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MANAGEMENT PLANNING

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This set of lectures contains:

LECTURE 1 : Introduction to Planning

LECTURE 2 : Elements of Planning

LECTURE 3 : Planning Where to Start

LECTURE 4 : Policies

LECTURE 5 : Policy Formation and Implementation

LECTURE 6 : Deciding and Doing

TEST GAD2

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NOTE: This test on this set is bound in at the back of the book.

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INTRODUCTION TO PLANNING

BACKGROUND

The process of management, and scientific management in particular, has been described by many of the leading thinkers in this field as a cycle or "closed loop", with the results of management action fed back for comparison with the original forecasts; they see new forecasts stimulated by this comparison and the cycle repeated with plans modified in the light of experience gained.

Urwick, the management consultant, has depicted the process as a circle divided into 6 segments - forecasting, planning, organising, directing, co-ordinating, control - linked by a continuous ring of communication.

Planning is the most basic of the managerial functions. Without planning, we can neither organise nor motivate, control nor co-ordinate. It is evident, in fact, that no operation may expect to be effective without planning within or without business.

It is universal, too, from the viewpoint of hierarchical level. That the MD plans is perhaps obvious, but it is equally true that the lowliest of his subordinates also plans, although in some instances (such as assembly-line workers) most of the planning content has been removed from the job.

1. DEFINITION OF PLANNING

Planning is the setting of objectives and deciding how to reach those objectives. It is decision-making with regard to the future, and making logical and systematic arrangements to ensure that the decisions are carried through. Plans must be formulated in the light of the policies of the company.

One of the best known writers in the field, G.A. Steiner ("Managerial Long-Range Planning"), wrote:-

"Planning deals with the futurity of present decisions in terms of:

- Setting goals and developing strategies to achieve them.

- Translating strategies into detailed operational programmes and assuring that plans are carried out".

For our present purpose we will not accept the final phrase of that definition, as the function of "assuring that plans are carried out", is seen here as part of the control functions. The definition as a whole, however, is a very useful one.

2. THE RÔLE OF PLANNING

(a) Adaptation

A popular mistake is to confuse planning with forecasting. A plan, because it is concerned with the future, must, of course, contain and often depend on a forecast, but they are not the same thing. Indeed, if we could forecast accurately we would not have to plan nearly as much.

We plan in order to take care of uncertainties. Planning is necessary to survive. The environment in which the organisation exists is changing; it is never static. The organisation, then, must also change. In systems terminology, its survival depends on its being "adaptive".

At the same time as the rate of change in the environment is accelerating, the built-in resistance to change of the business unit itself is increasing. Mass-production, for example, with highly expensive, automated equipment, demands standardisation, long runs and a stable market. New facilities may take years to design and create - and this often applies as much to the small firm as to the large.

The important kind of adaptation, then, is that produced by learning - by examining the environment, assessing trends in the light of past experience and present expectations, storing such knowledge in the collective memory of the firm, and deciding in advance what you intend to do about it.
In a very real sense, planning creates the future.

The most important field of learning is how to handle change. Planning must, paradoxically, involve some inflexibility, in that it must involve commitment to future courses of action. Plans must therefore be designed to minimise the negative effects of such inflexibility by ensuring that the objectives chosen are the right ones, and that the means chosen to achieve them are as amenable to change as possible. Much will depend on the objectives and policies of the company.

It must be ensured, too, that innovation is possible within the system structure, that the system is sensitive to the environment in the long-term, and that contingency plans are available if required, but that unexpected changes which do occur can be catered for. If planning such as this is done, the company will be adaptive.

(b) Guidance for the Individual

A further important rôle of planning is to improve the rationality of individual decisions. Planning involves deciding how certain situations will be dealt with. Therefore, when a man is faced with a decision, he is not taking it completely in isolation - he has guidance. He can therefore tackle it with greater rationality.

This means that "lower grade" decision-makers may be used rather than high managerial talent, thus offering managerial economies. This technique is fundamental to the process known as "Management by Exception".

(c) Co-ordination

Plans provide consistency and rationality of action between units too. They allow for integration and co-ordination of company effort simply because everyone knows what they are supposed to do. Planning is seen as the main tool for co-ordination; it co-ordinates action before it takes place, as it were.

In the same way, plans of various sorts secure consistency of action over time. Decisions on similar problems today will be tackled in the same way next week, due to the development of what is termed "policy" discussed at greater length later in the lectures.

3. LINK WITH CONTROL

Planning really only makes sense when seen as part of a total planning and control system. Planning in a vacuum is impossible, and feedback of results is an integral part of the system. Thus it must be remembered that we split planning from control for study purposes only. They cannot be split in practice.

4. THE TIME DIMENSION

The time dimension is important in planning as the content, specificity and shape of plans are affected by the time period covered. There are basically two planning areas, namely strategic planning and operational planning.

(a) Strategic Planning

Strategic planning concerns the long-term development of the company in the light of a changing environment. It will thus look at the match between the company with its resources and the environment with its needs, and attempt to produce a good match over the long-term.

What is regarded as long rather than short-term is a matter for discussion. For an enterprise with expensive facilities taking years to develop (e.g., a large chemical company or a forestry company), ten or even twenty years might be a normal planning period. For the more common engineering firm, five years is a more usual time-span. The long-term is therefore commonly defined in terms of the life of present resources.

(b) Operational Planning

Once the long-term course has been planned (and while the next set of long-term aims is being sought), planning becomes operational. These plans are the ones which control the day-to-day operations of the enterprise. In terms of the earlier systems model, they are the third planning level.

Normally, operational plans cover a one-year period, though this is sometimes shorter.

Conventionally, a company will produce a five-year plan every year by updating the previous year's plan. Thus there will always be five annual plans available, ranging from the current year's plan, which is extremely accurate and detailed, to the fifth-year plan, which is much more tentative.

Long-term plans are normally the responsibility of top management while operational planning is done by middle management.

SINGLE-USE PLANS

These plans are precisely what their name suggests. They are designed to meet the one-off contingency, such as installing a new machine, launching a new product, or changing an organisation's structure.

This is the sort of plan which is most susceptible to the use of planning techniques such as Network Analysis, Gantt Charts etc.

However, even without these techniques, it is possible to codify one's approach so that the plan, being more logically approached, will have more chance of success. A commonly accepted thought pattern is as follows:-

(a) Decide what actions are necessary to achieve the objective and divide them into a series of steps.

(b) Place these steps in chronological order, noting any inter-relationships. Note which steps may be carried out in parallel, and which must be performed sequentially.

(c) Allocate each step to an individual who will be held accountable for its performance. This is an important stage as it is only through individual commitment that objectives are achieved.

(d) Allocate resources for each step and ensure that the person responsible has the authority to use them.

(e) Set a time scale on the plan, with target dates which may be used for control.

(f) Set up an information system which will enable all participants to co-ordinate their efforts, and will ensure that the plan may be changed as early results show the necessity.

C. BUDGETS

Budgets are simply plans expressed in numerical terms, usually in financial terms. They will indicate how much should be spent, where and when. They may also be based on quantities - for example a production budget is occasionally expressed simply as numbers of products expected. Clearly though, this does not give as good control as the same figures expressed in cash terms. Ideally both quantity and value should be used, especially in times of inflation. Increased value could well ensue with negative real growth in quantities!

D. WHO IS INVOLVED IN PLANNING?

1. THE CHIEF EXECUTIVE

The overall responsibility for planning rests with the Chief Executive, as does, ultimately the execution of approved plans.

2. CENTRALISED PLANNING FUNCTION

The Chief Executive cannot prepare an entire plan single-handed and in many cases will have set up a centralised planning function. This function could consist of one man or could, in a large organisation, be comprised of a high-level manager, with various levels of other managers and staff reporting to him. In many cases, the planning manager reports direct to the Chief Executive.

In a company with many divisions, divisional planning functions are often found. They would be co-ordinated by the head office centralised function, so as to create an overall picture.

The Responsibilities of a Centralised Planning Function.

(i) To provide planning guidance to the Chief Executive and to transmit plan guidelines to all managers involved in planning; this would include both the content of the plan, the method of preparation and major assumptions;

(ii) To analyse and interpret national and international economic trends and to pass this information on to other managers;

(iii) To provide a central co-ordination function for plan preparation;

(iv) To consolidate and evaluate managers' plans submitted and, where necessary, to initiate amendments to individual plans in order to ensure that the overall plan meets the company's objectives;

(v) To conduct an overall evaluation of results against plans; to highlight major deviations; and, possibly, to suggest corrective action. This function is not usually in a position to implement corrective action, which must belong in the operating divisions or departments.

3. MANAGEMENT

Every manager has certain reserved responsibilities and authorities i.e. they are not delegated to his staff, but are performed by the manager himself.

Planning is generally a reserved responsibility and the manager must prepare and interpret plans for all departments reporting to him. He may, if he has other managers reporting to him, instruct them to prepare plans for their own areas. He would then co-ordinate and consolidate these plans, and reconcile them, if required.

E. OTHER APPROACHES TO PLANNING

The foregoing views are based on the present day approach to planning but it might be useful to consider briefly a slightly earlier approach. The lines of thought might be of service in obtaining a broader understanding.

1. SPRIEGEL'S EIGHT FUNDAMENTAL ASPECTS OF PLANNING

W. R. Spriegel in "Industrial Management" lays down eight fundamental aspects of planning:-

(a) Four Primary Fundamentals

(i) Regard for the aim and objectives of the enterprise,

(ii) The establishment of definite lines of supervision within the organisation structure.

(iii) The placing of fixed responsibility among the various persons and departments within the organisation.

(iv) Regard for the personal equation.

(b) Four Operating Fundamentals

(i) The development of an adequate system.

(ii) The establishment of adequate records to implement the system and to use as a basis of control.

(iii) The laying down of proper operating rules and regulations within the established organisation in keeping with the established policies.

(iv) The exercise of effective leadership.

The above eight principles are clear and concise and in logical order, most are self explanatory but we will consider some in greater detail.

2. LINES OF COMMUNICATION

These establish authority and the lines in which orders and instructions are given. They also are the lines back along which information is channelled by way of reports, requests for guidance, etc.

The lines of supervision and clearly defined lines of communication provide defined control which is essential to avoid misunderstanding between both personnel and departments.

3. RESPONSIBILITY

This must go hand in hand with authority. To give a man responsibility without authority is to give him a task and then to tie his hands. Responsibility must be clear and precise of persons, sections and departments.

Arrangements should also be made for control to be taken over by other personnel in the case of absence due to sickness, etc. of an employee. This should be done without the unnecessary appointment of deputies which can be expensive and wasteful, but rather by the training of executives in various positions, and by the use of a chosen deputy to two or more executives in order to provide trained succession. Responsibility should be clearly defined from the head of the enterprise to the operating workman. It evokes a sense of discipline and pride, an understanding of the responsibility of superiors, and thereby promotes co-operation and co-ordination. It also provides an incentive to the seeking of promotion.

4. REGARD FOR THE PERSONAL EQUATION

By this is meant that consideration must be had for the abilities, training and competence of the staff available, but it also carries with it the responsibility to train and prepare staff for future requirements. A live management will only be content with inadequate ability until such time as trained competent staff are available. The knowledge that ability and not merely long service is the test for promotion will do much to encourage staff to further their education and training.

5. SYSTEM

Organisation is the structure, while system provides the links or arterial system through which instructions flow and reports and information are received.

Systems may involve the use of duplicating machines, visible card records, charts or graphs, giving information at a glance, but whatever the claims of the

manufacturers of these control "tools", they are only in effect, tools. They do not operate by themselves, however effective, but only have value in the hands of an operator.

Neither systems nor organisation must be too rigid; they must be capable of adjustment, if necessary, to suit varying conditions; but not so freely capable of adjustment as to fail to operate regularly and effectively. On the other hand, too rigid a system binds an enterprise with red tape and prevents its normal healthy functioning.

6. THE "EXCEPTION PRINCIPLE"

In theory, it is upon the shoulders of 'top management' in the person of the General Manager, or entrepreneur, of the enterprise that the whole burden of risk-taking, decision-making and control falls. Indeed, this is occasionally done in practice, usually with disastrous results. This burden, taken in conjunction with all the other functions listed in the 'M' definition, is an impossible load for one man to carry.

It is necessary, therefore, to lighten it by spreading a bit of the weight. This is where the Exception Principle comes in.

Formulated by F.W. Taylor, this principle lays down quite simply that recurrent and more or less minor problems demanding solution and decision should be regarded as merely routine, to be coped with by the departmental manager, supervisor or whatever, within whose jurisdiction this matter comes, and to whom the responsibility of solving the problem or making the decision is delegated along with the authority to deal with it without reference to top management.

Relieved thus of the burden of routine control and recurrent, routine decision, the manager has more time to devote to dealing with the more important exceptions from routine matters, and here the decisions are his alone.

Where delegation of responsibility and the authority to act represent policy, the term applied is 'Management by Exception'.

The principle is American in conception, and is highly reminiscent of rigid social organisation in the early days of

'.... good old Boston,
The home of the bean and the cod,
Where the Lowells speak only to Cabots,
And the Cabots speak only to God.'

Management must have reports to provide the data for control purposes, but such reports should be based on the exception principle, prepared by those knowledgeable and skilled in the particular aspect under report, and providing information on those items only which are failing to reach requisite standards or levels and therefore need particular attention and possible management action.

Reports and summaries should, however, not be so groomed as to fail to show the early signs of trouble, whether of staff unrest, or difficulties in obtaining materials, etc. It may be that small items or comments not included could be more vital than the whole remainder of the report.

The exception Principle operated with common sense should free management from unnecessary routine work, in order to enable them to concentrate on those particular important matters needing their special consideration.

7. RECORDS

Records for the purposes of management can be invaluable as showing trends and providing a basis of comparison, but there is always a tendency for records once begun to continue for all time regardless of whether they are used or not. Such unnecessary recording is not only wasteful of time and storage space but is a definite

hindrance to the keeping of the necessary records. It also has a depressing effect on the staff, as a whole, who quickly realise whether information is used or not and whether in fact they are wasting their time.

A live management will review periodically all records and procedures with a view to eliminating unnecessary duplication, the keeping of unnecessary records and the disposal of old records no longer of use.

With machine kept records, using punched cards, much information is often kept in very great detail. The information so provided is often never used, and, only too frequently, no thought is given to the enormous amount of time and energy spent in preparing this information at all levels, and the great feeling of frustration that lies just below the surface as a result, in the staff.

Records to be of real value must also always be absolutely up-to-date, and modern methods of machine accounting have made it possible to realise this objective.

8. OPERATING RULES AND REGULATIONS

Exact rules, whether in writing or not, provide the basis of any system. Moreover they assist delegation of both responsibility and authority. By enabling both superiors and their subordinates to be quite clear as to their duties and responsibilities, they enable systems to operate efficiently. Such rules are often contained in operating manuals and these provide the standard procedures, and act as a constant guide for reference.

It must be remembered however, that such rules and regulations must be under constant review, if the manual is to facilitate and not to hinder the various systems. Instructions must be clearly set out and be concise, precise and unambiguous.

They should be precise enough as a guide, but not so detailed that every action must be delayed for the manual to be consulted before action can be taken. The former

is provided by the executive who delegates responsibility correctly and encourages initiative, the latter by the outmoded executive who must personally deal with every detail, so overloading himself with the detail that he fails to carry out his real function in management, and prevents others from carrying out theirs.

It is apt to finish this section with a quotation from "The Elements of Administration" by L. Orwick:-

> "One very able business organiser, having written a complete manual of procedure for a large undertaking inserted this final clause -
>
> 'if in their practical application any of these instructions appear repugnant to reason and common sense, let reason and common sense prevail'."

F. A RELATED TOPIC

1. MANAGEMENT BY OBJECTIVES

This concept of business management is becoming more widespread in this country, especially in the larger firms. The term was referred to in P.F. Drucker's book "The Practice of Management" (1954). Since then, the system has been enlarged and widely discussed. The British books on the subject are increasing and J.F. Humble's "Improving Management Performance" (1968) commissioned by the British Institute of Management is a well documented practical book on the subject.

In essence, Management by Objectives (M.B.O.) is a dynamic system which seeks to integrate a company's need to clarify and attain its profit and growth goals with the manager's need to contribute and develop himself.

Management by Objectives is a technique whereby the fixing of targets is a basis for achieving greater effectiveness throughout the whole of or part of an organisation. It involves the fixing of agreed and realistic targets for an organisation (or part of it) in precise quantitative terms - for example, to increase the output of work by X%, to reduce the time taken over a process by Y%, or to reduce the error rate by Z%.

The factors which impede the attainment of these objectives are then identified, and in order to remove them, courses of action, including training, are agreed upon. The results achieved are periodically appraised and new targets set. It is important that individual targets are not only clear and realistic in themselves, but also that each should contribute effectively to the aims of the organisation. The approach is based on the view that targets agreed by a manager and his subordinates are in themselves an incentive, and that they form a yardstick against which performance can be measured.

2. M.B.O. IN STAGES

As steps are commonly integral parts of any M.B.O. scheme, the chief executive will:-

(a) Determine the main objectives quantitatively, and derive from them the main plan of action. This is often called the "strategic" plan, and may cover a long period.

(b) Derive detailed plans which will contribute to the attainment of the main plan. These are often called "tactical" plans, and will usually cover shorter periods.

(c) Deduce from each tactical plan which aspects of present practice can be changed to give the most significant contribution to achieving the new objectives. These are often called "key results areas".

(d) Discuss and agree with the managers responsible for each aspect what performance standards should be achieved in respect of each such "key results area". This is often referred to as a "job improvement plan".

(e) Assist managers to achieve the planned targets by:-

(i) Providing them with full control information;

(ii) ensuring that organisation is sufficiently flexible to allow them freedom to operate;

(iii) creating training facilities to allow them to overcome personal weaknesses.

(f) Motivate managers by:-

(i) Seeking their active co-operation in defining job improvement plans.

(ii) Freeing them from over-supervision.

(iii) Providing fair salary and succession incentives.

(g) Review performances at regular intervals to measure progress, to modify objectives where needed, and to discuss further managerial development.

3. LIKELY DANGERS OF MBO

(a) The most prevalent danger is that the system may be used by an autocratic management as a very tight, non-participatory control system - an extended budgetary control system as it were.

Without the genuine participation of the subordinate in setting both the objectives and the standards, it becomes a demotivator rather than gaining commitment.

If it is used to allocate blame and to heap recrimination on the subordinate's head, he would be a fool to set himself at risk by setting challenging and creative targets. If, on the other hand, it is genuinely

used as a co-operative effort to help him towards a challenging goal, he will usually respond by stretching himself.

(b) Because it is formalised, with specially designed paperwork to fill in, it can become a mere bureaucratic exercise where too much concern is given to the correct filling in of forms and not enough to what is being attempted. It is essential that the system be seen as flexible, and that it be observed according to the spirit rather than the letter of the law.

(c) It is more likely to become such a form-filling exercise if the objectives and standards are set in a haphazard manner with little objectivity and no challenge. There must be real targets and approaching them with real effort.

(d) A problem which is often mentioned is that this sort of participation approach takes considerable time. This is true, but the answer is simply that by taking time in this way, one saves the time usually spent in sorting out problems and in detailed directing and controlling.

4. THE ADVANTAGES OF MBO

(a) Individual job objectives are integrated with company objectives.

(b) Personal objectives (achievement, self-development etc.) are also integrated with organisational objectives.

(c) The quality of delegation is improved.

(d) Information necessary for the company's management development and succession plans is available from more realistic sources, not based solely on personal assessments.

(e) Creativity and problem-solving are encouraged since problems are brought to light early.

5. M.B.O. REVIEWED

These elements of, and problem areas in, the technique should be noted:-

1. Increasing profitability is usually the primary aim of M.B.O., but this is not necessarily so. In municipal or public administration, for example, improvement of services may well replace profitability. Even in Industry and Commerce, some aspects of an M.B.O. scheme may well be functionally divorced from profitability.

2. Key results analysis is a series of sub-techniques to assist managers in analysing performance standards and control information, and suggesting improvements. This leads to the identification of the "key tasks", usually five or six in number, which are the vital areas in which improvement must be achieved.

3. Realistic standards must be set. If standards are too high, and too difficult to attain, the essential co-operation by the manager concerned is lost. This throws a considerable burden on whoever initially appraises the situation, and makes it essential that both frankness and participation should characterise the consultations which precede the setting of targets.

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SUMMARY

A. BACKGROUND

Planning is the process of systematic thought prior to action through which resources in hand, or like to be available, are matched against known or predicted conditions in order to achieve desired objectives.

Plans must be formulated in the light of the policies of the company.

B. PLANNING

(a) allows the company to <u>adapt</u> to changing conditions in a rational manner,

(b) provides <u>guidance</u> for the individual employees of the firm,

(c) provides consistency and rationality of action between units of the firm (<u>co-ordination</u>),

(d) is <u>linked with control</u>.

There are:-

(a) Long-term plans (strategic planning),

(b) Medium and short-term plans (operational planning,)

(c) Single-use plans.

C. WHO IS INVOLVED IN PLANNING?

The <u>Chief Executive</u> and <u>Management</u> are both involved in planning, usually based on a centralised planning function.

C. OTHER APPROACHES TO PLANNING

1. <u>SPIEGEL</u>, lays down eight fundamental aspects of planning, consisting of four primary fundamentals and four operating fundamentals.

2. Lines of communication used to be developed.

3. Responsibility and authority go hand-in-hand, responsibility must be clear.

4. Regard for the personal equation is essential - staff need to be used adequately, and future requirements met.

5. Systems provide the links in all organisation, and are effective "tools" for planning.

6. The "Exception Principle", formulated by Taylor, lays down quite simply that top management should not be involved in day-to-day routine decisions, but only in decisions about "exceptions" to the norm.

7. Records provide a guide to trends and a basis for comparison, but record-keeping should not become rigid and cumbersome.

8. Operating rules and regulations provide a basis for systems. They should be precise and unambiguous.

E. MANAGEMENT BY OBJECTIVES

MBO is a system which seeks to integrate a company's need for growth with the manager's need for personal development.

MBO is a technique whereby the fixing of targets is the basis upon which all work is carried out.

There are many advantages as well as a number of dangers in MBO - you should be aware of these.

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SELF-TESTING QUESTIONS

1. (a) What is the purpose of meticulous planning?

   (b) Can you think of five prerequisites of a good plan for a business?

. Planning provides a link between .... and ....

. (a) What do you understand by the term, 'the Time Dimension'?

(b) What does it cover?

. Write down six logical, methodical steps to be taken in planning for adaptability.

. (a) What are 'single-use plans'?

(b) What techniques would be useful in devising these?

ANSWERS TO SELF-TESTING QUESTIONS

. (a) The purpose of planning is to enable the firm to achieve its objectives.

(b) A good plan

(i) should be flexible/adaptable

(ii) should determinedly lead to declared objectives

(iii) should be practicable and understandable

(iv) should allow for contingencies

(v) should be able to cover innovation.

