UNIT 9 COMPETENCY APPROACHES TO JOB ANALYSIS

Objectives

After going through this unit, you will be ale to understand

l   the concept of competency and competency mapping,

l   the various methods of the competency mapping, and

l   the benefits of competency approach to job analysis.

Structure

9.1   Introduction

9.2   What is Competency Approach

9.3   How is it Used by Organisations

9.4   The Benefits of the Competency Approach

9.5   Competency Mapping

9.6   Approaches to Competency Mapping

9.7   Summary

9.8   Self-Assessment Questions

9.9   Further Readings

9.1 INTRODUCTION

We presume that you are doing this course to acquire or enhance your knowledge about the modern management concepts and techniques. This understanding should, undoubtedly, improve your skills as a manager, especially as a manager of men. You will also appreciate that an effective manager is one who is able to handle his people efficiently. In order to be a good manager of men, it will also be imperative for you to have an adequate understanding of the jobs assigned to them as also the relative job differentials in terms of their level of difficulty, responsibility, knowledge and skill.

9.2 WHAT IS COMPETENCY APPROACH?

A skill is a task or activity required for competency on the job. Competency in a skill requires knowledge, experience, attitude, and feedback. Performance assessment criteria clearly define the acceptable level of competency for each skill required to perform the job. The individual's level of competency in each skill is measured against a performance standard established by the organisation.

These competency skills are grouped according to a major function of the occupation, and are presented in a two-dimensional chart. Each skill has its own set of "learning outcomes", which must be mastered before a competency in the particular skill is acknowledged.

The competency based job analysis involves the following steps:

1. Identification of major job functions.

2. Identification of skills performed within each of the major job functions.

3. Generation of several drafts to be reviewed by employers and employees and modified to accurately reflect the skills performed on the job.

4. Development of an occupational analysis chart. The chart is a two-dimensional spreadsheet chart displaying the major job functions and skills.

5. Identification of performance standards for each skill using a competency-based rating scale which describes various levels of performance.

9.3 HOW IS IT USED BY ORGANISATIONS?

The job analysis is a foundation upon which to build a variety of human resource development initiatives. This adaptable, flexible and scalable tool has been used for the following benefits to the organisation:

1. Provide a systematic approach to planning training;

2. Customize training delivery to the individual or organisation;

3. Evaluate suitability of training programmes to promote job competence;

4. Provide employees with a detailed job description;

5. Develop job advertisements;

6. Interview and select personnel;

7. Conduct performance appraisals;

8. Target training to skills that require development;

9. Give credit for prior knowledge and experience;

10. Focus on performance improvement;

11. Promote ongoing employee performance development;

12. Identify employee readiness for promotion;

13. Guide career development of employees;

14. Develop modular training curriculum that can be clustered as needed; and

15. Develop learning programs.

9.4 THE BENEFITS OF THE COMPETENCY APPROACH

There are many different approaches to competency analysis while some competency studies take months to complete and result in vague statements that have little relevance to people in the organisation but if done well they provide the following benefit:

1. Increased productivity,

2. Improved work performance,

3. Training that is focused on organisational objectives,

4. Employees know up front what is expected of them,

5. Employees are empowered to become partners in their own performance development, and

6. The approach builds trust between employees and managers.

One of the strong points of this approach is that it requires interaction between the employer and the employee. The job analysis is a catalyst to meaningful discussion of job performance because the employer and employee have a common understanding of expectations. This is due to the explicit nature of the competency statements pertaining to the job. The fact that the employee conducts a self-appraisal of performance and the employer must confirm this assessment requires a counselling type of interaction to take place. The growth plan requires input from the employer and the employee for its development and follow-up.

