must be related to specific qualities detailed in the job holder profile. Interviews are the most commonly used method. It is better if there is more than one interview session with an applicant and with each session there should not be more than two interviewers because a greater number reduces the possibility of follow-up questions and discussion. Some formal scoring system for the qualities being judged should be devised and interviewers should then decide scores individually which are then compared. An interview should be of a technical nature where the practical expertise of the candidate is assessed, or of a more general nature if not. In the latter case, a major part of the interview will in fact be evaluating and confirming what was stated in the CV - for example any time gaps in the education and employment history would be investigated, and the precise nature of jobs previously done would need to be explored.

Instruction in the best Methods:

This is the second concern that we have taken from Taylor. Obviously, there is a difference between loading pig iron (one of Taylor's studies) and writing C programs, but the principle of having established methods and procedures is, we hope, as well understood in software development as in steel-making.

When a new member of the team is recruited, the team leader w ill need to plan that person's induction into the team very carefully. Where a project is already well under way, this might not be easy. However, the effort should be made - it should pay off eventually as the new recruit w ill become a fully effective member of the team more quickly.

The team leader should also be aware of the need to assess continually the training needs of their team members. Just as you formulate a user requirement before considering a new system, and you construct a job holder profile before recruiting a member of staff, so a training needs profile is draw n up for each staff member before you consider specific courses. Some training can be provided by commercial training companies. Where money is tight, other sources of training should be considered but training should not be abandoned altogether even if it consists only of a team member's being told to find out about a new software tool and then demonstrating it to colleagues. Of course the nice thing about external courses is that one gets to talk to colleagues from other organizations - but attending meetings of your local branch of one of the IS/IT professional associations can serve the same purpose.

The methods leamt need, of course, to be actually applied. Reviews and inspections should help to ensure this.

Motivation:

The third concern that we noted from Taylor was that of motivating people to work. We are now going to look at some different models of motivation that have been proposed.

The Taylorist model

Taylor's viewpoint is reflected in the use of piece-rates in manufacturing industries and sales bonuses amongst sales forces. A problem that project leaders must be aware of is that piece-rates often cause difficulties if a new system is going to change work practices. If new technology is going to improve productivity, the question of adjusting piece-rates downwards to reflect this will be a sensitive issue.

Piece-rates are where workers are paid a fixed sum for each item they produce. Day-rates refer to payment for time worked.

Group norms are discussed further under group decision making.

Quoted by Wanda J. Orlikowski in 'Evolving with Notes: Organizational change around groupware technology' in Groupware & Teamwork, edited by Claudio U. Ciborra, Wiley and Sons, 1996.

Exercise 11.2

Usually, radical changes in work practices have to be preceded by a move from piece-rates to day-rates.

Even where work practices are stable and output can be easily related to reward, people paid by the amount they produce will not automatically maximize their output in order to maximize their income. The amount of output will often by constrained by 'group norms', informal, even unspoken, agreements among colleagues about the amount to be produced.

Rewards have to be related in a simple and direct way to the work produced. Where a computer system is being produced, this is not easy. It is difficult to isolate and quantify work done, especially as system development and support is very much a team effort. Typical is the sentiment expressed by one member of staff in a study of software support work practices:

'This support department does well because we're a team, not because we're all individuals. / think it's the only way the support team can work successfully.'

In this kind of environment, a reward system that makes excessive distinctions between co-workers can be damaging to morale and eventually to productivity.

A software development department wants to improve productivity by encouraging the re-use of existing software components. It has been suggested that this could be encouraged through financial rewards. To what extent do you think this could be done?

Maslow's hierarchy of needs

Different people are motivated by different things. Clearly money is a very strong motivator when you are broke. However, as the basic need for cash is satisfied, other motivators are likely to emerge. Abraham Maslow, an American psychologist, suggested that there is a hierarchy of needs. As lower levels of needs are satisfied then gradually higher level needs emerge. If these are then satisfied then yet another level of need will emerge. Basic needs are for things like food and shelter. The highest level need, according to Maslow, is the need for 'self-actualization', the feeling that you are completely fulfilling your potential.

In practice, the project leader must realise that people are likely to be motivated by different things at different stages of their life. For example, salary increases, while always welcome, probably have less of an impact on the more mature employee who is already relatively well-paid, than on a new and lowly-paid trainee. Older team-members might place more value on qualities of the job such as being allowed relative autonomy when they do their work, which shows respect for their judgment and sense of responsibility.

Exercise 11.3

Newspapers often report on the vast sums of money that are paid to the top executives of many companies. Does this mean that these people are at a low level in the Maslow hierarchy of motivation? Do they really need all this money to be motivated? What do you think that the significance of these salaries really is?

Herzberg's two-factor theory

Certain things about a job might make you dissatisfied. If the causes of this dissatisfaction are removed, this does not necessarily make the job more exciting. On the basis of research into job satisfaction that Herzberg and his associates carried out there seemed to be two sets of factors about a job that were of importance:

• hygiene or maintenance factors, which can make you dissatisfied if they are not right, for example, the level of pay or the working conditions;

• motivators, which make you feel that the job is worthwhile, like a sense of achievement or the nature of the work itself.

Brigette, at Brightmouth College, is in an environment where it is difficult to compete with the high level of maintenance factors that can be provided by a large organization like IOE,

but the smaller organization with its closer contact with the users is often able to provide better motivators.

Identify three incidents or times when you felt particularly pleased or happy about Exercise 11.4 something to do with your work or study. Identify three occasions when you were particularly dissatisfied with your work or study. Compare your findings with those of your colleagues and try to identify any patterns.

The expectancy theory of motivation

Amanda and Brigette will need to be aware of how the day-to-day ups and downs of system development affect motivation. A model of motivation developed by Vroom and his colleagues illustrates this. It identifies three influences on motivation:

• expectancy, the belief that working harder will lead to a better performance;

• instrumentality, the belief that better performance will be rewarded;

• perceived value, of the resulting reward.

Motivation will be high when all three factors are high. A zero level for any one of the factors can lead to a lack of motivation.

Imagine that you are trying to get a software package supplied by a third party to work. If you realize that you will never get it to work because of a bug in it, you will give up. No matter how hard you work you will not be able to do any better (zero expectancy).

If you are working on a package for a user and, although you think you can get it to work, you discover that the user has started employing an alternative package and no longer needs this one, then you will probably feel you are wasting your time and give up (zero instrumentality).

Given that the users really do want the package, your reward in this set of circumstances might simply be a warm feeling that you have helped your colleagues and that they are grateful to you. If in fact, when the users employ the package all they do is complain and hold you responsible for any shortcomings, then you will probably avoid getting involved if they later ask for help implementing a different package (low perceived value of reward).

