Session One

Basic Concepts of Management

Introduction

Management is required in all kinds of organizations whether they are manufacturing computers or handlooms, trading in consumer goods or providing saloon services and even in non-business organizations. No matter what the organization is or what its goals might be, they all have something in common – management and managers. Successful organizations achieve their goals by following a deliberate process called 'management. Management consists of a series of interrelated functions that are performed by all managers. In simple words Management is the art of getting things done through people. Let's understand the concept of management.

Concept of Management

Some of the common definition of management given by famous writers and thinkers are:

- According to Harold Koontz and Heinz Weihrich, Management is the process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims.
- According to Robert L. Trewelly and M. Gene Newport, Management is defined as the process of planning, organizing, actuating and controlling an organization's operations in order to achieve coordination of the human and material resources essential in the effective and efficient attainment of objectives.
- According to Kreitner, "Management is the process of working with and through others to effectively achieve organizational objectives by efficiently using limited resources in the changing environment.
- According to George R Terry, Management consists of planning, organizing, actuating and controlling, performed to determine and accomplish the objectives by the use of people and resources.

So, Management can be defined as a process of getting things done with the aim of achieving goals effectively and efficiently. Some important terms in this definition are:

1. **Process**: Process means the primary functions or activities that management performs to get things done. These functions are planning, organizing, staffing, directing and controlling.
2. **Effectiveness**: Effectiveness is concerned with the end result. It basically means finishing the given task. Thus, Effectiveness in management is

concerned with doing the right task, completing activities and achieving goals

3. **Efficient**: Efficiency means doing the task correctly and with minimum cost. Management is concerned with the efficient use of input resources which ultimately reduce costs and lead to higher profits.

it is important for management to achieve goals (effectiveness) with minimum resources i.e., as efficiently as possible while maintaining a balance between effectiveness and efficiency.

Characteristics of Management

Basic characteristics of management are:

1. **Management is a goal-oriented process**: An organization has a set of basic goals which are the basic reason for its existence. Management unites the efforts of different individuals in the organization towards achieving these goals.

2. **Management is all pervasive**: The activities involved in managing an enterprise are common to all organizations whether economic, social or political.

3. **Management is multidimensional**: Management is a complex activity that has three main dimensions:
   i. **Management of work**: All organizations exist for the performance of some work. Management translates this work in terms of goals to be achieved and assigns the means to achieve it.
   ii. **Management of people**: Human resources or people are an organization's greatest asset. Managing people has two dimensions:
      - it implies dealing with employees as individuals with diverse needs and behavior;
      - it also means dealing with individuals as a group of people

      The task of management is to make people work towards achieving the organization's goals, by making their strengths effective and their weaknesses irrelevant.
   iii. **Management of operations**: It requires a production process which entails the flow of input material and the technology for transforming this input into the desired output for consumption

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5. **Management is a continuous process**: The process of management is a series of continuous, composite, but separate functions (planning, organizing, directing, staffing and controlling). These functions are simultaneously performed by all managers all the time.

6. **Management is a group activity**: An organization is a collection of diverse individuals with different needs. Management should enable all its members to grow and develop as needs and opportunities change

7. **Management is a dynamic function**: Management is a dynamic function and has to adapt itself to the changing environment. In order to be successful, an organization must change itself and its goals according to the needs of the environment.

8. **Management is an intangible force**: Management is an intangible force that cannot be seen but its presence can be felt in the way the organization functions.

Basic Functions of Management
Originally identified by Henri Fayol as five elements, there are now four commonly accepted functions of management that encompass these necessary skills: planning, organizing, leading, and controlling. Consider what each of these functions entails, as well as how each may look in action.

Planning
One main role of a manager is creating a plan to meet company goals and objectives. This involves allocating employee resources and delegating responsibilities, as well as setting realistic timelines and standards for completion. Planning requires those in management roles to continuously check on team progress in order to make small adjustments when necessary, while still maintaining a clear picture of a company's larger aims and goals.

