1. **Project Human Resource Management**

**Week 9 Topics**

* Importance of human resource management
* Definition
* Keys to managing people
* Human resource planning
* Acquiring project team
* Developing project team
* Managing project team.

**Objectives:**

After reading this chapter, you will be able to:

1. Explain the Importance of good human resource on projects.
2. Define project human resource management understand its processes.
3. Summarize key concepts for managing people by understanding the various theories
4. Discuss human resource planning and be able to create a project organizational chart, responsibility assignment, resource loading and resource leveling.
5. Assist in team development with training, team-building activities and reward systems
6. Explain and apply several tools and techniques to help manage a project team and summarize general advice on managing team.
7. Describe how project management software can assist in project human resource management.

**Introduction**

The most important asset of any project is the human resources. Project managers should be able to identify and recruit the required human resources for the project. This chapter is designed to provide an overview of human recourses management of a project.

**Importance of Human resource Management**

Many corporate executives have said, "People are our most important asset."

People determine the success and failure of organizations and projects. Most project managers agree that managing human resources effectively is one of the toughest challenges they face. Project human resource management is a vital component of project management, especially in the information technology field-in which qualified people are often hard to find and keep. It is important to understand the current state of human resource management in the information technology industry and its implications for the future.

**What is Human resource Management?**

Project human resource-management includes the processes required to make the most effective use of the people involved with a project. Human resource management includes all project stakeholders: sponsors, customers, project team members, support staff, suppliers supporting the project, and so on.

Human resource management includes the following four processes:

* **Human resource planning** involves identifying and documenting project roles, responsibilities, and reporting relationships. Key outputs of this process include roles and responsibilities, an organizational chart for the project, and a staffing management plan.
* **Acquiring the project team** involves getting the needed personnel assigned to and working on the project. Key outputs of this process are project staff assignments, resource availability information, and updates to the staffing management plan.
* **Developing the project team** involves building individual and group skills to enhance project performance. Team-building skills are often a challenge for many project managers. The main output of this process is assessing team performance.
* **Managing the project team** involves tracking team member performance, motivating team members, providing timely feedback, resolving issues and conflicts, and coordinating changes to help enhance project performance. Outputs of this process include requested changes, recommended corrective and preventive actions, updates to organizational process assets, and updates to the project management plan.

**Keys to Managing People**

Industrial-organizational psychologists and management theorists have devoted much research and thought to the field of managing people at work. Psychosocial issues that affect how people work and how well they work include motivation, influence and power, and effectiveness. This section will review Abraham Maslow's, Frederick Herzberg's, David McClelland's, and Douglas McGregor's contributions to an understanding of motivation; H. J. Tharnhain's and D. 1. Wilemon's work on influencing workers and reducing conflict; the effect of power on project teams; and Stephen Covey's work on how people and teams can become more effective. Finally, you will look at some implications and recommendations for project managers.

**Motivational Theories**

Psychologists, managers, coworkers, teachers, parents, and most people in general still struggle to understand what motivates people, or, why they do what they do. Intrinsic motivation causes people to participate in an activity for their own enjoyment. For example, some people love to read, write, or play an instrument because it makes them feel good. Extrinsic motivation causes people to do something for a reward or to avoid a penalty. For example, some young children would prefer *not* to play an instrument, but they do because they receive a reward or avoid a punishment for doing so. Why do some people require no external motivation whatsoever to produce high-quality work while others require significant external motivation to perform routine tasks? Why can't you get someone who is extremely productive at work to do simple tasks at home? Humankind will continue to try to answer these types of questions or live with other people to understand themselves and others.

**Maslow's Hierarchy of Needs**

Figure shows the basic pyramid structure of Maslow’s hierarchy of **needs**, which states that people’s behaviors are guided by a sequence of needs. At the bottom of the hierarchy are physiological needs. Once physiological needs are satisfied, safety needs guide behavior. Once safety needs are satisfied, social needs come to the forefront so on up the hierarchy.

The order of these needs and their relative sizes in the pyramid are significant. Maslow suggests that each level of the hierarchy prerequisite for the levels above. For, it is not possible consider self actualization if he or she not addressed basic needs like security and safety.



The bottom four needs in Maslow's hierarchy-physiological, safety, social, and esteem needs-are referred to as deficiency needs, and the highest level, self-actualization, is considered a growth need. Only after meeting deficiency needs can individuals act upon growth needs. Self-actualized people are problem-focused, have an appreciation for life, are concerned about personal growth, and have the ability to have peak experiences.