The Oldham-Hackman job characteristics model

Managers should try to group together the elements of the tasks that need to be carried out so that they form meaningful and satisfying assignments. Oldham and Hackman suggest that the satisfaction that a job gives is based on five factors. The first three factors make the job 'meaningful' to the person who is doing it:

• skill variety, the number of different skills that the job holder has the opportunity to exercise;

• task identity, the degree to which your work and its results are identifiable as belonging to you;

• task significance, the degree to which your job has an influence on others. The other two factors are:

• autonomy, the discretion you have about the way that you do the job;

• feedback, the information you get back about the results of your work.

Couger and Zawacki found that programmers in general rated their jobs lower on these factors than other professions, while systems analysts and analyst-programmers rated them higher. Computer development people experienced about the same level of meaningfulness in their work as other, non-IT, professionals, but had lower perceptions of the degree of responsibility and knowledge of results of their work.

Cheney found that in the programming environment, the degree to which programmers got feedback on their work and the degree to which they could contribute to decision making had positive influences on both productivity and job satisfaction, although 'consideration', which was 'the degree to which the leader develops a work climate of psychological support, mutual trust and respect, helpfulness and friendliness', rated as less important.

In practical terms, activities should be designed so that, where possible, staff follow the progress of a particular product and feel personally associated with it.

Methods of improving motivation

• Setting specific goals These goals need to be demanding and yet acceptable to staff. Involving staff in the setting of goals helps to gain acceptance for them.

• Providing feedback Not only do goals have to be set but staff have to have regular feedback about how they are progressing.

• Job design Jobs can be altered to make them more interesting and give staff more feeling of responsibility.

Two measures are often used to enhance job design - job enlargement and job enrichment.

• Job enlargement The scope of the job is increased so that the member of Job enlargement and job staff carries out a wider range of activities. It is the opposite of increasing enrichment are based on specialization. For example, a programmer in a maintenance group might be the

work of F. Herzberg. given responsibility for specifying minor amendments as well as carrying out the actual code changes. It is significant that Couger and Zawacki found that programmer/analysts had a higher degree of job satisfaction than programmers.

• Job enrichment In this case, the job is changed so that the holder carries out tasks that are normally done at a higher, managerial, level. Staff might be given responsibility for ordering consumables, for scheduling their work or for quality control. With a programmer in a maintenance team, they might be given authority to accept requests for changes which involved less than five days' work without the need for their manager's approval.

Working in Groups:

A team is a collaboration of people with different personalities that is lead by a person with a favored leadership style. Managing the interactions of these personalities and styles as a group is an important aspect of project management.

Trust

Trust is the foundation for all relationships within a project. Without a minimum level of trust, communication breaks down, and eventually the project suffers in the form of costs increasing and schedules slipping. Often, when reviewing a project where the performance problems have captured the attention of upper management, the evidence of problems is the increase in project costs and the slippage in the project schedule. The underlying cause is usually blamed on communication breakdown. With deeper investigation, the communication breakdown is associated with a breakdown in trust.

Filters

On projects, trust is the filter through which we screen information that is shared and the filter we use to screen information we receive. The more trust that exists, the easier it is for information to flow through the filters. As trust diminishes, the filters become stronger and information has a harder time getting through, and projects that are highly dependent on an information-rich environment will suffer from information deprivation.

Contracts and Trust Relationships

The project typically begins with a charter or contract. A contract is a legal agreement that includes penalties for any behavior or results not achieved. Contracts are based on an adversarial paradigm and do not lend themselves to creating an environment of trust. Contracts and charters are necessary to clearly establish, among other things, the scope of the project, but they are not conducive to establishing a trusting project culture.

A relationship of mutual trust is less formal but vitally important. When a person or team enters into a relationship of mutual trust, each person's reputation and self-respect are the drivers in meeting the intent of the relationship. A relationship of mutual trust within the context of a project is a commitment to an open and honest relationship. There is nothing that enforces the commitments in the relationship except the integrity of the people involved. Smaller, less complex projects can operate within the boundaries of a legal contract, but larger, more complex projects must develop a relationship of mutual trust to be successful.

Types of Trust

Svenn Lindskold (Lindskold, 1978) describes four kinds of trust:

1. *Objective credibility*. A personal characteristic that reflects the truthfulness of an individual that can be checked against observable facts.
2. *Attribution of benevolence*. A form of trust that is built on the examination of the person's motives and the conclusion that they are not hostile.
3. *Nonmanipulative trust*. A form of trust that correlates to a person's self-interest and the predictability of a person's behavior in acting consistent in that self-interest.
4. *High cost of lying*. The type of trust that emerges when persons in authority raise the cost of lying so high that people will not lie because the penalty will be too high.

Creating Trust

Building trust on a project begins with the project manager. On complex projects, the assignment of a project manager with a high trust reputation can help establish the trust level needed. The project manager can also establish the cost of lying in a way that communicates an expectation and a value for trust on the project. Project managers can also assure that the official goals (stated goals) and operational goals (goals that are reinforced) are aligned. The project manager can create an atmosphere where informal communication is expected and reinforced.

The informal communication is important to establishing personal trust among team members and with the client. Allotting time during project start-up meetings to allow team members to develop a personal relationship is important to establishing the team trust. The informal discussion allows for a deeper understanding of the whole person and creates an atmosphere where trust can emerge.

High Cost of Lying in a Charleston Project

On a project in Charleston, South Carolina, the client was asking for more and more backup to information from the project. The project manager visited the client to better understand the reporting requirements and discovered the client did not trust the reports coming from the project and wanted validating material for each report. After some candid discussion, the project manager discovered that one of the project team members had provided information to the client that was inaccurate. The team member had made a mistake but had not corrected it with the client, hoping that the information would get lost in the stream of information from the project.

The project manager removed the team member from the project for two main reasons. The project manager established that the cost of lying was high. The removal communicated to the project team an expectation of honesty. The project manager also reinforced a covenant with the client that reinforced the trust in the information the project provided. The requests for additional information declined, and the trust relationship between project personnel and the client remained high.

Small events that reduce trust often take place on a project without anyone remembering what happened to create the environment of distrust. Taking fast and decisive action to establish a high cost of lying, communicating the expectation of honesty, and creating an atmosphere of trust are critical steps a project manager can take to ensure the success of complex projects.

Project managers can also establish expectations of team members to respect individual differences and skills, look and react to the positives, recognize each other's accomplishments, and value people's self-esteem to increase a sense of the benevolent intent.

Managing Team Meetings

Team meetings are conducted differently depending on the purpose of the meeting, the leadership style that is appropriate for the meeting, and the personality types of the members of the team.

Action Item Meetings

Action item meetings are short meetings to develop a common understanding of what the short-term priorities are for the project, individual roles, and expectations for specific activities. This type of meeting is for sharing, not problem solving. Any problems that emerge from the discussion are assigned to a person, and another meeting is established to address the issue. Action item meetings focus on short-term activities, usually less than a week in duration.

