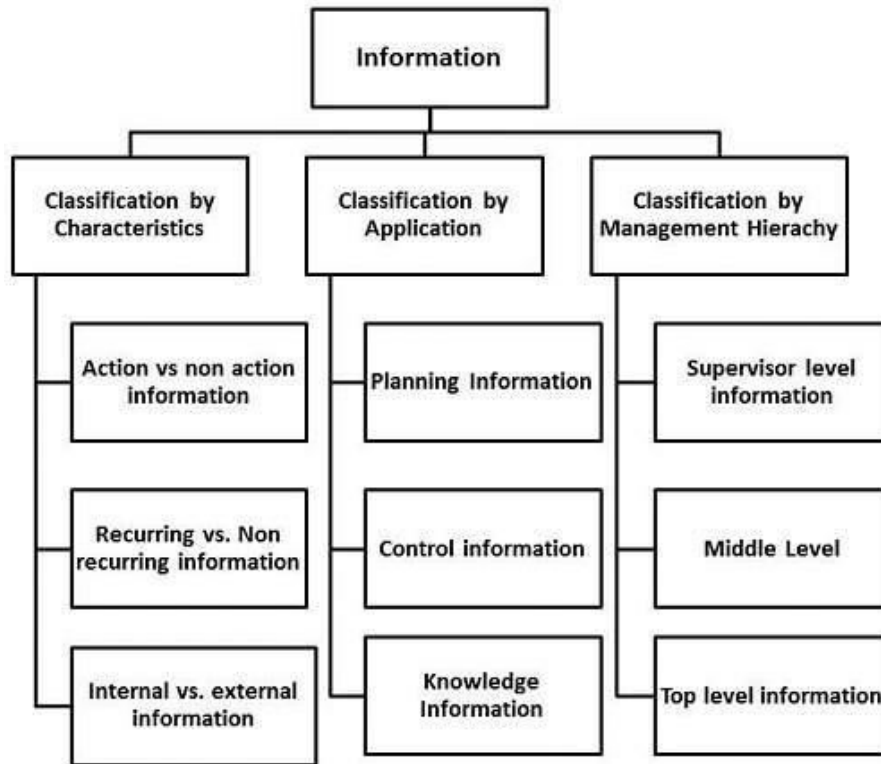## 5.1 Introduction to Information and Classification

Information can be classified in a number of ways and you will learn two of the most important ways to classify information.

Fig: Classification of Information

Classification by Characteristic

Based on Anthony's classification of Management, information used in business for decision-making is generally categorized into three types:

5.2.1 Strategic Information System

Strategic information is concerned with long term policy decisions that defines the objectives of a business and checks how well these objectives are met. For example, acquiring a new plant, a new product, diversification of business etc, comes under strategic information.

Strategic planning is an organization's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy. Generally, strategic planning deals, on the whole business, rather than just an isolated unit, with at least one of following two key questions:

- "What do we do?"
- "For whom do we do it?"
- Strategic information is used at the very top level of management within an organization. These are chief executives or directors who have to make decisions for the long term.
- Strategic information is broad based and will use a mixture of information gathered from both internal and external sources.

Strategic planning for an organization involves long-term policy decisions, like location of a new plant, a new product, diversification etc.

Strategic planning is mostly influenced by:

- Decision of diversification i.e., expansion or integration of business
- Market dynamics, demand and supply
- Technological changes
- Competitive forces
- Various other threats, challenges and opportunities

Strategic planning sets targets for the workings and references for taking such long-term policy decisions and transforms the business objectives into functional and operational units. Strategic planning generally follows one of the four-way paths:

- Overall Company Strategy
- Growth orientation
- Product orientation
- Market orientation

5.2.2 Tactical Information System

Tactical information is concerned with the information needed for exercising control over business resources, like budgeting, quality control, service level, inventory level, productivity level etc.

Tactical planning is short range planning emphasizing the current operations of various parts of the organization. Short Range is generally defined as a period of time extending about one year or less in the future. Managers use tactical planning to outline what the various parts of the organization must do for the organization to be successful at some point one year or less into the future. Tactical plans are usually developed in the areas of production, marketing, personnel and plant facilities. Because of the time horizon and the nature of the questions dealt, mishaps potentially occurring during the execution of a tactical plan should be covered by moderate uncertainties and may lie closer to the control of management (next year shipping prices, energy consumption, but not a catastrophic black-out, etc.) than strategic ones. Those mishaps, in conjunction to their potential consequences are called "tactical risks".

➢ Tactical information will be mostly internal with a few external sources being used. Internal information is likely to be function related: for example, how much 'down time' a production line must allocate for planned maintenance.

➢ Tactical information is used by middle management (employees) when managing or planning projects.

5.2.3 Operational Information System

Operational information is concerned with plant/business level information and is used to ensure proper conduction of specific operational tasks as planned/intended. Various operator specific, machine specific and shift specific jobs for quality control checks comes under this category.

Operational planning is the process of linking strategic goals and objectives to tactical actives. It describes milestones, conditions for success and explains how, or what portion of, a strategic plan will be put into operation during a given operational period. An operational plan addresses four questions:

- Where are we now?
- Where do we want to be?
- How do we get there?
- How do we measure our progress?

- ➢ The lowest level is operational and operational planning takes place based on the tactical plans.

- ➢ The lowest level of management or workers in an organization implements operational plans. These may be section leaders or foremen in a large organization or workers such as shop assistants, waiting staff, and kitchen staff, etc., in smaller businesses where there is no supervisory layer

Classification by Application

In terms of applications, information can be categorized as:

- **Planning Information:** These are the information needed for establishing standard norms and specifications in an organization. This information is used in strategic, tactical, and operation planning of any activity. Examples of such information are time standards, design standards.

- **Control Information:** This information is needed for establishing control over all business activities through feedback mechanism. This information is used for controlling attainment, nature and utilization of important processes in a system. When such information reflects a deviation from the established standards, the system should induce a decision or an action leading to control.

- **Knowledge Information:** Knowledge is defined as "information about information". Knowledge information is acquired through experience and learning, and collected from archival data and research studies.

- **Organizational Information:** Organizational information deals with an organization's environment, culture in the light of its objectives. Karl Weick's Organizational Information Theory emphasizes that an organization reduces its uncertainty by collecting, managing and using these information prudently. This information is used by everybody in the organization; examples of such information are employee and payroll information.

- **Functional/Operational Information:** This is operation specific information. For example, daily schedules in a manufacturing plant that refers to the detailed assignment of jobs to machines or machines to operators. In a service oriented business, it would be the duty roster of various personnel. This information is mostly internal to the organization.

- **Database Information:** Database information construes large quantities of information that has multiple usage and application. Such information is stored, retrieved and managed to create databases. For example, material specification or supplier information is stored for multiple users.