Blow Room to Ring Spinning

- 6.58 For each department, that is blow room, carding, combing, draw frames, speed frames and ring spinning, the conversion costs should be derived on the format given at Appendix III.

In cost centres up to draw frames no distinction is made between yarn counts, but only between material types - carded, combed, polycotton, and polyviscose. In speed frames the distinction should be made between yarn counts under 30 and those of 30 or more. In ring spinning costs should be determined for each individual yarn count.

- 6.59 The cost calculation formats shown at Appendix IV (IV- 1 to IV - 6) illustrates the method of building up the manufacturing cost of product by cost centre, maintaining the detail by cost element (materials, labour and other conversion costs).
- 6.60 Initially for implementation using manual methods , calculating the accumulation of costs by cost element as illustrated in Appendix IV may extend the time required to an unacceptable level. Hence the calculations could be simplified to accumulate cost in total for each product.
- 6.61 The inclusion of waste in the costing calculations is straightforward in mills in which it is collected and measured by cost centre. However, where waste is collected and measured in total for the Spinning Department as a whole a waste reconciliation for the six cost centres involved will be necessary. Where waste cannot be assigned in detail to particular cost centres, an apportionment should be made according to the calculated volume of total losses in each cost centre.

Winding and Twisting

- 6.62 In Cone Winding the materials input are from three sources - Ring Spinning, Yarn Dyeing and Doubling and Twisting.
- 6.63 Where there is a 'loop' in the production routing it is important to follow the same pattern in the build-up of manufacturing costs. Hence in Cone Winding the costing should be carried out in three stages.
- 6.64 Because of the three types of input to Cone Winding, it is important to identify the different categories in the allocation of Cone Winding conversion costs so that they can be costed separately. This is illustrated at Appendix III-10.
- 6.65 The material from Ring Spinning should be costed first, in order that the costing 'flow' can be progressed to the subsequent cost centres. It is at this stage that production tax is calculated and added to product cost.
- 6.66 Costing of the materials from Doubling and Twisting can only be carried out after the calculations for that cost centre have been completed, as the output costs from Doubling and Twisting are required as input costs to Cone Winding.
- 6.67 Similarly, the third type of input - from Yarn Dyeing - can only be dealt with after the costs for that cost centre have been completed, as these are required as input costs to Cone Winding.
- 6.68 The three-stage approach to costing in Cone Winding is illustrated at Appendix IV-8.

Sewing Thread

- 6.69 For all cost centres in the production process for sewing thread the conversion costs should be allocated to products based on actual processing hours and in the main the accumulation of costs through the cost centres is reasonably straightforward (see Appendix IV - 28 to IV-32).
- 6.70 It should be noted that the input to Dyeing is from two sources - cones from Cone Winding and hanks from Mercerising and Bleaching. Costing in Dyeing should therefore be carried out in two stages, with the calculations for cone dyeing and hank dyeing being identified separately, as illustrated in Appendices III - 11 and IV - 31.
- 6.71 As the cost of dyed yarn is required for input to produce yarn-dyed cloths, the Sewing Thread processes should be costed before Weaving and Cloth Processing.

Weaving

- 6.72 It is in the weaving area that the cost calculations become most intricate, as the materials change in definition from separate yarns measured in kilograms to woven fabrics measured in metres.
- The separation of activities into individual cost centres for costing purposes further complicates the procedures.
- 6.73 The calculations for Pirn Winding and Sizing are straightforward enough as input and output for these two cost centres are consistent in terms of product description and unit of measure. In these cost centres the procedure is similar to that outlined in the previous sections (see Appendices IV - 12 and IV - 16).

- 6.74 In the two Warping activities, however, input is defined by individual yarn count whilst outputs in beam form are specific to the particular cloth for which it is destined. Hence the input total of a particular yarn count needs to be split according to its usage for a number of warped beam outputs. In the absence of actual usage data in this detail, we suggest that the basis for apportioning an individual yarn count input across a number of different outputs should be the standard formula.
- 6.75 As in the Warping cost centres, the Loomshed costing requires that inputs of individual yarn counts are allocated to a number of different cloths. The actual material inputs are known, as are the actual cloth outputs and we suggest that materials are allocated to cloths according to the standard yarn formulae of the cloths. The format for this apportionment is shown at Appendix IV-18.

Cloth Processing

- 6.76 The main feature in the costing of the cloth processing operations is that in all cost centres except Mercerising there is more than one process routing, with individual routings being determined by the characteristics of each particular product.
- 6.77 There are three possible alternatives to deal with this in the allocation of conversion costs :
- Sub-divide the processing operations into a larger number of cost centres, such that each cost centre represents one discrete activity. Conversion costs can then be allocated in a similar way as previously set out, by process hour.
 - Formulate a points system based upon the relative cost of each of the processes, such that products which are routed through the more costly processes are assigned a proportionately higher points rating per unit. Output times points per unit for each product can then form the basis for apportioning conversion costs.

- Ignore the different routings and allocate conversion costs according to processing hours.

6.78 We have recommended the use of a points system for the allocation of conversion costs in these areas in order to recognise and account for the variations in product routing, thus making product costs more accurate, as we feel that the additional complexity of using a greatly increased number of cost centres would not be justified in terms of accuracy.

6. IMPLEMENTATION

- 6.79 We have instituted a data collection exercise at Eregli in order that the proposed costing system can be worked through on one month's actual figures. This will serve to evaluate the adequacy of the data collected and also the level of detail which could be incorporated into the system for implementation under the present manual methods.
- 6.80 We feel that implementation should be carried out in stages, aimed at gradually introducing changes to the current system to adapt it eventually to conform to the principles contained in this report, rather than make an immediate substitution of one system for another.
- 6.81 This stage-by-stage approach is recommended in order that the Sumerbank staff actually involved in the system become fully aware of the principles involved at each stage and any disruption to the accounting and management reporting activities is minimised.
- 6.82 The implementation programme would give priority to introducing the necessary changes in principle, such as the allocation of conversion cost by machine hours and the completion of costs using the less coarse number of cost centres. When the principles have been adopted and introduced, attention can be directed towards increasing the level of detail provided by the system and eventually perhaps computerisation.
- 6.83 The first stage of implementation should involve the following changes :-
- Allocation of conversion costs to products based on machine hours, using the cost centres listed in Section 6.12, and according to the calculated points per product in the three cloth processing cost centres.
 - Rearranging the 'cascade' order for cross-allocation or production services costs to minimise distortion.

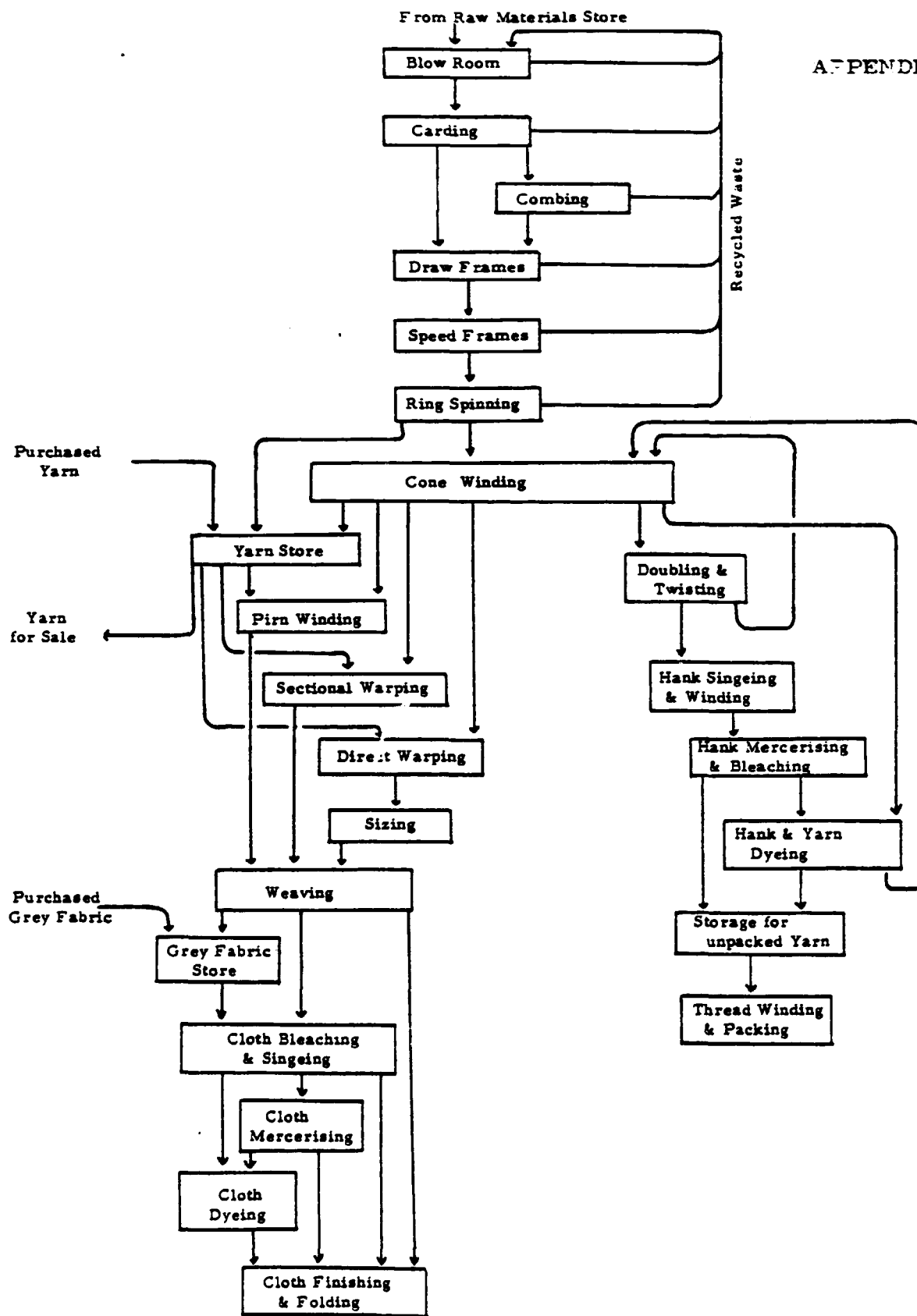
- Adoption of the revised bases for allocating production services costs to production cost centres, as described in Sections 6.20-6.23.

- 6.84 At this stage, conversion costs for each cost centre would be allocated in total to product output (i. e. with no split between Labour and Other Conversion Costs). The conversion cost per unit for each product would be calculated for each product.
- 6.85 The accumulation of costs at this stage would be by main production department as at present, with no breakdown by cost element.
- 6.86 Stage two of the implementation programme should be started only after the new treatment of conversion costs has been fully understood by the staff involved and is working smoothly.
- 6.87 Stage two would introduce the accumulation of costs by individual cost centre, with conversion costs added at each stage.
- 6.88 Stage three would then introduce the 'fine-tuning' of the system to take account of the difference in the desired basis for allocating Direct Labour in those cost centres where product type determines the deployment of the direct labour force.
- 6.89 In this stage an amendment to the method of accounting for labour costs will be necessary, to identify direct labour costs separately by cost centre.

- 6.91 Stage four would be the final move to the fully detailed system illustrated in this report, with product costs being accumulated in detail by cost element.
- 6.92 The change to this level of detail, apart from greatly increasing the number of calculations necessary in the costing process, will also require a greater level of detail in stock recording. The value of Work in Progress and Stocks will need to be maintained in detail by cost element in order that the true value of each cost element can be maintained separately right through the production process. It is for these reasons that we have suggested that this stage would only be possible with the introduction of mechanised costing and related systems.

EREGLI MILL
Normal Materials Flow

APPENDIX I



DEPARTMENTAL MATERIALS FLOW & ACTIVITY SUMMARY

Department : _____

Month : _____

Yarn/ Fabric	Opening W.I.P	Input of Source				Total Input	Waste	Losses/Gains		Closing W.I.P.	Output	Distribution of Output			Machine hours worked
		Dept.	Dept.	Dept.	Dept.			+	-			Dept.	Dept.	Dept.	
TOTAL															

WARPING MATERIALS FLOW & ACTIVITY SUMMARY

Department :

Month :

Unit of volume : kg

Yarn	Opening W-I-P	Input by Source			Total Input	Closing W-I-P	Yarn used
		Dept	Dept	Dept			
TOTAL							

Fabric	Opening W-I-P	Yarn used	Total input	Waste	Losses / Gains		Closing W-I-P	Output	Machine Hours Working
					+	-			
TOTAL									

WEAVING MATERIALS FLOW & ACTIVITY SUMMARY

Department :

Month :

Yarn	Weft Input					Fabric	Warp Input					Cloth Output					Machine Hours Worked	
	Opening W-I-P	Input by Source		Closing W-I-P	Weft used		Opening W-I-P	Input by Source		Closing W-I-P	Warp used	Closing W-I-P	Waste	Output	Distribution of output			
		Dept	Dept					Dept	Dept						Dept	Dept		Dept
TOTAL						TOTAL					TOTAL							

Department :

Date :

Time :

WORK IN PROGRESS

YARN	VOLUME
TOTAL	

BEAM	VOLUME
TOTAL	

CLOTF	VOLUME
TOTAL	

Supervisor

PRODUCTION MANAGEMENT & AUXILIARY SERVICES

Month : _____

	Total	Canteen	Electrical Main't	Workshop Main't	Machine Main't	Building Main't	Electricity	Hard Water	Soft Water	Steam	Planning	Production Mgmt.	Physical Lab.	Chemical Lab.
Wages & Related Expenses														
Salaries & Related Expenses														
Outside Services														
Operating Materials														
Taxes, Duties & Charges														
Depreciation														
Sundry Expenses														
Reallocated to :-														
Canteen	-	()												
Electrical Maintenance	-	-	()											
Workshop Maintenance	-	-	-	()										
Machine Maintenance	-	-	-	-	()									
Building Maintenance	-	-	-	-	-	()								
Electricity	-	-	-	-	-	-	()							
Hard Water	-	-	-	-	-	-	-	()						
Soft Water	-	-	-	-	-	-	-	-	()					
Steam	-	-	-	-	-	-	-	-	-	()				
Planning	-	-	-	-	-	-	-	-	-	-	()			
Production Management	-	-	-	-	-	-	-	-	-	-	-	()		
Physical Laboratory	-	-	-	-	-	-	-	-	-	-	-	-	()	
Chemical Laboratory	-	-	-	-	-	-	-	-	-	-	-	-	-	()
Total Allocations														
Allocated to :-														
Marketing & Sales														
General Admin.														
Production														
Working Production														

29

Month : _____

SELLING OVERHEADS

	Total	Selling	Finished Goods Warehouse	Other
Wages & Related Expenses				
Salaries & Related Expenses				
Outside Services				
Operating Materials				
Taxes, Duties & Charges				
Depreciation				
Sundry Expenses				
<u>Allocated Cost</u>				
Canteen				
Electrical Maintenance				
Workshop Maintenance				
Machine Maintenance				
Building Maintenance				
Electricity				
Hard Water				
Soft Water				
Steam				

Appendix III - 4

	<u>Basis of Allocation</u>	Reported Allocation	Allocation of Difference	Total Allocation	
Blow Room Carding Combing Draw Frames Speed Frames Ring Spinning Cone Winding Doubling & Twisting Hank Singeing & Winding Hank Bleaching & Mercerising Hank & Yarn Dyeing Hank Spooling & Packing Pirn Winding Sectional Warping Direct Warping Sizing Loomshed Cloth Singeing & Bleaching Cloth Mercerising Cloth Dyeing Cloth Finishing & Folding					
Production Depts. Total					
Worshop Production					
Selling Finished Goods Warehouse Other Selling					
Selling Depts. Total					
Mill Management Security Legal Department Accounting Purchasing Raw Materials Warehouse Personnel Communications Sick Bay Nursery Staff Housing Other Welfare Education General Admin. Other General Admin.					
General Admin. Total					
Total Production, Selling & Admin. Depts.					
Canteen Electrical Maintenance Workshop Maintenance Machine Maintenance Building Maintenance Electricity Hard Water Soft Water Steam Planning Production Management Physical Laboratory Chemical Laboratory					
Production Services Total					
GRAND TOTAL					

CONVERSION COST ALLOCATION

APPENDIX III - 7

Department : _____

Month : _____

Product Type	Month Actual		Cost Allocation			Unit Costs		
	Output	Process Hours	Direct Labour	Conversion Overheads	Total	Direct Labour	Conversion Overhead	Total
Carded								
Combed								
Poly Cotton								
Poly Viscose								
TOTAL								