The action item meeting is fact based and information oriented. It is a left-brain-type focus. The action item meeting has very little dialogue except to ask clarification questions. If discussion is needed or disagreement is not easily resolved, another problem-solving meeting is established to deal with that issue. On smaller topics, that meeting might take place immediately after the action item meeting and only include those people with an interest in the outcome of the discussion.

The project manager keeps the successful action item meeting short in duration and focused on only those items of information needed for the short-term project plan. The project manager will restate the common understandings of what activities are priorities and who will be responsible for the activities. Often these meetings can include a review of safety procedures or security procedures when these issues are important to the project. The leadership approach to action item meetings focuses on data, actions, and commitments. Although the project manager may observe stresses between project team members or other issues, they are not addressed in this meeting. These are fact-based meetings. If issues begin to arise between people, the project manager will develop other opportunities to address these issues in another forum. Using the Myers-Briggs descriptions, team members who favor

thinking more than feeling and judging more than perceiving are more comfortable with this type of meeting.

Management Meetings

Management meetings are longer in duration and are focused on planning. They are oriented toward developing plans, tracking progress of existing plans, and making adjustments to plans in response to new information.

These meetings include focused discussion on generating a common understanding of the progress of the existing plan. This discussion is based on quantitative information provided on the progress of the schedule and other data, but the discussion is qualitative in evaluating the data to develop a more complete understanding of the data. The experience and opinions of the project leaders are solicited, and disagreement about meaning of the data is even encouraged to develop a deeper understanding of the data. Through this discussion, a common understanding of the status of the project should emerge, and the project manager invites discussion, includes people to offer their thoughts, and assures that disagreements are positive discussions about interpretation of the information and that disagreements do not become personal.

Management meetings also focus on developing midterm goals. For larger, more complex projects, the goals may be monthly or even quarterly. For smaller or less complex projects, weekly goals will provide the focus. The project manager focuses the discussion on the broad priorities for the next period and includes all the functional leaders in the discussion. The goals that emerge from the discussion should represent a common understanding of the priorities of the project for the next term.

For example, during the early phases of a project, the team is focused on developing a conceptual understanding of the project. A major milestone on complex projects is typically the completion of the conceptual plan. The project manager would lead a discussion on what needs to be accomplished to meet the project milestone and asks what potential barriers exist and what key resources are needed. From the discussion, the project team develops a few key goals that integrate the various functions of the project team and focus the team on priorities.

The following are some examples of goals during the conceptual phase:

- Developing a list of the procurement long lead items and defining critical dates
- Developing a human resources plan that identifies critical positions
- Developing and building agreement with the client on the project scope of work

Each of these goals is measurable and time framed. They can be developed as positive motivators and will take the project leaders and most of the project team to accomplish. They develop a general understanding of the priorities and are easy to remember.

Management meetings are a combination of left-brain thinking, which is fact based, and right-brain thinking, which is creative and innovative. Using the Myers-Briggs terminology, team members who prefer feeling over thinking and perceiving over judging can contribute ideas and perspectives on the project that the more fact-oriented members might miss.

The project manager allows and encourages conversation in developing and evaluating the goals but focuses the discussion on the goals and obstacles. Management meetings take on a different focus during the month. Meetings at the beginning of the month spend time addressing the progress and potential barriers to the goals developed the previous month. During the middle of the month, the project manager leads the team to develop next month's goals as the team also works on the current month's goals. Toward the end of the month as the goals for the month are accomplished, the meeting focuses more on the next month, enabling the team to remain goal focused during the life of the project.

Management meetings are also an opportunity to discover obstacles to goal achievement. The project team reallocates resources or develops alternative methods for accomplishing the goals. As the project team discusses the progress of project goals, the project manger explores possible obstacles and encourages exposing potential problems in achieving goals. The project manager focuses the team on finding solutions and avoids searching for blame.

The project manager uses a facilitative leadership approach, encouraging the management team to contribute their ideas, and builds consensus on what goals will bring the appropriate focus. The project manager keeps the focus on developing the goals, tracking progress, identifying barriers, and making adjustments to accomplish the management goals. Although there are typically meetings for scheduling and procurement and other meetings where goals are established and problems solved, the management meeting and the goal development process create alignment among the project leadership on the items critical to the project's success.

Leadership Meetings

Leadership meetings are held less frequently and are longer in length. These meetings are used by the project manager to reflect on the project, to explore the larger issues of the project, and to back away from the day-to-day problem solving. The project manager will create a safe environment for sharing thoughts and evaluations of issues that are less data oriented. This is a right-brained, creative meeting that focuses on the people issues of the project: the relationship with the client, vendors, and project team. Team members who favor feeling, perceiving, and intuition often contribute valuable insights in this type of meeting. The team might also share perceptions by upper management and perceptions of the community in which the project is being executed. Where the time frame for action item meetings is in weeks and management meetings is in months, the time frame for leadership meetings is longer and takes in the entire length and impact of the project.

The project manager's meeting management skill includes creating the right meeting atmosphere for the team discussion that is needed. For discussions based on data and facts, the project manager creates the action item type meeting. The conversation is focused on sharing information and clarification. The conversation for leadership meetings is the opposite. Discussion is more open ended and focused on creativity and innovation. Because each type of meeting requires a different meeting atmosphere, mixing the purposes of a meeting will make it difficult for the project manager to develop and maintain the appropriate kind of conversation.

Skilled project managers know what type of meeting is needed and how to develop an atmosphere to support the meeting type. Meetings of the action item type are focused on information sharing with little discussion. They require efficient communication of plans,

progress, and other information team members need to plan and execute daily work. Management type meetings are focused on developing and progressing goals. Leadership meetings are more reflective and focused on the project mission and culture.

These three types of meetings do not cover all the types of project meetings. Specific problem-solving, vendor evaluation, and scheduling meetings are examples of typical project meetings. Understanding what kinds of meetings are needed on the project and creating the right focus for each meeting type is a critical project management skill.

Types of Teams

Teams can outperform individual team members in several situations. The effort and time invested in developing a team and the work of the team are large investments of project resources, and the payback is critical to project success. Determining when a team is needed and then chartering and supporting the development and work of the team is another critical project management ability.

Teams are effective in several project situations:

- When no one person has the knowledge, skills, and abilities to either understand or solve the problem
- When a commitment to the solution is needed by large portions of the project team
- When the problem and solution cross project functions
- When innovation is required

Individuals can outperform teams on some occasions. An individual tackling a problem consumes fewer resources than a team and can operate more efficiently—as long as the solution meets the project's needs. A person is most appropriate in the following situations:

- When speed is important
- When one person has the knowledge, skills, and resources to solve the problem
- When the activities involved in solving the problem are very detailed
- When the actual document needs to be written (Teams can provide input, but writing is a solitary task.)

In addition to knowing when a team is appropriate, the project manager must also understand what type of team will function best.