. Link between co-ordination and control

. (a) The Time Dimension is the length of time that can be expected to elapse before some specific plan reaches the end of its applicability.

(b) Covers

(i) operational or short-term planning

(ii) strategic or long-term planning.

4. Six systematic steps in planning for adaptibility:-

   (i) examination of probabilities in the light of current research and development

   (ii) examination of possibilities in the light of observed present trends

   (iii) examination of adaptibility in view of innovation

   (iv) examination of past profits as a basis for future commitments

   (v) examination of objectives to assess possible effect of projected changes.

5. (a) 'Single-use' plans are drawn up to cope with a single, 'on-off' contingency.

   (b) Techniques such as Network Analysis, Gantt Charts, etc.

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PROGRESS QUESTIONS

1. Discuss the importance of planning to the business organisation.

Make a list of Spriegel's eight fundamental aspects of planning.

(a) Differentiate between 'an organisation' and 'a system'.

(b) Routines can be systematised; give at least 4 common examples and indicate in a word or two where they may be found in an organisation.

4. Explain in no more than five short sentences:-

(a) the exception principle (3 sentences, at most);

(b) management by exception (2 sentences).

5. 'Responsibility goes hand in hand with authority'.

'A corporation is a faceless body often wielding great power without responsibility'.

These by no means unfamiliar statements contradict each other it seems. Consider them thoughtfully, then give your verdict, supporting your view with

(a) reference to theory which you have already studied;

(b) a short statement of an actual experience which confirms your verdict.

(c) Quote one of the two above statements which is applicable to bureaucracy, giving, briefly, a valid reason for your answer.

(d) Indicate, in no more than one or two words, the method employed, in an over-large bureaucracy such as a civil service, in coping with responsibility.

6. (a) What is the value to a firm of these two routines:-

(i) keeping records;

(ii) writing reports on work done?

(Note: Do not go into detail in either sphere; all that is wanted at this stage in your study is a broad outline.)

(b) What danger is inherent in both?

7. Make two little lists:-

(i) of the pros of the establishment of a set of rules and regulations to be adhered to in a firm;

(ii) of the cons of this practice.

(Your answer, while it must be short, would be enhanced by the inclusion, if possible, of an actual example of each.)

8. Tabulate the points you would make in order to produce a compact and comprehensive 4-paragraph essay on 'Management by Objective'.

(iii) the definitive allocation of areas of responsibility;

(iv) due consideration of the human element.

(b) **Four operational fundamentals:-**

(i) The development of an adequate, workable system.

(ii) The designing of records useful for control.

(iii) The devising of sensible rules and regulations to ensure smooth running in line with policy.

(iv) The exercise of effective leadership.

ANSWER TO QUESTION 3

(a) 'Organisation' is the whole structure of the business, down to the last detail; 'system' is the routine manner in which the tentacles of the organisation reach to every corner of it.

(b) Systematised routines may be -

(i) Verbal communication by means of an intercom system. This is useful in concerns which are spread over a large area and divided into departments; supervisors can keep in touch without wasting time or disappearing off the floor.

(ii) Written communication by means of memos which should be filed for future reference. These may be passed sideways (horizontally) among middle management, or upwards (vertically) to the manager himself - they never go downwards.

(iii) A 'clocking-in' system to ensure punctuality. This is found in many industries and offices.

(iv) A system of graphs and charts to show, at a glance, either progress and performance, or bottle-necks.

(v) A system of monthly staff-meetings, to discuss any new ideas or unsolved problems.

Some firms do this, minuting the items discussed. It is better in theory than in practice, because such meetings can too easily cause disruption in the flow of the work, turn into time-wasters, and in other ways be an infernal nuisance.

ANSWER TO QUESTION 4

(a) The Exception Principle - Deviations from even the best programmed plans arise, requiring decision-making. Recurrent minor decisions waste executive time, therefore they should be regarded as routine matters for subordinates responsible for smooth-flowing control. Only exceptional matters should be referred to top management.

(b) Management by Exception - The delegation of authority to responsible supervisors to assess the value of reports etcetera is essential if management's time is not to be wasted in making minor decisions. Only vetted exceptions should be passed to top management for decision-making.

ANSWER TO QUESTION 5

A corporation is more often than not a faceless, nameless, wielder of power without responsibility; experience lends validity to this view.

(a) The application of the principle of Exception absolves Management from dealing with all but well-vetted, exceptional matters - but what is merely routine to the firm (and thus the concern of the lower echelons) may be of vital importance to the man who wants to see the Manager. But he is invariably incommunicado.

(b) A Barclaycard was inadvertently left in a certain bookshop. The owner was a 'plastic cash' customer and a stranger to the town. The bookshop sent the Barclaycard, after a prolonged interval, to a neighbouring branch of Barclays Bank. The owner discovering its loss later, was directed to the Bank in

question - it took seven repetitions of the story before the card could be located at the supervision level at which it had arrived; nobody would claim responsibility for its receipt.

(c) The second statement applies particularly to bureaucracy.

(d) The process of coping with responsibility is known as 'passing the buck'.

ANSWER TO QUESTION 6

(a) Records, from management's point of view, can be of inestimable value if they have been drawn up with skill and knowledge. They provide a basis of comparison of present performance with past achievement, and thus prove useful in forecasting possible future trends.

In a very large concern the size of which makes it impossible for management to know more than a handful of employees, fair and unbiased reports on personnel enable the manager to know at least what the work of the firm's employees is like.

(b) A grave danger inherent in both kinds touched upon above is that the writing of reports will consume far too much of the time and the concentration of the writer. The more meticulous the compiler is, the longer he may be absorbed in his report-writing, to the detriment of the supervisory work he should be doing. And writing reports at night, at home, after a hard day's work, is a bad practice which both exhausts and bores the writer, and tends to sour his view, especially of his workers.

Another irritating result of reporting is that the reports soon become outdated, and the office space cluttered up with unread reports.

ANSWER TO QUESTION 7

(a) PRO the establishment of a set of rules governing procedure -

(i) Employees know where they stand in relation to both colleagues and superiors. This is important.

(ii) Dereliction of duty etc. cannot be overlooked by a plea of ignorance of procedure.

(iii) 'A slack ship is an unhappy ship' - this applies equally to any kind of organisation.

(b) CON the establishment of rules and regulations -

(i) The makers of rules and regulations sometime tend to be more childish than the rules they promulgate, e.g., (an actual example!) 'The staff is advised that only one cup of tea per person is permitted at tea breaks'.

(ii) Adults resent being regimented as if they were children.

(iii) 'Working to rule' can be used as a very potent weapon against an unpopular or inefficient manager.

ANSWER TO QUESTION 3

Points for a short essay on Management by Objectives

Paragraph 1

DEFINE your frame of reference clearly and decisively.

(Note: This is an extremely important step, for -

(i) it focuses your mind on the care of your essay and helps to prevent pointless waffle;

(ii) it clears the mind of the examiner of any puzzlement as to what you are driving at;

(iii) it relieves both you and the examiner of any necessity to interpret an answer in terms of the question.

Note also:- your definition of terms must be clear but general; the required details will appear in the paragraphs which you are about to build up.

Paragraph 2

(a) Indicate the broad objective/s of the firm, e.g., profitability of the firm, express these quantitatively.

(b) Indicate the need for each sub-manager to set a target for his own department - a measurable target.

(c) Briefly discuss responsibilities and lines of control and communication of sub-managers.

Paragraph 3

(a) Integration of the aims of each department with the broad aim of the firm.

(b) Outline of the procedure of records and reports in relation to the objects indicated above.

Paragraph 4

(a) Indicate the freedom possessed by each sub-manager within the sphere of his own department.

(b) Show that the flexibility of operation allows for job-improvement, initiative and self-improvement of all in respect of their future standing in the firm.

Note: DO NOT go into great detail on any of the points made - your TIME will not allow it.

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USE THIS PAGE FOR MAKING NOTES

ELEMENTS OF PLANNING

A. INTRODUCTION

In its widest sense, "Planning" involves questions of policy, forecasting and decision-making. Policy gives us general, and sometimes specific, guidance in selecting desired objectives; forecasting helps us decide if they are feasible in the known or predicted conditions. The next step then, is to plan. By this we mean to systematically determine a course of action to achieve a desired objective in the light of existing resources and conditions, bearing in mind future conditions.

B. THE PRINCIPLES INVOLVED

The principles involved in planning remain the same, whether it be short, medium or long term planning. Notice that the three kinds of planning are aspects of the same continuous process and that success in planning depends upon successful integration of all three plans.

Another way of viewing the principles involved in planning is to ask "What are the basic steps involved in planning?"

1. The first step is to determine future objectives or goals. Since no goals exist in a vacuum and because the future must have a realistic basis in the present, one must determine the present situation, when setting goals. In other words, the manager must evaluate the goal (which is usually established on a tentative basis) in the light of the organisation's (or sub-unit's) present situation.

2. The second step is to establish policies. Remember the difference : objectives reflect where we wish to go; policies tell us how best to arrive at our stated objectives once plans become operational.

3. Determine and evaluate alternative courses of action. This step will include the determination of aids and barriers to arriving at the goals.

4. After developing and evaluating the various alternatives, the manager must choose the most satisfactory alternative.

5. The next step is to formulate plans based on the course selected. Thus,

   (a) Set out procedures i.e. state how things are to be done (how best to use resources).

   (b) Programmes should be developed. Remember, a programme sets out the steps logically to be taken to accomplish the stated objective, remembering the procedures evolved.

   (c) Schedules will then have to be worked out.

   (d) Budgets should be prepared.

Throughout, a standard approach to planning will have to be ensured! One way to do this is to make use of a centralised planning department. In practice the planning cycle for regularly prepared plans can be described briefly as follows:

   (a) A central function issues planning guidelines and deadlines to divisions and departments.

   (b) Individual departments prepare their own plans, based on their own needs and assumptions, but keep within the issued guidelines.

   (c) Within divisions, departmental plans will be reviewed and consolidated to form an overall divisional plan.

   (d) The divisional plan will be evaluated and, where necessary, changes will be made to departmental plans.

   (e) Divisional plans will be submitted to the central planning function where they will be reviewed and consolidated into a company plan.

   (f) The company plan will be reviewed and evaluated and, where necessary, divisional plans returned to divisions for amendment.

   (g) The final plan will be presented to the Board for approval. This approval may be qualified or unqualified. If qualified, the qualifications would be passed back to the divisions for incorporation into their plans.

1. ELEMENTS

We have defined planning as a systematic process; to be effective a plan must be constructed systematically **using the four major elements of programmes, schedules, procedures and budgets:-**

(a) Programming

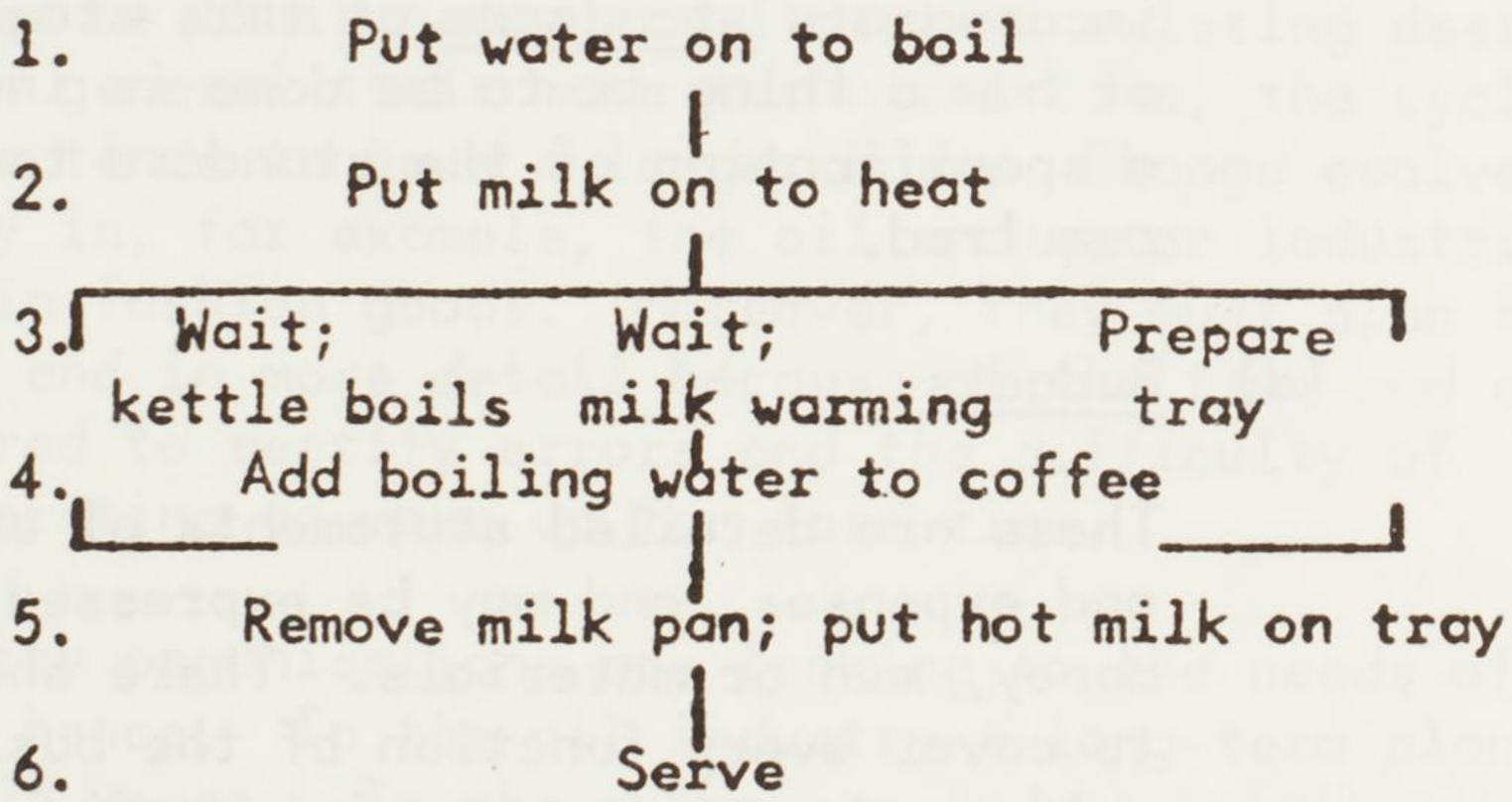
A programme is a sequence of activities leading step by step to the accomplishment of the stated objective. The simplest plan sets the steps out in sequence, with simultaneous events in parallel, before attempting to establish times or completion dates.

Figure 1

Example

Objective: To serve coffee

Activities:



(b) Scheduling

This is the process of putting times and dates into the programme of activities. It is often combined with programming to form one operation.

(c) Procedures

The preparation of procedures is generally the longest and most difficult part of the planning process. The programme says what is to be done, the schedules say when. The procedures say how and, in practice, until they have been established, it is often impossible to complete a reliable schedule. It is here that plans most often go awry; if the planners are slip-shod on procedures and fail to spell out the methods carefully, the means may not be provided when required and target dates may be found, in the event, to have been hopelessly optimistic.

It is an essential element of sound planning to incorporate standards at this stage. Any statement of how a thing is to be done is incomplete without a specification of the standard to which it is required.

(d) Budgets

These are detailed statements of expected incomes and expenses, and may be expressed in units of money, men or materials. There should be a budget to cover every function of the business, production, sales, advertising, training, finance, etc. Each will, ideally, be comprehensive in that it will cater for all the assets required in that aspect of the business. For example, the production budget will show on the credit side all the saleable output, including scrap and by-products; on the debit side, it will show the accommodation, the manpower, the materials, power consumption, etc.

The key elements which are common to all these functional budgets, manpower and money, will be combined into master budgets because these are the vital resources on which the business depends.

C. LONG-TERM AND SHORT-TERM PLANNING

1. DEFINITION

The words "long" and "short" are relative; they can have no precise meaning unless we have knowledge of the circumstances in which they are used.

Industries with heavy capital investment need to plan relatively far ahead. They must accumulate or acquire the very large sums required for any major new development, and their machinery and tooling need more time to be designed and manufactured than in what we describe as "light" industry.

Because of their heavy commitment to existing designs, and in general their more technical bias, the cycle of change tends to have a longer base. Change evolves more slowly in, for example, the oil and motor industries than in fashion goods. Moreover, they must plan further ahead and in more detail because of the time and expense required to rectify errors and the difficulty of accelerating to make up for lost time.

Forestry organisations are looking to the needs of 50 years hence. In the oil industry a long-term plan may span 25 years. In the motor-car industry, the commercial side, influenced by the certainty of fashion change and the uncertainties of technical forecasting, may regard 5 years as long term; whereas the engineering side needs to look further ahead, probably 7 to 10 years.

Most commercial and manufacturing companies today consider 5 years as a reasonable base on which to make long-term plans, regarding 1 to 2 years as short-term.

2. NEED

We can assume that organisations have a will to survive and it is evident that to do so they must react effectively to the changes which will inevitably occur in such areas as :-

(a) Technology;
(b) The environment;
(c) The numbers and strength of competitors;
(d) Material availability;

} External factors.

(e) Staff retirements and resignations;
(f) Product evolution.

} Internal factors.

It is also apparent from everyday experience that we cope better with those events which have been foreseen.

3. GROWTH

The need for both long-term and short-term planning has long existed but has been recognised increasingly in the second half of the 20th century. This can be explaine by :-

(a) The acceleration in the rate of social and technical change;
(b) Improvements in forecasting techniques;
(c) Heavier capital investment required by increasingly sophisticated products;
(d) The consequent extension in the time-lag between decision and implementation;
(e) The need to allocate scarce, expensive resources to yield the maximum benefit in competitive situations;
(f) The growth of larger businesses with increasingly complex organisations.

It is more difficult for the individual executive to recognise the impact of his personal decisions on other areas in the company and for directors to foresee all the effects of policy decisions on the constituent units of the company. In simpler words, "More time is needed to think the policies through, and more systematic thought is needed to avoid the more numerous pit-falls".

MANPOWER PLANNING

There is a need for plans to cover all functions of the business. It is a reflection of the basic truth that "our people are our business", and the growing difficulties in recruiting and retaining staff of the requisite standard in adequate numbers, at the right time and the right place, are, next to finance, the most commonly practised and discussed aspects of planning.

Manpower planning is generally the responsibility of the personnel office, or is carried out, with its active assistance, in the corporate planning office.

A company must recruit and retain manpower of the types and calibre it requires for its efficient operation. Change dominates the business and commercial world today and the role of the computer is expanding. New techniques, like operational research, influence the organisational structure of companies and alter the pattern of manning, so it is vital that a carefully considered appraisal of short and long-term requirements should be made. Consider the following stages of manpower planning :-

(a) Examine the existing situation, analyse and grade jobs and make performance and potential appraisals;

(b) Examine the future objectives and plans for all parts of the business;

(c) Plan the organisation required and note that the method of organisation aids co-ordination of activities. This stage will show each type of job required;

(d) Planning the required supply is the next stage and this must include noting the potential growth for future requirements and noting which existing staff are capable of filling future vacancies. Some firms use organisation charts to help them in planning. They show future suggested promotions and changes;

(e) At the same time career requirements of individuals must be noted and plans made for their training and development;

(f) The skills required for future technologies must be assessed and methods of selection and training determined;

(g) The sources of future recruitment must be examined to ensure that the right numbers and grades are available when required;

(h) Wage policies must be examined.

E. CORPORATE PLANNING

1. DEFINITION

It was in the 1950's that "Long-range Planning", as it was then called, began to come to the fore as a recognised management technique. As experience was gained, the concept developed and the inadequacy of the title was recognised. "Corporate planning" was the phrase chosen to describe the activity of planning in depth for the whole organisation.

The term corporate planning is applied to any systematic process of decision-making on issues of substance or long-term significance. The decision-making process should be backed by forecasting, followed by systematic scheduling and allocation of resources, and should include consideration of the implications of the decision for the whole organisation. The whole process should culminate in the systematic monitoring of performance against plan.

2. SCOPE

Corporate planning does not absolve the executive from the responsibility of planning for his own unit's future,

but it recognises that the average manager has neither the time nor the resources to look far beyond the boundaries of his own department or beyond the time-span of his personal objectives.

Large companies therefore, especially in industries with a relatively long-range planning need, are now likely to have corporate planning departments which carry out the research needed to determine central policies. Supported by the forecasts of the corporate planners, the various divisions or departments will formulate their own plans to further the policy directives issued.

In corporate planning, these individual (departmental) plans will be examined in depth, developed in detail, co-ordinated and integrated into a corporate plan for the company as a whole. The unit will continue to be responsible for up-dating forecasts and for amendments to the plan both by regular review and by adjustment. Thus, they can cater for unforeseen eventualities, e.g., the failure to attain any subordinate objective which may have repercussions in other spheres.

3. EXAMPLE

One system, adopted by a number of administrative bodies is designated "PPBS" - "Planning, Programming, Budgeting System". This system recognises three of the four constituent elements described earlier in this lecture. (Scheduling is treated as part of the programming element; only procedures being omitted from the title). As applied, the system generally involves a 5-year rolling plan of which the first year is analysed in great detail. The other four years are planned in broader terms, acknowledging the fact that forecasting accuracy decreases with range.

F. MAIN PLANNING FIELDS

The preparation of an overall company plan involves the preparation of a number of subsidiary plans. The participatio of all levels of management is necessary in plan preparation as a plan imposed from the top without consultation is unlikely to be accepted at lower levels. The individual plans to be prepared are:-

1. The Sales Plan

This plan would cover what we expect to sell, broken down where necessary into product groups or individual products. This plan will usually form the basis of the plans for the rest of the organisation. In finalising the sales plan, account must be taken of available production and warehousing facilities as there is no point in saying that 1 000 units can be sold when only 500 can be produced.

The sales plan would include:

- plans for different geographical areas
- plans for recruiting, training and remunerating salesmen
- plans for the opening or closing of branch offices
- sales overheads (e.g. sales manager, sales office, advertising).

2. The Marketing Plan

In practice this is often incorporated into the sales plan It would include:

- overall pricing policies
- distribution channels (wholesale or retail or door-to-door sales)
- advertising and sales promotion plans
- stocking policies (including warehousing and delivery
- market research plans

- method of selling (own salesmen or agents)
- new product introduction.

3. The Production Plan

The production plan will be based on the sales plan. Stocks of finished goods on hand at the beginning of the plan must be allowed for, as well as required finished goods levels at the end of the period.

The plan must include:

- estimates of machine hours needed to meet the required production levels
- estimates of raw material needs, again taking opening and required closing stocks into account
- manpower requirements
- "brought out" requirements
- manufacturing overheads
- plant maintenance requirements.

4. The Overheads Plan

This would usually be compiled by a head office planning function and would include all specific head office overheads. The following would be considered where applicable:

- head office management and other salaries
- office rentals
- central computer facilities costs
- central accounting costs
- personnel department costs.

5. The Manpower Plan

This is usually an overall manpower plan and is prepared by the Personnel Department.

Plans prepared by other functions will include manpower requirements. These will usually be reviewed by Personnel Department and wage and salary rates will be supplied by Personnel for application to the manpower requirements.