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For use in all cost centres:- Blow Room, Carding, Draw Frames

CONVERSION COST ALLOCATION

APPENDIX III - 8

Department : SPEED FRAMES

Month : _____

Product	Month Actual		Cost Allocation			Unit Costs		
	Output	Process Hours	Direct Labour	Conversion Overheads	Total	Direct Labour	Conversion Overhead	Total
<u>Carded:</u>								
Nr < 29								
29 < Nr								
<u>Combed:</u>								
Nr < 29								
29 < Nr								
<u>Poly Cotton:</u>								
Nr < 29								
29 < Nr								
<u>Poly Viscose:</u>								
Nr < 29								
29 < Nr								
TOTAL								

CONVERSION COST ALLOCATION

APPENDIX III - 10

Department : CONE WINDING

Month : _____

Product	Month Actual		Cost Allocation			Unit Costs		
	Output	Process Hours	Direct Labour	Conversion Overheads	Total	Direct Labour	Conversion Overhead	Total
<u>From Spinning</u>								
Nr1								
Nr2								
Nr3								
↓								
TOTAL								
<u>From Doubling & Twisting</u>								
Nr1								
Nr2								
Nr3								
↓								
TOTAL								
<u>From Dyeing</u>								
Nr1								
Nr2								
Nr3								
↓								
TOTAL								
Department Total								

CONVERSION COST ALLOCATION

APPENDIX III - 11

Department : HANK & YARN DYEING

Month : _____

Product	Month Actual		Cost Allocation			Unit Costs		
	Output	Process Hours	Direct Labour	Conversion Overheads	Total	Direct Labour	Conversion Overhead	Total
<u>Cones</u>								
Nr1								
Nr2								
↓								
↓								
↓								
TOTAL								
<u>Hanks</u>								
Nr1								
Nr2								
↓								
↓								
↓								
TOTAL								
Department Total								

WORKSHOP PRODUCTION
SHARED PRODUCTION COSTS

T. L.

Direct Wages & Related Expenses
Indirect Wages & Related Expenses
Salaries & Related Expenses
Outside Services
Operating Materials
Depreciation
Sundry Expenses

Allocated Expenses :

Canteen
Electrical Maintenance
Workshop Maintenance
Machine Maintenance
Building Maintenance
Electricity
Hard Water
Soft Water
Steam

TOTAL CONVERSION COST

--

BLOW ROOM

Month : _____

	Total			Carded			Combed			Poly Cotton			Poly Viscose		
	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl
<u>Materials Issued</u>															
1.															
2.															
3.															
etc															
Total Issues															
<u>Recycled Waste Input</u>															
D1															
D2															
D3															
D4															
Total Waste Input															
Opening W.I.P.															
Total															
<u>Waste:</u> D12															
D13															
Other															
Total															
Closing W.I.P.															
Blow Room : Labour															
Conversion															
Total															
Output: Volume															
Material															
Labour															
Conversion															
Total Cost															

CARDING

Month : _____

		Total			Carded			Combed			Poly Cotton			Poly Viscose		
		kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl
Opening W.I.P.	Material Labour Conversion Total															
From Blow Room	Material Labour Conversion Total															
Total Input	Material Labour Conversion Total															
Waste :	D1 D6 D7 D8 Other Total															
Closing W.I.P.	Material Labour Conversion Total															
Carding	Labour Conversion Total															
Output	Material Labour Conversion Total															
To Combing	Material Labour Conversion Total															
To Draw Frames	Material Labour Conversion Total															

	Unit Costs (Tl/kg)				Volume (kg)	Total Costs (Tl)			
	Material	Labour	Conversion	Total		Material	Labour	Conversion	Total
Opening W.I.P.									
From Carding									
Total Input									
Waste :									
D9									
Other									
Total									
Closing W.I.P.									
Combing									
Output									

DRAW FRAMES

Month : _____

		Total			Carded			Combed			Poly Cotton			Poly Viscose		
		kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl	kg	Tl/kg	Tl
Opening W.I. P.	Material															
	Labour															
	Conversion															
	Total															
From Carding	Material															
	Labour															
	Conversion															
	Total															
From Combing	Material															
	Labour															
	Conversion															
	Total															
Total Input	Material															
	Labour															
	Conversion															
	Total															
Waste :	D2															
	Other															
	Total															
Closing W. I. P.	Material															
	Labour															
	Conversion															
	Total															
Draw Frames	Labour															
	Conversion															
	Total															
Output	Material															
	Labour															
	Conversion															
	Total															

RING SPINNING

MONTH: _____

APPENDIX IV - 6

		Carded				Combed				Poly Cotton				Poly Viscose					
		Total	Ne	29	29	Ne	Ne	29	29	Ne	Ne	19	29	Ne	Ne	29	29	Ne	Ne
Opening W-I-P	Material																		
	Labour																		
	Conversion																		
	Total																		
	Volume (kg)																		
From Speed Frames	Material																		
	Labour																		
	Conversion																		
	Total																		
	Volume (kg)																		
Total Input	Material																		
	Labour																		
	Conversion																		
	Total																		
	Volume (kg)																		
	Material/kg																		
	Labour/kg																		
Conversion/kg																			
Waste D4	Material																		
	Volume (kg)																		
D14	Material																		
	Volume (kg)																		
D17	Material																		
	Volume (kg)																		
Other	Material																		
	Volume (kg)																		
Closing W-I-P	Volume (kg)																		
	Material																		
	Labour																		
	Conversion																		
Sub Total	Total																		
	Volume (kg)																		
	Material (kg)																		
	Labour (kg)																		
	Conversion/kg																		
	Total/kg																		
	Material																		
	Labour																		
	Conversion																		
	Total																		
Ring Spinning	Labour																		
	Conversion																		
Output	Total																		
	Volume (kg)																		
	Material/kg																		
	Labour/kg																		
	Conversion/kg																		

DISTRIBUTION OF RING SPINNING OUTPUT

MONTH : _____

APPENDIX IV -7

		Total	Ne ₁	Ne ₂	Ne ₃	-----
Output	Material Labour Conversion Total Volume (kg) Material/kg Labour /kg Conversion/kg Total/kg					
To Weaving	Volume (kg) Material Labour Conversion Total					
To Cone Winding	Volume (kg) Material Labour Conversion Total					
To Yarn Store	Volume (kg) Material Labour Conversion Total					

		Total	From Ring Spinning				From Doubling & Twisting				From Yarn Dyeing		
			Ne	Ne	Ne		Ne	Ne	Ne		Ne	Ne	Ne
Opening W-1-P	Material Tax Labour Conversion Total Volume (kg)												
Inputs	Material Tax Labour Conversion Total Volume (kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material/kg Tax/kg Labour/kg Conversion/kg Total/kg												
Waste Measured	- Material - Volume (kg)												
Other	- Volume (kg)												
Closing W-1-P	Volume (kg) Material Tax Labour Conversion Total												
Cone Winding	Labour Conversion Total												
Output (Exc. Tax)	Material Tax Labour Conversion Total Volume(kg)												
Production Tax	Tax												
Output (inc. Tax)	Material Tax Labour Conversion Total Volume (kg)												

DISTRIBUTION OF CONE WINDING OUTPUT

MONTH: _____

APPENDIX IV - (A)

	Total	From Ring Spinning				From Doubling & Twisting				From Yarn Dyeing			
		Ne	Ne	Ne		Ne	Ne	Ne		Ne	Ne	Ne	
Output	Material Tax Labour Conversion Total Volume (kg) Material/kg Tax/kg Labour/kg Conversion/kg Total												
To Doubling and Twisting	Volume (kg) Material Tax Labour Conversion Total												
To Sectional Warping	Volume (kg) Material Tax Labour Conversion Total												
To Direct Warping	Volume (kg) Material Tax Labour Conversion Total												
To Prin Winding	Volume (kg) Material Tax Labour Conversion Total												
To Yarn Dyeing	Volume (kg) Material Tax Labour Conversion Total												
To Yarn Store	Volume (kg) Material Tax Labour Conversion Total												
To Finished Goods Warehouse	Volume (kg) Material Tax Labour Conversion Total												

CALCULATION OF PRODUCTION TAX

Yarn	Output Total Cost	Allocated General Admin	Basis For Tax	Tax at 30%	Tax at 30%	Tax at 30%	Output Cost inc. Tax
1	2	3	4	5	6	7	8
Nr1							
Nr2							
Nr3							
Nr4							
↓							
TOTAL							

DOUBLING AND TWISTING

MONTH: _____

APPENDIX IV - 10

		Total	Ne	Ne	Ne								
Opening W-I-P	Material Tax Labour Conversion Total Volume (kg)												
From Cone Winding	Material Tax Labour Conversion Total Volume(kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material/kg Tax/kg Labour/kg Conversion/kg Total/kg												
Waste: Measured - Other -	Material Volume (kg) Volume (kg)												
Closing W-I-P	Material Tax Labour Conversion Total												
Doubling and Twisting	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (kg)												

DISTRIBUTION OF DOUBLING & TWISTING OUTPUT

Month : _____

		Total	Ne	Ne	Ne ----->								
Output	Material Tax Labour Conversion Total Volume (kg) Material (kg) Tax (kg) Labour (kg) Conversion (kg) Total (kg)												
To cone winding	Volume (kg) Material Tax Labour Conversion Total												
To hank singeing & winding	Volume (kg) Material Tax Labour Conversion Total												

PIRN WINDING

Month : _____

		Total	Ne	Ne	Ne ----->								
Opening W.I.P.	Material Tax Labour Conversion Total Volume (kg)												
From Cone Winding	Material Tax Labour Conversion Total Volume (kg)												
From Yarn Store	Material Tax Labour Conversion Total Volume (kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material (kg) Tax (kg) Labour (kg) Conversion (kg) Total (kg)												
Waste: Measured - Other -	Material - Volume (kg) Volume (kg)												
Closing W.I.P.	Volume (kg) Material Tax Labour Conversion Total												
Pirn Winding	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (kg) Material (kg) Tax (kg) Labour (kg) Conversion (kg) Total (kg)												

kg

SECTIONAL/DIRECT WARPING

YARN USED

Month : _____

		Total	Ne	Ne	Ne	Ne	----->						
Opening W.I.P. (Yarn)	Material Tax Labour Conversion Total Volume (kg)												
From cone winding	Material Tax Labour Conversion Total Volume (kg)												
From yarn store	Material Tax Labour Conversion Total Volume (kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material (kg) Tax (kg) Labour (kg) Conversion (kg) Total (kg)												
Waste Yarn	- Material - Volume (kg)												
Closing W.I.P.	Volume (kg) Material Tax Labour Conversion Total												
Yarn used	Volume (kg) Material Tax Labour Conversion Total												

SIZING

Month : _____ APPENDIX IV - 16

		TOTAL	F1	F2	F3	F4	-----	-----	-----	-----	-----	-----	-----
Opening W-I-P	Material Tax Labour Conversion Total Volume (kg)												
From Direct Warping	Material Tax Labour Conversion Total Volume (kg)												
Sizing Materials	Volume (kg) Material												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material / kg Tax / kg Labour / kg Conversion / kg Total / kg												
Waste:	Measured (kg) - Material Other (kg) - Volume (kg)												
Closing W-I-P	Volume (kg) Material Tax Labour Conversion Total												
Sizing	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (kg) Material / kg Tax / kg Labour / kg Conversion / kg Total / kg												

LOOMSHED
MATERIALS INPUT COST

Month : _____ APPENDIX IV - 17

		TOTAL	WEFT				WARP					
			Nr1	Nr2	Nr3 - - - - ->		F1	F2	F3	F4 - - - - ->		
Opening W-I-P (unwoven)	Material Tax Labour Conversion Total Volume											
From Pirn Winding	Material Tax Labour Conversion Total Volume											
From Sectional Warping	Material Tax Labour Conversion Total Volume											
From Sizing	Material Tax Labour Conversion Total Volume											
Total Input	Material Tax Labour Conversion Total Volume Material/unit Tax/unit Labour/unit Conv./unit Total/unit											
Closing W-I-P	Volume Material Tax Labour Conversion Total											
Materials used	Material Tax Labour Conversion Total Volume											

-55-

LOOMSHED
MATERIAL INPUT COST ALLOCATION

		TOTAL	F1	F2	F3	F4	---	---	---	---	---	---	---	---
Output														
Closing W-I-P														
Waste (woven)														
Less: Opening W-I-P														
Total Volume Woven														
<u>Weft</u>														
Nr1	Volume													
	Material													
	Tax													
	Labour													
	Conversion													
	Total													
Nr2	Volume													
	Material													
	Tax													
	Labour													
	Conversion													
	Total													
↓														
<u>Warp</u>														
F1	Volume													
	Material													
	Tax													
	Labour													
	Conversion													
	Total													
F2	Volume													
	Material													
	Tax													
	Labour													
	Conversion													
	Total													
↓														
<u>Total Input Cost</u>														
	Material													
	Tax													
	Labour													
	Conversion													
	Total													

-09-

LOOMSHED
COSTING SHEET

Month : _____ APPENDIX IV - 19

		TOTAL	F1	F2	F3	F4	-----	-----	-----	-----	-----	-----	-----
Opening W-I-P (woven)	Material Tax Labour Conversion Total Volume (m)												
Materials used	Material Tax Labour Conversion Total Volume (m)												
Total Input	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion/m Total / m												
Waste Measured - (woven) Other (m)	Material Volume (m)												
Closing W-I-P (woven)	Volume (m) Material Tax Labour Conversion Total												
Loomshed	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (m)												

DISTRIBUTION OF LOOMSHED OUTPUT

		TOTAL	F1	F2	F3	F4	---	---	---	---	---	---	---
Output	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion / m Total												
To Grey Cloth Store	Volume (m) Material Tax Labour Conversion Total												
To Bleaching & Singeing	Volume (m) Material Tax Labour Conversion Total												
To Finishing & Folding	Volume (m) Material Tax Labour Conversion Total												

20

DISTRIBUTION OF BLEACHING & SINGEING OUTPUT

APPENDIX IV - 22

		TOTAL	F1	F2	F3	F4	-----	-----	-----	-----	-----	-----	-----
Output	Materials Tax Labour Conversion Total volume (m) Material / m Tax / m Labour / m Conversion / m Total / m												
To Mercerising	Volume (m) Materials Tax Labour Conversion Total												
To Dyeing	Volume (m) Materials Tax Labour Conversion Total												
To Finishing & Folding	Volume (m) Material Tax Labour Conversion Total												

CLOTH MERCERISING

		TOTAL	F1	F2	F3	F4	----->						
Opening W-I-P	Material Tax Labour Conversion Total Volume (m)												
From Bleaching & Singeing	Material Tax Labour Conversion Total Volume (m)												
Chemicals used	Materials												
Input total	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion/m Total / m												
Waste:	Measured - Material - Volume (m) Other (m)												
Closing W-I-P	Volume (m) Material Tax Labour Conversion Total												
Mercerising	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume												

DISTRIBUTION OF CLOTH MERCERISING OUTPUT

		TOTAL	F1	F2	F3	F4	F5	----->					
Output	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion/m Total / m												
To Cloth Dyeing	Volume (m) Material Tax Labour Conversion Total												
To Finishing & Folding	Volume (m) Material Tax Labour Conversion Total												

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CLOTH DYEING

Month : _____ APPENDIX IV - 25

		TOTAL	F1	F2	F3	F4	----->						
Opening W-I-P	Material Tax Labour Conversion Total Volume (m)												
From Bleaching & Singeing	Material Tax Labour Conversion Total Volume (m)												
From Mercerising	Material Tax Labour Conversion Total Volume (m)												
Dyes & Chemicals	Material												
Input Total	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion/m Total / m												
Waste: Measured - Other (m)	Material Volume (m)												
Closing W-I-P	Volume(m) Material Tax Labour Conversion Total												
Cloth Dyeing	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion/m												

CLOTH FINISHING & FOLDING

Month : _____ APPENDIX IV - 26

MATERIALS INPUT

		TOTAL	F1	F2	F3	F4	----->						
Opening W-I-P	Material Tax Labour Conversion Total Volume (m)												
From Cloth Dyeing	Material Tax Labour Conversion Total Volume (m)												
From Mercerising	Material Tax Labour Conversion Total Volume (m)												
From Bleaching & Singeing	Material Tax Labour Conversion Total Volume (m)												
Chemicals Input	Materials												
Total Input	Materials Tax Labour Conversion Total Volume (m)												