Functional Teams

A functional team refers to the team approach related to the project functions. The engineering team, the procurement team, and the project controls team are examples of functional teams within the project. On a project with a low complexity profile that includes low technological challenges, good team member experience, and a clear scope of work, the

project manager can utilize well-defined functional teams with clear expectations, direction, and strong vertical communication.

Cross-Functional Teams

Cross-functional teams address issues and work processes that include two or more of the functional teams. The team members are selected to bring their functional expertise to addressing project opportunities.

Cross-Functional Teamwork on Concrete Project

A cross-functional project team in Tennessee was assigned to develop a project approach to procuring, delivering, and erecting precast concrete without storing the concrete on the site. Although the complexity of this goal is primarily related to delivering the precast concrete in a sequence that will allow erection from the delivery trucks, the planning involved coordination of the design, procurement, and project controls. Team members from each of these functions developed and tracked a plan to meet the project goal. The cross-functional team was successful in designing a process and executing the plan in a way that saved three weeks on the schedule and several thousand dollars in cost.

Problem-Solving Teams

Problem-solving teams are assigned to address specific issues that arise during the life of the project. The project leadership includes members that have the expertise to address the problem. The team is chartered to address that problem and then disband.

Problem-Solving Teamwork on Equipment Manufacturing

On a project in Indiana, a company selected to design and build a critical piece of equipment began having financial problems, and the delivery of the equipment on the date needed by the project was at risk. A problem-solving team was chartered to assess the problem and develop a solution for the project. The team brought in some accounting expertise from the parent company and assessed the status of the vendor. The engineering team assessed the current state of the design, and the construction team developed an alternative schedule to allow for a late delivery of the equipment. The team developed a plan to support the vendor with funds and expertise that allowed the project to complete on time. The problem-solving team was organized to address a specific problem, developed and executed a plan to address the problem, and then was disbanded.

Qualitative Assessment of Project Performance

Project managers should provide an opportunity to ask such questions as “What is your gut feeling about how the project going?” and “How do you think our client perceives the project?” This creates the opportunity for reflection and dialogue around larger issues on the project. The project manager creates an atmosphere for the team to go beyond the data and

search for meaning. This type of discussion and reflection is very difficult in the stress of day-to-day problem solving.

The project manager has several tools for developing good quantitative information—based on numbers and measurements—such as the project schedules, budgets and budget reports, risk analysis, and goal tracking. This quantitative information is essential to understanding the current status and trends on the project. Just as important is the development of qualitative information—comparisons of qualities—such as judgments made by expert team members that go beyond the quantitative data provided in a report. Some would label this the "gut feeling" or intuition of experienced project managers.

The Humm Factor is a tool developed by Russ Darnall (Caudron, 1995) to capture the thoughts of project participants that are not reflected in the project reporting tools. The Humm Factor derived its name from a project manager who always claimed he could tell you more by listening to the hum of the project than reading all the project reports. The tool developed qualitative information for the project manager and leadership team.

The Humm Factor is essentially a survey that is developed during the early phases of the project. A series of questions are selected from a database of questions that are designed to elicit responses that require reflection and do not require data. "Do you feel the project is doing the things it needs to do to stay on schedule?" and "Is the project team focused on project goals?" are the types of questions that can be included in the Humm Factor. The qualitative responses are converted to a quantitative value as a score from 1 to 10.

Someone on the project or assigned to support the project is responsible for distributing the survey on a weekly or less frequent basis depending on the complexity profile of the project. A project with a high level of complexity due to team-based and cultural issues will be surveyed more frequently.

Responses are tracked by individual and by total project, resulting in qualitative comparisons over time. The project team reviews the ratings regularly, looking for trends that indicate an issue may be emerging on the project that might need exploring.

Decision Making:

Decision making is a daily activity for any human being. There is no exception about that. When it comes to business organizations, decision making is a habit and a process as well.

Effective and successful decisions make profit to the company and unsuccessful ones make losses. Therefore, corporate decision making process is the most critical process in any organization.

In the decision making process, we choose one course of action from a few possible alternatives. In the process of decision making, we may use many tools, techniques and perceptions.

In addition, we may make our own private decisions or may prefer a collective decision.

Usually, decision making is hard. Majority of corporate decisions involve some level of dissatisfaction or conflict with another party.

Let's have a look at the decision making process in detail.

Steps of Decision Making Process

Following are the important steps of the decision making process. Each step may be supported by different tools and techniques.

Step 1: Identification of the purpose of the decision

In this step, the problem is thoroughly analysed. There are a couple of questions one should ask when it comes to identifying the purpose of the decision.

- What exactly is the problem?
- Why the problem should be solved?
- Who are the affected parties of the problem?
- Does the problem have a deadline or a specific time-line?

Step 2: Information gathering

A problem of an organization will have many stakeholders. In addition, there can be dozens of factors involved and affected by the problem.

In the process of solving the problem, you will have to gather as much as information related to the factors and stakeholders involved in the problem. For the process of information gathering, tools such as 'Check Sheets' can be effectively used.

Step 3: Principles for judging the alternatives

In this step, the baseline criteria for judging the alternatives should be set up. When it comes to defining the criteria, organizational goals as well as the corporate culture should be taken into consideration.

As an example, profit is one of the main concerns in every decision making process. Companies usually do not make decisions that reduce profits, unless it is an exceptional case. Likewise, baseline principles should be identified related to the problem in hand.

Step 4: Brainstorm and analyse the different choices

For this step, brainstorming to list down all the ideas is the best option. Before the idea generation step, it is vital to understand the causes of the problem and prioritization of causes.

For this, you can make use of Cause-and-Effect diagrams and Pareto Chart tool. Cause-and-Effect diagram helps you to identify all possible causes of the problem and Pareto chart helps you to prioritize and identify the causes with highest effect.

Then, you can move on generating all possible solutions (alternatives) for the problem in hand.

Step 5: Evaluation of alternatives

Use your judgement principles and decision-making criteria to evaluate each alternative. In this step, experience and effectiveness of the judgement principles come into play. You need to compare each alternative for their positives and negatives.

Step 6: Select the best alternative

Once you go through from Step 1 to Step 5, this step is easy. In addition, the selection of the best alternative is an informed decision since you have already followed a methodology to derive and select the best alternative.

Step 7: Execute the decision

Convert your decision into a plan or a sequence of activities. Execute your plan by yourself or with the help of subordinates.

Step 8: Evaluate the results

Evaluate the outcome of your decision. See whether there is anything you should learn and then correct in future decision making. This is one of the best practices that will improve your decision-making skills.

Leadership:

A leader is like a rudder on a boat steering the ship and keeping it on course. But the boat wouldn’t float without a sound hull, it’d coast aimlessly without sails and wouldn’t be able to catch the wind if it had no crew.

