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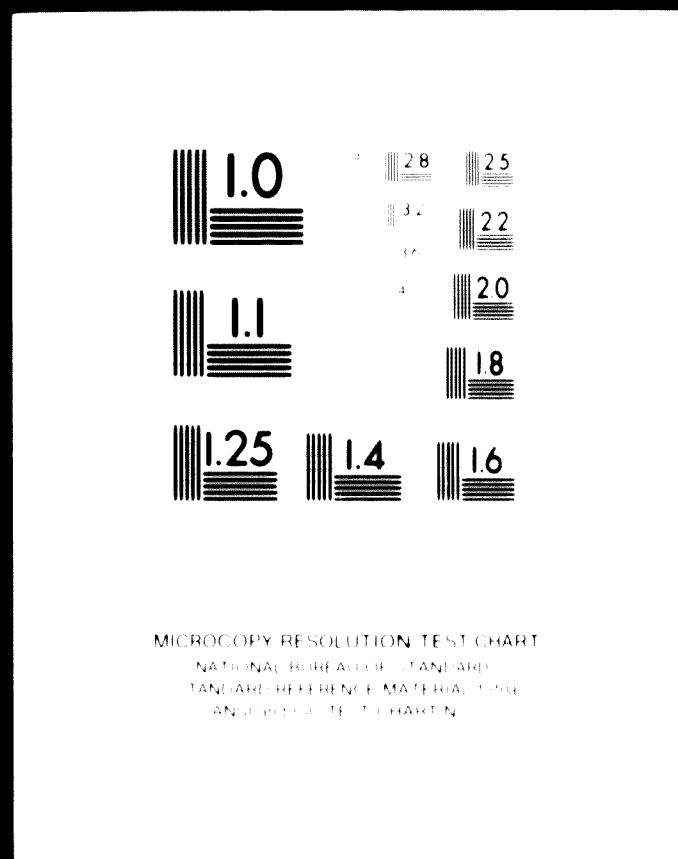
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1970

United Nations Industrial Development Organisation

Report from W. D. Scott & Company, Australia

United Nations Industrial Development Organisation

**Developing Improved Management Accounting
for Singapore Industries**

A Final Report on the Light Industries Services Project

Report from W. D. Scott & Company, Australia

August, 1970

W. D. SCOTT & CO. PTY. LTD.

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I. INTRODUCTION

The purpose of this project was to develop a programme and train Light Industries Services (L. I. S.) Counterparts to introduce effective management accounting to light industries in Singapore. It was sponsored by the United Nations Industrial Development Organisation (UNIDO).

The programme to implement the UNIDO - LIS Project is summarised as follows:-

- Three L. I. S. Counterparts were trained at the commencement of the project in management accounting techniques.
- The Counterparts were assisted by the Resident Management Consultant to introduce management accounting to selected companies in Singapore.
- Company personnel were also trained in management accounting techniques.

The L. I. S. Counterparts were trained as planned and successfully completed the implementation of management accounting in two companies.

A programme to implement management accounting to a third company was submitted and accepted. Implementation will proceed when basic accounting is established.

Based on the experience and knowledge gained in the UNIDO - LIS project we recommend that management accounting systems in Singapore industries be developed as follows:-

- Management accounting consulting services to Singapore industries be continued by the Economic Development Board (EDB).
- Follow-up visits be made to the companies where management accounting was successfully implemented.
- The level of management accounting in Singapore industries be substantially improved by using centres established and being established under the Engineering Industries Development Agency (EIDA) as training areas for graduate accountants, and trainee cost management clerks.

II. THE UNIDO L. I. S. Project

1. Scope of the Project

Under its Special Industrial Services Programme of Technical Assistance, the United Nations Industrial Development Organisation undertook to assist the Government of Singapore to introduce management accounting techniques to the Light Industries Services. W. D. Scott and Company Pty. Ltd. were retained to:

- (a) Advise and assist Light Industries Services (Economic Development Board, Singapore) to institute proper and effective cost accounting systems.
- (b) Advise and assist Light Industries in all aspects of management accounting.
- (c) Advise and assist in the planning and implementation of training programmes or the management of Light Industries in cost and management accounting.
- (d) Train L. I. S. Counterparts.
- (e) Review existing situations in the field of management accounting systems in the Industries concerned.
- (f) Investigate and recommend new cost and management accounting techniques.
- (g) Investigate all relevant problems related to the management accounting systems.

These were carried out completely in the two companies (Design Mobil Pte. Ltd., and International Spinning Mills Ltd.) who fully participated in the project. A system was planned for a third company (Singapore Jute Mills Ltd.) who is only now commencing production.

2. Training

The training of the three L. I. S. Counterparts, viz. Mr. Tjoa Tjoen Khay, Miss Bernadette Ng, Miss Susan Quek, was successfully completed in two phases: -

- (a) Initial Theory - the Resident Management consultant conducted a Management Training Programme for one week commencing March 30, 1970 (See Appendix I for details).
- (b) Practical Guidance - the Counterparts were assigned to companies in light industries. They assisted the Resident Management Consultant to train industry personnel. He then gave them guidance in implementing costing and management accounting systems, for these companies.

The training of the industry personnel was successfully completed on an "in-company" basis. The companies were reluctant to send staff to the original proposed training course due to :-

- . a critical shortage of trained accounting and production staff to carry on in their absence.
- . the inability of some staff to understand or speak fluent English.

The "in-company" training comprised an initial appreciation discussion on costing systems and management accounting techniques together with the practical implementation phase. Emphasis was placed on the problems being encountered by the respective companies.

3. Industrial Assignments Carried Out During the Project

Industrial assignments were carried out in two Groups. The first group commenced on April 6, 1970. The second group commenced on May 25, 1970.

(a) Group 1

- (i) Design Mobil Pte. Ltd. (Furniture manufacturing company with approx. 80 employees) Mr. Tjoa Tjoen Khay and Miss Susan Quek were the L. I. S. Counterparts assigned to the project. Under the supervision and guidance of the Resident Management consultant the Costing and Management Accounting programme was successfully implemented by July 27 as planned. The programme was :-

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- Implement an integrated financial and cost accounting system to ensure adequate control over
 - Labour
 - Material
 - Overhead.
- Introduce a Direct costing system which incorporates Job Cost Control and integrates with the Production Controls being implemented by Mr. P. Borretti (U.N. Woodwork Expert).
- Calculate a predetermined variable overhead absorption rate based on direct and sub-contract labour cost.
- Implement control techniques to ensure actual performance is evaluated against predetermined standards
- Introduce management reporting and variance reports to ensure all levels of management are continually aware of actual performance so that corrective action can be taken promptly.

A Final Report (see Appendix II) has been issued to the Management of Design Mobil. The report includes -

- Details of the actual implementation of management accounting within the company
- Appendices:
 - . A precis of an Accounting Procedure Manual
 - . Budgets for a 12 months period of Budgetary Control.
 - . Management Accounting and Budgetary Control reporting formats.
 - . Accounting forms which were implemented during the programme.

Management accounting and budgetary control reports for the month of June 1970 have been issued and discussed with the Management of the company.

A precis of an Accounting Procedure Manual was compiled for the company to ensure continuation of the approved procedures in the event of further heavy staff turnover, which was encountered during implementation.

(ii) International Spinning Mills Ltd. (A cotton spinning company with approx. 500 employees) - Mr. Tjoa Tjoen Khay and Miss Bernadette Ng were the L. I. S. Counterparts assigned to the project. Under the supervision and guidance of the Resident Management Consultant the costing and management accounting programme was successfully completed prior to July 30 as scheduled. The implementation programme was as follows :-

- appraise the existing organisation structure
- revise the chart of accounts
- implement an integrated financial and process costing system
- implement cost control for -
 - Materials
 - Labour
 - Overhead
- calculate the pre-determined manufacturing overhead absorption rates
- implement control techniques to ensure actual performance is evaluated against pre-determined standards.
- introduce Management Reporting and Variance Reports to ensure all levels of Management are continually aware of actual performance.

A Final Report has been issued to International Spinning Mills Ltd. The contents are specific to the Company but similar in format to the report issued to Design Mobil Pte. Ltd. which is attached as Appendix II.

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Management accounting and budgetary control reports for the month of June 1970 have been issued and discussed with the Management of the Company.

A precis of an Accounting Procedure Manual, which was not included in the initial accepted programme, was compiled for the company as very heavy staff turnover was experienced also at International Spinning Mills Ltd.

(b) Group 2

(i) Singapore Jute Mills Ltd.

A proposal to implement a Management Accounting system was submitted to Singapore Jute Mills in May 1970. (The proposal in full was set out in our May progress report).

A letter confirming the acceptance has been received by L. I. S. The Company's personnel must first implement the basic accounting systems (not part of the UNIDO - LIS programme). The target date for this is August 30, 1970. Management Accounting implementation by the L. I. S. team has been contracted to commence on completion of the basic accounting phase by the company's personnel.

Mr. Tjoa Tjoen Khay, main Counterpart to the Resident Management Consultant was to have led the L. I. S. team to make this implementation.

However as from July 30, 1970, he has been appointed as a full time team member on the Management Accounting and Budgetary Control project in the Engineering Industries Development Agency (E. I. D. A.) working with Mr. A. P. Harju (UNIDO Expert in Management Accounting and Budgetary Control).

This matter has been discussed with Mr. Tan Hui Boon, Acting Director L. I. S. , and he has indicated that action will be effected to ensure the contractual obligation to Singapore Jute Mills Ltd. is fulfilled.

(ii) Henry's Furniture Company Ltd.

This company planned to participate in the project but withdrew because of delays in commencing the rebuilding of their factory.

A visit was made by the L. I. S. project team in conjunction with Mr. Pietro Borretti (UNIDO Woodworking expert) in March, to evaluate the possibility of management accounting services being offered to the company. The Accountant cannot speak English and we recommended that our services be offered on a full implementation basis. Mr. Tjoa Tjoen Khay, main Counterpart to the Resident Management Consultant was to act as an interpreter during the implementation programme.

The Company indicated their acceptance of the proposal to implement Management Accounting. However due to their intention to rebuild the existing factory it was not practical for them to participate in the L. I. S. programme at that stage.

Participation was planned for June and it was intended that Mr. Borretti would join our team to make a joint programme to implement Management Accounting and Production Controls. However the rebuilding has been delayed.

We recommend that L. I. S. contact Henry's Management when the rebuilding is near completion.

4. Specific Problems Encountered

During this project we encountered a number of problems which must be considered fully if modern management accounting is to be developed successfully in Singapore. These problems were :-

(a) Extent of Industry Participation

Seven companies were approached by the L. I. S. Division to participate in the project.

Of these -

- two companies accepted the proposal and Management Accounting was successfully implemented.
- one company accepted the proposal and Management Accounting will be implemented in the near future.
- two companies accepted the proposal and implementation has been postponed for an indefinite period.
- two companies were not willing to participate in the project.

W. D. Scott were prepared to include up to 15 companies in the project. However, L. I. S. did not have sufficient suitable contacts nor sufficient counterparts to cover this number.

Possible reasons for companies not participating could be -

- (1) Insufficient notice by UNIDO to the L. I. S. Division to enable adequate preparation before the Resident Management Consultant arrived in Singapore.
- (2) Nominal fees were levied by L. I. S. on the participating companies. This can be a deterrent for the smaller company.
- (3) The original submission by the Economic Development Board to UNIDO for the management accounting project was made when the present functions of the Development Bank of Singapore were functions of the E. D. B. - L. I. S. Division. The Development Bank of Singapore was created in October 1968 and the task of investigating loan applications from industry and checking on the effective use of such loan funds were transferred to the Bank. Such industries would have been a ready source of participants for the project.

(b) Insufficient suitable persons to participate as Counterparts and industry personnel

W. D. Scott were prepared to train up to nine L. I. S. Counterparts who had appropriate qualifications and some industrial or commercial experience. However due to staff shortages L. I. S. were only able to appoint four counterparts to participate in the programme. They were -

- . Mr. Tjoa Tjoen Khay - Cost Accountant
- . Mr. Winston Yap - Economics Graduate with Marketing experience.
- . Miss Susan Quek - Economics Graduate
- . Miss Bernadette Ng - Economics Graduate.

Mr. Winston Yap was subsequently transferred from the project after the initial training programme pending his acceptance of a three month marketing course at Harvard University U. S. A.

Only one Counterpart was a qualified Cost Accountant and the overall practical experience of the Counterparts was limited. The initial and subsequent training programme was revised to overcome this.

The initial programme to train industry personnel at L. I. S. was changed as insufficient participants could attend. This was due to a critical staff shortage and lack of trained staff to carry on during their absence.

The training was completed on an "in-Company" basis where appreciation discussions were integrated with practical implementation.

Staff turnover of key personnel in industry was a problem and the Resident Management Consultant recommended that, a precis of an accounting manual be written for each company to ensure the continuation of implemented systems and techniques. (See the final report for Design Mobil Pte. Ltd. set out in Appendix II).

(c) Language

Mandarin is the language mainly used by the Chinese businessmen. There is naturally a growing tendency for English to be used in business. At Nanyang University where the children of most Chinese businessmen receive their tertiary education Mandarin is the spoken language for Business and Accounting courses. Hence graduates from the Nanyang University have not the same command of English as those from the University of Singapore.

Where Mandarin is the spoken language it restricts the value of seminars given by foreign experts and adversely affects the implementation of Management techniques.

It was necessary for Mr. Tjoa to act as interpreter during the implementation phases. The management at International Spinning Mills Ltd. and the Accountant and Production Manager at Design Mobil Pte. Ltd. could not speak or understand English.

Interpreters are necessary on any implementation programme to ensure full understanding.