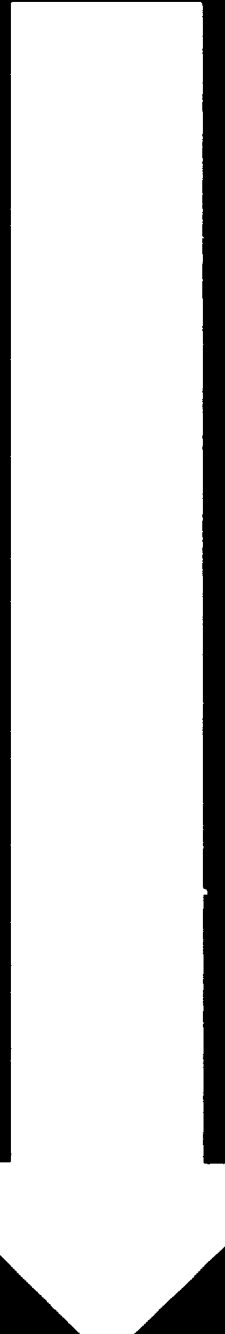
CLOTH FINISHING & FOLDING

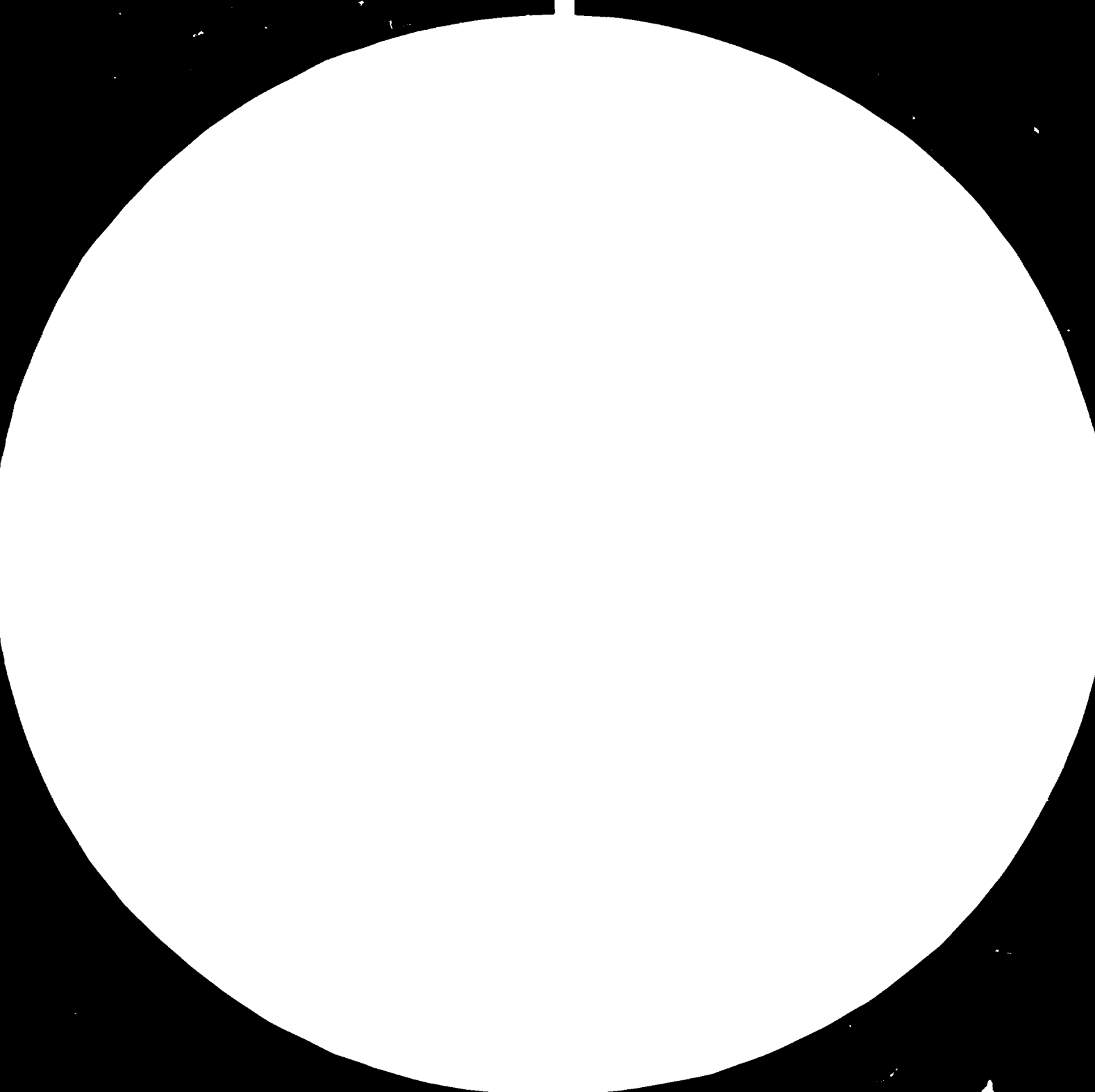
Month : _____ APPENDIX IV - 27

COST SHEET

		TOTAL	F1	F2	F3	F4	----->						
Total Input	Material Tax Labour Conversion Total Volume (m)												
Waste:	- Material Measured-Volume (m) Other (m)												
Closing W-I-P	Volume (m) Material Tax Labour Conversion Total												
Finishing & Folding	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (m) Material / m Tax / m Labour / m Conversion/m Total / m												

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1.8 2.0



2.2



2.0



Visual acuity is the ability to resolve detail. It is measured in terms of the minimum angle of resolution (MAR) or the number of cycles per degree (CPD). The MAR is the angle subtended by the height of the smallest resolvable detail. The CPD is the number of cycles per degree of the smallest resolvable detail. The relationship between MAR and CPD is given by the equation: $MAR = 1/CPD$.

HANK SINGEING & WINDING

Month : _____ APPENDIX IV - 28

		TOTAL	Nr1	Nr2	Nr3	Nr4	-----	-----	-----	-----	-----	-----	-----
Opening W-I-P	Material Tax Labour Conversion Total Volume (kg)												
From Doubling & Twisting	Material Tax Labour Conversion Total Volume (kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material/kg Tax/kg Labour/kg Conversion/kg Total/kg												
Waste: Measured Other (kg)	- Material - Volume (kg)												
Closing W-I-P	Volume (kg) Material Tax Labour Conversion Total												
Singeing & Winding	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (kg) Material (kg) Tax (kg) Labour (kg) Conversion (kg) Total (kg)												

-0-

HANK MERCERISING & BLEACHING

Month : _____ APPENDIX IV - 29

		TOTAL	Nr1	Nr2	Nr3	Nr4	----->						
Opening W-I-P	Material Tax Labour Conversion Total Volume (kg)												
From Singeing & Winding	Material Tax Labour Conversion Total Volume (kg)												
Chemicals used	Materials Volume (kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material / kg Tax / kg Labour / kg Conversion/kg Total / kg												
Waste: Measured Other (kg)	- Material - Volume (kg)												
Closing W-I-P	Volume (kg) Material Tax Labour Conversion Total												
Mercerising & Bleaching	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (kg)												

DISTRIBUTION OF MERCERISING & BLEACHING OUTPUT

Month : _____ APPENDIX IV - 30

		TOTAL	Nr1	Nr2	Nr3	Nr4	---	---	---	---	---	---	---
Output	Material Tax Labour Conversion Total Volume (kg) Material / kg Tax / kg Labour / kg Conversion/kg Total / kg												
To Yarn Dyeing	Volume (kg) Material Tax Labour Conversion Total												
To store for unpacked yarn	Volume (kg) Material Tax Labour Conversion Total												

YARN DYEING

APPENDIX IV - 31(6)

		From Mercerising & Bleaching						From Cone Winding						
		TOTAL	Nr1	Nr2	Nr3	Nr4	----->	Nr1	Nr2	Nr3	----->	.		
Opening W-I-P	Material Tax Labour Conversion Total Volume (kg)													
From Cone Wind- ing/Merc. & Bleaching	Material Tax Labour Conversion Total Volume (kg)													
Dyes & Chemicals	Material Volume (kg)													
Total Input	Material Tax Labour Conversion Total Volume (kg) Material / kg Tax / kg Labour / kg Conversion/kg Total / kg													
Waste:	Measured - Material Other (kg) - Volume (kg)													
Closing W-I-P	Volume (kg) Material Tax Labour Conversion Total													
Dyeing	Labour Conversion Total													
Output	Material Tax Labour Conversion Total Volume (kg) Material / kg Tax / kg Labour / kg Conversion/kg Total / kg													

CALCULATION OF DYE TAX

Yarn	Output Total Cost	<u>Less :</u> Product'n Tax	<u>Less :</u> Import Duties	<u>Add :</u> Allocated Gen.Admin.	Basis For Tax	Dye Tax	Output Cost Inc. Tax
<u>Cones</u>							
Nr1							
Nr2							
Nr3							
Nr4							
Nr5							
↓							
<u>Hanks</u>							
Nr1							
Nr2							
Nr3							
Nr4							
↓							
TOTAL							

YARN WINDING & PACKING

Month : _____ **APPENDIX IV - 32**

		TOTAL	Nr1	Nr2	Nr3	Nr4	----->						
Opening W-I-P	Material Tax Labour Conversion Total Volume (kg)												
From store for unpacked yarn	Material Tax Labour Conversion Total Volume (kg)												
Total Input	Material Tax Labour Conversion Total Volume (kg) Material/kg Tax/kg Labour/kg Conversion/kg Total/kg												
Waste: Measured - Other (kg)	Material Volume (kg)												
Closing W-I-P	Volume (kg) Material Tax Labour Conversion Total												
Winding & Packing	Labour Conversion Total												
Output	Material Tax Labour Conversion Total Volume (kg) Material/kg Tax/kg Labour/kg Conversion/kg Total/kg												

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APPENDIX VI

AN EXAMPLE OF COSTING

(with waste treated as an absorbed cost)

EXAMPLE CALCULATIONS

In order to illustrate the calculations required for product costing in the system described in this report, we have shown example calculations for costing in the Spinning Department. Because much of the required data is not at present readily available, hypothetical figures have been used and hence this section is illustrative of the method rather than an accurate product cost calculation.

The volume materials flow for each cost centre, together with the actual process hours, which have been used in this illustration are given in Tables 1 to 6, and Table 7 gives the analysis of waste by type by cost centre.

The allocation of conversion costs to products within each cost centre is shown in Tables 8 to 13. The total Direct Labour and Other Conversion Costs are assumed figures. These are allocated to products according to process hours.

Tables 15 to 20 show the detailed calculations required to accumulate costs by cost centre. This illustration is of the ultimate full system wherein costs are accumulated by cost element.

Materials are input at average actual stock cost, and recycled waste at the weighted average material cost calculated as shown in Table 14.

Apart from recycled waste, no value is deducted in relation to other wastes and losses.

In all cost centres, closing work-in-progress is valued at the average cost of total input, for each cost element.

Table 1

MATERIAL FLOW

(Kg)

Department : Blow Room

Month : _____

	Combed	Carded	Polycotton	Polyviscose	Total
<u>Materials Input :</u>					
St Extrot ege Rollerfin (izmir)	5245				5245
St l ege Rollerfin (Manisa)	10317				10317
St extra Savci ^ (Antakya)		78070			78070
St l ege Rollerfin (Antakya)		48650			48650
St l ege Rollerfin (Manisa)		20298			20298
2.5 Denye 38 mm (Adana)				14544	14544
2.5 Denye 40 mm (Gemlik)				8942	8942
	15562	147018		23486	186066
<u>Recycled Waste :</u>					
D1		1110		61	1171
D2		1253		405	1658
D3		768		95	863
D4		4336		191	4527
		7467		752	8219
Opening W-I-P	15146	6523	2408	9918	33995
Total Input	30708	161008	2408	34156	228280
Waste :					
Recycled	-	-	-	-	-
Non-recycled	733	5917	-	-	6650
Other losses	80	1000	-	20	1100
Closing W-I-P	3300	18040	2408	12920	36668
Output	26595	136051		21216	183862
Machine Hours	131	670	-	105	906

TABLE 2

MATERIAL FLOW
(Kg)

DEPARTMENT : CARDS

MONTH :

PRODUCT	OPENING W-I-P	MATERIAL IN AT		TOTAL INPUT	PRODUCTION WASTE			CLEANING W-I-P	OUTPUT	DISTRIBUTION OF OUTPUT		MACHINE HOURS
		FROM FROM ROOM			RECYCLED WASTE	NON RECYCLED WASTE	OTHER WASTE			TO CONTAINERS	TO DRUM FRAMES	
Combed	1640	26545		28235	122	852	60	1357	25840	25840	-	1292
Carded	3110	136051		139161	988	6887	1050	2507	127729	-	127729	4787
Poly cotton	-	-		-	-	-	-	-	-	-	-	-
Poly viscose	-	21216		21216	61	759	40		20356		20356	1018
TOTAL	4750	183862		88612	1171	8502	1150	3164	173925	25840	148085	7097

TABLE 3

MATERIAL FLOW
(KG)

DEPARTMENT : COMBING

MONTH :

PRODUCT	OPENING W-I-P	MATERIAL IN/OUT		TOTAL IN/OUT	PRODUCTION WASTES			CLOSING W-I-P	OUTPUT	DISTRIBUTION OF OUTPUT		MACHINE HOURS
					RECYCLED WASTE	NON RECYCLED WASTE	OTHER WASTE			TO DRAW FRAMES		
Combed	1130	25840		26970	-	5770	90	633	20477	20477		1530
TOTAL	1130	25840		26970		5770	90	633	20477	20477		1530

TABLE 4

MATERIAL FLOW
(KG)

DEPARTMENT : DRAW FRAMES

MONTH :

PRODUCT	OPENING W-I-P	MATERIAL INAT		TOTAL INAT	PRODUCTION WASTES			OUTPUT	DISTRIBUTION OF OUTPUT		MACHINE HOLES
		FROM OPENING	FROM DRAWING		RECYCLED WASTE	NON RECYCLED WASTE	OTHER WASTE		TO SAVED FRAMES		
Carded	740	-	2,477	2,127	138	-	40	360	20675	2679	683
Carded	3650	12779	-	131379	115	-	850	1560	127854	127854	2764
Polyester	-	-	-	-	-	-	-	-	-	-	-
Polyimide	-	2356	-	2356	406	-	20	-	19931	19931	431
TOTAL	4390	148086	25477	172952	1658	-	910	1920	168464	168464	3578

TABLE 5

MATERIAL FLOW
(KG)

DEPARTMENT: SPEED FRAMES

MONTH: _____

PRODUCT	OPENING W-I-P	MATERIAL IN/OUT		TOTAL IN/OUT	PRODUCTION WASTE			CHECKING W-I-P	OUTPUT	DISTRIBUTION OF OUTPUT		MACHINE HOURS
		FROM PREVIOUS FRAME	TO PREVIOUS FRAME		RECYCLED WASTE	NON RECYCLED WASTE	OTHER WASTE			TO LINES	SPARE PARTS	
Carded: Ne < 29 Ne > 29 Total	890	2679		2529	85	-	80	650	2754	2754	2754	69179
Carded: 183 Ne < 29 Ne > 29 Total	1670	127804		129524	683	-	720	1020	8358	8358	8358	109643
Polyester Ne < 29 Ne > 29 Total	-	1931		1931	95	-	10	-	1932	1932	1932	33377
Total:	2560	48464		171024	863	-	810	1670	16761	16761	16761	226836

TABLE 6

MATERIAL FLOW

(155)

DEPARTMENT: RING SPINNING

MONTH:

PRODUCT	OPENING W-I-P	MATERIAL INPUT	TOTAL INPUT	PRODUCTION WASTE			CLOSING W-I-P	OUTPUT	DISTRIBUTION OF OUTPUT			MACHINE HOURS
				RECYCLED WASTE	NON RECYCLED WASTE	OTHER WASTE			TO C&E	TO W&B	TO YARN STORE	
Cotton	Ne > 29							587	587			42394
	A30							13042	13042			1386400
	A40							4767	4767			673931
	A48							208	208			5562-
	A60											
Total	8900	2074	29654	477	294	70	10169	18644				
Carded	Ne < 29							3677	3677			58904
	C8							7890	7890			210985
	C12							5157	5157			180103
	C16							12743	12743	12743		627778
	C20M							54844	54844			2101365
C20							20784	20784			1064400	
C24												
Ne > 29	190	8358	8548	224	137	34	88	8065	8065			566433
C30												
Total	1990	127101	147091	5859	2354	585	26863	113410				
Polyester	Ne < 29											
	PV28							19625	19625			1926000
Total	28890	107681	49671	4527	2048	668	37052	151679	15936	12743		8794860

