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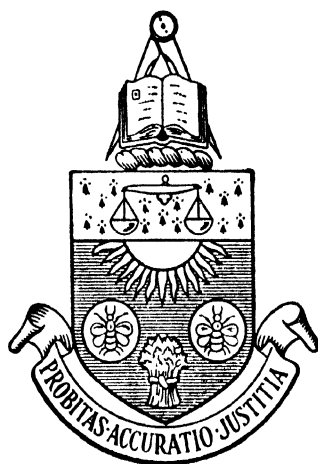
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THE PRESENTATION OF INFORMATION TO MANAGEMENT

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FOREWORD

The Institute now publishes the fourth of the series of booklets summarizing the results of planned research undertaken by the Branches.

This manual outlines the information usually required by all grades of Management and gives useful advice on its preparation and presentation. It is complementary to earlier research publications which endeavoured to describe the service of Cost Accountancy to Management.

To all those who have rendered loyal service in its compilation our best thanks are due.

The booklet is published with the consent of the Council, and I commend it to Members and Students of the Institute and to others interested in the subject.

President.

April, 1950.

SECTION A

INTRODUCTION

1.—The Need for Information

It is a commonplace to state that management is both an art and a science; but while the statement may be trite, it is nevertheless true. As an art, it offers scope for the exercise of personal qualities such as creative ability, leadership and judgment; but increased competition and the need for ever higher efficiency, the continued trend towards the embodiment of enterprise in large units, and the complexities of the problems which face modern industry and commerce—all these require more and more the enlistment of scientific method to supplement the personal abilities and knowledge used in management.

Information is the life blood of management. Particularly is this the case in regard to the scientific methods of management. Problems of a constantly recurring type are subjected to common methods and standards of measurement by specialists, and the subsequent circulation of information has as its object the initiation of any necessary managerial action. The efficiency of an organisation is to a certain extent governed by the pertinence and regularity of the information provided to those who exercise the functions of management. The ultimate effectiveness of this information is in itself dependent upon the form and timing of its presentation.

2.—The Definition of Management

The Urwick Committee on Education for Management defined *management as all those activities involving responsibility for the work of others.*

In normal usage the word *management* is also used to denote the person or persons who perform the acts of managing, and it is this secondary meaning which is implied in the title of this booklet. Our derived definition of *management* therefore becomes: *all those responsible for the work of others.*

This is admittedly a wide conception of the term and one which might not always be acceptable, but nevertheless it is considered to be entirely appropriate to our purpose. It embraces the whole hierarchy of management—the board of directors, divisional, departmental and sectional managers, superintendents, foremen, and charge hands. It includes those whose duties involve the formulation of policy and those responsible for its execution.

3.—The Divisions and Levels of Management

It is necessary to consider the elements entering into the composition of management, and their inter-relationship.

The activities relating to industrial and commercial enterprise fall into the following main divisions:—

- (a) General (or top level) Management, including the selection of channels of enterprise, the assumption of risks, the definition of major aims and policy, and the co-ordination of efforts of all divisions towards the common purpose.
- (b) Selling and Distribution, including Market Research, Warehousing, and Outward Transport.
- (c) Production, including subsidiary specialist functions such as Buying, Inspection, Planning, Progress, Maintenance, Personnel Management, etc.
- (d) Financial and Office Management—this division is concerned to a considerable extent with the provision of services and information to the other divisions and to the proprietors of the business.

It is possible to classify management personnel not only by divisions, reflecting the subject matter and field of responsibilities, but also by levels in accordance with lines of delegated authority. For example, there may be:—

- (1) a Chairman and Board of Directors
- (2) a Managing Director
- (3) other Working Directors
- (4) Divisional Managers
- (5) Departmental Managers
- (6) Shop Superintendents
- (7) Foremen
- (8) Charge Hands.

The plan of departmental organisation in any one concern will depend to a considerable extent on the type of industry or trade, and on the characteristics and history of that particular undertaking. It is not suggested that the vesting of authority in individuals must necessarily accord with the designedly broad classification of functions given earlier.

For example, Buying is a subsidiary function of Production only in the sense that the acquisition of materials is a necessary first step in Production; and in that the production programme must be a major consideration in Buying Department operations. But there are other considerations, and it is not suggested that the head of the Buying Department would be necessarily or even usually responsible to a Production Director or Manager.

It must be remembered that the functions, responsibilities and status of an executive in one undertaking may be very different from those of an executive with a similar designation in another organisation.

4.—Types of Information

Information for management can be classified under two headings:—

- (a) Information supplied at irregular intervals for particular purposes, often upon specific request.
- (b) Information embodied in routine reports, rendered at regular intervals, in forms which become more or less standardised.

The subject matter of information, the amount of detail, and the methods of presentation are largely determined by the type of industry, the size and other characteristics of the particular undertaking, and by the division and level of management to which the information is rendered in each case.

The higher levels of management will normally require reports that are broad in scope and from which the detail has been eliminated, so that only salient features are depicted. Summarised information will be particularly useful, but the supporting detail should be readily available on request.

Information for lower levels of management should be progressively more detailed, and related to functions which are more specialised in scope.

SECTION B

GENERAL CONSIDERATIONS RELATING TO THE PREPARATION AND PRESENTATION OF INFORMATION

1.—Title

Each report should bear an apt euphonious title.

2.—First essentials

The report must clearly show:—

- (a) where appropriate, the period of time to which it relates;
- (b) the date on which it is rendered;
- (c) the units (£, tons, hours, etc.) in which any quantitative information is expressed;
- (d) the name or initials of the person responsible for its presentation;
- (e) the name of the person to whom it is presented;
- (f) the name of all other persons who may be receiving the same report or a copy.

3.—Form of reports

The form and content of the report should, as far as possible, be suited to the mentality of the person using it, to the purpose for which it is required, and to the possible action which may ensue. Management is composed of human beings with varying temperaments and outlooks, and it is therefore undesirable to advocate uniformity in presentation.

Presentation will, however, be improved, and reports given added force if they are properly planned. For example, a suitable arrangement might be:—

- (a) a statement of the terms of reference or reason for the report.
- (b) the findings.
- (c) recommendations on action to be taken.

The general style, lay-out, and wording should be as simple as possible. The more this aim is achieved, the more effective will the report be in its purpose. The effectiveness of Fig. 1, for example, is due in no small measure to its simplicity.