(d) Disclosure of Company Confidential information

Due to the very conservative approach by the Chinese, resistance was encountered from the Companies to disclose certain cost and financial information. This affected the degree of reliance which could be placed on the initial information supplied by the companies. However by successful implementation of basic accounting systems the Resident consultant sought and succeeded in gaining the confidence of the respective managements and no further resistance problems were encountered in the two companies

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III. SINGAPORE'S INDUSTRIAL GROWTH

The UNIDO - L. I. S. Project was initiated to advise and assist the Light Industries in Singapore to institute proper and effective cost and management accounting systems. L. I. S. officers know from experience that in many of the light industries there is a lack of knowledge concerning effective cost and management accounting techniques.

After the initial visits to light industries companies our Consultant became aware of further problems, which were to be encountered during the Project.

These problems were -

- . lack of basic accounting systems.
- . shortage of experienced management and clerical staff.
- . resistance to change.
- . staff turnover of key personnel.

To understand and appreciate the reasons why these problems existed it is necessary to evaluate Singapore's Industrial growth in recent years.

1. History of recent growth

(a) Employment in the Manufacturing Sector

Persons employed in the manufacturing sector increased from some 10 percent of the work force in 1960 to 18 percent in 1967. They then numbered approximately 105, 000. It is expected that this percentage will continue to increase as the manufacturing sector contributes progressively more to the national income.

(b) Economic Growth

Since 1960 Singapore has achieved a relatively high rate of economic growth. From 1960 to 1963 the average rate of growth was 7%. In 1964 and 1965, due to the Indonesian confrontation, the growth rate dropped to 2%. In 1966 economic activity picked up again and showed a growth of 16.1% over the 1965 level.

Loans and advances to the manufacturing sector increased by 29% in 1967, 52% in 1968 and 24% in 1969. In 1967 and 1968 these increases were much more than the overall increases in loans and advances which were 7.9% and 22.2% respectively. In 1969 the overall increase of 27.8% was slightly higher than for the manufacturing sector which however was from a high base figure in 1968. The manufacturing sector is receiving funds to enable it to expand faster than other business.

These loans and advances are largely short term in nature. Traditionally the role of banks has been confined to short term advances to the trading sector. Banks in Singapore generally do not make long term loans to industries for the acquisition of fixed assets. However the Development Bank of Singapore is now filling this vital gap.

Since October 1968, the E. D. B. 's financing functions have been taken over by the newly established Development Bank of Singapore Limited. This is a joint venture between the Government of Singapore and private investors. The government has subscribed \$49 million of the total proposed paid up capital of \$100 million.

The Bank is providing medium and long term loans to manufacturing and other industries. It is anticipated that it will be the source of exports credits and export guarantees in the future.

(c) Pioneer Industry

The Economic Expansion Incentives (Relief from Income Tax) act 1967 was passed by Parliament on December 5, 1967. It is designed to amend and consolidate the laws relating to incentives for the establishment of pioneer industries and for economic expansion generally by way of providing relief from income tax.

An industry may be declared pioneer and any specific product of such industry may be declared a pioneer product, if the industry is not being carried on in Singapore on a scale adequate to the economic needs of Singapore and there are favourable prospects for development.

There have been recent amendments to the act and these were gazetted on July 3, 1970. The effects are as follows:

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Labour Budget for the Year 197 / 197 (Cont'd)

Department	No.	Rate	Total	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	CPF	Payroll Tax
<u>V. Production</u>																	
(1) Indirect Labour																	
Supervisor																	
Carpenter (I)																	
Carpenter (II)																	
Mechanic																	
Quality Controller																	
Asst. Supervisor																	
Storekeeper																	
Driver																	
Cleaners																	
Office Boy																	
Apprentices																	

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DESIGN MOBEL (PTE) LIMITEDNumber of Working Days for the Year from June 1970 to May 1971

Month	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
No. of Days	30	31	31	30	31	30	31	31	28	31	30	31	365
Sundays	4	4	5	4	4	5	4	5	4	4	4	5	52
Working Days	26	27	26	26	27	25	27	26	24	27	26	26	313
Public Holidays	-	-	1	-	1	1	1	3	1	1	-	2	11
Net Working Days	26	27	25	26	26	24	26	23	23	26	26	24	302
% of Net Working Days	8.6	8.9	8.3	8.6	8.6	8	8.6	7.6	7.6	8.6	8.6	8	100

- (i) A reduction in the period of tax incentives (a concessionary tax rate of 4%) from 15 years to 8 years for export enterprises.
- (ii) The five years of tax relief provided for pioneer industries is henceforth available only to large enterprises with a fixed capital investment of not less than \$S1 million.
- (iii) Smaller enterprises may apply for export incentives but if they produce only for the domestic market they will get no concessions as it is not the policy of the Government to give Pioneer certificates to manufacturers who produce only for the domestic market irrespective of their size.

(d) Economic Development Board (E. D. B.)

This board was set up in 1961 to implement the Republic's industrialization programme. The services provided by the E. D. B. are "investor-oriented". An investor needs only to deal with this one agency to obtain all the necessary information, advice and approval to commence a manufacturing enterprise in Singapore.

There have been significant changes in the organisation structure in recent months and Appendix III, shows the revised organisation chart at this stage (provisional).

(e) Labour Force

Singapore has an ample supply of unskilled labour. The 1966 Household Sample Survey revealed that only 543,000 persons in Singapore were economically active out of a total population of 1,950,000. This means that less than 30 persons were economically active for every 100 persons in the population, indicating that the average worker in Singapore would support 3 to 4 non-working dependents. The 1966 data also shows that the administrative, executive and managerial workers, who provide leadership and make decisions, represent only 1.9% of the working population.

(f) Supply of Professional People

As discussed in the previous section administrative, executive and managerial workers who provide leadership and make decisions represent only 1.9% of the working population in Singapore. This is a very low percentage and it appears that this section of the working population is being supplemented by external experts. (British ex-patriates, foreign executives of overseas companies).

The Singapore Government has offered permanent stay to people with professional skills.

(g) Need for an Industrial Base

The Government of Singapore has established there is a need for an industrial base to the economy. Considering the influx of school leavers into the work force each year, and because the effects of family - planning schemes will not be felt until future years, continued industrial growth is necessary.

The Government of Singapore is well aware of the employment problem and large industrial complexes such as the Jurong Industrial Estate are being established to absorb the work force growth and to assist the continued economic growth of Singapore.

2. Structure of Industry

Before discussing the recommendations to improve the management accounting situation in Singapore it is necessary to appreciate the structure of industry in Singapore.

For management accounting to be effectively introduced and improved each structure of industry in Singapore must be defined and inherent problems resolved. The structure of industry may be classified as follows -

- (i) Small family businesses with little or no records. They are never likely to use management accounting. There are a large number of them but with small total output value and possibly little export.

- (ii) Large businesses well established under the control of Chinese businessmen. They could be sceptical of management accounting and are not likely to welcome outsiders ascertaining the internal structure of their companies.
- (iii) New projects being established with local and Asian capital and possibly Government support. They will need management accounting, management guidance and access to modern management techniques in quality management, marketing management supply management etc. in order to be successful.
- (iv) Projects associated with larger overseas companies who initially will import their management personnel and expertise in management accounting and management techniques.

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IV. MANAGEMENT ACCOUNTING IN INDUSTRY

Our Consultant established during the UNIDO - LIS Project that management accounting is being used in certain companies. The degree to which it is being used within industry may be classified as follows -

1. Companies with overseas affiliates. It is usual for companies of this nature to import their own experts to set-up and implement management accounting systems and techniques. During the implementation phase their programme would include the training of local accountants to maintain and control the implemented systems and techniques when the experts return to their home base.
2. Well established Chinese companies. Normally in companies of this nature it is usual to find either a qualified accountant with very limited experience and a few experienced clerks, or only experienced clerks with limited accounting training. Companies of this nature are very difficult to penetrate due to the Chinese mistrust of the outsider. Also they are reluctant to change their present methods of accounting. In some cases the "old chinese" accounting systems and methods are still employed.
3. Newly formed companies. Introduction of management accounting in these companies can be beneficial. But from the experience gained on this project, as management accounting was successfully introduced to two newly formed companies, people capable of preparing and using management accounting information were urgently needed to make maximum use of each Company's resources. A new Company's future can depend on the early and continued use of management control information.

The successful introduction of management accounting by experienced Accountants will give confidence to Management and the resistance to change should slowly diminish.

There is urgent need for qualified experienced Management Accountants, Cost and Financial Accountants and also for experienced cost clerks.

This situation was revealed during the initial stage of the project when consulting services in management accounting were offered to seven companies. Two of the companies had qualified accountants but only one of these had basic manufacturing experience. The remaining companies employed clerks with varying degrees of experience to fulfill the accounting and control functions.

As is evident from this "sample" of companies and after discussion with associate UNIDO experts and business organisations, trained people, particularly with experience, are urgently required in Singapore's rapidly expanding commercial and manufacturing sectors.

There are 768 accountants registered with the Singapore Society of Accountants. This number is composed of

198	-	Public Accountants
418	-	Registered Accountants
33	-	Licensed Accountants (unqualified)
119	-	Provisional Members
<hr/>		
768		
<hr/>		

Accounting qualifications may be gained at the following professional bodies -

- . The School of Accountancy and Business Administration at the University of Singapore.
- . Nanyang University.
- . The Australian Society of Accountants.
- . New Zealand Society of Accountants.

The Singapore Polytechnic previously offered an Accounting Course, however, it is now merged with the Singapore University's Accounting Faculty.

Since the Singapore Society of accountants does not recognise the Nanyang University qualification the only local source of qualified and registered accountants is from the Singapore University. There are approx. 100 graduates each year, however, after discussion with University personnel it appears this figure will diminish slightly in future years.

V. PROBLEMS IN IMPROVING THE MANAGEMENT ACCOUNTING SITUATION

To improve the management accounting situation in Singapore the following problems must be resolved -

1. The shortage of local experienced personnel either from the University Industry or E. D. B. Normally in developed countries the accounting training and experience is gained in the working situation. There is a lack of experienced accountants in Singapore to fulfill this vital function. The University and associated bodies conduct seminars. "Piece meal" training sessions of this nature will not correct the situation. The E. D. B. has no continuing programme to train Management Accountants.
2. Insufficient training personnel who can speak Mandarin Chinese. For "in company" training to be successful a basic understanding of Mandarin or an interpreter with training in accountancy is necessary. This problem was encountered and resolved on the UNIDO - LIS project.
3. Recognition by both the Government and Industry of the need to improve management accounting and the action required to achieve it. The Government is already aware of the need to train skilled tradesmen as is evident with the new Metals Industries Development Centre (MIDC) at Jurong. No continuing project has been planned to train Management Accountants and give them the necessary experience which is vitally required in Singapore's industries.

Experienced industry management are aware of the need for management accounting control. However, due to shortage of suitably qualified and experienced Accountants, they are unable to satisfy their requirements.

4. Acceptance by a major proportion of the larger industries of management training programmes.

Attention is being paid to the day to day routines in preference to the development of future management personnel.

VI. RECOMMENDED PROGRAMME TO DEVELOP MANAGEMENT ACCOUNTING

The recommendations made in this report have been fully discussed and their practicability agreed with Mr. Tan Hui Boon Acting Director of LIS and Mr. A. P. Harju - UNIDO Expert MABC.

The recommendations comprise two groups :

- . Those relative to continuing of the consulting service commenced by the UNIDO - LIS project.
- . Those designed to improve the level of management accounting in Singapore's Industry.

The latter recommendations are designed to benefit all industries in Singapore and not just the light industries sector.

A. Recommendations

Continue the Management Accounting Consulting Service -

The objectives of the UNIDO - LIS project were to train LIS Counterparts and industry personnel in management accounting techniques. Included in the project was a programme to implement management accounting systems and controls thus giving practical experience and guidance to the participants.

The L. I. S. Counterparts were then to form a consulting team offering consulting services in management accounting to the light industries sector in Singapore.

It is recommended that the consulting services continue and the work be divided into two phases -

1. The Counterparts "follow up" the companies where management accounting has been implemented during the project. The companies concerned are -
 - . International Spinning Mills Ltd.
 - . Design Mobil Pte. Ltd.

The minimum "follow up" period should be:

1st month - $\frac{1}{2}$ day per week

2nd month - $\frac{1}{2}$ day per 2 weeks

3rd month - $\frac{1}{2}$ day

This recommendation was agreed with Mr. Tan Hui Boon and was included in the Final Reports, which were given to the respective companies.

2. Continue to offer consulting services to industry.

The UNIDO - LIS project has trained three counterparts to implement management accounting. It is recommended that they provide a consulting service as a team.

The team should be -

Leader -

Mr. Tjoa Tjoen Khay, Cost Accountant

Working Consultants -

Miss Susan Quek - Economist

Miss Bernadette Ng - Economist.

The capacity of this consulting team would be approximately four projects (similar to Design Mobil Pte. Ltd. and International Spinning Mills Ltd.) per annum.

As mentioned earlier Mr. Tjoa Tjoen Khay has been appointed a full time team member on Mr. A. P. Harju's project. He will be actively involved in implementing management accounting and budgetary control (MABC) in the Metal Industries Development Agency Division of the Engineering Industries Development Agency (EIDA) during the next 12-18 months.

In the meantime Miss Quek and Miss Ng could offer a limited consulting service to industry or assist Mr. Tjoa in the Metal Industries Development Centre in EIDA

Improve the Level of Management Accounting in Singapore's Industry -

Industry needs a force of Management Accountants and Cost Clerks who have practical training and experience in modern industrial management information systems.