TABLE 7

WASTE ANALYSIS
 SPINNING DEPARTMENT
 (KC)

	TOTAL			BLOW ROOM			CARDING			COMBING			DRAN FRAMES			SPIN FRAMES			FINE SPINNING			
	A	C	PV	A	C	PV	A	C	PV	A	C	PV	A	C	PV	A	C	PV	A	C	PV	
D1	122	988	61																			
D2	138	1115	405																			
D3	85	683	95																			
D4	477	3859	191																			
D6	66	523	-	66	523	-																
D7	430	3472	759	430	3472	759																
D8	360	2892	-	360	2892	-																
D9	5770	-	-	5770	-	-																
D12	615	4972	-	615	4972	-																
D13	118	945	-	118	945	-																
D14	24	187	-	24	187	-																
D17	270	2167	-	270	2167	-																
005	8475	21803	1511	976	7575	829	733	5917	-	5770	5770	-	138	1115	405	85	683	95	771	6218	191	
STOCK LOSSES	420	4265	100	60	1050	40	80	1000	20	90	-	-	40	850	20	80	720	60	70	585	10	
TOTAL	8895	26003	1611	1038	8925	860	813	6917	20	5860	-	-	178	1965	425	165	1403	105	841	6798	201	

THESE ARE MATERIAL PLANNING SHEETS

CONVERSION COST ALLOCATION

TABLE 8

DEPARTMENT: Blow Room

MONTH: _____

MATERIAL	MONTH ACTUAL		COST ALLOCATION (TL)			UNIT COSTS (TL/Kg)		
	OUTPUT (kg)	PROCESS HOURS	DIRECT LABOUR	CONVERSION OVERHEADS	TOTAL	DIRECT LABOUR	CONVERSION OVERHEADS	TOTAL
Combed	26595	131	16257	27543	43800	0.611	1.036	1.647
Carded	136051	670	83145	140869	224014	0.611	1.036	1.647
Poly cotton	-	-	-	-	-	-	-	-
Poly viscose	21216	105	13030	22076	35106	0.616	1.041	1.657
TOTAL	183862	906	112432	190488	302920			

CONVERSION COST ALLOCATION

TABLE 5

DEPARTMENT: CARDING

MONTH: _____

MATERIAL	MONTH ACTUAL		COST ALLOCATION			UNIT COSTS		
	OUTPUT (kg)	PROCESS HOURS	DIRECT LABOUR	CONVERSION OVERHEAD	TOTAL	DIRECT LABOUR	CONVERSION OVERHEAD	TOTAL
Combed	25840	1292	31166	25324	56490	1.206	0.980	2.186
Carded	127729	4787	115473	93827	209300	0.904	0.735	1.639
Poly cotton	-	-	-	-	-	-	-	-
Poly viscose	20356	1018	24557	19953	44510	1.207	0.980	2.187
TOTAL	173925	7097	171196	139104	310300			

CONVERSION COST ALLOCATION

TABLE ID

DEPARTMENT : COMBIS

MONTH :

MATERIAL	MONTH ACTUAL		COST ALLOCATION		UNIT COSTS		
	OUTPUT (KG)	PROCESS HOURS	DIRECT LABOUR	CONVERSION OVERHEAD	DIRECT LABOUR	CONVERSION OVERHEADS	TOTAL
Combined	20477	1530	31577	170173	1542	8.310	9.852
TOTAL							

CONVERSION COST ALLOCATION

TABLE II

DEPARTMENT: DEPT. FRAMES.

MONTH: _____

MATERIAL	MONTH ACTUAL		COST ALLOCATION			UNIT COSTS		
	OUTPUT (kg)	PROCESS HOURS	DIRECT LABOUR	CONVERSION OVERHEAD	TOTAL	DIRECT LABOUR	CONVERSION OVERHEAD	TOTAL
Combed	20679	683	9880	39328	49208	0.478	1.902	2.380
Carded	127854	2764	39985	159155	199140	0.213	1.245	1.558
Poly cotton	-	-	-	-	-	-	-	-
Poly viscose	19931	431	6235	24817	31052	0.213	1.245	1.558
TOTAL	168464	3878	56100	223300	279400			

CONVERSION COST ALLOCATION

TABLE 12

DEPARTMENT : SPEED FRAMES.

MONTH :

MATERIAL.	MONTH ACTUAL		COST ALLOCATION			UNIT COSTS		
	OUTPUT (KG)	PROCESS HOURS	DIRECT LABOUR	CONVERSION OVERHEADS	TOTAL	DIRECT LABOUR	CONVERSION OVERHEADS	TOTAL.
Combed : Ne < 29 29 < Ne	- 20754	- 69179	- 37481	- 112901	- 150382	- 1806	- 5440	- 7246
Carded : Ne < 29 29 < Ne	118743 8358	109643 14657	59405 7930	178939 23888	238344 31818	0500 0949	1507 2858	2007 3207
Spincotton : Ne < 29 29 < Ne	- -	- -	- -	- -	- -	- -	- -	- -
Polycotton : Ne < 29 29 < Ne	19826 -	33377 -	18084 -	54472 -	72556 -	0912 -	2748 -	3660 -
TOTAL	167681	226836	122900	370200	491100			

CONVERSION COST ALLOCATION

TABLE 13

DEPARTMENT: RINC SPINNING

MONTH: _____

	MONTH ACTUAL		COST ALLOCATION			UNIT COSTS		
	OUTPUT (kg)	PROCESS HOURS	DIRECT LABOUR	CONVERSION OVERHEAD	TOTAL	DIRECT LABOUR	CONVERSION OVERHEAD	TOTAL
Combed	587	42399	3774	5646	9420	6.429	9.619	16.048
A30	13042	1386900	123443	184692	308135	9.465	14.161	23.626
A48	4767	67376	59985	89747	149732	12.583	18.827	31.410
A60	248	55657	4954	7412	12366	19.976	29.887	49.863
Carded	3877	58904	5243	7844	13087	1.352	2.023	3.375
C12	7890	210985	18779	28097	46876	2.380	3.561	5.941
C6	5157	150103	16030	23984	40014	3.108	4.651	7.759
C20A	12743	50778	46976	70284	117260	3.686	5.516	9.202
C20	54894	210365	187056	279826	466871	3.407	5.098	8.505
C24	20784	106400	94739	141745	236484	4.558	6.820	11.378
C30	8065	566433	50416	75231	125647	6.251	9.353	15.604
Polyester	19625	1926000	171426	256482	427908	8.735	13.069	21.804
TOTAL	151679	8794860	782800	1171200	1954000			

CALCULATION OF WASTE VALUE/kg

RECYCLED WASTE

	<u>Volume</u>	<u>Ave. material input cost</u>	
Carded	6645	103.01	684.501
Combed	822	109.36	89.894
	<u>7467</u>		<u>774.396</u>

Average material cost of recycled waste = TL 774.396 ÷ 7467

= TL 103.71/kg

TABLE 10

	TOTAL			CARRIED (A)			CARRIED (C)			POLYMERIZED (PP)			POLYMERIZED (PV)		
	KG	T/KG	TL	KG	T/KG	TL	KG	T/KG	TL	KG	T/KG	TL	KG	T/KG	TL
<u>MATERIALS INPUT</u>															
25 Extruder eye Rollerform	5245		655474	5245		655474									
26 1 eye Rollerform	10317		1046400	10317		1046400									
27 2 eye Rollerform	78070		4731964	78070		4731964			6731964						
28 1 eye Rollerform	48650		6354122	48650		6354122			6354122						
29 1 eye Rollerform	20298		2088720	20298		2088720			2088720						
25 Drive 35mm mesh pulson	14544		3230537	14544		3230537							14544		3106557
26 Drive 40mm Baggy system	8942		1719152	8942		1719152							8942		1719152
	186006		21796424	186006		21796424	186006		186006				186006	21075	2444775
<u>Recycled Waste</u>															
31	1171						1171						1171		
32	1658						1658						1658		
33	803						803						803		
34	4527						4527						4527		
	8219		932887				8219		932887				8219		150484
<u>opening W.I.P</u>															
	39943		4494208	39943		4494208			4494208	2408			39943		2053047
<u>TOTAL INPUT</u>	228200		27223904	30708	108.69	3327599	161008	103.19	18578032	2408		146983	34156	20.96	705240
<u>Waste</u>															
Recycled	-		-	-		-	-		-	-		-	-		-
Non-Recycled	6650		-	753		-	5917		-	-		-	-		-
Other losses	1100		-	80		-	1000		-	-		-	20		-
TOTAL	7750		-	833		-	6917		-	-		-	20		-
<u>Closing W.I.P</u>															
	31406		5076015	3300	108.69	368677	18040	103.19	1861648	2408		146983	34156	20.96	370807
<u>Blow Room Conversion</u>															
Labour			112452			16257			83145						13203
Conversion			190418			27543			140849						24076
TOTAL			302870			43800			224014						38106
<u>OUTPUT</u>															
Moltened	12046		22147879						10817						20916
Labour	0.61		112452			16257			83145						13203
Conversion	1.04		190418			27543			140849						24076
TOTAL	122.11		22460804	26415	113.66	3022722	13651	109.81	1440003				3716	21.51	4497534

CASHING

	TOTAL			CASHES (A)			CASHES (C)			PULPWOOD (10)			PULPWOOD (10)		
	KG	TU/KG	TU	KG	TU/KG	TU	KG	TU/KG	TU	KG	TU/KG	TU	KG	TU/KG	TU
OPENING W.I.P															
Material			310 567			179 462						331 166			
Labour			2948			982						1866			
Consumption			4316			1616						3160			
Total	4750		518 231	1840		182 000	3118					334 911			4452 4
From Bag Room			2347 889			2978 432						14116 534			13 2
Material			112 432			16 287						83 445			22 0
Labour			190 445			27 283						140 849			22 0
Consumption			23450 249			2022 722	120051					14940 588			4487 3
Total	188300		23650 245	20876		2022 722	120051					14940 588			4487 3
TOTAL INPUT			115 300			3188 304				108 13		15007 699			209 36
Material			185 304			17 239				0 61		86 411			136 6
Labour			23006 810			29 199				1 04		140 039			22 9
Consumption			127 074			13 258				109 78		16376 719			4487 3
Total	188 812		127 074	28 232		32006 810	129 101			109 78		16376 719			4487 3
WASTE : Recycled	1171			122			988			103 71		102 065			210 76
Non-recycled	8502			846			6397								789
Other losses	11501			60			1050								40
Total	10833		137 914	1038		13 255	8925					102 465			860
Closing W.I.P															
Material			157 880			151 744				103 13		271 086			
Labour			3397			830				0 61		1 531			
Consumption			459 232			13 98				1 04		25 45			
Total	3884		459 232	1357		159 030	2507			109 78		215 212			211 51
Cash-in			171 196			3166						115 474			24 659
Labour			139 106			26324						93827			19955
Consumption			310 200			5140						209 200			46 510
Total			23 173 60			2993 273				114 88		14 614 108			218 10
Material			28017			47377				1 56		198 938			1 86
Labour			33045			53156				1 84		236 761			3 06
Consumption			120 130			3093 915	127700			118 28		15108 702			221 0
Total	17896		22 222 189	25800		3093 915	127700			118 28		15108 702			221 0
In Control															
Material						2993 273									
Labour						67597									
Consumption						53125									
Total				35800		3093 273									
TO OTHER DEPTS															
Material						10 674 108									6009 67
Labour						198 458									37 58
Consumption						23 261									42 05
Total						15108 702									46 70

TABLE 17

COMBING

	UNIT COSTS				VOLUME (kg)	TOTAL COSTS			Total
	Material/kg	Labour/kg	Commissio/kg	Total/kg		Material	Labour	Commissio	
OPENING W.I.P					1130	2038	2276	132549	
FROM CARDING					25840	47577	53125	3093975	
TOTAL INPUT	115.74	1.84	2.05	119.63	26970	49615	55400	3226524	
WASTE: Recycled					-	-	-	-	-
Non-recycled					5770	-	-	-	-
Other Losses					90	-	-	-	-
Total					5860	-	-	-	-
195									
CARDING W.I.P	115.74	1.84	2.05	119.63	635	1165	1298	76726	
COMBING					-	31577	170175	201760	
OUTPUT	148.86	3.91	10.95	163.72	20477	80027	224276	3352508	

DRAW FRAMES.

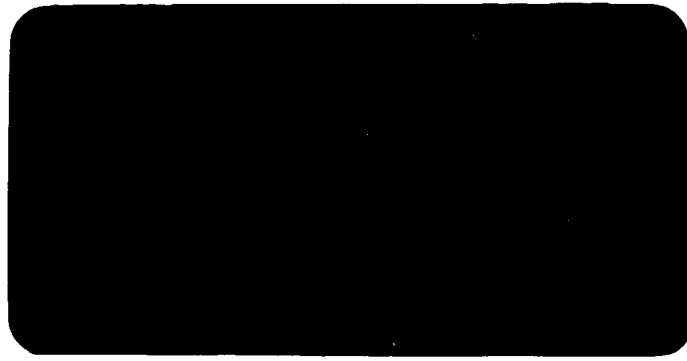
	TOTAL		CARRIED (A)		CARRIED (C)		POLY COTTON (P)		POLY WISCOSE (PW)	
	kg	m/kg	kg	m/kg	kg	m/kg	kg	m/kg	kg	m/kg
OPENING 4-1-P										
Material		999 466		491 437		418 928				
Labour		18 491		12 864		5 627				
Consumption		42 810		36 130		6 680				
Total	4390	970 766	740	500 431	3630	410 935				
FROM LAMINATE										
Material		3048 346		3048 346						
Labour		80 027		80 027						
Consumption		224 315		224 315						
Total	20477	3352 688	20477	3352 688						
FROM CARTRIDGE										
Material		19 113 736				14674 418				4434
Labour		236 640				198 965				37 675
Consumption		277 200				235 261				42 000
Total	18085	19 627 576	20477		12725	1508 702			20356	454
TOTAL INPUT										
Material		28071 446		166 83		3539 482		114 87		15092 176
Labour		336 058		4 38		92 891		1 56		204 600
Consumption		504 375		12 37		260 406		1 84		241 961
Total	37553	33956 879	20477	182 58	3892 979	181 379	118 27	15 53	232 07	15517 697
WASTE										
Recycled		1658		138		115		103 71		116 637
Other losses		910		40		850				
Total	2568	2568	178		1963					
CHANGE W.I.P										
Material		239 256		146 82		600 69		114 87		199 197
Labour		4911		4 38		1577		1 56		2484
Consumption		7287		12 37		4417		1 84		2870
Total	1920	250 504	340	182 58	660 53	1500	118 27	15 53	184 501	
Labour		56 100		9 80		39 963				6 4
Consumption		223 500		39 328		169 165				24 8
Total		279 600		49 328		199 160				31 0
OUTPUT										
Material		2216 977		167 57		346 512		115 511		1079261
Labour		387107		4 90		101 194		6 81		161 702
Consumption		741 388		14 38		295 316		3 11		398 526
Total	16844	2320 412	20479	186 76	386 822	127 828	120 716	10 92	19931	15037 699