Most people working on an information technology project will probably have their basic physiological and safety needs met. If someone has a sudden medical emergency or is laid off from work, however, physiological and safety needs will move to the forefront. To motivate project team members, the project manager needs to understand each person's motivation, especially with regard to social, esteem, and self-actualization or growth needs.

Maslow's hierarchy conveys a message of hope and growth. People can work to control their own destinies and naturally strive to achieve higher and higher needs. Successful project managers know they must focus on meeting project goals, but they also know that they must understand team members' personal goals and needs to provide appropriate motivation and maximize team performance.

**Herzberg's Motivation-Hygiene Theory**

Frederick Herzberg is best known for distinguishing between motivational factors and hygiene factors when considering motivation in work settings. He called factors that cause job satisfaction motivators and factors that cause dissatisfaction hygiene factors. The term hygiene" is used in the sense that these factors are considered maintenance factors that are necessary to avoid dissatisfaction but, by themselves, they do not provide satisfaction.

According to Herzberg, these hygiene factors would cause dissatisfaction if not present, but would not motivate workers to do more if present. Herzberg found that people were motivated to work mostly by feelings of personal achievement and recognition. Motivators, Herzberg concluded, included achievement, recognition, the work itself, responsibility, advancement, and growth.

In his books and articles, Herzberg explained why attempts to use positive factors such as reducing time spent at work, upward spiraling wages, offering fringe benefits, proving human relations and sensitivity training and so on did not instill motivation. He argued that people want to actualize themselves. They need stimuli for their growth and advancement needs, in accordance with Maslow’s hierarchy of needs. Factors such as achievement, recognition, advancement and growth produce job satisfaction and are work motivators.

**McClelland's Acquired-Needs Theory**

David McClelland proposed that an individual's specific needs are acquired or learned over time and shaped by life experiences. The main categories of acquired needs include achievement, affiliation, and power. Normally one or two of these needs will be dominant in individuals.

* + Achievement: People With a high need for achievement (nAch) seek to excel and tend to avoid both low-risk and high-risk situations to improve their chances for achieving something worthwhile. Achievers need regular feedback and often prefer to work alone or with other high achievers.

Managers should give high achievers performance feedback, and although money is not an important motivator to them, it is an effective form need of affiliation goals.

* + Affiliation: People with a high need for affiliation (nAff) desire harmonious relationships with other people and need to feel accepted by others. They tend to conform to the norms of their work group and prefer work that involves significant personal interaction. Managers should try to create a cooperative work environment to meet the needs of people with a high need for affiliation.
  + Power: People with a need for power (npow) personal power want to direct others and can be seen as bossy. People who need institutional power or social power want to organize others to further the goals of the organization. Management should provide those seeking institutional or social power with the opportunity to manage others, emphasizing the importance of meeting organizational goals.

**McGregor's Theory X and Theory Y**

Douglas McGregor was one of the great popularizers of human relations approach to management, and he is best known for developing Theory X and Theory Y. In his research, documented in his 1960 book *The Human Side of*

*Enterprise,* McGregor found that although many managers spouted the right ideas, they actually followed a set of assumptions about worker motivation that he called Theory X (sometimes referred to as classical systems theory). People who believe in Theory X assume that workers dislike and avoid work if possible, so managers must use coercion, threats, and various Control schemes to get workers to make adequate efforts to meet objectives. They assume that the average worker wants to be directed and prefers to avoid responsibility, has little ambition, and wants security above all else. Research seemed to demonstrate clearly that these assumptions were not valid. McGregor suggested a different series of assumptions about human behavior that he called Theory Y (sometimes referred to as human relations theory). Managers who believe in Theory Y assume that individuals do not inherently dislike work, but consider it as natural as play or rest. The most significant rewards are the satisfaction of esteem and self-actualization needs, as described by Maslow. McGregor urged managers to motivate people based on these more valid Theory Y notions.

**Project Organization Charts**

Recall that the nature of information technology projects often means that project team members come from different backgrounds and possess a wide variety of skill sets. It can be very difficult to manage such a diverse group of people, so it is important to provide a clear organizational structure for a project.

After identifying important skills and the types of people needed to staff a project, the project manager should work with top management and project team members to create an organizational chart for the project.

**Acquiring the Project Team**

During the late 1990s, the information technology Job market became extremely competitive. It was a seller’s market with corporations competing fiercely for a shrinking pool of qualified professionals. In the early 2000s, the market declined tremendously, so employers could be very selective in recruiting. Regardless of the current job market, acquiring qualified Information technology professionals is critical.