9.5   COMPETENCY MAPPING

Competency approach to job analysis depends on competency mapping. Competency Mapping is a process to identify key competencies for an organisation and/or a job and incorporating those competencies throughout the various processes (i.e. job evaluation, training, recruitment) of the organisation. A competency is defined as a behaviour (i.e. communication, leadership) rather than a skill or ability. Competency is the combination of knowledge, skills, attitude and personality of an individual as applied to a role or job in context of the present or future environment that accounts for sustained success within the framework of organisational values.

The steps involved in competency mapping are presented below:

1. Conduct a job analysis by asking incumbents to complete a position information questionnaire (PIQ). This can be provided for incumbents to complete, or used as a basis for conducting one-on-one interviews using the PIQ as a guide. The primary goal is to gather from incumbents what they feel are the key behaviours necessary to perform their respective jobs.

2. Using the results of the job analysis, is developed a competency based job description. It is developed after carefully analysing the input from the represented group of incumbents and converting it to standard competencies.

3. With a competency based job description, mapping the competencies can be done. The competencies of the respective job description become factors for assessment on the performance evaluation. Using competencies will help to perform more objective evaluations based on displayed or not displayed behaviours.

4. Taking the competency mapping one step further, one can use the results of one's evaluation to identify in what competencies individuals need additional development or training. This will help in focusing on training needs required to achieve the goals of the position and company and help the employees develop toward the ultimate success of the organisation.

Activity A

Do you think that the competency approach is being followed in your organisation? If yes, then list out the benefits of competency approach to the organisation.

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Activity B

Are you aware of the competency mapping process of your organisation? If yes, identify key competencies required to fulfil the job requirements.

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9.6 APPROACHES TO COMPETENCY MAPPING

It is not easy to identify all the competencies required to fulfil the job requirements. However, a number of methods and approaches have been developed and successfully tried out. These methods have helped managers to a large extent, to identify and reinforce and/or develop these competencies both for the growth of the individual and the growth of the organisation. In the following section, some major approaches of competency mapping for job analysis have been presented.

1. Assessment Centre

Employees are not contented by just having a job. They want growth and individual development in the organisation. "Assessment Centre " is a mechanism to identify the potential for growth. It is a procedure (not location) that uses a variety of techniques to evaluate employees for manpower purpose and decisions. It was initiated by American Telephone and Telegraph Company in 1960 for line personnel being considered for promotion to supervisory positions. An essential feature of the assessment centre is the use of situational test to observe specific job behaviour. Since it is with reference to a job, elements related to the job are simulated through a variety of tests. The assessors observe the behaviour and make independent evaluation of what they have observed, which results in identifying strengths and weaknesses of the attributes being studied.

The International Personnel Management Association (IPMA) has identified the following elements, essential for a process to be considered as assessment centre.

1. A job analysis of relevant behaviour to determine attribute skills, etc. for effective job performance and what should be evaluated by assessment center.

2. Techniques used must be validated to assess the dimensions of skills and abilities.

3. Multiple assessment techniques must be used.

4. Assessment techniques must include job related simulations.

5. Multiple assessors must be used for each assessee.

6. Assessors must be thoroughly trained.

7. Behavioural observations by assessors must be classified into some meaningful and relevant categories of attributes, skills and abilities, etc.

8. Systematic procedures should be used to record observations.

9. Assessors must prepare a report.

10. All information thus generated must be integrated either by discussion or application of statistical techniques.

Assessment centre is multi-technique approach to individual assessment which focuses on individual behaviour. That is grouped under various competencies. Competencies is a group of behaviour the some total of individual's competencies is his potential. This can be classified under the following groups.

1. Intellectual competencies–Analytical ability, organisation ability, communication skills, creativity and innovativeness and decisions taking ability etc.

2. Emotional competencies–self confidence, tolerance to pressure, leadership skills etc.

3. Social competencies–inter-personal skills, team spirit, sense of responsiblity, etc.

4. Motivational competencies–Achievement drives willpower, risk taking

Data thus generated can become extremely useful in identifying employees with potential for growth. Following are some of the benefits of the assessment centre.