That's just another way of saying that leadership isn't barking orders. In project management a leader is part of an integrated team with the shared responsibility of the team and stakeholders to deliver a project on time and within budget.

Leadership is often misunderstood in general and in particular in project management, yet it's one of the most important positions on the project team. If you're looking to run a more effective project, then you need to define leadership in project management.

Leadership isn't one thing. There are many different styles and combinations of those types. We'll go into more detail, but these are the most common forms of leadership.

Transformational

Leader-Member Exchange

Adaptive

Strengths-Based

Servant

Transactional

What is Project Leadership?

Project leadership, most simply, is the act of leading a team towards the successful completion of a project. But of course, it is much more than that. It's about getting something done well through others. But project leadership requires skills in both managing people and tasks. It is a soft skill; part art, part science.

If you're a practical-minded person you might not like such an open-ended definition. But the first mistake in trying to define leadership is thinking that it's one thing. You must be willing to think broadly and accept that there are many different types of leaders in the world and even in the more rarefied world of project management.

Different Leadership Styles

Look over the management style of anyone in charge of any project, and you'll find a myriad ways in which they accomplish their goals and set a tone of leadership. Much of these differences are based on the person's personality and what style of leadership they naturally gravitate towards.

That's where a project leadership matrix comes in handy. It is a tool that tells you what type of leader you are, and with that knowledge you can tweak your technique to become a better leader. The leadership matrix is made up of four parts:

Reactive people-leadership

Reactive task management

Proactive people-leadership

Proactive task management

It's unlikely that you sit only in one quadrant, since most of us are a sampling of all of these parts. However, the best project managers are those who emphasize a proactive leadership style.

What is a Project Leader?

A project leader is someone who leads a project, but that doesn't really get to the bottom of this seemingly simple title. There are project managers, who are responsible for many of the aspects that we associate with leadership. They assemble the team, devise the plan and manage resources to maintain the schedule and keep within budget.

But leadership is a quality that should be expressed by everyone. It's not just leading by example, such as the project manager rolling up their sleeves and joining in on the work as needed, but everyone on the project team must take a leadership role. They need to own their responsibilities and manage the tasks assigned to them. The last thing anyone wants is a team of robots who can't make a move without being directed.

That said, there is a project leader and their job is different than that of the team they manage. They have to straddle many worlds being both technically organizationally adept, able to engage effectively across boundaries, connecting talent with key challenges. Think of a project leader as the consummate integrator. They help others succeed.

What Makes a Good Project Leader?

Project leadership is difficult work, and while most project managers are adept at leveraging the tools and processes of the trade, there's no single body of knowledge to learn and pass a test on when it comes to leading successfully. It's the ultimate school where learning by doing is the only way forward.

However, if you look over the way successful leaders work there are commonalities. What most leaders share are these following 10 attributes:

They are grounded and centered

They are aware and mindful

They create solutions

They are analytical

They can evaluate risk

They can generate a sense of urgency

They are insightful

They build cohesion

They motivate people

They achieve results

These are not chiseled in stone, of course. Leadership is fluid. Just as dealing with people requires nuance, so does determining what makes up a good leader. Still, these 10 points are pillars on which you can build project leadership.

6 Ideas to Strengthen as a Project Leader

A good place to start is with project leaders you respect, who have experience and have lead projects in ways that you wish to emulate. Seeking out help from a mentor is recommended, because they can add a depth of dimension to the process that all the books in the world can never touch.

Another thing to do is keep in mind these six concepts that are like a leadership workout. Practice them and you'll strengthen your leadership muscles.

1. Mind the Gap

Take time to explore the gap between navigating and leveraging the tools of the trade and leading others. It's leadership in a classic sense, with the goal to bring to life a group of individuals that coalesce as a team and pursue high performance. Easy words, tough tasks, but worth the investment in time and attention.

2. Reframe Your Challenge: It's Not the Project, It's the Team

The issue you face isn't project execution, it's team development. If you take care of the team and ensure that you form and frame the right environment, the team will take care of the initiative.

3. Let the Team Define Your Role

Perform a pre-post mortem on your role as leader. Ask your team: "At the end of this project when we are successful, what will you say that I did?" Listen carefully and you will hear many of the raw ingredients of high performance teams. From alignment on the purpose of the project to treating team members with respect to ensuring fair and even accountability to setting expectations high to not micro-managing, this question will prompt a torrent of important answers. Take notes. These define the raw content of your job description as project leader.

4. Teach Your Team How to Talk

In my many observations of teams struggling to perform, one of the common performance killers is an inability to navigate the swirl of emotions, biases, opinions and agendas that invade all of our group discussions. Spend time focusing on strengthening your facilitation skills.

5. Teach Your Teams How to Decide

Teams succeed or fail based on how they navigate moments of truth in the form of key, often irreversible decisions. And while strengthening your team's ability to talk as outlined above is important, supporting the development of effective decision-making processes is mission critical.

Given the complexity of group decision-making, including our tendency to draw on our own unique prior experiences and to unknowingly impose our biases on a decision-choice, helping a group develop effective decision-making processes is no small task. You need a process. Look for the one that works for your organization and team.

6. Everyone Communicates, Leaders Connect

The people on your team are neither resources nor automatons. Great leaders at all levels strive to connect with team members on something a bit more personal than status meetings and reports. They take the time to engage and where appropriate, they strive to learn about the aspirations and even personal interests of their team members.

How to Lead a Project with Project Management Tools

ProjectManager is an award-winning tool that helps project managers organize their plans and teams, fostering leadership through practical means that lead to projects coming in on time and within budget. The cloud-based software gives managers transparency into their team's work while allowing teams to collaborate and work better together.

When you use this project management tool you're able to provide detailed directions on executing tasks and give teams the freedom to manage their own work. The lines of communication are always open with real-time data that keeps everyone updated. Here's how it works:

Top 6 Leadership Theories

Everyone has a theory on what makes a great leader, and with good reason. Leadership is a quality that's important for success and yet so difficult to define. But great leadership isn't subjective. People have studied leadership.

A strong understanding of leadership provides us with a variety of legitimate options for different scenarios, and helps a person set up themselves, their team or company for success. People are more intentional than reactional when it comes to leadership.

The origins of how we have come to define leadership have historic roots. Many might remember the great man theory, which dates back to the 1800s and speaks to men with dominant personalities. They were destined for greatness due to having innate characteristics that made them leaders.

The idea of a born leader, and that leaders are born male, is obviously outdated and has since been challenged. Today, there are many theories of leadership that attempt to explain what makes a great leader. Let's look at six of these leadership theories:

1. Transformational

James MacGregor Burns was a political sociologist in the 1700s, who saw leadership qualities falling under two types. Transactional leaders are those who influence others by what they offer in exchange for their help.

Transformational leaders are connected to their followers in such a way that it raises the level of motivation and morality, committed to a collective good. Four factors play into transformational leadership: idealized influence, inspirational motivation, intellectual stimulation and individualized concern.