This plan would usually include:

- the organisation structure, taking into account span of control
- salary and wage levels, taking into account industrial agreements, other legislation, and rates in comparable firms
- recruitment and training needs and costs
- management development and training needs
- benefits plans.

Manpower planning is discussed more fully in a separate lecture.

6. The Research and Development Plan

This plan would have to include all estimates for the research and development department. New product development and improvements must be considered and, where necessary, incorporated into the sales/marketing plans. It may be necessary to select specific areas for attention because of limited resources.

7. The Investment Plan

In order to achieve sales and production plans, additional investment in plant and machinery, buildings and other equipment may be necessary. An overall capital expenditure plan must be compiled to reflect this.

8. The Profit Plan

An overall profit plan will reflect the anticipated profit that will accrue if all of the above plans are implemented and achieved.

The organisation should have some idea of the rate of profit it wishes to achieve. This may be in terms of capital employed or return on sales. Generally, comparison would be made with other companies in the same industry to ensure that the profit is not out of line with current trends. In general terms, a company in a high-risk business would expect a higher rate of return than one in a low-risk field.

Once the profit plan has been prepared, the predicted levels can be compared with the company's profit objectives. This could lead to revisions in other plans in order to meet these objectives.

In some companies, the overall planning may start with the desired profit level, with all other plans being worked on that basis. Fixed and variable costs would be used to calculate the sales required and to achieve that profit level. This calculated figure would then be evaluated to ensure that that quantity can be sold, and, if it can be sold, whether it can be produced.

9. The Financing Plan

Once the profit plan has been agreed, a financing plan must be prepared in the form of a Cash Flow or Source and Application of Funds Statement.

This plan will show the surplus or shortfall of funds which will occur if the profit plan and other plans are achieved. Consideration can then be given in advance to the question of how to finance a shortfall, or how to invest a surplus.

The following are the most common items to be taken into account in this plan:

- the anticipated profit
- taxation
- dividends

- depreciation and provisions, which should be added back to profit for this purpose as they have been charged against profits but are not cash outflows

- changes in the levels of debtors, creditors, stock and other working capital items

- capital expenditure investment

- inflows from the sale of capital assets

- repayment of loans

- changes in the share capital structure.

The Financing Plan is extremely important. There have been cases of firms which have traded profitably, but have failed as they have not had sufficient cash to meet their short-term commitments.

10. The Balance Sheet Plan

This is a projected balance sheet which is basically a summary put together from all the other plans.

G. THE USE OF THE COMPUTER IN PLANNING

The computer is of particular use in forecasting. It enables large quantities of data to be processed relatively economicall and it enables sophisticated forecasting techniques to be used.

Apart from that, it can be used for much of the detailed clerical work involved in formulating a plan. If the relationships between sales and production and stock levels can be expressed in some kind of formula, the computer can prepare the sales forecast, calculate the production plan and, from there, take in overheads and produce a final plan.

Once the basic computer programme is set up, there are some distinct advantages:-

1. "What if" Analysis

Once the basic plan is prepared, it is evaluated by management. They may wish to know, for example, what the end result would be if prices were reduced by 5% leading to, say, a 10% increase in sales. The computer could calculate this in minutes, whereas the budget department could take two days to take all possible factors into account. Only a summary need be printed and any number of "what ifs" can be evaluated. Once finality is reached, the full detail could be printed out.

2. Plan Revisions

Detailed plan revisions can be made accurately and quickly at any time, rendering the plan much more responsive to change.

3. Planning Cycle

The overall planning cycle can be considerably reduced. Many companies start budget preparation in July for the following January to December. They then have only six months of actuals available to them. As the computer is able to produce plans extremely rapidly, plan production could possibly start in October, allowing much more actual data to be used as a basis for the plan.

4. Longer Period Plans

There is virtually no limit to the number of time periods a computer can handle. It may thus be possible to produce a ten-year plan rather than a five-year plan, giving the company the advantage of being able to look further into the future.

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SUMMARY

A plan consists of:-

1. A programme of events leading to the objective;
2. A schedule of times for these events;
3. Procedures or methods for achieving the steps in the programme on schedule;
4. Budgets, setting out income and expenditure of key resources to ensure availability.

There is a long-term and short-term planning, but bear in mind that the words "long" and "short" are relative; they can have no precise meaning unless we have knowledge of the circumstances in which they are used. Most commercial and manufacturing companies today consider 5 years as a reasonable base on which to make long-term plans, regarding 1 to 2 years as short-term.

Manpower planning is extremely important especially in the light of recent rapid changes in the business environment. A company must recruit and retain manpower of the types and calibre it requires for its efficient operation - "our people are our business".

"Corporate Planning" describes the activity of planning in depth for the whole organisation. The term is applied to any systematic process of decision-making on issues of substance or long-term significance. But corporate planning does not absolve the executive from the responsibility of planning for his own unit's future.

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SELF-TESTING QUESTIONS

1. (a) What is the purpose of planning a business?
   (b) What does scientific planning entail?
   (c) Name the four essential elements in planning.
   (d) Say as succinctly as possible what is done in each of these exercises.

2. What periods of time are considered suitable for

   (i) short-term planning?

   (ii) long-term planning?

3. (a) Name three different industries each of which needs a different length of time in long-term planning.

   (b) Why does planning for business or commercial concerns tend to be for the short term?

4. (a) List 6 points which must be considered in working out a plan.

   (b) Make a summary list of twentieth century developments which, either singly or in combination, have caused planning to be essential to the promotion of a concern.

5. What eight points must be discussed and determined in planning manpower?

6. (a) Define 'corporate' planning.

   (b) What does PPBS stand for?

   (c) Why is corporate planning necessary?

7. (a) What does a corporate planning department actually do?

   (b) What task is undertaken after the plans have been put into practice?

   (c) What is the department's aim in undertaking, particularly, (b)?

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ANSWERS TO SELF-TESTING QUESTIONS

1. (a) The purpose of planning is to ensure the survival and viability of the proposed business venture.

   (b) Scientific planning entails systematic planning.

   (c) (i) programming

   (ii) scheduling

   (iii) procedures

   (iv) budgets

   (d) (i) Programming determines the activities necessary to achieve the planned objectives.

   (ii) Scheduling determines the times and dates of the various activities.

   (iii) Procedures are devised, indicating how the activitie are carried out.

   (iv) Budgets are drawn up to deal with the financial need

2. Different circumstances demand different periods of planning time according to the nature of the business;

   (i) Short-term - perhaps from 2 to 5 years.

   (ii) Long-term - anything from 5 to 50 years.

3. (a) Engineering industries; the motor industry; forestry.

   (b) Producers of commodities, e.g. clothes, furniture etc, are limited to short-term planning because of the rapidity with which fashions and patterns of demand change.

(a) Six points to note, the first two internal, the rest external.

(i) Staff requirements, retirements and resignations.

(ii) Product variation or other change.

(iii) Technology.

(iv) The environment.

(v) Materials available.

(vi) Competitors' strength.

(b) Twentieth century developments include:

(i) changes in business styles, particularly in automation, e.g. computers

(ii) operational research and resultant new techniques

(iii) changing organisational structures

(iv) changing attitudes to personnel and manpower.

Points for consideration in manpower planning:

(i) immediate requirements; future resignation and retirements, involving,

(ii) examination of objectives and plans for the future

(iii) organisation necessary, including co-ordination of activities

(iv) materials available and future resources

(v) training and development of skills for careers

(vi) methods of selection and training

(vii) examination of future recruitment

(viii) wage policies.

6. (a) 'Corporate' planning is the activity of planning for the whole corporation, in great detail.

   (b) Planning, Programming, Budget System.

   (c) Necessary in order to relieve the manager from the overload caused by planning for his own department plus others as well.

7. (a) Corporate planning departments

      (i) examine all departmental plans

      (ii) develop these in detail

      (iii) co-ordinate and integrate them into one single plan for the company as a whole

   (b) Reviews, adjusts and updates plans which have been accepte

   (c) The object is to cater for unforeseen eventualities.

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PROGRESS QUESTIONS

1. What has got to be completed before an effective business plan can be developed?

2. Describe the main steps in the construction of any business plan.

3. Discuss the need for long-term planning in your work, defining "long" in this context.

4. What do you understand by the term "manpower planning"?

5. Examine the need for corporate planning in business today.

What has to be completed before an effective business plan can be developed?

Describe the main steps in the construction of any business plan.

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USE THIS PAGE FOR MAKING NOTES

PLANNING: WHERE TO START?

I. MARKET RESEARCH

INTRODUCTION

Market Research is a valuable aid in the planning function. It is no longer sufficient for a manufacturer to produce those goods for which he thinks there will be a demand at an economic price, nor is it sufficient that the volume of production should be based solely on the manufacturer's estimate of the extent of the market. Such an approach to the problem is likely to succeed only in very localised conditions, where the manufacturer has first-hand knowledge of his customer's needs. Ultimately, the consumer, user or purchaser of an article will dictate his or her needs, and therefore, the manufacturer must maintain constant contact with the general public's requirements and tastes. In order to obtain this information, tests are made and the analysis of such data has developed into the statistical science termed Market Research.

THE NATURE OF MARKET RESEARCH

In applying market research we are making a strictly factual investigation which will, no doubt, be used for determining the sales policy of the business, but which in itself is no part of it. This point is stressed as the impression is sometimes given that market research and advertising are the same or are closely connected. That is a fallacy. Market research may provide us with the material on which to base an advertising campaign; in itself it does not seek to influence existing demand, but merely to find out what it is, and how and to what extent it can be influenced.

The person who is called upon to carry out a market research investigation has to possess a more than average knowledge both of statistical method and of economic theory. Regarding the latter, he has to know that market research is tied up

with imperfect competition, where a number of producers market fairly similar commodities which are distinguished from each other by some imaginary difference only. Under perfect competition there would be no reason for market research, because by definition every producer in a certain market is selling the identical product and there are no differences, real or imagined, between the articles marketed by the competitors.

Such conditions are not found in actual life and so each producer knows that the demand curve for his product is related to price and perhaps other factors, and he wants to know the effect on demand of each of these factors. From that he may ascertain whether it would be possible to reduce the price slightly and so gain something at the expense of his competitors. The producer of a brand of soap flakes would like to know whether people would be willing to buy his brand even if it were to cost slightly more than a competing brand. That is where he turns to market research.

In a market research investigation, the producer may be interested in the reactions of the final consumers, which will be particularly important where his product is branded and sold under a name which has been made popular by advertising and other means, or he may be interested to know the opinions of the retailers who are distributing his goods and who in many cases may influence the sales either way. There is obviously no objection to an investigation being made under both or either of these headings.

C. AIMS OF MARKET RESEARCH

In modern times, with the increasing tendency to large-scale production involving selling in national and international markets, the manufacturer must have resort to more scientific methods if he is to maximise his profits.
It is essential that he should have adequate knowledge of:-

(a) The suitability of the product for its intended purpose.

(b) The price at which it can be sold.

(c) The volume of sales possible under varying conditions of price and suitability.

(d) The size of the potential market.

(e) Current market penetration.

Until this information is available, any plans (especially production plans) which may be drawn up will be based only on "intelligent guesswork".

The objects of market research are to:-

(a) Find the actual and possible markets and to assess them in terms of effective demand.

(b) Discover the methods, policies and strength of competitors (including those dealing in possible substitute products).

(c) Discover methods of increasing demand.

(d) Show the most economical and efficient methods of distribution within each market.

SOURCES OF INFORMATION

Data may be obtained from either one or several of the following channels:-

(a) Statistics of Past Sales

An unsatisfactory feature about statistics of past sales is that they are historical in character and give no indication of potential market requirements or the success of competitors in those markets.

(b) Current Reports by Salesmen

Such reports are of very real use and should be obtained as a matter of routine. Any important trends indicating the need for action or revision of policy should be carefully checked by other means before any important decisions are made.

(c) Published Statistics

Various journals are available and contain much that is of value to most concerns. Generally, additional information will be required for specific problems, but general statistics form a sound foundation for the more detailed information collected later.

(d) Field Research

The two basic methods used in field research are:-

(i) The employment of specialist investigators, making personal calls on a cross-section of the potential customers.

(ii) Postal questionnaires.

E. AREAS OF RESEARCH

(a) Type of Buyer

The producer will want to know whether it is mainly men or women who buy his products, what the model ages of the buyers are, whether the buyers are married or single, what social section of the community they belong to and other points about them, although it is not implied that the producer will be interested in all these points at the same time. In many cases it may be obvious who buys an article, e.g. lipsticks, ladies' clothing, but the above mentioned points are at least some of those which may be of interest to the producer. They will

interest him partly because of their effect on his advertising policy, partly because of their influence on the way in which the product has to be packed and marketed and also because the elasticity of demand varies between people of different age groups and social levels.

(b) Uses of the Product

In many cases this point is obvious and needs no investigation. In other cases, however, the producer may discover that some of the buyers are using his article for purposes which he never thought of himself, and if he can spread the knowledge of such alternative uses among other buyers, he will be able to increase the volume of his sales.

(c) Buying Habits of Consumers

Under this heading must be included such questions as the most popular size or quantity bought at any purchase, the probability that the buyer will buy something else with the article, the intervals at which purchases are made, and so on. These points will be of interest to the producer in deciding both the pricing policy and the style of packing to be used in selling the goods.

(d) Seasonal Variations in Sales

A knowledge of seasonal variations in demand help in adjusting production to meet such demand. Also, as from the point of view of the costs of production, it is preferable that demand should be evenly spread through the year, and something may be done to induce the consumers or the retailers to even out the unpleasant ups and downs in demand.

(e) Regional Sales

In the case of a product which has a national market and is being sold in all parts of the country, the producer would like to know how the sales in the various regions compare with each other, expressed

on the basis of numbers of value per 1 000 population This may be helpful partly as a form of check on the efficiency of the selling organisation, partly with a view to determining the areas of the country where publicity may have to be increased. If one finds out the reason for the difference in sales it may be possible to change the product slightly, if for some reason it does not meet local requirement in the area where sales are down. That applies particularly in the case of market research investigations carried out in foreign countries to see why export sales are not up to the desired level.

F. PSYCHOLOGICAL ATTITUDE OF THE CONSUMER

All the points noted so far are points of general importan which, for the most part, will not be difficult to ascerta Many of them may be taken directly from published statisti or from existing records of the firm.

There are, however, other important factors which can be found out only by direct contact with the consumers. If we want to give them a general heading, we might speak of the consumers' psychological attitude to the product.

The consumer has often a very distorted view as to the advantages or disadvantages of any particular product and his refusal to buy one brand may be due to some superstitious belief that it contains certain harmful ingredients. Such a belief may be passed from consumer to consumer and although it need not have any foundation in reality, it will affect the sales of the product concerned At the same time, the producer may be blissfully ignorant of this notoriety which his product has achieved and may be racking his brains for reasons for declining sales.

The first thing he will have to do will be to learn everything about these rumours and then he can direct his publicity towards repudiating them. It will not be easy to get from the consumer a direct answer to a question as to why he prefers article A to article B, for the simple reason that many consumers really do not know and if pressed for an answer may invent something on the spur of the moment. To get the real and true reactions of the consumers to the various articles which are offered to them and the reason why they choose one in preference to another, is not only one of the most difficult, but also one of the most important tasks of market research.

METHODS OF RESEARCH

By means of an internal analysis, the manufacturer will be able to obtain the following information:-

(a) Which areas provide the highest sales.

(b) Which distribution points bring in the most business - for example, wholesalers, retailers, sales representatives, chain stores, etc.

(c) Average order size and re-ordering frequency.

(d) Sales returns statistics.

While the above information is of great value in any forecast or budget, management has little knowledge regarding:-

(a) The efficacy of its sales policy, and

(b) The market potential.

Market research, being an external analysis provides these answers and many others.

Due to the highly specialised nature of field (or external) research and the number of skilled personnel required to undertake a survey, most market samples are entrusted to firms of consultants who release the results of such a survey to their clients upon completion. Survey analysis involves the use of statistical mathematics and is usually performed by a computer, so I propose to provide a very simple example which we will work through descriptively. This should mean a lot more to you than the relevant equations, and should explain sampling principles far better than alternative approaches.

EXAMPLE

We shall take the case of a manufacturer of a particular brand of cigarettes who has provided an agency with the results of internal research analysis and requires to know:-

(a) The total value of the consumer market for cigarettes of every brand throughout the country.

(b) Market penetration in the case of the client's own brand.

(c) What degree of accuracy can be depended upon when analysing the answers to the above questions.

When approached by the client, the agency is likely to introduce the client to the basics of sampling technique and the costs involved, before accepting the contract or preparing the sampling plan. Such a discussion would be likely to cover the following topics, inter-alia:-

Questionnaire:

Virtually all surveys require the careful compilation of an adequate questionnaire, the length of which will depend upon the method of enquiry used. Questions will have to be pertinent and readily understandable by the average consumer; questions will have to follow a logical order

and hold the interest of the person being questioned, so the task of creating the questionnaire should not be taken lightly and could result in total survey failure unless all aspects are meticulously studied.

1. SURVEY METHODS

(a) Telephone surveys

These are cheap and can reach consumers within short intervals, but due to the fact that questions have to be kept to a minimum, this method is not a favourite technique. Certainly, the majority of South African consumers do not possess a telephone.

(b) Postal surveys

These are also cheap and relatively fast, but the danger of more questionnaires reaching the dirt-bin than the agency can never be ruled out. Again, given the facts of South African life, the problems of illiteracy and language barriers cannot be overlooked. With this method, there is no interviewer to re-phase questions or record answers and, again, question content will have to be curtailed to minimise the (major) problem of non-return.

(c) Personal Interviews

These possess all the advantages the other methods lack, but have a serious relative disadvantage - they cost the earth! Using this method, the interviewer can not only meet consumers "in the market place," but the need to ask many questions can fall away altogether and more pertinent topics can be included, leaving such former questions to the experienced eye of the analyst.

2. MARKET RESEARCH CONCEPTS

Regardless of the method chosen, the agency is likely to stress the four concepts upon which all market research is based:-

(a) Sampling

A carefully selected sample representing a certain class of consumer is chosen. Sometimes it is based on age, income group, sex, geographic factors, etc. Often it is a random sample and at other times a blend of many categories. Obviously, the nature of the information required will determine the sample mix.

(b) Regularity

When a sample is taken, the "part" will possess the same qualities as the "whole", from which the sample was taken, subject to the principle of stability.

(c) Stability

When too small a sample is taken, the results can be misleading. The larger the sample, the more stable the conclusions. This is based on the fact that any market trends in one direction will be compensated for by trends in the opposite direction - provided the sample is large enough.

Sometimes when we feel ill, our doctor recommends a blood sample being taken. Specialists examine the sample and can provide a detailed report on our whole body from that sample, provided sufficient blood is extracted. Remember this analogy. Market research operates the same way.

(d) Averages

As market research is a statistical science, it will not surprise students to learn that averages form the basis of the quantitative technique. By dividing sample results by the number of observations, we arrive at the mean.

The mean should represent the feelings of the average consumer questioned in the survey and, by the principle of regularity, should indicate the feelings of all consumers (in a category) in general.

Naturally, when a sample graph is prepared, the grouping of observations around the mean is of prime concern to the analyst. Close "scatter" will make the mean much more dependable (but errors more serious), while wide dispersion will have the converse effect.

BACK TO OUR EXAMPLE

Presuming that the cigarette manufacturer has selected a survey method and that a questionnaire has been printed and issued to staff for use on the day of the sampling, let us rejoin the agency after tabulation of the relevant data is complete. 230 persons have been requested to disclose their monthly expenditure on cigarettes (inter-alia) and the following tabulations have resulted:-

A. MONTHLY EXPENDITURE (R)	B. NUMBER OF CONSUMERS IN CATEGORY INDICATED	C. PRODUCT. (A x B)
4	3	12
8	5	40
12	17	204
13	30	390
20	34	680
23	36	828
27	34	918
31	25	775
35	20	700
39	15	585
43	8	344
47	2	94
50	1	50
	TOTAL OBSERVATIONS 230	5 620

Mean expenditure = $\frac{5\ 620}{230}$ = R24,43 per month.

Statisticians would now want to calculate the Standard Deviation from the mean which will determine the reliability of the above survey and then represent the results graphically

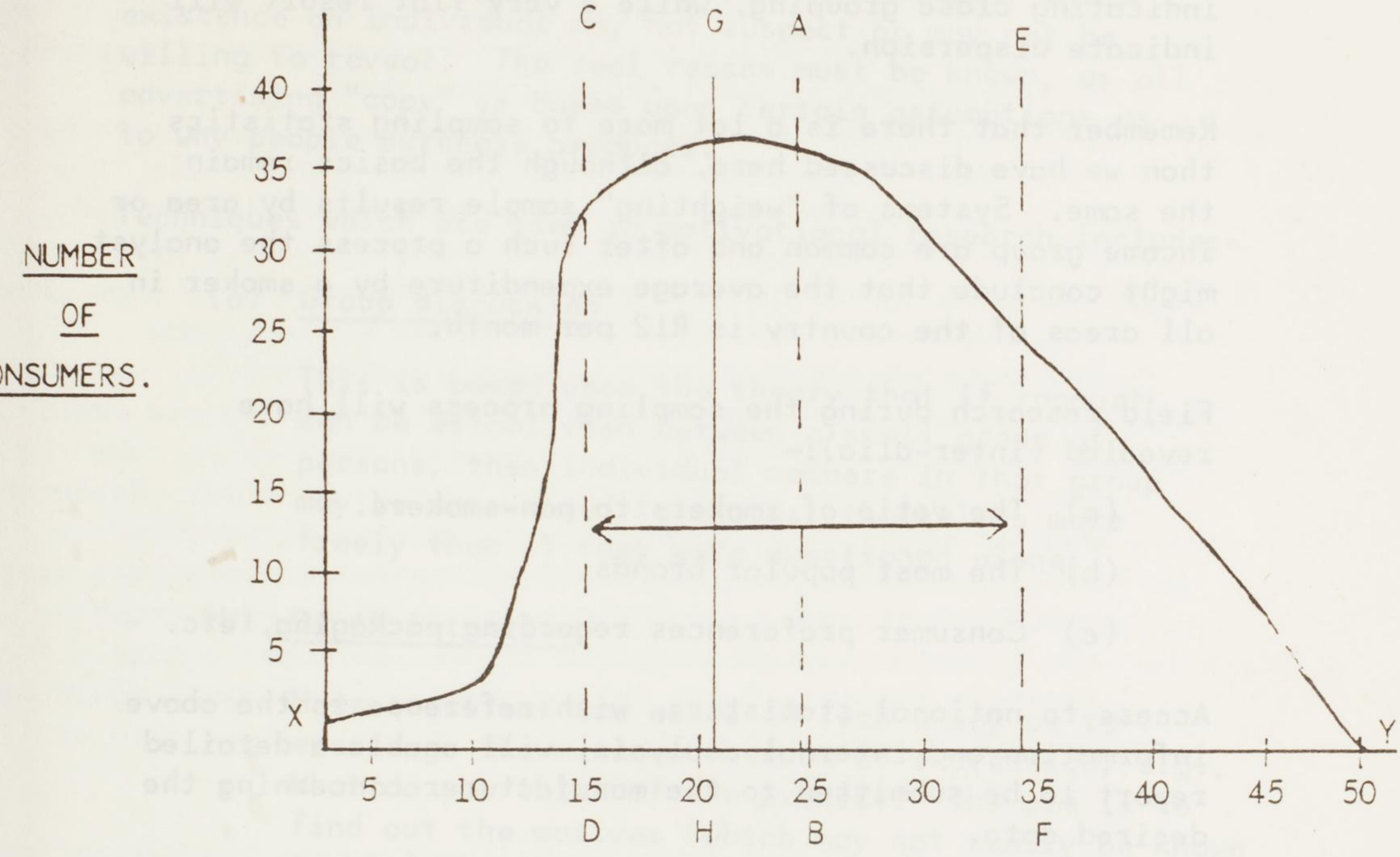
Using the above table, if the mean is R24,43 then the mean deviations are as follows:-

A MONTHLY EXPENDITURE R	B MEAN DEVIATION R	C SQUARED DEVIATION R	D NUMBER OF CONSUMERS	E PRODUCT (C X D)
4	20,43	417,38	3	1 252,14
8	16,43	269,94	5	1 349,70
12	12,43	154,50	17	2 626,50
13	11,43	130,65	30	3 919,50
20	4,43	19,62	34	667,08
23	1,43	2,05	36	73,80
27	2,57	6,60	34	224,40
31	6,57	43,16	25	1 079,00
35	10,57	111,72	20	2 234,40
39	14,57	212,28	15	3 184,20
43	18,57	344,84	8	2 758,72
47	22,57	509,40	2	1 018,80
50	25,57	653,82	1	653,82
			230	21 042,06

When you study the "least squares" concept later on in your lectures, you will again find that errors (i.e. deviations) are squared. The reason for this is simple. Between expendit of R20 p.m. and R27 p.m., deviation crosses the mean and posit values become negative. By squaring, we eliminate this probl but have to work on the square root of the products divided b the observations to allow for squaring.

$$\text{Standard Deviation} = \sqrt{\frac{21\ 042,06}{230}} = R9,56$$

Let us look at these results when graphically represented.