This can be achieved by using the centres established and being established under the Engineering Industries Development Agency. Management Accounting and Budgetary Control (MABC) procedures (Mr. A. P. Harju's UNIDO project) are being implemented in the Metal Industries Development Centre (MIDC) with the objective of proving and refining the systems before extending them to other centres. This makes EIDA, and in particular MIDC, an ideal area for management information staff to obtain practical experience.

The recommendations are -

1. Implement a Management Accounting Practical Experience Programme

for -

- . Tertiary qualified persons ex the Universities or industry who require cost accounting and management accounting experience.

at -

- . EIDA commencing with the MIDC at Jurong where 2 Management Accountants could be trained. Subsequently the programme could be extended to the Precision Engineering Development Centre (PEDC) on the same site at Jurong and then to the Prototype Production Development Centre (PPDC) currently sited in River Valley Road. One Management Accountant could be trained in each of these two centres.

over -

- . A minimum training period of 12 months.

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2. **Implement a Management Information Clerical Experience Programme**

for -

Young clerks with Senior Cambridge Certificate qualifications or equivalent.

at -

EIDA with the Management Accountants

over -

A 6 months minimum period.

in the ratio of -

2 trainee cost clerks to each trainee Management Accountant.

3. **Establish a service in the EIDA personnel function to -**

(a) **Recruit suitable accountants and clerks for training from the Universities, Industry, Government Departments and Organisations and High Schools.**

(b) **Place the trained experienced personnel into industry to allow for further trainee recruitment**

4. **Implement a Programme of Management Seminars.**

EIDA centres could be used as the avenue to give seminars to industry management personnel to keep them abreast of modern developments. EIDA can provide all the back up facilities.

The seminar curriculums should include -

Tours of industrial operations in MIDC, PEDC and PPDC.

Lecture/discussions on solutions to practical management information problems.

Lectures by visiting world authorities in modern management practices.

B. Benefits of Using EIDA as the Venue for the Improvement Programme

Using the Engineering Industrial Development Agency offers a number of significant advantages -

1. EIDA comprises a range of manufacturing centres which are very suitable for training Management Accountants and also Clerical Staff to prepare cost management information.

(a) In MIDC there is -

(i) The Foundry which comprises -

- Pattern Making
- Electric Furnaces
- Ferrous Castings
- Non-Ferrous Castings
- Finishing Operations
- Metallurgical Testing (for both the foundry and industry at large).

Here experience will be gained in

- . Furnace operating costs
- . Material costing including -
 - Use of Virgin Metals
 - Use of purchased scrap metals
 - Use of reusable scrap
 - Melting losses
 - Scrap losses.

(ii) The Tool and Die Shop.

This will provide light engineering job cost experience in a typical one-off type jobbing shop.

The equipment includes -

- . Lathes
- . Drills
- . Milling machines
- . Bench work
- . Jig Boring machines
- . Atmosphere Controlled Testing.

(b) In PEDC there are

- . Precision lathes and drilling equipment
- . Plating equipment

Experience will be gained in

- . Cost management in light precision engineering
- . Cost management over plating operations.

(c) In PPDC there is

- . Machining and assembly of quantity production items.

Experience will be gained in batch cost management where standard costing techniques could be used.

2. The programme can be implemented and operated with EIDA planned organisation structure and at minimum cost to the Government. All trainee positions should be necessary for the efficient operation of the centres.
3. The MABC system will provide a sound basic training in modern industrial management and cost control. The procedures will be computer oriented.
4. EDB will have a practical method of adding to its own management accounting consulting service.
5. EDB will be providing industry with similar services in the form of trained management accountants and cost clerks, as it is currently doing with supervisors and draftsmen at the MIDC.

C. Implementation

A plan to implement the recommendations must be developed covering both the short and long term aspects of the development programme.

The steps are as follows :

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1. Develop plans covering -
 - . Trainee selection procedures
 - . Areas suitable for training
 - . A rotation training system
 - . Preparation of training material
 - . Practical guidance procedures
 - . Criteria for determining competence
 - . Procedures for the placement of the trained experienced personnel in industry
 - . Consulting services
 - . Seminar curriculum and itineraries
2. Recruit trainee management accountants and cost clerks.
3. Determine the level and extent of practical guidance.
4. Prepare trainee "follow up" courses using seminars and discussions on day-to-day problem areas.

The project should initially be under the control of a qualified Management Accountant with local knowledge and also a working knowledge of the current management accounting projects in EDB.

This can be -

- . An executive of the EDB.
- . Mr. A. P. Harju, UNIDO Expert and designer of the MABC project in EIDA.
- . W. D. Scott & Co. Pty. Ltd., Management Consultants and contractors for UNIDO - LIS Management Accounting Project which has resulted in these recommendations.

If the project control is done by either Mr. A. P. Harju or W. D. Scott & Co. then the Singapore Government should request financial assistance from the United Nations Industrial Development Organisation (UNIDO).

The minimum periods of assistance would be approximately -

Step 1 - Develop plan	-	2	months
2 - Recruit trainee staff	-	1	"
3 - Practical Guidance	-	3	"
4 - Follow up after a break of 2 months	-	2	"
- After a further break of 3 months.	-	2	"
			10 months

Hence the amount of assistance would be 10 months but spread over a period of 15 months. A time scaled diagram illustrating this programme is set out in Appendix IV.

During this time a qualified Singapore Management Accountant should be developed to take control of the programme. He would be responsible for its continued operation and improvement at the same time he could administer the EDB's consulting service in management accounting.

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VII. CONCLUSION

Industry in Singapore needs improved management accounting to enable it to make optimum use of its financial and manpower resources and so enable the Republic to take advantage of its strategic position in South-East Asia. This applies particularly to the new industries established with local capital and without ties to overseas corporations. They do not have ready access to modern management techniques.

The UNIDO - LIS Management Accounting Project proved that management accounting systems can be successfully installed in these industries.

To do this we overcome such problems as -

1. Training Chinese company executives who speak little English because Mandarin is the spoken language of Chinese businessmen. We used an LIS Counterpart as an interpreter and conducted management training on an "in-company" basis. This action is necessary to ensure success of projects in Singapore.
2. Reluctance by the average Chinese businessman to disclose cost and financial information. We gained their confidence by successfully implementing basic accounting procedures and discussing results and possible future action fully with them.

There is, however, a critical shortage of Accountants with sufficient manufacturing experience to equip them as competent Management Accountants. Also there are insufficient experienced Cost Clerks who are able to prepare cost management information.

These deficiencies arise because of Singapore's short industrial history less than 10 years.

To overcome this we recommend the implementation of a Management Accounting Development Programme that includes -

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1. Setting up a practical experience Management Accountant and Cost Clerk training project. Initially this can be done by using the Management Accounting and Budgetary Control (MABC) procedures, being established in Metal Industries Development Centre (MIDC) under the control of the Engineering Industries Development Agency (EIDA). Subsequently this could be extended to other centres as the MABC procedures are proven and implemented in them.
2. The trained LIS Counterparts carrying out "follow-up" visits to Design Mobil Pte. Ltd. and International Spinning Mills Ltd. This will ensure the continued success of these two projects and increase the interest in management accounting.
3. The Economic Development Board (EDB) continuing the Management Accounting Consulting Service commenced by the UNIDO - LIS Project by using the three trained Counterparts as a team. This can be supplemented eventually by suitable Management Accountants trained in the EIDA training programme mentioned earlier.

We believe this practical experience training programme using the MABC procedures in EIDA centres could lay the foundation for substantially improving management accounting in Singapore's industries.

Appendices

APPENDIX I

MANAGEMENT TRAINING PROGRAMME

FOR

UNIDO - LIGHT INDUSTRIES SERVICES COUNTERPARTS

W. D. SCOTT & CO. PTY. LTD.

GROUP 1 - TRAINING COUNTERPARTS

L. I. S. COUNTERPARTS

Mr. Tjoa Tjoen Khay
Mr. Winston Yap
Miss Bernadette Ng
Miss Susan Quek

SESSIONS TO BE HELD IN THE L. I. S. LECTURE ROOM

SESSION 1: Monday, 30th March 1970
9 a. m. - 1 p. m.

- Introduction and outline of the programme and the project
- The purpose of the conference
- The accounting function
 - . Need for financial control
 - . Balance Sheet and Profit and Loss Statement
 - . Accounting Ratios
 - . Management accounting
- Financial accounting
 - . Integration of financial accounting and cost accounting
 - . Internal costs
 - accounts payable procedures
 - labour : direct
 non-productive
 indirect
 - . Provision
 - depreciation, etc.

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App. I-2

- Human relations
- . Basic needs

Monday, 30th March 1970
2 p. m. - 5 p. m.

The Resident Consultant and Mr. Tjoa Tjoen Khay together with available counterparts to co-operate with and evaluate problems encountered by other UNIDO experts in the course of their industrial consulting.

SESSION 2: Tuesday, 31st March 1970
9 a. m. - 1 p. m.

- **Managerial Controls**
 - . As a means of control
 - . Direct and Indirect Costs
 - . Job costing
 - . Overhead absorbed
 - . Process costing
 - . Standard costing
 - . Material Control
 - . Labour control
 - . Overhead control
- **Management by exception**
- **Direct or marginal costing**
- **Absorption costing (case study)**
- **Cost analysis & C. V. P. arithmetic**
 - . Cost analysis
 - . C. V. P. arithmetic
 - . Product mix
 - . Effect on volume change
- **Human relations**
 - . Basic needs - study

Tuesday, 31st March 1970
2 p. m. - 5 p. m.

- **Same programme as Monday, 2 - 5 p. m.**

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SESSION 3: Wednesday, 1st April 1970
9 a. m. - 1 p. m.

- Planning for Profits and Introduction to Budgetary Control
 - . Setting up selling cost standards
 - . Growth of a Budget
 - . Definition of a Budget
 - finance control
 - administration and general management control
 - production control
 - cost accounting and expense control
 - . Short and long term Budgets
 - . Complete and partial Budgets
 - . Fixed and flexible Budgets
 - . Construction of the Budget
 - . Complete Budget
 - . Planning for profits
- Human Relations
 - . Gaining Co-operation

Wednesday, 1st April 1970
2 p. m. - 5 p. m.

- Same programme as Monday, 2 - 5 p. m.

SESSION 4: Thursday, 2nd April, 1970
9 a. m. - 1 p. m.

- Inventory Management
 - . Need for control
 - . Inventory policy
 - . Component stock reserves
 - . Re-order point
 - . Review cycle
 - . Excess stock file
 - . Rate of stock turnover
 - . Economic order quantity
 - . Production orders
- Management of Capital Investment
 - . Need for planned approach
 - . Basic policies and objectives
 - . Capital Budget
 - . Capital expenditure authorisation
 - . Evaluating proposal
- Human Relations
 - . Gaining co-operation study

Thursday, 2nd April 1970
2 p. m. - 5 p. m.

- Same programme as Monday, 2 - 5 p. m.

SESSION 5: Friday, 3rd April 1970
9 a.m. - 1 p.m.

- Reporting Methods, Future Development and Organisation
- Source and disposition of funds
- Reason for Budgetary Control
 - . Clearly defined organisation
 - . An up-to-date accounting and reporting system
 - . Clearly defined policy and objectives
 - . Preparation by the responsible executive
 - . Logical sequence in budgeting preparation
 - . A degree of flexibility
 - . Constant comparison of budget.
- Managerial Controls
 - . General Manager, Sales Manager, etc.
- Communications and control
- Reports and methods of reporting for control
- Higher controls (B. E. P.)
- Human Relations
 - . Selling ideas

Friday, 3rd April 1970
2 p.m. - 5 p.m.

- Same programme as Monday, 2 - 5 p.m.

SESSION 6: Saturday, 4th April 1970
9 a. m. - 1 p. m.

- Principals for report writing
- Identifying problem areas in industry
- Review and general discussion.

APPENDIX II

DESIGN MOBEL (PTE) LIMITED

MANAGEMENT ACCOUNTING

JULY 1970

Written by :

Tjoa Tjoen Khay

Susan Quek

W. D. SCOTT & CO. PTY. LTD.

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I N D E X (Cont'd)

APPENDICES

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3. Budget Formats 10-15
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I. INTRODUCTION

The basic functions of accounting are to provide:

- (a) Cost data for income measurement and inventory valuation (Profit and Loss Statement, Balance Sheet).
- (b) Information for Management Control of the Company's operations and activities (Control reports).
- (c) Information for Management Planning and decision making (special analysis and studies).

Financial Accounting embrace double entry book-keeping and preparing of conventional financial statements (Profit and Loss Statement and Balance Sheet). To fulfill control objectives, Management Accounting is essential.

Cost Accounting is a quantitative method that accumulates, classifies, summarises and interprets information for 3 major purposes

- (i) Operational planning and control
- (ii) Special decision
- (iii) Product costing for inventory valuation and income determination.

The managerial tools used to fulfill these objectives include budgeting, responsibility accounting, reporting by exception and standard costing, etc. These tools embrace more than Financial Accounting.

The relationship of financial records to Cost Accounting should be recognised. Cost Accounting is an integral part of the accounting system. Through cost records, Cost Accounting is able to contribute further control to achieve the Company's objectives.

The introduction of Cost Accounting will improve Management Control of the Company's operation through effective means of performance measurement and accurate, timely Management Reporting.

II. SUMMARY

A. Implementation of Recommendations

An Integrated Financial and Direct Costing System has been implemented to ensure:

(a) Material Control

The following forms have been implemented for the issuing, purchasing and receiving of materials:

- (i) Material Requisition
- (ii) Purchase Order
- (iii) Purchase Requisition
- (iv) Goods Received Note
- (v) Finished Goods Requisition
- (vi) Bin Card
- (vii) Stock Card

In addition, the maximum and minimum levels and also the Economic Order Quantity of imported goods have been determined.

