

# *UNIT-I*

# Fundamentals of Management for Engineers

# INTRODUCTION

Management is the key word of today.

Management also played vital role in ancient times. Modern world also cannot work without management.

**GROUP ACTIVITY = MANAGEMENT**



# MEANING

The word management is derived from the Latin word 'MANUS' which means hands.

It means management is handling some activity.

The modern aspect of management is exhaustive that it not only includes handling of any activity but many others aspects also.

# Definitions of Management

Management in all business and organizational activities is the act of getting people together to accomplish desired goals and objectives using available resources efficiently and effectively.

“Management is the art of getting things done through others.” - **Mary Parker Follet.**

“Management is knowing exactly what you want to do and then seeing that they do it the best and cheapest ways. **F W Taylor**

“Manage is to forecast and to plan, organize, to command, to co-ordinate and to control.” - **Henry Fayol.**

“Management is defined as the creation and maintenance of internal environment in an enterprise where individuals, working together in groups, can perform efficiently and effectively towards the attainment of group goals.”  
- **Koontz and O’Donnel.**

“Management is a multipurpose organ that manages a business, manages a manager and manages workers and work.” – **John F. Mee.**

# FEATURES OF MANAGEMENT

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- Management is goal-oriented.
- Management is group activity.
- Management is universal.
- Management is continuous process.
- Management is intangible.

# OBJECTIVES OF MANAGEMENT

- ❖ To earn profit for business.
- ❖ To get maximum results with minimum efforts.
- ❖ To co-ordinate the various activities departments.
- ❖ To interact with outsiders.
- ❖ To fulfil social responsibility.

# IMPORTANCE OF MANAGEMENT

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- ✓ Helps to achieve goals.
- ✓ Ensures optimum use of resources.
- ✓ Motivates people.
- ✓ Establishes a sound organization.
- ✓ Helps in the economic-development.



# Functions of Management

**Koontz and O'Donnell** explained five functions of management. They have become widely accepted functions of management everywhere.

They are :

1. Planning
2. Organizing
3. Staffing
4. Directing and
5. Controlling.

# PLANNING



## Planning is deciding in advance

- what to do, how to do
- why to do
- where to do and
- who will be responsible for doing is planning.

## Definition

"Planning bridges the gap from where we are to where we want to go. It makes it possible for things to occur which would not otherwise happen" - Koontz and O'Donnel.

## **Importance of Planning**

- Planning provides directions
- Planning reduces the risks of uncertainty
- Planning reduces overlapping and wasteful activities
- Planning promotes innovative ideas
- Planning facilitates decision making
- Planning establishes standards for controlling

## **Features of planning**

- Planning focuses on achieving objectives
- Planning is a primary function of management
- Planning is continuous
- Planning is futuristic
- Planning involves decision making
- Planning is a mental exercise

## Planning Process

- **Setting objectives:** Objectives may be set for the entire organization and each department or unit within the organization.
- **Developing premises:** Planning is concerned with the future which is uncertain and every planner is using conjuncture about what might happen in future.
- **Identifying alternative courses of action:** Once objectives are set, assumptions are made. Then the next step would be to act upon them. Evaluating alternative courses: The next step is to weigh the pros and cons (advantages and disadvantages) of each alternative.
- **Selecting an alternative:** This is the real point of decision making. The best plan has to be adopted and implemented.
- **Implement the plan:** This is concerned with putting the plan into action.
- **Follow-up action:** Monitoring the plans are equally important to ensure that objectives are achieved.

# ORGANIZING



Division of work into functions and sub-functions, grouping of activities that are closely related in their nature, assigning of duties and responsibilities to the employees and finally delegation of authority and power to each employee or the group to discharge their duties accordingly are the processes come under the function of management organizing.

### **Definition**

"Organization is the process of identifying and grouping of the works to be performed, defining and delegating responsibility and authority and establishing relationships for the purpose of enabling people to work most efficiently".

- Louis A. Allen Definition

## Importance of Organizing

- Organizing helps Organizations to reap the benefit of specialization.
- Organizing provides for Optimum utilization of resources.
- Organizing helps in Effective administration.
- Organizing channels for Expansion and growth.
- Organizing achieves co-ordination among different departments.
- Organizing creates scope for new change.