2. Leader-Member Exchange

This is a leadership theory based on that there are two groups in opposition, the in-group and the out-group members. Think of it like high school, where there's the popular kids and the outcasts.

Project managers can favor and trust certain members of their team, giving them more responsibility, while others they might not think well of and so these team members get the more mundane tasks. How these relationships are formed is at the heart of this theory.

3. Adaptive

An adaptive leader is one who can mobilize people to act on tough challenges, even if the solutions to those challenges are not readily apparent.

This type of leadership is all about adapting and thriving in a challenging environment. This is done by gradually, but meaningfully, accepting a process of change both individually and collectively.

4. Strengths-Based

The belief that it's individual strength that leads to successful leadership; when people use their strengths and competency to lead, they're sure to do a good job.

It is a method that works to maximize the efficiency, productivity and success of a project by focusing on your strengths and continuing to develop them. It's basic tenet is that people can grow exponentially by building on their strengths rather than weaknesses.

5. Servant

Popularized by Robert Greenleaf, the servant leadership theory places the needs of others over their own self-interest. The idea is that you serve first, shifting the power to those who are being led.

Bureaucratic (Transactional): Leadership through normative rules, regulations, strict discipline and systematic control.

Traditional (Feudal): Leadership over followers who believe in the legitimacy of governance, personal loyalty and faithfulness.

Charismatic (Transformer): Leadership that is characterized by dedication, illumination and heroism, where followers have personal trust in a leader's charisma, vision and mission.

The transactional leader motivates teams mostly through appealing to their self-interest. Therefore, a transactional leader's power is directly related to their formal authority in the organization.

Leadership vs. Management: What's the Difference?

Is leadership good and management bad? Of course not, both are important. But there is a difference. There are many who stand on one side or the other of the great divide between leadership and management, demonizing one and praising the other.

You don't have to look far to find examples of either persuasive leaders who have done terrible things or efficient managers who lack the soft skills to lead and inspire. Let's start by looking at the differences between the two and why a combination of both is ideal.

Leadership

Leaders inspire others to share their vision, they motivate others to act on that vision, encourage others and help them overcome obstacles in pursuit of that vision.

Here is a list of some of the core values of a strong leader.

Communication: The ability to disseminate information and listen actively.

Motivation: Getting people to want to do what you need them to do.

Delegation: Knowing that you can't do everything and trusting others to help you carry the load by completing assigned tasks.

Positivity: Keeping a positive attitude, regardless of the situation, helps with morale.

Trustworthiness: People aren't going to listen to you or do what you ask if you don't first instill a sense of trust.

Creativity: There will always be problems that can't be solved by rote; you must think creatively and be open to taking chances. Employ divergent thinking to find unique solutions.

Feedback: Leadership doesn't take place in a vacuum. Listen to your team, stakeholders, advisors, mentors, etc., and take their opinions seriously.

Responsibility: You can't expect people to follow you if you're not taking responsibility for the bigger picture and your behavior.

Commitment: You also cannot expect to lead others if you are not committed to the project.

Flexibility: Things change, and rigidity can ruin a project, so you must be willing to adapt and not hold too tightly to anything.

Management

What is management? It's the process of dealing with or controlling things or people. But the emphasis does tend to be on things rather than people.

Managers are people who plan, organize and coordinate. They are methodical and are always reassessing their process to make sure they're progressing as planned. If not, they tweak to get back to their baseline assessment.

Here are 10 of what are considered the most important skills for any manager to have:

Interpersonal Skills: While managers aren't exclusively dealing with people, they still must interface with them, and the better they do so, the smoother the management process.

Communications: Being able to manage is being able to communicate what you need to who needs to do it.

Motivation: The same is true for motivating people to follow your management lead.

Organization: You must be organized. Management is made up of many parts, and they cannot be handled on the fly.

Delegation: No one can manage everything themselves, and if they try, they're going to fail. So, share responsibilities and tasks with others.

Forward Planning: A manager is a planner who looks towards the future and how to set themselves up for it today.

Strategic Thinking: Part of that planning is thinking strategically about the project, the organization and how to align them moving forward.

Problem Solving: Managers face issues daily, and they must think creatively to solve them.

Commercial Awareness: Managers are not working in a vacuum and need to have a keen sense of the business and commercial environment in which they operate.

Mentoring: In order to get things done, sometimes a manager must become a mentor, offering guidance or training where it's needed.

Why Leadership and Management Skills are Both Important

From the description of both leaders and managers, it's clear that project managers must be a blend of both disciplines. Managing a project requires leadership skills to inspire your team and have a vision to lead the project to success.

But there are also many managerial aspects to project management, which are outside the purview of leadership. For example, balancing a budget, creating feasible schedules and contracting with vendors and outside contractors.

A project manager can be thought of as wearing many hats. The best know this and shift from leaders to managers many times during the day, doing what it takes to move the project forward. By doing this they set an example for the team, which benefits everyone.

How to Lead by Example

If you want to encourage, inspire, motivate and fuel your team, leadership by example is one of the best ways to get buy-in and build trust. What are the practical things people can do to encourage, inspire, motivate and fuel their teams to complete more project tasks.

This leads us to talk about transformational leaders. What transformational leaders have in common are the following traits.

Fought for a humanitarian cause

Declared an unthinkable goal

Maintained integrity

Walked the talk

Went to bat for people

Organizational structures:

An organizational structure is a standard hierarchy of operations. It defines how you can divide, coordinate, and direct groups. More so, it defines the positions and describes the tasks required to achieve an organization's objectives and vision.

Organizational structures aren't set in stone and are tweaked as per the organization's size, needs, and their philosophy. In this article, you'll get to learn the nitty-gritty of different types of organizational structures in project management and how they function.

Features and Types of Organizational Structure

When choosing an organizational structure, certain features shouldn't be overlooked.

The key elements that contribute to a proper organizational structure are as follows:

Degree of alignment with organizational objectives

Accountability assignment

Delegation of Capabilities

Simplicity of Design

Physical locations

1. Organic or Simple Organization

This type of organization is very flexible and able to adapt well to market changes.

This structure is characterized by having few rules, regulations and management layers and a decentralized decision-making layout.

An organic organization's design deals well with a rapidly changing environment. People work side-by-side to communicate quickly and often solving unforeseen problems, issues and requirements.

Here, the project manager has very little or no authority, and may or may not have a designated job role.

2. Line Organization

This is the simplest form of organizational structure that you'll find across small companies. It has well-defined authority levels in the hierarchical structure. Power flows from the top down to different operational levels or workers.

The hierarchical structure clearly defines authority, responsibility, and accountability at each level.

Due to its simplicity, authority and responsibilities are transparent and easily traceable. Communication is fast and easy because employees get quick feedback and respond fast.

