
IENG 450

INDUSTRIAL MANAGEMENT

CHAPTER 6

SOME HUMAN ASPECT OF ORGANIZING

Outline

- **First Section - Staffing Technical Organizations**
 - Type and number of people needed (next 6 months – a year)
 - Personnel selection
 - Resumes (Curriculum Vitae – cv)
 - Cover letters
 - Employment application
 - Interviews
 - Reference checks
 - Plant visits
 - Job offer
 - Orienting and training new employee
 - Appraising performance
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Outline

- Second Section
 - The nature of authority
 - The sources of authority
 - Power
 - Assignment, delegation and accountability
 - Committees and meetings

1. Staffing Technical Organizations

- The management function of *staffing* involves finding, attracting and keeping personnel of quality and quantity needed to meet the organization's goals.
- Effective staffing:
 - Identifying nature and number of people needed,
 - Planning how to get them,
 - Selecting the best applicants,
 - Orienting and training them,
 - Evaluating their performance, and
 - Providing adequate compensation.

Human Resource Planning

- Hiring Technical Professionals
 1. Document the number of technical personnel of each classification presently on hand.
 2. Estimate the number of professionals of each type needed in the near future (6 months-1 year).
 3. Estimate the expected attrition (reduction) in the current staff
 - Resignations,
 - Transfers,
 - Retirements, deaths and leaves of absence.
 4. Establish the need for increased personnel as
$$\text{increase (4)} = \text{need (2)} - \text{personnel on hand (1)} + \text{attrition (3)}$$
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Human Resource Planning

- Hiring Technical Professionals
 5. Schedule interviews 10 new engineering graduates in three interview days.
 6. Develop a hiring plan to acquire experienced personnel by using national and local hiring, employment agencies and hedhunters, career centers and employee referrals.
 7. Develop a plan to acquire needed technicians and technologists from two- and four-year technical institutes.
 8. Needs cannot be met by above resources can be met by
 - Scheduling overtime,
 - Hiring contract (temporary) engineers,
 - Borrowing engineers from other company divisions,
 - Contracting work to other company divisions or companies.
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Human Resource Planning

■ Hiring Managers

- A similar plan must be developed for staffing management positions.
- A healthy organization will have a large annual requirement for first-line supervisors, many of whom will be promoted within the company from experienced employees.
- Most middle and upper management positions should be filled by promotion, although a few new hires will be needed where organization does not already have someone with the right skills.

■ Job Requisition/Description

- A manager wishing to fill a professional position must fill out a form known variously as a job description or job requisition
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Selection

■ Résumé

- ❑ Name, address and telephone number(s).
- ❑ Current job position and/or status.
- ❑ Current and long-term employment objectives.
- ❑ Summary of education (formal degrees and continuing education).
- ❑ Employment experience, with the most recent employment first.
- ❑ Publications, significant presentations and patents.
- ❑ Significant honors and awards.
- ❑ Professional affiliations.
- ❑ A list of references (who agreed to serve).

Selection

■ Cover Letter

- ❑ Should be addressed to the appropriate individual by name, not “Personnel Director” or “To Whom it May Concern”.
- ❑ The letter begins by identifying the position or type of work you are applying for and where you heard of the opening.
- ❑ A second paragraph state why that company and position interest you and describe concisely (a sentence or two) the education, experience and other abilities that you have prepared you for the position.
- ❑ A closing paragraph can refer to the attached résumé, thank the recipient for his or her consideration of it.

Selection

- Employment Application
 - If the resume leads to further interest from a potential employer, the applicant will typically have to fill out much of the same information on an employment application.
 - The application will normally not ask for race, religion, citizenship or national origin, height, weight, age or date of birth, marital status, etc.. but the applicant may choose to include some of these in his/her resume.

Selection

■ Interview

- ❑ The interviewer needs to learn enough about the applicant to recommend for or against an invitation for a plant visit.
- ❑ The applicant needs to learn about the employment opportunities and other advantages (and limitations) of working for the employer.
- ❑ The applicant is well advised to read the potential employer's placement brochure in advance, and also to learn more about the company from several resources (company's web site, friends, company employees, etc...).

Selection

- Reference (background) Checks
 - References for the
 - New graduates include professors and supervisors from part-time job,
 - Experienced engineers will be primarily past and current supervisors and co-workers.
 - References may be checked by mail, e-mail or telephone. Mail/e-mail reference checks are cheaper and normally they involve completion of a form.