**Resource Assignment**

After developing a staffing management Plan project managers must work with other people in their organizations *assi*gn particular personnel to their projects or to acquire additional human resources needed to staff the project. Project managers with strong influencing and negotiating skills are often good at getting internal people to work on their projects. However, the organization must ensure that people are assigned to the projects that best fit their skills and the needs of the organization. The main outputs of this process are project staff assignments, resource availability information, and updates to the staffing management plan. Many project teams also find it useful to create a project team directory.

Organizations that do a good job of staff acquisition have good staffing plans.

These plans describe the number and type of people who are currently in the organization and the number and type of people anticipated to be needed for the project based on current and upcoming activities. An important component of staffing plans is maintaining a complete and accurate inventory of employees' skills. If there is a mismatch between the current mix of people's skills and needs of the organization, it is the project manager's job to work with top management, human resource managers, and other people in the organization to address staffing and training needs.

It is also important to have good procedures in place for hiring subcontractors and recruiting new employees. Since the Human Resource department is normally responsible for hiring people, project managers must work with their human resource managers to address any problems in recruiting appropriate people. It is also a priority to address retention issues, especially for information technology professionals.

**Resource Loading**

One of the problems or dangers inherent in scheduling processes is that they often do not address the issues of resource utilization and availability. (Hence the development of critical chain scheduling). Schedules tend to focus primarily on time rather than on both time and resources, which includes people. An important measure of a project manager's success is how well he or she balances the trade-offs among performance, time, and cost. During a period of crisis, it is occasionally possible to add additional resources-such as additional staff-to a project at little or no cost. Most of the time, however, resolving performance, time, and cost tradeoffs entail additional costs to the organization. The project manager's goal must be to achieve project success without increasing the costs or time required to complete the project. The key to accomplishing this goal is effectively managing human resources on the project.

Once people are assigned to projects, there are two techniques available to project managers that help them use project staff most effectively: resource loading and resource leveling. **Resource loading** refers to the amount of individual resources an existing schedule requires during specific time periods.

Resource loading helps project managers develop a general understanding of the demands a project will make on the organization’s resources, as well as on individual people's schedules. Project managers often use histograms to depict period by period variations in resource loading.

Histogram is helpful in determining staffing needs or in identifying staffing problems.

**Resource leveling**

Resource leveling is a technique for resolving resource conflicts by delaying tasks. It is a form of network analysis in which resource management concerns drive scheduling decisions (start and finish dates). The main purpose of resource leveling is to create a smoother distribution of resource usage. Project managers examine the network diagram for areas of slack or float, and to identify resource conflicts. For example, you can sometimes remove over allocations by delaying noncritical tasks, which does not result in an overall schedule delay. Other times you will need to delay the project completion date to reduce or remove over allocations.

**Developing the Project Team**

Even if a project manager has successfully recruited enough skilled people to work on a project, he or she must ensure that people can work together as a team to achieve project goals. Many information technology projects have had very talented individuals working on them. However, it takes teamwork to complete most projects successfully. The main goal of **team development** is to help people work together more effectively to improve project performance.

The **Tuckman model** describes five stages of team development:

* 1. *Forming* involves the introduction of team members, either at the initiation of the team, or as new members are introduced. This stage is necessary, but little work is actually achieved.
  2. *Storming* occurs as team members have different opinions as to how the team should operate people test each other, and there is often conflict within the team.
  3. *Norming* is achieved when team members have developed a common working method, and cooperation and collaboration replace mistrust of the previous phase.
  4. *Performing* occurs when the emphasis is on reaching the team goals, rather than working on team process. Relationships are settled and team members are *likely* to build loyalty towards each other. At this stage, the team is able to manage tasks that are complex and cope with greater changes.
  5. *Adjourning* involve the break-up of the team after they successfully reach their goals and complete the work.

**Training**

Project managers often recommend that people take specific training courses to improve individual team development.

It is very important to provide training in a just –in –time fashion.

Many organizations provide e-learning opportunities for their employees so they learn specific skills at any time and any place. They have also found e-learning to sometimes be more cost-effective than traditional instructor-led training courses. It is important to make sure that the timing and delivery method for the training is appropriate for specific situations and individuals.

Organizations have also found that it is often more economical to train current employees in particular areas than it is to hire new people who already posses those skills.

Several organizations that have successfully implemented Six Sigma principles have taken a unique and effective approach to training. They only let high-potential employees attend Six Sigma Black Belt training, which is a substantial investment in terms of time and money.

**Team-Building Activities**

Many organizations provide in-house team-building training activities, and many also use specialized services provided by external companies that specialize in this area. Two common approaches to team-building activities include using physical challenges and Psychological preference indicator tools.