BUDGET SUMMARY

Summary of budgeted production, with anticipated sales value and contribution to fixed expenses and profit

1st January to 30th June, 1949

	Quantity	Sales Value		Variable Cost		Margin	% of Sales Value		Fixed Costs	% of Sales Value		Profit/Loss
		£		£			£			£		
Product Group 1 ..	Tons 300	£ 30,000		£ 7,000		£ 23,000	77		£ 3,500	12		£ 19,500
" 2 ..	350	50,000		20,000		30,000	60		20,000	40		10,000
" 3 ..	1,100	150,000		75,000		75,000	50		80,000	53		5,000
" 4 ..	—	75,000		50,000		25,000	33		20,000	27		5,000
Total ..		305,000		152,000		153,000	50		123,500	40		29,500

FIG. 1

Graphic forms of presentation are deservedly popular. They are well suited for the illustration of comparisons and trends; they allow a quick, full, and accurate appreciation of the facts which they portray. These advantages are well known, and yet it is doubtful whether graphic methods are used nearly as widely as they might be. It is not an uncommon experience to find that a graphic presentation of facts will lead to acceptance of a recommended course of action where other methods have failed.

With graphic methods some skill and care is needed particularly in regard to the scales used—bad scaling can result in a distorted and misleading picture.

Some consideration should be given to the manner in which the report will eventually be filed. With routine reports, each report should have its standard size and shape. Where an unusual size or shape cannot be avoided it may be helpful to present the report in or with a suitable file. By these measures recipients will be encouraged to keep the reports readily available for immediate reference.

4.—Timing and frequency of presentation

The frequency of routine reports is dependent upon a number of factors, which must be considered separately for each report. Of first importance is the frequency with which the information is needed by the recipient, particularly having regard to the effective action which may result from it. Secondly, there is the natural time cycle of the basic data from which the report is prepared—invoices, for example, are frequently handled on a monthly basis, wages on a weekly basis and so on. Lastly, the cost of preparing the report, not only in terms of money but in the time of available staff, must be weighed against possible benefits.

The time required for preparation should be reduced to a minimum; for routine reports, the period should be known, agreed and adhered to rigidly. Not only is it a waste of time and effort to prepare information which is too late to be of use and interest; of greater importance is the fact that the absence of information at the time when it is needed may mean either wrong decisions, a deferment of decision on matters which may be urgent, or even a complete failure to realise that action is necessary.

The argument for speed in presentation can, however, be overstated. Statistics of actual performance, for example, are inevitably “history” no matter how promptly presented, and they would be too late to affect that performance. It must be remembered that the purpose of such information is often to supplement the personal qualities and faculties of management—never to replace them. Demands for unreasonable speed in presentation must never be allowed to cover up a failure to exercise proper care in supervision or to conceal absence of a normal degree of intelligence in anticipation.

A great advantage of budgetary methods of control is that full and unhurried consideration of probable performance is made possible *before the event*.

As far as possible, on the grounds of courtesy and diplomacy, copies should be presented simultaneously to all recipients.

5.—Brevity

Reports should be so constituted as to require a minimum of time both in preparation and—even more particularly—in consideration. The complexities of present-day management, and the demands made on important executives, are such that there is rarely time available for the detailed study of voluminous reports and statistics. Reports should therefore be as brief as is consistent with pertinence and clarity. The form should be such that salient points are immediately apparent—summary results should stand out to catch the eye first. The aim should be to produce a precise concise statement, which leaves nothing unsaid that should be said, and nothing stated beyond that which is required to present a clear-cut picture of the matter being reported. “Padding” and verbose expression must be avoided at all costs.

The principle of “exceptions”—whereby reports are to a substantial degree limited to events which show variance from a predetermined plan by more than a given margin—enables consideration to be concentrated on those items most likely to require attention and action. Economy is effected in the amount of information presented.

It is sometimes recommended that information presented should be restricted to matters which are under the control of the recipient in each case, to allow a concentration on essentials and to reduce the volume of reports and statistics to a minimum. It is considered, however, that this principle can be applied only to a limited extent. To allow each section of the undertaking to make its maximum contribution *towards the common purpose*, to promote co-operation between sections, and to preserve flexibility in organisation, it is essential that every person concerned in management should be provided not only with information bearing directly on his own department, but also with a certain amount of information on the work of related departments and of the undertaking as a whole.

6.—Accuracy

Information should be as accurate as possible, subject to the following considerations:—

- (a) The purpose of the report may not require a high degree of accuracy. For example, it commonly happens that information is requested on past performance for use only as a guide to the future. Under such circumstances, detailed accuracy may well be pointless.
- (b) Clarity will be improved if unnecessary detail (for example shillings and pence when dealing with large sums) is suppressed.
- (c) Accuracy should not involve an excessive cost of preparation, nor should it be achieved at the sacrifice of promptitude in presentation.

7.—Co-ordination of statistics

It is important that all statistical information circulating in an organisation should have a sound basis, and that the figures used in and by different departments should be properly co-ordinated. Where unrelated or unco-ordinated sets of figures are used, errors and mis-

understandings are bound to arise, confidence is lessened, and it is unlikely that full and effective use will be made of the information available.

For example, figures relating to orders on hand are frequently arrived at by accumulating quantities, weights or values of orders received and deducting those of orders despatched. Before the order is executed, its *exact* quantity, weight or value may not be known and theoretical or calculated figures may be used. If on its subsequent despatch *actual* quantity, weight or value is deducted from the orders on hand figures, the latter will contain a small error or difference. If such an error arises on every order, the total difference may eventually be considerable and may make the orders on hand figures substantially inaccurate.

A problem such as this can be overcome by any one of several methods. But if each department is left to find its own solution, it is unlikely that the same method will be used by all departments, and different treatments will result in different figures.

The principle should be that figures and statistics used in all divisions and at all levels should be soundly based and perfectly related, and should appear in summary form in the reports rendered to general management. This will be achieved only if one person, preferably the accountant or budget officer, is made responsible for defining the detailed methods and principles by which the figures are to be prepared.

8.—Comparisons

Wherever possible, reports of actual performance should be presented against a background or in a relationship which will facilitate a correct assessment of performance.

For example, actual performance can be shown in relation to budget, or to previous periods. The performance of one department can be compared with others. Alternatively, one factor of performance can be related to another (selling expenses with sales, cost with selling price, etc.).