AB = Arithmetic Mean R24,43

CD = One Standard Deviation : Arithmetic Mean

EF = One Standard Deviation : Arithmetic Mean

GH = Graphical Mean ± R22,00

It will be obvious that actual results are very unlikely to be in excess of one standard deviation either side of the mean, while the greatest concentration should approximate GH, which I have termed the graphical mean, approximctely R22,00.

The shape of the curve XY will vary with every sample, depending on the width of scatter - a very steep curve indicating close grouping, while a very flat result will indicate dispersion.

Remember that there is a lot more to sampling statistics than we have discussed here, although the basics remain the same. Systems of "weighting" sample results by area or income group are common and after such a process the analyst might conclude that the average expenditure by a smoker in all areas of the country is R12 per month.

Field research during the sampling process will have revealed (inter-alia):-

(a) The ratio of smokers to non-smokers.

(b) The most popular brands.

(c) Consumer preferences regarding packaging, etc.

Access to national statistics, with reference to the above information and internal analysis, will enable a detailed report to be submitted to the manufacturer concerning the desired data.

The results will enable the sales manager to market more efficiently and effectively, while repetitive surveys will enhance this position and reveal all-important <u>trends</u>.

II. MOTIVATION RESEARCH

This is a term used to embrace the techniques of social psychology in order to try and determine <u>why</u> people buy one particular brand rather than another. Many answers in surveys have been found to be incorrect or false. Quite often socially accepted answers are given, for example the number of cigarettes smoked are far greater than the number ascertained by consumer research.

Motivation research is founded upon the assumption that consumer behaviour may be influenced by factors, whose existence an individual may not suspect or may not be willing to reveal. The real reason must be known, as all advertising "copy" is based upon certain assumptions as to why people purchase products.

Techniques which are used in motivational research include:-

(a) Group discussion

This is based upon the theory that if rapport can be established between a small group of persons, then individual members in that group may be encouraged to express themselves more freely than if they were questioned alone.

(b) Depth interview

Here questions are asked in such a way as to encourage the maximum freedom of expression, e.g., What do you think of the product? The aim is to find out the motives (which may not really be known to him) whereby a consumer makes a choice between one situation or product and another.

Where market research is largely quantitative, motivation research is far more subjective and abstract, more concerned with the psychology of the subconscious mind. Although in recent times the tendency has begun to wane, classical researchers were initially inclined to attribute most consumer behaviour to suppressed erotic desires. While a lot of controversy regarding this symbolism still exists, the fact remains that major producers the world over spend millions on advertising methods recommended by market psychologists. It would seem highly unlikely that this expenditure would be sanctioned unless there was a lot more to some sort of "collective consumer subconscious" than some critics are prepared to accept.

One advertising technique reinforced by motivation research theory, "subliminal imbeds", has been the subject of many books and reports and expert opinion is split regarding the efficacy of the technique, while many consumers disapprove of the process on ethical (and often moral) grounds. Official opinion in many parts of the world appears to be that while the method of advertising is undesirable, the efficacy of imbeds has never been proved and the method can thus not be termed inherently anti-social or evil. Let us see just how the technique operates in the area where subliminals are most often encountered - the cinema. Suppose that the fictitious cigarette manufacturer we came across when studying sampling theory decided to use imbeds to boost sales and that no legislation existed to make the practice illegal in the selected country or area. Research psychologists would design a certain specific studio set which, in their opinion, would be guaranteed to have a deep subconscious impact on any consumer. After photographing the scene, a caption might be added, whereupon a single frame (being a replica of the tableau in the photograph) would be spliced between two normal frames of the feature film at the local cinema - for a price.

Although the studio scene would flash across the screen for all to see, it has been demonstrated that an incredibly low percentage of viewers would consciously be aware that they had seen the cigarette subliminal at all, as it would only be visible for a fraction of a second. There are many experts who admit that while such an advert will not be recalled at will by the observer, many patrons would be subconsciously aware of every detail in the subliminal, but effect on their behaviour as consumers due to the imbed has been hard to substantiate.

Students must not come to the conclusion that subliminals are a method of motivational research, as the advertising technique I have just discussed is clearly sales-orientated. All I wish to demonstrate is one (of many) contemporary applications involving subconscious psychological market theory. Researchers attempt to discover what (in the eyes of consumers) a "beautiful woman" is; what colours promote joy or anger; what contemporary "status symbols" are and in each case, why one answer was given and not another.

The chief disadvantages of motivation research appear to be:-

(a) The belief that highly speculative symbolism makes people buy a product. Psychologists studying the same sample independently often give conflicting advice to their clients regarding consumer attitudes.

(b) Depth interviewing necessitates a smaller sample than would be the case with ordinary field analysis and due to the principle of stability (discussed earlier) a truly representative survey might not result from such a small investigation.

When one remembers that any new or developing technique has the above disadvantages and that "trial and error" led to most major discoveries, one is forced to take an objective view of what is certainly a fascinating subject. Many of the "big spenders" certainly are.

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SUMMARY

MARKET RESEARCH

Market Research aids planning especially where little is known about the market. It is a statistical science designed to collect information about a market through various tests. It is also used to analyse the data obtained.

Market research aims at providing information regarding:-

(a) The suitability of the product for its intended purpose;

(b) The price at which it can be sold;

(c) The volume of sales possible under varying conditions of price and suitability;

(d) Size of the potential market;

(e) Current market penetration.

Sources of information are:-

(a) Statistics of past sales.
(b) Current reports by salesmen.
(c) Published statistics.
(d) Field research.

Areas of Research include:-

(a) Type of buyer.
(b) Uses of the product.
(c) Buying habits of consumers.
(d) Seasonal variations in sales.
(e) Regional sales.

Survey methods include:-

(a) Telephone surveys.
(b) Postal surveys.
(c) Personal interviews.

II. MOTIVATION RESEARCH

Psychological attitudes of the Consumer are important.
Motivation Research is carried out by:-

(a) Group discussion.
(b) Depth interview.

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SELF-TESTING QUESTIONS

1. (a) What is 'Market Research'?

(b) What does it aim to do for both consumer and supplier?

(c) Explain the difference between Advertising and Market Research, which is commonly regarded as a form of advertising.

(d) What information does it provide?

2. (a) List five areas of Market Research in the order in which you think they are of use to the researcher.

(b) What is the most familiar form of Market Research?

(c) What personal, but NOT TV, form of advertising a firm's wares is familiar to all?

3. (a) What four useful items of information may be gathered by means of internal analysis?

(b) To whom is this information of great use?

(c) What two items of information are valuable to, specifically, management?

4. (a) Upon what four concepts is Market Research based?

(b) What survey methods might be profitably used?

(c) Which of these is likely to be the most effective?

5. (a) What is 'Motivation Research'?

(b) Upon what assumption is it based?

(c) Explain the difference between Market research and Motivation research.

6. State, without detail, what you understand 'monistic motivation' to mean.

ANSWERS TO SELF-TESTING QUESTIONS

1. (a) The analysis of data on consumer needs, requirements and tastes is called 'Market Research', a statistical science.

(b) It aims to keep supplier and consumer in constant touch in respect of the above.

(c) Advertising aims at actually activating and influencing demand;

Market Research aims at finding out the nature of this demand, what influences it, and to what extent.

(d) It provides information on:-

(i) the suitability of products for their declared purpose;

(ii) suitable pricing, i.e. the price at which a commodity can be profitably sold;

(iii) possible volume of sales, various and varying conditions;

(iv) size of the potential market;

(v) current penetration of the firm into the market.

2. (a) Order of possible usefulness:-

(i) uses of the product,

(ii) type of buyer,

(iii) buying habits,

(iv) seasonal variation,

(v) variation according to localities.

(b) Questionnaires.

(c) An attractive young female testing one's reaction to a trollyful of the firm's wares, which the supermarket customer is urged to 'try'.

3. (a) Useful items of information:-

(i) Which areas show the highest sales;

(ii) what types of distributor brings in the most business

(iii) the size of the average order;

(iv) frequency of re-ordering.

(b) Useful to the forecaster.

(c) Of use to management:-

(i) the market potential;

(ii) efficiency of the firm's sales policy.

4. (a) Market Research conclusions based on:-

(i) Sampling the different types of consumer.

(ii) The assumption that the sample consumer contracted reflect the whole of that type of buyer.

(iii) The assumption that if the sample taken is wide enough, market trends in one direction will counter-balance trends in another, lending stability to the research.

(iv) Sample results divided by the number of observations made give a statistical mean average.

(b) Survey methods:-

(i) Telephonic questioning.

(ii) Questionnaires sent through the post.

(iii) Personal questioning; the interviewer does the writing down of replies.

(c) Personal interviews.

5. (a) Motivation research is an attempt to find out WHY people buy this rather than that.

(b) Based on the assumption that consumers are ruled by some subconscious reason.

QUESTION 4

(a) Define what is meant by a decision tree. (10 marks)

(b) Discuss when a manager should use the decision tree technique. (10 marks)

(c) What are the limitations of the decision tree technique? (10 marks)

(30 marks)

TOTAL : 100 MARKS

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Please fill in :

STUDENT NO : | | | | | | | | |

COURSE CODE | | | | |

(Obtainable from your Programme of Studies)

YOUR NAME: .....

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YOUR COURSE : .....

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Now attach YOUR ANSWERS to this test, tearing it out along the perforation, and post BOTH to the address below.

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The test will be returned with your corrected script and

----oOo-----

a model answer.

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MANAGEMENT PLANNING

TEST GAD2

(Time allowed : 3 Hours)

NOTES: 1. Credit will be given for neatness and method.
2. Answer all questions.
3. Scale of marks is indicated at the end of each question.
4. Leave sufficient space at the head of your answer paper for tutor's comments.
5. Answer each question on a separate sheet of paper.
6. Attach this entire question paper to your answers.
7. PLEASE FILL IN STUDENT DETAILS ON THE FORM AT THE END OF THIS TEST AND ATTACH IT TO YOUR ANSWERS.

------oOo------

QUESTION 1

Give a suitable definition of planning and state what you understand the role of planning to be.

(20 marks)

QUESTION 2

Discuss the question of 'objectives of business' and the theories concerning the formation of objectives.

(20 marks)

QUESTION 3

(a) What are 'policies'?

(b) How would you evaluate the policies of your company?

(c) "The Advertising policy should be prepared without reference to any other considerations."
Discuss this statement.

(30 marks)

(c) Market Research tries to find out what people buy - which amounts to finding out the state of the market.

6. 'Monistic' motivation means belief in or attachment to a single cause which acts as a motivator.

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PROGRESS QUESTIONS

1. What is meant by Market Research?

2. What do you understand by Motivation Research?

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POLICIES

INTRODUCTION

In planning we determine courses of action to achieve specific desired results. But before we can specify what results we, as a company, desire, we must have determined our policies. As with a political party, it is the content of our policies that determines our plans and targets. Do not confuse "objectives" with "policies". Objectives reflect where we wish to go, what we wish to achieve, policies tell us how best to arrive at our objective once the plans become operational.

1. DEFINITION OF A POLICY

E.C. Miller defines policy as:-

"A statement or a commonly accepted understanding of decision-making criteria or formulae, prepared or evolved to achieve economy in operations by making decisions relatively routine on frequently occurring problems and, consequently, facilitating the delegation of such decisions to lower management levels".

This is a most comprehensive definition and indicates the following facets of policy:-

(a) Policy is not always written down - indeed, it is sometimes not even consciously formulated. It is a way of deciding things which the people in the organisation normally use. A policy, then, can exist, merely because that is the way something has always been done.

(b) A policy offers criteria for making decisions. It is a guide to thought rather than action. It tells people what is involved in good decisions in particular areas.

(c) Frequent similar problems thus become simple, because the answers to them are indicated by policies.

2. POLICY IS AIMED AT GROWTH

The policy of a firm must depend upon its objectives. Is the object to remain as it is, or to grow, meet challenges and expand activities? We cannot consider the former as it has no policy to speak of. We are concerned rather with the latter, the firm that has a policy of growth.

No firm can neglect the need for growth. So important is it that one writer has said that a firm should be re-made every 20 years. In an expanding economy the economic scene changes rapidly. Output may increase by 4 per cent or more each year and may double in the space of 25 years. In this sense the economy is "made-over" every generation and a business that cannot think in these terms will utlimately collapse if the forces of competition are effective.

3. POLICY MUST ADJUST TO CHANGE

Business policy should be ready to adjust in response to changes in techniques, markets, economic structures, organisation, habits and tastes. It should be ready for change and to play a part itself in bringing about change.

A firm thrives and continues to do so because it continually adapts itself and adjusts its scope, its products, its methods of manufacture, its organisation, and its management.

It has been said that "firms either grow or decline, they rarely stand still".

Sometimes small concerns attempt to stand still. The proprietor finds his profits sufficient and does not want the worry and risk of expansion and to see the rewards cut by taxation. This attitude of mind is understandable, but it does not fit in with progress and change in a modern society. A firm that does not grow has no place in a growing economy.

In fact, it is a retarding influence and can discourage more efficient firms. On this argument, it seems as if a firm attempting to stand still must decline. Its speedy elimination will boost more progressive firms.

REQUIREMENTS OF POLICY

Here is a list of the things that should be part of the policy of any firm seeking growth. I use the word readiness in each instance, because a firm should be ready to consider these matters. If it is not, then it should acquire a management capable of doing so.

1. A READINESS TO SPOT OPPORTUNITIES

   A firm must keep its eye open for the occurrence of opportunity. Management must fulfil its duties as entrepreneur by taking the opportunities that arise, seizing the right moment and accepting the risks.

   This does not just apply to day to day events. Long-term studies will suggest where profitable opportunities may be found in the future.

2. A READINESS TO DIVERSIFY

   A company should be ready to diversify if business is declining through competition or any other reason. A textile firm might extend its activities to producing plastic materials; a ship-building concern should be able to expand into a variety of engineering activities.

3. A READINESS TO EMBRACE SUBSIDIARY COMPANIES

   A company should be ready to take over subsidiary companies doing a similar line of business if opportunity arises and the circumstances are favourable.

   Companies often create subsidiary organisations which then deal with the by-products of their major activity, or deal with the making of parts and components that they need.

4. THE READINESS TO PURSUE RESEARCH

No modern company can neglect measures leading to the improvement of its product. Nor can it ignore the necessity for research into new products. At the very least it should make use of the various government institutes that conduct research in scientific, industrial and social matters.

5. THE READINESS TO INTRODUCE NEW IDEAS

A firm must keep abreast of technological developments. consider better and more economical methods in production (for example, better plant, machinery and automative techniques).

6. THE READINESS TO BE PROGRESSIVE

A firm must move with the times and assign tradition to its rightful place, without necessarily rejecting it altogether. A firm's policy will count for little if it relies on the slogan "we have always done it this way", and refuses to change for that reason alone.

7. THE READINESS TO FULFIL ITS OBLIGATIONS TO SOCIETY

An organisation has obligations towards society. In this context it should have objectives other than the financial one of profit and the interests of the shareholders.

Non-financial considerations are more important than is often imagined.

For example, an entrepreneur may be concerned with the prestige, the political influence and power gained by control of a large business.

A firm might expand for humanitarian reasons. There have been examples of men expanding their businesses to give employment during times of depression. They have been successful and expansion has had to continue.

A government or nationalised industry is expected to give a service to the community. It is not supposed to make use of its monopoly to increase profits.

In considering the public interest a firm could think in terms of a fair or reasonable price, rather than of exploiting any monopoly situation that arises.

Its attitude towards its employees should be fair. The policy towards redundancy could be more generous than one dictated solely by self-interest. The attitude towards pension and profit-sharing schemes could be flexible.

The validity of the claims of environmentalists must be recognised. Finally, policy should not ignore the pleas of charity.

C. WHO DECIDES THE POLICY?

The broad policy of the firm should be decided by the Board of Directors. It is a general principle of good administration that the function of a board is to determine broad matters of policy; its responsibility is to see that others, more closely in touch with the working of the firm, carry out its general instructions.

A board should not attempt to make decisions that can be better made by its subordinates.

The business policy of a firm is not decided by the shareholders. Any control that they have is indirect and limited to the right to elect the board of directors. It is very rare, however, that any shareholder is sufficiently involved to organise any opposition to the existing directors.

In any case, shareholders do not have sufficient knowledge of the enterprise to be able to interfere in policy.

D. WHO IMPLEMENTS THE POLICY?

The detailed implementation of the broad policy set out by the Board of Directors must be left to those given the responsibility of running the firm, i.e. the Management.

In theory, decision-making may rest with the Managing Director, who is a full-time employee of the firm as well as a member of the Board. In practice, as we shall see, decision-making will be very much the outcome of a system built into the organisation.

A good Managing Director will <u>delegate</u> his authority to the managers under him. Each manager will then, <u>within the broad policy,</u> be free to make his own decisions.

If there are subsidiary companies, control over them may be no more than setting objectives and laying down broad policies to follow. As long as they continue to function successfully they will be free of further control and decision-making will be left to the managements of the subsidiaries.

E. POLICY AND PLANNING

Planning is a word much in use in the literature of the scientific management that is becoming general today. It is necessary to plan most of the activities of a firm. Why not apply planning to the very top of the organisation? Why not apply it to the policy of the firm? It is this which needs to be emphasized.

A good over-all plan for the company will go beyond the here and now. It will formulate the policy of the firm by concerning itself with <u>what the business can become</u> as well as with what it is. It will incorporate arrangements for development as well as for the carrying out of the present operations.

A good plan has been called an <u>essay in imagination</u>. In so far as it thinks of the future, this is what it should be.

The starting point of any plan could be the desire to expand on a grand scale. It could be the intention to introduce a new product or to move into some new branch of industry. If the firm's policy embraces such ambitions and objectives, then the planning for the present must be such that it bears in mind <u>future development and growth</u>.

F. POLICY CATEGORIES

There are two basic categories of policy:-

(a) Mandatory;
(b) Advisory.

Mandatory policies are those which leave the decision-maker with no discretion. Advisory policies, on the other hand, do leave him with some discretion. Some writers, for example Koontz and O'Donnell, suggest that the difference between these two types is so important that they ought to be given different names. They prefer to use the word "rules" for mandatory policies.

The reason for this is imply the need for flexibility. Mandatory policies, by their very nature, tend to stop people thinking; they do not need to think, after all, if there is no area of discretion.

Secondly, mandatory policies are virtually never a motivating force, whereas advisory ones often are because they leave room for thought and responsibility.

Thirdly, circumstances change, sometimes very rapidly. Clearly, advisory policies are the more flexible, and may meet changes in circumstances more quickly.

It is best, therefore, to use mandatory policies as little as possible.

These arguments also imply that the reasons underlying any stated policy should be clearly outlined in the policy document, so that the decision-maker will be better guided in his decision.

1. THE CREATION OF POLICY

Because of its complexity, it is important to understand how policy comes into being.

Of course, the main stated policies of the company are those which the managers of the company draw up. This is the policy which starts at the top of the hierarchy and filters down. Fundamentally, this is policy which is developed by a superior to guide his subordinates.

Some of this policy will be forced on the company because, for example, it is the law of the land. For instance, every firm must have a policy of operational safety and prevention of accidents and of reporting certain types of accident to the proper authorities.

There are other sources of policy, however, which are considerably less easy to control. For example, the manager can make a policy he is unaware of, simply by his own example. By arriving late for several mornings perhaps, he can instill the attitude of lack of concern over punctuality. Or he may make a snap decision, in what he thinks is an isolated case, which is used as a basis for all similar decisions by his subordinates. Precedent becomes a god in some organisations.

It is important, then, to ensure that all major areas are covered by explicit policies, which are known to all concerned.

Policy will be formulated at least in all those areas listed as areas for major objectives.

2. EVALUATION OF POLICIES

The following section is based on the principles of good policy suggested by Koontz and O'Donnell. They form a useful basis for evaluating the policy formulation within your company.

(a) Policy should reflect objectives

The only justification for the existence of a policy is that it furthers the objectives of the enterprise. A policy which exists just "because we've always done it this way" is of no value. Indeed, it may be a positive danger in so far as it will, perhaps, be completely out of date and unrelated to current circumstances.

(b) Policies should be consistent

It is obvious that policies should not be set in such a way that they conflict with each other. It is not quite so easy in practice, however, to ensure that this does not happen.

(c) Policies should be flexible

Although policies should never be ignored or departed from indiscriminately, they should not be regarded as sacred.

Flexibility may be attained by frequent reviews (and, if necessary, changes) of policy. The danger in that, of course, is that decision-makers will be plunged into confusion because they cannot keep track. After all, the purpose of having policies is to ensure that everyone is advised what to do in given circumstances and so that any one individual can predict what another will do. If the advice continually changes, this advantage disappears.

