

Chapter Highlights

Meaning of Job Analysis (JA), Job Terminology, Techniques for Designing Jobs, The Process of Job Analysis, Importance of Job Analysis, Objectives of Job Analysis, Job Analysis Techniques and Methods, Job Analysis Scenario in Bangladesh, Questions to Answer, Indicate True or False.

JA is the method used to determine what types of manpower are needed to perform the jobs of the organization.

5.1 Meaning of Job Analysis (JA)

Information is the basic material used by an industry for many kinds of job related planning. Nature of job information varies from industry to industry, from department to department and from purpose to purpose. Information used for job analysis must be accurate, timely and tailor made. According to N.R Chatterjee, job analysis is the process of determining by observation and study and reporting pertinent information related to the nature of a specific job. Dale Yoder defined it as the method used to determine what types of manpower are needed to perform the jobs of the organization. Job analysis is composed of—(i) Job description, (ii) Job specification and (iii) Job evaluation.

5.2 Job Terminology

1. **Task:** An identifiable work activity carried out for a specific purpose. For example, typing a letter.
2. **Duty:** Several tasks which are related by some sequence of events. For example, pick up, sort out and deliver incoming mail.
3. **Position :** A collection of tasks and duties which are performed by one person. For example, the P.A. to Chairman receives visitors, takes dictation, operates computer, answers queries, attends to complaints and helps students.
4. **Job:** A group of positions similar in their significant duties. For example the job of salesmen, technical assistants, computer programmers, etc.
5. **Job Families:** Groups of different jobs that need similar skills. For example, sales jobs and clerical jobs in different departments.
6. **Job Code:** A job code uses numbers, letters or both to provide a quick summary of a job and its content.
7. **Job Classification:** The grouping of jobs on some basis such as the nature of work done or the level of pay. For example, skilled, semiskilled and unskilled; Grade II and III officers in a Bank.
8. **Job Analysis:** The process of gathering information about a job.

9. **Job Description:** A written summary of tasks, duties and responsibilities of a job.
10. **Job Specificatin:** The minimum skills, education and experience necessary for an individual to do a job.
11. **Job Evaluation:** A systematic procedure for finding the relative worth of a job.
12. **Job Sharing:** It is a scheduling innovation that allows two or more workers to share a job.
13. **Job Design:** A conscious effort to organise tasks, duties and responsibilities into a unit of work to achieve a certain objective.
14. **Job Rotation:** Moving employees horizontally or vertically to expand their skills, knowledge or activities.
15. **Job Enrichment:** Adding more responsibilities, autonomy and control to a job.

5.3 Techniques for Designing Jobs

Basically, there are four techniques used in the design of jobs. These include job simplification, Job enlargement, Job enrichment and Job rotation.

□ **Job Simplification :** Job simplification is a design method whereby jobs are divided into smaller components and subsequently assigned to workers as whole jobs. Simplification of work requires that jobs be broken down into their smallest units and then analysed. Each resulting sub-unit typically consists of relatively few operations. These subunits are then assigned to the workers as their total job.

Job simplification is a design method whereby jobs are divided into smaller components and subsequently assigned to workers as whole jobs.

There appears to be two major advantages in using job simplification. First, since the job requires very little training, they can be completed by less costly unskilled labour. Second, job speed increases because each worker is performing only a small portion of the previously large job and thus is able to master a smaller, less complicated job unit.

On the negative side, job simplification results in workers experiencing boredom, frustration, alienation, lack of motivation and low job satisfaction. This, in turn, leads to lower productivity and increased cost.

By increasing the number of tasks an individual performs, job enlargement increases the job scope, or job diversity.

□ **Job Enlargement** : Job enlargement expands a job horizontally. It increases job scope; that is, it increases the number of different operations required in a job and the frequency with which the job cycle is repeated. By increasing the number of tasks an individual performs, job enlargement increases the job scope, or job diversity. Instead of only sorting the incoming mail by department, for instance, a mail sorter's job could be enlarged to include physically delivering the mail to the various departments.