1. It helps in identifying early the supervisory/ managerial potential and gives sufficient lead time for training before the person occupies the new position.

2. It helps in identifying the training and development needs.

3. Assessors who are generally senior managers in the organisation find the training for assessor as a relevant experience to know their organisation a little better.

4. The assessment centre exercise provides an opportunity for the organisation to review its HRM policies.

Assessment Centre is a complex process and require investment in time. It should safeguard itself from misunderstandings and deviations in its implementation. For this, the following concerns should be ensured:

1. Assessment Centre for diagnosis are often converted as Assessment Centre for prediction of long range potential.

2. The assessors' judgement may reflect the perception of reality and not the reality itself.

3. One is not sure if the benefits outweigh the cost.

Methods in Assessment Centre

Assessment Centre comprises a number of exercises or simulations which have been designed to replicate the tasks and demands of the job. These exercises or simulations will have been designed in such a way that a candidate can undertake them both singly and together and they will be observed by assessors while they are doing the exercises.

The main types of exercises are:

a) **Group Discussions**: In these, candidates are brought together as a committee or project team with one or a number of items to make a recommendation on. Candidates may be assigned specific roles to play in the group or it may be structured in such a way that all the candidates have the same basic information.

b) **Tray**: This type of exercise is normally undertaken by candidates individually. The materials comprise a bundle of correspondence and the candidate is placed in the role of somebody, generally, who assumed a new position or replaced their predecessor at short notice and have been asked to deal with their accumulated correspondence. Generally the only evidence that the assessors have to work with are the annotations which the candidates have made on the articles of mail.

c) **Interview Simulations / Role Plays**: In these exercises candidates meet individually with a role player or resource person. Their brief is either to gather information to form a view and make a decision, or alternatively, to engage in discussion with the resource person to come to a resolution on an aspect or issue of dispute. Typically, candidates will be allowed 15 -30 minutes to prepare for such a meeting and will be given a short, general brief on the objective for the meeting. Although the assessment is made mainly on the conduct of the meeting itself, consideration are also be given to preparatory notes.

d) **Case Studies / Analysis Exercises**: In this type of exercise the candidate is presented with the task of making a decision about a particular business case. They are provided with a large amount of factual information which is generally

ambiguous and, in some cases, contradictory. Candidates generally work independently on such an exercise.

2. Critical Incidents Technique

It is difficult to define critical incident except to say that it can contribute to the growth and decay of a system. Perhaps one way to understand the concept would be to examine what it does. Despite numerous variations in procedures for gathering and analysing critical incidents researchers and practitioners agree the critical incidents technique can be described as *a set of procedures for systematically identifying behaviours that contribute to success or failure of individuals or organisations in specific situations.*

In real world of task performance, users are perhaps in the best position to recognise critical incidents caused by usability problems and design flaws in the user interface. Critical incident identification is arguably the single most important kind of information associated with task performance in usability -oriented context.

Following are the criteria for a successful use of critical incident technique.

a.   Data are centred around real critical incidents that occur during a task performance;

b.   Tasks are performed by real users;

c.   Users are located in their normal working environment;

d.   Data are captured in normal task situations, not contrived laboratory settings;

e.   Users self report their own critical incidents after they have happened;

f.   No direct interaction takes place between user and evaluator during the description of the incident(s);

g.   Quality data can be captured at low cost to the user.

Critical Incidents Technique is useful for obtaining in-depth data about a particular role or set of tasks. It is extremely useful to obtain detailed feedback on a design option. It involves the following three steps.

Step 1:Gathering facts: The methodology usually employed is an open-ended questionnaire, gathering retrospective data. The events should have happened fairly recently: the longer the time period between the events and their gathering, the greater the danger that the users may reply with imagined stereotypical responses. Interviews can also be used, but these must be handled with extreme care not to bias the user. There are two kinds of approaches to gather information:

a)   *Unstructured approach* where the individual is asked to write down two good things and two bad things that happened when one was carrying out an activity.

b)   *Moderate structured approach* where the individual is asked to respond to following questions relating to what happened when s/he was carrying out an activity.