Presented in this manner reports gain considerably in meaning. It is obvious, however, that for this reason as much care must be given to the selection and presentation of background conditions, as to the main report. Comparisons must be true and fair, or attention must be drawn to points of difference

9.—Elimination of redundant reports

A constant watch must be maintained with a view to the elimination of reports which have become redundant, and to making revisions necessitated by changing conditions.

It is sometimes found that the submission at regular intervals of statistical reports in standardised forms results in a progressively declining interest on the part of recipients, and staleness develops. Where it is known that no use is made of the information presented, the form, content, timing, and all other circumstances should be immediately investigated.

SECTION C

THE REQUIREMENTS OF GENERAL MANAGEMENT

1.—General considerations

The functions of General Management, the duties of which are briefly defined in Section A, Paragraph 3 (a), are exercised in two capacities:—

- (a) By the Board of Directors (or Management), who initiate and control major aims and policy, and
- (b) by the Managing Director (or General Manager), who, as the chief executive, has the responsibility for carrying out the policies of the Board and co-ordinating the activities of the various divisions of the undertaking to achieve the results planned.

The size of the undertaking naturally has an influence upon the scope of the duties which the chief executive must perform, and in comparatively small businesses he will possibly have departmental responsibilities as well.

When individual undertakings reach a certain size, however, it is necessary for the chief executive to be free from duties other than those concerned purely with co-ordination and policy. The conduct of day-to-day affairs must be delegated to others, and he will concern himself more with matters of a comparatively long-term nature. He must maintain close touch with all developments of major importance, but must avoid becoming too much involved in matters of detail.

The ultimate aim towards which all the policies and activities of a normal business are directed is the attainment of the desired amount of net profit. Undertakings which do not operate on a profit basis are nevertheless usually subject to financial limitation and control to a degree which gives them the parallel aim of achieving a high standard of economic efficiency.

Information supplied to General Management, therefore, will show a preponderance towards expression in monetary values, and will tend to concentrate upon the commercial and financial aspects, emphasizing the effect of activities in all divisions upon the financial position of the enterprise. This tendency will apply particularly to information supplied for use by the Board.

Methods of control adopted by General Managements necessarily vary to suit the organisational structure of the undertaking and its Board, with a consequent influence upon the type of information required and its method and frequency of presentation.

In this respect a contrast can be made between:—

- (a) A Board of Directors, all members of which are full time working directors having executive responsibilities in addition to their duties as Directors, and
- (b) a Board of Directors, which contains a high proportion of part-time “outside” Directors having no functional responsibilities.

Similarly, a contrast can be made between:—

- (c) An undertaking having one location only, where General Management can be in close daily contact with all divisions of the business, and
- (d) an undertaking having operating units in widely separated localities; here the control is necessarily more remote and personal contacts not so readily possible.

In cases (a) and (c) the close daily contact with the business may mean that information will be available to General Management through personal contacts, whereas under (b) and (d) written reports would be required. As a result, in the former case, reports may be considerably condensed and may be required less frequently. The purely informatory statistics regularly produced would not have the same significance as in the case of an organisation where close personal contact is not possible.

For the purpose of describing the differing types of information and statistical reports which General Management will require, it is appropriate to deal with them under the two headings previously mentioned in Section A.4, namely:—

- (a) The routine information supplied at regular intervals to enable adequate control to be exercised over the general running of the undertaking.
- (b) The special reports produced at irregular intervals to cover extraordinary or unusual trends or events. They may be rendered in response to specific requests, or they may be initiated by a functional executive on a matter requiring action at the highest level.

2.—Routine Information

In a work of this nature it is only possible to deal with the types of management information which have a fairly general application. It is obvious, therefore, that anything in the nature of a complete list is impossible, as there circulates in every business a certain amount of information of a type peculiar to that business. The examples which follow are of types of information which would or should be available to general management in most businesses of average size.

PROFIT AND LOSS STATEMENT—JANUARY, 1949

Sheet 1—Summary

	Product Group 1		Product Group 2		Product Group 3		Jobbing Dept.		Total	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
	£	£	£	£	£	£	£	£	£	£
Sales
Less standard factory cost of sales
Gross Profit on standard cost (see sheets 2 to 5)
Factory Variances (see Sheet 6)
<hr/>										
Selling Expenses (see Sheet 7)
Administration Expenses (see Sheet 8)
Net Profit

FIG. 2

(a) *Budgets*

The Summary or Master Budget should be prepared and submitted in advance of the period to which it relates. It will show the broad aims and plans of each main division of management and of the undertaking as a whole, and will give a forecast of the financial effects. (See Fig. 1.)

In the Master Budget much of the detail of Manufacturing and Trading Budgets will be eliminated, but the detail budgets should be available when the Master Budget is under consideration.

Consideration and discussion of the budgets gives general management an excellent opportunity to inform and instruct executives on major aims and policy.

Budgets of Capital Expenditure will usually cover a longer term. They will reflect managements' policy in regard to the renewal, modernisation and extension of capital equipment and premises.

Budgets for the control of cash and liquid assets would be prepared and considered at shorter intervals.

(b) *Monthly or Quarterly Accounts and Balance Sheet*

Whether the accounts should be monthly or quarterly must depend upon individual circumstances, such as the type and size of business and the extent to which other financial information has been developed.

Where control is exercised from a distance and close and frequent contact with the business is not possible, management will be more reliant upon financial reports, which must, therefore, be rendered more frequently.

The form of the accounts should be designed to reveal the effect on profits of activities in relation to each main department, product or group of products. (See Fig. 2.) Where possible, statistics of production and sales should be correlated with the financial information.

Where budgetary control is in operation, actual results should be related to the budget. The advance consideration previously given to the budget should allow the elimination of much detail from the presentation of actual results, and should make it possible for due emphasis to be placed on departures from the planned performance.

The Balance Sheet should include notes or subsidiary statements drawing attention to any important movements, actual or imminent, of capital to particular groups or forms of assets.

(c) *Major Statistics of Orders Received, Sales and Production*

The volume of business is, in the majority of undertakings, the most important single factor affecting profits. Apart from normal profit margins, the incidence of fixed overhead expenses is such that variations in the level of activity can have altogether disproportionate effects on net profit.