Job rotation refers to the movement of an employee from one job to another.

□ **Job Rotation** : Job rotation refers to the movement of an employee from one job to another. Jobs themselves are not actually changed, only the employees are rotated among various jobs. An employee who works on a routine job moves to work on another job for some hours/days/months and returns back to the first job. This measure relieves employee from the boredom and monotony, improves the employee's skills regarding various jobs and prepares worker's self-image and provides personal growth. However, frequent job rotations are not advisable in view of their negative impact on the organisation and the employee.

"Enrichment means building challenge and achievement into workers' job by changing their jobs' content—letting them order and inspect their own good day schedule, so on and so forth."

□ **Job Enrichment** : Job enrichment, as it is currently in practice in industry, is a direct outgrowth of Herzberg's Two Factor Theory of motivation. It is, therefore, based on the assumption that in order to motivate personnel, the job itself must provide opportunities for achievement, recognition, responsibility, advancement and growth. The basic idea is to restore to jobs the elements of interest that were taken away under intensive specialisation. Job enrichment tries to embellish the job with factors that Herzberg characterised as motivators; achievement, recognition, increased responsibilities, opportunities for growth, advancement and increased competence. There is an attempt to build into jobs a higher sense of challenge and achievement, through vertical loading. "Enrichment means building challenge and achievement into workers' job by changing their jobs' content—letting them order and inspect their own good day schedule, so on and so forth."

Vertical job loading entails redesigning jobs to give:

1. Greater responsibility,
2. Greater autonomy,
3. More immediate feedback to the individual or group.

Job enrichment might include transferring some of the superior's activities to subordinates.

5.4 The Process of Job Analysis

The major steps involved in job analysis are as follows :

- a. **Organisational analysis** : First of all an overall picture of various jobs in the organization has to be obtained. This is required to find the linkages between jobs and organisational objectives, interrelationships between jobs and contribution of various jobs to the efficiency and effectiveness of the organisation. The required background information for this purpose is obtained through organisation charts and workflow charts.
- b. **Selection of representative positions to be analysed**: It is not possible to analyse all the jobs. A representative sample of jobs is to be analysed keeping the cost and time constraints in mind.
- c. **Collection of job analysis data** : This step involves the collection of data on the characteristics of the job, the required behaviour and personal qualification needed to carry out the job effectively. Several techniques are available for collection of such data. Care should be taken to use only reliable and acceptable techniques in a given situation.
- d. **Preparation of job description** : This step involves describing the contents of the job in terms of functions, duties, responsibilities, operations, etc. The job holder is required to discharge the duties and responsibilities and perform the operations listed in job description.
- e. **Preparation of job specification**: This step involves conversion of the job description statements into a qualification specification. Job specification is a written statement of personal attributes in terms of traits and skills, training and experience needed to carry out the job.
- f. **Conducting job evaluation** : Each and every job of the organization has to be evaluated in terms of other jobs of the said organization. Job requirements keep changing with time. Technological advances may demand new approach to handle job operations. Union agreements may give workers a greater say in handling certain other responsibilities. The employees' attitude might change. In the past, jobs were designed, taking the view that they would not change. There was no attempt to link changing job requirements with changing attitudes of employees towards work. It is only in late 70's that many organisations realised the importance of carrying out frequent job analysis and tune the jobs in line with the mental make-up of people who handle them for achieving greater efficiency and higher productivity.