Selection

■ Site (Plant) Visit

- ❑ When a company has a strong interest in an engineer or other professionals, it may extend an invitation for a visit to a chosen company location at company expense.
- ❑ The applicant should be interviewed by three or four people on the staff, including one or more supervisors with open position(s) for whom the candidate is being considered, and at least part of the visit should involve a tour of the area in which the candidate might work.
- ❑ The candidate's reaction to the work observed and the type of questions asked give insight into his/her interest and suitability for the position.
- ❑ At the same time, the candidate can gain insight into the work being done and judge from work observed and answers to his/her questions whether that might be the right assignment.

Selection

■ Starting Salary

- ❑ If an employer is interested in an applicant, sooner or later he/she will ask “What salary do you expect?”.
- ❑ Often this will occur toward the end of a site visit and the applicant should be prepared.
- ❑ It is important to study surveys, talk to colleagues, contact professional associations in your field and do an Internet search of wage structures.
- ❑ A candidate who replies “Whatever is your going rate.” will probably be offered the bottom of the range.

Selection

■ Job Offer

- ❑ The employment offer is a standard format letter delineating a specific position and salary offer, reporting date, position and title, the person the candidate will report to, and often provisions for moving expenses.
- ❑ An offer for the employment is not official until this letter is received.
- ❑ The candidate should acknowledge the offer immediately.

Orientation and Training

- When a new employee reports to work, the employing organization needs to help the newcomer become a part of the organization by introducing him/her to the policies and values of the organization as a whole and the specific requirements of the person's new department and jobs.
- The personnel department normally has the responsibility to tell the newcomer about fringe benefits such as medical insurance, vacations, tuition reimbursement, pensions, etc...
- This can be accomplished with a short one-on-one discussion on the first day as the new employee processes through personnel or a more formal presentation periodically for all new employees; in either case, most organizations of any size will provide every employee a current edition of an employee's handbook describing benefit programs.

Appraising Performance

- According to member survey of American Management Association employee performance appraisal is used for the following reasons:
 - 86% - determining compensation (pay and bonuses),
 - 65% - counseling,
 - 64% - to assist training and development,
 - 45% - promotion,
 - 43% - staff planning, and
 - 39% - staff planning.
 - A written record of performance in some consistent form is important in large organizations where personnel are frequently transferred (e.g. Military).
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Appraising Performance

- Oldest and most common technique of performance appraisal: *Rating Scale*
 - An employee is given a rating by checking one of five or more level-of-performance boxes for each of a series of attributes.
 - Five steps from “Outstanding” to “Inadequate”:
 - Knowledge of the work,
 - Quality of the work,
 - Quantity of the work,
 - Attendance and punctuality,
 - Carrying out instructions, and
 - Overall appraisal.
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2. Authority and Power

- Once the organizations have been properly staffed, next is to include the nature of authority and power and their effective delegation.

Nature of Authority

■ Formal Authority

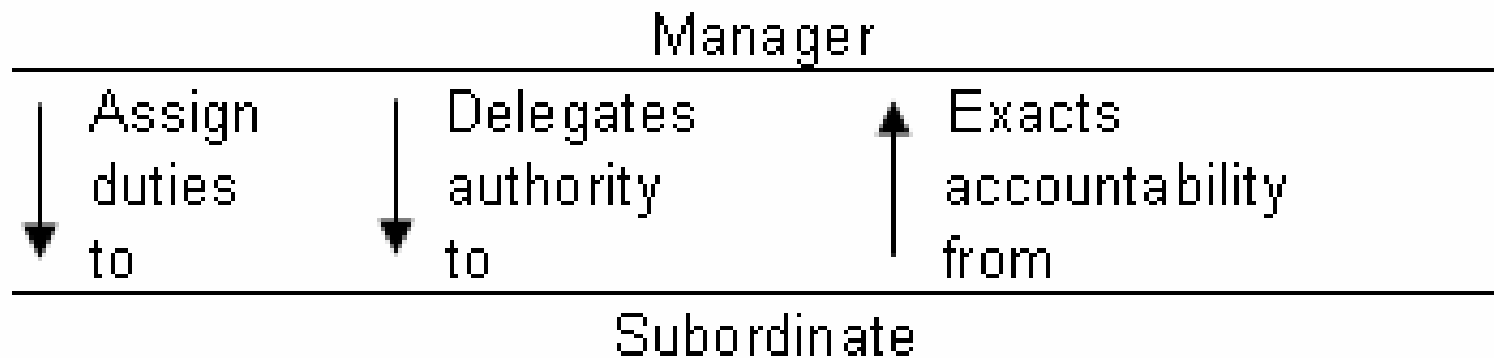
- The traditional view of authority is the right to direct the work activities of subordinates.
- Formal authority in corporations:
 - Individuals invest their assets in corporate stock and elect a board of directors, delegating to them the right to manage their invested assets.
 - The board, in turn, elects the executive officers of the corporation and they appoint subordinate managers, delegating authority to appoint lower-level managers.