Much of one's planning function consists of working independently to determine what responsibilities must be given to which employees, setting priority levels for certain tasks, and creating timelines. However, communication also plays an important role. For example, managers deal with planning when they meet with company leadership to discuss short and long-term goals, and when they communicate the specifics of a new project to their team or check-in periodically to ensure individual objectives are being met on time.

Organizing

Along with planning, a manager's organizational skills can help to ensure a company or departmental unit runs smoothly. From establishing internal processes and structures to knowing which employees or teams are best suited for specific tasks, keeping everyone and everything organized throughout daily operations are important functions of management.

Organization isn't just about delegating tasks efficiently and making sure employees have what they need to accomplish their tasks, however. Managers also need to be able to reorganize in response to new challenges. This could come into practice in the form of slightly adjusting the timeline for a project or re-allocating tasks from one team to another. Or, it could mean significantly altering a team's internal structure and roles in response to company growth.

Leading

Managers should be comfortable and confident commanding their team members' daily tasks as well as during periods of significant change or challenge. This involves projecting a strong sense of direction and leadership when setting goals and communicating new processes, products and services, or internal policy.

Leadership can manifest itself in a number of ways, including recognizing when employees need an extra boost of reinforcement and praise to handling conflicts between team members fairly and decisively. Often, managers may function as leaders even during small personal interactions by modeling supportive, encouraging, and motivational qualities.

Controlling

To ensure all of the above functions are working toward the success of a company, managers should consistently monitor employee performance, quality of work, and the efficiency and reliability of completed projects. Control (and quality control) in management is about making sure the ultimate goals of the business are being adequately met, as well as making any necessary changes when they aren't.

Broad Objectives of Management

Proper Utilization of Resources:

The main objective of management is to use various resources of the enterprise in a most economic way. The proper use of men, materials, machines and money will help a business to earn sufficient profits to satisfy various interests. The proprietors will want more returns on their investments while employees, customers and public will expect a fair deal from the management. All these

interests will be satisfied only when physical resources of the business are properly utilized.

Improving Performance:
Management should aim at improving the performance of each and every factor of production. The environment should be so congenial that workers are able to give their maximum to the enterprise. The fixing of objectives of various factors of production will help them in improving their performance.

Mobilizing Best Talent:
The management should try to employ persons in various fields so that better results are possible. The employment of specialists in various fields will be increasing the efficiency of various factors of production. There should be a proper environment which should encourage good persons to join the enterprise. The better pay scales, proper amenities, future growth potentialities will attract more people in joining a concern.

Planning for Future:
Another important objective of management is to prepare plans. No management should feel satisfied with today's work if it has not thought of tomorrow. Future plans should take into consideration what is to be done next. Future performance will depend upon present planning. So, planning for future is essential to help the concern.

Definition and Composition of a Lab

Introduction

In response to a rising number of students with personal laptops, educators and administrators are questioning the need for computer labs. However, while access to technology is changing their function, computer labs remain relevant in today's schools for a number of reasons. For starters, computer labs create inclusive, structured learning environments where students can prepare for a tech-heavy future.

A computer laboratory is important in every private and government school to enhance the scientific and technological research and invention capacity of students. The technological tools in Computer or ICT labs do not only serve as tools for learning ICT skills, but also becomes the resources for gaining vast array of knowledge in various subjects. This session will guide us to identify what a Computer laboratory is and what it is made up of.

What is Computer Laboratory?

A **computer lab** is *a space which provides computer services to a defined community*. Computer labs are typically provided by libraries to the public, by academic institutions to students who attend the institution, or by other institutions to the public or to people affiliated with that institution.

In the pure context of teaching and learning, *it is room or space equipped with computers (networked or not) devoted to pedagogical use in a school including school libraries*. An alternative definition would be *a facility where students and teachers access the hardware and software necessary to fulfil the requirements in the courses studied and taught*. Computer laboratories are also used to train and expose students on computer programming, simulation and other subjects. A computer laboratory must be safe from any disruptive, non-pedagogical content; pupils and teachers may need authorized access credentials.

