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# 1

# MANAGEMENT



*Indra Krishnamurthy Nooyi, Chairman and CEO, PepsiCo, has made all the Indians proud by ranking 3rd on the Forbes list of 100 most powerful women in the world in 2008.*

## **Learning Objectives**

After reading this chapter, you will be able to answer the following questions:

- What is management?
- What are the functions of a manager?
- What are the various hierarchies of management?
- What kind of knowledge and skills are required by managers at different levels of management?
- How did management evolve as a discipline over the period of time?

## **■ ■ INTRODUCTION**

The term *management* has enjoyed great prominence during the twentieth century and continues its dominance in the twenty-first century. During this time, various corporations were created worldwide and managed successfully by professionally trained managers. The discipline of management was thought to be primarily propounded and developed in America, until it saw innovative management principles emanating in Japan during this period. Many Japanese management concepts remained an enigma for American companies during the 1980s when the Japanese companies challenged the might of their American counterparts in their home turf. It took quite sometime for the American re-

searchers and practitioners of management to uncover the mysteries of Japanese management concepts like *just-in-time* (JIT), *total quality management* (TQM), *kaizen*, *quality circles*, etc.

*Management* was formally introduced as an academic discipline in the USA with the establishment of Harvard Business School in 1908. Harvard Business School has many firsts to its credit in the field of management. For example, it made a new departure in business education by emphasizing the two fundamental functions of industrial management and commercial organization or marketing, with chief emphasis upon the latter (Gay, 1944). It is also famous for its "case study" method of teaching.

In India, the advent of management education can be traced back to 1962, when the Indian Institute of Management (IIM) at Calcutta was established by the Government of India in collaboration with the Sloan School of Management, Massachusetts Institute of Technology (MIT). Later in the same year, the Indian Institute of Management at Ahmedabad was established in association with the Harvard Business School.

Arguably, the discipline of management existed in India during the ancient times, when Lord Krishna gave sermons to Arjuna during the war against the *Kauravas*. These sermons, vividly captured in the *Bhagwat Gita*, can be successfully applied to the current managerial scenarios.

## ■ Meaning of Management

"Management cannot be defined or understood—let alone practiced—except in terms of its performance dimensions and of the demands of performance on it" (Drucker, 1973). These words of Peter Drucker place high importance on achievement of results by managers. The results of a manager's actions should be enjoyed by the customer or the client as the ultimate beneficiary. The customers may be external or internal to the organization, i.e. at times, the results of manager's actions may impact the internal customers like the employees of another department of the organization. The internal customers for a manager may also be the shareholders of the company and the Board of Directors.

Mary Parker Follett (1868–1933) defined management as "the art of getting things done through people." Peter Drucker, who is hailed as the father of modern management theory, discovered Follett's work in the 1950s and is said to have referred to Follett as his "guru" (Mary Parker Follett Foundation, 2008). This simple yet compelling definition captures the essence of management, though it can be argued that management is an art as well as a science. Therefore, it would be worthwhile to truncate the definition of management to "getting things done through people." Interestingly, in this definition, the manager is not expected to do things on his own, but to take work out of other people. These people may be subordinates, superiors, vendors, contractors, shareholders, and other stakeholders.

If we merge Drucker's emphasis upon achievement of results by managers for the benefit of the customer/client in the definition by Follett, it gets transformed to: "Management is getting things done through people for the benefit of the customer or the client."

### **Points to Ponder**

- Management was formally recognized as a formal academic discipline in the USA with the establishment of Harvard Business School in 1908.
- In India, the advent of management education can be traced back to 1962, when the Indian Institute of Management (IIM) at Calcutta was established.
- Peter Drucker places high importance on achievement of results by managers.
- Mary Parker Follett defined management as "the art of getting things done through people."
- By merging the ideas of Follett and Drucker, the definition can be worked out as: "management is getting things done through people for the benefit of the customer or the client."

### **INDRA NOOYI—TRANSFORMING PEPSICO**

Indra Krishnamurthy Nooyi ranks 3rd on the Forbes list of 100 most powerful women in the world in 2008. As the Chairman and CEO of PepsiCo, Nooyi's slogan is "performance for purpose." She has been instrumental in transforming PepsiCo into a company which has explicit focus on selling healthy food. As a business management professional, Nooyi is famous for her uncanny business acumen with a sense of heart and fun.