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5.5 Importance of Job Analysis

Job analysis has been described as a fundamental instrument in the manpower management programme. However, its importance may be well understood by narrating the areas of its concentration as under :

- a) **Ensuring similarity in job title :** If the same job is described or titled in different ways, in different organizations, the management finds a great difficulty in the selection of personnel and pricing the jobs. Job analysis helps minimising this problem by introducing similarity in job title in different organizations.
- b) **Clarifying methods and procedures of work :** The jobs are studied scientifically in order to study the duties and the tasks of the workers doing a particular job. Job analysis helps the management to get a clear picture of workers' requirements in regard to the types of supply of tools, machines and equipment. It indicates how much training, responsibilities and supervision the worker should receive in order to perform the job efficiently. It helps the industrial engineer to improve methods or procedures of work as well as to determine the standards of production.
- c) **Improving physical conditions of work environment :** Job analysis helps the management to provide the worker with optimum conditions for work by providing adequate work place with good illumination and ventilation. It also helps the management to decide the ways by which it can avoid unnecessary noise, humidity, dangerous, unhealthy and hazardous conditions of work.
- d) **Delineating the relation of one job to other jobs :** Job analysis describes the skill involved in doing a job as well as the characteristics required by the worker to do the job efficiently. Thus, it helps the management to grade the jobs and to coordinate the work of a job with other jobs. It also helps the management to keep auxiliary work force in the form of job family to meet any emergency. When best characteristics required by the workers are more or less identical in different jobs, then the jobs can be classified under one family. Inter-job, inter-department and even inter-plant transfer of employees are common under conditions of industrial growth. Scientifically, studying the job facilitates economic, efficient and equitable transfer. Similarly, men cannot be advanced from position to position and asked to take more responsibilities, as they move upward in the organizational ladder unless the nature of the job under question and the human characteristic requirements of higher positions are definitely known. Job analysis not only informs the management about the blockade of the promotional opportunities in some cases, but also links up with other positions in the same or other departments which can offer opportunities.

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e) **Determining conditions of employment** : Job analysis helps the industrial engineer to determine the length and hours of work as well as helps him in determining the responsibilities for a particular job. It helps the personnel department in pricing the job as well as in determining whether the job can be made permanent or seasonal. Last but not the least, it helps the management to have a scientific procedure to provide every employee with opportunities for promotions and advancement.

Job analysis helps the industrial engineer to determine the length and hours of work.

f) **Reducing grievances** : At present an appreciable amount of labour unrest is due to the absence of adequate information about jobs. Because of this situation management and union, in most of the cases, do not agree upon wage fixation, transfer and promotion. Gross inequalities in rates of wages, poor promotion plan, inability of heads of the department to understand fully the intricacies of job and lack of scientific analysis of human qualities, create discontentment among employees and sometimes lead to serious grievances. Job analysis supplies the systematic information through job evaluation, job specification, job description, job schedule, etc and thus helps avoid discontentment.

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Basically, job analysis and job standardization are service tools; they are means to an end. It is closely connected with research study on time and motion, industrial health and fatigue, causation of industrial accidents, determination of standards of performance and production standard, improvement of methods of procedure in machine operation, adjustment and maintenance.

5.6 Objectives of Job Analysis

Job analysis is done in order to achieve the following objectives :

- (1) **To improve internal relationships of the organization by :**
 - (a) Developing relations among functional, departmental, divisional, sectional units, etc.
 - (b) Defining limits of authority.
 - (c) Locating overlapping and duplication of work.
 - (d) Determining space lay out.
- (2) **To assess relevant facts of improving employee selection and placement procedure by :**
 - (a) Facilitating employment for specific jobs.