A better solution is to offer as much discretion as is feasible within the policy and back it up with the use of "management by exception". In other words, when stating policies, clear provision should be made for referring back to the superior exceptional problems which do not fall within the bounds of the policy.

(d) It should be made clear whether the policy is mandatory or not.

(e) Policies should be taught

It is not sufficient to draw up the policies and, perhaps, publish them in a policy manual. It is a manager's responsibility to ensure that his subordinates have a clear conception and understanding of all those policies which affect their work.

This can, of course, be done by publishing them in house journals, on noticeboards etc., but by far the most effective way is to explain them verbally to the subordinate whenever advising him on his work. This involves the manager in explanations of objectives rather than giving orders.

(f) Policies should be controlled

Regular review of stated policies is, of course, relatively simple, and in some cases will be carr out automatically in the annual planning review.

The non-stated ones, however, present more diffic Such a review depends on good feedback of informa to the policy-maker.

G. PROCEDURES

A procedure is a kind of plan which guides action, as oppose to policies which guide thought. A procedure lays out, in order, the steps which need to be taken to effect some commo ly occurring objective.

Every company has a myriad of procedures, ranging from the steps taken to grant an employee a day off, to the steps involved in settling a major dispute.

Usually, procedures are seen as paperwork systems, but sometimes they may be verbal.

A good procedure will ensure that necessary action is clear to everyone involved and that required information is avail- able. It will also provide specific points where control may be exercised.

It is vital, too, that procedures should be kept as simple as possible. They tend to grow in time and further procedure are added. The total procedural system can soon become over- complicated unless continual review is undertaken to remove unnecessary ones and to introduce streamlined or new ones when changes make it necessary.

H. POLICIES AND THEIR CO-ORDINATION

The board of directors determines the policy of the company as a whole, and this will vary according to different com- panies - even among those in the same industry.

There are five main policy decisions which together make up the total company policy, and while the individual strengths of these policies is important, their co-ordination is of paramount importance and significance. It is essential that they are integrated to ensure an overall efficient and sound policy.

Let us now consider each of these policies in turn and finally take a look at some of the usual problems of co-ordination.

1. FINANCIAL POLICY

Money must be available prior to any production or selling of commodities or services. Working capital must be sufficient, the company must be kept solvent, too much money must not be locked up in stocks and partly finished materials, and money must be set aside for the upkeep of the fixed assets and their replacement at the end of their effective life. Money must be available for advertising the product and distributing it. Hence, the question of finance is connected with every part of the activity of the concern.

The amount of money and the manner in which it is controlled and used constitute the financial policy. Invested capital requires an equitable dividend as a return and the financial policy is one of the tools for ensuring this. Idle capacity must be kept under review and at the other end of the scale, overselling must not be allowed, unless conditions have brought about a sellers' market and even then, in the long run, overselling is not to be recommended.

The full needs of the company (including those of its shareholders and customers) must be carefully examined and the amount of money necessary to operate must be determined and maintained. Either too much or too little finance available will present many disadvantages - the money used must be in equilibrium.

It is evident that, to obtain this equilibrium, the production, sales and advertising policies will need careful co-ordination.

2. PRODUCTION POLICY

We can see immediately that what is made must be capable of being sold at a reasonable price so as to provide a reasonable profit on the activity. Production is based on possible sales and consequently the production policy must be integrated with the sales policy. It must be remembered that the maximum utilisation of production capacity is not to be aimed at only for its own sake - efficient production is always the most important aspect. Maximum usage of productive capacity does not necessarily mean maximum efficiency.

Again, the production must be capable of being sold economically. If increased production results in a more than proportionate increase in selling and distribution costs, then selling prices will tend to rise and this may cut back the eventual demand for the product, this in turn leading to a reduction in the ultimate production pattern.

If an expansionist policy is being pursued, research must be encouraged to find new or improved lines. Here again, the ultimate deciding factor will be the relative profitability of the product.

Standardisation of products may lead to considerable reductions on production costs.

Style may be linked with the simplification of the product. The importance of fashion and changing tastes must not be overlooked if the company is concerned with consumer products. Here again, advertising counts, and quality control also becomes important. Most concerns tend to try to sell on their quality, as in competitive conditions prices tend to be equated. Thus, it becomes necessary for the concern to try to convince their customers of the uniqueness of their product and service.

Again the "life" of the product may be important. Some firms make products to last for very many years - as in heavy engineering - whilst others will manufacture for a short term only to cater for changes in fashion and ideas. Thus, multiple tailors and shoemakers will tend to design their products to last for a few years only and they will appear to be especially cheap.

Consequently, with the ever-increasing growth in the use of machinery, leading ultimately to complete automation, labour costs tend to decrease in proportion to machine depreciation and running costs; in addition, the skills required to operate these machines reduce proportionally.

We may summarise our main conclusions as follows:-

(a) Sales and production policies must be carefully integrated. In the event of their being at variance, it is usual for the sales policy to take preference so that it will to a large extent dictate and govern the production policy.

(b) Capital requirements must be based on the volume of production and sales, and any increased production may seriously upset both production and selling costs.

You will now see the close inter-relationship between all these various policies. The whole problem becomes a complete jigsaw with changes in one policy having some bearing on the others. Some of the problems of this co-ordination will be considered at the end of this lecture.

3. MARKETING OR SALES POLICY

In order to survive, the objective of any concern cannot be other than the making of a normal profit in the long-term. Sales organisation and management are therefore directed to that end. In its widest sense, the sales policy must cover the subordinate policies of all departments and all activities that have any direct bearing on the actual selling of goods and services.

Generally speaking, the sales policy is regarded as the regulating policy of the company. In its broadest sense, sales policy must cover the merchandising and marketing policies together with the pricing policy, the policy regarding quality (both of product and of after-sale service) and the advertising policy. It is important that the sales policy is not laid down and executed in any dictatorial manner. Whilst it is the leading policy, it must be co-ordinated and balanced with them all.

Some of the more important aspects of sales policy may be tabulated thus:-

(a) With regard to production, the question of capacity is more or less a concrete sum; the sales director or manager should be able to evaluate the production capacity quite accurately. Work study techniques will discover how efficient productivity is and will be able to assess undue idle time and maintenance time, and also the value of extra machinery or the sub-contraction of any work. Consequently, the sales department should be able to set its task ahead in accordance with an accurate assessment of present and future productive capacity.

(b) Actual selling effort, however, costs money, and it is usually very difficult to assess what selling and distribution costs are likely to be at different levels of production. So many external forces play their part and are difficult to assess. It is a paradox that more selling effort and cost are usually expended when sales are low than when boom conditions apply.

(c) A further link between production and sales lies in the development and research into methods of production, changes in fashion, etc. Production must largely depend on sales for guidance in style, quality, changes in quantities used and the general trend.

(d) The sales policy need not always be the prime policy. If production can develop most economically in a certain way, it may well be that the sales policy must be brought into line with it and make the necessary arrangements to dispose of the new product that has become available. This is evident in the aircraft industry, where certain companies have diversified their products. They have entered the production market for motor vehicles, fire engines, food and confectionery vending machines and similar ventures. Likewise there has been a change in production policy in

the railway-carriage building trade. In these instances, it is evident that the sales manager is more or less told to make arrangements to sell these new products as best he can until the basic market recovers, or a clear view can be obtained of the revised market conditions and the effectiveness of the new production and sales policies.

(e) The cost of selling and distribution must be met by the company and therefore the policy that controls these factors must always be considered in relation to the finance policy.

4. ADVERTISING POLICY

The advertising policy is a subordinate part of the sales policy. It should only be determined when the sales and production policies have been integrated. It is usual to scale advertising to the volume of sales - although again we must remember that the advertising cost may be the heaviest when the turnover and share of the market is small. In the long-term, all costs (including advertising) must be recovered if the concern is to prosper.

Again, a firm must decide exactly what it wishes to achieve by advertising before it can decide the best methods and channels to achieve those objects. Aimless advertising is of little use; it must be properly administered and like all costs (both production and service) should be subject to budgetary control.

It must also be remembered that advertising may be so efficient that it attracts more business than the concern can cope with. This is an obvious disadvantage unless the company has had the prudence to be farsighted enough to anticipate this happening and to plan its methods and policy to deal with such a situation.

5. PERSONNEL POLICY

It is important for the firm to have a sound personnel policy which should cover questions of increments, leave periods, promotion, health and welfare, staff consultation, and so on.

Without these guidelines, members of the staff would not be aware of what they can reasonably expect from the firm nor what efforts they should put into their work to obtain promotion. Managers, too, need these guidelines so as to avoid wild fluctuations in, say, salary scales between persons in their department or between persons in one department and another.

A sound personnel policy should go a long way to achieving and maintaining a coherent approach to staff matters.

6. PROBLEMS OF CO-ORDINATION

Enough has been said to show the inter-relationship of the previous policies and the need for their careful co-ordination. Certain problems have been presented up to now, but let us take a look at the following further difficulties which may arise:-

(a) The co-ordination of the production and sales policies and budgets is further complicated by the need of the capital budget, which can be considered to be part of the overall financial policy. The production and sales policies must be integrated to give the maximum profit; but this profit must be the greatest possible return on the capital employed in the business. If the capital were invested in some gilt-edged security it would earn x% return - and something in excess of x% profit is demanded to cover the extra risks incurred in production or commercial activities.

(b) Where the co-ordination of the production and sales policies discloses that the highest profit can be obtained at a point in excess of the present normal capacity, a decision has to be made whether or not to increase the plant.

This is usually a difficult decision, requiring a thorough knowledge of demand conditions (often obtained by means of a market survey) together with full facts of competitors' prices, costs and plans.

The latter two factors are almost impossible to assess accurately. If demand for the product is unlikely to be sustained, it is unwise to buy further plant and machinery; for costs will certainly rise higher than pro-rate because of the dislocation during the installation stage. If extra plant is not efficiently used, it may still result in a higher total profit but, at the same time, reflect a lower return on the higher capital investment. The solution is often to work overtime or sub-contract certain orders until the position is clearer.

(c) The cost of advertising is essentially a matter of policy. In a concern which has been in operation for some time it will be wise to rely on past experience and figures to determine the correct level of activity. In a new concern the special problems in this connection are evident.

(d) The total cost of transportation is also important. This will vary not only with the volume of sales but also with the distances loads are carried and the varying sizes of those loads. These are variable factors and only permit an approximate integration with the sales policy and budget. Careful consideration will have to be given to such factors as the alternative methods of transport available.

(e) The problem of co-ordinating sales with design needs careful attention. Where the product is sold on quality it must be effective to give a product in excess of requirements to ensure its suitability; but in competitive conditions this will probably lead to reduction of profit.

To furnish a product not suitable for the customers' use is even more certain to produce disaster. Somehow, a balance has to be obtained. The design of the packing and packaging is also an important consideration in some industries.

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SUMMARY

Policy may be defined as a set of decision-making criteria to achieve economy in operations by making decisions relatively routine on recurring problems. This helps managers at lower levels to solve problems which occur from time to time.

BUSINESS POLICY is the firm's course of action in pursuing its aims and objectives.

A POLICY SHOULD:

1. Be aimed at growth.
2. Be prepared to change with the times.
3. Be dynamic and meet challenge.

REQUIREMENTS:

If a firm wishes to grow it must be ready to :-

1. Take opportunity when it occurs.
2. Diversify if business is declining.
3. Embrace subsidiary companies if circumstances are favourable.
4. Improve product and conduct research into new ones.
5. Keep abreast of technological developments.
6. Be progressive and assign tradition to its rightful place.

FUNCTION of the Board of Directors:

To determine broad matters of policy.

RESPONSIBILITY of the Board:

To see that those appointed to management carry out the policy.

FUNCTION of Management:

To implement the policy of the Board.

PLANNING IS APPLIED TO POLICY:

Plans prepared by management must formulate policy by incorporating plans for development as well as for carrying on the present operations.

Policy is not always written down. It is a guide to thought rather than action. There are two basic categories:-

(a) Mandatory; and
(b) Advisory.

Normally, policies are consciously created and stated by top management but may also be created by precedent. Policies should:-

(a) reflect objectives;
(b) be consistent but sufficiently flexible to accommodate changes;
(c) be made clear, i.e., are they mandatory or not?
(d) be taught; and
(e) be controlled.

Procedures are "plans" which guide action as opposed to policies which guide thought.

Policies and their Co-ordination

There are five main policy decisions which together make up the total company policy and their co-ordination is of paramount importance and significance. It is essential that they are integrated to ensure an overall efficient and sound policy. These policies are the Financial, Production, Marketing (Sales), Advertising, and Personnel policies.

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SELF-TESTING QUESTIONS

1. (a) Differentiate between objectives, planning, procedures and policies.

   (b) Explain simply what policies are.

2. (a) Miller's definition of Policy is cumbersome but it does point to three interesting aspects of policies. What are these aspects?

   (b) In what important way does policy assist management?

3. Reproduce the six principles of good policy according to Koontz and O'Donnell.

4. (a) Name the four areas where a definite policy is essential to the viability of the concern.

   (b) What is the problem which frequently attends these?

5. Outline five areas where co-ordination presents a problem.

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ANSWERS TO SELF-TESTING QUESTIONS

1. (a) Objectives indicate the purpose and aims of a business; planning determines the activities necessary to attain the objectives;
   procedures lay down the steps to be taken in these activities and policies guide management in decision-making, once operations begin.

   (b) Policies, whether written or tacitly accepted, are pragmatic guidelines which are calculated to show the best ways to use the plans so that the objectives may be achieved.

2. (a) Aspects indicated by Miller's definition:-

(i) practices become unwritten policies through always doing the same things the same way,

(ii) policies often set standards of performance, pointing the way to good decisions,

(iii) persistent problems are thus simplified.

(b) Management is guided to soundly based decisions.

3. According to Koontz and O'Donnell, good policies should be

(i) consistent,

(ii) flexible,

(iii) declared whether mandatory or advisory,

(iv) accepted by all as a rule of the firm,

(v) reviewed regularly, particularly unwritten policies, in the light of feedback,

(vi) a clear reflection of objectives.

4. (a) Four areas of essential policy:-

(i) finance,

(ii) production,

(iii) marketing,

(iv) advertising.

(b) The problem is one of co-ordination.

Five problems to face in co-ordinating:-

(i) production and sales in relation to all budgets,

(ii) decision to increase plant or not in view of excess profit in relation to present plant,

(iii) cost of advertising,

(iv) cost of transport,

(v) best course to follow in a competitive market re:

quantity
quality
packing and packaging.

PROGRESS QUESTIONS

1. Comment on Koontz and O'Donnell's principles of good policy.

2. Which is more useful - a mandatory or an advisory policy? Why?

3. (a) List the major areas in which you regard formal policy-making as important.

   (b) Show the need for co-ordination of departmental policies.

4. Complete the following:

   (a) Business policy may be defined as .....

   (b) Policy should be aimed essentially at .....

   (c) Policy should be ready to adjust to .....

   (d) Broad policy is decided by the .....

   (e) Policy is implemented by the .....

   (f) Scientific management requires that ..... should be applied to policy.

5. Give 6 ways in which a firm could fulfil its obligations to society.

6. Comment on each of the following:-

   (a) The only object of a firm is to make money.

   (b) Firms either grow or decline, they rarely stand still.

   (c) Planning gives expression to policy.

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POLICY FORMATION AND IMPLEMENTATION.

A. THE NATURE OF POLICY FORMATION

1. PRINCIPLES

(a) Policy

Policy is as essential for planning as for General Management since it gives direction, and must be determined for sections, as for the enterprise as a whole. Sectional policies must, however, conform absolutely to major policy.

(b) Standards

These are necessary to effective planning and provide the means of comparison for effective control.

(c) Balanced Planning

Consideration of all matters must take into account both long term and short term effects and probable results.

(d) Scientific Approach

In considering for example any plan, method, procedure, purchase and use of material, selection of staff and all staff matters, there must be developed a logical scientific approach to ensure the following:-

(i) All relevant facts and aspects are clearly disclosed and considered;

(ii) A correct analysis is made;

(iii) Full appraisal is made of (i) and (ii);

(iv) A follow up is made to check the effectiveness of (iii).

(e) Regard for the Personal Equation

Since Management depends upon the men and women it controls it is essential that the human element must **be fully considered.**

2. PURPOSE OF PLANNING

Planning itself is a rather self-evident essential to the carrying out of any action, from building houses to introducing new equipment in an office, or raising a new army unit. Without planning, work carried out must necessarily be a hit and miss affair, carried out by rule of thumb. Planning is the scientific approach, considering every aspect of a proposal and laying down general basic principles, standards, organisation, and procedures with alternatives, whereby each stage or step forward is methodically considered and plotted for the best advantage of the enterprise as a whole.

Being a basic element, Planning enters into all fields of Management,

(a) In Production it covers the preparation of programmes, the machine layout and loading, preparation of specifications for materials, time and motion study.

(b) In Distribution it covers market research, budgeting, preparation of sales operations and definition of territories, and the programming of transport.

(c) In Personnel Management it determines labour supply, methods of training, office accommodation, siting and layout, etc.

The aim of Planning is to lay down all the matters that should be done, and the way in which they should be done. The aim of Control is to see that these matters are done in the manner laid down.

B. USE OF RESEARCH AND FORECASTING

Before Management can lay down a policy, attempt to determine a procedure or a process, or in fact before it can plan anything, there must be research. This provides the information forming the foundations on which the planning for the enterprise as a whole or any aspect of it is built. It must therefore be accurate and absolutely dependable.

1. RESEARCH AND PLANNING A BATTLE

Let us consider a General preparing for a battle. The research is done by his Intelligence organisation and on the basis of the information which he thus receives, he will plan his own requirements as follows:-

(a) Research

He will obtain the following information about the enemy:-

(i) Strength;

(ii) Disposition;

(iii) Supplies;

(iv) Morale;

(v) Length of communications;

(vi) Minefields, strongpoints, background and other hazards.

(b) Planning

On the information which he has received he will plan his own requirements as follows:-

(i) Organisation;

(ii) Number of divisions required and quantities of supplies;

(iii) Lines of communication;

(iv) Numbers of lorries, etc. for bringing up supplies;

(v) Grouping of divisions for attack;

(vi) Artillery requirements and positioning;

(vii) Programme of attack and follow through;

(viii) Exploitation of breakthrough;

(ix) Alternative actions in case of last minute changes;

(x) Instruction of all officers and all other ranks in the plan;

(xi) Training of all ranks in methods to be adopted and routes to be taken.

2. PREPARATION FOR THE BUILDING OF A RESERVOIR

Let us also consider the proposal by a public utility undertaking for the building of a reservoir. The following steps would be taken by the Management.

(a) Research

(i) Determination of trend of consumer demand likely over the next 10/20 years;

(ii) Possibilities of greater industrialisation and changes in demand;

(iii) Trend of supply of water from rivers, etc. over the next 10/20 years, i.e. to determine quantity of storage required;

(iv) Investigations into optimum depth of reservoir to maintain water in good condition;

(v) Consideration of all new advances in techniques and research in hand that might substantially affect the planning of a new reservoir, or the methods employed in constructing it;

(vi) Consideration of the time when such a reservoir would be vitally needed due to increases in demand;

(vii) Consideration of what supplies can be drawn on to fill the reservoir;

(viii) Consideration of statutory powers needed or available for the building of the reservoir;

(ix) Study of alternative suitable sites, field investigations with boring equipment to obtain samples of underlying strata to determine suitability for constructing a reservoir at various sites;

(x) Consideration of use of existing natural features at alternative sites to reduce amount of construction necessary. Thus a long, narrow valley, with a narrow entrance and a stream of reasonable size and thick underlying clay strata, might be eminently suitable, by reducing necessary construction to the closing of the entrance with a dam.

(b) Planning

On the basis of this information the following planning arrangements would be made:-

(i) Organisation;

(ii) Obtaining all authorities or setting in motion the drafting of necessary Parliamentary Bills for authority;

(iii) Engagement of necessary technical staff. Preparation of drawings and contracts for the reservoir, and all necessary plant, equipment, pipes, etc. with detailed specification;

(iv) Appointment of engineer in charge and sub-ordinate officers;

(v) Financial arrangements;

(vi) Letting of contracts, approval of contractors' methods of working and procedures;

(vii) Arrangements for the clearance of the valley, rehousing any inhabitants in suitably agreed alternative accommodation;

(viii) Arranging hutted accommodation for employees and contractors' men, with suitable canteen, washing and living accommodation, payment arrangements, leave facilities, etc.;

(ix) Arrangements for delivery and storage of materials as required, i.e. programming deliveries;

(x) Arrangements for inspection of work and the testing of materials;

3. THE GENERAL APPROACH

The approach in both cases is the same, a scientific approach to find out every detail about every aspect of existing and future conditions, trends, etc. followed by the preparation of suitable plans for an operation, based on the information obtained and planned to the most minute detail. This planning is not detailed in order that no aspect shall be overlooked that might jeopardise the carrying out of the plan when it is put into operation.

PURPOSE AND POLICY

1. DEFINITION

Management must have a goal or objective at which to aim and principles to guide it in seeking to attain the objective. This is provided by Policy. Without a laid-down directive all planning would be without purpose, and the enterprise would resemble a ship putting to sea without its captain knowing where he is supposed to go, what sized crew would be required, and how much food and water and fuel to carry. There must be purpose.

In addition to purpose there must be guiding principles setting out the general lines on which the enterprise is to be conducted. The whole of these are usually included in the term Policy.

Purpose and Policy are the responsibility of, and are laid down by, the owners, directors or other Board of Management or Governing Body responsible for Direction.

2. OBJECTIVES

We plan in order to achieve desired objectives. Any treatment of planning must include a discussion of objectives, i.e., what objectives exist, how they are made, and so on. Up to now, we have talked as though there is an objective. What is it?

(a) The objective of business

The main contender for the title of chief of the global objectives is Profit. Why does a business exist? - to make a profit. It is traditionally argued that the objective of any business enterprise is to maximise its profit (measured in some way such as return on investment, or return on capital employed) over a reasonable time period. Igor Ansoff, for example, says:-

> "The central purpose of the firm is to maximise long-term return on resources employed within the firm."
> ("Corporate Strategy").

This concept has certain technical problems. For instance, what is a "reasonable" time period? What is the "maximum"? How do you measure return on capital employed, bearing in mind that a variation in stocks or an alteration in the book value of plant and equipment can affect the calculation?

It is certainly not as simple an idea as it sounds. Moreover, there is a serious logical objection too. What does the firm wish to make profits for? If there is an answer to that question, then profit cannot be the ultimate objective - and of course there is. No business makes profits just to keep them, to lock them away and count them for their own sake. They are used to make the firm grow, or at least to keep it in existence.

It has been suggested that survival is in itself the main objective of the company and then, once survival is assured, growth. But growth is limited. When an organisation reaches its maximum size, i.e., it attains its objective, does it go out of existence? Clearly not. So, growth can be an objective only for a time.

The most acceptable objective, morally speaking, is probably that of "service to society". Certainly, social responsibility is a topic which is very much in people's minds at the present time, and it is true that no firm will exist for long unless it does fulfil a social role, and does provide some service which society needs. Furthermore, seeing the firm as something whose existence depends directly on the needs of society produces an automatic consumer orientation, which can only be good. So this goal at least has the advantage of suggesting what the important areas of action are.