## Organizing Process

**Division of work:** The first process of Organizing includes identification and division of work which shall be done in accordance with the plans that are determined previously.

**Departmentation:** once the work of identifying and dividing the work has been done those are similar are to be grouped.

**Linking departments:** When the process of departmentation was completed, linking of departments has to be done so that those departments operate in a co-ordinated manner which gives a shape to overall organization structure.

**Assigning Duties:** On completion of departmentation process assigning duties i.e. defining authority and responsibility to the employees on the basis of their skills and capabilities has to be done, which in consequence magnifies efficiency with regard to their work.

**Defining hierarchal structure:** Each employee should also know from whom he has to take orders and to whom he is accountable/responsible.

# DIRECTING



Directing is nothing but guiding and leading the people in an organization. It is not just giving instructions by a superior to the subordinates but also is a process of supervising, guiding and motivating the latter to achieve the organizational goals.

## **Definition**

"Activating deals with the steps a manager takes to get subordinates and others to carry out plans".

- Newman and Warren. Definition

## Importance of Directing

- Direction initiates actions to get the desired results in an organisation.
- Direction attempts to get maximum out of employees by identifying their capabilities.
- Direction is essential to keep the elements like Supervision, Motivation, Leadership and Communication effective.
- It ensures that every employee work for organisational goals.
- Coping up with the changes in the Organisation is possible through effective direction.
- Stability and balance can be achieved through directing.

# STAFFING



In the simplest terms, staffing in management is 'putting people to jobs'.

## **Definition**

"Staffing is the function by which managers build an organisation through the recruitment, selection, and development of individuals as capable employees"

-McFarland Definition

## **Importance of Staffing**

- Filling the Organisational positions
- Developing competencies to challenges
- Retaining personnel - professionalism
- Optimum utilisation of the human resources

# Staffing Process

**Analyzing Manpower requirements:** It is making an analysis of work and estimating the manpower requirement to accomplish the same.

**Recruitment:** It is identifying and attracting capable applicants for employment. It ends with the submission of applications by the aspirants.

**Selection:** It is choosing the fit candidates from the applications received in the process of recruitment.

**Placement:** This may be on probation and on successful completion of the same the candidate may be offered permanent employment.

**Training and Development:** It is concerned with imparting and developing specific skills for a particular purpose.

**Performance Appraisal:** Systematic evaluation of personnel by superiors or others familiar with their performance so as to rank employees to ascertain their eligibility for promotions.

# CONTROLLING





It is the process that ensures whether the resources are obtained and used efficiently in achieving the organizational objectives.

## **Definition**

"Controlling is determining what is being accomplished - that is, evaluating performance and, if necessary, applying corrective measures so that performance takes place according to plans".  
- Terry and Franklin. Definition

# Nature of Management

- Management is Goal-oriented.
- Management is Universal.
- Management is an Integrative Force.
- Management is a Social Process.
- Management is Multidisciplinary.
- Management is Continuous Process.
- Management is Intangible.
- Management is an Art as well as Science.

## Management is Goal-oriented

Management has **no justification to exist without goals**. Management goals are called group goals or organisational goals. **The basic goal of management is to ensure efficiency and economy in the utilisation of human, physical and financial resources.** The success of management is measured by the extent to which the established goals are achieved.

## Management is Universal

Management is an **essential element of every organised activity irrespective of the size or type of activity**. Wherever two or more persons are engaged in working for a common goal, management is necessary. **All types of organisations, e.g., family, club, university, government, army, cricket team or business, require management.** The fundamental principles of management are applicable in all areas of organised effort. Managers at all levels perform the same basic functions.

## Management is an Integrative Force

The essence of management **lies in the coordination of individual efforts in to a team.** Management reconciles the individual goals with organisational goals.

## Management is a Social Process

Management is a **social process** because it is **concerned with interpersonal relations**. Human factor is the most important element in management. According to Appley, “Management is the development of people not the direction of things. **A good manager is a leader not a boss**. It is the pervasiveness of human element which gives management its special character as a social process”.

## Management is Multidisciplinary

Management has to deal with human behaviour under dynamic conditions. Therefore, it depends upon wide ***knowledge derived from several disciplines like engineering, sociology, psychology, economics, anthropology*** (the study of human societies and cultures and their development), etc. The vast body of knowledge in management draws heavily upon other fields of study

## Management is Continuous Process

Management is a dynamic and an **on- going process**. The cycle of management **continues to operate** so long as there is organised action for the achievement of group goals.