S PALL FRAMES

		TOTAL	COMBOD (A)			CARDOD (C)			POLY COTTON (PP)			POLY VISCOSE (PV)		
			NO < 29	29 < NO	TOTAL	NO < 29	29 < NO	TOTAL	NO < 29	29 < NO	TOTAL	NO < 29	29 < NO	TOTAL
DRESSING WIP	Makemal	525 110			106 210			108 910						
	Labour	7 440			4 260			3 680						
	Conversion	17 470			12 400			5 070						
	Total	359 910			162 870			197 660						
	Volume (Kg)	2 500			890			16 700						
FRAM FRAMES	Makemal	220 417 10			24 44 619			14 821 858						4350 223
	Labour	897 149			101 194			242 133						43 622
	Conversion	760 401			295 216			398 229						61 240
	Total	23 789 260			396 1 129			15 463 220						2460 471
	Volume (Kg)	168 464			20 679			127 854						19 131
TO THE WIP	Makemal	22 926 830			3610 829			15011 768						4650 223
	Labour	294 489			105 454			245 243						43 622
	Conversion	777 871			307 716			463 309						61 240
	Total	24 149 190			4024 009			15 660 390						4460 491
	Volume (Kg)	171 024			21 569			129 524						19 131
	Makemal / Kg				167.41			115.90						2.5 07
	Labour / Kg				4.89			1.89						2.20
	Conversion / Kg				14.7			3.11						3.85
	Total / Kg				196.57			120.90						224.02
WASTE	Recycled - Makemal	996 700			281 5			70 834						20021
	Volume (Kg)	862			85			652						95
	Non-recycled (Kg)	-			-			-						-
OIL & LUBRICANTS	Oil	800			80			720						10
	Volume (Kg)	1070			650			1020						-
COMBING WIP	Makemal	227 034			108 16			11 8 218						-
	Labour	5 107			3 79			1 928						-
	Conversion	12 448			9 276			3 172						-
	Total	244 589			121 271			123 308						-
OUTPUT	Makemal	22 650 126		2471 208	3493 208	13 847 993	974 723	14 922 716	4334 202	-	4334 202			
	Labour	289 282		102 275	102 275	227 286	15 999	243 285	43 522	-	43 522			
	Conversion	76 542 3		298 400	298 400	373 625	26 310	400 137	66 800	-	66 800			
	Total	23 804 911		289 883	3893 923	14 449 904	10 17024	15 466 188	4444 870	-	4444 870			
	Volume (Kg)	167 881		20 754	20 754	118 703	8 658	127 101	19 826	-	19 826			
SPIN FRAMES	Labour	122 900		37 481		59 405	7920		18 084					
	Conversion	270 200		112 901		178 939	22 588		54 472					
	Total	493 100		150 382		238 344	31 618		72 556					
OUTPUT	Makemal	22 650 126		3493 208		13 847 993	974 723		4334 202					
	Labour	289 282		139 768		286 691	219 29		61 906					
	Conversion	1135 623		411 201		552 764	50 200		121 218					
	Total	24 399 031		4044 306		14 687 408	1048 850		4517 026					
	Volume (Kg)	167 681		20 754		118 703	8 358		19 826					
	Makemal / Kg	135.08		168.72		116.62	116.62		218.61					
	Labour / Kg	3.06		6.78		2.41	2.56		3.12					
	Conversion / Kg	6.77		19.85		4.66	6.01		6.12					
	Total / Kg	144.91		194.87		122.29	125.49		227.85					

	TOTAL	COMBLED							CARDED							PV		
		A30	A40	A48	A60	29<Nt	C8	C12	C16	C20	C20M	C24	Ne<29	29<Nt	C30			
OPENING W.I.P																		
	3496468					1453330									221764			21370
Material	104331					57320									45882			526
Labour	260890					170950									88510			190
Conversion	406120					1682100									235000			23990
Total	20880					8900									19800			190
FROM SPINNING						3493208									1364993			97623
Material	512582					189766									285691			24229
Labour	1135623					411241									682764			50200
Conversion	24248031					4044506									14687448			1048862
Total	37581					24250									118743			8358
TOTAL WIP						4946538									1604976			433
Material	616514					197576									332873			24859
Labour	1396213					582497									601310			81390
Conversion	28359321					5726406									17003648			1071802
Total	49671					16687									138543			8348
WASTE						16687									11599			11663
Material	49920					646									240			246
Labour	4527					19764									66			600
Conversion	2648					19311									2302			12537
Total	665					70									551			34
WASTE RECYCLED - MATERIAL						49470									376786			23231
Material	4527					377									8336			324
Labour	2648					390									227			137
Conversion	665					70									551			34
WASTE NON-RECYCLED (W)						1069									2696			81
Material	481097					1496391									3107863			10354
Labour	132286					67726									64348			252
Conversion	304308					189719									124067			328
Total	5211291					1963726									3886321			11034
CHEMICAL W.I.P						3200777									2096			81
Material	21002157					42376									3107863			10354
Labour	484218					1727									64348			252
Conversion	1071905					589									124067			328
Total	2258290					3713199									3886321			11034
Volume (kg)	151572					18244									20229			8065
Material	21002157					42376									3107863			10354
Labour	484218					1727									64348			252
Conversion	1071905					589									124067			328
Total	2258290					3713199									3886321			11034
Volume (kg)	151572					18244									20229			8065
FROM SPINNING						782800									94739			171
Material	1171200					379866									1417405			256
Labour	984000					466871									236884			433
Conversion	21002157					42376									3107863			10354
Total	21002157					42376									3107863			10354
Material	1267028					6881									147666			218
Labour	2243108					12501									343786			377
Conversion	2455270					61768									2874580			4905
Total																		

WHITEHEAD



HAROLD
WHITEHEAD
& PARTNERS
LIMITED

10653

CHAPTER 7

(7 of 7)

THE ORGANISATION STRUCTURE
OF THE CTD FINANCE
FUNCTIONS

VOLUME 7 OF 7

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7. THE ORGANISATION STRUCTURE OF CTD FINANCE FUNCTION

1. General Background - Comment

- 7.1 The organisation structure for the Sumerbank General Directorate and that for a typical mill (Eregli) are shown in Charts 7.1 & 2.
- 7.2 Historical evolution has led to Sumerbank being structured in a functional as opposed to a divisional basis - the exception being banking services. It will be noted from Chart 7.1 that no one Board member has sole responsibility for all CTD activities and that it is a fragmented accountability over several senior executives -(it must be remembered that CTD represents nearly 50% of Sumerbank employees).
- 7.3 Gherzi, who are responsible for the overall reorganisation take the view that this functionalised approach significantly contributes toward :-
- blurred areas of responsibility and accountability from a planning and control standpoint which is accentuated by the lack of a strong financial function. The function is treated within a more general area, under the Assistant General Director for Administration.
 - cumbersome reporting system which lacks structured dissemination. Further it does not necessarily produce information by the right time for effective control purposes thereby making cost and operational control difficult.
 - inability to change because of either market place pressures or general economic trends
 - difficulties caused by burdensome span of control
- 7.4 Further we question the position of planning and control activities which are outside a strong line function and which have only partial responsibility for production information.

SOVIET BANK GENERAL DIRECTORATE
ORGANIZATION CHART
1970

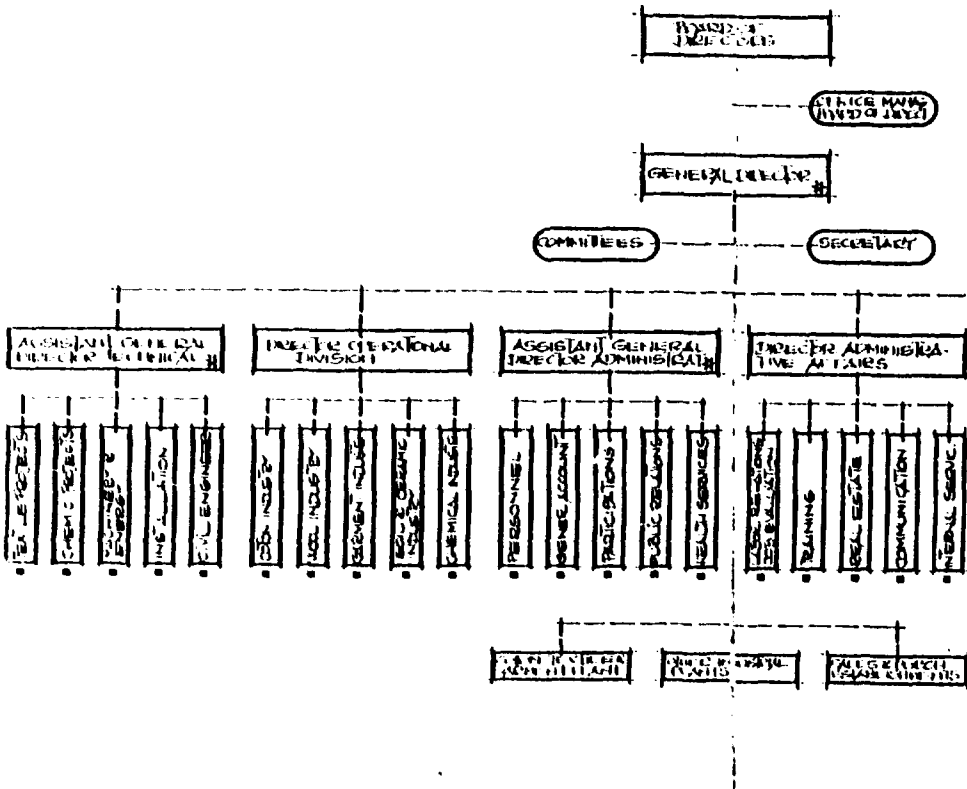
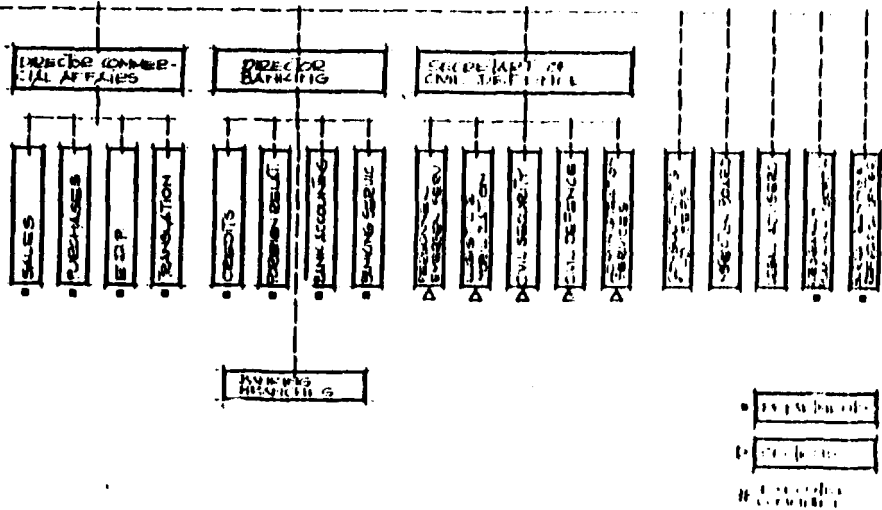


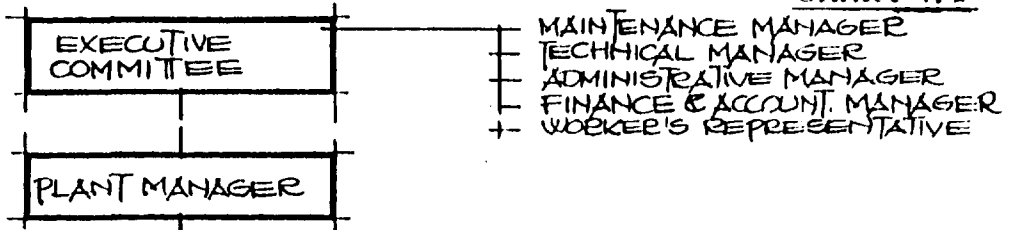
CHART 7.1



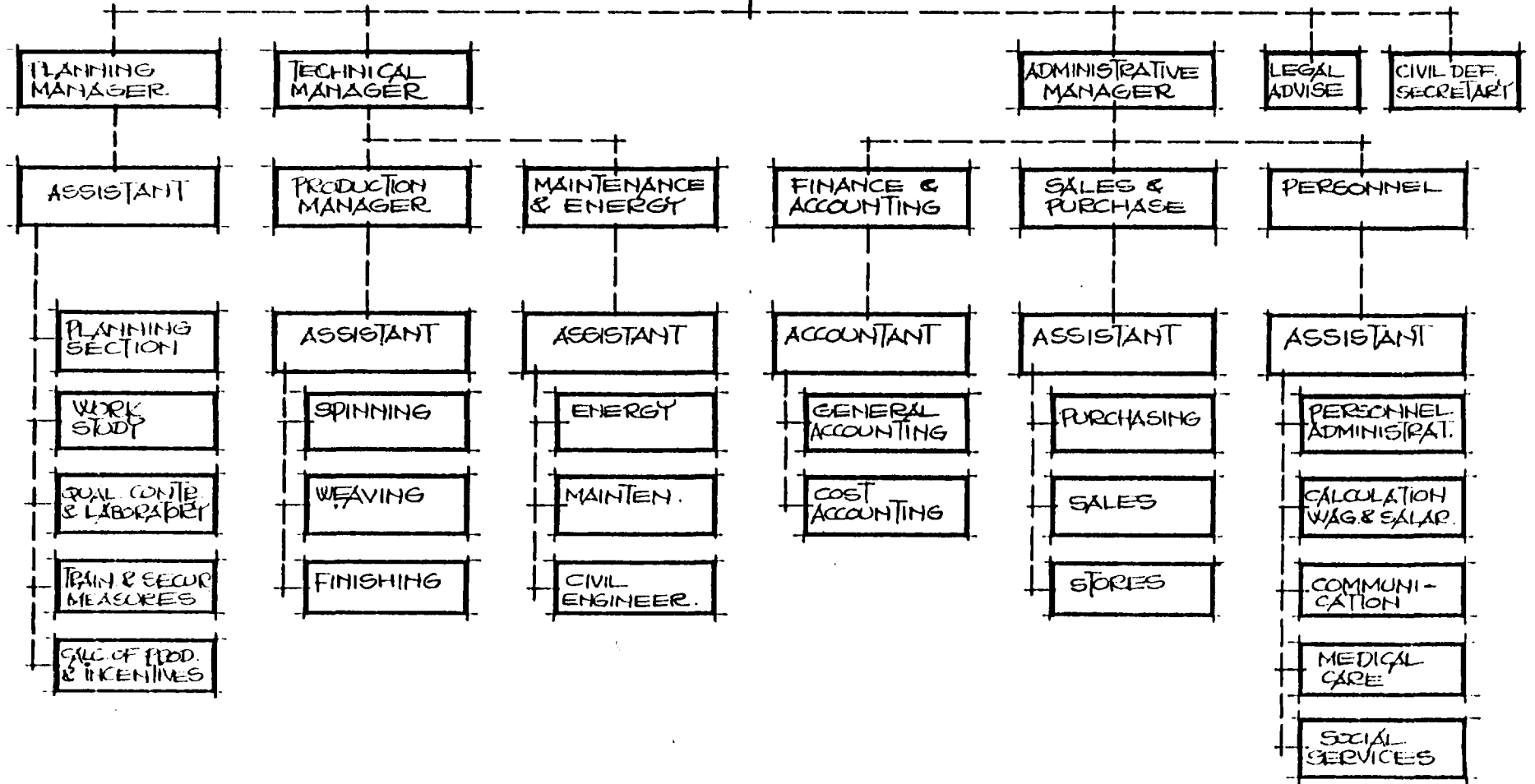
ORGANIZATION CHART
ERESLI

PRELIMINARY AND
TENTATIVE FOR
DISCUSSION PURPOSES
ONLY

CHART 7.2



SECRETARY



7.5 In SBCTD, we address the financial controllership to the accountability, for example, of :

- financial planning, budgeting and control
- investment planning and capital project cost control
- accountancy (general/cost/management)
- taxation
- internal audit
- administration
- special investigations

2. General Organisation Proposals

7.6 In charts 7.3 to 7.8 we give the Gherzi proposals for SBCTD Directorate and those for a mill. In essence CTD reports in at SBH Board level and is divisionalised within the following major line functions:

- marketing including exports, retail and wholesale, public sector and government sales, garment sales, inter-company sales, product development, market research and inventory control
- separate textile and garment technical/operational managements with accountability for the mills and plants (CTD) together with the following staff functions, maintenance and engineering, production co-ordination and control, quality control and cost control
- purchasing including erection, energy, machinery cotton, dyes and chemicals and consumable spares
- finance and accounting vis a vis, general accountancy, cost accounting, financial and investment planning and control, treasury and management services

- personnel and administration, that is personnel administration, training centre at Bursa, labour and industrial affairs and relations, social services together with medical care, public relations and communication

7.7 A number of secondary main limb functions are also called for, e.g. secretarial, legal and internal audit.

7.8 Clearly the central organisation (chart 7.7) cannot be instantly implemented. Charts 7.3-7.7 show a careful phased programme of stages by which implementation can be carefully effected without undue major disruptions in operations and performance.

7.9 Mill management proposals (chart 7.8) are again on divisionalised lines, thus:

- technical department embracing production management, energy and maintenance and purchasing
- sales management including various types of sales functions, inventory control of finished goods, shipping and despatch, together with required administration requirements
- finance incorporating accounting, financial planning and control and management services
- personnel including payroll, administration, social and welfare services and communications
- planning activities embracing quality control, research, time and work study, production planning and control, training and security requirements.