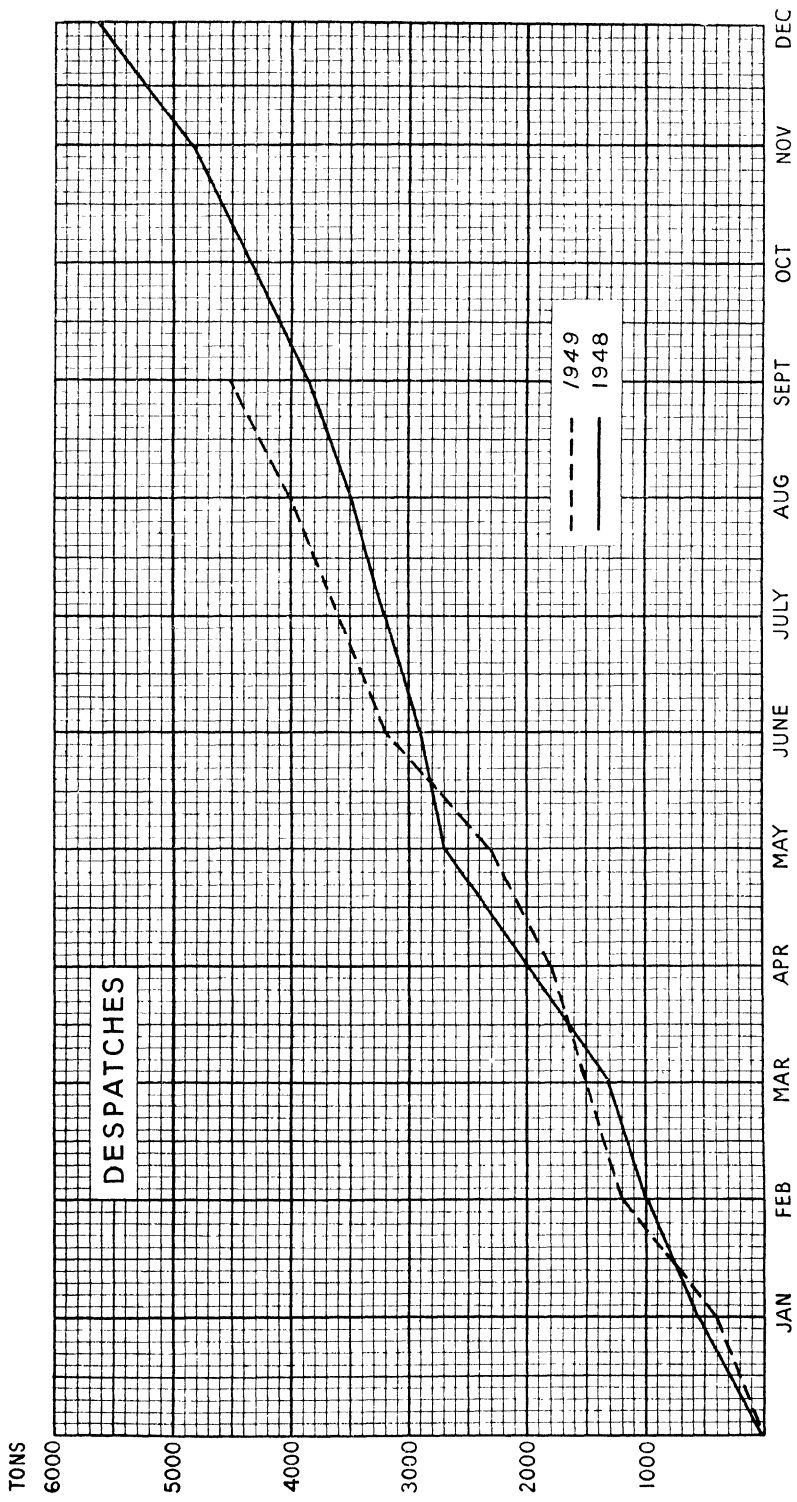


FIG 3.

SUMMARY OF ORDERS RECEIVED

1st January to 31st May, 1949

Area	Product Group 1		Product Group 2		Product Group 3		Total		
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Difference
	£	£	£	£	£	£	£	£	£
Home									
North ..									
South ..									
East ..									
West ..									
Midlands									
Scotland ..									
etc.									
Total Home									
Export									
U.S.A. ..									
Canada ..									
Argentine									
etc.									
Total Export									
Total, Home and Export									

FIG. 4

Furthermore, in the long run the very existence of a business, and its value as a going concern, is dependent upon the maintenance of a minimum level of activity.

For these reasons, statistics of orders received and on hand, sales, and production are of the greatest importance to general management. From time to time they may indicate the need to make adjustments of productive capacity, or of the direction and pressure of sales efforts.

The comparatively simple nature of these statistics should make them more quickly available than the rather more complex financial and cost analyses relating to the same period. This gives them an added value inasmuch as they may give the earliest indications of changing fortunes.

In general, the statistics should deal separately with each main product or group of products, and should be expressed in quantitative units or value. Figs. 3 and 4 are examples.

(d) *Cost Reports*

In many businesses the most important function of the cost system, from the point of view of general management, is the provision of information necessary for the purposes of (a) the preparation and interpretation of short term profit and loss accounts, and (b) the operation of systems of budgetary control. To this extent the service to general management may be of an indirect nature.

Costing information is necessarily concerned considerably with detail. Such detailed information will be required by other divisions and levels of management, but it has already been stated that in the normal course of events general management would avoid becoming involved in matters of detail, particularly where it arises and is presented as a matter of routine.

To the extent that general management needs to supervise and to co-ordinate the work of other divisions, copies or summaries of some of the costing information supplied to those divisions may be furnished to general management.

The selection can be made only in the light of individual circumstances. It should be made with a view to keeping general management regularly informed of the efficiency and effectiveness with which each major division of the undertaking is operated. A small number of routine reports carefully selected is preferable to a mass of information much of which general management may have neither the time nor the need to consider. In any case routine information can be supplemented by special reports as the need arises.

(e) *Reports on Research and Development*

The progress made on research and development of new and existing products and production methods should be reported at regular intervals.

The very nature of research and development work makes it difficult to lay down requirements as to rates of progress. For this reason there is the greater need for a regular review of achievements.

3.—Special Reports

Occasions will frequently arise in which particular problems are made the subject of special reports to general management.

The reports may be rendered at the request of general management or on the initiative of the person making the report. They may in some cases arise from the need for more detailed information on matters of interest first revealed in routine reports.