Users typically must follow a certain user policy to retain access to the computers. This generally consists of the user not engaging in illegal activities or attempting to circumvent any security or content-control software while using the computers. In public settings, computer lab users are often subject to time limits,

in order to allow more people a chance to use the lab, whereas in other institutions, computer access typically requires valid personal login credentials, which may also allow the institution to track the user's activities.

Computers in computer labs are typically equipped with internet access, while scanners and printers may augment the lab setup. Computers in computer labs are typically arranged either in rows, so that every workstation has a similar view of one end of the room to facilitate lecturing or presentations, or in clusters, to facilitate small group work. In some cases, generally in academic institutions, student laptops or laptop carts take the place of dedicated computer labs, although computer labs still have a place in applications requiring special software or hardware not practically implementable in personal computers.

What makes Computer Laboratories still relevant or beneficial?
Workstations Have More to Offer
Portable computing power offers learning advantages in virtually any educational environment. Yet, iPads and Chromebooks have their limitations. It's a case of the right tool for the job. There are many things for which PC workstations are better suited.

Full computer lab workstations deliver greater computing power and more screen space than mobile devices. They offer better ergonomics and full-sized keyboards. PCs with powerful processors are ideal, and often a must-have, for subjects like advanced programming, engineering, and video editing. Full-sized keyboards make for easier typing of long papers.

Added screen real estate lets students work smarter and more efficiently. More information onscreen means less time needed to click and swap among tabs and windows. This has a host of advantages. For example, reference articles can be kept open and visible as students write a paper.

The health benefits of a full-sized monitor are not trivial. Correct <u>ergonomics while computing</u> is critical to reducing strain, discomfort and long-term injury like herniated discs. The top of a display should be at or slightly below eye level. Laptops sit much lower on a work surface.

The result is often considerable neck strain, commonly called <u>"tech neck."</u> Using a full-sized, adjustable monitor keeps students comfortable now and safeguards their future health.

School Computer Labs Ensure Equitable Access
While 1:1 computing is on the rise, equity gaps persist. Many schools still lack the resources to implement 1:1 learning.

The Consortium for School Networking reveals the extent of these gaps in its 2018-2019 annual infrastructure survey. Forty-one percent (41%) of high school students lack access to a non-shared in-school device. In middle schools, 37% of the students lack individual 1:1 device access.

Elementary school students have the least access to personal devices, at 71%. This represents some progress over the prior year. Yet it still leaves a large portion of the US student population without a dedicated device during the school day.

At home, the survey found, there were no gains in students access to computing devices. This, in fact, is an ongoing trend. Since 2015, 10% or fewer school districts have reported that all of their students have internet access via non-shared devices at home.

Until all students have a dedicated computing device, school computer labs provide a place for equitable access to this vital resource.

School Computer Labs Supplement Classroom Learning
Students that use Chromebooks or other mobile devices during class gain digital literacy skills in tandem with class curriculum. Students type notes. Group projects are conducted digitally. The internet is at hand for research tasks. It's a natural integration.

As such, some educators conclude that all aspects of computer learning should move out of the computer lab and into the everyday classroom. On the flip side of the debate are those who advocate for maintaining separate computing facilities. Topping the list of reasons is limited classroom learning time.

Classroom teachers are time-pressed as it is. Covering the required curriculum and attending to students is a daily challenge. How would these teachers add instruction previously covered by a technology specialist or computer teacher? Finding time requires sacrificing something else.

Computer labs provide a time and space to develop skills not directly related to classroom curriculum. These skills can be first learned in the lab. Then mastered through ongoing application at home and in the classroom.