Nooyi has indeed made people realize that in today's international business scenario, an Indian lady can rise to the highest ranks. Hailing from Chennai, she is a product of the Indian Institute of Management, Calcutta (1976 batch). Her professors at IIM Calcutta remember her as a mediocre student, who has surpassed everybody's expectations by assuming such a prestigious position at one of the world's largest corporations. After com-

pleting her course at IIM-C, she worked in Mumbai for Johnson & Johnson and is said to be closely associated with the launch of "Stayfree" brand of sanitary napkins. She is also a Master in Public and Private Management from the Yale School of Management, from where she graduated in 1980.

Having held the positions of Corporate Strategist at Motorola and ABB earlier, she joined PepsiCo in 1994 as its Chief Strategist. She is said to be the real force in influencing the then CEO to spin off Pizza Hut and KFC as she did not find these food chain fitting the Pepsi portfolio. Similarly, she supported the spin off of Pepsi's bottling business and acquisition of Tropicana. Since 2000, when she became chief financial officer, the company's annual revenues have risen 72%, while net profit more than doubled, to \$5.6 billion in 2006. Amusingly, Nooyi has been found casu-

ally strolling in the office barefoot and at times, even sings in the halls (Business Week, 2007).

Her father seems to have influenced her a lot and she confesses to have learned from him the benefits of “positive intent.” According to her, in business meetings, at times, people say something at the spur of the moment, which may upset you immensely. In place of assuming a *negative intent*, which results in screaming while seething with anger, one should assume *positive intent* and try to rationally find out why the other person is reacting in that manner. In her own words, you can either misconstrue what they are saying and assume they are trying to put you down, or you can say, “Wait a minute. Let me really get behind what they are saying to understand whether they are reacting because they are hurt, upset, confused, or they don’t understand what it is I’ve asked them to do.” If you react from a negative perspective—because you did not like the way they reacted—then it just becomes two negatives fighting each other. But when you assume positive intent, I think often what happens is the other person says, “Hey, wait a minute, maybe I am wrong in reacting the

way I do because this person is really making an effort” (Nooyi, 2008).

According to Nooyi, an important attribute of success is to “be yourself.” In illustrating the rule, she humorously recounted a learning experience when she was a graduate student at Yale University, seeking her first summer job, because she had “no money to live on.” She purchased a \$50 business suit from the local budget store and attended a job interview looking like “the ultimate country bumpkin” in her ill-fitting clothes and shod in garish orange snow boots, that her appearance elicited “a collective gasp (of horror) from people there.” When she tearfully consulted her career development counselor about her sartorial snafu, the latter advised her to wear a sari for her next interview, assuring Nooyi that, “if they cannot accept you in a sari, it’s their loss, not yours.” She recalled that she not only wore a sari for her next interview with Boston Consulting Group and clinched the job, but continued to wear them to work all summer and “did just fine.” She insists, “Never hide what makes you” (Dandapani, 2005).

