

Organisations require the services of a large number of personnel. Each position of the various positions created through the process of organising. Hence organisation makes certain specific contributions to achieve organisational objectives. Hence the person occupying the position should have sufficient ability to meet its requirements. Staffing basically involves matching jobs and individuals. This may require a number of functions like manpower planning, recruitment, selection, training and development, performance appraisal, promotion, transfer, etc. Various authors look at staffing as one of the elements of organising process and the former has been carved out of the latter. However, it is better to take up both elements of management separately because of several reasons. First, knowledge and approach required for staffing are quite different from organising process; staffing involves making people suitable to jobs while organising involves creation of jobs. Second, there is considerable development of knowledge and techniques in the area of staffing process. Third, there is tendency to treat staffing as a separate organisational function like production, marketing, finance, etc., and managers tend to overlook their role in staffing though every manager has to perform vital aspects of staffing process. Therefore, managers should take staffing as an essential element of management process.

Concept of Staffing

Staffing is the process of acquiring, developing, employing, appraising, remunerating, and retaining people so that right type of people are available at right positions and at right time in the organisation. Within each function, there are various subfunctions. For example, acquiring personnel involves human resource planning, job analysis, recruitment, and selection. McFarland has defined staffing as follows:

"Staffing is the function by which managers build an organisation through the recruitment, selection, and development of individuals as capable employees."¹

Koontz et al. have defined staffing to cover more functions than those included in the above definition. Their definition of staffing is as follows:

"The managerial function of staffing is defined as fixing positions in the organisation structure through identifying workforce requirements, inventorying the people available, recruitment, selection, placement, promotion, appraisal, compensation, and training of needed people."²

Thus, staffing covers wide-ranging activities through which organisational positions created through organising process are kept filled. On the analysis of definition of staffing, we can derive its features which are as follows:

1. Staffing function is related to employment of personnel of all types—managerial as well as operative in the organisation.
2. Staffing includes a variety of activities through which the organisation tries to ensure that various positions remain filled by the most suitable personnel.
3. Staffing function is performed by every manager in the organisation like other managerial functions viz. planning, organising, directing, and controlling, though they receive considerable staff assistance in performing staffing function.

¹Dalton E. McFarland, *Management Principles and Practices*, New York: Macmillan, 1979, p. 238.

²Harold Koontz, Cyril O'Donnell, and Heinz Weihrich, *Management*, New York: McGraw-Hill, 1984, p. 377.

Importance of Staffing

Human resources of an organisation are considered the most vital assets because it is the people who make other resources moving. They perform various activities in the organisation in different functional areas like production, marketing, finance, etc. In the present world human resources are being used as a means for developing competitive advantage which may be in the form of lower cost of production, development of products for special needs, special means for marketing the products, and so on. In this context, Sumantra Ghoshal, professor of strategic leadership, has observed as follows:

"A growing number of managers in India and abroad have begun to recognise that fundamental basis of competition has begun to change. The scarce resource, and primary source of competitive advantage, is no longer physical or financial capital, but human capital."⁵

Looking at the role of human resources in organisational effectiveness and increasing competition in human resource market, more and more companies are strengthening their staffing function. The importance of staffing can be gauged in the following context:

1. Filling Organisational Positions. A basic problem being faced by organisations throughout the world and more particularly in India is the acute competition for good quality human resources. Brian Friedman, consultant on human resources with Arthur Anderson, has called the situation as global talent war.⁶ With increasing competition for human resources, the cost of acquiring them has increased manifold. We find a paradox in Indian situation in which there is abundant supply of unskilled labour but acute shortage of good quality managerial and technical personnel. In such a situation, there is need for systematic staffing so that the organisation can fill its various positions with personnel of good quality.

2. Developing Competencies. It is not sufficient that various organisational positions are filled but there should be development of competencies among personnel because of changing nature of job profile. We have seen in Chapter 4 how changes in environmental factors have changed job profile and this process still continues. In this changing job profile situation, the rate of skill obsolescence is very high. Therefore, there is a need for developing competencies among personnel on continuous basis. Today, organisations are not just developing specific skills but they go for *multi-skilling* and development of *differential competencies* to make their employees competent to face the growing environmental challenges. For making employees competent, newer training and development techniques are being evolved.

3. Retaining Personnel. Apart from acquiring and developing personnel, retaining them in the organisation is equally important. Employee turnover, particularly at the managerial level, is a big problem. Though this problem is being experienced by all organisations to some degree, knowledge-based organisations—those engaged in information technology, consulting, investment banking and so on—are more prone to such a problem. For example, Guru Bakshi, Vice President (HR) of Metamor Global Solutions Limited engaged in software development, has observed that "the IT industry has one of the highest employee turnovers, with employees constantly looking for more money and opportunities abroad."⁷ In order to retain their employees, organisations are adopting many methods having long-term implications besides persuading the employees to remain with them.

⁵Sumantra Ghoshal, "Competing on Human Capital," *The Economic Times*, June 11, 1999, pp. 1-2 (Supplement).

⁶Brian Friedman, "People Power," Interview with *The Economic Times*, April 7, 2000, p. 2 (Supplement).

⁷Guru Bakshi, "Changing Places," *The Hindustan Times*, September 23, 1999, p. 1 (Supplement).

After the identification of need for the number and type of personnel as indicated by manpower planning and job analysis, the next step is to acquire these personnel. This involves location of such personnel, motivating them to offer themselves for consideration for selection, and selecting the personnel who fit with organisational and job requirements. The whole process is known as recruitment and selection.

Concept of Recruitment and Selection

Recruitment and selection, though differ in terms of process and orientation, are often used together and, sometimes, interchangeably. Therefore, in order to understand difference between the two, let us see what activities are involved in these processes.

Recruitment

Recruitment is the process concerned with the identification of sources from where the personnel can be employed and motivating them to offer themselves for employment. Werther and Davis have defined this as follows:

"Recruitment is the process of finding and attracting capable applicants for employment. The process begins when new recruits are sought and ends when their applications are submitted. The result is a pool of applicants from which new employees are selected."¹

Lord has defined recruitment in terms of its competitive nature. He views that

"Recruitment is a form of competition. Just as corporations compete to develop, manufacture, and market the best product or service, so they must also compete to identify, attract, and hire the most qualified people. Recruitment is a business, and it is a big business."²

Thus, recruitment process is concerned with the identification of possible sources of human resource supply and tapping those sources. In the total process of acquiring and placing human resources in the organisation, recruitment falls in between different subprocesses as shown in Figure 19.1.

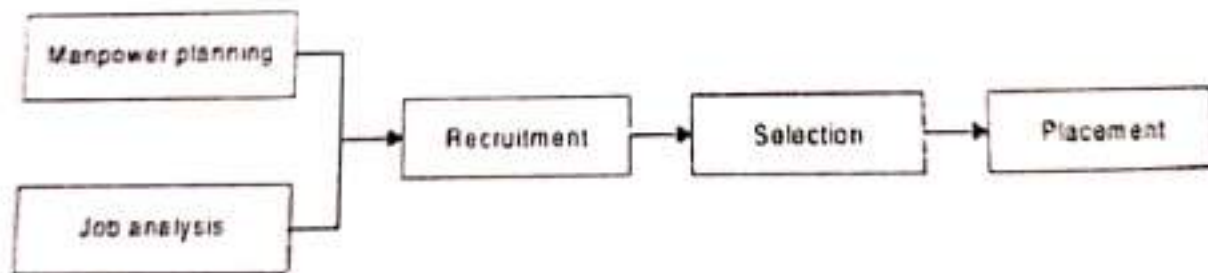


FIGURE 19.1: Linkage of recruitment to human resource acquisition

Selection

Selection can be conceptualised in terms of either choosing the fit candidates, or rejecting the unfit candidates, or a combination of both. Selection involves both because it picks up the fits and rejects the unfits. In fact, in Indian context, there are more candidates who are rejected than those who are selected in most of the selection processes. Therefore, sometimes,

¹William B. Werther and Keith Davis, *Human Resources and Personnel Management*, New York: McGraw Hill, 1996, p. 195.

²J.S. Lord, "External and Internal Recruitment," in Wayne F. Cascio (ed.), *Human Resource Planning, Employment, and Placement*, Washington: Bureau of National Affairs, 1989, pp. 2-73.

degree of success in obtaining competent people. Past records in this context can be helpful indicators. Since there are different categories of employees to be selected, different sources of recruitment are used. For example, according to a study by Rudrasavara⁶, a public sector undertaking in heavy engineering recruited its non-supervisory staff through (1) employment exchange, (2) external advertisement, (3) internal advertisement, (4) Central Training Institute, (5) introduction by liaison officer of the undertaking, (6) deputation of personnel, and (7) transfer from other public sector undertakings. According to this study the major sources of recruitment in public sector undertakings are in the following order: (1) casual callers or employment seekers, (2) newspaper advertisements, (3) scheduled castes and scheduled tribes, (4) employment exchanges, (5) other public sector undertakings, (6) internal advertisements, (7) displaced persons, (8) relatives and friends of present employees, (9) employee recommendations, and (10) colleges and universities. The major sources of recruitment for private sector organisations are: (1) advertisements, (2) employment exchanges, (3) relatives and friends, (4) casual callers, and (5) employee recommendations.⁶

SELECTION PROCESS

A selection process involves a number of steps. The basic idea is to solicit maximum possible information about the candidates to ascertain their suitability for employment. Since the type of information required for various positions may vary, it is possible that selection process may have different steps for various positions. For example, more information is required for the selection of managerial personnel as compared to workers. Similarly, various steps of selection process may be different for various organisations because their selection practices may differ. For example, some organisations conduct selection tests of various types while others may not use these. However, a standard selection process has the following steps: screening of application forms, selection tests, interview, checking of references, physical examination, approval by appropriate authority, and placement. Below is a discussion of the various steps:

1. Screening of Applications. Prospective employees have to fill up some sort of application forms. These forms have variety of information about the applicants like their personal bio-data, achievements, experience, etc. Such information is used to screen the applicants who are found to be qualified for the consideration of employment. The information may also be used to keep permanent records of those persons who are selected. Based on the screening of applications, only those candidates are called for further process of selection who are found to be meeting the job standards of the organisation. When the number of applicants meeting the job standards far exceeds the actual requirement, the organisations decide a suitable number of candidates who will be called for further selection process.

2. Selection Tests. Many organisations hold different kinds of selection tests to know more about the candidates or to reject the candidates who cannot be called for interview, etc. Selection tests normally supplement the information provided in the application forms. Such forms may contain factual information about candidates. Selection tests may give information about their aptitude, interest, personality, etc., which cannot be known by application forms. Types of tests and principles of testing have been discussed in detail in this part of the chapter.

⁶M. N. Rudrasavara, *Personnel Administration in India*, P. 111.

3. Interview. Selection tests are normally followed by personal interview of the candidates. The basic idea here is to find out overall suitability of candidates for the job. It also provides opportunity to give relevant information about the organisation to the candidates. In many cases, interview of preliminary nature can be conducted before the selection tests. For example, in the case of campus selection, preliminary interview is held for short listing the candidates for further process of selection.

4. Checking of References. Many organisations ask the candidates to provide the names of referees from whom more information about the candidates can be collected. Such information may be related to character, working, etc. The usual referees may be previous employers, persons associated with the educational institutions from where the candidates have received education, or other persons of prominence who may be aware of the candidates' behaviour and ability. In our country, references are not given adequate importance because of their bias but these can give very useful information which may not be available otherwise.

5. Physical Examination. Physical examination is carried out to ascertain the physical standards and fitness of prospective employees. The practice of physical examination varies a great deal both in terms of coverage and timing. While many organisations do not carry physical examinations at all, others carry on a very comprehensive basis. Some organisations only have general check up of applicants to find the major physical problems which may come in the way of effective discharge of duties. In the context of timing also, some organisations locate the physical examination near the end of the selection process, others place it relatively early in the process. This latter course is generally followed when there is high demand for physical fitness.

6. Approval by Appropriate Authority. On the basis of the above steps, suitable candidates are recommended for selection by the selection committee or personnel department. Though such a committee or personnel department may have authority to select the candidates finally, often it has staff authority to recommend the candidates for selection to the appropriate authority. Organisations may designate the various authorities for approval of final selection of candidates for different categories of candidates. Thus, for top level managers, Board of Directors may be approving authority; for lower levels, even functional heads concerned may be approving authority. In university, it may be syndicate, executive committee. When the approval is received, the candidates are informed about their selection and asked to report for duty to specified persons.

7. Placement. After all the formalities are completed, the candidates are placed on their jobs initially on probation basis. The probation period may range from three months to two years. During this period, they are observed keenly, and when they complete this period successfully, they become the permanent employees of the organisation.

SELECTION TESTS

In a work group, members, consciously or unconsciously, make opinion about others. The opinion may be about their quality, behaviour, way of working, etc. Such an opinion becomes the basis for interpersonal interaction. In the same way, superiors form some opinion about their subordinates for determining many things like salary increase, promotion, transfer, etc. In large organisations, this process is formalised and takes the form of performance appraisal. Performance appraisal in some form has existed in old days also. For example, Wei dynasty (221-265 A.D.) in China introduced performance appraisal in which an Imperial Rater appraised the performance of members of the official family. In its present form, the New York City Civil Service adopted performance appraisal in 1883. Since then and specially after World War I, performance appraisal in formal way has been adopted by most of the large organisations particularly in business field. In our country too, large organisations adopt formal appraisal method.

Concept of Performance Appraisal

Appraisal is the evaluation of worth, quality, or merit. In the organisational context, performance appraisal is a systematic evaluation of personnel by superiors or others familiar with their performance. Performance appraisal is also described as merit rating in which one individual is ranked as better or worse in comparison to others. The basic purpose in this merit rating is to ascertain an employee's eligibility for promotion. However, performance appraisal is more comprehensive term for such activities because its use extends beyond ascertaining eligibility for promotion. Such activities may be training and development, salary increase, transfer, discharge, etc. besides promotion. A formal definition of performance appraisal is as follows:

"It (performance appraisal) is the process of evaluating the performance and qualifications of the employee in terms of the requirements of the job for which he is employed, for the purposes of administration including placement, selection for promotion, providing financial rewards, and other actions which require differential treatment among the members of a group as distinguished from actions affecting all members equally."¹

Beach has defined performance appraisal as follows:

"Performance appraisal is the systematic evaluation of the individual with regard to his or her performance on the job and his potential for development."²

Thus, performance appraisal is a systematic and objective way of judging the relative worth or ability of an employee in performing his job. It emphasises two aspects: systematic and objective. The appraisal is systematic when it evaluates all performances in the same manner, utilising the same approaches so that appraisal of different persons is comparable. Such an appraisal is taken periodically according to plan; it is not left to chance. Thus, both raters and ratees know the system of performance appraisal and its timing. Appraisal has objectivity also. Its essential feature is that it attempts at accurate measurement by trying to eliminate human biases and prejudices.

Merit Rating

Performance appraisal is also described as merit rating in which one individual is ranked as better or worse in comparison to others. Therefore, conceptually, both merit rating and performance appraisal are same though they differ in terms of objectives and coverage of activities during appraisal process which we shall see later. Flippo has defined merit rating as follows:

¹C. Heyel, *The Encyclopedia of Management*, New York: Reinhold Publishing, 1973, p. 654.

²Dale S. Beach, *Personnel: The Management of People at Work*, New York: Macmillan, 1980, p. 290.

"Merit rating is a systematic, periodic and, so far as humanly possible, an impartial rating of an employee's excellence in matters pertaining to his present job and to his potentialities for better job."³

From the above definition, it appears that merit rating has some elements common to performance appraisal. It uses many of the techniques which are used in performance appraisal such as man-to-man comparison, grading system, checklist method, critical incident method, and so on. Therefore, it is desirable to see how merit rating differs from performance appraisal.

Merit Rating and Performance Appraisal: A Comparison

Before making the comparison between merit rating and performance appraisal, let us briefly see how the concept of appraisal emerged and changed over the period of time. Appraisal has undergone a sea change in terms of objectives and methods since it was introduced in a formal way in 1920s. During the First World War, appraisal concept was adopted by US army which was in the form of merit rating and involved 'man-to-man' comparison for the evaluation of military personnel. From the army, this concept entered the business field and was restricted to hourly-paid workers. During 1920s, relational wage structures for hourly-paid workers were adopted in industrial units and each worker was used to be rated in comparison to others for determining wage rates. This system was called merit rating. In early 1950s, the concept of appraisal was applied to technical and managerial personnel. In the initial stage, appraisal of these personnel was in the form of merit rating though more factors were taken into consideration. The objectives behind such a rating were salary adjustments, promotions, and transfers. When the need for training was felt in business organisations, the appraisal system was extended to personnel appraisal which emphasised overall appraisal of a person—his performance, behaviour, skills, and potentials. Various terms which used to denote appraisal have been performance appraisal, merit rating, behavioural assessment, employee evaluation, personnel review, staff assessment, and employee annual confidential report. However, the term performance appraisal is more common. Dale Beach has traced the differences between earlier appraisal and present appraisal as indicated in Table 21.1.⁴

TABLE 21.1: Trends in performance appraisal

Item	Earlier emphasis	Present emphasis
Terminology	Merit rating	Employee appraisal/performance appraisal
Purpose	Determining qualifications for wage increase, transfer, promotion, lay-off	Development of personnel, improved of performance on the job, and providing emotional security
Application	Hourly-paid workers	Technical, professional, and managerial personnel
Factors rated	Heavy emphasis on personal attributes	Results, accomplishment, performance
Techniques	Rating scales, statistical manipulation of data for comparison purposes	Mutual goal-setting, critical incidents, group appraisal, performance standards, less quantitative
Post-appraisal interview	Superior communicates his rating to employee and tries to sell his evaluation to him; seeks to have employee conform to his view	Superior stimulates employee to analyse himself and set own objectives in line with job requirements; superior is helper and counsellor

³ Edwin B. Flippo, *Personnel Management*, New York: McGraw-Hill, 1984, p. 327.