This objective of service to the community is often seen as meaning the provision of a product or service to customers who require it - a product which fills a genuine need. From this viewpoint, the purpose of the company is to do what its customers want, as far as it can.

However, many of the larger firms expand the concept to something much wider, seeing the firm as a kind of social benefactor.

If this sort of social responsibility is a main objective of a business, where does its responsibility to its shareholders lie? Perhaps the most useful answer to the problems is to accept that profit and service are not necessarily mutually exclusive objectives. Indeed, one is the means and one is the end, and it does not really matter which is which as long as both are considered. Another alternative is to see service as the objective, and profit as the measure of success. If these two objectives are seen as one, then the others (survival, growth, etc.) will follow.

(b) Formation of objectives

There are three theories about the manner in which objectives are set in an organisation:-

(i) Traditionally, it is held that the company's objectives are, in fact, those of the chief executive or, at the most, of the top management team. This is by far the most simple explanation and apparently fits in with the facts because it is the executives, after all, who actually state the objectives.

(ii) However, it is also argued that the information on which objectives are set comes from subordinates, who also lay very firm constraints on action. This can be seen in a conventional base-up planning system, where each section sets its own targets, which are then integrated with the next level above.

(iii) The third view is a combination of these two, namely that an organisation's objectives are the result of a compromise, a "negotiated consensu of its influential participants" (Ansoff, "Corpora Strategy").

It is argued that the organisational objective is the result of a kind of bargaining process between members of the organisation, all of whom have their own desires and objectives, but who compromise for various reasons with each other. This sort of group objective, known as a "joint preference ordering", is reached, it is said, by the balancing and conflicting of one set of preferences against another. By "bargaining" is meant all the explicit and implicit interactions between objectives. For example, the owner-manager may want maximum profit, his senior manager may want prestige and status symbols, and the operators may want short hours and high wages. Obviously, these objectives all clash, and in some (usually unconscious) way, targets are set which meet at least some of everyone's objectives. This is the "bargaining" process, which may not, indeed, have any explicit bargaining in it.

Obviously this explanation, too, falls somewhat short of a complete description of the situation, in that it assumes that out of the bargaining will come an agreed set of organisational objectives in some kind of ranked order. Now, although it is true that the system (the organisation) will act as if there is such a list, it is rare that there will be any explicit agreement about what the list is and what its order should be.

What agreement there is on enterprise objectives in practice is agreement to very vague, often ambiguous goals; and furthermore, where sub-goals are concerned, there is little agreement at all. Indeed, it often appears that different sections of the firm are following opposing goals.

What, then, is the process of setting goals? When the company goes about setting its long-term strategic goals, it involves every manager in deciding what his unit will be capable of doing and what he wishes it to do, bearing in mind the constraints imposed by other members of the system (such as unions, subordinate supervisors etc.). These individual decisions will already have done some of the "bargaining", then. They are passed up the tree, being combined and adjusted in the light of other constraints (more "bargaining") as they go, until they form one coherent set for the company as a whole, including the adjustments to suit the vision of the chief executive. They then constitute the firm's objectives.

(c) The scope of objectives

Everyone in the organisation should have objectives, as should every unit, every department, every division and so on. Furthermore, these objectives should be clearly stated so that they will be of some practical value. One of the manager's key jobs is to help his subordinates to clarify their objectives in terms which mean something to them.

It is important to remember too, that clarification of objectives should be in terms of an attainable (and, if possible measurable) target, not in terms of methods of achievement.

Drucker ("Practice of Management") suggests that there are eight key areas in which the company as a whole should have stated objectives:-

(i) Market standing;
(ii) Innovation;
(iii) Productivity;
(iv) Physical and financial resources;
(v) Profitability;
(vi) Manager performance and development;
(vii) Worker performance and development;
(viii) Public responsibility.

What this means is that senior management should set targets for achievement in all these areas.

(d) The value of objectives to managers

(i) They provide the only method of measuring or assessing achievement and are therefore prime motivators.

(ii) They provide for unity of direction. Without a clear understanding of a common objective, pioneers in the various parts of a system cannot plan to the same end.

(iii) Delegation of authority to make decisions cannot be specified unless objectives are clearly understood. Without objectives, delegation cannot exist.

(iv) No one can foresee every eventuality, and thus detailed planning cannot cover all decisions likely to be needed. People working in different parts of an organisation, however, may need to adjust their work to fit in with others - with no guidance from above. In this sort of situation, a commonly held objective is an invaluable aid to co-ordination. Thus, clear communication of objectives can, through this co-ordinative power, maintain decision-taking at a lower level in the hierarchy.

(v) Control cannot exist without objectives.

(e) The hierarchy of objectives

The problem with major objectives, especially when there are at least eight of them (as Drucker and many others suggest), is that they are too much for any one man to handle. Clearly, then, they must be sub-divided and broken down into a multitude of sub-objectives allocated to different people. This produces the so-called hierarchy where each sub-objective, when achieved, contributes to the achievement of the level immediately above it.

Ideally, if such a hierarchy is completely and accurately produced, the organisation will achieve its major goals as the subordinate levels achieve theirs.

(f) How objectives change

Objectives may change deliberately or because of changed circumstances. They may change permanently or temporarily. They may change because:-

(i) The aspirations of the senior executives change either due to past performance of the organisation or due to a comparison with some outside body.

(ii) Pressure from inside the firm, (e.g., from a union, or from new members of staff) can force changes.

(iii) From time to time some objectives will be more important than others. Indeed, one of the facts of industrial life is that objectives are often conflicting, and the easiest way to deal with such a situation is to tackle them in alternating time periods.

(iv) Finally, of course, objectives are attained and must therefore be changed. An extreme example of this is the dissolution of a project team after reaching the objective.

(g) Using objectives

To be useful, objectives should be:-

(i) Clear, concise and understandable.
(ii) Set with the subordinate so that commitment may be obtained.
(iii) Obtainable but challenging to provide motivation.
(iv) Non-conflicting where possible.
(v) As quantified as possible so that they may be used for control purposes.

(vi) Not too numerous, to avoid confusion.
(vii) Allotted to an individual. Each man should have a set of objectives. Each objective should be clearly the responsibility of an individual.

3. ETHICS

The second element of Policy concerns a determination of the ethics of the enterprise, its standards of fair trading and its standards of fair employment, i.e. its principles towards consumers and other business concerns and its principles towards its staff.

4. ORGANISATION

The third main element concerns the principles determining the structure of the organisation and methods of trading and of production.

5. SECTIONAL POLICIES

Once the lines of general policy have been established, sectional policies must then be considered for, as the enterprise grows, it becomes necessary to group certain aspects or functions into separate sections or divisions. These sectional policies must be wholly part of the main policies, this is essential for the establishment of co-ordination between all divisions and as the basis of planning in each division.

6. IMPORTANCE OF POLICY

Policies must be possible of attainment and they must therefore be determined only after a full and careful study of internal and external conditions. The Managers or Executives themselves will help to shape the policies by their specialised knowledge and their intimate association with the detailed workings of the enterprise. The policies are the basic guides for planning, essential to establish co-ordination and the foundation of morale.

They set the standards against which the Board of Directors must measure the effectiveness of Management in attaining the object and in adhering to the principles determined, effectively and economically, for the duty of the Board of Directors is not only to direct, but also to control.

7. INTERPRETATION OF PRINCIPLE

Policies although themselves unchanging must be shaped or interpreted. They cannot be accepted as laid down dogmatically; they must be interpreted at every level, as indeed must most instructions, however carefully worded. Therefore over a period of years, and with changes in Managing Director and other Executives at all levels, interpretations may change with changing ideas and changing conditions. Thus basic policies are still capable of full and current application at all periods in the life of an enterprise. The Managing Director himself can play a vital part in ensuring that the knowledge of policies is widely diffused to every person in the enterprise, and understood.

To be capable of being understood, policies must be interpreted at all levels in relation to the particular aspect of the business that is being considered, but there must be only one original source of interpretation, and that is the Managing Director. Otherwise if variations of interpretation are given, then control is immediately lost; but at all levels the executive in charge will interpret the application of the principles to apply to the particular duties carried out by his sub-ordinates, or, if in doubt, he will ask for advice from his immediate superior. In any large enterprise this system of application and interpretation is constantly at work.

D. PLANNING AHEAD

"Organisation Planning" is the term given to the preparation of a revised organisation structure in advance of its actual needs, in order to meet changes outside as well as inside the enterprise. Change may occur in economic conditions, by increasing competition, changing patterns of consumer spending, change in location to take advantage of larger labour supply and retirement of managers, and careful planning should be done well in advance to meet such changes.

The second aspect is the bringing of the new organisation structure into being, without total disruption of the existing structure. This entails a programming of stages perhaps over a long period.

Naturally every opportunity should be taken, when the organisation is under review to consider all existing techniques and standards of management, with a view to the introduction to improve efficiency of new or improved techniques or improved methods of management training. Too often enterprises grow and additional sections are added, new duties become necessary, new ideas are introduced and new factories built, but no special consideration is given to prior study of the need to provide a revised or new organisation structure. Ultimately increasing difficulties and inefficiencies force urgent and radical changes and inevitable disruptions. Much more effective is the constant consideration of long term or medium term change and the preparation, planning and programming in advance of essential future changes in the organisation in order to meet the future needs of the enterprise.

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SUMMARY

THE NATURE OF POLICY FORMATION

1. PRINCIPLES

The principles of policy formation embrace the following:-

(a) Policy
(b) Standards
(c) Balanced planning
(d) A scientific approach
(e) Regard for the personal equation.

2. THE PURPOSE OF PLANNING

The aim of planning is to lay down all the matters that should be done and the way in which they should be done.

USE OF RESEARCH AND FORECASTING

esearch is the foundation upon which policies are founded.

scientific approach is needed to find out every detail bout every aspect of existing and future conditions, followed y the preparation of suitable plans.

PURPOSE AND POLICY

. DEFINITION

Management must have a goal or objective to work towards. This is provided by policy, which is the responsibility of the chief executive(s).

D. OBJECTIVES

Objectives are important. "Service to society" is a common objective but "maximisation of profit" and "service" are not necessarily mutually exclusive objectives although it might be better to acknowledge "service" as the objective and "profit" as the measure of success. If these two objectives are seen as one, then other objectives such as survival and growth will follow.

Note how objectives are said to be <u>formed</u> and their <u>scope.</u>

Objectives are valuable because they:-

(a) are a measure of achievement,
(b) provide for unity of direction,
(c) help in the delegation process,
(d) maintain decision-taking at a lower level in the hierarchy.

Objectives may be changed (permanently or temporarily) either deliberately or because of changed circumstances.

Note the points necessary for using objectives.

Other considerations in policy are:

- Ethics
- Organisation
- Sectional Policies
- Interpretation of principle.

E. PLANNING AHEAD

Planning ahead means planning for possible changes both inside and outside the organisation.

Long and medium-term planning is more effective than constantly changing short-term plans.

PROGRESS QUESTIONS

Write a short definition of

(a) Policy
(b) Planning
(c) Principles
(d) Ethics

hat aspects or processes must be dealt with in planning

(a) for production
(b) distribution
(c) activities of a personal manager?

3. (a) What do you understand by the term 'Organisation Planning'?

(b) List changes etc. that might necessitate such planning a good while after the business has proved its viability.

4. (a) What is the connection between plans on the one hand and objectives on the other?

(b) What are the three groups that, ideally, formulate the objectives?

(c) What is each one concerned with?

5. (a) What is the simplest explanation of a 'hierarchy of objectives'?

(b) After discussion, which single objective comes out on top?

(c) Why <u>this</u> one, particularly?

6. (a) Say, giving your reason, whether a single Managing Director is able to run a modern concern effectively?

(b) What type of organisation would probably be best, in these circumstances?

(c) Why?

(d) What, in this case, is the fundamental pre-requisite?

(<u>1</u> or <u>2</u> words only)

State, as shortly as possible, the difference between

an objective

a plan

a forecast

a budget

8. What could conceivably cause objectives to change?

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ANSWERS TO PROGRESS QUESTIONS

1. (a) POLICY: Policies are guides to action, and specifically include principles and objectives which, expressing broad intentions and attitudes, simplify decision-making on particular matters.

(b) PLANNING: Planning is the evolving, after deliberation, of a pattern of action calculated to lead to the attainment of desired objectives.

(c) PRINCIPLES are codes of conduct held to be right for the purpose in the mind, and are based on sound reason.

(d) ETHICS: Rules of moral conduct relating to the business.

. (a) In planning for production -

(i) Programmes have to be drawn up;

(ii) Machine loading and lay-out;

(iii) Materials specifications finalised;

(iv) Time and motion study considered;

(b) In planning for Distribution -

(i) Market research;

(ii) Budgeting;

(iii) Sales operation and territories planned;

(iv) Transport.

(c) In planning personnel management responsibilities etcetera -

(i) Determination of labour supply;

(ii) Methods of training;

(iii) Office accommodation; lay-out etc.

. (a) 'Organisation Planning' is the sensible practice of planning well ahead of the present needs of an established concern for future changes which might affect the future running of the business. While nobody can predict with absolute certainty exactly what the future holds, scientific methods have been applied to business forecasting, and in any event, the wise man always keeps his ear close to the ground. Organising for some possible future change also involves a good deal of programming to ensure as far as possible that the business slides smoothly, without avoidable disruption, into a new routine.

4. (a) Objectives determine the aims of the business; plans guide all activities towards the fulfilment of these.

(b) The three groups are, ideally

(i) the Board of Directors,

(ii) the Manager,

(iii) the heads responsible for the output of the sections.

(c) Principal concern of these, in the above order:-

(i) profitability and shareholders' interests

(ii) feasibility for administrative activities

(iii) practicability from the point of view of the work to be done.

5. (a) Simplest explanation - whatever objective has top priority.

(b) Profitability.

(c) Without adequate profitability the concern cannot survive.

6. (a) No, he can't; because overall technical expertise is impossible for one man to contain, and because a manager's work-load is always heavy.

(b) Combination of line and staff in a functional organisation of tasks.

(c) Because delegation of responsibility and authority to section heads lightens the Manager's work-load; section heads deal with routine, leaving the Manager free for more onerous work and decisions. (This is, of course, Management by Exception.)

(d) Effective communication.

An objective determines the purpose of the business; a plan works out how to attain it; a forecast deals with possibilities and predictions, and a budget provides targets to aim at.

(a) Objectives may change

(i) because executives, in view of competitors' achievements, feel that the business is capable of a better performance;

(ii) because of pressure from workers' unions etc.;

(iii) because external conditions may demand changed objectives.

(b) Changes which might cause 'Plan B' to be put into operation -

(i) changes in the economic climate of the whole country;

(ii) an increase in cut-throat competition;

(iii) changing demands as a result of changing trends or fashions;

(iv) a different pattern of consumer spending;

(v) different patterns in the supply of labour;

(vi) decentralisation demanding a change of venue;

(vii) anno domini overtaking various staff members, necessitating the filling of vacancies at various levels etc.

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USE THIS PAGE FOR MAKING NOTES

DECIDING AND DOING

A. INTRODUCTION

Decision-making is of central importance to the manager and, as such, will be studied at some length. There is a need for policy determination and for forecasting which will lead to the selection of "desired objectives", Management must make plans which are put into action and which must be constantly controlled. One thing we have taken for granted is decision-making, the essential step between thought and action.

Decisions have to be taken at many stages in the process described. For example:-

(a) Which lines of research should we follow when, in our forecasting, we see several potentially fruitful avenues but lack the resources to explore them all?

(b) When there are several desired objectives we must decide which are mutually imcompatible and which we should pursue.

(c) When there are alternative plans, both designed to attain the same objective but using different approaches, which will be quicker, which more profitable, and which less hazardous?

The essence of effective management lies in making the right decisions, and management science has devoted much thought to the development of sound decision-making techniques.

KINDS OF DECISIONS

1. STRATEGIC DECISIONS

In the military sense, "strategy" means "generalship" : it is the art of managing military resources in a campaign.

In our sense, strategy refers to the relationship between the firm and its environment. Here also there is the question of assembling and directing resources, of careful consideration of the "environment" (laws, customs and

usages, the market, competitors, restraints, and the like) and of managing money, manpower, materials and machinery so as to achieve the firm's goals.

Strategic decisions are mainly concerned with external, rather than internal, problems of the firm, and specifically with the product-mix which will be produced and the markets to which it will sell. The firm must decide what business it is in, and what kinds of business it will seek to enter.

Specific questions relating to the strategic problem are:-

What are the firm's objectives and goals?

Should the firm diversify, in what areas, how vigorously?

How should the firm develop and exploit its present product market position?

A major factor is that a large majority of decisions must be made within the framework of limited total resources. Regardless of how large or small a firm is, strategic decisions deal with a choice of resource commitments among alternatives. Emphasis on current business will preclude diversification; over-emphasis on diversification will lead to neglect of present products. The objective is to produce a resource-allocation pattern which will offer the best potential for meeting a firm's objectives.

2. OPERATING DECISIONS

Operating decisions usually take up most of the firm's energy and attention. The major decision areas are:- resource allocation among functional areas and product lines, - scheduling of operations, - supervision of performance, and - the application of control actions. Key decisions need to be made regarding pricing, market strategy, production schedules and inventory levels, on expenditure items such as research and development, marketing and operations.

3. ADMINISTRATIVE DECISIONS

Administrative decisions are concerned with structuring the firm's resources in a way which will create maximum performance potential. One part of the administrative problem is concerned with organisation : structuring of authority and responsibility relationships, work flows, information flows, distribution channels, location of facilities. The other part is concerned with acquisition and development of resources; development of raw material sources, personnel training and development, financing, and acquisition of facilities and equipment.

NATURE AND SKILLS OF DECISION-MAKING

1. ITS NATURE

Decision-making is not the sole prerogative of one type of person in the business and industrial world; we all make decisions in connection with our work, but some decisions are more important and far-reaching than others, and in this category fall the decisions made by a manager.

In all his work, whatever he does he does mainly through making decisions that affect others. It may not mean that for every decision he makes he sits down and says, "I am now going to make a decision"; indeed, in some cases he may not fully realise he is making a decision but in others he may consciously spend a considerable time on research, observation, collation of facts and experiment before arriving at a decision that may considerably affect the future of his department and/or company and the persons within them.

Unfortunately most of the decisions made in business have to be made against a background of shortage of time and incomplete knowledge of the full facts.

2. THE PROBLEM-SOLVING PROCESS

No two problems are the same, and no two attempts at solving problems will go precisely along the same lines, but there is a general pattern of approach,

a kind of framework for problem-solving thinking, which is universally applicable. In this process there are five steps, and a logical and conscious progression from one to the next will normally make for better decisions.

These steps are:-

(a) Identifying the actual problem, situation, activity of resources with which we are concerned.

(b) Obtaining and analysing the facts.

(c) Searching for alternative solutions.

(d) Picking out the best possible solution from the alternatives having regard to all the circumstances.

(e) Turning the decision into positive and effective action.

Let us discuss each of these briefly:-

(a) Identifying the problem

It is important to carefully identify and define the problem, for as a well-known military rule lays down, "Time spent on reconnaissance is time well spent". Are we really sure what our problem is? Production costs or poor design? Inadequate market research or poor selling methods? People who irritate each other or a poor organisation structure? You see from these examples how necessary it is, before making a decision, to make sure what we are making a decision about.

We could, like the doctor, examine the symptoms; but do they always tell the truth? We must look forward and ask ourselves such questions as, what will happen if things are left as they are, or what has not been done in the past that has brought about this problem? This type of approach is our first step to defining our problem, and the first step on the road to reaching a decision.

Secondly, we must ask ourselves how things must be changed, or what conditions should exist? Here, our solution needs solid thinking through, focusing on performance and results, remembering company

policy, and noting that certain courses of action may not be acceptable. In this way we narrow the field of decisions.

(b) Obtaining and analysing the facts

Having decided what our problem is exactly, we must then break it down into detail in order that we know whom we should consult, who must be told, who will be involved and affected by the decision.

We must get the facts, but first we must ask what sort of information is needed for this particular decision, what information is already possessed, and what additional information is necessary. Remember, however, that we are seldom able to get all the facts we should really have; the information may not be there, or we may not have the time available to get it.

Thus a compromise must be reached between spending the time and money needed to get all the facts for a good decision and collecting fewer facts but making a quicker decision. Clearly, in a very important problem area where large amounts of money are involved or, perhaps, the safety of personnel, more facts will be collected rather than less. For a minor problem, less trouble will be taken.

There are many techniques available to help the problem-solver in analysing the facts. The danger of being ruled by the technique is to be avoided. Seeing a problem in terms of a technique prejudices the result. For example, seeing a poor maintenance situation as a "simulation problem" can lead you to ignore other issues such as human ones.

The basic guideline in analysis is to look for patterns in the facts - similarities between different situations and differences between similar situations.

The other guideline is to pursue the question, "Why?", which is the most important question in the problem-solving process.

(c) Searching for alternative solutions

There is always more than one course of action in any problem and they must all be considered. Even the alternative of doing nothing and maintaining the status quo should be considered as a possibility and evaluated, in order to form a basis for comparison with other proposals.

This stage is by far the most difficult and challenging in the process. It is the creative stage, and creativity is a difficult characteristic to "produce" as it were. Basically the need is to use imagination and originality, never allowing biases, automatic reactions, conventional attitudes, etc. to obstruct thought. When we have worked out the possible alternatives we can proceed.

(d) Choosing the solution from the alternatives

We must then examine the alternative solutions, pick out the best possible ones, weigh them up and make a decision.

But, whatever our decision, it will entail change, and change in any business situation will meet resistance to change, that inbuilt block we all possess. Thus, it is essential to consider this factor in our best possible solution and final decision. We must weigh this factor of resistance to change against and with such other factors as the following:-

(i) The risk of our action compared with the gain.

(ii) Obtaining our objective with the best effort.

(iii) When we shall put our decision into effect (here the situation may order this).

(iv) Have we the necessary resources in materials, machines and personnel?

In our decision-making we should always take care not to jump to conclusions.

(e) Turning the decision into positive and affective action.

In turning our decision into positive and effective action we must remember that it is not ourselves but others who make it effective. Consequently, it is not enough to sell our decision, but in addition the people who are to make it effective must really feel it is their own. We must, of course, present it in language that these people understand and normally use, and motivate them in carrying out the decision by allowing them to participate in the final stages of making it. We must also ensure that it is the right decision to help them in their work, to give them a greater sense of achievement, and not solely to help the manager to do his own work better.

Only then will they accept the decision as their own, and action will become positive and effective as we want it to be in all good decision-making.

AIDS TO DECISION-MAKING

We saw that there are various techniques available which, if used correctly, can be invaluable aids to management in the decision-making process. You need not, at this stage, know the intimate details of all these techniques but merely what they are and how they can be helpful, especially when evaluating and weighing alternatives. Let us see what they are:-

1. DECISION TREES

A decision tree is a diagram which shows each alternative in a given situation together with the probability of achieving each and the anticipated monetary value if it is achieved.