These reports will, of course, range over a very wide field. Here it is only necessary to give a limited number of examples of the matters which would be treated, as follows:—

- (a) Political and economic developments at home and abroad—tariffs, restrictions on imports, nationalisation of industries, price controls, quotas, materials shortages, negotiations with government departments.
- (b) Results of Market Analyses and Sales Research, including methods of distribution.
- (c) Materials—reports by the Buyer on purchasing problems—by the Cost Accountant on the implications of price movements.
- (d) Technological developments in the industry; patent rights.
- (e) Information about competitive products.
- (f) Comparative performances and costs of existing production plant and more up-to-date equipment.
- (g) Labour supply and turnover, wage negotiations, welfare facilities and training schemes for operators and executives.
- (h) Important matters revealed by the costing system, and the results in terms of costs of contemplated alternative lines of action.
- (i) Taxation legislation and its effect on profits.
- (j) Superannuation and long-service payment schemes.
- (k) Trade Association matters.
- (l) Reports by the Secretary on Company matters and legal obligations.
- (m) Reports by consultants and outside advisors on financial, commercial, and management problems, including recommendations by auditors.

SECTION D

THE REQUIREMENTS OF SALES MANAGEMENT

1.—Definition of functions

For the purpose of this book the functions of the sales division of management are taken to include the following:—

- (a) Selling, including advertising, and sales promotion;
- (b) Warehousing;
- (c) Transportation and delivery;
- (d) Office administration, including:—
 - (1) estimating and price fixing;
 - (2) credit control and accounts collection;
 - (3) order registration and analysis;
 - (4) sales invoicing.

These functions might not all be directly controlled by the sales division. Items (b) and (c) may be connected to a varying degree with manufacturing activities, and items (d) (2) and (d) (4) with accounting. But it is important to realise that these functions are all mainly related to *goods sold*.

2.—Selling

First in importance will be reports showing the *measure* of performance. This will be revealed by periodic statements of actual sales, suitably analysed and compared with planned or potential performance. The basis may be either *Orders Received* or *Goods Despatched and Invoiced*, and results may be expressed in quantitative units of the product or by value.

The method of analysis is important. Much will depend upon the type of industry and the structure of the selling organisation. Analysis may be by:—

- (a) Individual products or groups of products;
- (b) salesmen, agents, or other responsible officials;
- (c) markets, classified on geographical or other suitable bases;
- (d) customers.

Other methods may be applied, according to particular needs. One or more methods may be used, either separately or in combination.

The form of presentation, and particularly the amount of detail, will depend in each case on the level of management to which information is being rendered. Figs. 4 and 5 for example, show suggested methods of treatment for information supplied to a general sales manager and an area sales manager respectively.

The sales division will also be interested in information relating to the volume and types of orders on hand. This interest arises firstly from a need for information on the extent to which the sales division succeeds in maintaining an adequate load on production facilities; and secondly in order that the sales division shall be correctly informed in regard to current delivery periods. Fig. 6 is an example of a summary of orders on hand.

In most industries it is useful to maintain a continuous record of the sales made to each customer. Additional information, such as enquiries received, complaints, visits of representatives, changes of ownership, etc., may also be recorded. A complete history is thus readily available, and any unusual trends may be brought to the notice of the appropriate section of the sales organisation.

The number and incidence of complaints and of after-sales servicing should also be the subject of appropriate reports.

3.—Selling Prices

In industries where standard products are sold at varying prices in different markets or to different classes of customers, sales would also be analysed to reveal the proportions of total sales at each price level, and the consequent overall average selling price. In view of the effect on profits it may at times be necessary to exercise control on the direction in which goods are to be marketed.

For fixing selling prices comprehensive information on product costs and profit margins will be necessary. (See Figs. 7 and 8.) In jobbing industries it is particularly important that comparisons should be available continuously of actual costs and selling prices, as a check on the accuracy of estimating and price fixing. Where the results shown are unsatisfactory it does not of course follow that the cause is necessarily faulty estimating, and in such cases a more detailed investigation should be pursued before conclusions are drawn.

Wherever possible the sales division should be given advance information on impending changes in wage levels, material prices, etc., in order that the most suitable courses of action may be adopted in regard to prices and general sales policy.

It is necessary to know the number of orders obtained in relation to quotations submitted, to ensure that the proportion of orders lost is not unduly high. Where an important order is lost a special report might be called for from the sales representative concerned.

4.—Selling Expenses

Reports should be presented showing the *efficiency* of selling, in terms of cost. Selling expenses should be analysed and shown in relation to:—

- (a) Orders obtained or sales invoiced;
- (b) the sales expense budget.

The method of analysis will depend upon the characteristics of the business. The methods outlined for orders or sales in paragraph 2 might be used. In addition analysis could be by nature of expense, e.g., salaries, commission, travelling expenses, product servicing, etc. An example is given in Fig. 9.

The trend of unit costs (*i.e.*, selling expenses per unit of the product, or as a percentage of turnover) should be clearly revealed.

ORDERS RECEIVED—NORTHERN AREA

1st January to 31st May, 1949

Representative	Actual	<i>Budget</i>	Difference Over/Under
	£	£	£
Mr. Jones			
„ Elwell			
„ Harris			
„ Macdonald			
„ Smith, J.			
„ Smith, W.			
„ Arnold			
„ James			
„ Hunter			
„ Williams			
„ Walters			
„ Townsend			
„ Turner			
„ Travers			
„ Tranter			
Total			
Summary			
Products Group 1			
„ „ 2			
„ „ 3			
Total			

FIG. 5

The orders of each representative could be further analysed by customers, if necessary.

ROLLING DEPT.

	Black	Plated	Special Finishes	Total
	Tons	Tons	Tons	Tons
Class A.				
Size 1				
2				
3				
4				
5				
6				
 Class B.				
Size 1				
2				
3				
4				
5				
6				
 Class C.				
Size 1				
2				
3				
4				
5				
6				
 Total ..				

FIG. 6
28

5.—Warehousing

Warehouse management involves the maintenance of stocks adequate to meet probable demands, but with the avoidance of excessive stocks which would tie up storage space unnecessarily and which might deteriorate or become obsolete. These aims would normally be best achieved by the establishment of sound methods of control, based on maximum and minimum stock levels for each item, related to average demands and the period required for replenishment.

The attention of management should be drawn to excessive or obsolete stocks and any appreciable shortages or losses by deterioration; and to items where shortage of supply affects delivery periods.

Cost reports should include sections showing warehouse expenses suitably analysed. Analysis may be on one or more of the following bases:—

- (a) By nature of expense (salaries, rent, heating, repairs, etc.);
- (b) by individual warehouses;
- (c) by products or groups of product.