⁴ Beach, *op. cit.*, p. 280.

Objectives of Performance Appraisal

Performance appraisal practices show that organisations undertake performance appraisal to meet certain objectives which are in the form of salary increase, promotion, identifying training and development needs, providing feedback to employees, and putting pressure on employees for better performance.

1. Salary Increase. Performance appraisal plays a role in making decision about salary increase. Normally, salary increase of an employee depends on how he is performing his job. There is continuous evaluation of his performance either formally or informally. In a small organisation, since there is a direct contact between the employee and the one who makes decisions about salary increase, performance appraisal can be an informal process. However, in a large organisation where such contact hardly exists, formal performance appraisal has to be undertaken. This may disclose how well an employee is performing and how much he should be compensated by way of salary increase.

2. Promotion. Performance appraisal plays a significant role where promotion is based on merit. Most of the organisations often use a combination of merit and seniority for promotion. Performance appraisal discloses how an employee is working in his present job and what are his strong and weak points. In the light of these, it can be decided whether he can be promoted to the next higher position and what additional training will be necessary for him. Similarly, performance appraisal can be used for transfer, demotion, and discharge of an employee.

3. Training and Development. Performance appraisal tries to identify the strengths and weaknesses of an employee on his present job. This information can be used for devising training and development programmes appropriate for overcoming weaknesses of the employees. In fact, many organisations use performance appraisal as means for identifying training needs of employees.

4. Feedback. Performance appraisal provides feedback to employees about their performance. It tells them where they stand. A person works better when he knows how he is working; how his efforts are contributing to the achievement of organisational objectives. This works in two ways: *First*, the person gets feedback about his performance and he may try to overcome his deficiencies which will lead to better performance. *Second*, when the person gets feedback about his performance, he can relate his work to the organisational objectives. This provides him satisfaction that his work is meaningful. Thus, given the proper organisational climate, he will try his best to contribute maximum to the organisation.

5. Pressure on Employees. Performance appraisal puts a sort of pressure on employees for better performance. If the employees are conscious that they are being appraised in respect of certain factors and their future largely depends on such appraisal, they tend to have positive and acceptable behaviour in this respect. Thus, appraisal can work automatically as control device.

Above roles of performance appraisal are quite important. However, these roles can be performed only when there is systematic performance appraisal, and various relevant decisions are made objectively in the light of result of performance appraisal. To be systematic and objective in performance appraisal, managers require an understanding of various intricacies involved in performance appraisal like methods of performance appraisal, problems in performance appraisal, etc.

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Methods of Performance Appraisal

There are various methods of performance appraisal. In fact, each organisation may have its own unique system and method of appraisal. In one organisation, it may be continuing and informal where personal opinion of a superior about his subordinates may be the basis of appraisal. In another, it may be well-defined and a particular system and method may be followed by all managers. Whatever system may be adopted, usually, performance appraisal has two bases: (i) appraisal of employees according to traits, attributes, and general behaviour on the job, commonly known as trait approach; and (ii) appraisal of results, work, and goals achieved by the employees, known as appraisal by results. These two approaches, however, are not mutually exclusive and can be used in combination. Either trait approach, or results approach, or combination of both of these may be adopted in different forms resulting in different methods of appraisal which can be classified in different ways. For example, Decenzo and Robbins have classified these into three categories: (i) *single-trait, single subject*, in which an appraisee is not compared with any other person and each of his traits is measured in absolute form; (ii) *single-subject*, in which an appraisee is compared with others; and (iii) *multiple-trait, single subject*, in which the process of the first classification is adopted but with multiple traits.⁵ Beatty and Schaefer have categorised various methods of appraisal into four groups: (i) *comparative methods*, in which an appraisee is compared with others; (ii) *absolute standards*, in which the appraisee's performance is compared with the standards fixed for him; (iii) *goal setting*, in which goals for the appraisee are set through mutual participation between appraiser and appraisee and the performance is measured against those standards; and (iv) *direct indices*, in which the appraisee is appraised in terms of various outcomes such as productivity, absenteeism, tardiness, etc.⁶ At present, various methods of performance appraisal which are used in practice are based on traits or results achieved or a combination of both.

APPRAISAL BASED ON TRAITS

Appraisal based on traits and behavioural patterns shown in job performance emphasises various traits which the appraisee possesses and the behaviours he adopts in performing his job. It does not take into account the outcomes of those behaviours, that is, performance achieved. There are various methods of performance appraisal based on traits.

Ranking Method

Ranking is the oldest and simplest method of appraisal in which a person is ranked against others on the basis of certain traits and characteristics. This is just like preparing ranks of various examinees in an examination. In the ranking method, various persons are given ranks on the basis of their traits. This is a very simple method when the number of persons to be ranked is small because ranking has to be given on the basis of traits which are not easily determinable, not like marks in an examination. Moreover, since differences in ranks do not indicate absolute or equal differences of ability between individuals, the method has limited value for performance appraisal.

⁵David A. Decenzo and Stephen P. Robbins, *Personnel/Human Resource Management*, New Delhi: Prentice-Hall of India, 1989.

⁶R.W. Beatty and C.E. Schaefer, *Personnel Administration*, Reading, Mass.: Addison-Wesley, 1989.

Paired Comparison

Paired comparison method is a slight variation of ranking system designed to increase its value for use in the large groups. In this method, each person is compared with other persons taking only one at a time. Usually, only one trait, overall suitability to perform the job, is considered. The rater is provided with a bunch of slips each containing a pair of names. The rater puts a tick mark against the person whom he considers the better of the two, and final ranking is determined by the number of times that person is judged better than others. This method provides better comparison of persons. However, this increases the work because of large number of comparisons. For example, to rank 50 persons through paired comparison, there will be 1,225 comparisons. This can be calculated by a formula $N(N-1)/2$, where N is the total number of persons to be compared.

Grading

In this method, certain categories of abilities or performances are defined well in advance and persons are put in particular category depending on their traits and characteristics. Such categories may be definitional like outstanding, good, average, poor, very poor, or may be in terms of letters like A, B, C, D, etc. with A indicating the best and D indicating the worst.

The actual performance of the employees is measured against these grades. This method is generally useful for promotion based on performance. This method, however, suffers from one basic limitation that the rater may rate most of the employees at higher grades.

Forced-distribution Method

In order to check the tendency of rating most of the appraisees around high point in a rating scale, forced-distribution method has been adopted. In this method, the appraiser is forced to appraise the appraisees according to the pattern of a normal curve. The basic assumption in this method is that employees' performance level conforms to a normal statistical distribution. For example, 10 per cent employees may be rated as excellent, 20 per cent as above average, 40 per cent as average, 20 per cent below average, and 10 per cent as poor. This method is useful to rate job performance and promotability. The basic advantage of this method is that it overcomes the problem of adopting a central tendency of rating most of the employees to a point, particularly high or near high to appease them.

Forced-choice Method

The forced-choice rating method contains a series of group of statements and the rater checks how effectively the statement describes each individual being evaluated. There may be some variations in the methods and statements used, but the most common method of forced-choice contains two statements both of which may be positive or negative. Though both of them describe the characteristics of an employee, the rater is forced to tick only one which appears to be more descriptive of the employee. Out of these two statements, only one statement is considered for final analysis of rating. For example, a rater may be given the following two statements :

- (i) The employee is hard working.
- (ii) The employee gives clear instructions to his subordinates.

Both these statements are positive but the rater is asked to rate only one which is more descriptive of his subordinate's behaviour. This is done to avoid subjectivity in rating. Out of the above two statements, only one statement is to be considered in final rating. Since

"Motivation is the complex force starting and keeping a person at work in an organisation. Motivation is something that moves the person to action, and continues him in the course of action already initiated."⁴

According to McFarland,

"Motivation refers to the way in which urges, drives, desires, aspirations, strivings, or needs direct, control, or explain the behaviour of human beings."⁵

After defining motive, motivating, and motivation, we can now see the relationship among these. Such a relationship is presented in Figure 23.1.

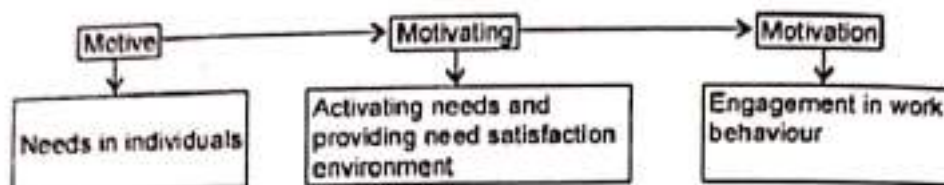


FIGURE 23.1: Relationship between motive, motivating, and motivation

Nature of Motivation

Based on the definition of motivation, we can derive its nature relevant for human behaviour in organisation. Following characteristics of motivation clarify its nature:

1. Based on Motives. Motivation is based on individual's motives which are internal to the individual. These motives are in the form of feelings that the individual lacks something. In order to overcome this feeling of lackness, he tries to behave in a manner which helps in overcoming this feeling.

2. Affected by Motivating. Motivation is affected by way the individual is motivated. The act of motivating channels need satisfaction. Besides, it can also activate the latent needs in the individual, that is, the needs that are less strong and somewhat dormant, and harness them in a manner that would be functional for the organisation.

3. Goal-directed Behaviour. Motivation leads to goal-directed behaviour. A goal-directed behaviour is one which satisfies the causes for which behaviour takes place. Motivation has profound influence on human behaviour; in the organisational context it harnesses human energy to organisational requirements.

4. Related to Satisfaction. Motivation is related to satisfaction. Satisfaction refers to the contentment experiences of an individual which he derives out of need fulfilment. Thus, satisfaction is a consequence of rewards and punishments associated with past experiences. It provides means to analyse outcomes already experienced by the individual.

5. Person Motivated in Totality. A person is motivated in totality and not in part. Each individual in the organisation is a self-contained unit and his needs are interrelated. These affect his behaviour in different ways. Moreover, feeling of needs and their satisfaction is a continuous process. As such, these create continuity in behaviour.

6. Complex Process. Motivation is a complex process; complexity emerges because of the nature of needs and the type of behaviour that is attempted to satisfy those needs. These generate complexity in motivation process in the following ways:

⁴Robert Dubin, *Human Relations in Administration*, New Delhi: Prentice-Hall of India, 1974, p. 53.

⁵Dalton E. McFarland, *Management Principles and Practices*, New York: Macmillan, 1974, p. 537.

situation in which the individual engages in two or more roles simultaneously and these roles are mutually incompatible. In both these situations, his performance is likely to be affected adversely.

5. Organisational Resources. Organisational resources denote various types of facilities—physical and psychological—which are available at the workplace. Physical facilities include appropriate layout of the workplace and conducive physical environment. Psychological facilities include appropriate reward system, training and development facilities, harmonious workgroup, appropriate and motivating leadership styles, motivating work, and so on. These organisational resources work in two ways in increasing individual performance. First, they facilitate job performance. Second, they work as motivating factors which enhance individual enthusiasm to perform well.

Role of Motivation

From the above discussion, we find that motivation is one among the various factors affecting individual performance. However, it is one of the most important factors. All organisational facilities will go waste in the lack of motivated people to utilise these facilities effectively. Every superior in the organisation must motivate his subordinates for the right types of behaviour. Diagnosing human behaviour and analysing as to why people behave in a particular way is of prime importance in motivating them irrespective of the nature of the organisation because individual is the basic component of any organisation. The importance of motivation in an organisation may be summed up as follows:

1. High Performance Level. Motivated employees put higher performance as compared to other employees. In a study by William James, it was found that motivated employees worked at close to 80-90 per cent of their ability. The study further suggested that hourly employees could maintain their jobs, if they were not fired, by working approximately 20 to 30 per cent of their ability. The high performance is a must for an organisation being successful and this performance comes by motivation.

2. Low Employee Turnover and Absenteeism. Motivated employees stay in the organisation and their absenteeism is quite low. High turnover and absenteeism create many problems in the organisation. Recruiting, training and developing large number of new personnel into a working team take years. In a competitive economy, this is almost an impossible task. Moreover, this also affects the reputation of the organisation unfavourably.

3. Acceptance of Organisational Changes. Organisations are created in the society. Because of changes in the society—changes in technology, value system, etc.—organisation has to incorporate those changes to cope up with the requirement of the time. When these changes are introduced in the organisation, there is a tendency to resist these changes by the employees. However, if they are properly motivated, they accept, introduce, and implement these changes keeping the organisation on the right track of progress.

Theories of Motivation

From the very beginning, when human organisations were established, people had tried to find out the answer of "what motivates people in the organisation most." The starting was made by Frederic W. Taylor and his followers Frank Gilbreth, Lillian Gilbreth, and Henry Gannt, in the form of scientific management and more particularly "differential piece rate system." This system was concerned with using financial incentives to motivate

people in the organisational context. Then came the findings of human relations which emphasised security and working conditions at the job besides financial incentives for work motivation. In early 1960s, those concerned with work motivation started to search for a new theoretical foundation and to attempt to devise new techniques for application. The earlier part of these approaches was based on the types of needs that people had and the way these needs could be satisfied so that people would be motivated. These theories are known as "*content theories of motivation*". Maslow gave the theory of need hierarchy; Herzberg proposed two-factor theory; McClelland emphasised power, affiliation, and achievement motives; and Alderfer proposed three groups of core needs: existence, relatedness, and growth (ERG model).

Because of lack of uniform findings in various researches based on the content approaches, scholars tried to find out the process involved in motivation which led to the emergence of "*process theories of motivation*". These theories are more concerned with the cognitive antecedents that go into motivation or efforts and with the way they affect each other. Vroom proposed the theory of work motivation based on valence and expectancy. Porter and Lawler made some refinements in Vroom's model and suggested their own model. Behaviourists added the concept of equity to these models and proposed the "*equity theory of work motivation*".

Some scholars tried to relate the nature of human beings with the work motivation. Though these propositions are not confined to work motivation, they offer some insights in understanding work motivation. Prominent theories in this group are McGregor's theories X and Y, and Ouchi's theory Z.

A caution for grouping various theories into categories is that there may be overlapping in this grouping. Various theories of motivation approach the problems of motivation from different perspectives, but they all emphasise similar set of relationships. These relationships are the individual, his needs, his perception of how he will be able to satisfy his needs, and whether his need satisfaction is equitable. All these theories have their relevance only in particular context, and when the context changes, they may not work because they are not unified theories which can be applied in all situations. Therefore, *contingency theory of motivation* is required. However, contingency theory has not been fully developed as yet. Now let us go through various theories of motivation to find out what they propose and offer implications for motivating people in organisations.

MASLOW'S NEED HIERARCHY

The behaviour of an individual at a particular moment is usually determined by his strongest need. Psychologists claim that needs have a certain priority. As the more basic needs are satisfied, an individual seeks to satisfy the higher needs. If his basic needs are not met, efforts to satisfy the higher needs are postponed. A.H. Maslow, a famous social scientist, has given a framework that helps to explain the strength of certain needs.⁶ According to him, there seems to be a hierarchy into which human needs are arranged as shown in Figure 23.5.

1. Physiological Needs. The physiological needs are at the top of the hierarchy because they tend to have the highest strength until they are reasonably satisfied. Until these needs are satisfied to the degree needed for the efficient operation of the body, the

⁶Abraham H. Maslow, *Motivation and Personality*, New York: Harper & Row, 1954.

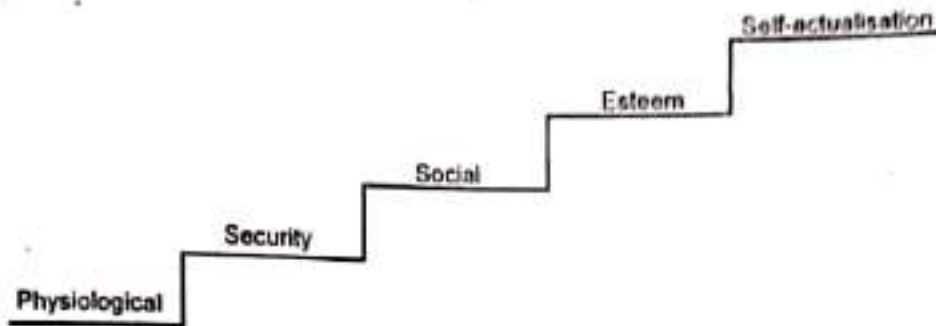


FIGURE 23.5: Maslow's need hierarchy

majority of a person's activities will probably be at this level, and the other levels will provide him with little motivation.⁷ A famous saying "man can live on bread alone if there is no bread" suggests that human beings first try to acquire necessities for their survival.