## Management is Intangible

Management is an **unseen or invisible force. It cannot be seen but its presence can be felt everywhere in the form of results.** However, the managers who perform the functions of management are very much tangible and visible.

## Management is an Art as well as Science

Management is also a **discipline involving specialised training and an ethical code arising out of its social obligations.** On the basis of these characteristics, management may be defined as a continuous social process involving the coordination of human and material resources in order to accomplish desired objectives. *It involves both the determination and the accomplishment of organisational goals.*

# Scope of Management

## **Production Management:**

- a) Designing the product
- b) Location and layout of plant and building
- c) Planning and Control of factory operations
- d) Operation of purchase and storage of materials
- e) Inventory cost and Quality Control
- f) Research and Development etc.

## **Marketing Management:**

- a) marketing research to determine the needs and expectation of consumers
- b) planning and developing suitable products
- c) setting appropriate prices
- d) selecting the right channel of distribution, and
- e) promotional activities like advertising and salesmanship to communicate with the customers

# MARKETING MANAGEMENT:



[www.gitoday.in](http://www.gitoday.in)

## Financial Management:

- a) Selecting the appropriate source of funds
- b) Raising the required funds at the right time
- c) Administration of earnings
- d) Estimating the volume of fund



## Personnel Management:

- a) manpower planning
- b) recruitments,
- c) selection,
- d) training
- e) appraisal,
- f) promotions and transfers,
- g) compensation,
- h) employee welfare services, and
- i) personnel records and research, etc.



# Who is a manager?

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A person who plans, organizes, leads, and controls the work of others so that the organization achieves its goals.



# Managerial Roles

Modern businesses are very complex. A whole gamut ( the complete range or scope of something) of **knowledge of many subjects such as economics and the role of managerial economics, econometrics, statistics, managerial accounting, human resource management, organization behaviour and so on is an absolute necessity these days.**

A systematic study of these subjects provides an understanding of different managerial roles in organization. **It enables one to develop those skills which eventually help in strategic decision making.** There are many managerial roles in management but the basic functions of all managers remain the *same- planning, organizing, staffing, leading, and controlling.*

There are three main types of managerial roles in an organization:

**Interpersonal-** In this group of managerial roles and functions, the manager plays a pivotal role in the organization that includes legal as well as social duties. Here, the manager must have leadership qualities so that he/she can build a team, motivate the employees, coach them whenever necessary and contribute towards building a strong relationship. Lastly, it also requires developing and maintaining a good network of people that can provide assistance and valuable information when required.

**Informational-** This role requires the manager to have relevant information about things that are affecting the company. The manager here needs to monitor the information flow in and outside the organization. Also, he needs to disseminate important information that concerns the organization. In other words, the manager should be the spokesperson of the organization.

**Decisional-** This role requires the manager to handle unexpected challenges with suitable and immediate action plans. He/she needs to ensure that the resources of the company are being utilised in an optimum manner. He/she is also required to participate in all the negotiations of the company.

## **Briefly Explain all Managerial Roles**

The role of managerial in decision making is key to its success. The other managerial roles and functions are as follows:

**Planning:** Preparing a schedule of events that will happen in a project or creating a blueprint of activities that will be done to complete the project.

**Organizing:** Arranging everything needed for the successful completion of the project and synchronizing the same.

**Staffing:** Grouping of personnel in different teams and allocating them tasks.

**Leading/Coordinating:** Guiding team members towards a common goal and facilitating communication between the teams.

**Budgeting:** Resource planning and allocation to ensure optimal utilisation of the same during the course of project completion within the given time period.