(b) Labour Control

The attendance of daily rated workers is recorded on the Daily Time Sheets.

Payroll control information for all employees is entered in the Payroll Sheet.

A Labour Analysis is compiled to ensure labour cost control, and also as a medium to post to the Job Cards.

- #### (c) The Direct Costing System is implemented to ensure Job Cost Control (via Job Cards) and Finished Goods Control by using the Finished Goods Requisition and the Delivery Note.

(d) Overhead Control

Overheads have been dissected into variable costs, semi-variable costs and period costs.

(e) Budgetary Control

A Master Budget, incorporating the following has been prepared:

- (i) Sales - breakeven point
- (ii) Labour cost
- (iii) Material cost
- (iv) Variable manufacturing overhead
- (v) Fixed expenses

From the Budget, a pre-determined variable overhead absorption rate has been calculated.

(f) Management Reporting

The following forms have been prepared:

- (i) Profit and Loss Analysis
- (ii) Balance Sheet
- (iii) Labour Productivity Performance Report
- (iv) Sales and Cost of Sales Analysis
- (v) Debtors Analysis
- (vi) Cash Flow Statement
- (vii) Overhead Analysis
- (viii) Orders Received and Net Work on Hand
- (ix) Fortnightly Work-in-Progress Report.

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B. Recommendations for Future Implementation

(a) Material Control

- (i) For control, ensure that the teak/plywood/veneer Store is enclosed.
- (ii) Determine the maximum and minimum levels for timber stock.
- (iii) Recommend standard pricing on teak/plywood/veneer/meranti.

(b) Labour Control

- (i) Recommend the usage of Time Clock Cards when the number of Direct Workers increase substantially.
- (ii) Recommend an overall Standard Labour Rate to be applied to Production and for pricing decisions.

(c) Recommend that the reporting of job costs should be done by item.

(d) Recommend that Feasibility Studies to be done before purchase of Fixed Assets.

III. IMPLEMENTATION OF RECOMMENDATIONS

In the Intergated Financial and Costing System implemented for the Company, the Direct Costing approach has been adopted. In Direct Costing, only variable production costs are recorded as product costs or inventoriable costs. Production costs refer to direct material, direct labour and variable factory overhead expenses. Fixed factory overhead is treated as a period cost (released as expense) and not as a product cost. The principle underlying this is that the fixed portion of factory overhead is more closely related to the capacity to produce than to the production of specific product units. The Contribution Margin - excess of sales over variable costs - shows the contribution towards fixed costs and profits.

(a) Material Control

Material control comprising of purchase, stores, and inventory control has been implemented for stocks (which include raw materials, factory supplies, imported goods and finished goods).

For purchasing control, the forms recommended for use are:

Material Requisition

Purchase Order

Purchase Requisition

These forms have been implemented and are in use.

For stores control, the Project Team implemented the following forms:

Goods Received Note - for receiving and inspection

Material Requisition - for issuing to Production

Finished Goods Requisition - for issuing to Showroom and the Finished Goods Store

Delivery Note - for issuing of Finished Goods to customers.

The Goods Received Note is matched with the Purchase Order and the customer's Invoice for control purposes. The Direct Materials issued as stated on the Material Requisition are entered on the relevant Job Cards.

Information from these forms for each individual item is transferred to their respective Bin Card (kept in Stores) and Stock Card (kept in the Purchasing Department) so as to record the movement of stocks to and from the Stores.

For inventory control, two limits must be imposed - the maximum and minimum levels of inventory. If the inventory level is beyond the maximum level, excess inventories will result and the cost of overstock include interest on investment, obsolescence write-offs and space costs etc. If the inventory level falls below the minimum level, there will be inadequate inventories which disrupts production and perhaps lose sales. The optimum inventory level normally lies somewhere between these two levels

The optimum size for a normal purchase order of raw materials or imported goods is called the Economic Order Quantity - the size which will result in minimum total annual costs of the item in question.

The Economic Order size can be expressed in terms of quantity or value and the formula for computation is as follows:

$$\text{Order quantity} = \sqrt{\frac{2 A S}{I V}}$$

Where :

- A = Expected usage for period of time, usually a year.
- S = Cost per order in \$(cost to set up for the order)
- I = Cost of carrying inventory, expressed as a decimal, for the period considered.
- V = Cost in \$ of one unit of sale.

Re-order or Order Point will be made when:

Stock on hand + orders placed but not received = forecasted normal demand to delivery time + safety stock.

Safety stock refers to the minimum inventory level to cushion against reasonable expected maximum usage and its computation is based on demand forecasts and past experience.

The Order Cycle should be fixed for each product or product group as follows:

$$\text{Order Time Cycle} = A \times \sqrt{\frac{2 \times \text{change-over cost}}{\text{quantity} \times \text{unit cost} \times \text{inventory cost}}}$$

Where:

Order Cycle Time is in weeks

A	=	No. of production weeks in a year
Change-over cost	=	Production change over and/or set up costs in \$
Quantity	=	Annual quantity in units
Unit cost	=	Standard Cost in \$ per unit quantity
Inventory cost	=	Annual cost of carrying inventory as a decimal value of the stock in \$

(For periods other than a year, substitute the no. of weeks, quantity for that period and inventory cost for that period).

(b) Labour Control

For payroll and cost control of labour, the following forms are recommended for use:

Time Clock Card

Payroll Sheet

Daily Time Sheet

Labour Analysis

With the exception of the Time Clock Card, all the forms recommended have been implemented and are now in use. The Time Clock Card is not used as the present force of Direct workers engaged in the factory is too small. Instead, the attendance of Direct and Indirect workers is recorded on the Daily Time Sheets.

The Payroll Sheet is prepared bi-monthly when the employees are paid. Information on the individual Direct worker (his productive and non-productive time) is obtained from the Daily Time Sheets.

For labour cost control, the Project Team implemented the Labour Analysis. In the Labour Analysis, the hours and costs are analysed according to their direct and indirect nature. The direct labour hours and costs for the individual jobs are then entered into the relevant Job Cards.

- (c) For Job Cost Control, the Job Card has been implemented. Since the system implemented is Direct Costing, only direct material cost, direct labour cost, and variable factory overhead for each job are entered into the relevant Job Cards.

- (d) Overhead Control

For overhead control, overhead expenses have been dissected in the Company's Chart of Accounts into variable (Code 300 to 312), semi-variable (Code 400 to 406) and period costs (Code 500 to 538).

- (e) Budgetary Control

A budget is a forecast of expected income and expenses, under certain anticipated operating conditions, which is used by management in its endeavours to evaluate the Company's performance and to control and direct the operation of the business. Budgeting also serves to establish the basis for responsibility reporting and reporting by exception.

A Master Budget incorporating the following has been prepared for the company:

- (i) Sales - breakeven point
- (ii) Labour cost - based on present staff strength
- (iii) Material cost
- (iv) Variable manufacturing overhead
- (v) Period or fixed expenses.

From the budget, a pre-determined variable overhead absorption rate has been calculated by dividing the total budgeted variable overhead expenses by the expected direct labour costs. Apply this absorption rate to the direct labour costs incurred on each job to arrive at the estimated variable overhead for the particular job. Compare the total monthly absorbed overhead with the actual, and any under-absorption is written off or the over-absorption is written back in the Profit and Loss Statement.

(f) Management Reporting

Management's task is to plan and to control. Planning means selecting objectives and the means for their attainment. Controlling means obtaining conformity to the plans.

Management plans are expressed in the form of budgets or targets. In the case of controlling, Management Reporting are used as tools of Management. These reports are used to compare actual performance with plans (the budgets) - any discrepancies arising will be signals for corrective action and thus provide a basis for better planning and controlling.

The following forms have been prepared for Management Reporting:

- (i) Profit and Loss Analysis
- (ii) Balance Sheet
- (iii) Labour Productivity Performance Report
- (iv) Sales and Cost of Sales Analysis
- (v) Debtors Analysis
- (vi) Cash Flow Statement
- (vii) Overhead Analysis
- (viii) Orders Received and Network on Hand
- (ix) Fortnightly Work-in-Progress Reports.

Forms (i) - (vii) to be prepared by the Accounts Department. Form (viii) to be compiled by the Administration, whilst form (ix) by the Production and the Accounts Departments jointly. These forms should be submitted monthly to the Management, with the exception of the Work-in-Progress Reports which should be submitted fortnightly.

IV. RECOMMENDATIONS FOR FUTURE IMPLEMENTATION

(a) Material Control

- (i) At present, the timber 'stores' are not enclosed. The meranti is left in the timber yard, the teak wood, plywood and veneer are kept in shelves in the factory.

As and when it is required, the carpenter in charge of cutting the timber will withdraw the timber required from the shelves or the timber yard. He will report the amount of timber used for each job at the end of the day to the Assistant Factory Supervisor, who will effect a Material Requisition according to the job. It is therefore impossible to control the physical stock of the timber. The Material Requisition submitted by the Assistant Factory Supervisor is merely for the purpose of determining the product cost. If there is any shortage of timber, the amount is to be written off.

It is recommended that a timber 'stores' to keep all types of timber under lock and key be established as soon as possible, to ensure that the movements of timber are accounted for. This is an urgent requirement to be implemented by the Company.

- (ii) The main objectives of an Inventory Control System are:
- 1) to ensure that the materials in stock are sufficient to meet production requirement.
 - 2) to ensure that the capital tied-up in stock is at the minimum.

These two objectives are always conflicting. On one hand it is best to carry more than enough stock so that production will not be interrupted. On the other hand, capital tied up in stock should be reduced to the minimum so that funds will be available for other financial functions.

To reconcile the two objectives, it is necessary to determine the maximum and minimum levels of every item in stock. When an item reaches the minimum level, an order will be issued to replenish the item to the maximum level.

In determining the maximum and minimum levels, the following factors must be considered :-

Maximum Level

- (a) Economic Order Quantity
- (b) Rate of Consumption
- (c) Store space

Minimum Level

- (a) Rate of Consumption
 - (b) The lead time
- (iii) Materials are priced at actual cost. As such, the cost of materials fluctuates depending on the time of purchase and the quantity purchased.

The disadvantages of actual pricing are :

- 1) It is time consuming for the Inventory Control Clerk to record the receipt and issue of every stock item, as in most cases, there are more than one price for each type of material.
- 2) If there is any variance between the estimated cost and the actual cost of material of a job, it is difficult to determine whether the variance is due to material price or material usage.
- 3) At the time of quotation, the estimator has to spend more time in calculation as he has to obtain the actual price.

However, these disadvantages can be overcome if the materials are priced at standard prices. There will be only one price for each type of material. The difference between the actual price and standard price is shown as a material price variance in the Profit and Loss Account. If there is any variance between the estimated and the actual cost of materials, the variance will then be due to usage and not to price. In price calculation, the estimator can use the standard price without referring to the Stock Cards.

In addition, the price variance is an indication of the efficiency of the Purchasing Department.

(b) Labour Control

- (i) At the moment, the work force in the factory consists of 20 daily-rated workers. The present method of recording the attendance of daily-rated workers for calculation of wages is by using Daily Time Sheets submitted by the Factory Supervisor.

The method is adequate when the workers are few in number. As the number of workers increases, it becomes a difficult task as the Factory Supervisor will have to be in the factory to ensure that all the workers commence on time and leave the factory on time. Therefore, it is recommended that a time clocking machine be installed to mark the attendance of daily-rated workers.

- (ii) There are 5 - 6 sub-contractors working internally and externally of the factory. The sub-contractors are paid by job, and the amount paid is agreed upon before the job is commenced. The rate therefore varies from job to job according to the amount of work involved.

The system recommended does not provide any feedback information on sub-contractors as to whether the amounts paid to them are appropriate for work completed.

In order to reduce the work and save time in issuing a quotation and also to ensure that the sub-contractors are appropriately paid, it is recommended that a standard rate be fixed for each type of furniture.

Sub-contractors as well as daily rate workers can then be evaluated against the standards.

- (c) Every job consists of different items of furniture such as desks, chairs, bed and dressing tables etc. The Job Costing System implemented accumulates the cost information by job without showing the breakdown of costs for each item.

To furnish Management with this information, the following information is required in addition to the present system from the Production Department:-

- 1) Materials issued for each item of the job will have to be indicated on the Material Requisition.
- 2) In the Daily Time Sheets, the time spent on each item will have to be indicated.

With the above information, the Accounts Department will open additional Job Cards for each item of the job and accumulate the information for each item accordingly.

- (d) The investment in plant and machinery amounts to \$250,000 as at 31.1.70. It is recommended that Feasibility Studies should be carried out before purchasing any additional machinery, otherwise liquidity problems could be encountered.

V. FOLLOW-UP VISITS

There will be follow-up visits to check on the progress of the system implemented. In the first month, there will be one follow-up visit. This is followed by two visits in the second month. For the third month, the number of visits will be reduced to one.

Any problem arising will be discussed during these visits.

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A P P E N D I C E S

DESIGN MOBEL (PTE) LIMITED

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APPENDIX I

MANUAL OF ACCOUNTING PRECISE

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INTEGRATED FINANCIAL AND COSTING SYSTEM

The books of accounts to be kept are :-

- (1) General Ledger
- (2) Cash Book
- (3) General Journal
- (4) Petty Cash Book

The Purchases Book and the Creditors Ledger are dispensed with by using the Remittance Advice. The Sales Book and the Debtors Ledger are replaced by filing two additional copies of the Sales Invoices - one in the "Sales" File and the other in the "Paid" or "Unpaid" File.

Under the recommended integrated financial and costing system, the general and administration expenses and manufacturing expenses are kept in the General Ledger. Expenses are allocated to the appropriate accounts according to the nature of the expenses. At the end of each accounting period, the Profit and Loss Accounts and the Balance Sheet will be extracted from the General Ledger in the usual manner.