Sources of Power

1. Legitimate or position power
 - One's appointment or election as leader.
2. Reward power
 - The power to reward others for cooperation.
3. Coercive or punishment power
 - Fear of punishment.
4. Expert power
 - A person's capability and reputation.
5. Referent power (*Charisma*)
 - An attraction or identification with another individual that makes the follower want to behave or believe as the other does.

Delegation

- Assignment, Delegation and Accountability



Assignment, Delegation and Accountability

■ Assignment

- Managers use their authority to assign duties to subordinates, making them *responsible for* carrying out specified activities.

■ Delegation of authority

- Once a subordinate has been assigned tasks to perform it, it is important to provide him/her with the resources needed to carry out the assignment.

■ Accountability

- The manager must exact (insist or acquire) accountability from the subordinate by making the subordinate responsible to the manager for carrying out the duties and reporting progress periodically.

Committees and Meetings

- A committee is created when two or more people are officially designated to meet to pursue some specific purpose.
 - Milton Berle: “The committee is a group of men who keep minutes and waste hours”.
 - A camel is derisively described as “a horse designed by a committee.” but there are transportation problems a camel can solve that a horse cannot.
- Committees may be found in every type of organization: large and small, public and private, profit-making, governmental, and volunteer.

Reasons for Using Committees

- Committees provide some definite advantages over actions by single individuals.
- 1. Policy Making and Administration
 - The highest level in most organizations is a policy-making committee, which may be called the board of directors, city council, or some other name. such a groups typically meets monthly or quarterly.
- 2. Representation
 - Organizations have many committees composed of representatives selected from each organizational unit affected by a particular class of problems (e.g. Academic senate, graduate council, etc...)
- 3. Sharing Knowledge and Expertise
 - Engineers meet many situations where no one has the knowledge necessary to solve a complex problem. Participation of reliability, quality and safety assure production of a complex new system.

Reasons for Using Committees

4. Securing Cooperation in Execution

- Japanese companies are famous for the extended meetings used to achieve consensus; once consensus is achieved, implementation may be very rapid and trouble free.
- The American model values decisive decision making, but the speed is often at the expense of a lack of cooperation.

5. Pooling of Authority

- Sometimes no one has been delegated the necessary authority to solve a problem. A committee of people who collectively have authority over the resources needed to solve a problem.

6. Training of Participants

- Developing personnel for greater management responsibility should be coconscious activity of all managers.

Problems with Committees

- The tendency to produce compromise solutions.
- Inability to hold any one person responsible (accountable) for the committee decision.
- The delay experienced in resolution of a problem by a committee, where quick action is needed.

Making Committees Effective

- **Committee Purpose and Chair**
 - The first step in making a committee effective is careful definition of the purpose the committee is to serve, its authority and its expected life span.

- **Committee Size and Membership**
 - The typical committee has relatively few members. According to a research; average membership of eight, the ideal committee size was identified as 4.6 members.

Making Committees Effective

- Preparation for the Meeting
 - Preparation is largely the responsibility of the committee chairman.
 - S/He should publish the date and time of the meeting well in advance so that those attending can put it on their calendars.
 - The agenda for the meeting should be handed a few days to a week before the meeting.

- Conduct of the Meeting
 - Every group leader has two types of functions
 - task functions – to get the work done,
 - group relations functions – to maintain constructive relations among the members to facilitate attaining group objectives.

Making Committees Effective

- Meeting Follow-up
 - The chairman should assure that concise, readable *minutes* of the meeting are supplied to all attendees and other interested persons, preferably the day after the meeting.