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HUT310

MANAGEMENT FOR ENGINEERS

Module 2 – MANAGEMENT AND ORGANIZATION

Mr. Fazludheen Chemmala
Assistant Professor
Dept. of Mechanical Engineering
Eranad Knowledge City Technical Campus,
Manjeri
fazludheen05@gmail.com

PLANNING

- Most basic of all management functions.
- It is the process of selecting objectives and determining the course of action required to achieve these objectives.

NEED FOR PLANNING or PURPOSE OF PLANNING

- The increasing time spans between present decisions and future results.
- Increasing organization complexity
- Increased external change
- Planning and other management functions.

IMPORTANCE OF PLANNING

or

OBJECTIVES OF PLANNING

- Planning provides direction.
- Planning reduces risks of uncertainty.
- Planning reduced uncertainty and wasteful activities.
- Planning promotes innovative ideas.
- Planning facilitates decision making.
- Planning established standards for controlling.
- Economical.
- Utilization of resources.
- Effectiveness.
- Coordination.

STEPS IN PLANNING

1. Identification of Opportunities
2. Establishment of Objectives
3. Developing planning premises
4. Identification of alternatives
5. Evaluation of alternatives
6. Selecting an alternative
7. Formulating derivative plans
8. Establishing sequence of activities

TYPES OF PLANS

- **Based on the frequency of use**

- Single-use plans
- Standing plans

- **Based on scope**

- Operational Planning
- Tactical Planning
- Strategic Planning
- Contingency Planning

- **Based on time frame**

- Long-term plans
- Intermediate plans
- Short-term plans

PLANS *based on frequency of use*

- **Standing plans**
 - Missions or Purposes
 - Objectives
 - Strategies
 - Policies
 - Procedures
 - Rules
- **Single-use plans**
 - Programs
 - Budgets
 - Schedules
 - Methods
 - Projects

STANDING PLANS

- **Missions (or) Purposes**

- Each organization has a mission or purpose.
- It is a statement that identifies the basic function or tasks of an organization/company/enterprise or any part of it.
- Purpose of housing board is to design, build and distribute the houses to people with nominal price.
- Purpose of any business is the production and distribution of goods and services.
- Normally, mission or purpose are often used interchangeably.

STANDING PLANS

- **Objectives** are the basics of every company and the desired objective/result that the company plans on achieving, so they are the endpoint of every planning activity.
- *For example* one of the objectives of an organization could be to increase sales by 20%. So the manager will plan all activities of the organization with this end objective in mind. While framing the objectives of the organization some points should be kept in mind.
 - Objectives should be framed for a single activity in mind.
 - They should be result oriented. The objective must not frame any actions
 - Objectives should not be vague, they should be quantitative and measurable.
 - They should not be unrealistic. Objectives must be achievable.

STANDING PLANS

- **Strategy** : This obviously is the next type of plan, the next step that follows objectives. A strategy is a complete and all-inclusive plan for achieving said objectives. A strategy is a plan that has three specific dimensions
 - Establishing long-term objectives
 - Selecting a specific course of action
 - allocating the necessary resources needed for the plan
- Forming strategy is generally reserved for the top level of management. It actually defines all future decisions and the company's long-term scope and general direction.

STANDING PLANS

- **Policies** are generic statements, which are basically a guide to channelize energies towards a particular strategy. It is an organization's general way of understanding, interpreting and implementing strategies. *Like for example*, most companies have a return policy or recruitment policy or pricing policy etc.
- Policies are made across all levels of management, from major policies at the top-most level to minor policies. The managers need to form policies to help the employees navigate a situation with predetermined decisions. They also help employees to make decisions in unexpected situations.

STANDING PLANS

- **Procedures** are the next types of plan. They are a stepwise guide for the routine to carry out the activities. These stepwise sequences are to be followed by all the employees so the activities can be fulfilled in an organized manner.
- The procedures are described in a chronological order. So when the employees follow the instructions in the order completely, the success of the activity is pretty much guaranteed.
- *Take for example* the procedure of admission of a student in a college. The procedure starts with filling out an application form. It will be followed by a collection of documents and sorting the applications accordingly.