**Reporting:** Preparing reports and presenting the same to the management for further evaluation.

**Controlling:** Bringing everything under control and taking accountability.

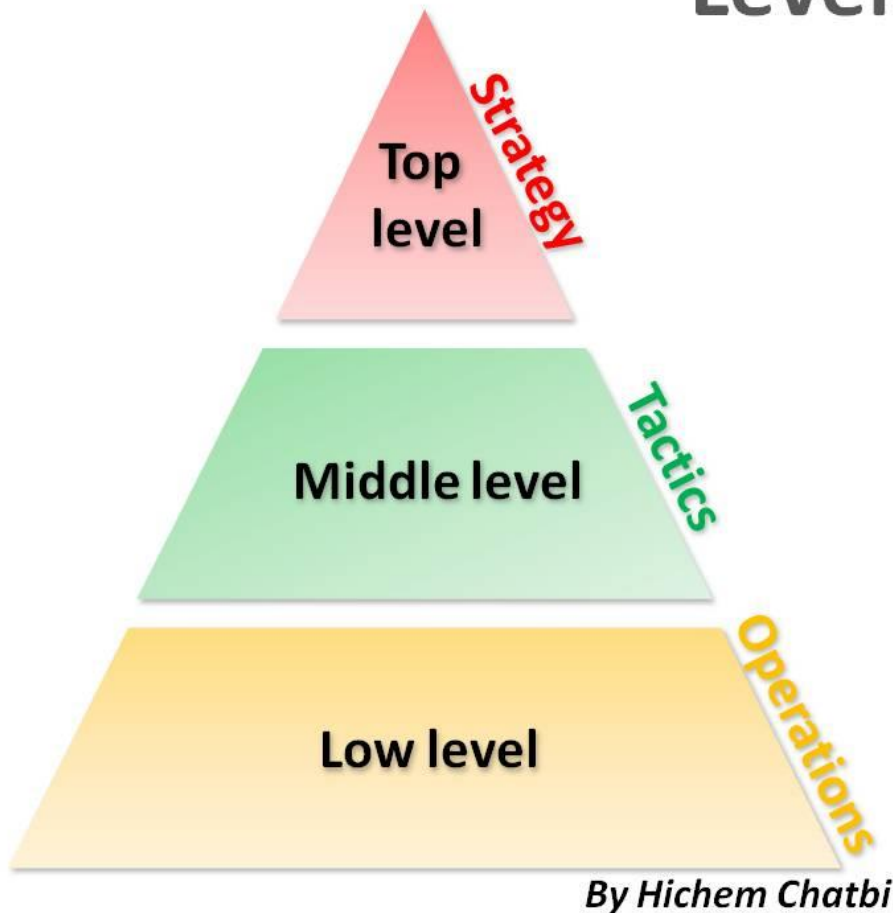
# Levels of management

- The term “Levels of Management’ refers to a line of demarcation between various managerial positions in an organization.
- The number of levels in management increases when the size of the business and work force increases and vice versa.
- The level of management determines a chain of command, the amount of authority & status enjoyed by any managerial position.

The levels of management can be classified in three broad categories: -

- Top level / Administrative level.
- Middle level management.
- Low level / Supervisory.

# Levels of management



**Top level** consists of board of directors, chief executive or managing director.

**Middle level** consists of managers and departmental managers

**Low level** consists of supervisors, foreman, section officers, superintendent

# Top Level Management

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**It consists of board of directors, chief executive or managing director.**

**The top management is the ultimate source of authority and it manages goals and policies for an enterprise.**

***It devotes more time on planning and coordinating functions.***

# Role of Top Level Management

- Top management lays down the objectives and broad policies of the enterprise.
- It issues necessary instructions for preparation of department budgets, procedures, schedules etc.
- It prepares strategic plans & policies for the enterprise.
- It appoints the executive for middle level i.e. departmental managers.
- It controls & coordinates the activities of all the departments.
- It is also responsible for maintaining a contact with the outside world.
- It provides guidance and direction.
- The top management is also responsible towards the shareholders for the performance of the enterprise



# Middle Level Management

The branch managers and departmental managers constitute middle level. *They are responsible to the top management for the functioning of their department.* **They devote more time to organizational and directional functions.**

In small organization, there is only one layer of middle level of management but in big enterprises, there may be senior and junior middle level management.

# Role of Middle Level Management

- They execute the plans of the organization in accordance with the policies and directives of the top management.
- They make plans for the sub-units of the organization.
- They participate in employment & training of lower level management.
- They interpret and explain policies from top level management to lower level.
- They are responsible for coordinating the activities within the division or department.
- It also sends important reports and other important data to top level management.
- They evaluate performance of junior managers.
- They are also responsible for inspiring lower level managers towards better performance.