1.   What lead up to the situation?

2.   What was done that was especially effective or non- effective?

3.   What was the result (outcome)?

Step 2: Content analysis: Subsequent steps in the CIT consist of identifying the content or themes represented by clusters of incidents and conducting "retranslation" exercises during which the analyst or other respondents sort the incidents into content dimensions or categories. These steps help to identify incidents that are judged to represent dimensions of the behaviour being considered. This can be done using a simple spreadsheet. Every item is entered as a separate incident to start with, and then

each of the incidents is compiled into categories. Category membership is marked as identical, quite similar and could be similar. This continues until each item is assigned to a category on at least a "quite similar" basis. Each category is then given a name and the number of the responses in the category are counted. These are in turn converted into percentages (of total number of responses) and a report is formulated.

Step 3:Creating feedback: It is important to consider that both positive and negative feedback be provided. The poor features should be arranged in order of frequency, using the number of responses per category. Same should be done with the good features. At this point it is necessary to go back to the software and examine the circumstances that led up to each category of critical incident. Identify what aspect of the interface was responsible for the incident. Sometimes one finds that there is not one, but several aspects of an interaction that lead to a critical incident; it is their conjunction together that makes it critical and it would be an error to focus on one salient aspect .

Some of the advantages and disadvantages of critical incident technique are presented below:

Advantages

1. Some of the human errors that are unconsciously committed can be traced and rectified by this method. For example, a case study on pilots obtained detailed factual information about pilot error experiences in reading and interpreting aircraft instruments from people not trained in the critical incident technique (i.e., eyewitness or the pilot who made the error).

2. Users with no background in software engineering or human computer interaction, and with the barest minimum of training in critical incident identification, can identify, report, and rate the severity level of their own critical incidents. This result is important because successful use of the use reported critical incident method depends on the ability of typical users to recognise and report critical incidents effectively.

Disadvantages

1. It focuses on critical incidents therefore routine incidents will not be reported. It is therefore poor as a tool for routine task analysis.

2. Respondents may still reply with stereotypes, not actual events. Using more structure in the form improves this but not always.

3. Success of the user reported critical incident method depends on the ability of typical end users to recognise and report critical incidents effectively, but there is no reason to believe that all users have this ability naturally.

3. Structured Interview Techniques

In this kind of interview what is to be asked is already structured and hence they are called structured or Patterned Interview. Data considered essential for the job are listed in a comprehensive and orderly fashion. Often the questions and the order in which they would be asked is also predetermined. The structured interview process can be described to have several characteristics.

a) It is based exclusively on job duties and requirements that are critical to job performance.

b) In some ways it is like a selection test because the responses can be oral, written, or physical.

c) Questions are predetermined and responses are rated on a point scale defined explicitly in advance.

d) Ensures objectivity by having more than one interviewer or multiple raters, who in case of wide variations in ratings should discuss them before they are finalised.

e) The consistency is important. For all applicants, it should be the same committee, same set and order of questions. The consistency is important to ensure that each applicant gets the same chances.

f) Since questions and responses are identical, inter- applicant comparisons are easy to make. It also provides a basis for defending selection decision in case some frustrated applicant decides to go to the court.

g) The patterned interview provides systematic and chronological information, which makes it easy to apply certain sophisticated statistical tests. The statistical tests help in taking into account the finer shades of variations before final decisions are taken.

Successful evaluation of certain factors leads to accurate predictions about the applicant's suitability for a job. Three such factors— basic character traits, motivation and emotional maturity, have been identified. The focus of the patterened interview is usually on these factors.