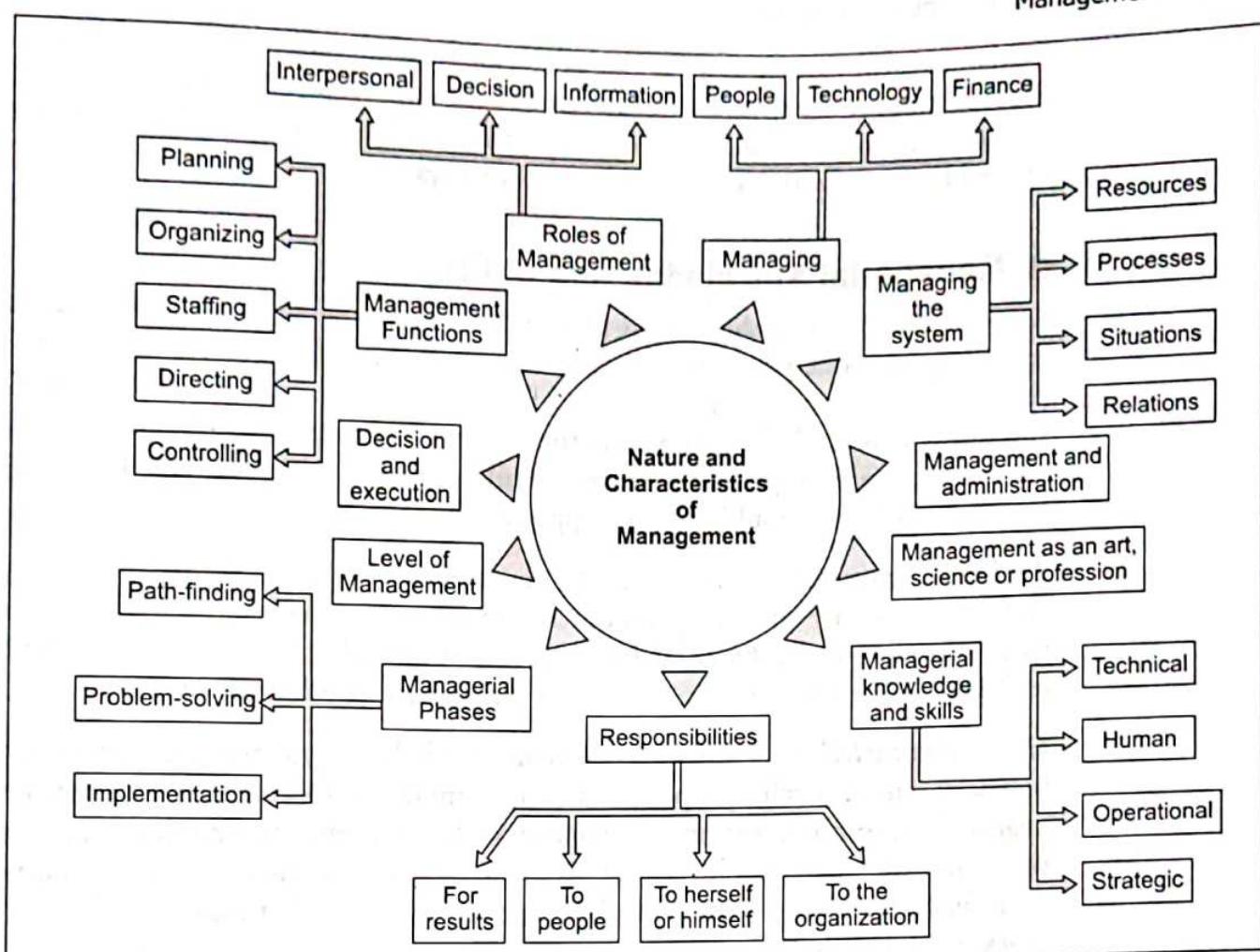
### Discussion questions

1. Discuss the pros and cons of “be yourself” approach followed by Nooyi.
2. Do you agree with the power of “positive intent”? Critically discuss how you would

react in situations when your colleagues make comments which annoy you.

## ■ ■ NATURE AND CHARACTERISTICS OF MANAGEMENT

Management has a vast canvas and has various characteristics based upon various dimensions as shown in Figure 1.1. We shall study these characteristics one by one.



**Figure I.I** Nature and Characteristics of Management

## ■ Management as a Science, Art, or Profession

Management is perhaps the only subject in academics which enjoys the distinction of being a science as well as an art and a profession. This is so because the contributions in the evolution of this subject have come from all the directions—artists, social scientists, economists, engineers, administrators, and practicing managers.

Management is an art because it requires the creativity and subjective skills of a manager like the communication skills, negotiation skills, motivational skills, etc. Every individual manager has his own personal traits—attitude, ethics, values and style, which constitute an art form.

Management is also a science as it requires a systematic study based upon scientific methods to analyse business problems and to find optimal solutions. Later in this chapter, while covering the development of management thought, we would come across the contributions of various scientists, engineers, and mathematicians who used scientific tools and techniques in laying the foundations of management as a discipline.

Management is undoubtedly one of the most sought after professions, which is evident from the immense achievements of successful managers in creating new enterprises, growing existing enterprises, and the lucrative pay packages offered by organizations worldwide to its managers.

### ■ Managerial Knowledge and Skills

Katz (1955) proposed three areas of managerial knowledge and skills required by managers, namely *technical*, *human*, and *conceptual*. However, later, Shenhav (1990) further expanded the areas into four, viz. *technical*, *human*, *operational*, and *strategic*. Knowledge symbolizes the “science” part of management, i.e. what the managers are supposed to “know”, while skills represent the “art” form, i.e. how the managers should “do” or “apply the knowledge.”