STANDING PLANS

- **Rules** are very specific statements that define an action or non-action. Also, rules allow for no flexibility at all, they are final. All employees of the organization must compulsorily follow and implement the rules. Not following rules can have severe consequences.
- Rules create an environment of discipline in the organization. They guide the actions and the behaviour of all the employees of the organization. The rule of “no smoking” is *one such example*.

SINGLE-USE PLANS

- **Programs** are an in-depth statement that outlines a company's policies, rules, objectives, procedures etc. These programmes are important in the implementation of all types of plan. They create a link between the company's objectives, procedures and rules.
- Primary programmes are made at the top level of management. To support the primary program all managers will make other programs at the middle and lower levels of management.

SINGLE-USE PLANS

- **Budget** is a statement of expected results the managers expect from the company. Budgets are also a quantitative statement, so they are expressed in numerical terms. A budget quantifies the forecast or future of the organization.
- There are many types of budgets that managers make. There is the obvious financial budget, that forecasts the profit of the company. Then there are operational budgets generally prepared by lower-level managers. Cash budgets monitor the cash inflows and outflows of the company.

SINGLE-USE PLANS

- **Methods** prescribe the ways in which specific tasks of a procedure must be performed. Also, methods are very specific and detailed instructions on how the employees must perform every task of the planned procedure. So managers form methods to formalize routine jobs.
- Methods are very important types of plan for an organization. They help in the following ways
 - give clear instructions to the employees, removes any confusion
 - Ensures uniformity in the actions of the employees
 - Standardizes the routine jobs
 - Acts as an overall guide for the employees and the managers

SINGLE-USE PLANS

- **Schedules** specifies time limits within which activities are to be completed.
- It is the process of establishing a time sequence for the work to be done.
- It is essential for avoiding delays and for ensuring continuity of operations.

SINGLE-USE PLANS

- **Projects** is similar to program but is smaller in scale and less complex.
- It may be a component of a program, or it may be self-contained, single-use plan.
- Project helps in the precise allocation of duties and effective control and easy implementation of your plan.

PLANS *based on Scope*

1. Operational Planning
2. Tactical Planning
3. Strategic Planning
4. Contingency Planning

PLANS *based on Scope*

- **Operational Planning** is the planning that a manager uses to accomplish his or her job responsibilities.
- These plans are stated in specific, quantitative terms and serve as the department manager's guide to day to day operations.
- Developed by Low level managers.
- Time frame is less than an year.
- Clearly depicts what must be accomplished over short time periods in order to achieve operational goals.
- All information can be attained completely from within the organization.

PLANS *based on Scope*

- **Tactical Planning** aims at achieving tactical or short term goals.
- Tactics are the means needed to activate a strategy and make it work.
- Concerned with what the lower level units within each division must do, how they must do it and who is in charge at each level.
- These plans usually span one year or less.
- Developed by Middle level managers in consultation with Low level managers.

PLANS *based on Scope*

- **Strategic Planning** begins with organization's mission.
- These look over to next 2,3,4 or even more years from where it is currently is to where it wants to be.
- These plans demand harmony among all levels of management within the organization.

PLANS *based on Scope*

- **Contingency Planning** is devised for a specific situation when things could go wrong.
- During times of crisis, these plans are often developed to explore and prepare for any eventuality.
- This planning involves identifying alternative courses of actions that can be implemented if and when the original plan proves inadequate because of changing circumstances.

PLANS *based on Time frame*

1. Long-term plans
2. Intermediate plans
3. Short term plans

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PLANS *based on Time frame*

- **Long term plans** are plans which have a time frame exceeding 5 years.
- It is derived from the vision developed for the organization by its founders or top managers.
- It involves setting up broad objectives and establishing procedures for achieving these objectives.

PLANS *based on Time frame*

- Intermediate plans generally covers time periods ranging *from 1 to 5 years*.
- These plans specify the activities to be carried out.
- Define the organizations activities and provide direction for middle management.

PLANS *based on Time frame*

- **Short term plans** cover time periods up to one year.
- These plans take care of individual activities needed to achieve the overall objectives outlined by long-term planning.
- They guide manager by stating what he has to do, how, where and when he has to do, and resources available for performing the specified task.
- Short term plans helps managers make better use of manpower and other resources in the immediate future.