The system also make possible for the Accounts Department to furnish management with the cost of each job. The procedure for job costing is as follows:-

(a) Direct Material

When materials are issued from the Stores:

Dr. Work-in-Progress - Material
Cr. Stock

The amount of material issued will be entered onto the relevant Job Card.

In cases where materials are purchased for immediate use without passing through the Stores:

Dr. Work-in-Progress - Material
Cr. Sundry Creditors/Bank.

W. D. SCOTT & CO. PTY. LTD.**(b) Direct Labour**

From the payroll analysis, enter the number of hours worked and the cost in the relevant Job Card and :

Dr. Work-in-Progress - Labour

Cr. Payroll Clearance

As for sub-contractors, as and when they are paid, enter the amount on the relevant Job Card and :

Dr. Work-in-Progress - Labour

Cr. Bank

(c) Variable Manufacturing Overhead

An overhead recovery rate will be established from the budget based on Direct labour cost. The rate will be applied to all jobs in Work-in-Progress in order to arrive at the estimated overhead cost of each job. The total of the overhead recovery in each month will be compared with the actual overhead incurred in the month and the variance disclosed in the Profit and Loss Statement.

The overhead recovery will be reflected in the accounts as follows :

As and when Direct labour cost for a job is determined i. e. on each pay day, calculate the overhead recovered for the job and :

Dr. Work-in-Progress - Overhead

Cr. Overhead Recovery

The amount will be entered into the "Overhead" column of the relevant Job Card simultaneously.

The three Work-in-Progress Accounts are the control accounts of all the Job Cards. At any time, the total of all the material, labour and overhead recovered on the Job Cards should equal the amount shown in the three Work-in-Progress Accounts respectively.

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(d) When a job is completed :

Dr. Finished Goods
Cr. Work-in-Progress - Material
 - Labour
 - Overhead

(e) When a job is delivered :

Dr. Cost of Sales - Material
 - Labour
 - Overhead
Cr. Finished Goods

The Cost of Sales shown in the Profit and Loss Statement is therefore made up of:-

- (i) actual cost of material
- (ii) actual cost of labour
- (iii) estimated cost of variable overhead
(overhead recovered)

The overhead recovered will not usually equal the actual cost of variable overhead for the period under review.

The variance is reflected in the Profit and Loss Statement for the period.

If the actual variable overhead is more than the overhead recovered i. e. under absorption , the amount will be written off against the profit. However, if the actual variable overhead is less than the overhead recovered i. e. over absorption, the amount will be added to the profit.

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MATERIAL CONTROL

Stocks include raw materials, factory supplies, imported goods and finished goods.

For effective material control, there should be three Departments:

(a) Stores Department

- (i) to handle the physical issue and receipt of stocks
- (ii) to maintain basic records of stock movement in Bin Cards
- (iii) to take care of the Stores.

(b) Purchasing Department

- (i) to purchase the materials
- (ii) to maintain Stock Cards for detailed records on stock movement.

(c) Accounts Department

- (i) to ensure payment of suppliers' invoices within the credit terms
- (ii) to record the amount of materials used in each job on the respective Job Cards to control costs.

A stock control system will ensure that:

- (i) there are sufficient materials, supplies and imported goods in stock to meet production requirement and sales demand.
- (ii) stock movement is recorded and accounted for.
- (iii) funds tied up in stocks are at a minimum so that materials, supplies and imported goods in stock are not in excess of production requirements and sales demand.
- (iv) stock turnover is adequate to ensure minimum deterioration and obsolescence of stocks.

Procedure

A. Material Control

The basic accounting procedure for material control and imported goods control is as follows:

I. Issuing

(a) Issue to Production

- (i) Materials will be issued to Production by the Storekeeper on the authority of the Bill of Materials received from Production Planning and Control.
- (ii) Upon issuing the materials, the Storekeeper will complete the Material Requisition which will be counter-signed by the carpenter/sub-contractor who is responsible for the job.
- (iii) The Storekeeper will then enter the materials issued in the "issue" column of the Bin Card and distribute the Material Requisition as follows:

Original: to Purchasing Department
& Duplicate:

Triplicate: to Production
Quadruplicate: retained by Stores.

To facilitate distribution, the various copies of the Material Requisition should be printed in different colours.

- (iv) The staff in charge of the Stock Card in the Purchasing Department, on receipt of the original and duplicate copies of the Material Requisition, will fill in the unit price of the item issued and the amount in the appropriate columns of the Material Requisition.
- (v) The duplicate copy of the Material Requisition will then be forwarded to the Accounts and recorded as follows:

Dr. Work-in-Progress - Direct Material OR
Dr. Appropriate Expense Account(s) -
 Indirect Material
Cr. Stock

The Accounts Department shall fill in the "Material" column of the Job Card for the amount of Direct Material issued.

(b) Issued to Showroom

Follows a similar procedure as in (a) :

- (i) When goods are sold, the Showroom replenish from the Stores by issuing a Finished Goods Requisition (Material Requisition). On receipt of the Requisition from the Showroom, the Storekeeper shall issue the goods and record the quantity issued in the Requisition and in the Bin Card. He shall then distribute the 4 copies of the Requisition as follows:

Original: to Purchasing Department
Duplicate: retained by Stores
Triplicate: to accompany goods issued
Quadruplicate: retained by Showroom

- (ii) The Purchasing Department shall fill in the unit price and the amount in the "issued" column of the Stock Card for the Stores, and also the "received" column of the Stock Card for the Showroom for that item issued.

II. Purchasing

- (i) On receipt of a Material Requisition for supplies which are not available in Stores, the Stores Department shall prepare a Purchase Requisition in duplicate and submit the Original copy to the Purchasing Department whilst filing the other. The Purchasing Department will in turn place an order with the supplier
- (ii) On receiving a Bill of Material from Production and Planning Section, the Purchasing Department will check the Stock Cards to find out how much of the materials required for the job is available after allocation to other jobs. If the amount available for the job is not sufficient, then a Purchase Order should be issued.

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- (iii) Similarly, when a particular item in stock reaches the pre-determined minimum level, the Purchasing Department should issue a Purchase Order in quadruplicate and distribute as follows:

Original: to supplier
 Duplicate: to Accounts Department
 Triplicate: to Stores
 Quadruplicate: to File

- (iv) The Storekeeper should file the Purchase Order in a current file until the goods ordered arrive.
- (v) The Accounts Department shall file the Purchase Order according to supplier and wait for the Goods Received Note and the invoice to be received from the Storekeeper and supplier respectively.

III. Receiving

- (i) Upon delivery of the goods to be Stores, the Storekeeper should check the goods delivered with the Purchase Order to ensure that the quantity, quality and type of goods delivered are correct before acknowledging receipt on the Delivery Note from the supplier.
- (ii) After checking, if the goods received are correct, the Storekeeper will then complete the Goods Received Note in triplicate and distribute as follows:

Original: to Accounts Department
 Duplicate: to Purchasing Department
 Triplicate: to File

The Storekeeper shall fill the quantity received in the "receipt" column of the Bin Card.

- (iii) The Purchasing Department on receipt of the Goods Received Note should fill in the quantity received, unit price and the amount on the Stock Card.
- (iv) Upon receiving the original copy of the Goods Received Note and the invoice, the Accounts Department shall record as follows:

Dr. Stock
 Cr. Supplier/Bank.

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B. Finished Goods Control

- (i) When the job is completed, the Production Department shall issue a Finished Goods Report, a copy of which shall be forwarded to the Accounts Department. The accounting entry is as follows:

Dr. Finished Goods

Cr. Work-in-Progress - Labour
- Material
- Overhead

- (ii) On receiving instruction, the Storekeeper should issue the required items for delivery to the customer. The Delivery Note is then prepared, of which 2 copies will be acknowledged by the customer and returned by the driver. Copies of the Delivery Note are to be distributed as follows:

Original: to customer

Duplicate: to Accounts Department

Triplicate: to File.

PURCHASES

With the exception of imported goods, most of the purchases of Direct materials and Indirect materials are from local suppliers.

Direct materials refer to raw materials, whilst Indirect materials refer to office supplies e. g. stationery etc. and factory supplies e. g. spare parts, expendable tools and miscellaneous items

A. Direct/Indirect Materials

The accounting procedure for locally purchased materials is as follows:-

- (i) A Remittance Advice is prepared for each creditor every month.
- (ii) On receiving the Invoice for purchase of materials, compare it with the Goods Received Note (from the Stores) and the Purchase Order to ensure that the quantity and quality quoted on the Invoice has been received and the unit price quoted is correct.
- (iii) Enter the Invoice received on the Remittance Advice of the creditor concerned. File the Invoice, Purchase Order and the Goods Received Note with the Remittance Advice, the latter to be filed in alphabetical order in the Unpaid File.
- (iv) The accounting entry at the end of the month will be :-

Dr. Stock - Direct material OR

Dr. Appropriate Manufacturing Expenses - Indirect materials

Cr. Sundry Creditors Control

- (v) However in cases where materials are purchased for immediate usage without passing through the Stores Department, the accounting entry will be :

Dr. Work-in-Progress - Materials AND/OR

Dr. Appropriate Manufacturing Expense(s) Account(s)

Cr. Sundry Creditors Control.

- (vi) When Invoices are due for payment, prepare a Payment Voucher and forward it together with the Remittance Advice as well as the supporting documents to the Managing Director for approval.
- (vii) On approval of the Voucher, prepare a cheque and forward it to the authorised signatories for signing.
- (viii) Enter the Payment Voucher in the Cash Payment Book and extend it under the Creditors Control column. The total of this column will be debited to Creditors Control Account in the General Ledger.
- (ix) Forward the cheque to the creditor.
- (x) File the Payment Voucher together with the supporting documents according to customer sequence in the Paid File.

B. Imported Goods

Purchase of imported goods is normally settled via Letter of Credits. The procedure is similar to that of materials purchased locally.

- (i) On receipt of the Invoice, compare it with the Certificate of Origin, Bill of Lading, Purchase Order and the Goods Received Note.

The Accounting entries are as follows :-

Dr. Stock - Imported goods

Cr. Creditors Control

- (ii) File the Invoice in an Unpaid File according to the due date of the Letter of Credit.
- (iii) When the Letter of Credit is settled, transfer the Invoice from the Unpaid File to a Paid File and file according to customer.
- (iv) In the Cash Book:

Dr. Sundry Creditors Control Account

Cr. Bank.

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PAYROLL SYSTEM

The employees are paid bi-monthly and they may be divided into three groups:-

- (a) Daily-rated - include Direct and Indirect workers
 - (b) Monthly-rated staff
 - (c) Sub-contractors
- (a) (i) Direct workers refer to those directly engaged in production. Usually, a time clock card machine is installed to record attendance of the workers. But the present force of direct workers does not warrant the installation of such a machine and the Daily Time Sheet is used instead.
- (ii) Indirect workers refer to those indirectly engaged in the Production Department e.g. apprentices, etc. Attendance of this group of workers is recorded on the Daily Time Sheet also.
- (b) Monthly-rated staff refers to employees in the Management, Administration, Design, Showroom and include Factory Supervisors, etc.
- (c) Sub-contractors may work internally or externally of the factory. For each job, the sub-contractor's agreement is prepared in duplicate and distributed as follows:

Original: retained by sub-contractor

Duplicate: to Accounts Department.

Procedure

- (i) The attendance of both Direct and Indirect workers is recorded on Daily Time Sheets by the Factory Supervisor. On the Daily Time Sheets, the normal and overtime hours are recorded for each worker. In addition, the hours worked each day by individual workers are differentiated into productive and non-productive hours. The number of productive hours spent on each job is recorded. Non-productive time refers to annual/sick leave, machine set-up time, machine breakdown, idle time and miscellaneous etc.

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- (ii) Enter the information i. e. normal time, overtime and leave period, from the Daily Time Sheets into the Payroll Sheet.
- (iii) Classify the workers according to the nature of their work i. e. direct and indirect.
- (iv) Multiply the hours worked (normal and overtime), leave period and sick leave, etc. by the relevant rate to arrive at the gross earnings of each worker. Show the earnings according to normal, overtime, leave or sick leave pay.
- (v) Enter the monthly-rated staff in the Payroll Sheet according to Department e. g. Administration, Design, etc.
- (vi) Deduct the employee's contribution to CPF and any advance made to the employee to arrive at the net pay. The worker's CPF contribution should be deducted only from the month-end payment.
- (viii) Enclose the employee's pay in the pay envelope after the money has been counter-checked by another staff. On the employee's pay envelope, the following information should be shown :

Worker's Name

Normal Pay	\$
Overtime	\$
Leave/Sick Leave Pay	\$
	<hr/>
Gross Earnings	\$
<u>Deduct</u>	
C. P. F.	\$
	<hr/>
Net Pay	\$
	<hr/>

- (ix) From the Payroll Sheet, complete the individual worker's Earning Card.
- (x) Bi-monthly, the supervisor will check the progress/stage of completion of each job after which he prepares a list showing the name of the sub-contractor, the Job No , percentage of job completed and the amount to be advanced to the Sub-contractor. The list should be sent to the Managing Director for authorisation. On receipt of the authorisation, the Accounts Department will effect payment and record as follows:

Dr. Work-in-Progress - Labour

Cr. Bank

The amount will be entered in the 'Labour Cost' column of the relevant Job Card.