6.—Transportation

The effectiveness and cost of transportation is mainly dependent upon the method of delivery, the distances to be covered, and the degree of efficiency and economy attained in the loading, running and maintenance of transport vehicles.

The information necessary for the control of these factors will be:—

- (a) Unit costs per product or group of products, based upon weight, packages, or sales value;
- (b) analyses and comparisons of such costs according to methods and localities of delivery.

Costs of operating transport vehicles should, where possible, be compared with rates charged by outside haulage contractors.

Where a fleet of transport vehicles is operated, detailed records of performance and costs should be maintained in respect of each vehicle. From these records, special reports could be made to management regarding vehicles which are revealed to be inefficient by reason of age, condition, or other causes.

7.—Credit control

Credit control is a matter which requires close co-operation between the sales and financial divisions. The information to be studied will comprise:—

- (a) Status reports on new or doubtful customers;
 - (b) reports from the sales ledger section on bad debts and accounts which are slow or difficult in collection;
 - (c) the trend of total debtors in relation to sales (*see* Fig. 10);
 - (d) special reports from sales representatives;
 - (e) notes on orders refused because of unsatisfactory credit status
- These will provide a means of ensuring that credit control is not unduly rigid, to the extent that good business is lost.

July, 1949

Product	Catalogue No.	Quantity sold	Standard Cost	Sales Value	% Margin
			£	£	
Total					
Monthly Totals, 1949:—					
January					
February					
March					
April					
May					
June					
July					
Total to date, actual			£	£	
<i>Total to date, budgeted</i>			£	£	

FIG. 7

SELLING EXPENSES

1st January to 31st July, 1949

	North		South		East		West		Midlands		Export		Total	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Sales														
Expenses :														
Travellers Salaries ..														
" Commission ..														
Local office Salaries ..														
" Expenses ..														
Travellers' Expenses :														
Hotels ..														
Entertaining ..														
Car expenses ..														
Other travelling ..														
Miscellaneous ..														
Total														
Total, % of Sales ..														

FIG. 9

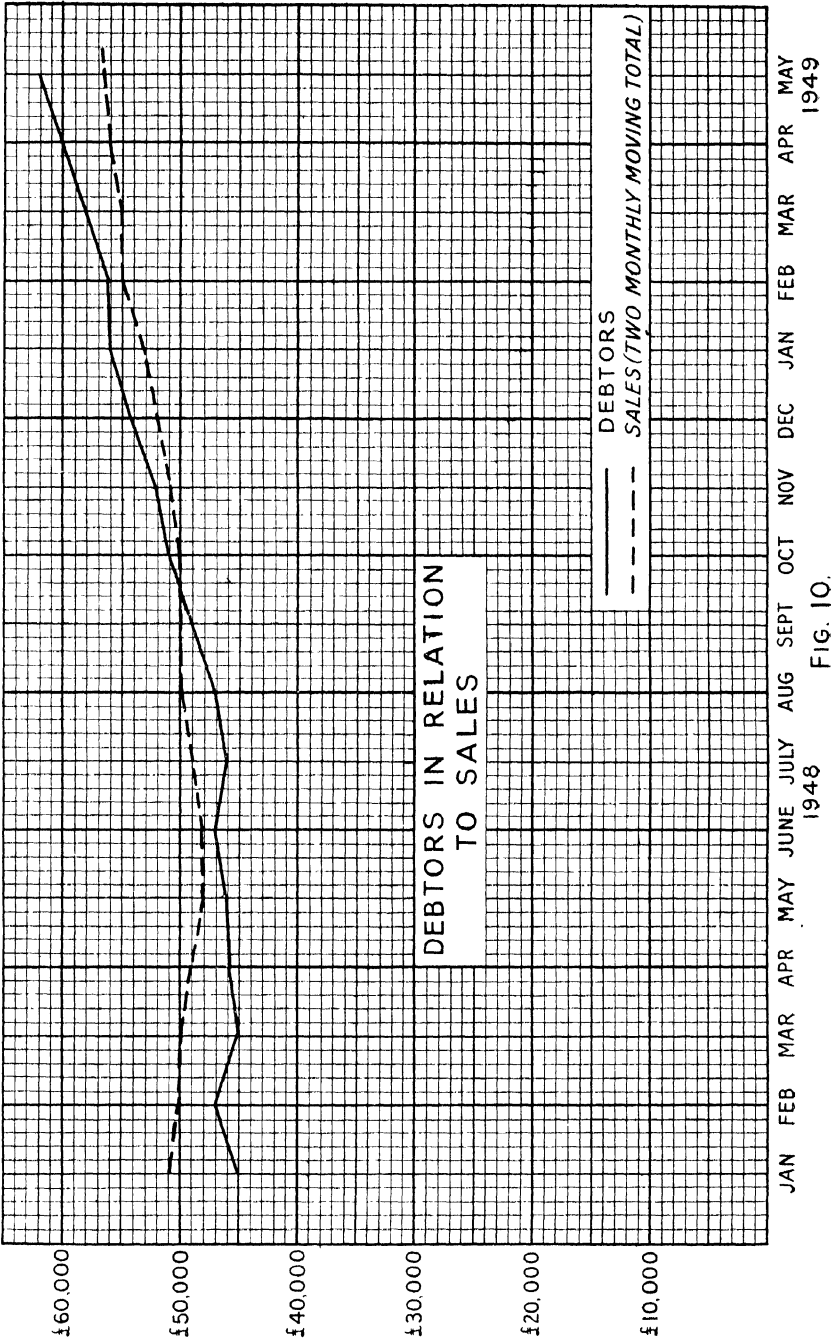


FIG. 10.

SECTION E

THE REQUIREMENTS OF PRODUCTION MANAGEMENT

1.—Definition of Functions

Production comprises all the activities relating to the supply and use of:—

- (a) Materials.
- (b) Labour.
- (c) Facilities, services and equipment.

for the manufacture of goods or provision of services in specific quantities and types.

2.—Production Programmes

The effective direction of production requires firstly a clear and accurate statement of the goods or services to be produced. The aim must be to produce no more and no less than is required, with the utmost economy in material, effort and resources; and it is necessary that activities in all departments be balanced and related to this aim.

For these purposes, information is required in the following forms:—

- (a) Summaries of the total demands made upon production for a given period, of goods or services *in their finished form*. The manner in which this information is presented depends entirely upon the type of industry. Where there is only one product it may be a simple statement of total quantity. Where there is a range of standard products, the summary should state the total quantity required of each product. In jobbing industries, in addition to a detailed specification of each job, a summary based on a common denominator such as weight or value would be needed.