ORGANIZING

- Organizing means identifying and grouping of activities required to attain the objectives, defining and delegating authority, creating responsibility and establishing relationship for the people to work effectively.
- It is a mechanism or structure which helps the activities to be performed effectively.
- Organization is established for the purpose of achieving the business objectives.

STEPS INVOLVED IN ORGANIZING

1. Establishment of objectives.
2. Departmentation.
3. Defining authority and responsibility.
4. Delegation of authority.
5. Establishment of structural relationship.

PRINCIPLES OF ORGANIZING

- Principle of objective.
- Principle of efficiency.
- Principle of span of control.
- Principle of unity of command.
- Principle of unity of direction.
- Principle of scalar chain.
- Principle of division of work.
- Principle of authority and responsibility.
- Principle of flexibility and continuity.
- Principle of stability.

ORGANIZATION STRUCTURES

- It is the formal pattern of interactions and coordination designed by management to link the tasks of individuals and groups in achieving the organizational goals.
- Organization structure should be designed to clarify who is to do, what task and who is responsible for what results.
- Organization structure consists simply of those aspects of pattern of behaviour in the organization that are relatively stable and change only slowly.

ORGANIZATION STRUCTURES

- **Types of Organization structures**
 - *Based on power flow within organization*
 1. Bureaucratic or mechanistic structure.
 2. Organic or adaptive structure.
 - *Based on the formation of departments/groups*
 1. Functional structure.
 2. Divisional structure.
 3. Matrix structure.
 4. Team structure.
 5. Network structure.

ORGANIZATION STRUCTURES

- **Bureaucratic or Mechanistic structure**

- This type of organizational structure derives from the bureaucratic management theory, which was first used and described by German sociologist Max Weber. He believed that this was the most efficient way to run an organization.