(xi) The accounting entries involved are as follows:

(a) When a cheque for the total net pay is drawn :

Dr. Payroll Clearance

Cr. Bank

Cr. CPF Clearance

(b) For employer's CPF contribution, record as follows :

Dr. CPF

Cr. CPF Clearance

(c) When CPF (both employer's and employees' contribution) is paid :

Dr. CPF Clearance

Cr. Bank

(d) For Indirect labour and monthly-rated staff:

Dr. Indirect labour - Management
- Administration
- Supervisor
etc.

Cr. Payroll Clearance

(e) For Direct labour, analyse the wages paid into jobs, overtime penalty, leave pay, sick pay etc. in the Labour Analysis and :

Dr. Work-in-Progress - Labour

Dr. Variable Overhead - Leave Pay
- Sick Leave Pay
- Leave and Holiday Pay
etc.

Cr. Payroll Clearance

(f) The amount debited to Work in-Progress will be entered onto the various relevant Job Cards.

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SALES

Sales comprise of imported goods as well as manufactured goods.

A. From the Factory

- (i) On receipt of a copy of the Delivery Note duly signed by the customer acknowledging receipt of the finished goods, the Accounts Department will raise the Invoice in triplicate to be distributed as follows :
- | | |
|-------------|---|
| Original: | to the customer |
| Duplicate: | to the Sales File in which Invoices are filed according to numerical sequence and according to the month. The Sales File is equivalent to the Sales Book. |
| Triplicate: | to the Unpaid File in which Invoices are filed alphabetically according to name of customer. This is equivalent to the Debtors Ledger. |
- (ii) The Invoice Register will record in numerical sequence the date, name of customer and the amount of the Invoices raised.
- (iii) Sales for the month will be the total of the Invoices in the Sales File for that month.
- (iv) On receipt of payment from a debtor, the relevant Invoice is transferred from the Unpaid File to the Paid File. Invoices are filed in alphabetical order according to customer in the Paid File.
- (v) A receipt in duplicate is issued upon payment of the Invoice by the debtor.
- (vi) The original copy of the receipt is sent to the customer. The duplicate is retained by the Accounts Department. From the duplicate receipt, enter the amount received in the Cash Book and extend it under the Sundry Debtors Control column. At the end of the month, the total of this column will be credited to the Debtor's Control Account.

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- (vii) At any time, the outstanding accounts (i. e. the total of the Invoices in the Unpaid File) will equal the balance of the Debtor's Control Account at the beginning of the month plus Sales to date (the current month's Sales File) less collections to-date (the total of the Sundry Debtors Control column in the Cash Book).
- (viii) At the end of each month, prepare a list of outstanding debtors by age analysis from the Unpaid File so that follow-up action may be taken on the accounts which exceed the allowed credit days.
- (ix) At the end of the financial year, a list of Sundry Debtors may be prepared from the Unpaid File.

B. From the Showroom

Sales from the Showroom may be in cash or credit.

- (i) For Cash Sales, the Showroom will issue a Cash Sales Memo in triplicate to be distributed as follows :-

Original:	to customer
Duplicate:	to File
Triplicate:	to Accounts Department

The Cash Sales Memo shall be filed in numerical order. The Accounts Department must ensure that every Cash Sales Memo issued is accounted for.

- (ii) For Credit Sales, 3 copies of the Credit Sales Memo (Sales Order) are issued. One copy is forwarded to the Accounts Department to raise the Invoice.
- (iii) The Showroom will replenish its stock from the Stores by issuing the Material Requisition when goods are sold. The quantity of the item sold will be recorded on the relevant Bin Card.
- (iv) The Administration Department on receipt of the Cash Sales Memo and Credit Sales Memo will enter the quantity, unit cost and balance of the item sold on the Stock Card before forwarding them to the Accounts Department.

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- (v) Invoices raised will be filed in the same 'Sales' and 'Unpaid' Files mentioned in A (i).

C. Accounting Procedure

The accounting entries to be recorded at the end of the month are :-

(i) Cash Sales

From the Cash Sales Memo:

Dr. Bank

Cr. Sales

Cr. Sales - Imported Goods

(ii) Credit Sales

From the Sales File:

Dr. Sundry Debtors Control

Cr. Sales

Cr. Sales - Imported Goods

(iii) Cost of Sales

For imported goods :

Dr. Cost of Sales - Imported Goods

Cr. Stock - Imported Goods

In the case of manufactured goods

Dr. Cost of Sales - Material

- Labour

- Overhead

Cr. Finished Goods.

PETTY CASH

To facilitate internal control on cash disbursements, all disbursements must be made by cheque. But this is not possible, when payments of trifle amounts must be made in cash frequently e. g. for taxi fares, postage, etc. It is therefore necessary to operate a Petty Cash Imprest Account to meet these daily sundry expenses.

- (i) A Petty Cash Book is kept to record the reimbursements received and the disbursements made.
- (ii) Depending on the requirement, maintain a fixed imprest amount of Petty Cash. The money shall be kept by the Cashier in a locked Cash Box.
- (iii) For any Petty Cash payments, a Petty Cash Voucher duly approved by a Departmental Head, together with the receipt or invoice must be submitted to support the claim.
- (iv) On receipt of the Petty Cash Voucher, the Cashier shall effect payment and the claimant shall sign the Voucher acknowledging receipt of payment. The Petty Cash Voucher and its supporting documents will then be cancelled by the Cashier stamping "Paid" and the "Date" on the documents.
- (v) The Petty Cash Voucher must be numbered according to the sequence of payment. Record the Petty Cash Voucher in numerical sequence in the Petty Cash Book.
- (vi) The Petty Cash Vouchers' receipts etc. are placed in the Petty Cash Box to account for money disbursed.
- (vii) At any time, the money and the Petty Cash Vouchers in the Petty Cash Box should equal the amount of the Petty Cash Imprested Account. The Accountant when making surprise checks on the Petty Cash float should do it in the presence of the Cashier.

This is to ensure that he is not responsible should there be a shortage of cash.

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- (viii) When the Fund is low, the Cashier shall total all the paid Petty Cash Vouchers and prepare a cheque Payment Voucher in duplicate requesting reimbursement for the exact amount of expenditures. The duplicate Voucher is kept in the Petty Cash Box until the money for replenishment is received. The original together with the Petty Cash Vouchers are forwarded to the Accountant for a cheque to be drawn.
- (ix) The Petty Cash Box must be locked. The original key for the Box will be kept by the Cashier, the duplicate to be kept in a sealed envelope by the Accountant.
- (x) Entries in the Petty Cash Book shall be posted to the respective expenses accounts in the General Ledger from the Payment Voucher.

PREPAYMENT AND ACCRUAL

At the end of each month, adjustments should be made in respect of prepaid expenses and also of expenses that have been incurred but have not been paid.

A. Prepayments

Normally, prepaid expenses include Insurance, Telephone, Property Tax etc. When payments are made, they are recorded as follows :

Dr. Prepayment

Cr. Bank

At the end of each month, determine the amount of prepayments that may be attributable to that month and adjust as follows :

Dr. The Relevant Expense Account(s)

Cr. Prepayment

B. Accruals

Accrued expenses include the following.

- (1) Water, power and light
- (2) CPF
- (3) Payroll Tax
- (4) Medical Fee
- (5) Interest on Long Term Loans
- (6) Interest on overdraft
- (7) Overhead expenses which relate to the period and are unpaid.

At the end of each month, determine the amount of accrued expenses and

Dr. The Relevant Expense Accounts

Cr. Accrued Expense

On payment of the expenses.

Dr. Accrued Expense

Cr. Bank.

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APPENDIX II

MANAGEMENT REPORTING FORMATS 1 - 9

W. D. SCOTT & CO. PTY. LTD.

DESIGN MOBEL (PTE) LIMITED

Balance Sheet as at

CAPITAL

Authorised Capital

Issued Capital

Profit and Loss Appropriation Account _____

LONG TERM LIABILITIES

Low Keat Bin

Ng Tai Keng

Whang Tar Liang

Whang Tar Chong

Whang Tar Kuay _____

CURRENT LIABILITIES

Bank Overdraft - Chartered Bank

Sundry Creditors

Accruals _____

PROVISIONS

Provision for Income Tax

Provision for Bad Debts _____

=====

W. D. SCOTT & CO. PTY. LTD.

FIXED ASSETS

Goldhill House

Machinery and Tools

Less provision for depreciation

Saw and Cutters

Less provision for depreciation

Motor Vehicles

Less provision for depreciation

Furniture and Fittings

Less provision for depreciation

Renovations

Electrical Fittings

Kiln

INTANGIBLE ASSETS

Preliminary Expenses

CURRENT ASSETS

Cash in Hand

United Overseas Bank

Deposits

Tender Deposits

Sundry Debtors

Stock

Finished Goods

Prepayments

Petty Cash Imprest Account

Work-in-Progress

Less

CURRENT LIABILITIES

WORKING CAPITAL

W. D. SCOTT & CO. PTY. LTD.

DESIGN MOBEL (PTE) LIMITED

Labour Productivity Performance Report for period
ending 15/6/70

Daily-rated Personnel

Date	Clock Hours	Productive Hours	Usage %	Total Cost	Productive Cost	Average Rate	Average Productive Rate
15/6/70	1224	1046	85.4%	\$1,384	\$1,178	\$1.1307	\$1.1262
30/6/70							
Total for Month							
Total todate 1/6/70							

DESIGN MOBEL (PTE) LIMITED

Sales & Cost of Sales Analysis for Period of _____

Invoice No.	Customer	Selling Price	Cost Estimate	Actual Costs			Profit	Remarks
				Material	Labour	Overhead		

DESIGN MOBEL (PTE) LIMITED

Cash Flow Statement for period ending _____

Source of Funds

Sundry Debtors

Cash Sales

Sale of Assets

Capital Inflow

Sundry Items

Disposition of Funds

Sundry Creditors

Cash Payments

Purchase of Fixed Assets

Sundry Items

Increase/Decrease in Funds

Balance C/F

FUNDS AVAILABLE

=====

Bank Overdraft

DESIGN MOBEL (PTE) LIMITED

Overhead Analysis for period ending _____

	PERIOD		Year Todate	
	Actual	Variance	Actual	Variance
Direct Labour				
Sub-contractors				
TOTAL PRODUCTIVE LABOUR				
<u>Variable Expenses</u>				
Non-Productive - Machine Break-down				
- Machine set-up time				
- Idle time				
- Miscellaneous				
Tea Break				
Machine Maintenance				
After Sales Service				
Overtime Penalty				
Annual Leave & Holiday Pay				
Sick Leave				
C. P. F.				
Payroll Tax				
Workers' Compensation Insurance				
Water, Power & Light				
Indirect Materials				

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	PERIOD		Year To date	
	Actual	Variance	Actual	Variance
<u>Variable Expenses (Cont'd)</u>				
Indirect Labour - Supervisors				
Apprentices				
- Storemen				
- Cleaners				
- Driver				
- Others				
Repair - Factory				
TOTAL VARIABLE EXPENSES				
% Productive Labour				
Variable Overhead				
Under/Over Absorption of Variable Overhead				
<u>Fixed Expenses</u>				
Indirect Labour - Management				
- Administration				
- Design				
- Showroom				
Directors' Fees				
Office & Godown Rent				
Factory Rent				
Telephone Expenses				
Stamps & Postage				
Motor Vehicle Expenses				
Stationery				
Printing Expenses				
Drawing and Artwork				
Books and Subscriptions				
Entertainment				

	PERIOD		Year Todate	
	Actual	Variance	Actual	Variance
<u>Fixed Expenses (Cont'd)</u>				
Travelling expenses				
Transport				
Renovation Written Off				
Property Tax				
Licence Fee				
Audit Fee				
Legal Fee				
Consultancy Fee				
Advertising Fee				
Food & Refreshment				
Depreciation				
Bank Charges				
Interest on Overdraft				
Interest on Long-Term Loans				
Insurance				
Bad Debts				
Miscellaneous Expenses				
Lorry Charges				
Showroom Expenses				
Repairs - Building				
TOTAL FIXED EXPENSES				
% Productive Labour				
TOTAL OVERHEAD EXPENSES				
% Productive Labour				

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FORM 8

DESIGN MOBEL (PTE) LIMITED

Orders Received and Net Work on Hand as at

Balance of Work on Hand as at

Order Intake for the month

Less Work sold for the month

Net Work on Hand as at

DESIGN MOBEL (PTE) LIMITED

Fortnightly Progress Report

Job No.	Clients	Date Job Started	Contracted Delivery Date	Scheduled Delivery Date	WIP % Completed		Material		Labour					
					Material	Labour	Est. *	Actual+	Est. *	Actual+	Est. *	Actual+		

Jobs Completed in the Period

* Est. - Sales Estimates based on physical completion

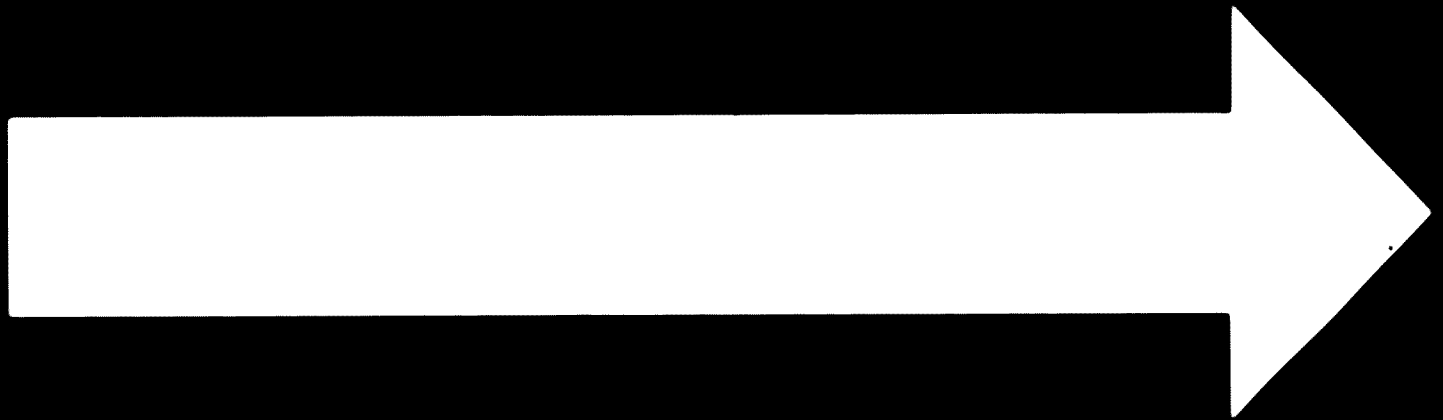
+ Actual - Actual Costs to date.