# Lower Level Management

- Lower level is also known as supervisory / operative level of management.
- It consists of supervisors, foreman, section officers, superintendent etc.
- According to R.C. Davis, “Supervisory management refers to those executives whose work has to be largely with personal oversight and direction of operative employees”.
- In other words, they are concerned with direction and controlling function of management.

# Role of Lower Level Management

- Assigning of jobs and tasks to various workers.
- They guide and instruct workers for day to day activities.
- They are responsible for the quality as well as quantity of production.
- They are also entrusted with the responsibility of maintaining good relation in the organization.
- They communicate workers problems, suggestions, and recommendatory appeals etc to the higher level and higher level goals and objectives to the workers.
- They help to solve the grievances of the workers.
- They supervise & guide the sub-ordinates.
- They are responsible for providing training to the workers.
- They arrange necessary materials, machines, tools etc for getting the things done.
- They prepare periodical reports about the performance of the workers. They ensure discipline in the enterprise.
- They motivate workers.
- They are the image builders of the enterprise because they are in direct contact with the workers.

# Managerial Skills

## The Managerial Skills

- Conceptual Skills
- Human Relations Skills
- Technical Skills
- Communication Skills
- Administrative Skills
- Leadership Skills
- Problem Solving Skills
- Decision Making Skills

## Conceptual Skills

- Conceptual skill is the ability to visualise (see) the organisation as a whole.
- It includes Analytical, Creative and Initiative skills.
- It helps the manager to identify the causes of the problems and not the symptoms.
- It helps him to solve the problems for the benefit of the entire organisation.
- It helps the manager to fix goals for the whole organisation and to plan for every situation.

## Human Relations Skills

- Human relations skills are also called Interpersonal skills.
- It is an ability to work with people. It helps the managers to understand, communicate and work with others.
- It also helps the managers to lead, motivate and develop team spirit.
- Human relations skills are required by all managers at all levels of management. This is so, since all managers have to interact and work with people.

# Maslow's Hierarchy of Needs





## Technical Skills

- A technical skill is the ability to perform the given job.
- Technical skills help the managers to use different machines and tools.
- It also helps them to use various procedures and techniques.
- The low-level managers require more technical skills.
- This is because they are incharge of the actual operations

**Communication skills** are required equally at all three levels of management.

➤ A manager must be able to communicate the plans and policies to the workers.

➤ Similarly, he must listen and solve the problems of the workers.

➤ He must encourage a free-flow of communication in the organisation.

## Administrative Skills

- Administrative skills are required at the top-level management.
- The top-level managers should know how to make plans and policies.
- They should also know how to get the work done.
- They should be able to co-ordinate different activities of the organisation.
- They should also be able to control the full organisation.

## Leadership Skills

- Leadership skill is the ability to influence human behaviour.
- A manager requires leadership skills to motivate the workers.
- These skills help the Manager to get the work done through the workers.

## Problem Solving Skills

- Problem solving skills are also called as Design skills.
- A manager should know how to identify a problem.
- He should also possess an ability to find a best solution for solving any specific problem.
- This requires intelligence, experience and up-to-date knowledge of the latest developments.

## Decision Making Skills

- Decision-making skills are required at all levels of management.
- However, it is required more at the top-level of management.
- A manager must be able to take quick and correct decisions.
- He must also be able to implement his decision wisely.
- The success or failure of a manager depends upon the correctness of his decisions.

# Challenges of Management

Here are some of the most common challenges managers face and how to overcome them:

1. Decreased performance levels
2. Being understaffed
3. Lack of communication
4. Poor teamwork
5. Pressure to perform
6. Absence of structure
7. Time management
8. Inadequate support
9. Skepticism
10. Difficult employees
11. Transition from coworker to manager
12. Weak workplace culture

## **1. Decreased performance levels**

Employees may experience periods of time where they are not as productive as usual. A decrease in productivity can sometimes affect other team members and overall goals, making it important to help employees feel motivated.

Managers who consistently review processes and procedures within the company can increase efficiency. Perform a workflow analysis to review your current systems and restructure weak areas. Another way to address this challenge is by asking questions and offering solutions to their problems. One-on-one meetings provide a great opportunity for managers to re-establish work hours and expectations regarding work productivity.