- The bureaucratic organizational business model is characterized by standardized processes and strict rules.
- Each employee has a clearly defined role and responsibilities.
- Employees are hired based on their ability to perform the tasks assigned to them, and personality has little to do with their success.
- In a bureaucratic organization, the recruiting process is formal and involves job-specific tests.
- Promotions are merit-based, not dependant on seniority.
- Employees are highly specialized, which is why this type of company may have hundreds of job titles.

ORGANIZATION STRUCTURES

- **Organic or adaptive structure**

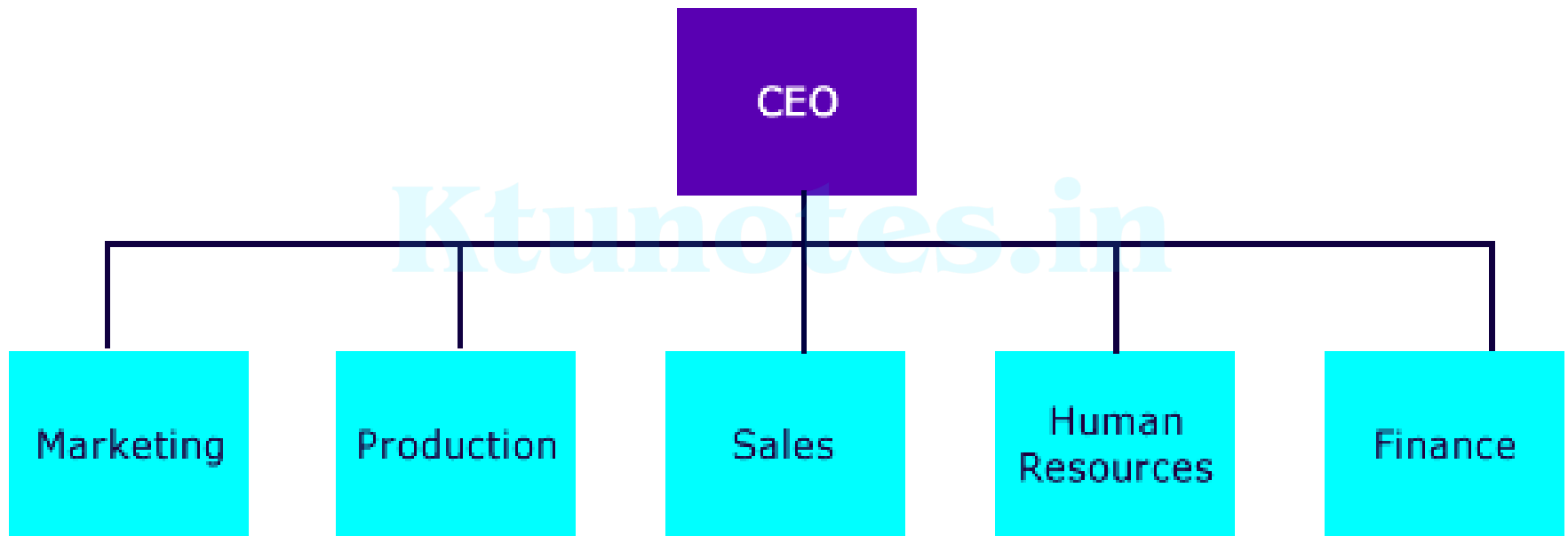
- An organic organizational structure is a flat organization that allows for horizontal communications and interactions and is more suited to creative businesses. This type of organizational structure is decentralized, giving employees at all levels a chance to participate in business-related decision making.
- Businesses with an organic structure often encourage group participation and the sharing of work responsibilities. Communication channels are open to employees, managers and business owners and contact between all levels of employees usually occurs on a regular basis. Lower-level employees tend to have more face-time with executives than in a mechanistic organization. The type of communication most often used in organic structures is verbal.
- The flat nature of organic businesses allows this type of organizational structure to be more flexible to change if needed. Employees take part in a joint specialization based on the jobs at hand, providing expertise on a wide array of functions within the business. Status is tied to the perceived intelligence and aptitude of the employee rather than their position within the company. In an organic structure, the business is made up of a network of people or teams who work together in varying capacities to achieve the goals of the business.