The project manager performs duties based on position or authority in the hierarchy. Some organizations don't have this position, but when they do, they may have little or nothing to do.

3. Line and Staff Organization

The Line and Staff Organization is a modification of the Line Organization. Here, functional specialists work with line managers to guide and advise them.

This structure is more common in the present day, and most of the larger enterprises adopt this type of setup.

The staff consists of two categories; the general and the specialized team.

General Staff: The general staff consists of ordinary employees that assist the top management. These staff aren't experts

Specialized Staff: This team consists of experts that offer services to the organization. Their roles can be advisory, control (as in quality control), or service (such as maintenance). The Line and Staff Organization uses the expertise of specialists. So the line managers become better in several fields.

Advantages

1) Staff can make quality decisions, get support from specialists, and enjoy better coordination.
2) Get training to enhance skills, get an opportunity to work in research & development.

Disadvantages

1) Increased confusion and conflicts among the staff
2) Higher costs on hiring specialist
3) A tendency to develop personal image within the group

4. Functional Organization

The Functional Organization groups workers based on their area of specialization. This structure is an extension of the Line Organization. The functional manager leads the team and manages all the operations or businesses.

The Functional Organization manager enforces directives within a clearly defined scope of authority. This concept originated with Fredrick W. Taylor.

Here you classify workers according to their functional roles and department. Some of the general departments under this are

Finance

HR

Sales

Customer service

Supply Chain, etc.,

The organization's head is the president, followed by the vice president, and the chain goes on. Furthermore, the leaders of departments foresee their departmental performance. So they collectively help the organization control quality and uniformity.

The structure positions departments vertically and disconnected from others. Hence the name "silos." The department heads manage communication between the top management and his subordinates.

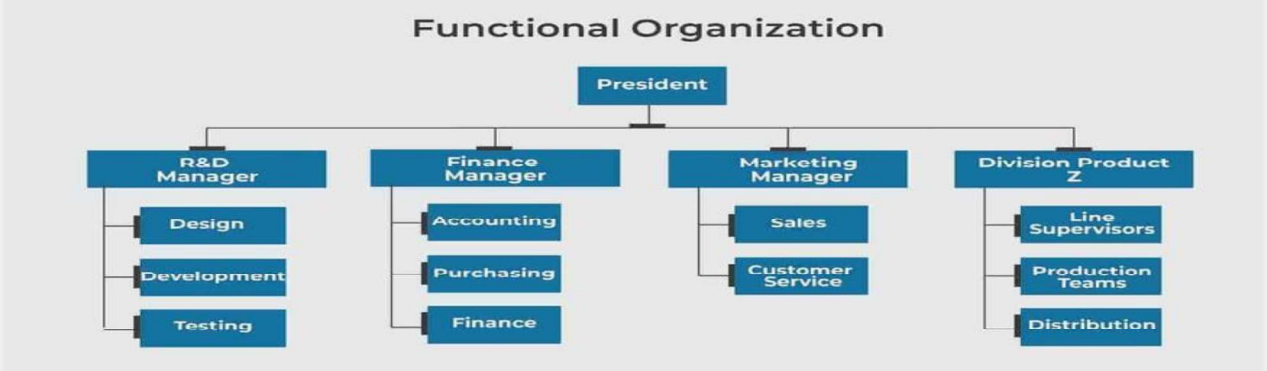
The project manager has a minimal role to play or may not have a designated position. Generally, you'll play the role of an expediter or work as a coordinator. While as a functional manager, you'll deal with

Budget allocation

Resource allocation, and

Decision making

This type of organization is suitable for manufacturing or engineering companies. It supports ongoing operations and practices for producing standard products.



Advantages

Some of the main benefits of this type of organization are:

1) It groups employees based on functional skills for a higher degree of performance.

2) Employees have experience in the same field, resulting in higher output. Also, they deliver high-quality services and results.

3) Accountability is evident, as the roles and responsibilities are clearly defined.

4) Hierarchy is visible and no need for multiple reporting

5) No duplication of work as each department is different. Also, the job description is clear.

6) Career path for the staff is clear and visible

Disadvantages

1) Employees get bored with the routine and lose enthusiasm.

2) It limits the management skills of functional managers. Hence, they face restrictions on their growth path and remain specialists. So they're not prepared for top management posts.

3) Departments are more concerned with their departmental goals and therefore may be less responsive to the organization's overall objectives.

4) Hiring costs are too high as high-skilled employees cost more.

5) It causes conflicts in making critical decisions as a result of bureaucratic hierarchy. Functional managers have full authority and may make arbitrary decisions.

5. Divisional Organization

This type of organization often resembles a Functional Organization. The team members work in different departments. This setup splits the employees into segments based on products, markets, or services.

Albeit, the divisional organization's segments or divisions are autonomous. Functional units that support this structure include:

Operations,

Marketing,

R & D department, and

Personnel, etc.

This design focuses on service lines like products, customers, area, and time. Since they operate as small organizations, they're called "self-contained structures."

So they work independently on divisional goals. But all divisions collectively meet the organizational policies and business objectives.

This type of organization is suitable for companies that

Operate in different geographical locations,

Have chain stores with subsidiaries, and

Banking and insurance business

Advantages

1) People work in different geographical locations and enjoy different work environments

2) Share ideas and enhance skills, thereby creating a collaborative work culture. Thus enhancing overall productivity.

Disadvantages

1) This structure affects the integration of the organization as a whole.

2) The autonomous nature often results in the duplication of functions and resources.

3) Segmentation creates boundaries among divisions and may lead to poor inter-unit coordination

6. Project Organization

Project organization is a temporary setup formed for specific projects. It's also called "projectized organizational structure." The project manager assigned for the project is the head of this structure.

Once the project is complete, you may choose to dismantle this setup or move it to form a new project. In the case of a new project, the project manager might have to reshuffle the staff to fit the new plan. You'll hire resources or specialists from different functional departments.