2. Safety Needs. Once the physiological needs are satisfied to a reasonable level—it is not necessary that they are fully satisfied and degree of reasonableness is subjective—other levels of needs become important. In this hierarchy come the needs for safety, that is, needs for being free of physical danger or self-preservation. In the industrial society, safety needs may take considerable importance in the context of the dependent relationship of employees to employers.⁸ As pointed out by McGregor, the safety needs may serve as motivators in such circumstances as arbitrary management actions, behaviour which arouses uncertainty with respect to continued unemployment and unpredictable administration of policy.⁷ Peter F. Drucker has suggested that one's attitude towards security is an important consideration in choosing a job.⁸ Organisation can influence these security needs either positively—through pension plan, insurance plan, etc.—or negatively by arousing fears of being fired, laid off, or demoted.¹

3. Social Needs. After the first two needs are satisfied, social needs become important in the need hierarchy. Since man is a social being, he has a need to belong and to be accepted by various groups. When social needs become dominant, a person will strive for meaningful relations with others.¹ If the opportunity for association with other people is reduced, men often take vigorous action against the obstacles to social intercourse.¹ In the organisation, workers form informal group environment. Such environment develops where the work is routine, tedious, or over-simplified. This situation is made worse when workers are closely supervised and controlled, but have no clear channel of communication with management. In this type of environment, workers depend on informal groups for support of unfulfilled social needs such as affiliation.¹

4. Esteem Needs. The esteem needs are concerned with self-respect, self-confidence, a feeling of personal worth, feeling of being unique, and recognition. Satisfaction of these needs produces feelings of self-confidence, prestige, power, and control.¹ The satisfaction of esteem needs is not always obtained through mature or adaptive behaviour. It is sometimes generated by disruptive and irresponsible actions. Some of the social problems have their roots in the frustration of the esteem needs.

⁷Douglas M. McGregor, *The Human Side of Enterprise*, New York: McGraw-Hill, 1967.

⁸Peter F. Drucker, "How to be an Employee," *Psychology Today*, March, 1968.

5. Self-actualisation Needs: Self-actualisation is the need to maximise one's potential, whatever it may be. This is related with the development of intrinsic capabilities which lead people to seek situations that can utilise their potential. This includes competence which implies control over environmental factors, both physical and social, and achievement. A man with high intensity of achievement needs will be restless unless he can find fulfilment in doing what he is fit to do. As Maslow has put it, "this need might be phrased as the desire to become more and more what one is, to become everything that one is capable of becoming."

Maslow suggests that the various need levels are interdependent and overlapping, each higher-level need emerging before the lower-level need has been completely satisfied. Since one need does not disappear when another emerges, all needs tend to be partially satisfied in each area. When the peak of a need is passed, that need ceases to be the primary motivator. The next level need then begins to dominate. Even though a need is satisfied, it still influences behaviour because of interdependent and overlapping characteristics of needs. This relationship among different needs has been shown in Figure 23.6.

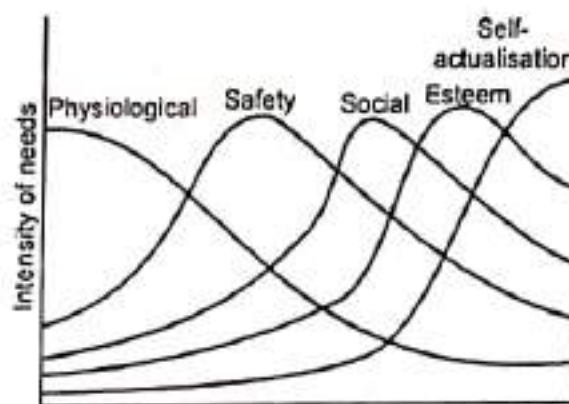


FIGURE 23.6: Relationship of new level of needs

Critical Analysis of Maslow's Theory

Maslow's theory has reasonable support for the hypothesis that human needs have some hierarchical order. The theory is based on the assumption, it is true also, that man is continuously wanting. All his needs are never fully satisfied. As soon as one need is reasonably satisfied, its prepotency diminishes and another need emerges to replace it. Thus, at last, some needs remain unsatisfied which serve the man to strive to satisfy. Thus, it presents a very simple solution of managerial problems, that is, managers can try to satisfy the needs of people in this particular order. But this raises a basic question: Is need hierarchy rigid? Does every person try to satisfy his needs according to this model? If the answers are in positive, there is no problem in motivating people. However, it is not so. The hierarchy is not so rigid for all the individuals and all the times. Identified below are few problems which are not adequately solved by this theory:

1. There is lack of hierarchical structure of needs as suggested by Maslow, though every individual has some ordering for his need satisfaction. This is based on the assumption that man has limited resources which he can use alternatively. Resources, here, cannot be taken only in a physical way, rather these are used in more comprehensive way. Naturally, every person has to satisfy his needs in some order. However, this order may not follow Maslow's need hierarchy. This has been demonstrated by a large number of researches both in foreign countries as well as in India. Following generalisations can be drawn on the basis of these studies—both in foreign countries and in India:

- (i) Some people may be deprived of their lower order needs but may try for self-actualising needs. The example of Mahatma Gandhi is one of the most important. This does not require any further explanation.
 - (ii) There are certain persons for whom self-esteem needs are more important than social needs. Such people may be those who seek self-assertion as a means to an end, that is, love need.
 - (iii) There is considerable disordering among physiological needs, safety needs, social needs, and esteem needs, particularly in organisational context. For example, many people do not care for job security (safety needs) but care for social need. Similarly, many people may not care for social need but for self-esteem need.
 - (iv) For certain people, many of the needs may not form part of their own need hierarchy. Thus, there is not only question for reversal of hierarchy but also discontinuity of hierarchy. For example, there may be people who might be deprived of social need from their childhood. They may develop apathy towards such needs, though it is just possible that they may develop high order for such need.
2. There is another problem, which is common with many other theories also, that there is often a lack of direct cause-effect relationship between need and behaviour. This problem has been discussed earlier in the chapter. Thus, a particular need may cause behaviour in different ways in different persons. Similarly, one particular behaviour may be the result of different needs. For example, if a person is thirsty, he may take water, or some soft drink, or some juice. Similarly, people may earn money to satisfy several types of needs, not only physiological needs. Thus, need hierarchy is not as simple as it seems to be.
3. There is another problem in applying the theory into practice. A person tries for his higher-level need when his lower-order need is reasonably satisfied. What is this reasonable level is a question of subjective matter. Thus, the level of satisfaction for particular need may differ from person to person. In fact, needs and their satisfaction are mental feelings. Sometimes, even the person concerned may not be aware about his own needs. The question is: how can a manager know the needs of others?

These are some basic problems involved in the application of Maslow's need hierarchy model. At every level of needs, it can be seen that the role of individual is very important. Since individuals differ, it may not be quite possible to prescribe one standard action for solving motivational problems of all persons, rather, a contingency approach has to be applied.

HERZBERG'S MOTIVATION-HYGIENE THEORY

Need hierarchy, to a great extent, characterises the types of behaviour. It will be either directed towards achieving certain desirable positive goals, or conversely towards avoiding other undesirable, negative consequences. Thus, a question may arise as to what variables are perceived to be desirable goals to achieve, and conversely, undesirable conditions to avoid. In this connection, a research study was conducted by Frederick Herzberg and associates of Case-Western Reserve University.⁹ This study consisted of an intensive analysis of the experiences and feelings of 200 engineers and accountants in nine different companies in Pittsburgh area, U.S.A. During the structured interview, they were asked to describe a few

⁹Frederick Herzberg, Bernard Mausner, and Barbara Synderman, *The Motivation to Work*, New York, John Wiley, 1959, and Frederick Herzberg, *Work and the Nature of Man*, Cleveland, World Publishing, 1966.

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⁹Frederick Herzberg, Bernard Mausner, and Barbara Synderman, *The Motivation to Work*, New York: John Wiley, 1959, and Frederick Herzberg, *Work and the Nature of Man*, Cleveland: World Publishing, 1966.

previous job experiences in which they felt 'exceptionally good' or 'exceptionally bad' about jobs. They were also asked to rate the degree to which their feelings were influenced—on better or worse—by each experience which they described.

On analysing the information from the interview, Herzberg concluded that there were two categories of needs essentially independent of each other affecting behaviour in different ways. His findings are that there are some job conditions which operate primarily to dissatisfy employees when the conditions are absent, however, their presence does not motivate them in a strong way. Another set of job conditions operates primarily to build strong motivation and high job satisfaction, but their absence rarely proves strongly dissatisfying. The first set of job conditions has been referred to as maintenance or hygiene factors and second set of job conditions as motivational factors.]

Hygiene Factors

According to Herzberg, there are ten maintenance or hygiene factors. These are company policy and administration, technical supervision, interpersonal relationship with supervisors, interpersonal relationship with peers, interpersonal relationship with subordinates, salary, job security, personal life, working conditions, and status. These are not intrinsic parts of a job, but they are related to conditions under which a job is performed. They produce no growth in a worker's output; they only prevent losses in worker's performance due to work restrictions.] These maintenance factors are necessary to maintain at a reasonable level of satisfaction in employees. Any increase beyond this level will not provide any satisfaction to the employees; however, any cut below this level will dissatisfy them. As such, these are also called as dissatisfiers. Since any increase in these factors will not affect employees' level of satisfaction, these are of no use for motivating them.

Motivational Factors

These factors are capable of having a positive effect on job satisfaction often resulting in an increase in one's total output. Herzberg includes six factors that motivate employees. These are achievement, recognition, advancement, work itself, possibility of growth, and responsibility. Most of these factors are related with job contents. An increase in these factors will satisfy the employees; however, any decrease will not affect their level of satisfaction. Since, these increase level of satisfaction in the employees, these can be used in motivating them for higher output.)

Herzberg maintains that potency of various factors is not entirely a function of the factors themselves. It is also influenced by the personality characteristics of the individuals. From this point of view, individuals may be classified into two groups—motivation seekers and maintenance seekers. The motivation seekers generally are individuals who are primarily motivated by the 'satisfiers' such as advancement, achievement, and other factors associated with work itself. On the other hand, the maintenance seekers tend to be more concerned with factors surrounding the job such as supervision, working conditions, pay, etc.

Critical Analysis of the Theory

Herzberg's model is based on the fact that most of the people are able to satisfy their lower-order needs considerably. As such, they are not motivated by any further addition of satisfaction of these needs. This is true which has been supported by many studies, both in India and foreign countries. Herzberg's model has been applied to the

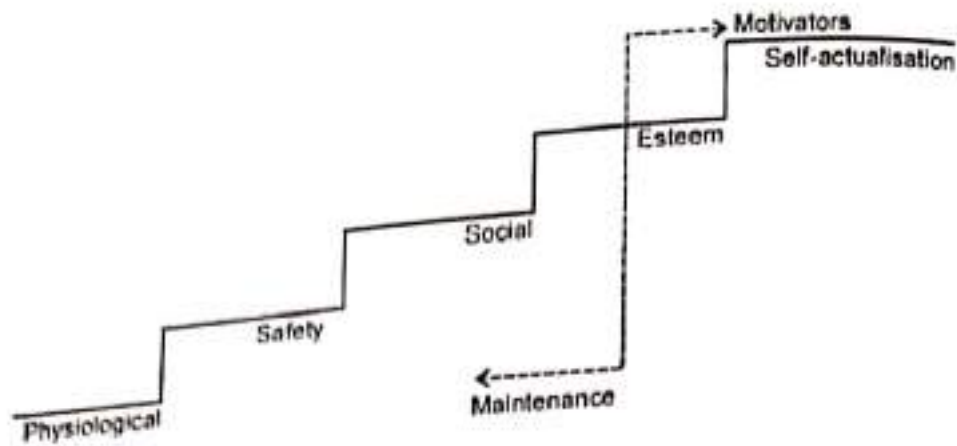


FIGURE 23.7: Relationship between Herzberg and Maslow models

There is a particular difference between the two models. Maslow emphasises that any unsatisfied need whether of lower order or higher order will motivate individuals. Thus, it has universality in its applicability. It can be applied to lower-level workers as well as higher-level managers. In underdeveloped countries, where because of lack of socio-economic progress, even lower-order needs are not reasonably satisfied, such needs are motivating factors. According to Herzberg, these are hygiene factors and fail to motivate workers.

MCCLELLAND'S NEED THEORY

Shortly after World War II, a group of psychologists led by David C. McClelland of Harvard University began to experiment with TAT (Thematic Apperception Test) to see if it were sensitive enough to detect changes in motivation that were caused by simple attempts to sway the individual's attitudes. In order to simplify their task, the group decided to select one particular motive for intensive analysis. For, it was not long before the implications of the achievement motive were recognised that it became the subject of intensive investigation in its own right.

McClelland has identified three types of basic motivating needs. He classified these as need for power (n/PWR), need for affiliation (n/AFF), and need for achievement (n/ACH).¹⁰ Considerable research work was done by McClelland and his associates in this respect, particularly on achievement motive.

Power Motive. The ability to induce or influence behaviour is power. Power motive has been formally recognised and studied for a relatively long time. The leading advocate of the power motive was Alfred Adler. To explain the power need, the need to manipulate others or the drive for superiority over others, Adler developed the concepts of inferiority complex and compensation. Accordingly, the individual's lifestyle is characterised by striving to compensate for the feelings of inferiority which are combined with the innate drive for power. McClelland and his associates have found that people with a high power need have a great concern for exercising influence and control. Such individuals generally seek positions of leadership; they involve in conversation; they are forceful, outspoken, hard-headed, and demanding.

Affiliation Motive. Since people are social beings, most individuals like to interact and be with others in situations where they feel they belong and are accepted. Sometimes, affiliation is equated with social motives. However, the affiliation motive is not so broad. Affiliation plays a very complex but vital role in human behaviour. The study of affiliation is complicated

¹⁰David C. McClelland, *The Achievement Motive*, New York: Appleton-Century-Crofts, 1953.

by the fact that some behavioural scientists believe that it is an unlearned motive. However, the fact is partly true. McClelland has suggested that people with high need for affiliation usually derive pleasure from being loved and tend to avoid the pain of being rejected. They are concerned with maintaining pleasant social relationship, enjoying a sense of intimacy and understanding, and enjoy consoling and helping others in trouble.

Achievement Motive. Over the years, behavioural scientists have observed that some people have an intense desire to achieve. McClelland's research has led him to believe that the need for achievement is a distinct human motive that can be distinguished from other needs. It can also be isolated and assessed in any group. McClelland has identified four basic characteristics of high achievers :

1. *Moderate Risks.* Taking moderate risks is probably the simple most descriptive characteristic of the person possessing high achievement need. This is against the common sense that a high achiever would take high risks.
2. *Immediate Feedback.* Person with high n/ACH desires activities which provide immediate and precise feedback information how he is progressing towards a goal.
3. *Accomplishment* Person with high n/ACH finds accomplishing a task intrinsically satisfying in itself, or he does not expect or necessarily want the accompanying material rewards. Though he likes to earn money a lot but not for the usual reason of wanting money for its own sake or for the material benefits that it can buy.
4. *Preoccupation with the Tasks.* Once a high achiever selects a goal, he tends to be totally preoccupied with the task until it is successfully completed. He will not feel satisfied unless he has put his maximum effort in completing the task. This type of dedicated commitment often reflects on his outward personality, which frequently has a negative effect on those who come in contact with him.

Implications of the Theory

Because any organisation and every department of it represents groups of individuals working together to achieve goals, the need for achievement is of paramount importance. According to the research conducted by McClelland and others, managers show high on achievement and power and low on affiliation. The research finding also indicates that chief executives of smaller companies show higher achievement motive as compared to those of large companies. Similarly, middle-level managers have higher n/ACH as compared to the chief executive. This seems to be contradictory but McClelland feels that it is quite understandable because chief executives have already achieved, and those below them are striving to achieve.

Achievement-motivated people can be the backbone of most organisations because they progress much faster. However, when they are promoted where their success depends not only on their work but on the activities of others, they may be less effective. Since they are high task-oriented and work to their utmost capacity, they expect similar results from others. As a result, they sometimes lack human skill and patience of being effective managers, specially of those persons having high affiliation motive. Thus, such persons can be better managers in production, research and development as compared to personnel activity. An organisation may need managers with varying degrees of achievement and affiliation motives.

Development of Achievement Motive. Achievement motive can be developed at an early age and also at a later stage. Experimenting with people from the USA, Italy, Poland, and

The mixture of both carrot and stick should be used judiciously so that both have positive effects on the motivational profile of the people in the organisation.

McGREGOR'S THEORY X AND THEORY Y

[The management's action of motivating human beings in the organisation, according to McGregor, involves certain assumptions, generalisations, and hypotheses relating to human behaviour and human nature.] These assumptions may be neither consciously crystallised nor overtly stated, however, these serve the purpose of predicting human behaviour. The basic assumptions about human behaviour may differ considerably because of the complexity of factors influencing this behaviour. [McGregor has characterised these assumptions in two opposite points—Theory X and Theory Y.]

Theory X. This is the traditional theory of human behaviour. In this theory, McGregor has certain assumptions about human behaviour. In his own words, these assumptions are as follows:¹⁸

1. Management is responsible for organising the elements of productive enterprises—money, materials, equipment, people—in the interest of economic ends.
2. With respect to people, this is a process of directing their efforts, motivating them, controlling their actions, modifying their behaviour to fit the needs of the organisation.
3. Without this active intervention by management, people would be passive—even resistant—to organisational needs. They must be persuaded, rewarded, punished, controlled, and their activities must be directed. This is management's task. We often sum it up by saying that management consists of getting things done through other people.
4. The average man is by nature indolent—he works as little as possible.
5. He lacks ambition, dislikes responsibility, prefers to be led.
6. He is inherently self-centered, indifferent to organisational needs.
7. He is, by nature, resistant to change.
8. He is gullible, not very bright, the ready dupe of charlatan and the demagogue.