ORGANIZATION STRUCTURES

- **Functional structure**

- A functional organizational structure groups employees together based on their functions or roles and areas of specialization. Typical departments are marketing, human resources, finance, engineering, sales and customer service.
- Departments in a functional structure are often called "silos" because they work independently from each other. The employees communicate exclusively with others in their group and report to a department head. Department heads communicate with their peers in other departments. Managers of departments report directly to top management or the CEO.
- This type of organizational structure works best in a stable environment with few changes where job tasks are standardized and continuous.

ORGANIZATION STRUCTURES



Functional structure chart

ORGANIZATION STRUCTURES

- **Divisional structure**

- An organization which is very large in size and is producing more than one product, they need to evolve a design to cope with the complexity.
- The activities related to one product are grouped under one division.
- This organizational structure consists of separate divisions, each such division has its own manager. Within each division, functions like production, marketing, finance etc. are performed.
- In other words, each division tends to adopt a functional structure. However, functions may vary across divisions in accordance to their product line.

ORGANIZATION STRUCTURES

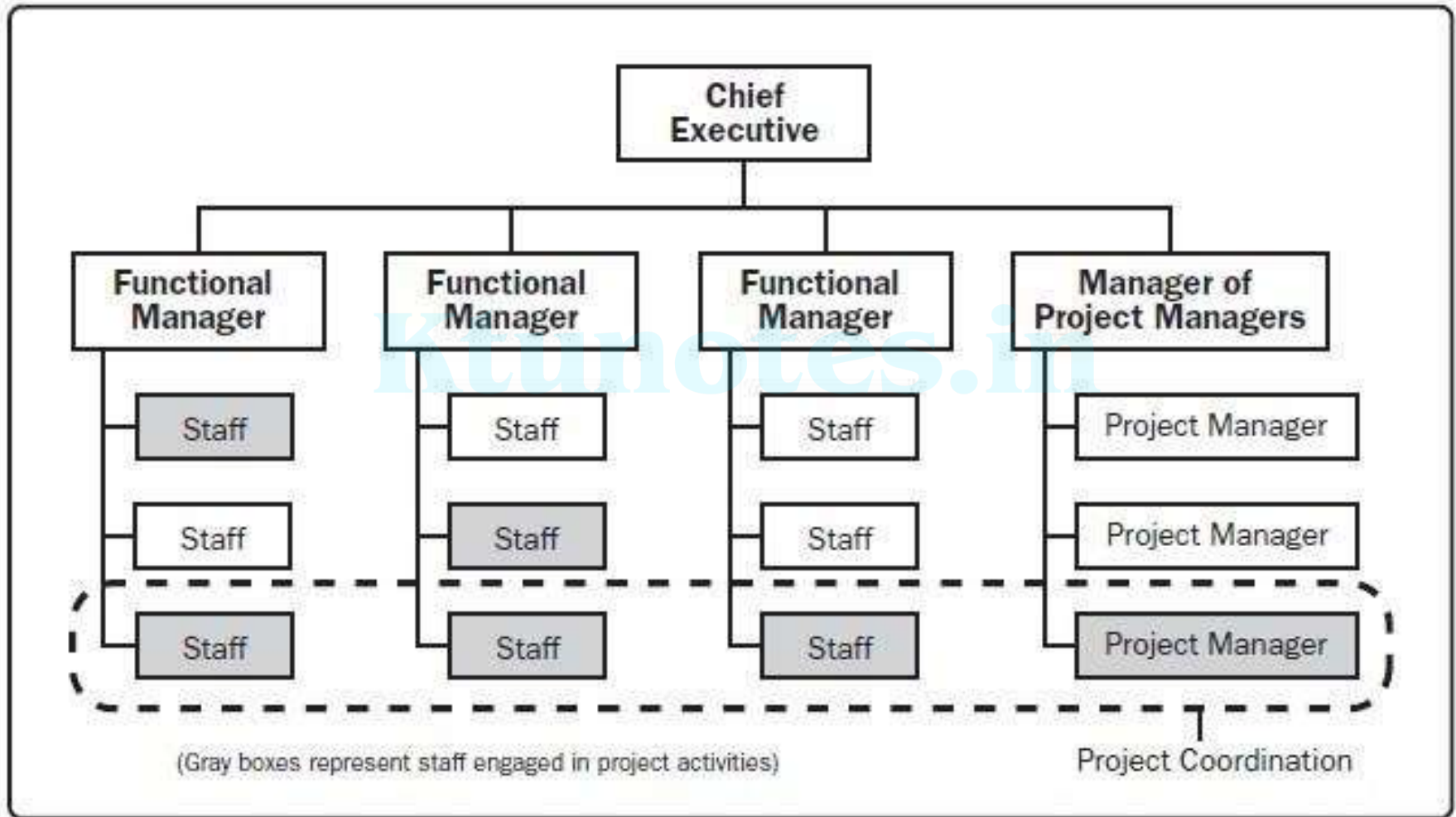


ORGANIZATION STRUCTURES

- **Matrix structure**

- Matrix structure most often refers to a group project within a large company that uses workers from a variety of departments without actually transferring those workers. Each worker then moves between his / her day-to-day work and the special project.
- For example:- Say a company launches a new project that requires workers from several departments, including research and design, legal and graphic design. However, the company does not want those participating in the project to ignore the responsibilities of the home department. Each worker is then said to move horizontally between the project and home department, as neither duty should take precedence over the other. Project members will report to the project leader and the home department head. The project leader's ability to manage members from different departments also gives him a horizontal role. Department heads remain the direct boss of only those in lower positions within their department, which is why this position is said to function vertically.