- (b) Outlining information about jobs for employment interview.
- (c) Supplying information to the interviewer regarding nature and conditions of employment for intimation to interviewers.
- (d) Supplying basic information for developing vocational tests.
- (3) To improve physical working conditions and correct health and safety hazards by :**
 - (a) Disclosing faulty conditions and procedures of work.
 - (b) Locating unhealthy and unsafe work situations.
 - (c) Disclosing faulty machinery, tools, raw-materials, safety gadgets etc.
- (4) To supply standard practice and contents for training for a job/position by :**
 - (a) Indicating training needs for job/position under question.
 - (b) Describing the position in which trainees have contacts.
 - (c) Describing the future position in which the trainees will be placed.
 - (d) Giving basic information for development of effective manuals of procedures, standard practices, instructions, etc.
- (5) To supply scientific data in determining production standards by :**
 - (a) Indicating units of output.
 - (b) Disclosing faulty man-machine system.
- (6) To educate the personnel at all levels by :**
 - (a) Defining the contents and limits of positions.
 - (b) Promoting common understanding of personnel problems between the line supervisory forces and personnel department.
- (7) To improve transfer and promotion by :**
 - (a) Facilitating selection of employees for or promotion on the basis of their proficiency to fill specific position.
 - (b) Detecting employees who are placed in wrong positions and whose skills are not properly used by organization.
 - (c) Indicating 'blind alley' position (having no further opportunities) for elimination or special treatment.
 - (d) Indicating the present line of promotion.
 - (e) Indicating the possibility of improving the line of promotion.
 - (f) Supplying the basic information for developing plans and procedures in making promotional adjustments.
- (8) To improve methods of reporting and recording of personnel by :**
 - (a) Supplying permanent record of positions.
 - (b) Giving basic information for improvement of filing work.

- (c) Giving basic information for improvement of forms.
- (d) Supplying standard terminology for use in conversation, memoranda and correspondence.
- (9) **To provide information through job evaluation for classification and grading of job position by :**
 - (a) Assessing the position involving equal difficulty or responsibility of work or receiving equal financial and other benefits.
 - (b) Providing remuneration scale by differentiating the salaries of positions on the basis of the different degrees of hardship and responsibility involved in those positions.
 - (c) Providing salary ranges with efficiency bar (E.B) which allow for increased salary to accompany increased efficiency within a specific position.
 - (d) Assessing the salary and other financial incentives on the basis of the value of work involved, rather than upon the value of the incumbent.
 - (e) Preventing department heads from retaining valuable men on unworthy work by periodically increasing their salaries.
 - (f) Preventing existence of high and low paying departments, irrespective of work done.
 - (g) Providing basic information to heads of the departments for budgeting and controlling departmental costs.
 - (h) Supplying basic information for developing financial incentive plans.
 - (i) Providing opportunities to employees to earn to their fullest abilities.
 - (j) Helping the worker to take decision in accepting the position at the time of employment on the basis of potential salary the position carries in the future.
 - (k) Supplying basic information for developing plan and procedure in making salary adjustment.

5.7 Accuracy in Job Analysis

In the light of the description about job analysis, its usefulness and utilities, modern management analyzes the whole environment and evolves techniques of analyzing the job which is acceptable to the employer and to the employees. Prudent management believes that job must be described accurately and requirement of satisfactorily performing the job should be indicated unambiguously. This is partly information management calling for adequate and appropriate methods of collection and analysis of information.

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The officer in charge of job analysis should be adequately trained so that proper man specification can be drawn for the purpose of advertisement and recruitment. Four factors should be kept in mind before collecting information : what a worker is doing, how he does it, why he does it and what skills are involved in doing it. This amounts to answering what, how and why dimensions of the job analysis formula. The fourth part, namely, determination of needed skill requires close observation of the worker and the way he is doing the job. The fourth one brings out information needed to supplement the other three ones namely what, how and why. This is listing and explaining basic factors which must be considered before analysis. Ability and other characteristics are required for completing a job.

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In job analysis, supervisor's responsibility is crucial. Proper supervision also requires high proficiency on the part of the worker and high utilization of this resource is essential. There are also non-supervisory responsibilities relating to damage caused to materials and equipments. Serious judgement is needed whether the injury to the product and to the worker could have been prevented had the concerned workers exercised reasonable care and attention. Again, management should see if and to what extent the damages and the injuries can be accurately measured. Job analysis technique also covers closeness of supervision received by the workers and arrangement of safety devices used.