In addition, a large number of methods have been developed to measure and map competencies. Most of them are of recent origin and are designed to identify those skills, attitudes and knowledge that suits them most for specific jobs. Some of these techniques are briefly presented below:

1. *Common Metric Questionnaire (CMQ)* examines some of the competencies to work performance. It has five sections:

(1) Background,

(2) Contacts with People,

(3) Decision Making,

(4) Physical and Mechanical Activities, and

(5) Work Setting.

The background section asks 41 general questions about work requirements such as travel, seasonality, and license requirements. The Contacts with People section asks 62 questions targeting level of supervision, degree of internal and external contacts, and meeting requirements. The 80 Decision Making items in the CMQ focus on relevant occupational knowledge and skill, language and sensory requirements, and managerial and business decision making. The Physical and Mechanical Activities section contains 53 items about physical activities and equipment, machinery, and tools. Work Setting contains 47 items that focus on environmental conditions and other job characteristics. The CMQ is a relatively new instrument. It has been field tested on 4,552 positions representing over 900 occupations in the Dictionary of Occupational Titles (DOT), and yielded reasonably high reliabilities.

2. *Functional Job Analysis*- The most recent version of FJA uses seven scales to describe what workers do in jobs:

(1) Things,

(2) Data,

(3) People,

(4) Worker Instructions,

(5) Reasoning,

(6) Maths, and

(7) Language.

Each scale has several levels that are anchored with specific behavioural statements and illustrative tasks and are used to collect job information.

3. *Multipurpose Occupational System Analysis Inventory (MOSAIC)* – In this method each job analysis inventory collects data from the office of personnel management system through a variety of descriptors. Two major descriptors in each questionnaire are tasks and competencies. Tasks are rated on importance and competencies are rated on several scales including importance and requirements for performing the task. This is mostly used for US government jobs.

4. *Occupational Analysis Inventory-* It contains 617 "work elements." designed to yield more specific job information while still capturing work requirements for virtually all occupations. The major categories of items are five-fold:

1) Information Received,

2) Mental Activities,

3) Work Behaviour,

4) Work Goals, and

5) Work Context. Respondents rate each job element on one of four rating scales: part-of-job, extent, applicability, or a special scale designed for the element. Afterwards , the matching is done between competencies and work requirements.

5. *Position Analysis Questionnaire (PAQ)* is a structured job analysis instrument to measure job characteristics and relate them to human characteristics. It consists of 195 job elements that represent in a comprehensive manner the domain of human behaviour involved in work activities. These items fall into following five categories:

a. Information input (where and how the worker gets information),

b. Mental processes (reasoning and other processes that workers use),

c. Work output (physical activities and tools used on the job),

d. Relationships with other persons, and

e. Job context (the physical and social contexts of work).

6. *Work Profiling System(WPS)* is designed to help employers accomplish human resource functions. The competency approach is designed to yield reports targeted toward various human resource functions such as individual development planning, employee selection, and job description. There are three versions of the WPS tied to types of occupations: managerial, service, and technical occupations. It contains a structured questionnaire which measures ability and personality attributes .

9.7   SUMMARY

The individual's level of competency in each skill is measured against a performance standard established by the organisation. A skill is a task or activity required for competency on the job. Competency in a skill requires knowledge, experience, attitude and feedback. Competency approach to job analysis depends on competency mapping. Competency mapping is a process to identify key competencies for an organisation. There are different methods and approaches to competency mapping, these methods have helped managers to a large extent, to identify and reinforce and develop these competencies both for the growth of the individual and the growth of the organisation.

9.8   SELF-ASSESSMENT QUESTIONS

1. Explain the concept of competency and competency approach to job analysis.

2. Describe the various methods of the competency mapping.

3. Explain the major benefits of competency approach to job analysis.

9.9   FURTHER READINGS

Saiyadain, M.S.(2003). *Human Resource Management*. New Delhi: Tata McGraw Hill.

Sanghi, S.(2004). The Handbook of Competency Mapping. New Delhi: Sage Publications.