PROPOSED ORGANIZATION CHART
 SUMERBANK
 COTTON TEXTILE DIVISION (SBCTD)

PAGE # 1

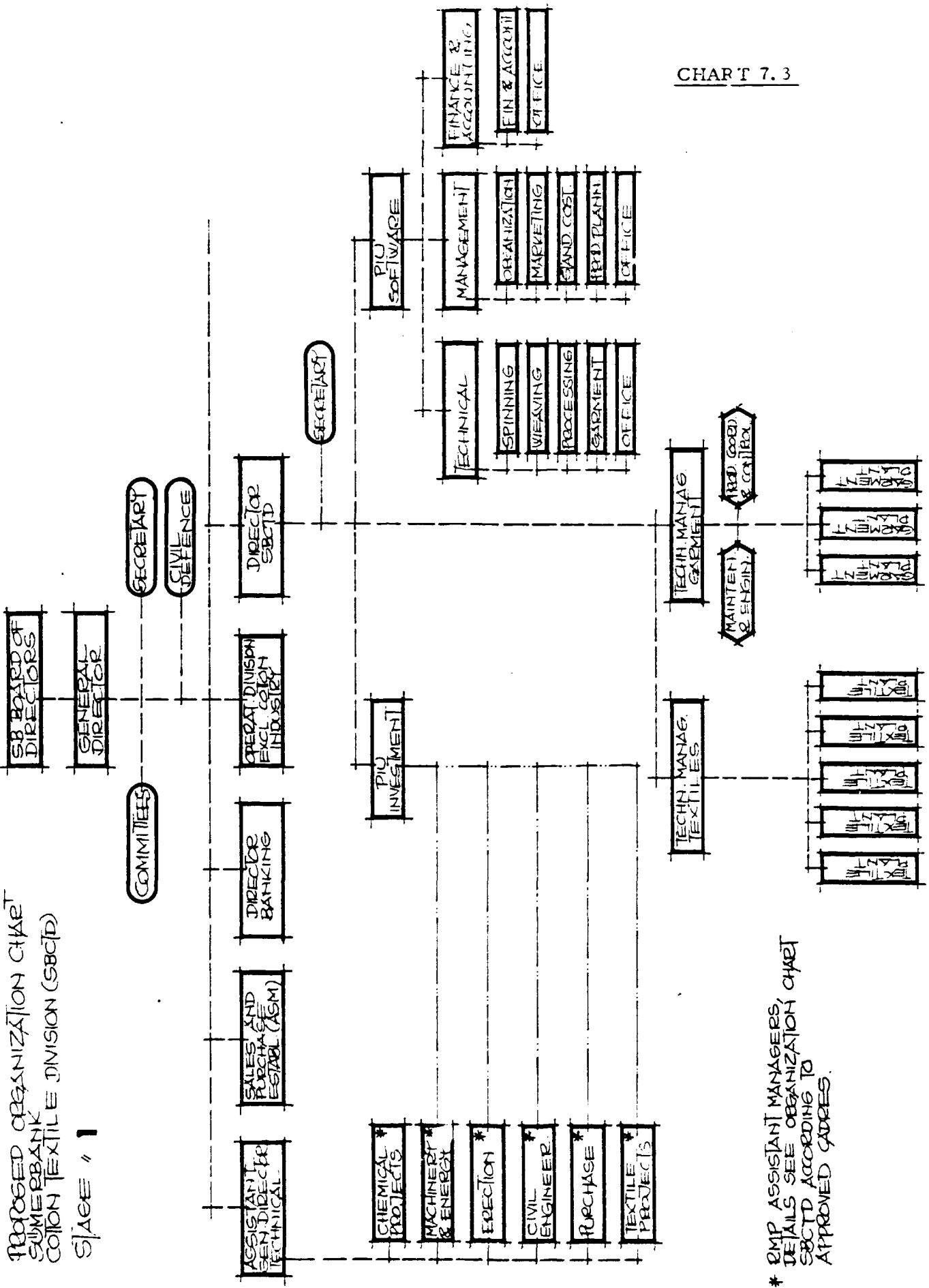


CHART 7.3

* RMP ASSISTANT MANAGERS, DETAILS SEE ORGANIZATION CHART SBCTD ACCORDING TO APPROVED GADES.

PROPOSED ORGANIZATION CHART
 SUMMERBANK
 COTON TEXTILE DIVISION (SUBCD)
 STAGE " 2

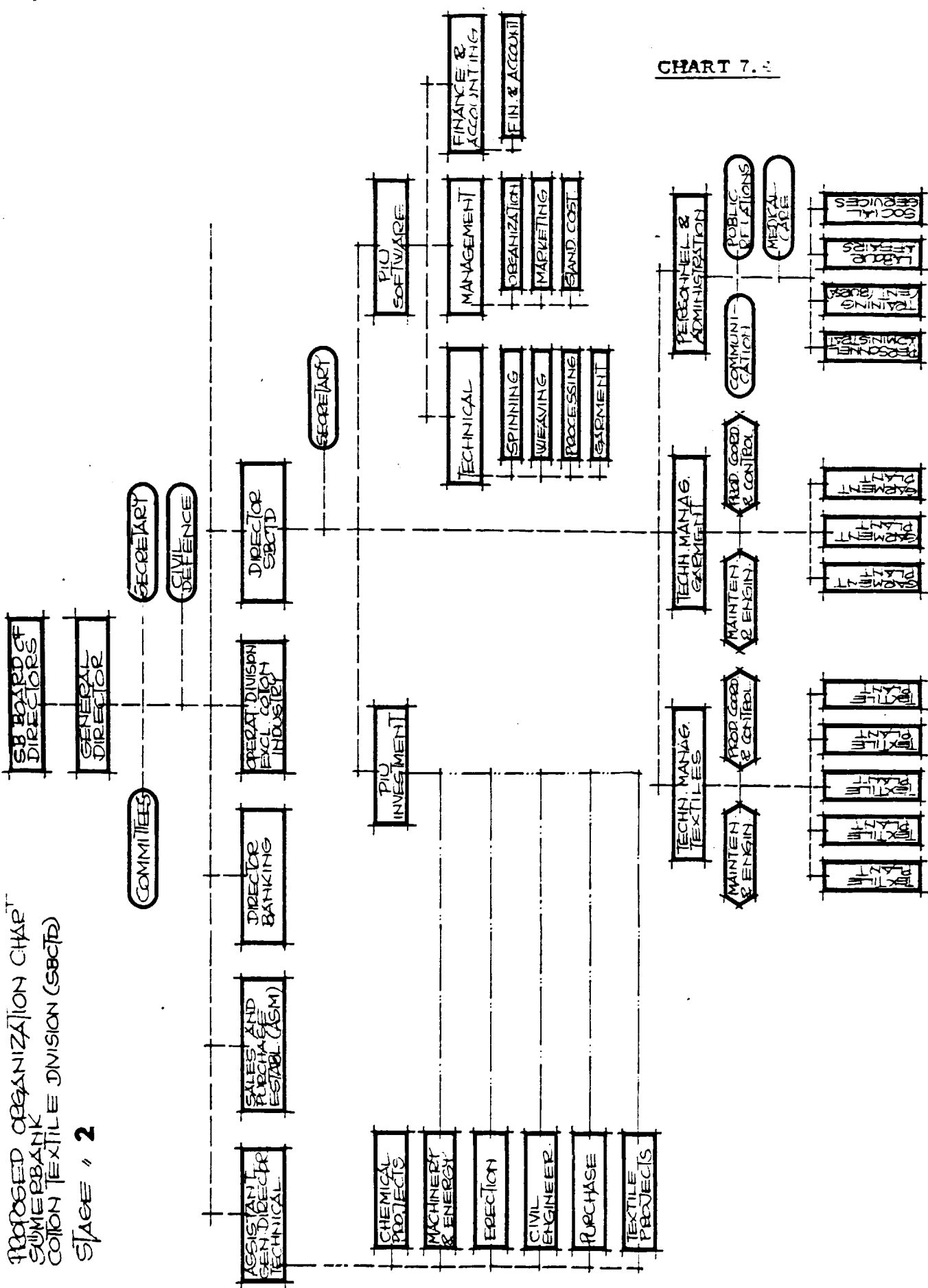
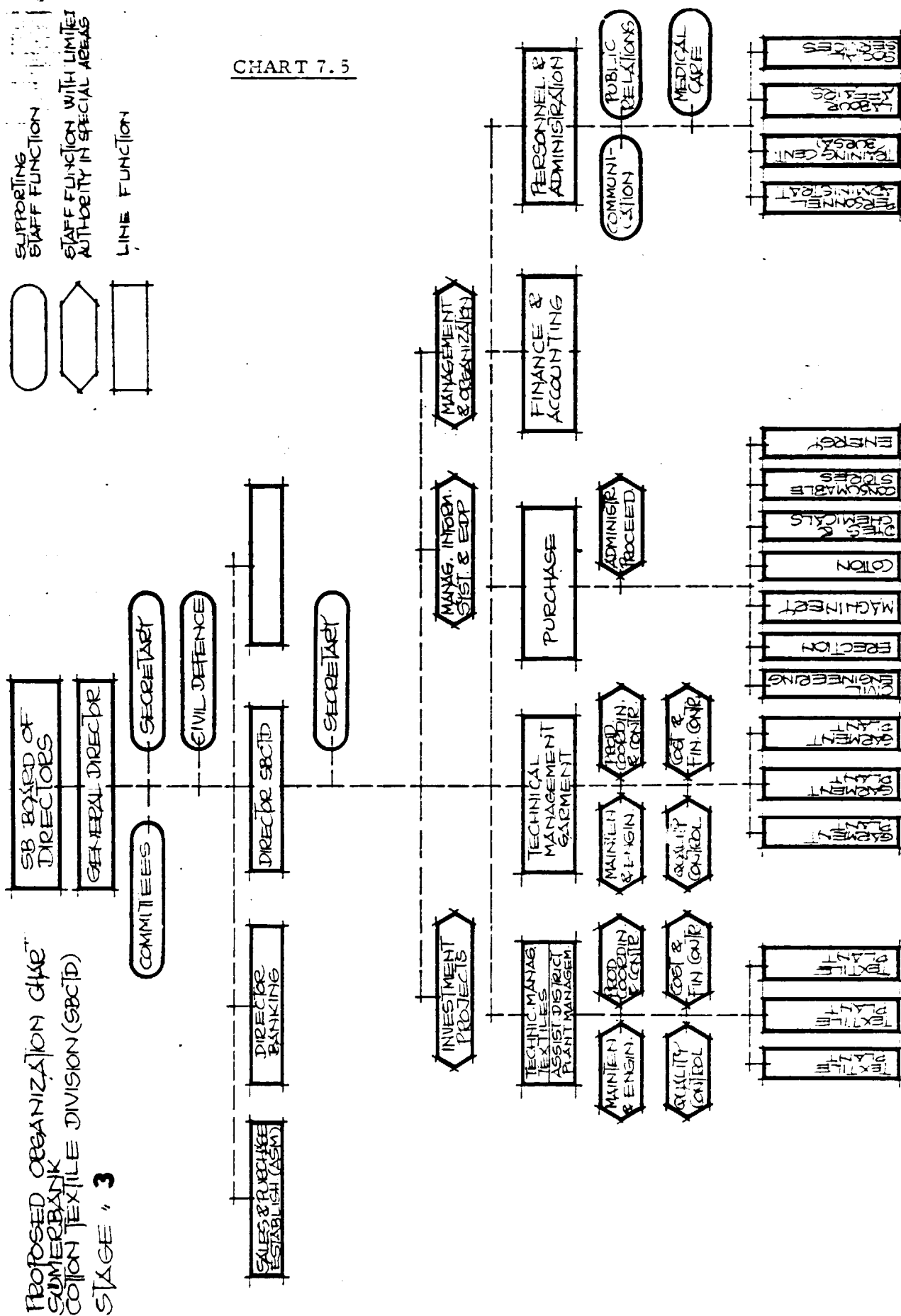
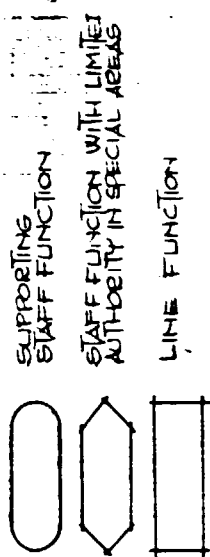


CHART 7.4

PROPOSED ORGANIZATION OF
CUMERBANK
COTTON TEXTILE DIVISION (SBCD)
STAGE 3

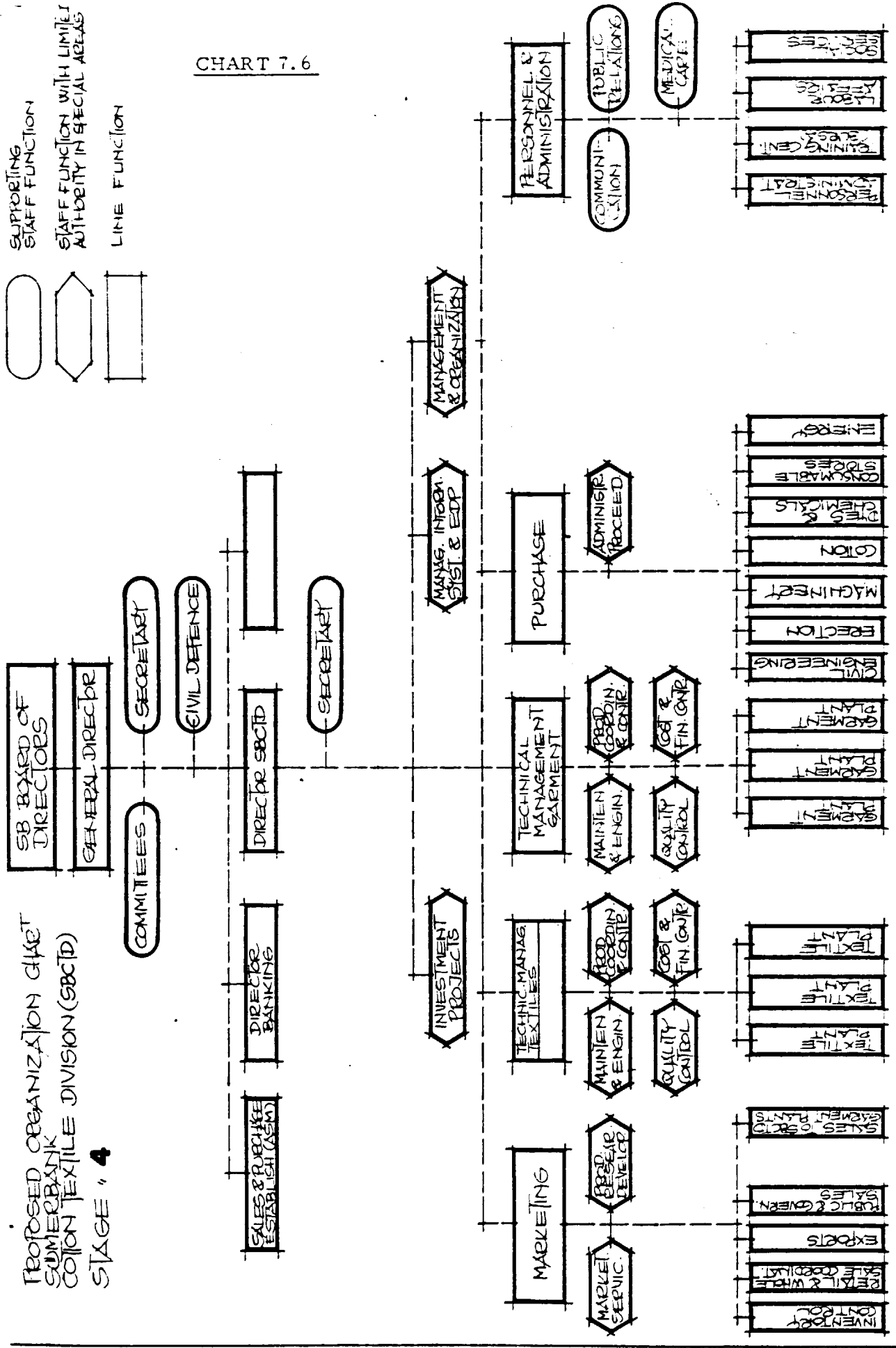
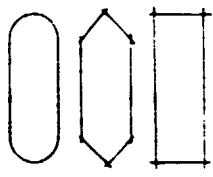
CHART 7.5