ORGANIZATION STRUCTURES

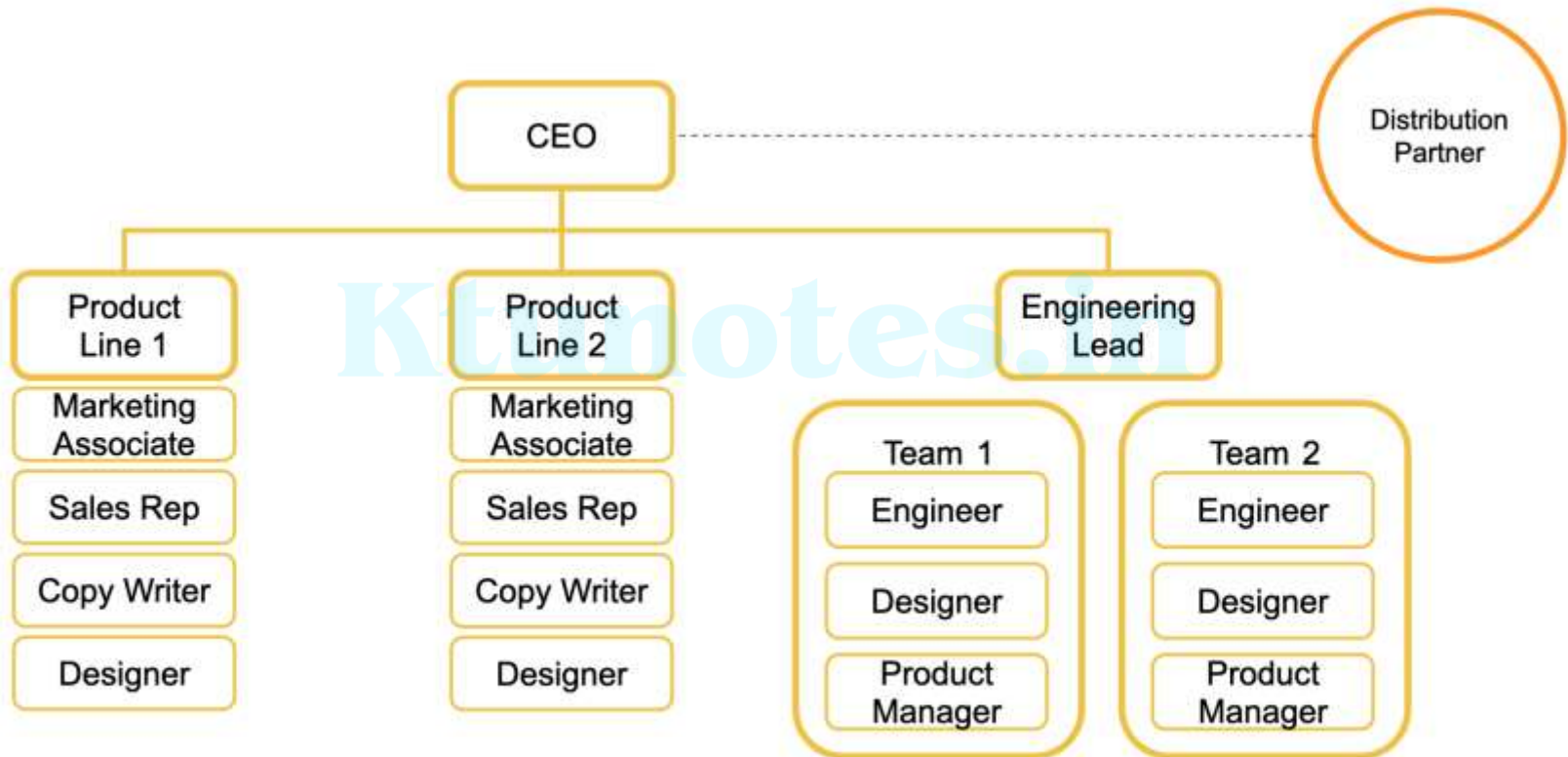


ORGANIZATION STRUCTURES

- **Team structure**

- Organizations are typically comprised of a variety of teams that help accomplish company goals and meet projections.
- While individuals cycle through times of higher and lower productivity, teams hold the potential of offering a more steady level of achievement within the organization as a whole.
- Depending on company structure, there could be permanent teams, temporary teams, committees, workforce teams, cross-functional teams, self-managed teams, task forces and/or virtual teams.
- Each type of team has a different team structure and function designed to achieve a certain end.
- The intent is to breakdown barriers among departments and create a more effective relationship for solving ongoing problems.