Several organizations have teams of people go through certain physically challenging activities to help them develop as a team. Military 'basic training or boot camps provide one example.

Even more organizations have teams participate in mental team-building activities in which they learn about themselves, each other, and how to work as a group most effectively. It is important for people to understand and value each other's differences in order to work effectively as a team. Two common exercises used in mental team building include the Myers-Briggs Type Indicator and the Wilson Learning Social Styles Profile.

The **Myers-Briggs Type Indicator (MBTI)** is a popular tool for determining personality preferences. The four dimensions of psychological type in MBTI include:

* Extrovert/Introvert (E/I): This first dimension determines if you are extroverted or introverted. It signifies whether people draw energy from other people (extroverts) or from inside them (introverts).
* Sensation/Intuition *(S/N):* This second dimension relates to the manner in which you gather information. Sensation or sensing type people take in facts, details, and describe themselves as practical. Intuitive type people are imaginative, ingenious and attentive to intuition. They describe themselves as innovative and conceptual.
* Thinking/Feeling (T/F): This third dimension represents thinking judgment and feeling judgment. Thinking judgment is objective and logical and feeling judgment is subjective and personal.
* Judgment/perception (J/P): This fourth dimension concerns people’s attitude towards structure. Judgment type people like closure and task completion. Perceiving types prefer to keep to things open and flexible.

**Reward and Recognition Systems**

Another important tool for promoting team development is the use of team based reward and recognition systems. If management teamwork, they will promote or reinforce people to work more effectively in teams. Some organizations offer bonuses, trips or other rewards to workers who meet or exceed company or project goals.

**Managing the Project Team**

In addition to developing the project team, the project manager must lead them in performing, various project activities. After assessing team performance and related information project manager must decide if changes should be requested to the project, if corrective or preventive actions should be recommended.

**Toolsand Techniques for Managing Project Teams**

There are several tools and techniques available to assist in managing project teams:

* + Observation and conversation: most project managers practice management by walking around to see and hear from project members at work.
  + Project performance appraisals: Even if a project manager does not provide official project performance appraisals for team members, it is still important to provide timely performance feedback. If a team member hands in sloppy or late work, the project manager should determine the reason for this behavior and take appropriate action.
  + Conflict management: Few projects are completed without any conflicts. Some types of conflict are actually desirable on projects, but many are not. It's important for project managers to understand strategies for handling conflicts and to proactively manage conflict.
  + Issue logs: Many project managers keep an **issue log** to document, monitor, and track issues that need to be resolved for the project team to work effectively. Issues could include items where people have differences of opinion, situations that need more clarification or investigation, or general concerns that need to be addressed. It is important to acknowledge issues that can hurt team performance and take action to resolve them. The project manager should assign someone to resolve each issue and assign a target date for resolution.

**General rules of managing teams**

Effective project managers must be good team leaders. Suggestions for ensuring that teams are productive include the following:

* Be patient and kind with your team. Assume the best about people; do not assume that your team members are lazy and careless,
* Fix the problem instead of blaming people. Help people work out problems by focusing on behaviors.
* Establish regular, effective meetings. Focus on meeting project objectives and producing positive results.
* Allow time for teams to go through the basic team-building stages of forming, storming, norming, performing, and adjourning. Don't expect teams to work at the highest performance level right away.
* Limit the size of work teams to three to seven members.
* Plan some social activities to help project team members and other stakeholders get to know each other better, Make the social events fun and not mandatory.
* Stress team identity, Create traditions that team members enjoy.
* Nurture team members and encourage them to help each other. Identify and provide training that will help individuals and the team as a whole become more effective.
* Acknowledge individual and group accomplishments.
* Take additional actions to work with virtual team members. If possible, have a face-to-face or phone meeting at the start of a Virtual project or when introducing a virtual team member. Screen people carefully to make Sure they can work effectively in a virtual environment. Clarify how virtual team members will communicate.

**Discussion Questions**

1. Discuss the changes in the Job market for information technology workers. How does the job market and current state of the economy affect human resource management?
2. Summarize the processes involved in project human resource management.
3. Briefly summarize the works of Maslow,Herzberg, McClelland, and McGregor. How do their theories relate to project management?
4. Describe situations where it would be appropriate to create a project organizational chart, a responsibility assignment matrix, a RACI chart and a resource histogram. Describe how these charts or matrix look like.
5. Discuss the difference between resource loading and resource leveling, and provide an example of when you would use each technique.
6. Explain two types of team-building activities.
7. Summarize different tools and techniques project managers can use to help them manage project team. What can they do to manage virtual team members?
8. How can you use Project 2003 to assist in project human resource management?