The information may be derived from analyses of orders on hand; from sales budgets; or from other appropriate sources. (Fig. 6 is an example.)

- (b) Analyses or interpretations of the total production targets as defined in (a), in terms of the *materials, components, services, etc., required from each separate section of the production organisation*. Allowance must be made for existing and future stocks and work-in-progress at each stage of manufacture.

The analyses may be simple or complex according to the type of industry. Their preparation and use may be one of the main functions of a specialised "Production Control" or "Progress" department.

Each production executive must be informed of the programme for his section. Reports should be made of comparisons of actual production with programme, particularly where bottlenecks or other undesirable features are shown.

3.—Material Purchase

The specifications and quantities of material to be purchased will be related to the production programmes, stocks, storage facilities, etc., in regard to all of which the buyer must be kept suitably informed. He will continuously exchange information with production executives on delivery rates and dates, materials which are short or difficult in supply, and similar matters.

He should keep himself informed of all market trends, and issue special reports on important developments, *e.g.*, actual or imminent price movements. The implications of price movements may also be the subject of reports from the Cost Department.

Information must be provided to prevent the accumulation of excessive stocks, with a consequent tying up of capital and risk of deterioration or obsolescence. Internal audit routine should reveal information on detailed items. In addition, summarised information showing trends in relation to main classes of stocks, is useful (*see* Fig. 11).

4.—Material Usage

Production reports should in appropriate cases include particulars of scrap and wastage at each stage of manufacture.

The Cost Department should provide statements of the cost of scrap and wastage, summarised and analysed on one or more of the following bases:—

- (a) Department
- (b) Foreman or Charge Hand
- (c) Operator
- (d) Machine
- (e) Operation or process
- (f) Product or part number
- (g) Raw material.

Fig. 12 gives an example.

The degree of efficiency in the use of material will also be revealed in further cost reports, according to the type of industry. The cost of direct or productive material should be observed for each product, order or process, and compared with estimate, budget, or previous costs.

SUMMARY OF STOCKS AND WORK-IN-PROGRESS

	1st January, 1949		1st February, 1949		1st March, 1949		1st April, 1949		1st May, 1949	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Raw Materials:										
Sheet									
Bar									
Tubes									
Channel									
Castings									
Bought-out Components	..									
Fuel									
General Stores									
Maintenance Stores	..									
Work-in-Progress:										
Dept. A									
" B									
" C									
Total									

FIG. 11

SCRAP REPORT—MACHINE SHOP

Week Ending 24th September, 1949

Component	Part No.	Quantity Good	Quantity Scrap	Cost of Scrap (at standard)	Remarks
<div style="text-align: right; margin-right: 50px;"> <hr style="width: 100%;"/> <hr style="width: 100%;"/> </div>					
<p>Scrap % of good (on basis of standard cost values).</p> <p style="margin-left: 40px;">This week</p> <p style="margin-left: 40px;">Week ending 17th September</p> <p style="margin-left: 60px;">" " 10th "</p> <p style="margin-left: 60px;">" " 3rd "</p> <p style="margin-left: 60px;">" " 27th August</p> <p style="margin-left: 60px;">" " 20th "</p> <p style="margin-left: 60px;">" " 13th "</p> <p style="margin-left: 40px;"><i>Budget</i></p>					

FIG. 12

The costs of indirect or consumable materials for each department, production centre or service, and for each main type of material, should be compared with budget or previous costs, and variances made the subject of investigation and report (*see* Fig. 13).

5.—Labour

The aim of management in regard to labour is to deploy it according to grade and ability, and under recognised standards of conditions, to achieve the desired production volume at the lowest possible cost.

In modern industry, to achieve this purpose, considerable emphasis is rightly placed on *methods*. The precise manner in which each operation is to be carried out and the tools and equipment to be used are defined by specialists. It is usual also to state the amount or basis of wage payment.

Under conditions such as these, information for management can be on broad lines, with emphasis on departures from the approved methods, and on operations not covered by methods and time study.

Routine reports would include information on the trends of:—

- (a) The numbers and types employed, according to sex and age groups;
- (b) average earnings in each class;
- (c) absenteeism and lateness;
- (d) labour turnover;
- (e) relationship of indirect and direct hours and costs;
- (f) relationship of direct day-work and piecework (based on hours or cost);
- (g) operators' efficiency;
- (h) idle time.

The reports would be detailed or summarised to suit the needs of each particular level of management. (*See* Figs. 14 and 15.)

Product costs would also show the degree of efficiency in the utilization of labour, particularly when comparison is made with estimate, budget, or previous costs.

The cost of indirect labour for each department, production centre or service, under headings appropriate to the type of work done, should be compared with budget or previous costs, and variances made the subject of investigation and report. (*See* Fig. 13.)

6.—Plant Utilization

In order to achieve maximum production efficiency it is essential that full use be made of all major items of plant and equipment.

ANALYSIS OF PAY-ROLL

Week ending:	July 9	July 16	July 23	July 30	Aug. 6	Aug. 13
Numbers Employed						
Males, up to 18						
" 18-21						
" over 21						
Females, up to 18						
" 18-21						
" over 21						
Total						
Average Earnings						
Males, up to 18						
" 18-21						
" over 21						
Females, up to 18						
" 18-21						
" over 21						
Average						
Pieceworkers Productivity %						
Shop 1						
" 2						
" 3						
" 4						
" 5						
Others						
Average						
TOTAL PAY-ROLL						
" HOURS						
AVERAGE HOURS PER EMPLOYEE ..						
DIRECT WAGES						
" HOURS						
INDIRECT WAGES						
" HOURS						
" WAGES, % OF DIRECT ..						

Presented weekly. Most recent week added on right, oldest week omitted from left.

FIG. 14

IDLE TIME—LABOUR HOURS

February, 1949

Shops:	1	2	3	4	5	6	Others	Total
February 1	..							
2	..							
3	..							
4	..							
<i>Cumulative</i>	..							
7	..							
8	..							
9	..							
10	..							
11	..							
<i>Cumulative</i>	..							
14	..							
15	..							
16	..							
17	..							
18	..							
<i>Cumulative</i>	..							
21	..							
22	..							
23	..							
24	..							
25	..							
<i>Cumulative</i>	..							
28	..							
Total	..							
Monthly Totals :								
July, 1948	..							
August, 1948	..							
September, 1948	..							
October, 1948	..							
November, 1948	..							
December, 1948	..							
January, 1949	..							
February, 1949	..							