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APPENDIX III

BUDGET FORMATS 10-15

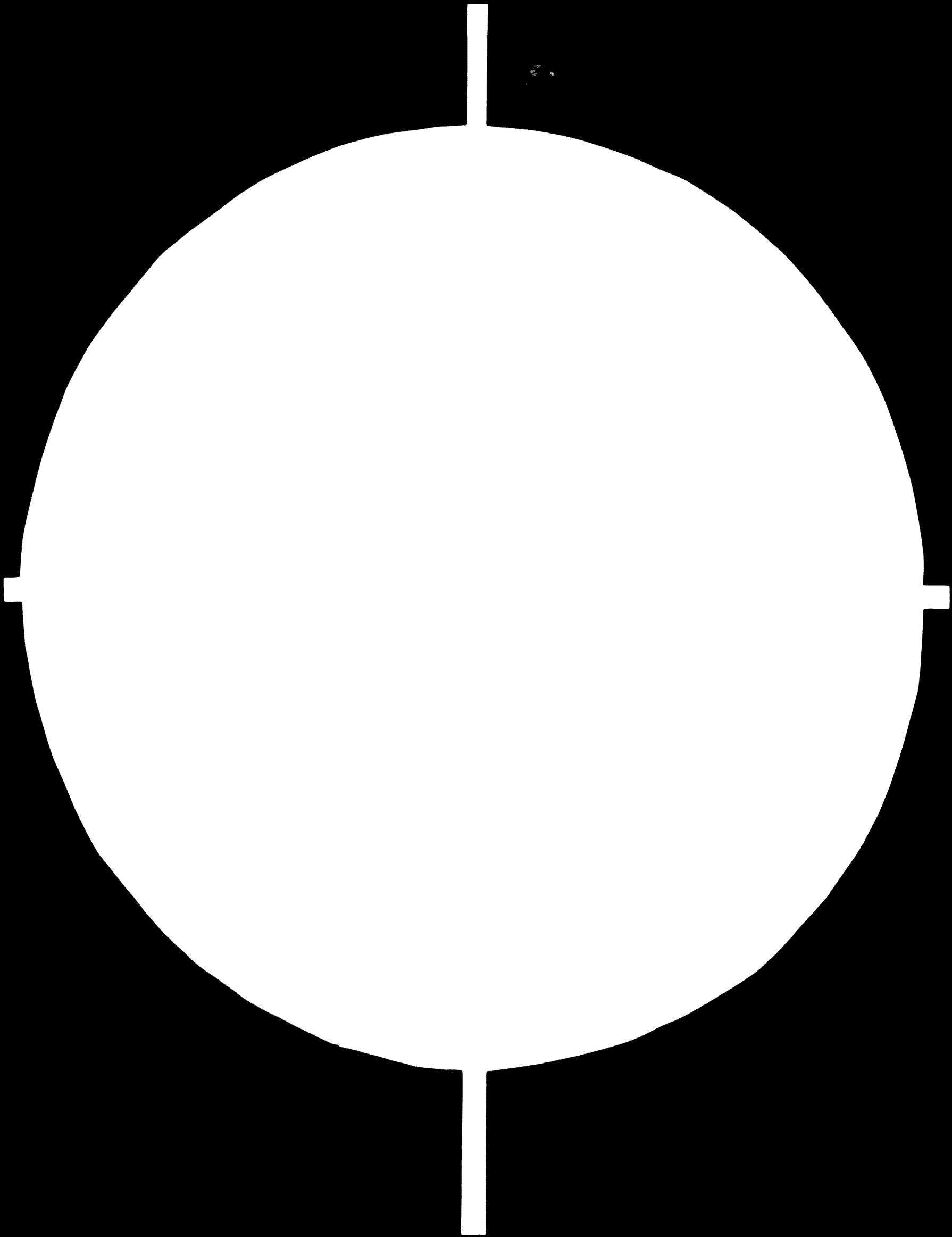
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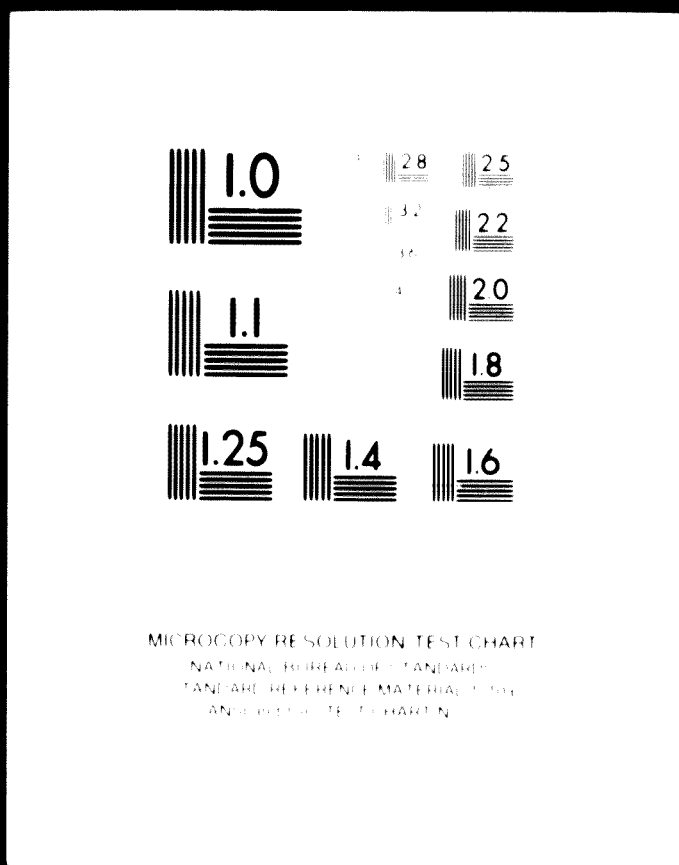
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APPENDIX IV

FORMS DESIGNED FOR THE COMPANY 16-25

DESIGN MOBEL (PTE) LIMITED

Purchase Requisition

Purchasing Officer,

Please purchase the following goods :-

No. _____

Requested by	Cost Code	Code No.	Description	Quantity required

Storekeeper

Date

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DESIGN MOBEL (PTE) LIMITED

Goods Received Note

Supplier: _____

Unit: _____

Location in Stores: _____

Quantity	Weight	P. O. No.	Description	Total

Storekeeper

Date

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DESIGN MOBEL (PTE) LIMITED

Bin Card

Code No. _____

No. _____

Article _____

Unit _____

Date	Receipt	Issue	Balance

DESIGN MOBEL (PTE) LIMITED

Daily Time Sheet

W. D. SCOTT & CO. PTY. LTD.

Name	From	To	Hours	Productive Time				Non-productive Time					Total										
				Job No.	Job No.	Job No.	Total	1	2	3	4	5											

1. Annual/Sick Leave
2. Machine Breakdown
3. Machine Set-up Time
4. Idle Time
5. Miscellaneous.

DESIGN MOBEL (PTE) LIMITED

Journal Voucher

W. D. SCOTT & CO. PTY. LTD.

No. _____

Date _____

Accounts	Debit	Credit

Particulars

Authorised by: _____

Posted by: _____

W. D. SCOTT & CO. PTY. LTD.

APPENDIX V

CHART OF ACCOUNTS

W. D. SCOTT & CO. PTY. LTD.

CHART OF ACCOUNTS (Cont'd)

FIXED ASSETS

040	Goldhill House (Showroom)
041	Machinery & Tools
042	Saw & Cutters
043	Motor Vehicles
044	Furniture & Fittings
045	Renovations
046	Electrical Fittings
047	Kiln

INTANGIBLE ASSETS

050	Preliminary Expenses
-----	----------------------

CURRENT ASSETS

060	Cash in Hand
061	United Overseas Bank
062	Deposits
063	Tender Deposits
064	Sundry Debtors Control Account
065	Stock Account
066	Finished Goods Account
067	Prepayments
068	Petty Cash Imprest Account
069	Work-in-Progress - Labour
070	-Overhead
071	-Material
072	Imported Goods
073	Samples

W. D. SCOTT & CO. PTY. LTD.

CHART OF ACCOUNTS (Cont'd)

SALES

100	Sales
101	Sundry Receipts
102	Sale of Fixed Assets
103	Sale - Imported Goods

COST OF SALES

200	Cost of Sales - Labour
201	- Overhead
202	- Material
203	Cost of Sales - Imported Goods

OVERHEAD EXPENSES

VARIABLE

300	Non-Productive Labour - machine breakdown
301	- machine set-up time
302	- idle time
303/1	After Sales Service - miscellaneous
303/2	Tea Break
304	Overtime Penalty
305	Annual Leave & Holiday Pay
306	Sick Leave
307	C. P. F.
308	Payroll Tax
309	Workers' Compensation Insurance
310	Water, Power & Light
311	Indirect Materials
312	Repair - Factory

W. D. SCOTT & CO. PTY. LTD.

CHART OF ACCOUNTS (Cont'd)

SEMI-VARIABLE

400	Indirect Labour - Supervisors
401	- Apprentices
402	- Others
403	- Storemen
404	- Cleaners
405	- Driver
406	Machine Maintenance

FIXED EXPENSES

500	Indirect Labour - Management
501	- Administration
502	- Design
503	- Showroom
504	Directors' Fees
505	Office & Godown Rent
506	Factory Rent
507	Telephone Expenses
508	Telegram Expenses
509	Stamps & Postages
510	Motor Vehicle Expenses
511	Stationery
512	Printing Expenses
513	Drawing & Artwork
514	Books & Subscriptions
515	Entertainment

W. D. SCOTT & CO. PTY. LTD.

CHART OF ACCOUNTS (Cont'd)

FIXED EXPENSES (Cont'd)

516	Travelling Expenses
517	Transport
518	Car Station Fee
519	Medical Fee
520	Licence Fee
521	Audit Fee
522	Legal Fee
523	Consultancy Fee
524	Advertising Fee
525	Food & Refreshment
526	Depreciation - Plant & Machinery
527	- Vehicles
528	- Furniture & Fittings
529	Bank Charges
530	Interest on Overdraft
531	Interest on Long-Term Loans
532	Insurance
533	Bad Debts
534	Miscellaneous Expenses
535	Lorry Charges
536	Showroom Expenses
537	Repairs - Building
538	Renovation Written Off

W. D. SCOTT & CO. PTY. LTD.

CHART OF ACCOUNTS (Cont'd)

CLEARING ACCOUNTS

701	Payroll
702	Income Tax
703	C. P. F.
704	Advance/Miscellaneous

OVERHEAD RECOVERY

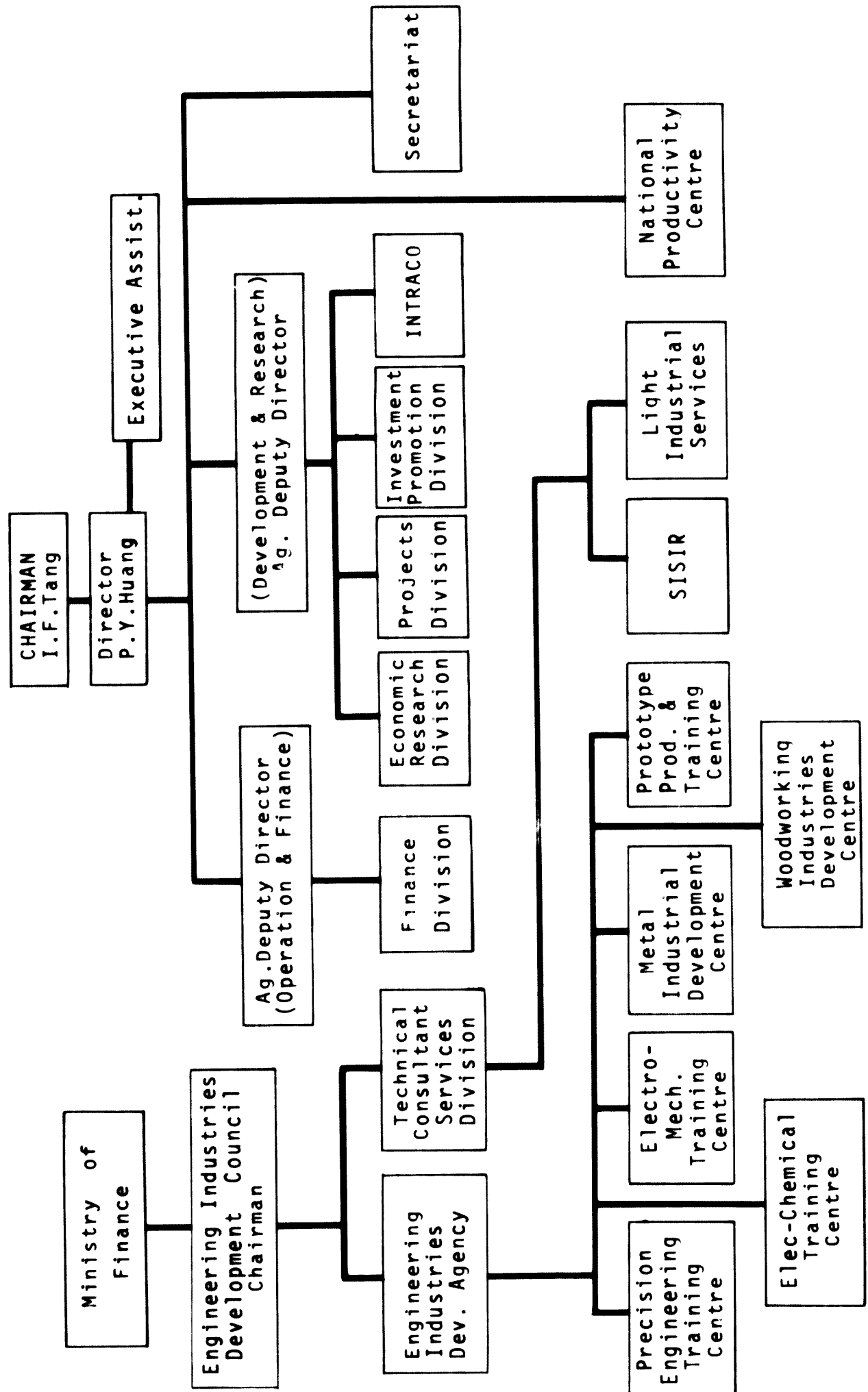
900	Overhead Recovery
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ECONOMIC DEVELOPMENT BOARD