ORGANIZATION STRUCTURES

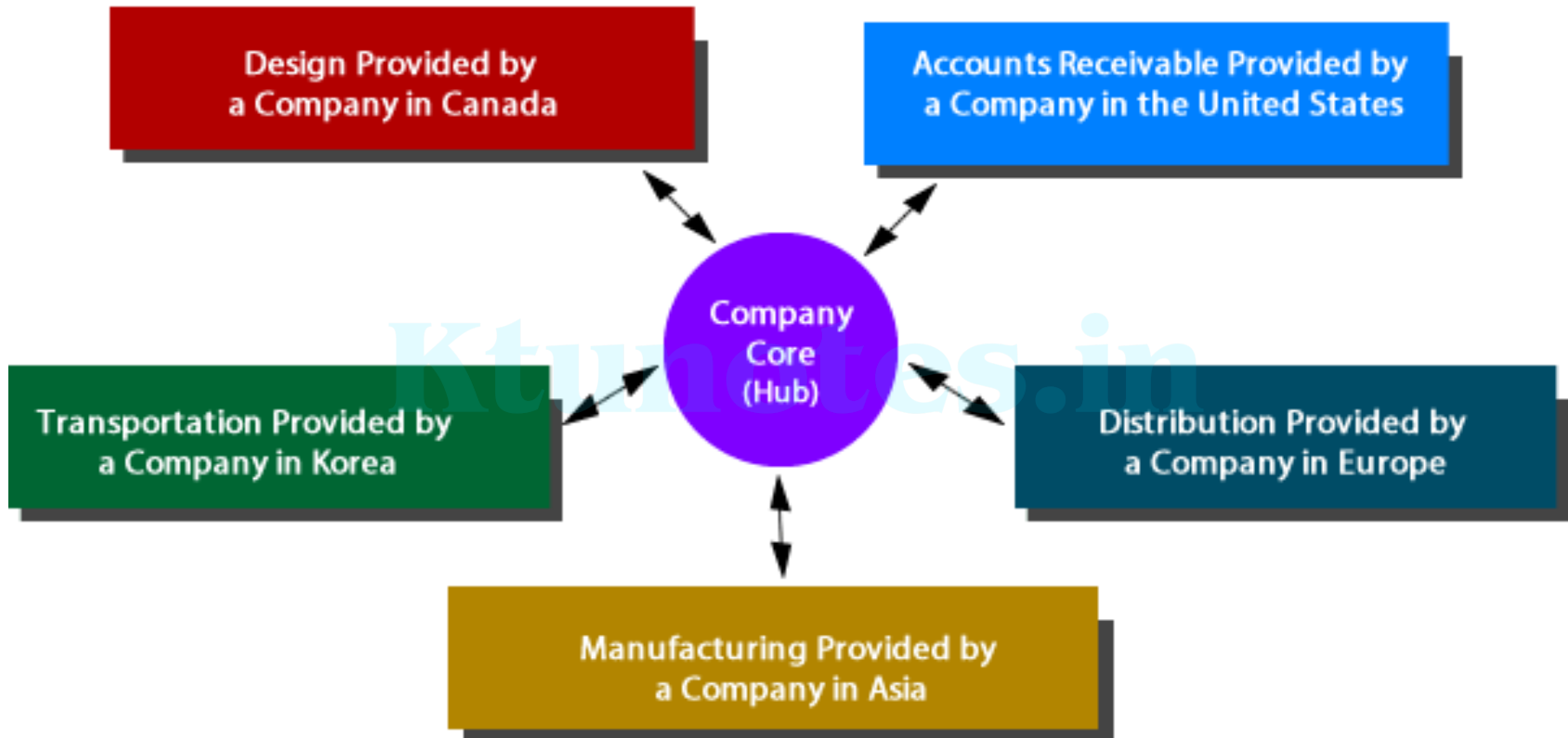


ORGANIZATION STRUCTURES

- **Network structure**

- Network structure relies on other organizations to perform critical functions on a contractual basis .
- For example:- A core company may give contract to specialized company for development of software & website on their behalf. Similarly, the design work, accounts and tax calculation, marketing, etc.

ORGANIZATION STRUCTURES



Virtual Network Approach to Organizational Design
Source: *Understanding Management* by Richard Daft, Dorothy Marcic

LEADERSHIP

- Leadership is the process of influencing the behaviour of others towards the accomplishment of goals in a given situation.
- It is the art of process of influencing people so that they will strive willingly towards the achievement of group goals.
- It is an important factor for making any type of organizational successful.
- **IMPORTANCE OF LEADERSHIP**
 - Motivating Employees
 - Develops team work
 - Better utilization of man power
 - Creating confidence to followers
 - Directing group initiatives
 - Building morale
 - Maintaining discipline