PROPOSED ORGANIZATION CHART
 CUMMERBANK
 COTTON TEXTILE DIVISION (SBCID)
 STAGE " 4

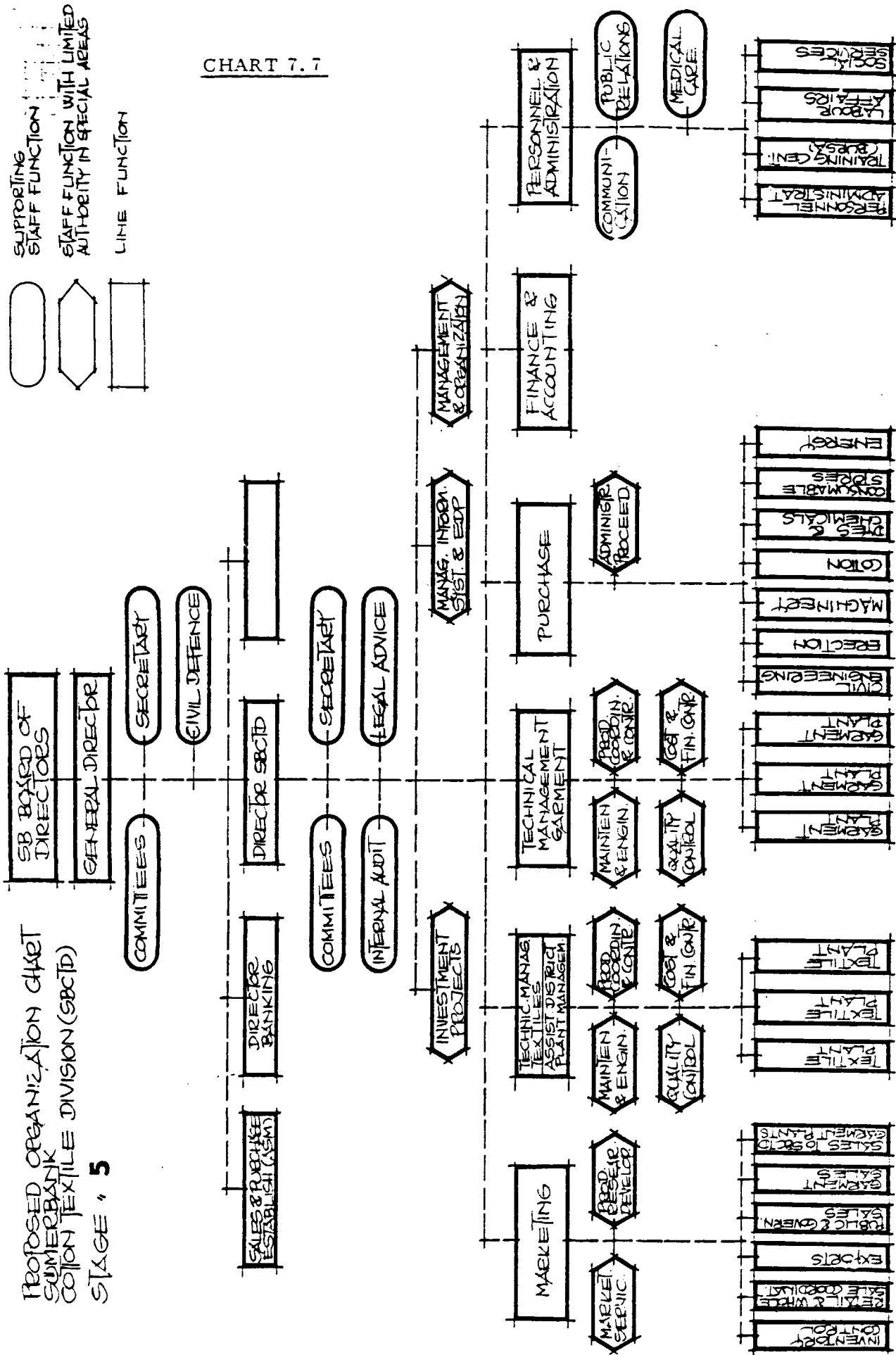
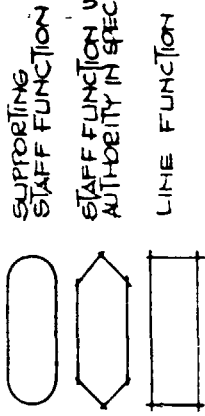
CHART 7.6

SUPPORTING STAFF FUNCTION
 STAFF FUNCTION WITH LIMITED AUTHORITY IN SPECIAL AREAS
 LINE FUNCTION



PROPOSED ORGANIZATION CHART
 CUMMERBANK
 COTTON TEXTILE DIVISION (SBCID)
 STAGE 5

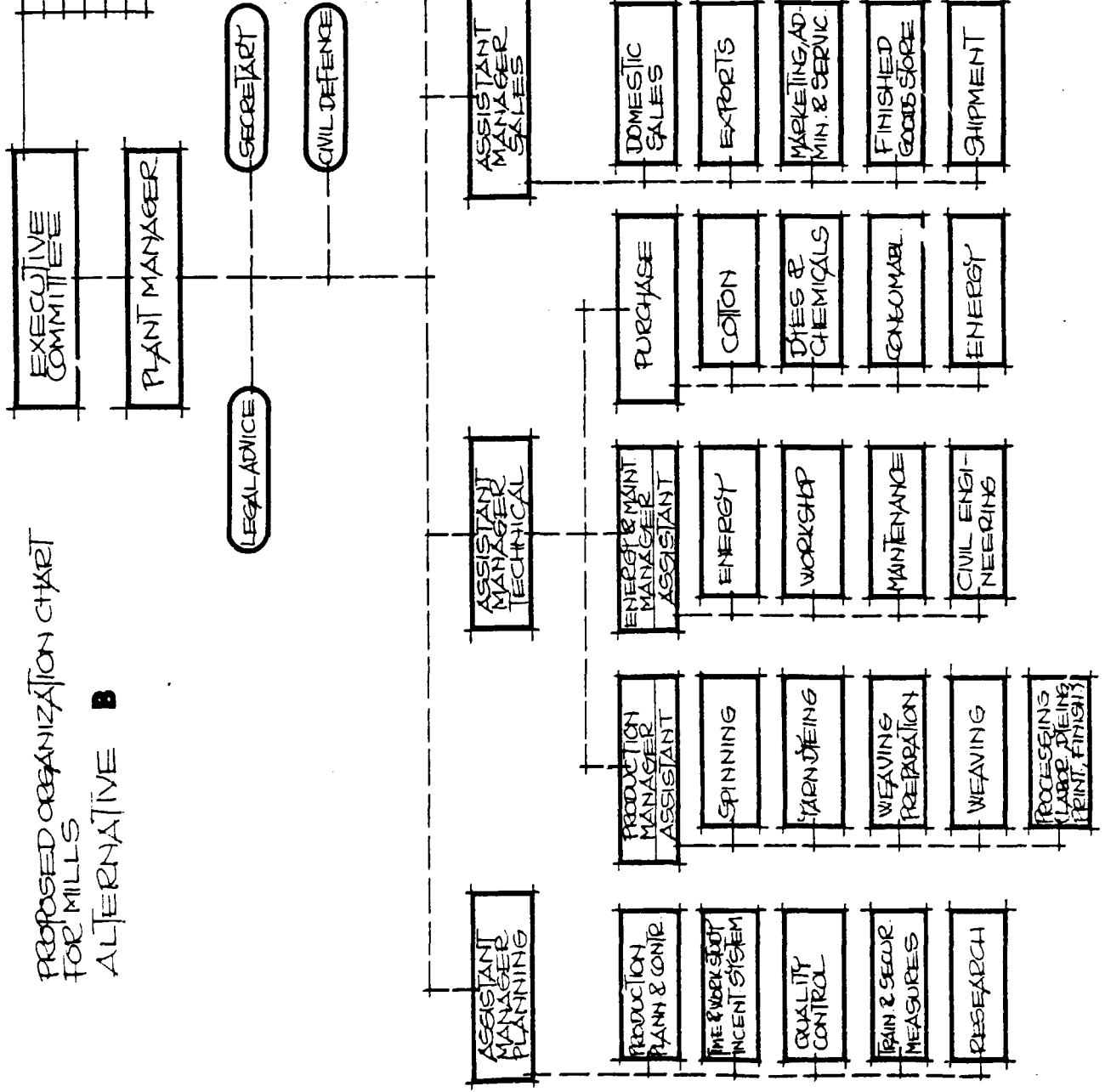
CHART 7.7



PROPOSED ORGANIZATION CHART
FOR MILLS
ALTERNATIVE B

PLANT MANAGER
PLANNING MANAGER
TECHNICAL MANAGER
SALES MANAGER
ACCOUNTING & PURCHASE MANAGER
PERSONNEL & ADMINISTR. MANAGER
WORKER'S REPRESENTATIVE

CHART 7.8

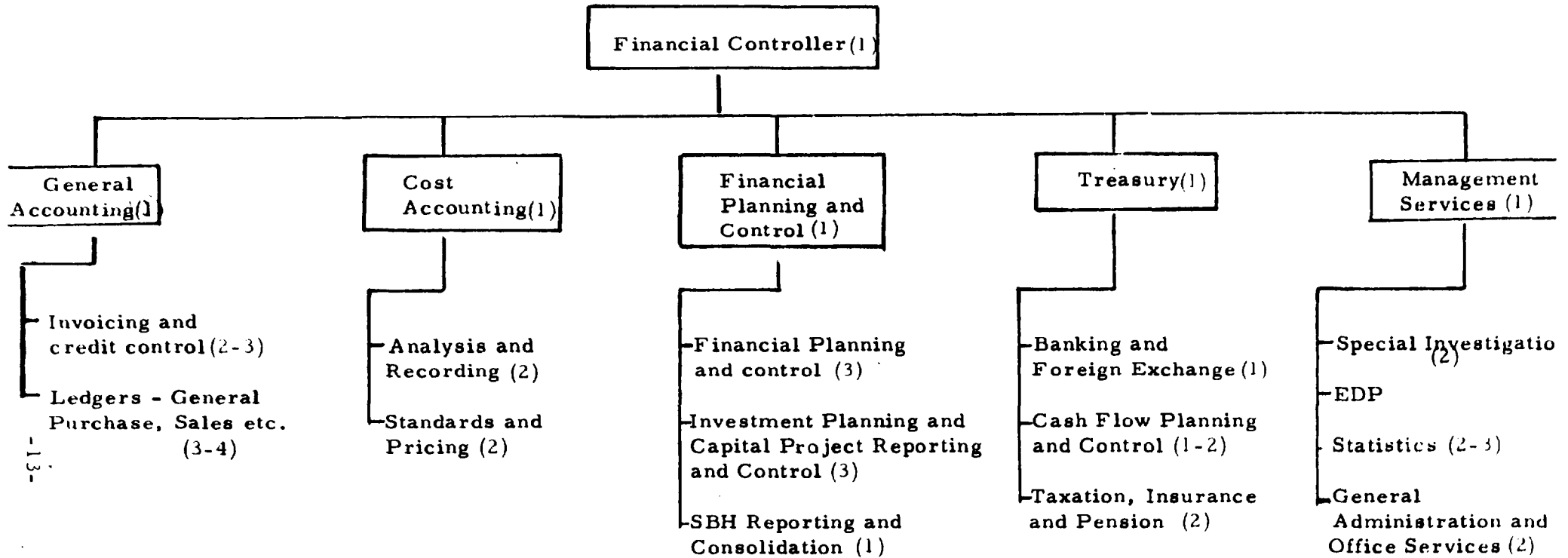


3.

The CTD Finance Function Requirements

- 7.10 Our organisational proposals for the finance function for both SBCTD HQ and mill levels are shown in Charts 9 and 10.
- 7.11 Within the SBCTD, we envisage a strong finance division under the authoritative direction of a financial controller who would be a member of the 'SBCTD Board'. We propose that he control five departments :
- planning and control both of financial and investment activities together with SBH reporting and consolidation duties
 - treasury and in particular cash flow planning and control, banking and foreign exchange together with taxation, insurance and pension tasks of CTD
 - cost accounting including analysis and recording with particular regard to the impact on standard/marginal costing and consequential effect on prices and cost centres
 - general accountancy, bought ledger score keeping, invoicing and if necessary credit control (monitoring ageing of receivables, etc.), cashier.
 - management services, general administration and office service requirements, EDP etc, and a small special unit (for reporting, for example, effects of introducing incentive schemes and/or changes in production methods)
- 7.12 The corresponding finance department within a mill (Chart 7.10) thus includes :
- planning and control; financial, cash flow and investment (capital projects)
 - accounting; general accounting and cost accounting (including standards and pricing)
 - management services; general administration and support services and taxation
- 7.13 The job descriptions for the major positions within CTD finance are given at Appendix 7.1)

THE SBCTD HQ FINANCE FUNCTION

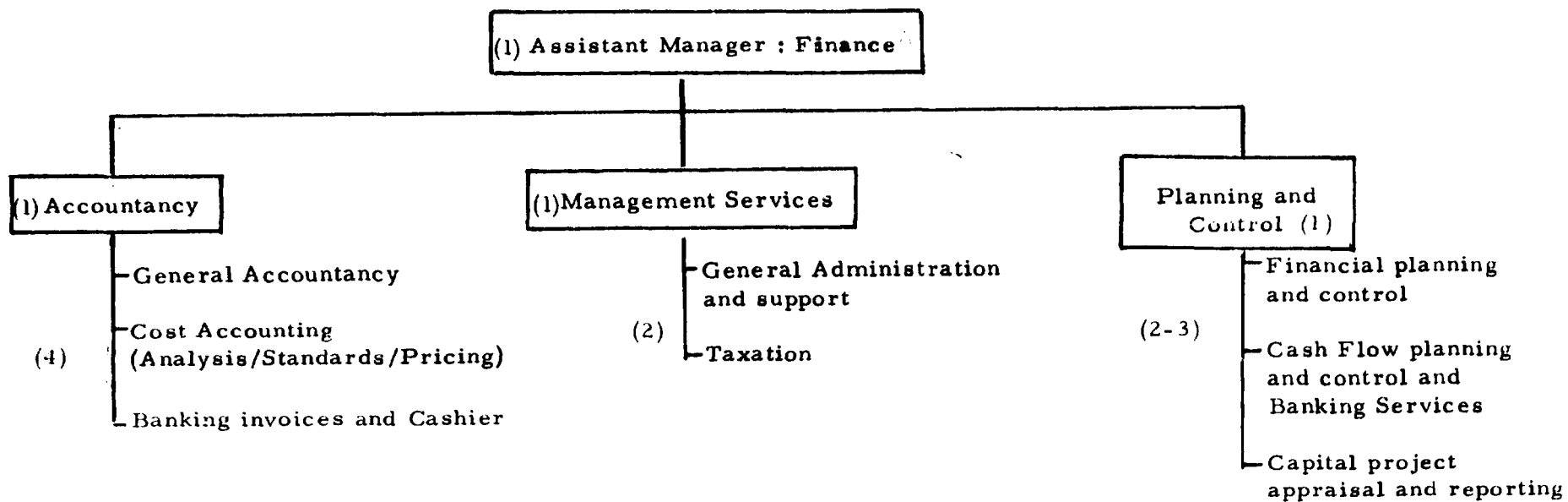


Note

In addition some 4-6 secretaries would be required.

SBCTD MILL FINANCE DEPARTMENT

CHART 7.10



4. Management Review Groups

7.14 Paper information flows within any organisation, and especially within a complex unit such as SBCTD, are insufficient for control and planning purposes unless they are re-inforced by groups of regular and systematic management meetings. At this time there is a need for at least eight management review groups.

7.15 The nature and purpose of each group together with their executive composition and meeting/review frequencies are given in Chart 7.11

5. Staffing Requirements

7.16 Establishment levels within CTD and in particular it's finance function will depend on:

- the eventual form and structure that CTD is allowed to assume and
- the degree of autonomy which SBH will invest in the CTD operating unit
- the productivity level of employees.

7.17 Because of these uncertainties it is difficult to be precise as to the finance function's establishment requirements. Assuming no major re-alignments to the envisaged structures and that reasonable levels of employee productivity can be achieved the establishment strengths for CTD finance function are shown in parenthesis in Chart 7.9.

7.18 We understand that Ministerial approval for unit senior financial executives (all contracted personnel) has now been given. However, the recruitment of these personnel who will form the core of any future finance function as yet to be effected.