The definition given by H.S. Woodgate (in "Planning by Network") is: "a graphical method of displaying the alternatives resulting from combinations of decisions and chance occurrences."

To set up a decision tree, it is necessary to go through three basic steps:-

- List of all possible actions and their possible outcomes.
- Determine the probability of each action occurring. It may be possible to use scientific methods to determine the probability, or the probability may be purely reasonable estimates.

(a) List of subjective probabilities

If we take the example of tossing coins it is easy to accept that the probability of tossing a head is $\frac{1}{2}$. However, when it comes to business decisions, the probabilities may be based upon something less definite than a very simple situation like the tossing of a coin.

Maybe the probabilities will be based upon past empirical evidence, or maybe they will be based upon "managerial" opinion arising from past experience without much evidence to substantiate the opinion. This type of probability is known as subjective probability. Some people would argue against the use of such probability but by using it we do give ourselves some idea of what our expectations can be. As most business decisions are made in a state of uncertainty, the only solution open to us is to use subjective probability. Improvement in analytical results is achieved as experience is gained in using such methods.

(b) A simple decision tree

It is simplest to study decision trees by means of examples.

Imagine that you are a student who has been offered temporary employment at Christmas time by the Post Office. You know that, of the temporary employees taken on, 60% are told to deliver letters and the other 40% have to deliver parcels. The basic wage for delivering parcels is R17 per week and for

letters it is R15 per week. In addition, you are likely to receive tips. If you deliver letters you will get R2 per week in tips if the local factory is working overtime and R0,50 per week if there is no overtime. The probability of overtime being worked is 0,7. On the other hand, of you deliver parcels your tips depend more upon business conditions for the small shopkeepers because they are the main recipients of parcels. If business is good for them your tips will amount to R6 per week, while if business is only fair you will get R3 per week. The probability of business being good is 0,6.

Suppose that you have the alternative of working in a supermarket where you will receive a fixed wage of R18,50, with no tips or overtime. Are you likely to be better off working for the Post Office or for the supermarket?

Let us see what this problem looks like in decision tree form. We use the term decision tree in preference to probability tree when we are dealing with business problems and most of our probabilities are subjective.

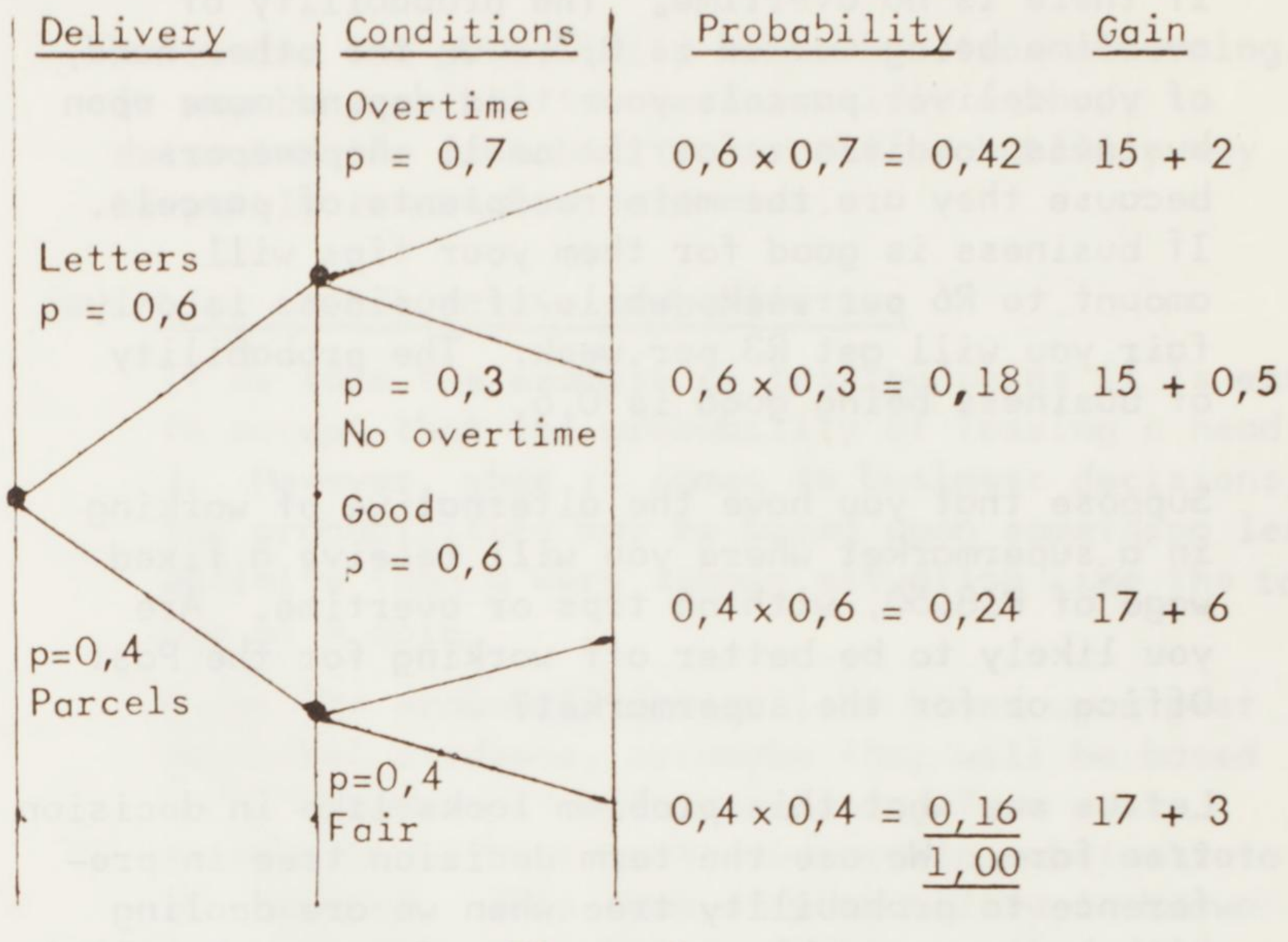


Figure 1.

There are no probabilities attached to the supermarket job, so no tree is needed. Let us, therefore, now draw the decision tree for the Post Office job, as shown in Figure 1.

In Figure 1, we have the alternative of letters or parcels, with their associated probabilities. Then we have, branching from each of these, two conditions with their associated probabilities.

Note that the probability of being on letters and overtime being worked is the probability of being on letters multiplied by the probability of overtime

being worked, since these are independent events (i.e. probability of both letters and overtime = 0,6 x 0,7 = 0,42.)

Similar calculations are made for the other branches and each total must add to 1,00.

The expected wage working for the Post Office is

$$0,42(15 + 2) + 0,18(15 + 0,5) + 0,24(17 + 6) + 0,16\ (17 + 3)$$

$$= 7,14 + 2,79 + 5,52 + 3,20$$

$$= R18,65$$

So the best solution is to work for the Post Office since the expected wage of R19,65 is greater than that of R18,50 offered by the supermarket.

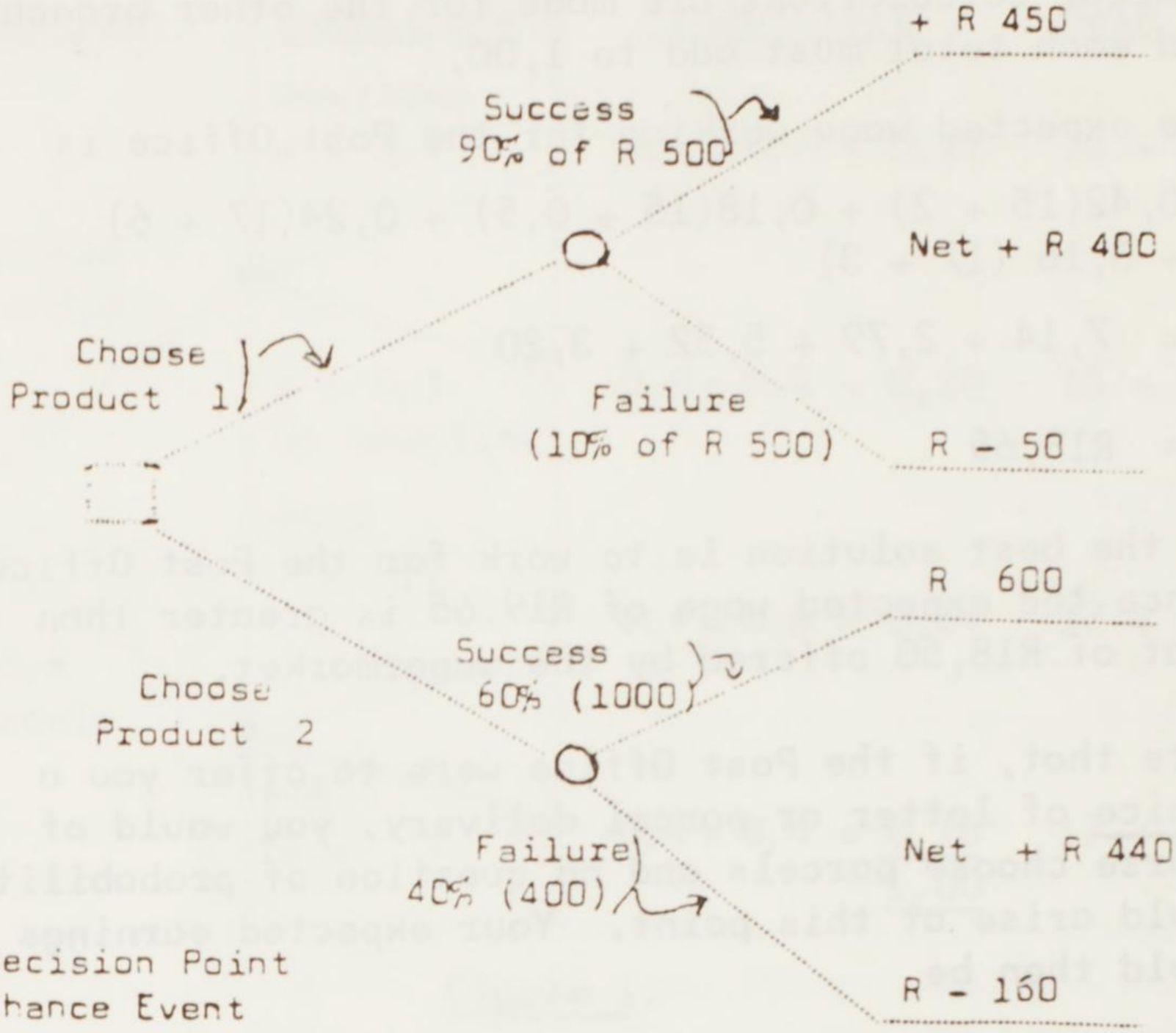
Note that, if the Post Office were to offer you a choice of letter or parcel delivery, you would of course choose parcels and no question of probability would arise at this point. Your expected earnings would then be

$$0,6(17 + 6) + 0,4(17 + 3) = R21,80$$

Let us consider the following further example: A retail store can stock product 1 or product 2 in its store, but not both. The owner believes that if he stocks product 1, he can make R500 if it is successful and stands to lose R500 if it fails. With product 2, he stands to make R1 000 if successful, or lose R400 if unsuccessful. The relative values of these two alternatives cannot be evaluated unless some idea of the probability of each is given. Let us assume that the retailer estimates his probabilities as follows:-

	Product 1	Product 2
Probability of success	90%	60%
Probability of failure	10%	40%

This can now be represented in a decision tree as follows:-



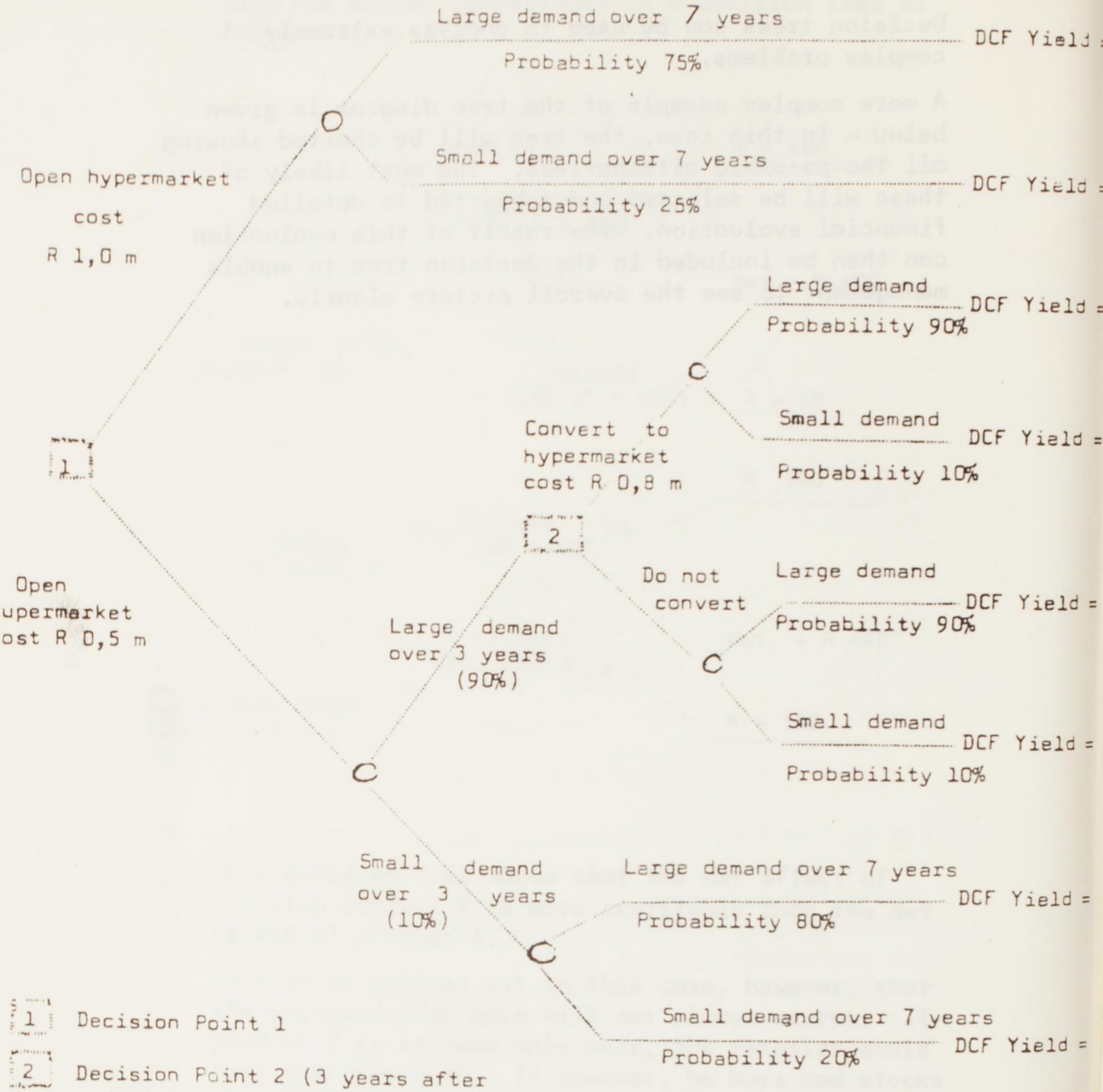
This decision tree shows that the net effect of stocking product 2 is more profitable than the net effect of product 1.

It must be pointed out in this case, however, that the expected R440 gain will not always accrue. If product 2 is stocked only once, the retailer could fail and lose R160. If however, he buys and stocks product 2 many times, his probability of achieving his R440 gain is much higher.

This technique of analysing probabilities, assumptions, facts and goals under risk conditions is known as stochastic modelling. The power of the computer enables the many calculations involved to be handled quickly and easily.

Decision trees can be used to analyse extremely complex problems.

A more complex example of the tree diagram is given below - in this case, the tree will be charted showing all the possible alternatives. The most likely of these will be selected and subjected to detailed financial evaluation. The result of this evaluation can then be included in the decision tree to enable management to see the overall picture clearly.



IMPORTANT NOTE: For examination purposes, always explain the symbols used in your graphical presentations.

This has been a brief introduction to decision trees, considering cases where the events are independent. The multiplication of probabilities applies only to independent events. These decision trees can be extended to deal with dependent events, and often allowance can be made for discounting in terms of investments and profits. These dependent events must then be treated according to the laws applicable to conditional probabilities. However, this introduction should have given an insight into the uses of these trees.

WHEN TO USE THE DECISION TREE TECHNIQUE

Decision trees are used when:-

(a) A logical analysis of the various alternatives to be studied before making a decision is required.

(b) A method of displaying complex alternatives is needed.

(c) A graphical method of charting these alternatives would be an advantage.

(d) A fairly simple form of data analysis could be used.

(e) An effective tool for analysing and formulating questions pertaining to a given problem is necessary.

(f) A consideration of all sets of conditions is forced.

(g) An effective device for communication is essential.

(h) A decision aid which is easy to learn and update is asked for.

LIMITATIONS OF THE TECHNIQUE

(a) It is difficult to project accurately because of the use of probabilities.

(b) The technique is based on historical dates, and historical assumptions.

(c) It is difficult to quantify the estimated results.

2. CAPITAL BUDGETING

While various forms of budgeting and budgetary control will be dealt with later at considerable length, some discussion regarding capital budgeting is necessary before studying the more popular financial techniques comprehensively.

When studying income tax legislation and accountancy, one frequently sees a distinction being made between "capital" and "revenue" receipts or expenditure. Such a distinction must be made with regard to capital budgeting, although many "revenue" items are to be found in so-called "capital" budgets. While "revenue" expenditure is best remembered as expenditure on working capital items like stock, raw materials and tools and is essentially short-term, "capital" expenditure involves the purchase of plant, land and buildings and so on - essentially long-term, yet often medium-term as well.

When we speak of capital budgeting, we usually mean the process of calculating which form of capital expenditure or investment will provide the greatest return and best comply with the financial policy of the organisation as a whole. Factors such as return, security, risk, investment period and the cost of capital all have to be considered by the accountant and great use is made of the various forecasting techniques when preparing the groundwork for a capital budget.

SWOT analysis (strengths, weaknesses, opportunities, threats) seen against the background of the master plan and tempered by forecast results should precede any major capital budgeting decision, as we are often working many periods ahead. Financial errors of 5% over one year can be tolerated, but spread over ten years the cumulative result could mean disaster.

You will notice regular references to the "cost of capital" in investment appraisal questions. You may be asking why we speak of the cost of a commodity that a company already possesses and is in fact about to spend. Here, we do not mean the cost of investing the capital, but the cost of maintaining it.

All the capital of a company is borrowed money - either from shareholders (equity capital) or in the form of debentures or loans (debt capital) and this capital has to earn more than its keep if profits are to be made. Shareholders require dividends, debenture holders and suppliers of other loan capital require regular interest payments, so it is clear that those concerned with capital budgeting are confronted by a two-edged sword. Should they wish to invest large sums of capital with a 12% service cost, the investment yield will have to equal or exceed 12% to make the project cost-effective.

Questionnaires covering a dozen or more pages can be devised to avoid factors like labour, productivity, safety, project life, maintenance, scrap value, etc., being overlooked. All such methods aim to accomplish the same purpose - is the project chosen the best one, given all the variables of a particular situation?

We will now have to examine yet another technique used in many fields of research, but traditionally "belonging" to the capital budgeting school of thought, namely:-

Sensitivity Analysis

Under a proper system of variable budgeting (discussed in a later lecture) sensitivity analysis will form the corner-stone of that process. When we studied the standard deviation concept or when discovering that our sales forecast was 98% accurate, we were in fact doing a form of sensitivity analysis. All we are thus attempting to establish is a project's sensitivity to parameter changes, or, to quantify the concept, should sales, raw material costs, fixed costs or overhead costs fluctuate by X%, how will profits (or return on investment) react?

Projects A, B and C may offer returns of 16%, 15% and 14% respectively. Before sanctioning project A (the project with the highest return) a prudent accountant would do a sensitivity analysis. During such an analysis, the following information could well come to light:-

(a) Market research has proved that an increase in price of 5% in the case of project A would cut demand by up to 20%. Such a fall in sales would lower the return to below the cost of capital and it appears that a price rise of 3% will be unavoidable in the near future.

(b) Project B is largely dependent on the oil price rising by a uniform rate per annum. During recent tests an econometric model of the project was found to be unreliable as the political uncertainty in the Middle East created too many dependent variables that could not be quantified.

(c) Under project C, the company would have control over the raw material supply by leasing a mine for 20 years. Research and Development experts conducting a technological forecast have advised that if certain provisions set out in the U.S. defence budget are approved, demand for the alloy produced might increase by up to 300%. Estimated competition throughout the world is likely to be negligible and it is thought that almost 70% of the increased orders will be supplied by the company under contract. In the event of Congress turning down the expenditure, a return of 14% is still attainable.

Should the cost of capital be 14% or less, experts will certainly forfeit the uncertain returns in the case of projects A and B in favour of project C. Should the relevant legislation be expected in the near future, the project might be approved in principle, expenditure to be sanctioned immediately the position in the U.S. has been clarified.

Such then is the conventional sensitivity analysis used in a capital budgeting context.

Once again, you are asked to observe the "thread" running through management science, as demonstrated by the above example. Like a good chef, realise that the same ingredient can be used and blended in many ways to produce the desired results. Various techniques have been created to serve you, so never become the slave of one when you should be master of them all.

3. DISCOUNTED CASH FLOW (D.C.F.)

Few major capital expenditure decisions are taken which do not involve capital expenditure and none is sensibly taken without assessing the effect on profits.

The DCF method, as well as permitting comparisons between different plans, some of which may yield moderate profits from an early stage, as opposed to others which may give practically no return in their early years but be enormously profitable later, has considerable additional advantages. It enables comparative assessments to be made of the effect on each plan of possible future variations in rates of tax, interest and inflation.

In considering possible investment projects, the rate of return on capital, as measured by the profit, or saving in cost of, for example, labour or material, is usually the most important factor.

(a) Definition

DCF is a means of evaluating the expected return on investment, taking into account the impact of time, and of changes that may occur with the passage of time, on the value of the cash flow. Income (cash inflow) is set off against expenditure (cash outflow) at the levels predicted for the years ahead and the net cash flow is then discounted to net present values.

(b) Information required

DCF can be used for any combination of cash outflows and cash inflows; all that is needed is to know or estimate:-

(i) The amounts to be spent in which years;

(ii) The estimated life of the project;

(iii) The profits before depreciation, year by year, over the life of the project;

(iv) The taxation allowances and rates of tax.

Depreciation is ignored in ascertaining "profits", since the full outflow will have been deducted from the aggregate DCF, i.e. 100% depreciation has automatically been allowed for.

(c) Advantages of discounted cash flow

The advantages of DCF are:-

(i) That it takes into account and accurately reflects the timing of expenditure. It reflects the effect of "time" on the value of money, by means of discounting.