Of these assumptions, last five deal with the human nature and first three with managerial actions. These assumptions about human nature are negative in their approach, however, much organisational processes have developed on these assumptions. [Managers subscribing these views about human nature attempt to structure, control, and closely supervise their employees. They feel that external control is most appropriate for dealing with irresponsible and immature employees. McGregor believes that these assumptions about human nature have not changed drastically though there is a considerable change in behavioural pattern. He argues that this change is not because of changes in the human nature, but because of nature of industrial organisation, management philosophy, policy, and practice.]

Theory Y. The assumptions of Theory Y are described by McGregor in the following words:¹⁹

1. The expenditure of physical and mental effort in work is as natural as play or rest. The average human being does not inherently dislike work. Depending upon controllable conditions, work may be a source of satisfaction or a source of punishment.

¹⁸ McGregor, op. cit., pp. 46-47.

¹⁹ Ibid., pp. 47-48.

2. External control and the threat of punishment are not the only means for bringing about effort towards organisational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.
3. Commitment to objectives is a function of the reward associated with their achievement. The most significant of such awards, *e.g.*, the satisfaction of *ego* and self-actualisation needs, can be a direct product of effort directed towards organisational objectives.
4. The average human being learns under proper conditions not only to *accept*, but to seek responsibility. Avoidance of responsibility, lack of ambition, and emphasis on security are generally consequences of experience, not inherent human characteristics.
5. The capacity to exercise a relatively high degree of imagination, ingenuity, and creativity in the solution of organisational problems is widely, not narrowly, distributed in the population.
6. Under the conditions of modern industrial life, the intellectual potentialities of the average human beings are only partially utilised.

The assumptions of Theory Y suggest a new approach in management. It emphasises on the cooperative endeavour of management and employees. The attempt is to get maximum output with minimum amount of control and direction. Generally, no conflict is visible between organisational goals and individual goals. Thus, the attempts of employees which are in their best interests are also in the interests of organisation.

Comparison of Theories X and Y

Both these theories have certain assumptions about human nature. In fact, they are reverse sides of a coin, one representing head and the other representing tail. Thus, these assumptions seem to be mutually exclusive. The difference between two sets of assumptions can be visualised as follows:

1. Theory X assumes human beings to be inherently distasteful towards work. Theory Y assumes that for human beings, work is as natural as play.
2. Theory X emphasises that people do not have ambitions and try to avoid responsibilities in jobs. The assumptions under Theory Y are just the reverse.
3. According to Theory X, most people have little capacity for creativity while according to Theory Y, the capacity for creativity is widely distributed in the population.
4. In Theory X, motivating factors are the lower needs. In Theory Y, higher-order needs are more important for motivation, though unsatisfied lower needs are also important.
5. In Theory X, people lack self-motivation and require to be externally controlled and closely supervised to get maximum output from them. In Theory Y, people are self-directed and creative and prefer self-control.
6. Theory X emphasises scalar chain system and centralisation of authority in the organisation while Theory Y emphasises decentralisation and greater participation in the decision-making process.
7. Theory X emphasises autocratic leadership ; Theory Y emphasises democratic and supportive leadership.

Implications of Theories X and Y

McGregor's assumptions in terms of Theory X and Theory Y are based on Maslow's need hierarchy model. In the beginning, when the concept of 'economic man' was accepted,

It is an obvious fact that communication is such a vital part of each of us that it contributes heavily to the success or failure of every human activity. It is hard to name a human activity in which communication does not play an important role. But such a statement has to be even more true in formal organisations in which people assemble to achieve common objectives through their coordinated efforts. Individuals in the organisation may perform different activities but they are functionally interrelated. The working and maintenance of these relationships is possible only through communication which provides for exchange of information and sharing of ideas. Communication becomes a necessary element in human relationships by providing the foundation for human interaction. Communication, thus, may be regarded as basic to the functioning of the organisation. In its absence, the organisation would cease to exist. This chapter discusses the various aspects of communication so that suitable action can be taken to make it effective in the organisation.

Concept of Communication

'The word communication has been derived from the Latin word *communis* which means common.' However, besides commonality, communication involves the concept of transfer of meaning and information. There is wide disagreement among communication theorists in respect of definition of communication because of the context in which the word communication is used. It is used as a process which involves various elements through which two or more persons share meanings among themselves. Sometimes, it is used in the context of a particular element of the process, say message, or the means through which the message is passed. Because of these contextual differences, there is lack of common definition of communication. For example, Dance analysed ninety-five definitions of communication and arrived at the conclusion that "the concept of communication as reflected in these definitions is too loose and even includes contradictory components so as to make the precise definition of communication very difficult."¹ Based on the review of the various definitions, he offered his own definition as follows:

"Communication is defined as the process by which people seek to share meaning via the transmission of symbolic messages."²

This type of definition is more useful in management. For example, Newstrom and Davis have defined communication as follows:

✓ "Communication is the transfer of information from one person to another person. It is a way of reaching others by transmitting ideas, facts, thoughts, feelings, and values"³

Thus, from management point of view, communication is the process through which two or more persons come to exchange ideas and understanding among themselves. This definition involves three aspects in communication:

1. There is something which is transmitted such as information, ideas, feelings, etc. which is the subject-matter of communication. However, the subject-matter itself is

¹ F.E.X. Dance, "The Concept of Communication," *Journal of Communication*, Vol. 20, 1970, pp. 201-10.

² *Ibid.*

³ John W. Newstrom and Keith Davis, *Organisational Behaviour: Human Behaviour at Work*, New York: McGraw-Hill, 1997, p. 48.

- not communication as is understood sometimes but is only an element of communication process.
2. In order that the process of communication is completed, two parties are involved the sender of the subject-matter of communication and its receiver. The sender of the message must consider the receiver both while structuring his message from a technical standpoint as well as in delivering it. When the receiver is not considered either there is no response or there is wrong response.
 3. There is an element of understanding in communication. Sharing of understanding is possible only when the person to whom the message is transmitted understands it in the same sense in which the sender of message wants him to understand. Thus, communication involves something more than mere transmission of message or transmission and physical receipt thereof. The correct interpretation and understanding of the message is important from the point of view of organisational effectiveness. The greater the degree of understanding, the more is the likelihood that the human action will proceed in the direction of accomplishing goals.

COMMUNICATION PROCESS

Communication has been deemed as a process. The term process refers to identifiable flow of information through interrelated stages of analysis directed towards the achievement of an objective. In the case of social actions, the concept of process is dynamic rather than static in which events and relationships are seen as dynamic, continuous, and flexible; a dynamic interaction both affecting and being affected by many variables. There are four elements in the process—action, a continuous change in time, advancement or progress over time, and a goal or result. The communication being a social process is a dynamic one and, thus, cannot be studied in sort of stop action. Notwithstanding this, some sequential arrangement in communication can be thought of treating it a sort of stop action.

One of the best ways to view communication in a sort of stop action is through the use of models. Communication models do have some drawbacks like unnatural act of stopping a process, over-simplifying and providing not more than a partial view of such a complex process. In spite of such drawbacks related to models, they do provide a definitive method which is clear and easy to use in grasping a set of concepts which are central to an issue. In the case of communication, fortunately, such models are available. Such models range from simple one-way persuasive model to complex information model. Three such models which are used to understand communication process are: Shannon-Weaver model, Berlow model, and transactional process model.

Shannon-Weaver Model

Shannon-Weaver model is based on information theory.⁴ Information theory is a mechanical approach of communication. This theory can be distinguished from its broader counterpart, communication theory, in that it deals with information devoid of meaning, that is, the information theorists are not interested in what is communicated but only in the fact that the information is communicated both accurately and correctly. The basic information theory model involves an information source which selects a desired message out of all the possible messages that it can select, a transmitter which changes the messages into a signal which can be sent over some communication channel to a receiver, a destination to

⁴Claude E. Shannon, and Warren Weaver, *The Mathematical Theory of Communication*, Illinois: University of Illinois, 1949.

whom the message was originally intended, and finally a noise source which can introduce extraneous information into the signal as shown in Figure 26.1.

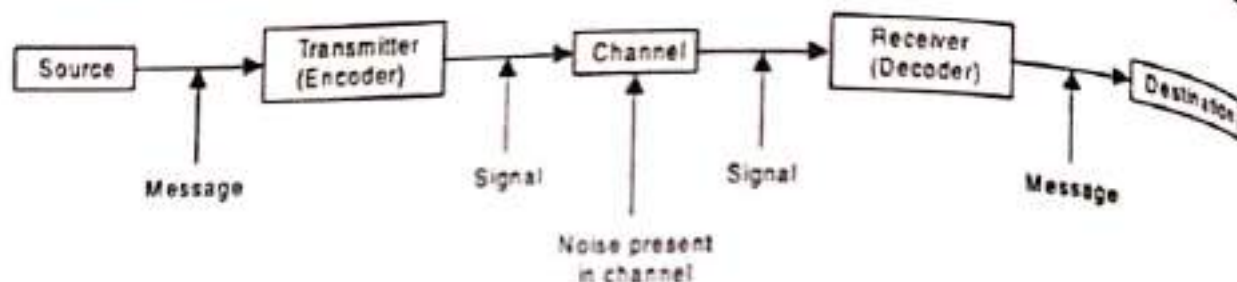


FIGURE 26.1: Shannon-Weaver communication model

This model does not include feedback as the same process will take place for feedback and receiver may become sender of message. According to this model, communication problem can arise at any one of the three levels: the technical level, where one asks the question, "how accurately can the symbols of communication be transmitted;" the semantic level, where one asks the question, "how precisely do the transmitted symbols convey the desired meaning;" and the effectiveness level, where one asks the question, "how effectively does the received meaning affect conduct in the desired way?"

Berlo Model

Berlo model of communication is known as dynamic process model. This is the first widely accepted model which presented communication as a dynamic, interactive process.⁵ Berlo has countered the linear, step-by-step information approach with the following ideas:

"If we accept the concept of process, we view events and relationships as dynamic, on-going, ever-changing, continuous. When we label something as a process, we also mean that it does not have a beginning, an end, or a fixed sequence of events. It is not static, at rest. It is moving. The ingredients within a process interact: each affects all the others."⁶

Based on these ideas, Berlo has presented the communication process as shown in Figure 26.2.

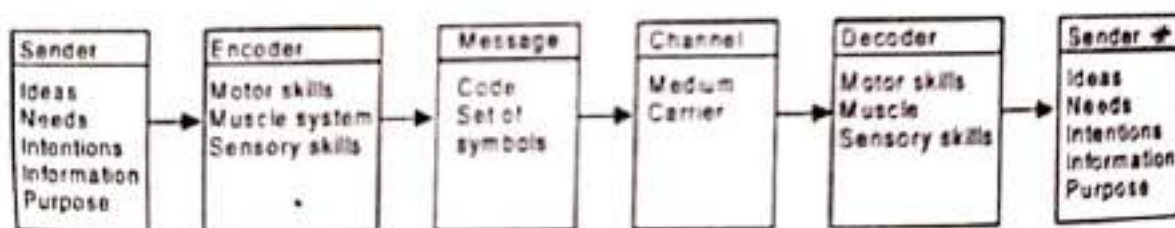


FIGURE 26.2: Berlo model of communication

Berlo has treated communication process as an on-going one which involves feedback as well, though in his model, he has not mentioned it specifically.

Transactional Process Model

Communication process / Two way process.
Contemporary theory and research have extended the Berlo dynamic process, and communication theorists have seen communication as a transaction process. The prefix trans, meaning mutually and reciprocally, is stressed instead of inter, meaning between. These theorists state that "all persons are engaged in sending (encoding)

⁵David K. Berlo, *The Process of Communication*, New York: Holt, 1960.

⁶Ibid, p.24.

and receiving (decoding) messages simultaneously. Each person is constantly sharing the encoding and decoding processes, and each person is affecting the other. Thus there is continuous process of feedback in the communication process which has been presented in Figure 26.3.

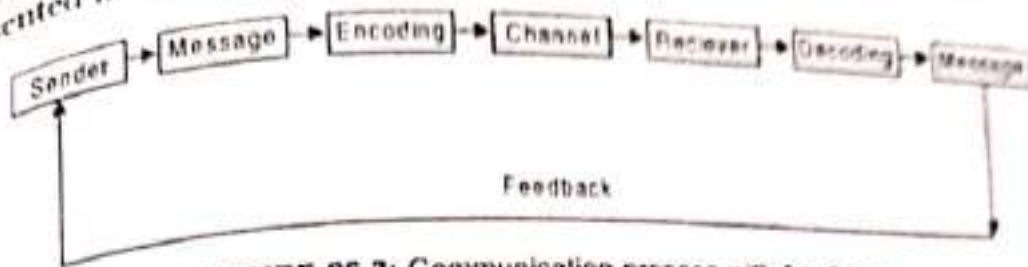


FIGURE 26.3: Communication process with feedback

Transactional process model of communication is based on the social approach to management. The reciprocal determinism of social learning is very similar to transactional approach of communication. From management point of view, such an approach is much more accurate and useful way of viewing communication than the more limiting information flow perspective of communication.

Elements of Communication Process / 2 way process

Communication, being a process, must have some elements to complete the process. Various elements of communication have been presented in different models of communication. These are sender, message, encoding, channel, receiver, decoding, and feedback. Let us have a brief look at these elements.

1. Sender. Sender of the message is the person who contacts other persons with the objective of passing the message. In organisational context the sender may be a superior, a subordinate, a peer, or any other person. The organisational position of the sender determines the direction of communication in the organisation. A message flowing from a superior to a subordinate is known as downward communication; message flowing from a subordinate to the superior is known as upward communication; message flowing from a person to another person working at the same hierarchical level is known as horizontal communication.

2. Message. Message is the subject matter of the communication which is intended to be passed to the receiver from the sender. Message may be in the form of ideas, opinions, feelings, views, orders, suggestions, etc. Sometimes, people use message and communication interchangeably, for example, A asks to B, 'have you received any communication from your company on this issue.' Though technically, the use of the term communication in place of message is wrong, the meaning of the communication content may be understood correctly.

3. Encoding. Since the ideas, opinions, feelings, views, orders, suggestions, etc. which are the subject matter of communication are abstract and intangible (the objects which cannot be heard, seen or touched), their transmission requires the use of certain symbols such as words, pictures, gestures and other body language. The process of converting the message into meaningful symbols is known as encoding. In this case, the term meaningful symbols is important because if the symbols are not meaningful, message cannot be understood by the receiver correctly.

⁷John R. Wenburg and William W. Wilmont, *The Personal Communication Process*, New York: John Wiley, 1973. p.5.

4. Channel. Message converted into symbols is transmitted by the sender through a channel like written words in the forms of letter or electronic mail, spoken words through personal contact or telephone depending on the situation of the parties—sender and receiver. Gestures are used with spoken words.

5. Receiver. Receiver is the person to whom message is sent. Like the sender, the receiver may be a superior, a subordinate, a peer, or any other person in the organisational context. This is true for an interpersonal communication. In a group communication, the receiver is in the form of a group of persons, for example, addressing a group of employees by a manager in an organisation.

6. Decoding. Decoding is just the reverse of encoding. In decoding, the receiver converts the communication symbols transmitted by the sender into message. Like encoding, decoding should also be meaningful so that the receiver understands the message in the sense which is intended by the sender.

7. Feedback. Feedback in communication is required to ensure that the receiver has received the message and understood it in the same sense as the receiver intended. Feedback is a common feature of all systems whether man-made or natural. Feedback is a system that helps in understanding whether the system is working properly. If it is not working properly, corrective actions are taken. Managers know through feedback in the form of various reports whether the organisation is working properly or not. This is true for communication too. Sigband views that "feedback permits expressive action on the part of one and/or more persons and the conscious and unconscious perception of such action. Perhaps one of the most important factors in this network is feedback which is vital if the originator and receiver want to secure some level of effectiveness in the communication process."⁶ Feedback in communication can be equated with the return of the ball in a match of tennis. In the tennis match, the process goes like this. One player (say A) serves to the opposite player (say B), and the opposite player tries to return the ball. When A serves, he does not know what his next shot would be. His next shot to be effective, must depend on feedback (return of the ball) from the receiver. While A must have worked out his strategy for the match but his shot must be contingent on the way the ball is returned—its force, spin, and placement. If A fails to match his shot with the requirement, he will not be effective. Same is the case with feedback in communication. The sender of the message will chalk out his action according to the feedback he receives from the message receiver. Because of this reason, feedback is treated as an energising factor thereby changing the course of action in the communication process.

...from the department subordinates to the superiors on whom they (subordinates) are directly or indirectly dependent for the satisfaction of their needs. As such, there is a possibility of upward information being distorted or coloured.

Horizontal Communication

It is the flow of information between persons of the same hierarchical level. Formal communication provides for horizontal communication by means of right at any level to consult or work with others at the same level. Communication among peers, in addition to providing coordination, also furnishes emotional and social support to the individual. Horizontal communication is impeded in the organisation that over stresses functional specialisation. The creation of functional departments or units creates problems of coordination and communication between members of such units. Some companies develop a committee structure near the top level of the organisation to assist the chief executive in achieving coordination and better horizontal communication in terms of control function in the organisation. Horizontal communication, if in operation at various levels in an organisation, is a real check on the power of the top leaders.