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Job analysis technique also covers measurement of loss sustained. This requires qualified inspectors as is used by general insurance companies. When a motor car is hit, there is a claim for compensation. Company inspector goes to the spot and assesses the amount of loss for the payment of compensation. A modern factory is supposed to have inspectors to estimate loss and to identify the person responsible for the loss. Indian factories have appointed inspectors having practical knowledge of the equipments, materials, working procedures and work techniques so that they can make accurate assessment of loss. There is arrangements for assessing mental alertness of the workers also. In assessing the alertness of the workers, several factors are considered, namely, experience of the worker, types of experience received, period and type of training and adequacy of training; as also physical demands of the job, particularly probability of hazards and fairness of working conditions. At times, machines have to be run in darkness or in inadequate light without any electric fan which makes the work place stuffy and suffocating.

From the above description, the reader can easily understand that job analysis is the procedure by which facts with regards to each job are closely studied for the purpose of understanding the series of tasks involved in a particular job. This is done for selecting the right man for the right job on the basis of intelligence and aptitude for the purpose of ensuring interpersonal cooperation among the work group and cooperation for the purpose of arranging training particularly for those aspects of the tasks in which the new recruit is weak. It also helps transfer of right man to the right job which will enable fuller utilization of workers' acquired knowledge.

Job analysis is the procedure by which facts with regards to each job are closely studied for the purpose of understanding the series of tasks involved in a particular job.

Besides, job analysis techniques are quite helpful to frame a sound wage policy, and to prevent misunderstanding among the work group members. It is now, probably clear that four types of information are collected by the job analyst— (a) development of general picture of the task to be performed, (b) ascertainment of special personal requirements for each job, (c) responsibilities placed on the job holder, and (d) noting of any special working condition that distinguishes a particular job. Now we turn to the techniques that managers use to determine job elements and the concomitant knowledge, abilities and skills required for successful performance.

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5.8 Techniques and Methods of Job Analysis

The techniques that managers can use to determine job elements and the skills, knowledges and abilities necessary for successful performance include the following :

1. **Observation method** : Using this method, a job analyst observes employees on the job. While the observation method provides firsthand information, workers in many cases do not function with required efficiency when they are being observed. Thus distortions in the job analysis may occur. This method also requires that the entire range of activities be observable; possible with some jobs, but impossible for many.
2. **Individual interview method** : Under this method, job incumbents are selected and interviewed extensively. The results of these interviews are combined into a single job analysis. This method is very time-consuming but effective.
3. **Group interview method** : This method is similar to the individual interview method except that a number of job incumbents are interviewed simultaneously. Accuracy is increased in assessing jobs, but group dynamics may hinder its effectiveness.

4. **Technical conference method** : This method utilizes supervisors with extensive knowledge of the job. Here, specific characteristics of a job are obtained from the “experts.” Although a good data-gathering method, it often overlooks the incumbent worker’s perceptions about what they do on their job.
5. **Structured questionnaire method** : Using this method, employees are given a structured questionnaire on which they check or rate items they perform on their job from a long list of possible task items. This technique is excellent for gathering information about jobs. However, exceptions to a job may be overlooked, and feedback is often lacking.
6. **Diary method** : This method requires job incumbents to record their daily activities. It provides much information but is seldom applicable to job activities. The diary method is the most intrusive of the job analysis methods, requiring much work on the part of the incumbent and, accordingly, requiring much time. To capture the entire range of work activities, this method may have to continue for long periods of time—all adding to its cost.

These six methods are not meant to be viewed as mutually exclusive. No one method is universally superior. Even obtaining job information from the incumbents may create a problem, especially if these individuals describe what they feel they should be doing rather than what they actually do. The best results, then, are usually achieved with some combination of methods—with information provided by individual employees, their immediate supervisors, a professional analyst, or an unobtrusive source such as filmed observations.