(ii) It is not clouded by accounting adjustment and convention, e.g. depreciation.

(iii) It reflects the real value of tax incentives to new investment.

(d) Disadvantages of discounted cash flow

The disadvantages of DCF are:-

(i) It has the appearance of being difficult and complicated to calculate.

(ii) It cannot be directly related to historical accounting results.

We will not go into the mechanics of DCF appraisal here. At this stage, we need to remember only that it is one of the most widely used aids to decision making.

EXAMPLE

Question: The Works Manager has submitted the following data for a capital project whish he wishes to submit to the Board for their consideration. The company requires a minimum DCF yield on all new projects of 15% net. Calculate the DCF yield on the project. The following data is provided:-

Capital outlay: R4 550. Life of project: 5 years.
Investment Grant obtainable : 40%
Taxation writing-down allowance : 20%
Corporation Tax : 45%
Net Profit inclusive of depreciation and before tax: R1 534.

SOLUTION: (Note: In practice, discounting tables provide the "Factor" figures mentioned below)

TAXATION ALLOWANCES

Years	Capital Outlay	Investment Grant 40%	Net	W-D Allow 20%	Tax saved 45%
	R	R	R	R	R
0	4 550	1 820	2 730	-	-
1			2 184	546	246
2			1 748	436	196
3			1 398	350	158
4			1 118	280	126
5			894	224	101

NET CASH FLOW

Years	Net Investmet Outlay	Profit Before Tax	Corporation on Profit	Tax Allowances	Net Cash Flow
	R	R	R	R	R
0	(2 730)				(2 730)
1		1 534	(690)	246	1 090
2		1 534	(690)	192	1 040
3		1 534	(690)	158	1 002
4		1 534	(690)	126	970
5		1 534	(690)	101	945

DCF YIELD

Years	Net Cash Flow	@ 20% Factor (from tables)	Present Worth	@ 25% Factor (from tables)	Present Worth
	R		R		R
0	(2 730)		(2 730)		(2 730)
1	1 080	0,8333	900	0,8000	864
2	1 036	0,6944	719	0,6400	663
3	1 002	0,5787	580	0,5120	513
4	970	0,4823	468	0,4096	397
5	946	0,4019	380	0,3277	310
Total			317		17

Years	Net Cash Flow	@ 26% Factor	Present Worth
	R		R
0	(2 730)		(2 730)
1	1 080	0,7937	857
2	1 036	0,6299	653
3	1 002	0,4999	501
4	970	0,3968	385
5	946	0,3149	298
Total			(36)

By interpolation

Present worth @ 25%	R 17
@ 26%	(36)
Difference represented by 1%	53

$$= 25\% + \frac{17}{53} = 25,3\%$$

RESULT: With a DCF yield of 25,3%, the project will be acceptable.

4. OTHER METHODS

There are other methods of measuring return on capital. However, these methods do not take into account the effect of time on the value of cash flow in future years, as does the DCF method. Amongst the more commonly used methods are the following:-

(a) Pay-Back Method

This describes the interval of time which will elapse between the date when the expenditure is incurred and the date by when that expenditure is fully recovered. In the preceding example the pay-back period is:-

2 yrs. 7 mths.
i.e. the time when the R2 730 outflow has been fully recovered.

i.e. 1st yr = R1 080; 2nd yr. = R1 036; 3rd yr.
$\frac{614}{1\ 002} \times 12 = 7$ mths.

(b) Rate of Return on Original Investment

This is the ratio of average net income per annum to the initial cash outflow. In the preceding example the rate of return on original investment is calculated as follows:-

Income over 5 yrs. = R5 034
Average net income = R5 034 ÷ 5 = R1 007
Cash outflow = R2 730

$$\text{Rate of return on original investment} = \frac{1\ 007}{2\ 730} \times 100$$

$$= 37\%$$

(c) Rate of Return on Average Investment

This is calculated in the same manner as 2 above but is related to the average amount of capital invested and not to the initial outlay.

The average investment is $\frac{1}{2}$ (investment outlay + nil). Thus, in the preceding example, the average investment is:-

$$\frac{1}{2} \times 2\ 730 = 1\ 365$$

The average net income is R1 007 p.a.
The average investment is R1 365

$$\text{Giving a rate of return of } \frac{1\ 007}{1\ 365} \times 100 = 74\%$$

These three techniques provide a quick way of comparing between methods. However, they all fail to take into account the effect of the passing of time on the value of the R1, i.e. R1 received in 12 months time is not so valuable as R1 received today. The longer the period over which a capital project is spread, the more the rate of return as calculated by these methods is overstated.

5. COST BENEFIT ANALYSIS (CBA)

Definition:

CBA is a systematic comparison between the cost of carrying out a service or activity and the value of

that service or activity, quantifying as far as possible all costs and benefits whether direct or indirect, financial or social.

In other words, it is simply the application of the Expected Monetary Value technique mentioned under Decision Trees. It involves setting out all costs and benefits involved in a project and assigning probability factors to them. These are then analysed to give an indication of the likely yield. There are usually many calculations to be performed, and they can be done on a computer. This technique is also known as RISK ANALYSIS.

Let us look at a simple example:-

Labour Cost	Proba-bility	Material Cost	Proba-bility	Income	Proba-bility
R1 000	20%	R2 000	30%	R4 000	20%
1 100	30%	2 500	50%	4 500	60%
1 200	40%	3 000	20%	5 000	20%
1 300	10%				

One method of evaluating the results would be to calculate every possible combination. There is a total of 36 calculations. (4 x 3 x 3) This is feasible in so simple an example, but certainly would not be in a real life situation where millions of computations may be required.

Nor is it sufficient merely to calculate the range of profit, which, in the above case would be:

Maximum Profit : R5 000 - (R1 000 + R2 000) = R2 000
Minimum Profit : R4 000 - (R1 300 + R3 000) = -R300

Such calculations take no account of the probability.

A much smaller number of calculations than the maximum would be used in a genuine situation. The minimum would probably be 100 and many more would be preferable. Again, therefore, the computer comes into its own.

The method used is to weigh the factors according to their probability. In the example above, therefore, Labour Cost R1 000 with a probability of 20% would be used in one out of five of the calculations.

A profitability rate is calculated and a distribution curve prepared.

The object of cost-benefit analysis is to compare the cost of a service with the benefit derived from it. We must make sure that all costs and benefits - direct or indirect, social or functional - are included in our analysis. Difficulties arise when trying to quantify social costs and uneconomic benefits. How do we quantify the benefits to the community, derived from a factory establishing a pavement garden to which the public has access?

(a) One way of quantifying such an intangible in monetary terms may be to set up an imaginary market. Consumers could then be questioned as to how they would be prepared to pay for the benefit were it for sale. When conducting this sort of survey, factors such as the design of questions asked and the choice of sample must, of course, be taken into account.

(b) Another method of dealing with the quantification of intangibles is to rank benefits and costs in an order of preference. Then from this tabulation rank the listed benefits and costs as to their degree of measurability in monetary terms. An evaluation can then be made as to whether unquantifiable benefits are worthwhile in relation to the costs to be borne by providing them.

CBA is best known in its application to the public sector. This analysis could for instance be profitably employed in projects involving the construction of a new electricity power station. It is also used in the allocation of resources between the main Government services. Cost-benefit analyses are found to be of most assistance where a choice has to be made between investments which contain closely comparable properties. Here intangible factors affecting each investment can be offset against one another without the need for quantification in monetary terms.

(a) How do we go about cost benefit analysis?

(i) The problem is defined.

(ii) The alternative courses of action that may be adopted in reaching a solution are identified.

(iii) A prediction is made of the costs and benefits involved in each alternative and their relation to the producing unit and to the community as a whole.

(iv) The effects and constraints of each alternative project are listed. One example of a constraint is the availability of resources.

(v) Costs and benefits are quantified in monetary terms.

We can then draw up a tabular statement with column headings something like the one that appears on the next page.

Project	Individuals (affected by) and Groups (the project)	Costs incurred	Benefits derived
I. Additional pipeline increasing water supply by 1,3 cusecs to industrial area	1. Farmers occupying SUB 9 and 10 of Balgowrie	1. (a) Loss of land (b) Loss of alternative access	1. Possible direct connection to municipal water supply afforded by construction of pipeline
	2. Residents of Van Eyk Road	2. Unsightly intrusion of landscape	2. Increased efficiency in factories, affording better service to the public
	3. Factories in Eaton Road etc.	3. (a) Loss of land (b) Loss of direct road frontage exposure	3. Increase in operational efficiency

The above table is only an example and is designed to give you some idea of the factors to be considered.

Once we have quantified all the costs and benefits involved, a benefit/cost ratio can be used. This is the ratio of the discounted (present) value of net benefits, to those of the capital costs. Another way of expressing this ratio is by -

$$PI = \frac{\text{Present Value of future inflow}}{\text{Present investment outflow}}$$ (discounted at the cost of capital)

So the projects offering a PI greater than 1,0 will be acceptable or, in the case of competing projects, the highest PI $>$ 1,0 will be preferred.

(b) Advantages of CBA

It is obvious that some controversy must come about in the quantification of intangibles for CBA. The advantages of CBA are significant; they are:-

(i) it provides quantified statements for mere opinion;

(ii) it leads to consideration of factors of indirect interest to the company but of direct interest to the community;

(iii) it requires a thorough collection of information which refers not only to the current period but also to the long-term - intangible costs and benefits can only be quantified over the long-term;

(iv) when information is collected gaps in what is available are exposed;

(v) its presentation in comparative (tabular) form does give management a lead to the more profitable alternatives;

(vi) it directs management to careful consideration of the human factor in planning.

NOTE: Cost-benefit analysis is not to be confused with cost-effectiveness analysis, which is a method aimed at discovering the most economic means of achieving a stated objective or to obtain the maximum value from a given expenditure.

6. NETWORK ANALYSIS (C.P.A. or P.E.R.T.)

In Management a frequent need is to plan or control in such a way that we take the least possible time but yet avoid taking steps until a proper evaluation has been made.

Network analysis or PERT (Programme Evaluation and Review Technique) is a method of planning a complex project by analysing it into its component stages and mapping them on a network diagram, from which the stages that should be given priority can be foreseen and the minimum time required for completion determined.

The method is best explained by means of a simple example:-

Imagine four people travelling by car have a puncture.

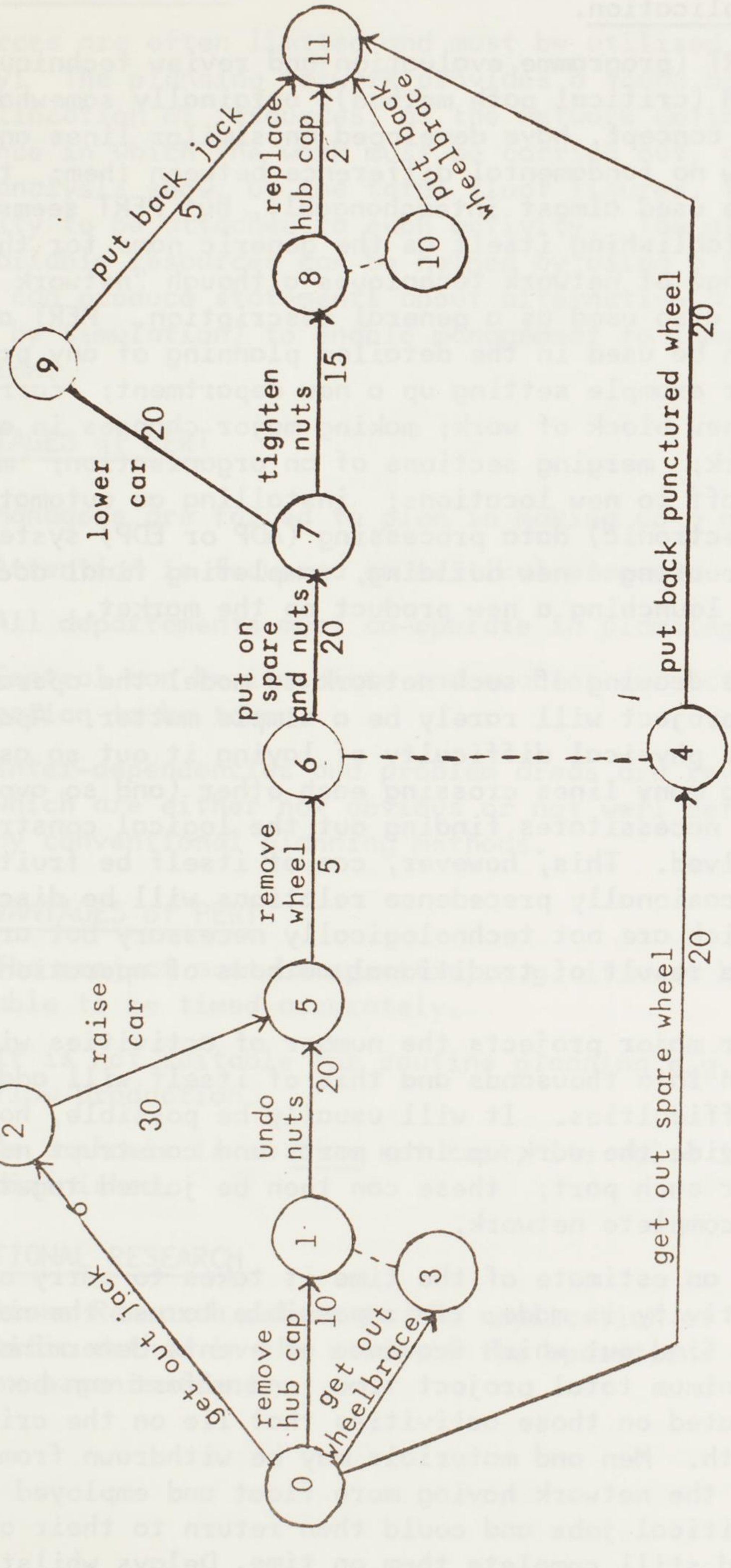
Suppose the operation of changing the wheel involves the following stages:-

Getting out the jack	(6 secs)
Raising the car	(30 secs)
Removing the hub cap	(10 secs)
Getting out the wheel brace	(5 secs)
Undoing the nuts	(20 secs)
Removing the wheel	(5 secs)
Getting out the spare	(20 secs)
Putting on the spare	(20 secs)
Tightening the nuts	(15 secs)
Replacing the hub cap	(2 secs)
Lowering the car	(20 secs)

The time taken is 3 mins 2 secs, but this assumes one person does each stage with no assistance. Obviously if the other passengers help, the operation can be completed much quicker, but it is no easy matter to organise the team to do the task in the shortest possible time.

Study the network. Each arrow shows an activity and each circle (or node) defines an event, which is a point in time between activities. For example at event 1 we cannot proceed to undo the nuts without having removed the hub-cap and obtained the wheelbrace. At event 6 we cannot proceed to put on the spare unless it has been brought from the boot.

The shortest possible time for the operation is shown by the longest route through the network, which is via nodes 0, 2, 5, 6, 7, 9, 11 and takes 1 min 26 secs. This may at first seem paradoxical, but if a shorter route is taken, say 0, 1,5 instead of 0, 2,5, since the the jobs of the longer route have to be done before we can proceed to 6, we will have to wait 6 seconds (the "slack" or "float" time on this route) until activity 2, 5 is completed in any case. The longest route is called the critical path and this technique is often called Critical Path Method (CPM).


11
put back jack
5
replace hub cap
2
put back wheelbrace
10
wheel
20
9
lower car
20
tighten nuts
15
7
put on spare and nuts
20
6
put back punctured wheel
1
20
raise car
30
2
undo nuts
20
5
remove wheel
5
get out spare wheel
20
get out jack
5
remove hub cap
10
get out wheelbrace
10
1
3
0

Application.

PERT (programme evaluation and review technique) and CPM (critical path method), originally somewhat different in concept, have developed on similar lines and there is now no fundamental difference between them; the names are used almost interchangably, but PERT seems to be establishing itself as the generic name for the whole range of network techniques although "network analysis" is also used as a general description. PERT and CPM can be used in the detailed planning of any project, for example setting up a new department; carrying out a new block of work; making major changes in existing work; merging sections of an organisation; moving staff to new locations; installing an automatic (or electronic) data processing (ADP or EDP) system; constructing a new building, completing final accounts, or launching a new product on the market.

The drawing of such network to model the operations of a project will rarely be a simple matter. Apart from the physical difficulty of laying it out so as to avoid too many lines crossing each other (and so avoid confusion) it necessitates finding out the logical constraints involved. This, however, can of itself be fruitful, as occasionally precedence relations will be discovered which are not technologically necessary but are only the result of traditional methods of operation.

For major projects the number of activities will usually run into thousands and this of itself will add to the difficulties. It will usually be possible, however, to divide the work up into parts and construct networks for each part; these can then be joined together into a complete network.

If an estimate of the time it takes to carry out each activity is made, it is possible to use the network to find out which sequence of events determines the minimum total project time, and effort can be concentrated on those activities that lie on the critical path. Men and materials may be withdrawn from parts of the network having more float and employed on critical jobs and could then return to their own jobs and still complete them on time. Delays whilst waiting for materials can be avoided by knowing when they will be required.

Resource Allocation.

Resources are often limited and must be utilised effectively. The planning network provides a sound basis for the allocation of resources, as the network defines the sequence in which the work must be carried out, and the time analysis show, by the total float figures, the priority to be attached to each activity. The allocation of available resources can be helped by using a computer which can produce statements about alternative actions (i.e. by simulation) to enable management to come to a decision.

ADVANTAGES of PERT

(a) Managers are forced to plan in making up a network.

(b) Attention is focussed on critical elements.

(c) All departements must co-operate in planning.

(d) Control can be immediate and enables corrective action to be taken.

(e) Inter-dependencies and problem areas are revealed which are either not obvious or not well defined by conventional planning methods.

DISADVANTAGES of PERT

(a) The project must be specific, e.g. it must be able to be timed accurately.

(b) It is not suitable for routine planning e.g. flow production.

(c) As emphasis is on time not cost, its value is diminished.

7. OPERATIONAL RESEARCH

Operations Research refers to the application of the Scientific method in the study of the operations of complex organisations.

The key words are "scientific method". The study is not based on intuition, opinion or guesswork. A suitable scientific method is employed to find out the one best way to solve the operational problem under consideration.

There is no limit to the type of problem. It may be to decide the best location for a new factory, the number and siting of furnished goods stocks, the optimum size for factory orders or the basic selling and distribution policy.

The first step is usually the creation of a model - possible only on paper. After this one of the many different statistical, mathematical or other scientific methods is employed, e.g., the very popular linear programming technique.

Techniques

(i) Linear Programming

The technique of linear programming (l.p) is concerned with maximising or minimising a given function, e.g. cost, profit, distance travelled, subject to a number of constraints, e.g. capacity limited, deliveries and supplies limited. This is the basic definition of l.p. but such problems may be divided into three categories depending on the type of problem being dealt with. They can all be solved in one way, by using the simplex method of l.p. but in two cases methods have been developed which are easier to use. There are also graphical methods which may be used.

(ii) Value Analysis

This is a concept devoted to evaluating each component or raw material in a project in terms of what it is for, why it is a particular shape or size, why it is made of that particular material. Using this analytical approach it is possible to establish whether the part is really needed, whether the shape or size may be altered, or whether a cheaper but equally suitable material may be used.

By this method the producer/purchaser of a high cost capital equipment is able to evaluate the true cost/value of an investment.

(iii) Simulation

In certain projects full-scale tests are not undertaken, either because of the risk to human life or because of the costs involved. These tests are carried out in the laboratory where actual conditions are simulated and reasonable conclusions drawn. The best example of modern times is the simulation tests carried out to prepare for the moon flight.

It is one of the most versatile Operational Research Techniques; the housewife who sits down and works out the household budget, deciding whether the baker, the milkman or the butcher gets paid this week, or whether the rent collector, the coalman, or the newsagent is likely to apply the most pressure, is in fact carrying out a simulation exercise.

You should note that while both econometrics and simulation employ models as an aid to problem solving, it is often found that the simulation model is some form of tangible mechanical replica, while the econometric design is usually mathematical.

(iv) Queueing Theory

This is the probability theory applied to situations where delays are caused by seasonal or peak-time bottlenecks. It has been used to establish the number of operators needed at particular times of the day, and the number of buses or trains needed during rush hours.

8. COMPUTERS

The modern day computer can be used in all aspects of management and they can be helpful in the decision-making process, but the capacity of a computer is

limited to choosing between "yes" and "no". Therefore, a complex problem must be reduced to simple elements before it is given to the computer. Its other great usefulness lies in its ability to sort, classify and compare information, thus narrowing the possibilities for errors of judgement.

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SUMMARY

Decision-making is the essential step between thought and action. Decisions have to be taken at many stages of the management process and various decision-making techniques have been evolved to aid in this process. Decisions may be made consciously or otherwise but generally the problem-solving process involves these steps:-

(a) Identifying the actual problem, situation, activity or resources with which we are concerned.

(b) Obtaining and analysing the facts.

(c) Searching for alternative solutions.

(d) Picking out the best possible solution from the alterations having regard to all the circumstances.

(e) Turning the decision into positive and effective action.

Various aids to decision-making have been evolved and you should understand the principles involved.

The techniques are:-

- Decision trees
- Capital Budgeting
- Discounted Cash Flow
- Cost Benefit Analysis
- Network Analysis
- Operational Research, making use of:-

Linear Programming
Value Analysis
Simulation
Queueing Theory

- Computers

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SELF-TESTING QUESTIONS

1. (a) There are five common-sense steps to be taken in problem solving: what are they? (Do not go into detail).

   (b) What would you do if several alternative solutions suggested themselves?

2. Seven techniques are suggested when decision-making becomes a pressing problem: state them.

(Note: If/when you have correctly listed these, go back over the lecture section which explains their use, for they crop up continually in examination questions.)

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ANSWERS TO SELF-TESTING QUESTIONS

1. (a) Common sense steps in tackling problems:-

   (i) pinpoint the problem clearly and knowledgeably,

   (ii) identify and analyse all relevant facts,

   (iii) seek and find alternatives,

   (iv) from all these, choose the beste alternatives.

(b) Re-consider the chosen solution to ascertain:-

(i) if the risk is worth the anticipated gain,

(ii) if the proposed objective is, with best efforts within the reach of the firm,

(iii) when to go ahead,

(iv) if resources of material, machines and man-power are adequate.

2. Seven techniques to aid problematic decision-making:-

(i) Decision Trees

(ii) Capital Budgeting

(iii) Discounted Cash Flow

(iv) Cost Benefit Analysis

(v) Network Analysis

(vi) Operational Research, using
Linear Programming
Value Analysis
Simulation
Queueing Theory

(vii) Computers.

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PROGRESS QUESTIONS

. Examine the process of decision-making by classifying decisions by type.

. Write about 250 words on the place and importance of decision-making in management.

. List 5 techniques you might use in reaching a management decision, with a brief description of each and an indication of its possible use.

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USE THIS PAGE FOR MAKING NOTES

YOUR TESTS!

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