Barriers in Communication

It is probably no surprise that managers frequently cite communication breakdown as one of their major problems. The problem of communication arises because there are various obstacles which may entirely prevent a communication, filter part of it out, or give it incorrect meaning. These obstacles are known as communication barriers. These barriers may operate in organisational communication as well as in non-organisational communication. Different barriers of communication may be grouped as semantic barriers, emotional or psychological barriers, organisational barriers, and personal barriers. Some of these barriers operate in all types of communication while others may be more relevant for organisational communication.

SEMANTIC BARRIERS

Semantics is the science of meaning, as contrasted with phonetics, the science of sounds. All communications are symbolic, that is, these use symbols (words, pictures, actions, etc.) that suggest certain meanings. Semantic barriers arise from limitations in the symbols with which we communicate. Following types of semantic barriers are more prominent:

1. Symbols with Different Meanings. Communication symbols usually have a variety of meanings, and we have to choose one meaning from many. In verbal communication, a particular word may have a variety of meanings. For example, the English word 'round' has 110 different meanings: as adjective—23, as noun—42, as verb—16, as preposition—13 and as adverb—16. The 500 most common English words have an average of 28 definitions each.¹⁸ Moreover, a particular word may give contradictory meaning in different parts of the country. For example, the Hindi word 'Kaka' means uncle in one part of the country but small boy in another part of the country. Similarly, non-verbal symbols may also convey different meanings to different persons. In such a situation, often there is a possibility that the receiver of the symbols may attach quite different meaning as compared to intended by the sender and communication breaks down.

¹⁸C. Glenn, et al. *Principles of Business Communication: Theory, Application, and Technology*. New York: John

2. Badly Expressed Message. Lack of clarity and precision in a message makes it badly expressed. Poorly chosen and empty words and phrases, careless omission, lack of coherence, bad organisation of ideas, awkward sentence structure, inadequate vocabulary, platitudes, numbering repetition, jargons, failure to clarify implications are some common faults found in this case.

3. Faulty Translations. Every manager receives various types of communication from superiors, peers, subordinates and he must translate information destined for subordinates, peers, and superiors into language suitable to each. Hence the message has to be put into words appropriate to the framework in which the receiver operates, or it must be accompanied by an interpretation which will be understood by the receiver. This needs a high level of linguistic capacity. Approximate understanding of words and the consequent faulty translations lead to impaired efficiency and heavy costs.

4. Unclear Assumptions. There are certain uncommunicated assumptions which underlie practically all meanings. Though a message appears to be specific, its underlying assumptions may not be clear to the receiver.

5. Specialist's Language. It is often found that technical personnel and special groups tend to develop a special, peculiar, and technical language of their own. This increases their isolation from others and builds a communication barrier. Whatever be the intention of this special language, it hinders their communication with persons not in their speciality because of the receiver's ignorance of that type of language.

EMOTIONAL OR PSYCHOLOGICAL BARRIERS

Emotional or psychological factors are the prime barriers in interpersonal communication. The meaning ascribed to a message depends upon the emotional or psychological status of both the parties involved. In a communication, apart from the message, there is a meta-message, that is, what one gets out of a message when decoding. Meta-message is the most pungent thing in a sweet-word language. In getting a meta-message, the emotions of the receiver play a vital role and he may not be at a wavelength as that of the communicator. Keith Davis opines that these "exist in the people's minds or because of their actions such as being hard to contact or difficult to understand. These barriers to communication are just as effective as an actual physical wall. Often these human barriers are more like filter paper than a brick wall. They let through some communications but hold back others, thereby making communication inadequate. This 'half-way' communication gets 'half-way' results."¹⁹ Some emotional barriers are as follows:

1. Premature Evaluation. Rogers and Roethlisberger in 1952 first pointed out this barrier.²⁰ Premature evaluation is the tendency of prematurely evaluating communications, rather than to keep an uncompromised position during the interchange. Such evaluation stops the transfer of information and begets in the sender a sense of futility. This barrier can be remedied by empathy, non-evaluative listening, where the communicator is listened to in a non-committal and unprejudiced way so that sagacious decision and action can follow.

2. Inattention. The preoccupied mind of a receiver and the resultant non-listening is one of the major chronic psychological barriers. It is a common phenomenon that people simply fail to react to bulletins, notices, minutes, and reports.

¹⁹Keith Davis, *Human Behaviour at Work*, New Delhi: Tata McGraw-Hill, 1975, p. 338.

²⁰C.R. Rogers and F.J. Roethlisberger, "Barriers and Gateways to Communication," *Harvard Business Review*, July-August 1952, pp. 46-59.

4. Loss by Transmission and Poor Retention. When communication passes through various levels in the organisation, successive transmissions of the same message are increasingly accurate. It has been found that in case of oral communications, about 30 per cent of the information is lost in each transmission. Even in case of written communication, loss of meaning might occur as far as the appended interpretation, if any, is concerned. Poor retention of the information is again a malady. It has been found that employees retain about 30 per cent of information only, whereas supervisors retain about 60 per cent of it.

4. Undue Reliance on the Written Word. Written word is no substitute for sound face-to-face relationships and employees cannot be persuaded to accept companies' viewpoints and policies through 'slick', easy-to-read, well-illustrated publications, unless there is a fair degree of mutual trust and confidence between the organisation and its employees. Further, a written communication might fail to explain the purpose of order, procedure, or directive. Chester Barnard has laid down that a communication must appeal to the receiver as consonant with the organisation's purpose and with his own personal interest. Written communication often tells what is to be done, but not why it should be done, and it lacks the persuasive quality.²¹ Moreover, a written communication can be above the level of readership, and failure to ascertain the response to communication is also there. Hence, written media must be considered as supplementary to productive face-to-face relationships.

5. Distrust of Communicator. It arises out of ill-considered judgements, illogical decisions, or frequent countermanding of the original communication by the communicator. Repeated experience of this kind gradually conditions the receiver to delay action or act unenthusiastically, hence making the communication unsuccessful, though apparently it is complete.

6. Failure to Communicate. It is quite an accepted fact that managers often fail to transmit the needed messages. This might be because of laziness on the part of the communicator or assuming that "everybody knows," or procrastination, "hogging" information, or deliberately to embarrass.

ORGANISATIONAL BARRIERS

An organisation being a deliberate creation for the attainment of certain specified objectives, day-to-day happenings within it require being regulated in such a manner that they contribute to attain these objectives in the most efficient manner. This is usually attempted through a variety of official measures such as designing the organisational arrangements for performance of various activities, prescribing various policies, rules, regulations, and procedures, laying down of norms of behaviour, instituting a reward and punishment system, etc. All the inner processes, including communication in different directions, are markedly affected by these prescriptions. As such, major organisational barriers may be as follows:

1. Organisational Policy. The general organisational policy regarding communication acts as an overall guideline to everyone in the organisation regarding how he is normally expected to behave in this matter. The policy might be in the form of explicit declaration in writing or as is very commonly the case, it has to be interpreted from the behaviour of organisational members, particularly people at the top. If this policy is not supportive to the flow of communication in different directions, communication flow would not be smooth and adequate.

2. Organisational Rules and Regulations. Organisational rules and regulations affect the flow of communication by prescribing the subject-matters to be communicated and also

the channel through which these are to be communicated. The rules may restrict the flow of certain messages and may leave many important ones. On the other hand, communication through proper channel in a specified way prescribed by these rules delays it and works against the willingness of persons to convey the message. This barrier is strongly operative in Indian public sector enterprises where observance of rules and regulations is more rigid.

3. Status Relationships. The placing of people in superior/subordinate capacity in the formal organisation structure also blocks the flow of communication and more particularly in upward direction. Greater the difference between hierarchical positions in terms of their status, greater would be the possibility of communication breakdown.

4. Complexity in Organisation Structure. In an organisation where there are number of managerial levels, communication gets delayed, chances of communication getting distorted are more the number of filtering points is more. This is more true in case of upward communication, because people generally do not like to pass up the adverse criticism either of themselves or of their superiors.

5. Organisational Facilities. Organisational facilities provided for smooth, adequate, clear, and timely flow of communication may take a number of forms. Some of these are in the form of communication media such as meetings, conferences, complaint box, suggestion box, open door system, social and cultural gatherings, etc. If these are not properly emphasised, generally people fail to make effective communication.

PERSONAL BARRIERS

While the organisational factors discussed above are, no doubt, important influences operating on communication, a host of factors internal to the two parties—sender and receiver—to this process also exert important influences on its operation, as communication is basically an interpersonal process. Here, for the sake of convenience in the analysis, these barriers have been analysed separately and these are relevant in the case of downward and upward communication.

Barriers in Superiors

The role of superiors in communication is very vital. Because of their hierarchical relationships with subordinates, they act as barriers in a number of ways discussed below:

1. Attitudes of Superiors. The attitudes of superiors towards communication in general or in any particular direction affect the flow of messages in different directions. For example, if this attitude is unfavourable, there is greater possibility that messages would not flow adequately from and/or to superiors.

2. Fear of Challenge to Authority. A person in the organisation always tries to get a higher position and prestige to satisfy his needs. As such, managers in general try to withhold the information coming down the line or going up as frequent passing of information may disclose their weakness.

3. Insistence on Proper Channel. One of the basic features of superiors exercising the authority is that they wish to remain in communication links and they do not like any type of bypassing in communication. Communication through bypassing may, sometimes, be necessary but superiors treat this as thwarting of their authority and block the flow of communication.

4. Lack of Confidence in Subordinates. Superiors generally perceive, correct or otherwise, that their subordinates are less competent and capable, they are not able to advise superiors, or they may not have some information coming upwards.

5. Ignoring Communication. Sometimes superiors consciously and deliberately ignore the communication from their subordinates to maintain their importance. This works against the willingness of subordinates to communicate.

6. Lack of Time. Superiors feel, whether correct or otherwise, that they are *overburdened* with the work and they have little time to talk to their subordinates.

7. Lack of Awareness. Employees at lower levels have a number of communication needs. Managers think that they understand employees' needs but their employees do not think so.²² This difference in perception tends to exist at each level thereby making communication more difficult, particularly in downward direction.

Barriers in Subordinates

Vertical communication in either direction can take place only when subordinates also actively participate in this process. There are various factors in the subordinates that adversely affect such active participation on their part. Some factors which have been traced in the case of superiors are also applicable here such as attitudes, time availability, awareness about the significance, etc. Two factors are more important in the case of subordinates and these are responsible for blocking communication in upward direction:

1. Unwillingness to Communicate. Sometimes, subordinates do not communicate upward certain information because they are not willing to do so. Thus, if a subordinate feels that he is likely to be adversely affected by a particular piece of information to his superior, he would not be willing to supply it.²³ Information going up is utilised for control purposes and subordinates would not be willing to give any information to their superiors about any unfavourable happening and if its supplication is necessary, they would modify the information in such a way so as to protect their own interest.

2. Lack of Proper Incentive. Lack of motivation to communicate also refrains subordinates to communicate upward. The reward and punishment system of the organisation is more responsible for this. Thus, if a novel suggestion by a subordinate does not evoke any attention from the organisation, he would not convey it.

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Making Communication Effective

Communication is the lifeblood of an organisation, and without it, the organisation cannot exist. Therefore, managers must ensure that the communication system is effective. For ensuring this, managers must identify the essentials of an effective communication system and take steps for making the system effective.

ESSENTIALS OF EFFECTIVE COMMUNICATION SYSTEM

The effectiveness of a system is measured in terms of its objective achievement. Therefore, the effective communication system is one which achieves its objectives. However, determining the objectives of communication may not be precise because of involvement of many intervening variables. The ultimate objective of communication is to bring desired behaviour in those for whom it is meant. However, the desirable behaviour or otherwise is

²²Stephen A. Rubenfield, John W. Newstrom, and Thomas Duff, "Caveat Emptor: Avoiding Pitfalls in Data-Based Decision Making," *Review of Business*, Winter 1994, pp. 20-23.

²³L.M. Prasad, "Why Subordinates are not Willing to Communicate up?" *Integrated Management*, June.

a function of so many variables which extend beyond communication. Therefore, we have to take into account the immediate objective of the communication which is in the form of ensuring that clear and adequate information flows at right place and right time. Thus various elements of an effective communication system are clarity, adequacy, timing, and integrity:

1. Clarity. The communication process, in order to serve its purpose, must ensure clarity of communication, thereby facilitating exchange of ideas and avoiding unnecessary seeking and tendering of clarifications. A communication possesses clarity when it is expressed in a language and transmitted in a way that will be comprehended by the receiver. The basic objective of communication is to bring two minds together, and this can be possible only when what the sender means is understood by the receiver in the same way.

2. Adequacy. There are, broadly speaking, two aspects of adequacy, viz., (i) in terms of coverage, that is, types of messages flowing in various directions; and (ii) in terms of quantity of various types of messages. The problem of determining adequacy in regard to coverage is not very difficult. Through communication audit, the adequacy of coverage can be measured. In the communication audit, a frequent approach is to measure the information need of various groups of managers and employees and compare it with what has been made available to them. Normatively speaking, the process of communication must ensure that all those messages that are needed by the various individuals in the organisation in connection with the effective discharge of their official duties must flow up to them and further that this flow in respect of different types of messages must be adequate.

3. Timing. The utility of any message to the receiver is markedly affected by its timeliness. The process of communication should, therefore, not only ensure that the message reaches the receiver but also that it reaches him when he requires. It is quite possible that a person may require some time to compile an information having diversified and complex contents, which he has to collect from several points in the organisation. A suitable time span should be allowed for the purpose considering urgency and time requirement for collection of the information.

4. Integrity. The principle of integrity of communication suggests that the purpose of communication is to support understanding by the individuals in their achieving and maintaining the cooperation needed to meet organisational goals. Effective communication is not an end in itself, rather, it is means to get some ends. Though the immediate objective of any communication is to get behavioural response from the receiver of the communication, its ultimate objective goes beyond that. The ultimate objective of communication may be to get change in behavioural response from the receiver. This may suggest that communication to be effective should be persuasive and convincing so that receiver acts accordingly.

Besides, communication can be evaluated in terms of its ultimate objective where it can be measured in terms of behavioural response. Such response may be reflected in the form of attitude and morale, employee relations, and other factors. The analysis of these factors, in general, will provide total picture of effectiveness of communication. Though the higher degree of these factors may be due to a variety of variables, communication plays an important part in this respect. Thus, analysis may lead to conclude about the effectiveness of communication as a whole.

In the perspective of the above discussion, we may conclude that the communication system is effective if:

1. adequate communication flows to different points in the organisation;
2. the message received is very close to the message sent;

All organisations, business or non-business, face the necessity of coping with problems of control. Like other managerial functions, the need for control arises to maximise the use of scarce resources and to achieve purposeful behaviour of organisational members. In the planning stage, managers decide how the resources would be utilised to achieve organisational objectives; at the controlling stage, managers try to visualise whether resources are utilised in the same way as planned. Thus, control completes the whole sequence of management process.

Concept of Controlling

The concept of controlling is somewhat ambiguous in management. For example, let us consider the following statement:

"What exactly do you mean by management control? When this question was asked to a number of managers, in both Government and industry, the answers showed a surprising lack of agreement—surprising, since in a field for which theory has been developed to the extent it has in business management; terms should be precise, specific, and unambiguous."¹

Perhaps the reason for this ambiguity is the context in which the term control and other related terms are used. Controlling is used in terms of process of control. At the same time, the term controls is also used which is not used as a plural form of control but as techniques of control. For example, Giglione and Bedein have observed that in management, controls mean measurements, whereas controlling is a process of gathering and feeding back information about performance so that decision makers can compare actual results with planned results and decide what to do about any apparent discrepancies or problems.² Peter Drucker has elaborated this distinction further as follows:

1. Controls refer to measurement and information whereas control is related to direction.
2. Controls pertain to means and control pertains to an end.
3. Controls deal with facts and events of the past; control, on the other hand, deals with expectations, that is, with future.
4. Controls are analytical and concerned with what was and what is. Control is normative and is concerned with what ought to be.³

In the present context, we shall take control as a process which has been defined by Reeves and Woodward as follows:

"Control refers to the task of ensuring that activities are producing the desired results. Control in this sense is limited to monitoring the outcome of activities, reviewing feedback information about this outcome, and if necessary, taking corrective action."⁴

Terry and Franklin have used the term controlling and has defined it as follows:

"Controlling is determining what is being accomplished—that is, evaluating performance and, if necessary, applying corrective measures so that the performance takes place according to plans."⁵

¹Douglas S. Sherwin, "The Meaning of Control," in Max D. Richards and William A. Nielander (eds.) *Readings in Management*, Mumbai: D.B. Taraporevala, 1971, p. 391.

²G.B. Giglione and A.G. Bedein, "A Conception of Management Control Theory," *Academy of Management Journal*, June 1974, p. 292-305.

³Peter F. Drucker, *Management Tasks, Responsibilities, and Practices*, New York: Harper & Row, 1974.

⁴Tom K. Reeves and Joan Woodward, "The Study of Management Control," in Joan Woodward (ed.), *Industrial Organisation: Behaviour and Control*, London: Oxford University Press, 1970, p. 38.