*Technical knowledge* is constituted by the scientific methods, tools, techniques, and concepts that managers should know for taking informed decisions in various situations. *Technical skills* are required to apply the know-how to solve technical problems and are necessary to evaluate the work done by others.

*Human knowledge* comprises of human and behavioural theories developed by social scientists who propounded various models on leadership, motivation, negotiation, communication, etc. *Human skills* are needed to practically get the work done through people, i.e. to lead them, to motivate them, to communicate with them, and to negotiate with them in such a manner that they contribute to work with their heart and soul.

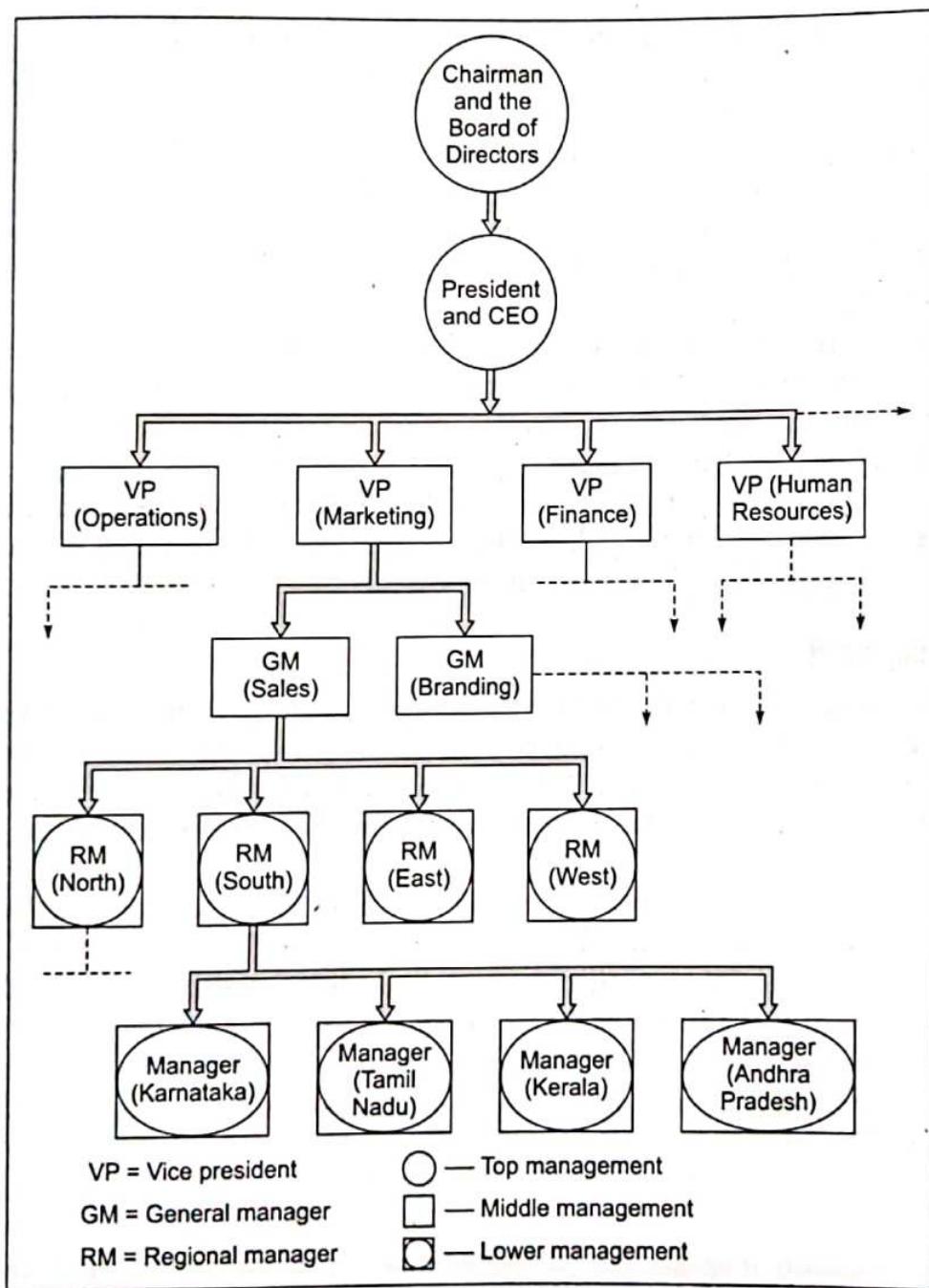
*Operational knowledge* relates to the day-to-day running of an enterprise. This involves designing, implementing, and maintaining a transformation process which converts various inputs into output of desired products and services. The inputs can be capital, buildings, equipment, workers, etc. *Operational skills* involve proper resources allocation to various activities in the transformation process, sequencing of activities according to precedence requirements, routing the material into factory premises, preparing production plans, etc. In service setups, this skill requires, for example, preparing service blueprints to clearly depict and demarcate the customer-facing parts of the service process vis-à-vis the backend operations (through a line of visibility) to identify the service failure points and ways to minimize the failures.