## **2. Being understaffed**

Managers must recognize when it's time to hire another team member to help fulfill responsibilities within their department. Because the hiring process is time-consuming, it's helpful to get assistance from other managers and human resources professionals when pursuing a new candidate.

If needed, ask for help when creating a job description, interviewing applicants and selecting the right person for the desired role. Consider having applicants complete a sample work test to help you determine the best fit for your team.

### **3. Lack of communication**

Another challenge managers face when overseeing teams is ensuring effective communication. Because every team member has a different personality, there is a chance for miscommunication from time to time.

Increase the frequency of communication to ensure employees know exactly what you expect of them and when you need them to complete it. Redefine standards that reinforce your team's goals and purposes. Consider implementing a messaging platform for the workplace that allows everyone to communicate quickly. Let them know if you prefer one form of contact over another.

## 4. Poor teamwork

Sometimes, employees may lose focus on collaboration when they spend a lot of time completing individual tasks. To re-establish teamwork, managers should revisit the purpose of a project. Managers who take the time to acknowledge their team's efforts and clarify the purpose of their work commonly see increased levels of motivation.

Consider dividing your team members into partners so they have a chance to work with someone for a specific project. Team-building exercises are another great way to help everyone learn how to work better together. Base the content of your exercises around the challenges your team faces. For example, if they need to get to know each other better, focus on relationship building.

## **5. Pressure to perform**

Some managers, especially new managers, to feel like they are under pressure to achieve greatness from the very start of their role. If you frequently feel stressed about your leadership position, take time to revisit the reasons why you were hired for the job. Recognize that leaders learn from experience and mistakes. While planning helps, you will likely face unexpected situations. The way that you choose to resolve conflicts and react to challenges reflects your ability to lead.

## **6. Absence of structure**

A common challenge that managers face in the workplace is the absence of structure, especially when overseeing a new team. Depending on the work environment, some teams may need to be supervised more closely than others in order to maintain productivity levels.

Take time to develop an organizational structure that helps employees know what you expect of them. In addition, show your team respect to encourage loyalty.

## **7. Time management**

Because managers are responsible for overseeing the members of their team and communicating with other department heads, they typically struggle with balancing their own tasks. One way to prioritize your own work responsibilities is by scheduling time throughout the day to do specific work. Let your team know the times you'll be available to them and the times you plan to focus on your work. Regularly update your calendar, and share it with team members so they know when they can reach you.

## **8. Inadequate support**

Managers sometimes need approval from the executive team of a company or the business owner before moving ahead with a project. When the decision-making process takes longer than expected, it may slow down their team's progress overall. The most important thing to do in this situation is to be honest with your team members. Let them know that you are waiting for information from the executive team, and if possible, allow them to work on other projects. Try to arrange for a one-on-one with the decision-maker to expedite progress.

## 9. Skepticism

Teams often question the transparency of management when they feel distanced from their supervisors, especially if certain employees feel like they are doing more work than others. When people feel they are not part of the plan, their level of trust becomes compromised. Clear communication and honest interactions help resolve skepticism in most instances because it builds trust between an employee and manager. When you delegate tasks, explain why you assigned it and how it contributes to the overall goal.



## **10. Difficult employees**

Sometimes, managers oversee employees who cause tension in the workplace. Knowing how to properly address any issues before they become major problems is one common challenge managers face. To address specific concerns, request feedback from your team members to learn about any issues they may have with completing work or communicating with team members.

Implement any feasible suggestions to show you're listening to your team. Take time to listen to their concerns and find out what you can about the situation. If you're unsure of what to do next, consider enlisting the support of an HR professional in your company. Their training supports conflict resolution and other aspects of employee relations.

## **11. Transition from coworker to manager**

People who get promoted at work often find themselves managing old coworkers. This situation may feel awkward at first, but with time and the right leadership, it may become less of an issue. Ensure team members that you're there to support their efforts and ensure they have everything they need to accomplish their goals. It may help to have a meeting shortly after the transition where you address the change in roles and allow your team members to ask any questions.

## **12. Weak workplace culture**

When teams feel like they're not connected with the rest of the workplace, they could experience a decrease in motivation. Teams that feel they are part of a larger group, experience more confidence and trust. One way to promote a strong work culture is by planning lunch outings and rewarding employees who exceed expectations.

***Thanks***