⁵George R. Terry and Stephen G. Franklin, *Principles of Management*, Delhi: AITBS, 2000, p. 422.

4. Psychological Pressure. Control process puts a psychological pressure on the individuals for better performance. The performance of the individuals is evaluated in the light of targets set for them. A person is likely to put better performance if he is aware that his performance will be evaluated. He may feel pressure to achieve the results according to the standards fixed for him. This is further complemented by the reward and punishment based on the performance. Since the performance measurement is one of the basic elements of the control process, it ensures that every person in the organisation contributes to his maximum ability.

5. Coordination in Action. Though coordination is the essence of management and is achieved through the proper performance of all managerial functions, control affects this aspect significantly. Control systems are designed in such a way that they focus not only on the operating responsibility of a manager but also on his ultimate responsibility. This forces a manager to coordinate the activities of his subordinates in such a way that each of them contributes positively towards the objectives of the superior. Since this follows throughout the organisation, coordination is achieved in the organisation as a whole.

6. Organisational Efficiency and Effectiveness. Proper control ensures organisational efficiency and effectiveness. Various factors of control, namely, making managers responsible, motivating them for higher performance, and achieving coordination in their performance, ensure that the organisation works efficiently. The organisation also moves towards effectiveness because of control system. The organisation is effective if it is able to achieve its objectives. Since control focuses on the achievement of organisational objectives, it necessarily leads to organisational effectiveness.

Looking into the various roles that control system plays in the organisation, the management should devise a control system which effectively meets the demands of the organisation. The manager can do this if he is aware of the essential features of effective control system.

STEPS IN CONTROLLING

The systems, processes, and techniques of control are same whatever the area of their application may be. As pointed out earlier, control is reciprocally related with planning. It is performed in the context of planning and aids planning in two ways: it draws attention to situations where new planning is needed; and it provides some of the data upon which plans can be based. Apart from reciprocal relationships, it has circular relationship with planning as explained by Figure 27.2.

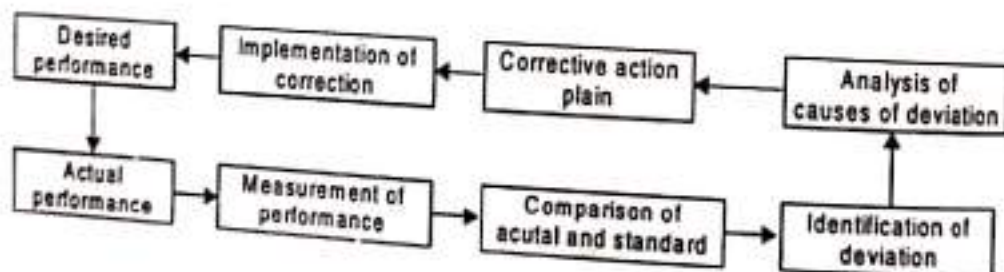


FIGURE 27.2: Management control process

The figure identifies the various steps in control process which are necessary for its relationship to planning. These steps may broadly be classified into four parts: (i) establishment of control standards, (ii) measurement of performance, (iii) comparison between performance and standards and its communication, and (iv) correction of deviations from standards.

1. Establishment of Control Standards. Every function in the organisation begins with plans which are goals, objectives, or targets to be achieved. In the light of these, standards are established which are criteria against which actual results are measured. For setting standards for control purpose, it is important to identify clearly and precisely the results which are desired. Precision in the statement of these standards is important. In many areas, great precision is possible. However, in some areas, standards are less precise. Standards may be precise if they are set in quantiles—physical such as volume of products, man-hour or monetary such as costs, revenues, investment. They may also be in qualitative terms which measure performance.

After setting the standards, it is also important to decide about the level of achievement of performance which will be regarded as good or satisfactory. There are several characteristics of a particular work that determine good performance. Important characteristics which should be considered while determining any level of performance as good for some operations are: (i) output, (ii) expense, and (iii) resources. Expense refers to services or functions which may be expressed in quantity for achieving a particular level of output. Resources refer to capital expenditure, human resources, etc. After identifying these characteristics, the desired level of each characteristic is determined. The desired level of performance should be reasonable and feasible. The level should have some amount of flexibility also and should be stated in terms of range—maximum and minimum—as shown in Figure 27.3.

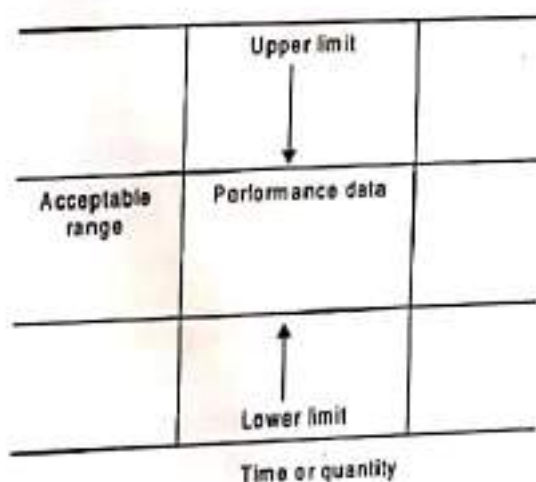


FIGURE 27.3: Control range

Control standards are most effective when they are related to the performance of a specific individual because a particular individual can be made responsible for specific results. However, sometimes accountability for a desired result is not so simply assigned; for example, the decision regarding investment in inventory is affected by purchase, rate of production, and sales. In such a situation, where no one person is accountable for the levels of inventories, standards may be set for each step that is being performed by a man.

Measurement of Performance. The second major step in control process is the measurement of performance. The step involves measuring the performance in respect of a work in terms of control standards. The presence of standards implies a corresponding ability to observe and comprehend the nature of existing conditions and to ascertain the degree of control being achieved.

The measurement of performance against standards should be on a future basis so that deviations may be detected in advance of their actual occurrence and avoided by appropriate actions. Appraisal of actual or expected performance becomes an easy task if standards are properly determined and methods of measuring performance are expressed in physical and monetary terms such as production units, sales volume, profit, etc. These are easily and precisely measurable. The performance which is qualitative and intangible such as human relations, employee morale, etc., cannot be measured precisely. For such purposes, techniques like psychological tests and opinion surveys may be applied. Such techniques draw heavily upon intuitive judgement and experience, and these tools are far from exact. According to *Peter Drucker*, it is very much desirable to have clear and common measurements in all key areas of business. It is not necessary that measurements be rigidly quantitative. In his opinion, for measuring tangible and intangible performance measurement must be (i) clear, simple, and rational, (ii) relevant, (iii) direct attention to efforts, and (iv) reliable, self-announcing, and understandable without complicated interpretation or philosophical discussions.⁶

3. Comparing Actual and Standard Performance. The third major step in control process is the comparison of actual and standard performance. It involves two steps: (i) finding out the extent of deviations and (ii) identifying the causes of such deviations. When adequate standards are developed and actual performance is measured accurately, any variation will be clearly revealed. Management may have information relating to work performance data, charts, graphs, and written reports, besides personal observation to keep itself informed about performance in different segments of the organisation. Such performance is compared with the standard one to find out whether the various segments and individuals of the organisation are progressing in the right direction.

When the standards are achieved, no further managerial action is necessary and control process is complete. However, standards may not be achieved in all cases and the extent of variations may differ from case to case. Naturally, management is required to determine whether strict compliance with standards is required or there should be a permissible limit of variation (Figure 27.3). In fact, there cannot be any uniform practice for determining such variations. Such variations depend upon the type of activity. For example, a very minute variation in engineering products may be significant than a wide variation in other activities.

When the deviation between standard and actual performance is beyond the prescribed limit, an analysis is made of the causes of such deviation. For controlling and planning purposes, ascertaining the causes of variations along with computation of variations is important because such analysis helps management in taking up proper control action. The analysis will pinpoint the causes which are controllable by the person responsible. In such a case, person concerned will take necessary corrective action. However, if the variation is caused by uncontrollable factors, the person concerned cannot be held responsible and he cannot take any action.

Measurement of performance, analysis of deviations and their causes may be of no use unless these are communicated to the person who can take corrective action. Such communication is presented generally in the form of a report showing performance standard, actual performance, deviations between those two, tolerance limits, and causes for deviations. As soon as possible, reports containing control information should be sent to the person whose performance is being measured and controlled. The underlying philosophy

⁶*Drucker, op. cit.*, p. 131.

In Chapter 8, we have seen that many planning techniques are equally useful in controlling too because planning provides standards against which actual performance is measured and corrective actions are taken wherever necessary. However, application of these techniques in the area of performance evaluation and performance planning differs. For example, budgeting as a planning technique is used to allocate resources to various organisational units. In the controlling process, this is used to evaluate the performance of these units. There are various such control techniques, also known as control tools or control aids, because there are different areas of the organisation where control is exercised as we have seen in Chapter 27. These areas may be grouped into two broad categories: operational and overall organisational performance. Operational control is exercised at the level of various operating units by the concerned operating managers while overall control is exercised by top management of the organisation. This chapter deals with operational control and the next chapter will deal with overall control.

In an operating system, there are two aspects where control is required: financial aspect known as financial control and operating mechanism of the system known as operating control. Within each type of control, several techniques are required depending on the nature of control. Sometimes, these control techniques are classified as budgetary and non-budgetary, though this classification is not very valid because even financial aspect of an operation is controlled by many techniques besides budgetary control.

Financial Control

Financial control is relevant for those aspects of business operations whose outcomes are expressed in monetary terms. Financial control is exercised at the operating level as well as at overall organisation level though techniques involved are different. Even if the same techniques are adopted, the emphasis is different. For example, budget is used to exercise control at operative level while budget summary is used to exercise control at overall organisation level. The major techniques of financial control at operating level are as follows:

1. Budgetary control.
2. Control through costing.
3. Break-even analysis.
4. Responsibility accounting, and
5. Internal audit.

BUDGETARY CONTROL

Budgetary control is derived from the concept and use of budgets. We have seen in Chapter 8 that a budget is the financial expression of various organisational operations and the way in which budgets are prepared as tools for planning. Thus, budgetary control is a system which uses budgets as a means for planning and controlling entire aspects of organisational activities or parts thereof. Terry has defined budgetary control as follows:

"Budgetary control is a process of comparing the actual results with the corresponding budget data in order to approve accomplishments or to remedy differences by either adjusting the budget estimates or correcting the cause of the difference."¹

Some people treat budgetary control only as a technique of cost control. For example, Brown and Howard have defined budgetary control as follows:

¹ George R. Terry, *Principles of Management*, Homewood, Ill.: Richard D. Irwin, 1988, p. 573.

made in labour cost depending on the rate of dearness allowance payable to workers for the budget period. Dearness is paid on the basis of All India Cost of Living Index. Overheads are charged on percentage basis. When budgets are prepared and approved, these are communicated to respective heads of departments/sections for implementation.

Budgetary Control

For control purposes, variance analysis is made. Factors for variance between budgeted and actuals are identified. For taking further course of action, various factors have been divided into two parts: controllable and uncontrollable. Controllable factors are like utilisation of plant capacity, unit consumption ratios of various raw materials, utilisation of auxiliary materials, labour utilisation, etc. Uncontrollable factors are like price of raw materials, price of the final products, etc. Budget deviations are calculated every month and for some sections every day. Deviations due to controllable factors are communicated to respective personnel for corrective actions. In case of deviations due to uncontrollable factors, these are communicated to the chief executive who in consultation with marketing people decides about a change in product mix specially if the deviation is due to price of final products. Usually, a deviation below 5 per cent is ignored.

CONTROL THROUGH COSTING

Costing is concerned with cost determination and indicates what is the approximate cost of a process or a product under existing conditions. Control through costing involves the control over costs in the light of certain pre-determined costs usually known as standard costs. Standard costs are pre-determined operation costs computed to reflect quantities, prices, and level of operations. Such standards are set in respect of total costs as a whole and its various components—material, labour, and overheads. Thus, standard costing is a method of cost accounting in which standard costs are used in recording certain transactions and the actual costs are compared with the standard costs to find out the amount and reasons of variations from the standard. Essentially, control through standard costing involves the following steps:

1. The first step involves the fixation of standards. The standards are set for different components of cost separately. Such standards can be fixed on the basis of past records or through experiments also known as engineering methods.
2. The second step consists of determining the actual costs to make a comparative study. This is achieved from the cost accounting records.
3. A comparison between standard costs and actual costs is made in order to find out the variation between the two. If there is no variation or if it is within the prescribed limit, no further action is envisaged.
4. If the variation is beyond the specified limit, it is taken for further analysis and an attempt is made to locate the reasons for such a variation.
5. In the light of the reasons identified, further course of action is planned so that in future there is no such variation. This may require perusal and revision of standards also if they are not realistic.

Benefits of Control through Costing

Standard costing offers many advantages as a standard for control acts as a guide to many operations. Its specific benefits are as follows:

1. Standard costs provide basis for measuring operating performance. As they are developed from the study of cost of operations and existing conditions, they become a pointer to the weaker aspects of an operation. The efficiency or inefficiency can be ascertained easily by comparing actual and standard costs.

2. Standard costs provide easy comparability. Because of adequate standards, cost control exercises a permeating influence on all factors of operation. Measurement, comparison and evaluation of current performance as well as of current expenses become much more effective in character.
3. Standard costing is basically an economic tool. It helps in cost reduction and control by putting effective check over inefficiency in operations and by eliminating certain undue paper work. It suggests standard cost cards and accordingly the required resources are arranged.
4. Standard costing is a basis for budgeting. Budgets are prepared on the basis of standard costs. Thus, budgeting and standard costing together provide effective control device and make managers cost conscious.
5. Standard costing also provides basis for adopting incentive wage system and bonus plan. Since standard cost is set up from adequate and careful analysis and study, it provides basis for work simplification and other methods of standardisation.

Limitations

Standard costing has certain disadvantages and limitations which are as follows:

1. Sometimes, standard costs are expensive to set up and difficult to operate. Dual costs have to be maintained, making record-keeping more difficult. Thus, the system is not suitable for smaller organisations.
2. Standard costs require frequent revisions specially if the conditions are always changing because standard costs are applicable in a particular condition. As such, standard costs are confined to those organisations which work under more or less stable conditions and which carry standardised mass production.
3. Limitations of budgetary control also apply in the case of cost control. Consequently, some type of resistance is expected from the people.

BREAK-EVEN ANALYSIS

Break-even analysis is basically concerned with the cost-volume-profit relationships. It magnifies a set of relationships of fixed costs, variable costs, price level of output, and sales mix to the profitability of the organisation. Break-even analysis is made mathematically by applying the formulae to trace the break-even point, contribution, margin of safety, and profit/volume ratio, or graphically by break-even chart concerning the profitability of the organisation.

Mathematically, relationships can be expressed as follows:

$$\text{Break-even point} = \frac{\text{Fixed costs}}{\text{Contribution per unit}}$$

$$\text{Contribution} = \text{Sale price per unit} - \text{Variable costs per unit}$$

$$\text{Margin of safety} = \text{Total sale proceeds} - \text{Sales at B.E.P.}$$

$$\text{Profit} = \text{Sales} - \text{Total costs (fixed + variable)}$$

Or

$$= \text{Total contributions} - \text{fixed costs}$$

Graphically, relationships can be shown by break-even chart as shown in Figure 28.1. This is a simple break-even chart showing a single product for the organisation. The chart shows the level of cost and revenue for each level of sales and indicates that at 2,500

2. Break-even analysis does not take into account the impact of learning curve on the cost behaviour. Learning curve implies that an organisation is able to reduce its costs because of the improvement in production operations processes. This phenomenon invalidates the total assumptions of the analysis.
3. Similarly, it has been assumed that all additional quantity can be sold at a predetermined price. This assumption is too simple to put into practice because of the external competitive forces. Thus, it may have application in monopolistic market which is almost non-existent in the present environment.
4. An organisation with multiple products being produced with the same plant facilities, faces problem in applying this technique because the fixed and variable costs of each product line cannot be ascertained with high degree of precision which is important for decision making.

RESPONSIBILITY ACCOUNTING

A management accounting system consists of two principal parts: one is called product cost accounting, the other is called responsibility accounting. The use of responsibility accounting focuses attention on management by objectives rather than management by domination. Each person is responsible for his area of operation, and for effective control, he must know what his costs should be and what his costs were. Thus, in responsibility accounting, costs are assigned to responsibility centres rather than to products, and a clear distinction is made between costs that are controllable by the head of the responsibility centre and the costs which are not controlled by him.

The concept of responsibility centre is important in the operation of responsibility accounting. A responsibility centre is an organisational unit such as division, department, or section, headed by a responsible person where responsibility is fixed on its head for the target fixed in respect of that organisational unit. There are three types of responsibility centres: cost centres, profit centres, and investment centres. In the cost centres, the control system measures only the costs incurred by responsibility centres; no attempt is made to measure the value of their outputs. Thus, most individual departments and staff departments are cost centres. In profit centres, the targets are fixed in terms of profit which is measured by the amount of input and output. In the investment centres, managers are held responsible for the effective use of assets as well as for revenue and cost. Thus, it is ultimate extension of responsibility.