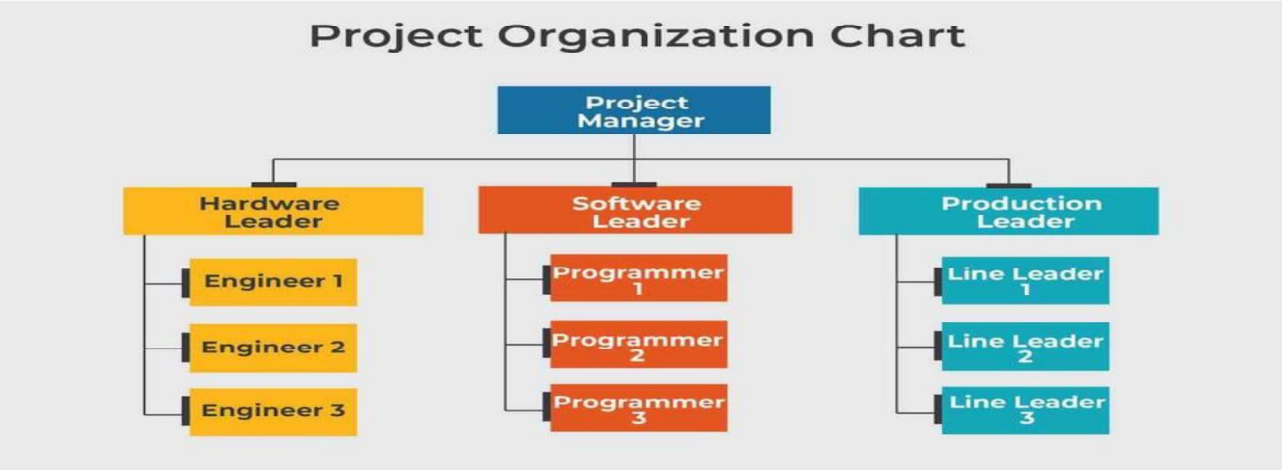
As a project manager, you can use allotted resources until completion and closeout. Albeit you're accountable for all the activities and timely completion of the project. In other words, you must spend based on the project budget.

The manager assigns clearly defined tasks to each of the team members, along with the complete schedule.

These types of organizations are useful when:

The project scope is complete, and objectives are clearly defined

The project is unique and independent



Advantages

1) Easy to communicate, hence can stay up to date

2) The team can have a strong sense of identity as all are working together to achieve a common goal

3) Manage resources efficiently and effectively

Disadvantages

1) No clear growth path for the team once the project gets completed

2) It's expensive because the organization dedicates all the specialists for one single project.

7. Matrix Organization

This one is the combination of a projectized and functional organization. This hybrid organization overcomes the limitations of each organization. Here, both the functional and project managers share their respective authorities.

Project managers are generally responsible for

Overall integration

Project planning

Execution of the project, and

Completion of project activities

All activities must be done using the assigned resources.

The functional managers are concerned with the operational aspects of the project. They're also responsible for providing technical guidance.

The functional staff specializes in the skills required for the project. Though project managers manage the project staff, functional managers control the process.

This type of organization is most useful when workers must share available resources. The combination achieves high efficiency and better usage of available resources. Also, they adapt better to the changing trends.

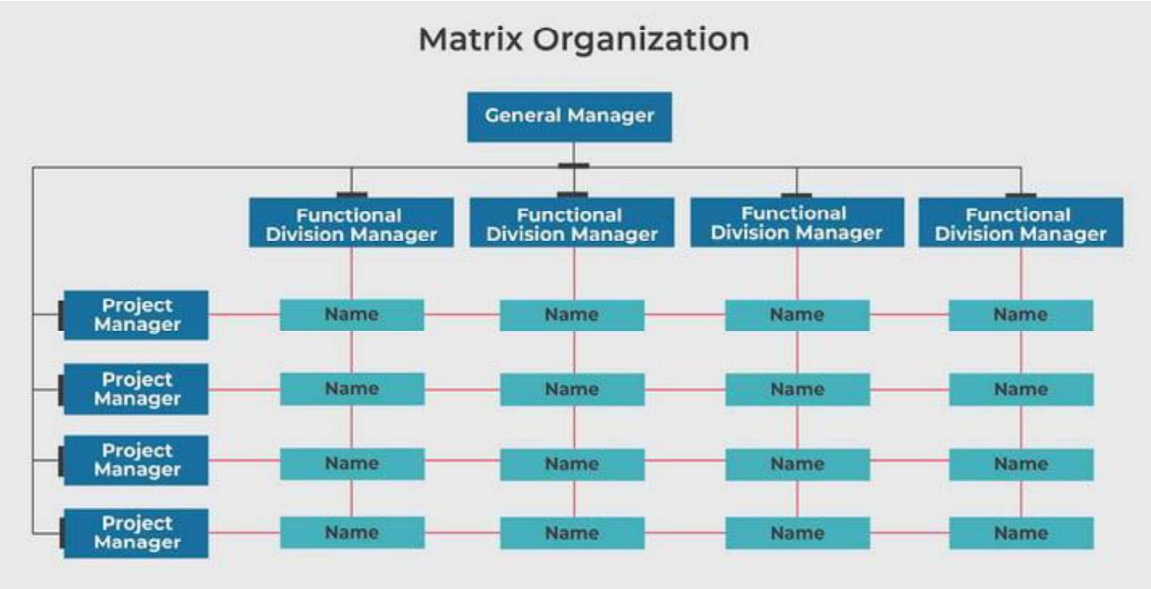
You can further classify the Matrix Organization into

Balanced

Strong and

Weak

The authority level that both functional and project managers share determines its strength.



Advantages

1) It helps in sharing resources efficiently

2) Decision making is balanced and flexible

3) Staff members can communicate with each other across boundaries

4) Pleasant environment

5) It has a clear career graph and job security; hence, members would be more loyal to the organization

Disadvantages

1) The dual reporting structure add confusion and results in conflicts

2) Create issues when there is no coordination between functional and project managers

3) Resources may be under-utilized if you don't assign them with skill-related tasks

4) Costly to maintain as it has many managers

5) You need to maintain resources throughout the project, no matter how long it takes

8. Virtual Organization

A virtual organization is a recent development that involves different locations. When your team executes a project in one area, you can manage it from any other place. So you can distribute resources to your project team regardless of location.

You can connect all the locations virtually. The other names for this organizational structure are:

Digital organization

Network organization, or

Modular organization

ICT (Information and Communication Technology) is the backbone of virtual organizations. This organization is a social network without vertical and horizontal boundaries.

Resources aren't tied to a particular workstation (desk). Also, you can work from any mobile device. You can manage every project activity, including meetings, virtually.

The team reports digitally except on a few occasions that need physical meetings. Hence, it's common to hear of virtual offices, virtual teams, and virtual leadership

This setup is most suitable for software or IT companies.

Advantages

1) Faster and cost-effective as there are no boundaries to work and communication.
2) Lower operating costs as no permanent set up required (no need for office premises)
3) Have several options like flexitime, part-time work, job-sharing, and home-based working, hence increased
4) Employee satisfaction and efficiency
5) Can have a larger talent pool

Disadvantages

1) No physical contact or communication, thus, lacks team integrity
2) Difficult to restrict information sharing as your locations are different
3) You have to spread resources across various locations and time zones
4) Resources require training for virtual interaction
5) Different time zones cause delayed responses

Wrapping Up

With the different types of organizational structures, it’s easy to know what you need. Though each structure has limitations, large and complex organizations adopt the matrix organization.

Line and staff organization has a direct and straightforward hierarchy. Hence it's used in simple organizations. Software or information technology businesses often adopt virtual organizations.

Albeit choosing the right organization, type ensures that you do well in the market.