Information would be entered and presented daily.
 Information on similar lines would be given to each Shop Superintendent and Foreman for his section only.

FIG. 15

PLANT UTILIZATION—PRESS SHOP

Week Ending :

Machine No.	Description	Productive Hours	Idle Hours	Idle Hours Analysis					
				A	B	C	D	E	F

KEY: A Shortage of work
 B " " raw material
 C " " labour
 D " " tools
 E Machine breakdown
 F Other causes

FIG. 16

Routine reports should be made giving the following information for each item or group:—

- (a) Running times: (1) actual; (2) total possible.
- (b) Idle time, analysed to causes such as lack of work, breakdown, toolsetting, shortage of material, etc.

Fig. 16 is an example.

The production programme may from time to time reveal a lack of balance, either generally or in particular sections only, between the production load and available capacity. It may be necessary to take steps to increase capacity, or on the other hand it may be necessary to seek additional work to maintain a load adequate for efficient operation.

7.—Production Services

Production services include those such as maintenance, canteen, power supply, stores, toolroom, etc.

Information necessary for their control will comprise:—

- (a) Periodic statements of actual costs for each service, compared with budget, or previous periods, with emphasis on variances; combined with
- (b) an expression of the amount of work done (*e.g.*, for a canteen, number of meals served).

Costs of major items of maintenance and toolroom work should be estimated beforehand, and approved by management before the work is put in hand. Actual costs should subsequently be compared with the estimate, and differences of any magnitude should be reported. A similar procedure should apply where the work is of a capital nature. (*See* Figs. 17 and 18.)

Wherever possible the costs of operating an internal service should be compared with those for provision of a similar service from outside sources.

SECTION F

THE REQUIREMENTS OF FINANCIAL AND OFFICE MANAGEMENT

1.—General

It has already been observed that the main function of this division of management is the provision of services and information to the other divisions. Much of the work done has therefore already been considered in the earlier parts of this booklet. It is now necessary to consider:—

- (a) What information the financial division requires from other sections of the organisation, and
- (b) what information is prepared in this division for its own use.

The financial division is also more or less directly responsible for the control of liquid assets such as cash and investments, and is concerned with office methods and office management generally.

2.—Information from other divisions

A vast amount of information comes to the financial division by way of routine, and is the raw material from which cost and financial reports are subsequently made. We are concerned, however, not with information related to routine or detail, but with information *for management*.

It is essential that the financial division should be kept fully informed at all times of important events and developments in all other sections of the undertaking. This is necessary firstly in order that correct interpretations can be given with financial statements; and secondly in order that the needs of management in regard to financial information can to a certain extent be anticipated and prepared for.

The financial division should therefore receive copies of all reports and statistics relative to such matters as:—

Orders received.

Sales.

Production.

Changes in purchase or selling prices.

Changes in wage rates.

Advertising programmes.

Technological and similar developments.

MAINTENANCE COSTS (EXCLUDING SPECIAL ORDERS)

August, 1949

	This Month		Cumulative from 1st January	
	Actual	<i>Budget</i>	Actual	<i>Budget</i>
	£	£	£	£
Buildings				
Machine Shop				
Foundry				
Core Shop				
Moulding Shop				
Assembly				
etc.				
Fixed Plant				
Cranes				
Internal Transport				
Machine Tools				
Total				

Additional details would be given of classifications shewing unusual results.

FIG. 18

The division must have and must maintain a thorough knowledge of all sections of the organisation, including facilities, personnel, and methods.

3.—Information prepared within the division

The information presented by the financial division to other sections of the organisation is based on extracts from the complete range of detailed financial and cost accounts which are necessary for a correct build-up of final departmental accounts. The complete range must of necessity be much more comprehensive than the extracts and interpretations reported to other divisions.

The whole of the information prepared in the division must therefore be closely and continuously studied in order that appropriate action may be initiated where it is shown to be necessary. The responsibilities of the financial division do not end with the preparation and presentation of information. Where necessary, reports should be followed up by visits to and discussions in other departments, to ensure that the fullest use is made of the information provided, and to keep the staff of the financial division fully informed of problems and developments in all sections of the undertaking.

4.—Liquid Assets and Capital Resources

It is the responsibility of the financial division to see that cash is available as and when required to meet capital and revenue commitments. On the other hand, the provision made should include no more than a reasonable margin over actual requirements, and there should be no excess of idle capital.

For this purpose statements should be prepared at regular intervals showing balances available on cash, bank, and investment accounts; anticipated immediate income from debtors or other sources; and commitments in regard to wages, salaries, purchases, etc. Statements should also be prepared on a long term basis to take note of such additional matters as the capital expenditure programme, the financial effects of anticipated changes in the level of business, price movements, taxation, etc.

It is also necessary to devise a means of assessing the effectiveness attained in the use of a company's capital resources. For example, the sales turnover and net profit arising from individual products or departments could be compared with the capital employed in each case. In noting the results consideration must be given to the degree of risk attaching to the use of capital in each direction, and there may be other complicating factors. No hard and fast rules can be laid down in regard to methods of assessment, and the problem is one for consideration in each individual undertaking. The observation of trends, even on an approximate basis, is probably more important than the determination of a completely and scientifically accurate method.

5.—Office efficiency

Office expenses should be regularly analysed (*a*) by nature of expense, *e.g.*, salaries, rates, postages, etc., and (*b*) by departments or sections. In addition to trends in comparison with budget or previous periods, costs should be assessed against the following backgrounds:—

- (1) The quantity or value of current business, out of which expenses have to be met. Costs can be expressed as a percentage of or per unit of the products. Where certain office departments or sections are concerned with part only of the company's business the relationship should be shown accordingly.
- (2) The amount of work done in each section. This will be shown, for example, by the number of estimates prepared, quotations made, orders registered, sales invoices rendered, wage packets made up, requisitions priced or extended, and so on. It is not suggested that this measurement of work should be done regularly in all cases. It will be useful at intervals, and at times when departmental costs and organisation are under review.

It frequently happens that in busy periods additional staff are engaged on a permanent basis, so that when the volume of work falls readjustment is not always easy; furthermore the reduction of work may be gradual and may not be observed. In any case the result can be a general lowering of efficiency.

Straker Brothers Ltd., London, E.C.2.