The head of a responsibility centre is responsible for the activities to be performed at that centre. Further, he is made responsible for the controllable costs. The costs incurred in a responsibility centre are those associated with accomplishing its functions. Some of these costs are controllable by the head of a responsibility centre, others are not controllable by him. Since the idea behind creating responsibility centres is to provide effective control, a distinction must be made between controllable and uncontrollable costs. In the reporting process, both the costs are shown separately, and the reporting system is known as responsibility reporting system. The system of cost accumulation is according to the hierarchy of responsibility centre. The lowest common denominator of the system is called the accounting block, which consists of a single type of cost incurred either in a cost centre or any responsibility centre. All summaries of cost information are obtained by combining

Thus, the approach to the responsibility accounting is not against the established principles of conventional accounting, though there is a difference of emphasis. In the conventional accounting, the product costing accumulates the cost to ascertain cost of production. The responsibility accounting emphasises cost control on the basis of 'who is responsible for costs'.

INTERNAL AUDIT

Internal audit, also called operational audit, is an effective tool of managerial control. Internal audit is carried out by managers themselves or by special staff appointed for this purpose. In contrast to external audit which remains unconcerned with the operational aspect of the organisation, internal audit is much broader in scope and encompasses the whole range of activities of the organisation. Thus, internal audit, in addition to ensuring that accounts properly reflect the facts, also appraises policies, procedures, use of authority, quality of management, effectiveness of methods, special problems, and other phases of operations, the latter aspects being more emphasised in present-day internal audit. However, there are certain problems in broadening the scope of internal audit in these areas because of the limited ability of an organisation to afford so broad an audit.

Internal audit feeds managers with a perennial supply of control information. By measuring performance and evaluating results in the light of the standard, internal audit makes suitable recommendations for managerial actions. It also scrutinises the applicability and relevance of policy, procedure, and method which have a tendency to become obsolete. Such a scrutiny helps in choosing a suitable working procedure and method. The introduction of internal audit tones up morale fibres and working efforts of all members in the organisation as it involves the risk of being exposed before the management, and people try to avoid errors of omission and commission.

The internal audit is not free from its limitations. Its installation and operation require extra costs which may be too much for smaller organisations. Sometimes, the reports of internal audit team may not be acceptable to the manager because of some deficiency. The audit people have a tendency to look at every aspect of business operations from accounting point of view. This not only affects the scope of internal audit, but also leads to faulty conclusions. However, in recent years, the system of internal audit has been elevated to a new height by organising a centralised audit unit for the purpose of supplying greater and wider control information to managers. In managing such unit, accounting qualifications alone are not adequate, but the greater emphasis is being given to managerial skill and experience. To avoid accounting bias, internal auditors in many organisations are selected from the rank of line managers.

Operating Control

Operating control is closely linked to concurrent control, that is, exercise of control during operating process itself. Operating control tries to ensure that (1) products and services are produced of good quality which is ensured through quality control, (2) products and services are produced with minimum possible costs and in required quantity which is ensured through cost control and inventory control, and (3) products and services are produced at the required time which is ensured through time-event network analysis. In the previous section, we have seen cost control techniques. Therefore, in this section, we shall go through other techniques.

QUALITY CONTROL

Before going through the techniques of quality control, let us go through the concept of quality. The concept of quality is somewhat a complex concept because it is determined in

some context. For example, John Stewart, a consultant with McKinsey & Company, has observed, "There is no one definition of quality. Quality is a sense of appreciation that something is better than something else. It changes in a lifetime, and it changes from generation to generation, and it varies by facets of human activity." From operational point of view, quality means focusing on the production of increasingly better products and services at progressively more competitive prices.

TECHNIQUES FOR QUALITY CONTROL

Quality control can be applied at two distinct phases of operations: control of an operation in process and inspection of raw material semi-finished products, and finished products. The first phase of quality control is carried out by statistical quality control while the second phase is done through inspection control.

Statistical Quality Control. Statistical quality control (SQC), also known as statistical process control (SPC), is a method of measuring and continuously improving work process before the final inspection of the product. Therefore, it is preventive as well as remedial. SQC is based on the theory of sampling which implies that the analysis of a few items out of the total population can be used to understand the features of the entire population. In the same way, SQC measures the product quality by taking sample for inspection during the production process. This is applied in the case of high volume product of the same features such as machine parts, ready-made garments, etc. In using SQC, two considerations are important: setting tolerance limit of acceptable quality and measuring the product quality.

1. Tolerance Limit. Tolerance limit is the variation in quality from the standard specifications which can be acceptable. For example, a machine is manufacturing ball bearings of 3.00 centimetres. There is a possibility that some of the bearings are oversized and some are undersized. The management must decide the extent to which these oversized or undersized bearings would be accepted. This limit can be prescribed on the basis of past data or statistical formula whose reliability has been proved in practice. In the case of bearing for less precision operations, it may be 3.10 or 2.90 centimetres. For operations having higher precision, it may be still lesser, for example, 3.05 or 2.95 centimetres.

2. Measurement of Quality. Measurement of quality is undertaken during the operation itself so that if the machine starts producing items beyond the tolerance limit, it is stopped immediately in order to avoid further losses. Thus, in the above case, if bearing size goes beyond 3.10 or comes below 2.90 centimeters, the machine is stopped to find out the fault in machine operations. In order to facilitate control, control charts are prepared by taking both considerations: tolerance limit as well as actual quality. A control chart presents data as shown in Figure 28.2.

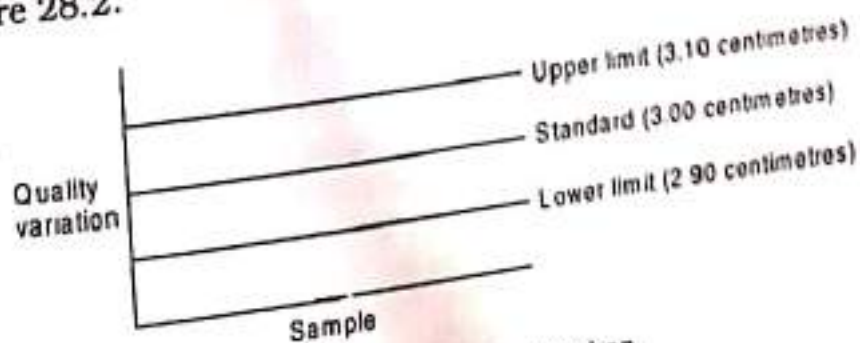


FIGURE 28.2: Control chart

Statistical quality control is quite useful in those operations which are automated and produce large volume of a particular product. When it is applied in those operations, it results in a number of benefits in the form of reduction in inspection cost, greater efficiency in quality control, early detection of faults, and adherence to specifications. However, the application of SQC is not without problems. The application of SQC without understanding the operation process completely is dangerous.

Inspection control. Inspection control is applied at the stage of raw materials as well as at the stage of finished products or in between. In the inspection control, quality control incharge, may be quality control manager or inspector, seeks to determine the acceptability of parts, products, or services. This may be done either for the raw materials which are used in production process or which are in the form of finished products resulting from the completion of production process.

Inspection is made by comparing the quality of the product to the standard, commonly known as specification, by means of a visual or testing examination. Sometimes, inspection reverts to a sorting procedure that classifies acceptable products from unacceptable ones. Tolerance limit of the quality variation is set out in inspection control in the same way which is applied to statistical quality control.

In inspection control, a question arises: when and how often, the inspection should be carried out? The answer of this question lies in the comparison of cost of inspection and cost of no inspection. If the inspection is carried out for every product, it involves lot of cost, but if inspection is not carried out, it results in defective products. Therefore, there is a trade off between inspection and no inspection. In order to solve this problem, usually, organisations go on sampling basis and the sample size is decided on the basis of degree of precision required in a product. Generally, where high precision is required, higher proportion of product quantity goes to sample.

QUALITY CONTROL THROUGH QUALITY CIRCLE

The concept of quality circle (QC) has entered Indian organisations only very recently but the concept is catching the attention of many organisations. Many companies have tried out quality circles. Some have succeeded, others have had to abort half ways and some others have just introduced it and are in the experimenting stage. The concept of QC has emerged from quality control. Comprehensive quality control is the effort of an organisation to develop, design, manufacture, inspect, market, and service products that will satisfy the customers at the time of purchase and give them satisfaction for a long time after purchase. In Western countries, this was attempted to achieve through quality control department though the result was not satisfactory to the maximum possible extent. As against this, Japanese system of management integrated quality control with manufacturing department which gave rise to the idea of quality control circle or simply quality circle (QC).

Concept of Quality Circle

Quality circle is a group of employees that meets regularly to solve problems affecting its work area. This group carries on continuously as a part of organisation-wide control activities, self-development and mutual development, and control and improvement within the workplace utilising quality control techniques with all the members participating. Generally, six to twelve volunteers from the same work area make up the circle. The members receive training in problem solving, statistical quality control, and group process. QC generally recommends solutions for quality and productivity problems which may be implemented by management. Thus, QC is not merely a suggestion system or quality control group but extends beyond that because its activities are more comprehensive. Further, it is not a task force because it can be made a permanent feature of the organisation.

Objectives of Quality Circle

Today's concept of quality is 'fitness for use' and the methodology adopted is 'defect prevention' rather than inspection and rejection. Hence, the attitudes of the people towards work affect the quality of end products. One of the important tools for bringing about attitudinal change is QC—an approach which brings about participation as well as teamwork. The basic philosophy and methodology of QC provides opportunity and forum to realise and satisfy people's needs at the workplace. Thus, it motivates people to contribute towards organisational effectiveness through group processes. It may be mentioned that the scope of QC is not limited to manufacturing organisations only but is extended to other organisations like banking, insurance, finance also. The basic idea behind QC is as follows:

1. Contributions to the improvement and development of the organisation.
2. Respect humanity and build a happy workplace worthwhile to work; and
3. Display human capabilities fully and eventually draw out infinite possibilities.

Thus, QC ensures harmony in the organisation, effective teamwork, problem-solving capacity, self-discipline, better interpersonal and group relations, better communication, participation, job satisfaction, and finally productivity and consequently organisational effectiveness.

Developing a Quality Circle

Usually, a QC system in an organisation can be developed by going through the following phases:

1. Start-up Phase. QC requires an attempt just like an organisational change programme. An organisational change programme can be made successful when people are convinced about the utility of the change. Therefore, the first thing that should be done in developing QC is to publicise the concept of QC in the organisation. People should understand the implications of QC. This is necessary because participation in QC is voluntary. Initial training to some personnel should be provided to operate QC system in the organisation.

2. Constitution of QC. QCs may be constituted at different workplaces in the organisation. Members of a QC are from the same work area or doing similar type of work. They are drawn voluntarily. Once a QC is formed, they remain as permanent members of the circle unless they leave the work area.

Besides QCs at various workplaces, there may be steering committee, facilitator, and coordinator. Steering committee is an apex body at the highest level of the unit/division which oversees the functioning of QCs in the unit/division and serves as advisory body. Facilitator is usually a manager of the shop/department/section and is responsible for guiding and directing the activities of the QCs in his areas, enthruses other executives to get involved in supporting QC activities. The basic responsibility of coordinator is to coordinate the activities of QCs on behalf of the management and to carry out such activities as would make the operation of QCs smooth, effective, and self-sustained.

3. Initial Problem Solving. Once people in the circle are trained and officially sanctioned, they turn to problem solving. This involves three stages: data collection, data analysis, and problem solving. Data collection is carried on through various ways like past records, contacting employees, and self-suggestions. Data analysis tries to establish the basic reasons for a particular problem or problems on hand. Problem-solving at the initial stage involves participation of various members of the QC on regular basis. Methods used for solving the problems may be brainstorming. Various suggestions put forward by members are analysed subsequently and final decisions are taken through consensus.

4. Presentation and Approval of Suggestions. When the QC members get ready to share their solution of a problem, they present it before the management. Presentation to management may be in the form of oral presentation by the members, preparation of the project report, or group assignments in project presentation. Presentation to management helps to improve the communication between management and workers, demonstrates management's involvement and interest to QC members, and fosters good working relationship among all the people. It also offers opportunity to recognise the QC members efforts.

5. Implementation. The final phase may be implementation of suggestions. For this purpose, relevant groups may be assigned activities depending on the nature of suggestions. If a suggestion involves only one workplace without affecting others, the implementation can be undertaken directly at that workplace. However, if it involves others also, it may be assigned to a group.

Once this process is over, QCs may be organised for other departments. Thus, through this process, entire organisation can have QCs.

Pitfalls in QC and Their Remedies

No doubt, QC concept has many positive points but it has failed miserably in many organisations and they had to abandon the scheme mid-way. In fact, many problems come up in the way and unless sufficient safeguards are taken against these, QC's efforts are unlikely to succeed. Following are some major problems of QC operations and their suggested remedies:

1. The first basic problem in QC is the absence of right type of attitudes both among managers as well as among workers. Managers, particularly at middle level, may feel that QCs dilute their authority and importance; QCs make superiors to find faults with executives for not finding solutions to the problems earlier; QCs are meaningless. Similarly, workers may feel that QCs are meant to improve organisational efficiency without really benefiting them; QCs may dilute their power and opportunities for bargaining. This problem can be solved by giving appropriate counselling to managers as well as to workers about the real concept and contributions of QC. In fact, most of the problems with new concepts come because of misunderstanding of the concepts. QC is no exception to that.
2. There is problem of organising QCs in Indian context because of low profile of workers in the form of their low-level education and lack of leadership abilities. This may affect the operation of QCs successfully. This problem can be overcome by proper training to workers and also the leaders of QCs.
3. Delay in implementation of suggestions given by QCs may affect the operation of QCs. Management can take effective step to implement the suggestions at the earliest opportunity. In case, where suggestions cannot be implemented at all or can be postponed for the time being, it must be communicated with convincing reasons to the members of the QC.
4. Non-members of QCs may sometimes pose problems to the operation and functioning of QC. This problem can be solved by making them to witness the QC activities like presentation of solutions to management. This way they can be enthused to join either a particular QC or volunteer them to start new ones at their workplace.
5. There may be some operational problems like members not being permitted to hold meetings during office time, irregularity of meetings, facilitator not attending meetings even for brief period, etc. Such problems can be overcome by providing adequate

support from the top management to facilitate operation of QCs, creation of QCs throughout the organisation, denoting a day and time on which meetings are held every week. Similarly, regular meetings of steering committees, coordination committees should also be held.

Thus, it can be seen that there are many problems in QCs but most of these problems can be overcome with the active support of top management and by creating a suitable work environment in the organisation where management and workers cooperate with each other. After all, both these groups are going to get benefits of QCs in the long run. Exhibit 28.2 presents functioning of QCs in Modi Rubber Limited.

EXHIBIT 28.2: Quality circle at Modi Rubber Limited

Modi Rubber Limited is a pioneer automotive tyre and tube manufacturing company located at Modipuram near Meerut (U.P.). The company decided to introduce quality circle at its plant in 1985 and became a member of Quality Circle Forum of India (QCFI), Hyderabad in March 1985. The company engaged QC experts to train the managers who are to be actively involved in QC operation. At the same time, workers who volunteered themselves were also given general training in QC. Steering committee members, facilitators, and coordinators were selected and sent for training at QCFI at Hyderabad. Twenty-four QCs were formed in production and engineering areas. QC members chose their own leaders, deputy leaders, and the names of their QCs. These members and leaders were given training at the workplace. Such names as Lion, Heera, Buniyaad, Karm, Mukti, Pooja, Pragati, Target, Paras, etc., were chosen. The process of training and introduction of new QCs continued and there were 54 QCs. These QCs meet regularly every week on pre-determined time. For example, one QC meets on every Monday between 2.00 and 3.00 p.m., another meets for an hour on every Tuesday, another meets on every Wednesday for an hour, and so on.

The company provides facilities and measures to make QCs more effective. Such measures include training, selection of best QC in each division every year, exchange of QC members, occasional interaction of Managing Director with the members of QCs and their leaders at the time of presentation of solutions. Various QCs have made contributions of the following type: efforts to improve the quality of goods, productivity, cost effectiveness, safety; awareness of quality of work life; better cohesiveness at group level in respective work areas; avenues for building self-confidence and development of employees; opportunities to utilise employees' wisdom and creativity, etc.

Inventory Control

Inventory consists of raw materials, work-in-progress (semi-finished goods), and finished products. Inventory is kept at a particular level to meet future needs of the organisation. Inventory control tries to specify the optimum level of inventory that an organisation should keep. However, this optimum level is a dynamic concept because its level varies from organisation to organisation; the major determining factors being nature of demand for the product, length of processing cycle, degree of ease in procuring raw materials, effect of seasonal variation on prices, and so on. Traditionally, operations managers set inventory levels by using formulae that balance the average cost of buying raw materials with the variable costs of storing them. In 1970s, Japanese introduced the concept of just-in-time (JIT) inventory system, known as *Kanban* in Japanese language. The basic theme of this system is to have no inventory. Raw materials are bought more frequently and in smaller amounts to be used just-in-time finished products are produced and delivered just-in-time to be sold. However, this concept has very limited application in Indian context because of situational differences. Therefore, some inventory has to be maintained to keep the business running. Generally, for inventory control, two techniques are applied: ABC analysis and economic order quantity. Both these techniques have different perspectives for inventory control.