5.9 Job Analysis Scenario in Bangladesh

Casual visit to public and private sector enterprises in Bangladesh shows that the subject has not attracted adequate attention for which many a times labour management relations become bitter. Our neighbour India also appear to have lacked in this respect. N.R. Chatterjee has drawn attention of the authorities to this matter because in his views, this deserves serious considerations if harmonious labour management relation is to be promoted for improving product quality and for reducing cost of production. Practising business executives also feel the same way. India has a big product market and many of the developing countries are allured by its market size.

Job cannot be analyzed unless the firm is aware of the need for job analysis, work analysis and worker analysis which are required to establish a fair wage policy. In Bangladesh, in the early seventies, many private and public sector enterprises were found to use an unsound job analysis programme.

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A company should have information about jobs that are being practised or performed in it, the number of people employed and the methods they follow. A firm should have an MIS (Management Information System) indicating names of divisions, departments and sections, the types of activities that are carried on them, the kinds of material inputs that are used and also the kind and conditions of the machines utilized in the production process. Further, the kinds of spare parts used as well as their quality as also the frequency with which machines are going out of order, should be known to the production people without delay. Every employee should have a duty chart along with an indication of his knowledge, skill, abilities and responsibilities so that production flow can proceed unhampered. Meaning of job should be clear to the worker and to his boss along with his production standard so that a worker has clear idea about where he stands in the organizational hierarchy.

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The damages and injuries can occur due to the carelessness, absent mindedness and lack of knowledge on the part of the worker and his superior. This is again a question of effectiveness of training. Justice demands that a worker should be given intensive and extensive training and his boss should have more knowledge and skill in this matter. In Bangladesh, there are instances of putting a new worker on a new job without giving him any first hand idea. There are mills both in the public and private sectors where there exist no provision for formal training and coaching of the workers. In the jute industry, a supervisor shirks his responsibility by saying that it is no part of his responsibility, let the new hand learn by observing and consulting his side-workers. An unskilled new worker may take the assistance of someone who is known to him. Sometimes an informal system works under which the new worker offers his wages of the first month as honorarium to his informal coach.

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In the textile industry of Bangladesh, as already stated, labour turnover is very high. Every morning, a group of workers assemble in the mill gate in the hope that someones remain absent and they will be taken in as substitutes. Managing this continuous inflow and outflow is really costly. Shahabuddin Ahmed, a former Chairman of Bangladesh Jute Mills Corporation, presented several conference papers drawing the attention of the administration.

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In his view, wastage of raw materials, damage of equipment and loss of quality cannot be prevented unless a well thought out training programme is drawn out and implemented. Doctoral study of Abdul Hye, Moniruzzaman and Habibullah depicted colossal loss on these accounts. Bangladesh Management Development Centre's research team tried to identify closeness of supervision received by the workers, number of workers a supervisor supervises, whether supervision is direct or indirect and what kind of assistance workers get from their supervisors, particularly when the machine goes out of order due to disorder of a minor spare part.

QUESTIONS TO ANSWER

1. (a) How would you define job analysis?
(b) Discuss the techniques for designing jobs.
 2. Elaborate the process of job analysis.
 3. Critically discuss the importance of job analysis in the context of our industries.
 4. Discuss in short the objectives of job analysis.
 5. (a) What are the methods of job analysis?
(b) Discuss in short the job analysis scenario in Bangladesh.
 6. **Short notes :**
 - a. Job specification.
 - b. Job families.
 - c. Job evaluation.
 - d. Job enlargement.
 - e. Job enrichment.
 - f. Group interview method of J.A.
 - g. Technical conference method of J.A.
 - h. Job description.
- **Indicate True or False.**
- a. An identifiable task for a specific purpose is called a job.
 - b. A position is a group of different jobs that need similar skills.
 - c. Job description is a process of gathering information about a job.
 - d. A systematic procedure to find relative worth of a job is job specification.
 - e. Job simplification may cause workers' boredom.
 - f. Job enlargement expands job variety.
 - g. Job enrichment encompasses enhanced responsibility but not greater authority.