Modern Computer Labs Promote Collaboration

Traditional computer labs were designed to facilitate one thing: large classes of individual students engaged in similar tasks. They were often windowless rooms with workstations lining the walls to accommodate wiring and cables.

Today's computer labs, library commons, and STEM labs look nothing like their ancestors. They're also designed to facilitate a myriad of learning activities. Solo learning and testing, to be sure. But also, and perhaps foremost, collaborative group work. Just as classrooms are being redesigned to accommodate today's constructivist learning styles, so too are computer labs being redesigned to facilitate working together to explore concepts and create meaning.

Encourages individual learning

No one learns in the same way because of different learning styles and different abilities. The laboratory provides great opportunities for making learning more effective for everyone with different needs. For example, students can learn at their own speed, review difficult concepts or skip ahead if they need to. What is more, it can provide more opportunities for struggling or disabled students. Access to the Internet gives students access to a broad range of resources to conduct research in different ways, which in turn can increase the engagement.

Students can learn useful life skills through technology

By using the computer laboratory, both teachers and students can develop skills essential for the 21st century. Students can gain the skills they will need to be successful in the future. Modern learning is about collaborating with others, solving complex problems, critical thinking, developing different forms of communication and leadership skills, and improving motivation and productivity. What is more, technology can help develop many practical skills, including creating presentations, learning to differentiate reliable from unreliable sources on the Internet, maintaining proper online etiquette, and writing emails. These are very important skills that can be developed in the classroom.

Benefits for teachers

With countless online resources, technology can help improve teaching. Teachers can use different apps or trusted online resources to enhance the traditional ways of teaching and to keep students more engaged. Virtual lesson plans, grading software and online assessments can help teachers save a lot time. This valuable time can be used for working with students who are struggling. What is more, having virtual learning environments in schools enhances collaboration and knowledge sharing between teachers.

Purpose of Computer Laboratories in Schools
  i.   Serve as the center for accessing varied information on general and specific subject areas
  ii. Serve as a place for ICT knowledge and skills development
  iii. Serve as a place to develop knowledge and skills in skills various other fields
  iv. Serve as a platform for collaboration, corporation and an avenue to share ideas
  v.   Serve as platform for developing and enhancing creativity and innovation

Useful things that learners can do at the Computer Laboratory
  i.   Students can code and can build new educational apps.
  ii.   They can use document writing and editing application to create notes and write books.
  iii. They can build their own websites and blogs.
  iv.   They can practice math equations on Microsoft Excel.
  v.   Students can learn to use the internet in which they can pay fees online, they can join online classes, they can participate with online students' communities on projects and assignments.
  vi.   If students have access, they can learn, practice, and improve their typing skills.
  vii. Students can practice video conferencing with teachers, online education, and many other educational activities through online computer applications.
  viii. And the most important thing in all students can learn the latest technologies such as artificial intelligence, robotics, data analytics, and cloud computing, the Internet of things, and many others.

Basic Constituents of a Computer Laboratory
While it is the desire for most educators to have the state-of-the-art computer laboratory, issues of inadequate funds may not make it possible for such. However, every school can develop simple computer laboratory with the following basic components:
  i.   Well ventilated spaced room
  ii.   PC Desks
  iii. Well laid electrical installations as sockets, extension boards, etc
  iv.   Desktop computers with appreciable specifications

v.   A usable Operating System, Office Suite Applications
vi.   Educational and Reference programs
vii.   A Printer
viii.   A Projector
ix.   A Projector Screen
x.   Headsets (optional)
xi.   White marker board

An advanced Computer Laboratory constituent
Where they can be afforded, a more state of the art basic components of the laboratory in addition to what is given above should include:
i.   Laptop computers
ii.   Latest Operating System and Office Applications
iii.   Graphics designing, programming software
iv.   Space and desks for BYOD
v.   Internet connectivity with Wi-Fi enabled
vi.   Server for Client-Server architecture
vii.   Video conferencing and communication tools
viii.   Electronic boards
ix.   Digitizing boards