ABC ANALYSIS

The first step in inventory control is to classify different items of inventory to determine the degree and type of control required for each group. ABC analysis is a widely used technique for classifying different items. This technique uses the values of different types of inventory for their classification. A group consists of those items which have high value though their number may be low. C group items have very low value but their number may be more. B group items fall in between with average value and number. On the basis of the study of inventory management systems in a number of companies, Synder has arrived on the conclusion that the composition of ABC items in total inventory is roughly as shown in Table 28.1.⁴

TABLE 28.1 : Inventory classification

Group	No. of items (%)	Inventory value (%)
A	15	70
B	30	20
C	55	10
Total	100	100

According to ABC analysis, maximum attention should be paid to A group items as these are critical in terms of value followed by B and C groups. Thus, ABC analysis provides clue where attention should be focused in inventory control. However, criticality of an item should not be judged merely by its value but the importance that it has in the total production process.

ECONOMIC ORDER QUANTITY

Economic order quantity (EOQ) indicates the size of order that will result in the lowest total of order cost and inventory carrying cost for an item of inventory. In order to estimate EOQ, two types of costs are to be calculated: order cost and inventory carrying cost.

1. Order Cost. Order cost includes various items on which an organisation has to incur cost for procuring raw materials. These include various types of administrative costs such as stock taking, order writing, agents' visit, business journeys, reminders, etc.; consignment processing such as received notes, checking, recording, etc.; invoice processing such as checking, approval, book entries, etc; and payment procedure such as cheque/draft preparation, mailing, etc. Each time a purchase order is given, these costs are involved. Besides these direct costs of placing order, the organisation may lose the discount or rebate which may be available on bulk purchase. Thus, this suggests that it is preferable to purchase in bulk. However, this is only one side of the cost-benefit analysis. In order to understand the total cost-benefit analysis, inventory carrying cost has to be calculated.

2. Inventory Carrying Cost. Inventory carrying cost involves interest on the money locked in inventory, cost of storage, cost of insurance for stock, and cost of material loss due to spoilage, quality deterioration, obsolescence, etc. All these costs have to be calculated in terms of per unit of materials.

After identifying ordering cost and inventory carrying cost, economic order quantity is calculated by using the following formula:

⁴A. Synder, "Principles of Inventory Management," *Financial Executive*, April 1964, pp. 13-21.

Various types of control techniques discussed in the previous chapter are partial in the sense that they apply to a part of the organisation and do not measure the total organisational performance. Top management is more interested in the total organisational control—financial and non-financial. There are various techniques for overall control. These are financial ratio analysis including return on investment, management audit, human resource accounting, and information systems. Some of these techniques fall in the category of direct control such as financial ratio analysis; others fall in the category of indirect control. However, both these types of techniques are used for overall control.

Financial Ratio Analysis

Financial ratio analysis identifies the relationship between two financial variables in order to derive meaningful conclusion about their behaviour. Metcalf and Titard have defined financial ratio analysis as "a process of evaluating relationship between component parts of financial statements to obtain a better understanding of a firm's position and performance".¹ The type of relationship to be investigated depends on the objective and purpose of evaluation. In the case of measurement of overall performance, generally, four groups of ratios are considered: liquidity ratios, activity ratios, leverage ratios, and profitability ratios. A brief description of these ratios is presented here.²

Liquidity Ratios. Liquidity ratios indicate the organisation's ability to pay its short term debts. These ratios are generally expressed in two forms: current ratio and quick ratio. Current ratio shows the relationship between current assets and current liabilities. This indicates the extent to which current assets are adequate to pay current liabilities. Quick ratio indicates the relationship between liquid assets (cash in hand and with bank and short-term debtors) and current liabilities. It helps in identifying the organisation's ability to pay its current liabilities without considering inventory in hand.

Activity Ratios. Activity ratios show how funds of the organisation are being used. These ratios are in the form of inventory turnover ratio, receivable turnover ratio, and assets turnover ratio. *Inventory turnover ratio* indicates the number of times inventory is replaced during the year and shows how effectively inventory has been managed. *Receivable turnover ratio* shows how promptly the organisation is able to collect dues from its debtors. *Assets turnover ratio* indicates how effectively assets have been used to generate sales.

Leverage Ratios. Leverage ratios indicate the relative amount of funds in the business supplied by creditors/financiers and shareholders/owners. These ratios are in the form of debt-equity ratio, debt-total capital ratio, and interest coverage ratio. *Debt-equity ratio* indicates the proportion of debt in relation to equity and indicates the financial strength of the organisation. *Debt-total capital ratio* shows the proportion of debt to total capital employed. This also indicates the financial strength. *Interest coverage ratio* shows the interest burden being borne by the organisation in relation to its profit.

Profitability Ratios. Profitability ratios show the ability of an organisation to earn profit in relation to its sales and/or investment. Profitability ratios are expressed in terms of profit margin as well as return on investment. Profit margin, either net profit or gross profit, is expressed in the form of relationship between profit and sales and indicates the degree of profitability of the business. Return on investment is measured by relating profit to

¹R.W. Metcalf and P.L. Titard, *Principles of Accounting*, Philadelphia: W.B. Saunders, 1986, p. 157

²Detailed discussion of financial ratio analysis can be found in publications dealing with financial analysis. There are a number of such publications.

investment. Return on investment is the most comprehensive technique for controlling overall performance. Therefore, somewhat more elaborate discussion is presented.

CONTROL THROUGH RETURN ON INVESTMENT

The efficiency of an organisation is judged by the amount of profit it earns in relation to the size of its investment, popularly known as 'return on investment' (ROI). This approach has been an important part of the control system of Du Pont Company, U.S.A., since 1919, though it was actually devised by Donaldson Brown in 1914. Since its successful operation in Du Pont, a larger number of companies have adopted it as their key measure of overall performance.

This technique does not emphasise absolute profit for judging the efficiency of an organisation as a whole or a division thereof, rather the amount of profit is related with the amount of facilities or capital invested in the organisation or the division. The goal of a business, accordingly, is not to optimise profit, but to optimise returns on capital invested for business purposes. This standard recognises the fundamental fact that capital is a critical factor in almost any business and its scarcity puts limit on progress.

The system of control through return on investment can be seen from Figure 29.1 as operating in Du Pont Company.

The rate of return is calculated by dividing the profit by total investment. It can be computed in respect of historical data so as to reveal the rate of return realised or it may be applied to budgeted data to give a projected rate of return. In the Du Pont system, the investment includes total fixed and current assets without reducing liabilities or reserves. The basis is that such a reduction would result in fluctuations in operating investments as liabilities or reserves fluctuate, which would distort the rate of investment and render it meaningless.

On the other hand, many business organisations adopt a different view of investment. Accordingly, the amount of the investment should be taken by deducting depreciation from the assets. The argument is simple. Depreciation reserves represent a write-off of initial investment and that funds made available through such charges are reinvested in other fixed assets or used as working capital. The argument seems to be realistic as it puts heavier burden on return on new assets, as compared to old and obsolete assets. Moreover, the amount of investment, thus, calculated is further reduced by the amount of current liabilities.

Advantages

The return on investment is an integral part of the productivity and efficiency accounting. It gives following advantages:

1. The technique offers a sound basis for intra-organisational comparison. Such comparison can be made among the different divisions, departments, or products of the same organisation. It places high values on the effective and efficient use of organisational resources. It is a mirror which reflects the entire image of the operating activity. As such, suitable action can be taken for removing inefficiency.
2. It provides success to budgetary planning and control by putting restraint on the managers' demand for higher allocation of resources for their departments even if not actually needed. Thus, the resource allocation in an organisation is

centralisation. Each manager, incharge of a rate of return, but enjoys

Coordination

When the organisation structure is designed and various organisational units are created, a problem emerges as to how to synchronise the operation of these units and people working therein so that they contribute their maximum to achieve organisational objectives. We have seen in the previous section that, often, conflicts emerge among various organisational functions and individuals. In order to overcome these problems, coordination is needed

which is an integration or synchronisation of group efforts in the organisation. Theo Haimann has defined coordination as follows:

"Coordination is the orderly synchronising of efforts of the subordinates to provide the proper amount, timing, and quality of execution so that their unified efforts lead to the achievement of the stated objective, namely the common purpose of the enterprise."¹⁰

Glueck has presented coordination in the form of human and structural mechanism when he views that:

"Coordination is a set of human and structural mechanism designed to link the parts of the enterprise together to help achieve the specified objectives."¹¹

Though structural mechanism, that is, how various components of an organisation are linked together, helps in automatic coordination, this mechanism cannot ensure total coordination but some additional efforts are needed. From this point of view, we can identify the basic features of coordination which are as follows:

1. Coordination is relevant for group efforts and not individual efforts. It involves the orderly pattern of group efforts because an individual who is working in isolation does not affect functioning of others and no need for coordination arises.
2. Coordination is a continuous and dynamic process. It is a continuous phenomenon because it is achieved through the performance of functions. It is dynamic because functions themselves are dynamic and may change over the period of time. In every organisation, some sort of coordination exists; however, management may make special efforts to achieve coordination of higher degree.
3. Coordination emphasises unity of efforts which is the heart of coordination. This involves the fixation of time and manner of performance of various functions in the organisation and makes the individual efforts integrated with the total process.
4. Higher is the degree of integration in the performance of various functions by various persons in the organisation, higher is the degree of coordination and higher is the possibility of achievement of organisational objectives.
5. Coordination is the responsibility of every manager in the organisation because he tries to synchronise the efforts of his subordinates with others. However, when this does not work, there is need for special coordinators.

Coordination: The Essence of Management

Some authors consider coordination as a separate function of management. However, it is more accurate to say that coordination is an essence of management rather than one of its functions. Some managers even feel that coordination is one word that best suggests the sum total of managerial functions. Some others believe that the term coordination is better descriptive of manager's functions than management itself. The reasons for treating coordination as the essence of management may be as follows:

1. The concept of essence relates to intrinsic nature of an object. Coordination, being synchronisation of efforts of human beings in an organisation, is intrinsic to management as management also tries to synchronise group efforts for achieving organisational goals. For realising organisational goals, it is necessary that each effort is purposeful, constructive, and contributes to achievement of the predetermined results. Each such effort should tend to help others in the group in

¹⁰Theo Haimann, *Professional Management*, Boston: Houghton Mifflin, 1988, p. 17.

¹¹William F. Glueck, *Management*, New York: Business Publications, 1984, p. 78.

achieving the composite effort deemed essential for goal accomplishment. Therefore, managers through their various functions try to achieve this synchronisation so that each effort contributes positively to another effort.

2. A management function is different from its essence. A function is a composite of duties closely related in harmonious character and in operational similarity, which for the purpose of execution has to perform some important and some less significant functions. Thus, a function has some objectives and to arrive at that objectives, some more and some less important activities are to be performed. This is true for various management functions of planning, organising, staffing, directing, and controlling. Each of them has some objectives as well as various subfunctions. In fact, various managerial functions taken individually serve a particular purpose in achieving total managerial goals, that is, getting things done by others. For example, planning element of management decides what is to be done. Similarly, organising element decides who will do. Coordination, on the other hand, involves the integration of human efforts for achieving the goals which is not a particular function but the basic objective of all managerial functions.
3. When various managerial functions are performed properly and adequate consideration is given to their interdependence, the result is integrated, well-balanced composite effort by the group. The coordination is achieved automatically. When there is poor execution of various functions by various departments or individuals, the problems of coordination arise and special coordination efforts are required. Probably this is the reason that coordination has been recognised as a management function by classical authors and not by authors of modern era. In classical school of management, coordination has been treated as a central problem of management because authors were not sure about the interdependence of various individuals and proper execution of various management functions. In the systems approach of management, execution of management functions proceeds on integrative basis and problem of coordination does not arise but it becomes automatic process. Therefore, all management functions try to achieve integration of efforts and coordination becomes essence of management rather than a function of management.

Coordination and Cooperation

Coordination should not be confused with cooperation, for two terms denote quite different meanings. The term 'coordination' is related with the synchronisation of efforts which have amount, time, and direction attributes. For managers, it is a means of viewing in true perspective of work of a particular unit or department of which they may be incharge. Cooperation is basically a motto; a collective action of one person with another or other persons towards a common goal. The basic motto behind cooperation is 'each for all and all for each.' Thus, basic differences between coordination and cooperation can be identified as follows:

1. Coordination is basically achieved through the performance of various activities. In some cases, special efforts may be required for achieving coordination. Cooperation is basically a motto and spirit. The motto of cooperation leads to the development of cooperative system in which physical, biological, personal, and social elements are present. It is based on the assumption that every member of the cooperative system will work in the general interest of the system as a whole and not for his interest.

2. Cooperation leads to building of an institution, for example, cooperative society, etc. In fact, Barnard has visualised every organisation as cooperative social system. Coordination being a process is required in all such institutions and organisations.
3. The basic principles of coordination consist of direct contact, continuity of efforts and reciprocal relations among persons whose efforts are to be coordinated. On the other hand, basic principles of cooperation include: (i) voluntary association, (ii) democratic process in performance of activities, (iii) common welfare, and (iv) a spirit of dedication and service with absolute honesty and unquestionable integrity.
4. In a given situation, cooperation may exist without coordination. The case of various cooperative societies and organisations based on the motto of cooperation is in point. In such organisations, there may be lack of coordination of efforts causing inefficiency. For, cooperation emphasises on the collective actions of members for certain common goals and any organisation may be cooperative. However, it is not necessary that coordination exists in all cases.
5. The basic objective of coordination is the synchronisation of efforts of individuals in a work group so that no effort goes in waste. On the other hand, the basic objective of cooperation is to protect the interest of members of a cooperative group specially from the threats presented by conflicting groups.

Need for Coordination

Performance of various managerial functions in an integrated way ensures fair degree of coordination among individuals and departments. However, problems of coordination arise because of the presence of constant change, weak or passive leadership, and complexities inherent in large-scale organisations. In a large organisation, there are three types of such complexities which require special efforts for coordination: large number of personnel, functional differentiation, and specialisation.

1. Large Number of Personnel. The increasing number of persons involved in large organisations complicates the problems of coordination. Each individual is unique, acting to serve his own needs as well as those of the organisation. Each has his own habits of work, his own background, approaches to situations, and relationships with others. Moreover, the individual does not always act rationally. His behaviour is not always well understood nor completely predictable. Therefore, it is not necessary that human beings perform their actions without regard to others and synchronisation in efforts may be lacking. Further, problems of coordination of a quite different character arise out of the perverseness of human beings in organisational settings. Individuals join the organisation as its members to fulfil their needs. Many times, these needs may be different from group needs and goals. In such a case, organisational and individual goals are not fully achieved. More is the number of individuals in an organisation, the higher will be the degree of such incompatibility. It is imperative for the organisational efficiency that both these goals are brought to a level of conformity, and management tries to integrate individual and group goals through coordination.

2. Specialisation. There is high degree of specialisation in modern organisations. Specialisation arises out of the complexities of modern technology as well as from the diversity of tasks and persons needed to perform them. Specialisation is reflected in the use of specialists of various types. It is the nature of training of specialists that they are made to feel that they are the best judge of the scope, nature, and kind of work they perform. Specialists think that they are qualified to judge each other according to professional criteria, but outsiders cannot have adequate basis for such judgements. If the specialists

are allowed to work without coordination, the results can be costly. Therefore, some mechanism is required to coordinate the efforts of various specialists in the organisation.

3. Functional Differentiation. Functions of an organisation are frequently divided into departments, divisions, sections, and the like. Coordination is, therefore, necessary to link the functions together and assure their contribution to the total result. Coordination problems arise because domains become solidified, with barriers between them becoming rigid. Each unit tries to perform its mission in isolation from the others. Sometimes, this happens because functions are grouped illogically, or managers take the expedient rather than the logical route. For example, conflict between sales and production departments arises because of this reason. The sales department has a fundamental interest in selling produce. On the other hand, it is possible that sales may drop because of market conditions or poor salesmanship or both. In this case, production department may produce far more than can be sold, for it has an economic interest of utilising the production capacity. In such a case, it is clear that there are many divergent interests in the activities of these two departments. This problem has to be handled through some means, otherwise organisational resources may go in waste. There may be several such cases in a large organisation.

4. Interdependence. The need for coordination arises because of interdependence of organisational units and subunits and people working within these. Because of this interdependence, performance of one unit is affected by others but at the same time affects others. Therefore, in order to optimise effective use of the organisational resources, the efforts of all the units have to be integrated. There can be three types of interdependence: pooled, sequential, and reciprocal. In pooled interdependence, various units of the organisation, either located at the same place or at different places, contribute to the organisational objectives though they may not be directly related. This may happen in the case of highly diversified organisations, particularly without product relationship, for example, textile and cement being manufactured by the same organisation. In such a case, coordination between two units does not pose big problem. In sequential interdependence, the relationship between units is such that a later unit depends solely on the former unit, for example, in the case of assembling in an automobile company. In such a case, high degree of coordination is required otherwise the output will suffer. In reciprocal interdependence, the input of one unit becomes the output of another unit and vice versa, for example, operation and maintenance of vehicles in a transport company in which operation department may send a vehicle to maintenance department for repair, etc., and the maintenance department may send it back to operation department after repair. In such a case, high degree of coordination is required between two departments.

5. Individual Versus Organisational Interests. There may be a clash between individual and organisational interests. Individuals join the organisation to fulfil their desires and expectations. In turn, the organisation expects certain things from the individuals. When there is incompatibility between these two expectations, often clash of interests takes place. In such a case, individual efforts may not contribute to the achievement of organisational objectives. Therefore, there is a need for coordination and integration of both interests.

Role of Coordination in Organisational Performance

The above discussion shows that coordination is required among organisational units/subunits and among different individuals. The basic objective of the coordination is to achieve harmonious functioning of the units and individuals so that the organisational