7.19 Within a specific mill the size of a finance function will be dependent on the size of a mill and it's associated range of manufacturing options. In chart 7.10 we indicated the establishment levels required for an Eregli type mill.

MANAGEMENT REVIEW GROUPS

CHAPTER 7.11

-16-

GROUP NO.	TITLE OR GROUP	PURPOSE OF GROUP	FREQUENCY OF REVIEWS NO. PER YEAR	MEMBERSHIP OF THE REVIEW GROUP		
				SIH	SBCTD HQ	SBCTD MILL
1	Executive	Review progress/ of CTD performance at Board level	6-12	General Directors 2 other SB Board members	Director of SBCTD Heads of Marketing, Finance Technical (Textile & Garment) and Personnel	
2	General Divisional Planning and Control	General strategy and direction of the business	12		As above plus the 2 Technical Production co-ordinators, Finance Planning & Control Manager and Treasurer	
3	Finance	Finance & Funding Review	12	Assistant General Director Admin- istration or deputy	Financial Controller Treasurer Finance Planning Managers Investment Planning Manager	
4	Labour Relations	Industrial Relations and Personnel Planning	3-6		Director of SBCTD Head of Personnel and Admin- istration (HQ)	2-3 Mill Managers 2-3 Mill Personnel Dept. Heads 4-8 Worker Representatives
5	Investment	Investment Planning and Control	4-6	Assistant General Director Technical	Financial Controller Investment Planning Manager both Textile/Garment Tech. Heads	Capital Project Managers as required
6	New Product	New Product Development	6-12		Product Development Manager Head of Marketing plus S. Market/Sales Deputy Heads Heads of Textile/Garment both Technical	Co-opted specialised Mill personnel as required
7	Production	Production Planning and Control	12		Both Technical Managers and Production Co-ordinators Marketing Managers Financial Planning Manager	Specific Mill Manager and Production Controllers as required
8	Marketing	Monitor Market Trends and SB performance	6-12	<u>ASM</u> Marketing Manager and Assistants	Marketing Management	Sales Managers
9	M.	Day to day mill performance	12			All senior mill Management

Appendix 7.1

JOB DESCRIPTIONS FOR S.B.C.T.D.
FINANCE FUNCTIONS

JOB DESCRIPTION FOR THE FINANCIAL CONTROLLER

1. Job Designation: Financial Controller
Rank: As per Gherzi levels proposed.
Name:
2. Superior: Head of Cotton Textile Division
Subordinates/Subordinated Departments
 - general accounting
 - cost accounting
 - financial planning and control
 - treasury
 - management services
3. Deputization: Financial planning and control manager
4. Conferences/Meetings/Charting
 - membership of executive review group
 - membership of general planning and control group
 - leader of the finance group
 - member of the investment group
 - close liaison with all senior line management and the finance department
5. Job objective
 - responsible for the generation and interpretation of CTD financial information together with the co-ordination and administration of CTD activities on accounting, taxation, insurance and pensions, financial planning and control, investment planning and control, treasury duties and general management services tasks
 - assist and advise the Head of CTD on Divisional matters
 - a key liaison officer with World Bank in connection with the RMP project
6. Allocated Duties
 - 6.1 Policy and Planning:
 - formulates in conjunction with the other directors the corporate strategy and objec-

- tives of the SBCTD, both long and short term
- supervising the preparation of detailed plans and monitoring actual performance against these plans and establishing key figures/ reporting ratio requirements
 - investment planning and the appraisal and control aspects of capital projects reporting together with the preparation of capital budgets
 - SBH reporting and consolidation

6.2 Investment Planning and Cash Management

- supervising the management of cash flows and cash flow forecasting/control
- ensuring that the necessary levels and disposition of funds are available consistent with cash flow requirements
- all taxation, insurance and pension/retirement policy matters and attendant tasks

6.3 Accounting

- supervise the efficient running of general accounting requirements e.g. ledger, receivables, payables, etc.
- ensuring that the necessary cost and pricing accountancy activities and procedures are undertaken in a timely and efficient manner

6.4 Management Services

- ensuring that internal control procedures are adequate and fully effective
- appointment of auditors and consultants as necessary and liaising with the High Control Board
- responsible for the administrative and general secretarial requirements of SBCTD H.Q.
- leading and co-ordinating special investigation teams into such matters as for example, productivity improvements, plant rationalisation, pricing and costing policies, etc.
- supervising EDP and statistical needs of the division

7. Organisation and Personnel

- ensures the organisation structure of finance department continues to be relevant to SBCTD needs
- distributes duties, tasks and responsibilities within the finance function of SBCTD

- staff recruitment within the division and advise on salary/wage schemes
- training of staff
- dissemination of corporate affairs

8. Rights of signature

- as per Gherzi overall organisational recommendations

9. Leadership

- to provide strong financial controllership function and take the key role in the SBCDT planning and control activities

JOB DESCRIPTION FOR COST ACCOUNTING MANAGER

1. Job Designation: Cost Accounting Manager
Rank:
Name:
2. Superior: Financial Controller
Subordinates/subordinated departments
3. Deputization: Section head of standards and pricing
4. Conferences/meetings (chart 11)
 - co-opted as required into the general planning and control group, new product and the production groups
 - close liaison with other sections within the finance department
5. Job objectives
 - responsible for generation of cost and product contribution information by cost centre and the implications on product pricing
6. Allocated duties
 - advises on the system of cost accounting (standard costing, marginal costing etc.) and the chart of accounts
 - maintains mill comparisons from each production department
 - advises on the financial implications of pursuing alternative mill production loading programmes
 - establishes appropriate cost centres, plans & controls Divisions cost centres by the use of standards and budgets
 - advises on company article costing and product margin policies and on price setting matters
 - in co-operation with other senior managers he assists in measures to be taken to improve results and minimise negative variances
 - ensures the timely production of information

7. Organisation and Personnel

- ensures that competent staff are available for costing purposes within each mill
- training of staff

8. Leadership

- ensure that an energetic, diligent and accurate cost accounting function exists throughout SBCTD

JOB DESCRIPTION : TREASURER

1. Job designation: Treasurer

Rank:

Name:

2. Superior: Financial Controller

Subordinates/subordinated departments

- cash flow planning and control
- banking and foreign exchange
- taxation, insurance and pension/retirement benefits

3. Deputization:

- cash flow planning and control manager

4. Conferences/Meetings:

- membership of the finance and investment groups
- co-opted as necessary on to other groups
- close liaison especially with the financial planning and control section and the mill finance departments

5. Job Objectives:

- under the direction of the Financial controller to plan, direct and control corporate/divisional fund management and to retain care and custody of all funds and securities throughout SBC TD

6. Allocated duties:

6.1 Banking and foreign exchange:

- maintaining contact with all necessary funding agencies including banks and ministries
- ensuring adequate funding facilities are available as required

- ensuring that teams are adequately serviced
- investment of surplus funds
- administer foreign exchange transactions and security issues

6.2 Cash flow planning and control:

- preparation of divisional cash flow projections
- maintaining of actual positions on a routine basis
- identifying surpluses and shortfalls and reporting accordingly
- ensuring that banking section is fully aware of impending funding requirements and cash shortfalls

6.3 Taxation, Insurance and Pension/Retirement matters:

- ensure that all mills make appropriate returns on production
- preparation, calculation and submission of corporate/divisional taxation liabilities or refunds
- ensure that all assets and shipments in transit are adequately covered with insurance
- ensure that all necessary accident and employee related insurance requirements are fully satisfied
- preparation, documentation and submission of all insurance claims
- ensure that statutory and other divisional pension and retirement liabilities are satisfactorily administered and funded.

7. Organisation and Personnel

- training

8. Right of Signature:

- as per Gherzi proposals

9. Leadership:

- maintain strong, cordial and efficient relationships with external sources
- all locations adhere to strict and timely reporting procedures and that potential problems are aired as soon as possible.

JOB DESCRIPTION : FINANCIAL PLANNING AND CONTROL MANAGER

1. **Job designation: Financial Planning and Control Manager**

Rank:

Name:

2. **Supervisor: Financial Controller**

Subordinates/subordinated department

- financial planning and control
- investment planning and capital project reporting and control
- SBH reporting and consolidation

3. **Deputization:**

- financial planning and control sectional head

4. **Conferences/Meetings (Chart 4)**

- membership of the following groups; general planning and control, finance, investment and production
- maintain close contact with production line management, the CTD marketing department and the mill planning functions

5. **Job Objectives:**

- to develop and to subsequently maintain long and short term SBCTD business and investment plans

6. **Allocated duties:**

6.1 **Financial planning and control:**

- liaise and collect required planning data from ASM , and SBC TD mills and central production and marketing functions
- prepares and disseminates 12 month and rolling 5 year plan plans and projections
- collect actual results from appropriate departments

- analyse the implications of actual results against budgets and prepare revised projections
- ensure effective co-ordination between production and sales/marketing functions and that market pressures/attitudes are reflected in production schedules and pricing policies

6.2 SBH Reporting and Consolidation:

- prepares routine performances reports (month, quarter, annual) by mill
- prepares consolidates SBCTD statistics
- reports to SBH consolidated SECTD results for SBH monitoring and reporting purposes

6.3 Investment planning and capital project control:

- assists technical management prepare project appraisals to the necessary level of detail
- evaluates likely impact of possible projects on divisional performance
- prepares detailed action schedules when projects have received approval
- prepare routine reviews on capital expenditure projects and disseminates information as required.
- evaluate impact of cost over-runs and impact of delays; re-work economic justification as necessary
- prepare and monitor total capital project expenditure

7. Organisation, Personnel and Leadership:

- sufficient personal charisma to ensure that all line functions both at HQ and Mill levels fully co-operate in the difficult process of planning and control
- ensure that mill planning functions produce information in a timely, detailed and accurate manner
- training of staff
- disseminates information throughout all levels of SBCTD

JOB DESCRIPTION: GENERAL ACCOUNTING MANAGER

1. **Job designation: General Accounting Manager**
Rank:
Name:
2. **Supervisor: Financial Controller**
Subordinates/subordinated department
 - general ledger, accounts payable and receivable
 - invoicing and credit control
3. **Deputization:**
 - head of general ledger section
4. **Committees/Meetings:**
 - co-opted onto various groups as necessary
 - maintain very close liaison with the cost accounting and financial planning/control sections
5. **Job Objectives:**
 - to ensure the financial score keeping of the Cotton Textile Division is accurately maintained and available in a timely manner
6. **Allocated Duties:**
 - 6.1 **Invoicing and Credit Control:**
 - responsible for ensuring that customers of the division's marketing arm are invoiced in due time and preparation of management summaries
 - controls terms of payments, receipts and credit worthiness of clients
 - control of accounts receivable and the aging of receivables
 - 6.2 **Purchase Ledger:**
 - responsible for acceptance of bills and checking their validity and accuracy

- maintaining orderly ledger and the preparation of management summaries with respect to payables
- controlling payment of accounts payable
- control and reporting of cash disburseables

Note : Normally payroll responsibilities lie with the the duties of the general accounting department, but we understand from Gherzi that this will be within the personnel function; we have not therefore, considered it.

6.3 Cash Book

- responsible for maintaining the cash books and bank reconciliations
- raising cash payments within authority limits

6.4 Nominal Ledger

- responsible for maintaining the ledger and balancing it every month

6.5 Intercompany Accounts

- agreement with all group companies of amounts outstanding every month.

7. Organisation, Personnel and Leadership

- support the financial controller in establishing a strong financial function
- ensure the necessary competence and systems are maintained at every production location and that information is available at a timely moment
- provide training as required.

JOB DESCRIPTION : MANAGER OF MANAGEMENT SERVICES

1. Job designation: Management Services Managers
Rank:
Name:
2. Superior: Financial Controller
Subordinates/subordinated sections
 - special investigations
 - EDP and statistics
 - general administration and office services
3. Deputization:
 - head of the special investigations section
4. Committees/Meetings:
 - co-option onto committees groups as required
 - maintain close ties with production and marketing line management
5. Job Objective:
 - to ensure that the necessary management support and special investigation services (as befits a major industrial organisation) exist and are efficient
6. Allocated Duties:
 - 6.1 Special Investigations:
 - conduct investigations where limited effort is required
 - co-ordinate and lead major investigations
 - co-opt team members for major investigations from line functions
 - publish/edit reports of investigations

- create and maintain pressure for the implementation of investigation recommendations

6.2 EDP and Statistics:

- responsible for providing the necessary EDP and mechanisation techniques necessary to maintain the required statistics and management information
- ensuring that these facilities are updated as appropriate

6.3 General Administration and Support Services:

- provision and control of building services such as cleaning, canteen, etc.
- general HQ secretarial and support services for example photocopying, production of external reports, etc
- ensure effective internal control procedures and audit mechanisms exist, for example the High Control Board.

7. Personnel, Organisation and Leadership:

- maintain friendly and close relationships with line functions, maintain a position to assist/identify *vis a vis* special investigation tasks and to co-opt line management into teams as necessary
- ensure the necessary EDP, O and M and OR skills exist
- to provide training as required.

JOB DESCRIPTION FOR THE ASSISTANT MANAGER OF FINANCE

1. Job designation: Financial Manager

Rank:

Name:

2. Superior: Plant Director

Subordinates/subordinated departments

- general accounting
- cost accounting
- financial planning (budgets)

3. Deputization:

- his deputies are: Plant manager in co-operation with the finance and accounting assistant
- he deputizes for: Plant Manager

4. Conferences:

- he participates in the weekly conference of the executive committee of the mill
- he organises and presides over regular meetings with his subordinates in order to safeguard optimum co-ordination

5. Job objectives:

- he prepares all financial and cost accounting information required by Law, SBCTD headquarters and the Plant Manager by the use of effective management methods at lowest possible costs

6. Allocated duties:

6.1 Financial and corporate planning:

- he collects, completes and summarises all plans and budgets for the plant concerning sales and marketing, production, investment, personnel, raw and other material, cost, finance and profit
- he elaborates consistent plant plans for short, medium and long-term periods with all main data in co-operation with the company's managers and with the SBCTD headquarter departments concerned
- he establishes a detailed plant plan and budget for the year in co-operation with the company's

managers

- he establishes detailed investment plans
- he is responsible for the investment evaluation procedure and determines the minimum internal rate of return to be achieved by new investments
- he prepares a financial plan (fund flow statement) showing the capital requirements and the corresponding financing (short and medium-term)
- he prepares yearly projected income statements and balance sheets
- he is responsible for supervising and safeguarding the company's financial liquidity. For that purpose he elaborates a liquidity forecast of cash receipts and payments on a monthly basis for a year's period (including loan repayments)
- from his financial reporting system he prepares key financial figures for the Plant Manager
- he prepares all corporate planning data with special regard to cost and financial data requested by SBCTD headquarter departments

6.2 Cost Accounting:

- he advises on the system of cost accounting (standard costing, marginal costing) and the chart of accounts
- he collects the standards in the production departments
- he calculates the costs incurred by type and category
- he establishes a cost centre plan
- he is responsible for article costing and calculates the contribution margins for each
- he controls the plant's cost centres by standards and budgets
- in co-operation with the company's managers he analyses negative variances and takes appropriate measures to improve the results
- advises on price setting

6.3 Financial Accounting:

- he provides the following documents in line with the legal requirements
 - income statements
 - balance sheets
 - article costing

- investment and depreciation tables
- profit distribution statements
- tax statements
- fund flow statements

6.4 Cash management and capital supply:

- In co-operation with the Plant Manager he is responsible for supplying the company with sufficient capital, i.e. through loans and equity
- he is responsible for an optimum cash management with lowest interest charges
- he is responsible for payment of suppliers, invoices, wages and salaries, interests, insurances, taxes and other expenditures

6.5 Invoicing:

- he is responsible for invoicing the customers in due time
- he controls the terms of payment, the receipts and the credit worthiness of customers
- he is responsible for the control of accounts receivables

6.6 Administration:

- he prepares the payroll
- he administers insurances and minimises tax charges
- he negotiates with unions and workers, government institutions, suppliers, banks and with SBCTD headquarter departments concerned
- he designs adequate forms for corporate planning as well as financial and cost accounting

6.7 Financial organisation:

- he plans the financial organisation
- he leads (recruits, trains, motivates) his subordinates
- he controls the financial department and the work performed

7. Appraisal:

- according to the quality of prepared management information, the observation of legal regulations and the incurred departmental costs

8. Right of signature:

- second signature for
- first signature for

Approved by:

Superior:

Jobholder:

-34-(Plant Manager)