PROVISIONAL ORGANISATIONAL CHART

ECONOMIC DEVELOPMENT BOARD

(ORGANISATION CHART - EFFECTIVE 1st. SEPTEMBER 1968)



APPENDIX IV

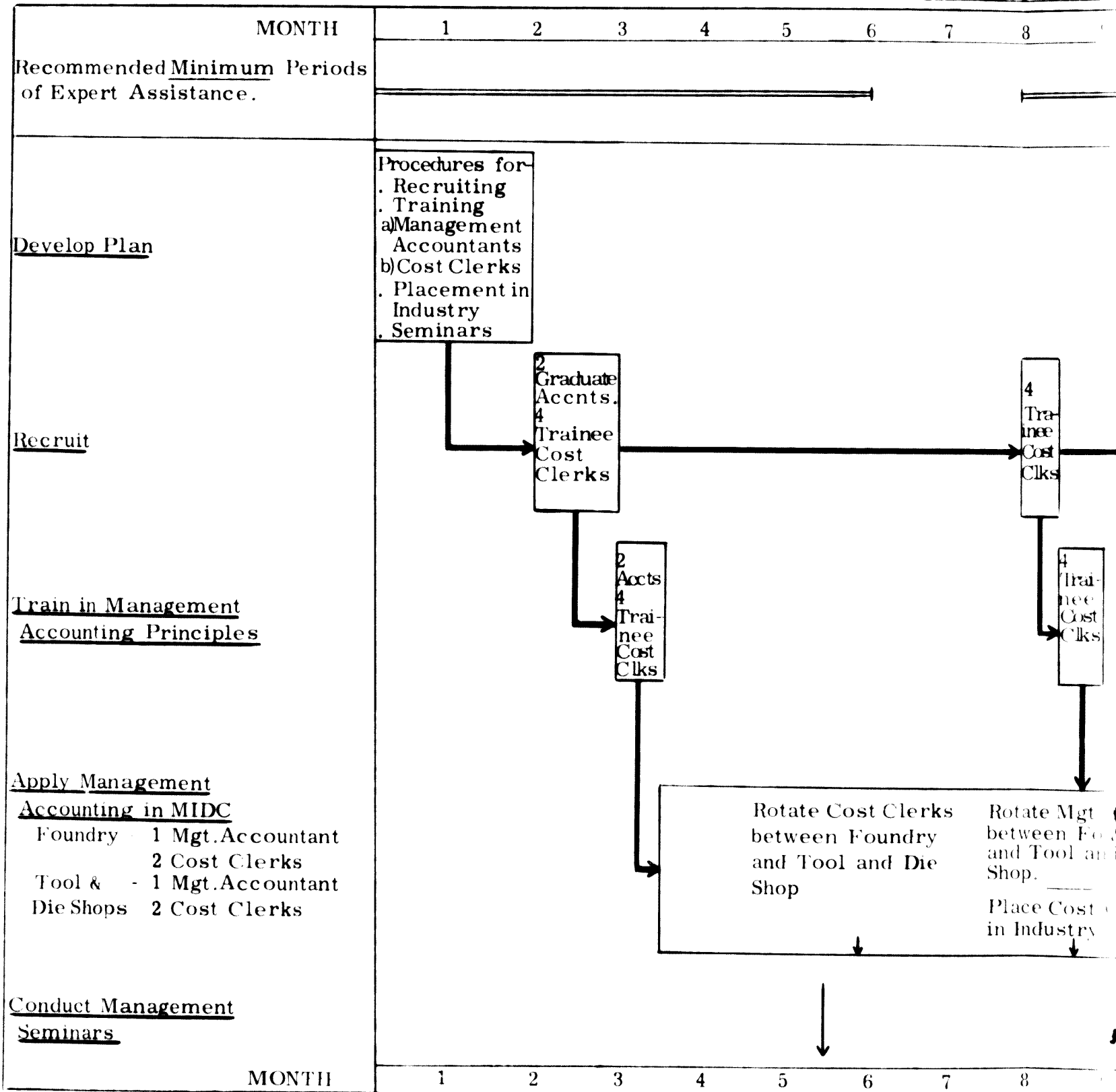
DEVELOPING MANAGEMENT ACCOUNTING

FOR

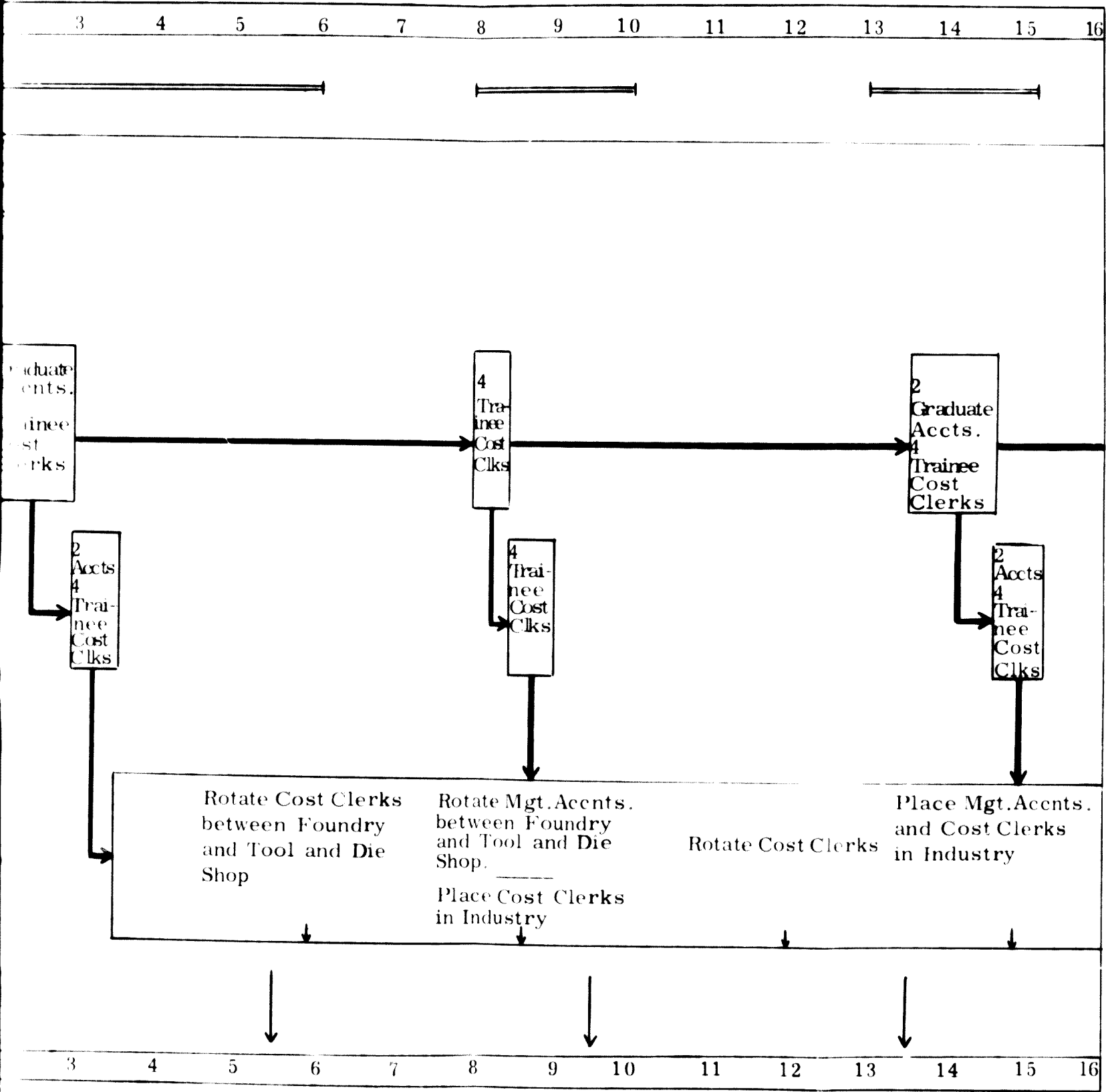
SINGAPORE

DEVELOPING MANAGEMENT ACCOUNTING IN SINGAPORE

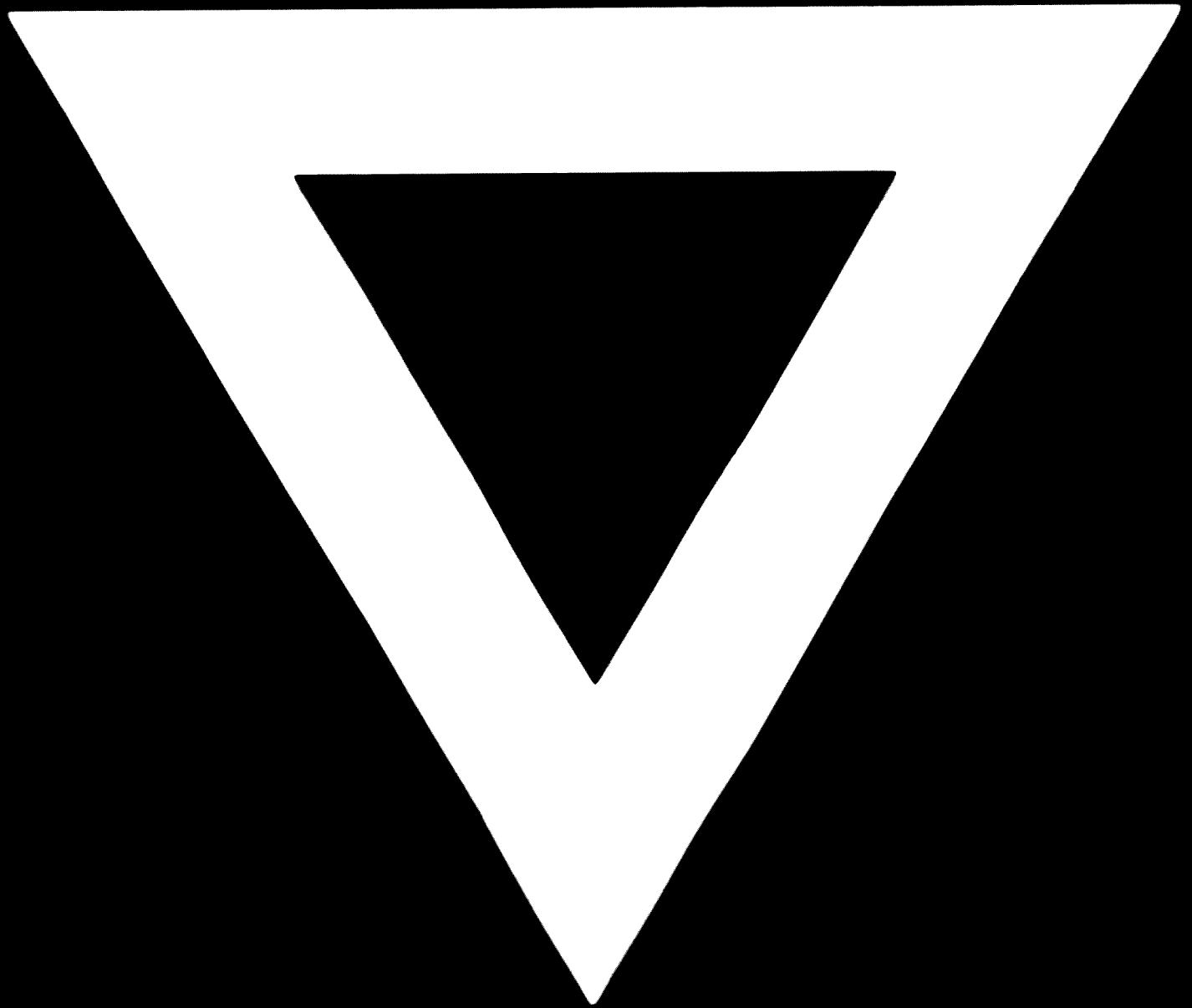
A PROGRAMME TO IMPLEMENT A MANAGEMENT ACCOUNTING AND CLERICAL



PHASE I: A MANAGEMENT ACCOUNTING AND CLERICAL EXPERIENCE PROJECT



C-614



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AD.86.07

ILL 5.5+10