LEADERSHIP QUALITIES

- Honesty
- Confidence
- Patience
- Focus
- Dedication
- Consistency
- Motivate others
- Effective communication
- Multiplicity of roles
- Individuality
- Personal dignity

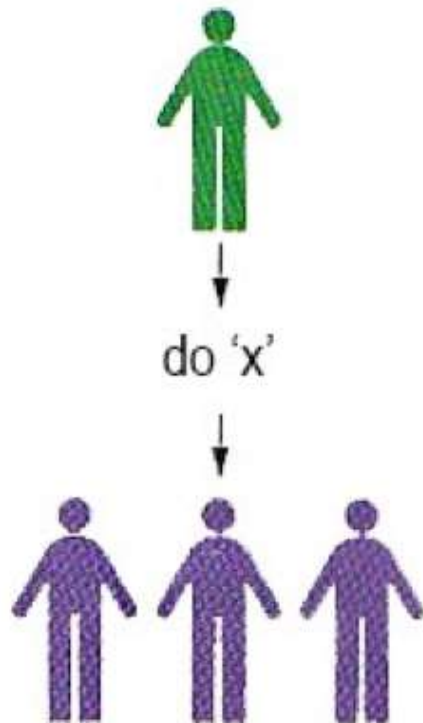
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LEADERSHIP BEHAVIOUR AND STYLES

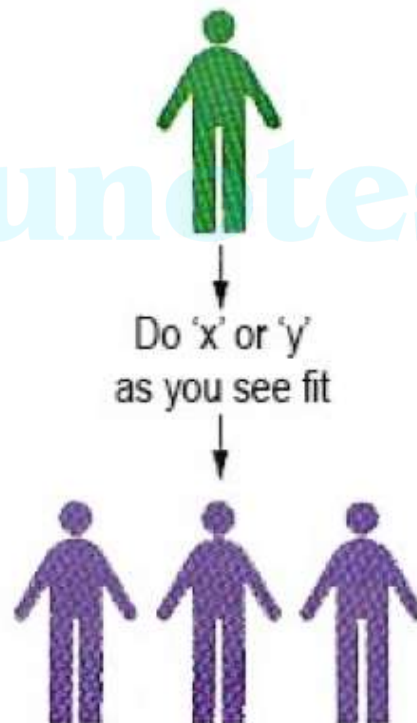
- Autocratic or Dictatorial Leadership
- Participative or Democratic Leadership
- Laissez-faire or Free rein Leadership

Leadership Styles

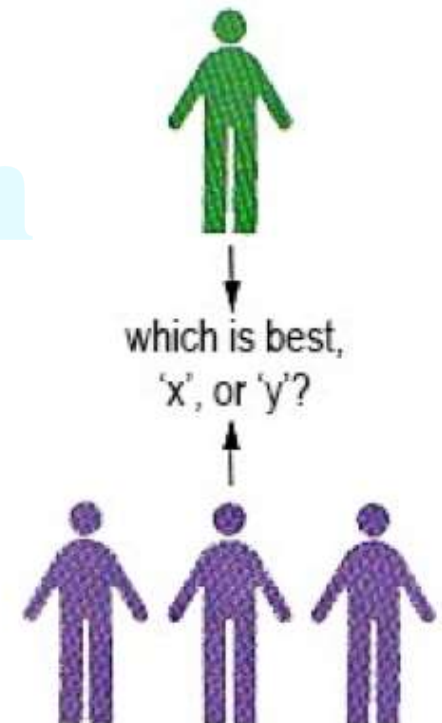
Autocratic



Laissez-Faire



Democratic



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MANAGERS V/S LEADERS

Managers

- Managers develop policies and procedures.
- Managers direct and control.
- Managers get people to do what needs to be done.
- Managers explain “what we have to do.”
- Managers are concerned with the here and now.
- Managers are task oriented
- Managers are concerned with projects.
- Management is doing things right.

Leaders

- Leaders develop vision and strategy.
- Leaders motivate and inspire.
- Leaders get people who want to do what needs to be done.
- Leaders explain “where we are going”.
- Leaders are concerned with the long view.
- Leaders are vision oriented.
- Leaders are concerned with people.
- Leadership is doing the right things.

8 DIMENSIONS OF LEADERSHIP

Leadership Dimensions