*Strategic knowledge* deals with long-term planning for the organization as a whole. This involves scanning the environment for threats and opportunities while analysing the strengths and weaknesses of the organization. It provides an overall direction to the whole of the organization keeping in view the industry dynamics in which the organization operates and the market forces like the competitors. *Strategic skills* are required in the implementation of the strategic

plans, e.g. communicating the plans to all concerned, allocating budgets and human resources, keeping a track on the progress of implementation of plans, etc.

## ■ Levels of Management

Figure 1.2 shows an indicative organization structure to demarcate the various levels of management in an organization. The organization structure may vary from organization to organization according to the nature of the industry and areas of activity of the organization.



**Figure 1.2**  
Indicative Organization Structure

### **Top management**

Top management of the organization is constituted by the Chairman, and the Board of Directors, the President, and the Chief Executive Officer (CEO). The strategic knowledge and skills are most useful for this level of managers, whose primary role is to set the vision, mission, and long-term direction of the organization. They also create the strategic objectives for the firm. For example, a strategic objective for a firm may be to double the sales revenue in the coming five years.

### **Middle management**

According to Drucker (1954, p. 126), the operating (middle) management tends to see things "functionally." Thus, the middle management consists of managers taking care of the functional areas like operations, finance, marketing and human resources, strategy and management information systems. The functional areas may further be segregated into specialized sub-functions. For example, marketing department may be divided into sales and branding sections. As shown in Figure 1.2, the General Manager (Sales) would report to the Vice-President (Marketing).

The middle managers need the operating knowledge and skills to convert the strategic plans set by the top management into operating (annual) policies and targets. They later use control mechanisms to gauge up to what extent the lower management is successful in implementing these policies and in achieving the targets. For example, the strategic objective of doubling the sales revenue in the next five years may be converted by the middle management into operating annual objective of 20% growth in sales revenue every year for the coming five years.

### **Lower management**

Lower management level is formed by the managers who are entrusted with the job of implementing the operating policies and targets given by the middle management. As shown in Figure 1.2, the regional managers are responsible achieving the sales targets for their respective regions like North, South, East, and West.

The Regional Manager (South), say, has a team of managers operating under him for the states of Karnataka, Tamil Nadu, Kerala, and Andhra Pradesh. Depending upon the sales growth prospects in the four states, the Regional Manager (South) may charge the Manager (Karnataka) to achieve a sales growth rate of 30%, while instructing the Manager (Kerala) to achieve a sales growth rate of 15% and so on such that the overall growth for all the four states in South aggregates to 20% (the operating target set by the middle management).

The technical knowledge and skills come most handy for the lower management. For example, Manager (Karnataka) must know the concepts of customer relationship management (CRM) to retain her existing customer base, while using the selling skills to rope in new customers.

It is noteworthy that human knowledge and skills are of great utility at all levels of management. For example, the Board of Directors has to deal with numerous shareholders, lower management has to deal with customers, vendors, etc., and the middle management has to take care of the compelling demands of top as well as middle managers while dealing with external people like the government agencies, financial institutions, etc.

## ■ Management and Administration

The terms *management* and *administration* are often used interchangeably in common parlance. Extensive research in the literature reveals that there is a subtle difference between the two. American and European scholars seem to have a divergent view as to which term is a subset of the other. American scholar Schulze (1919) is of the view that administration is a much broader concept, which encompasses management within itself. On the contrary, British scholar Sheldon (1930) and French scholar Fayol (1916) opine that management has a broader meaning than administration *in a general sense*.

Let us first look at the definitions of the terms *administration*, *organization*, and *management* as given by Schulze (1919).

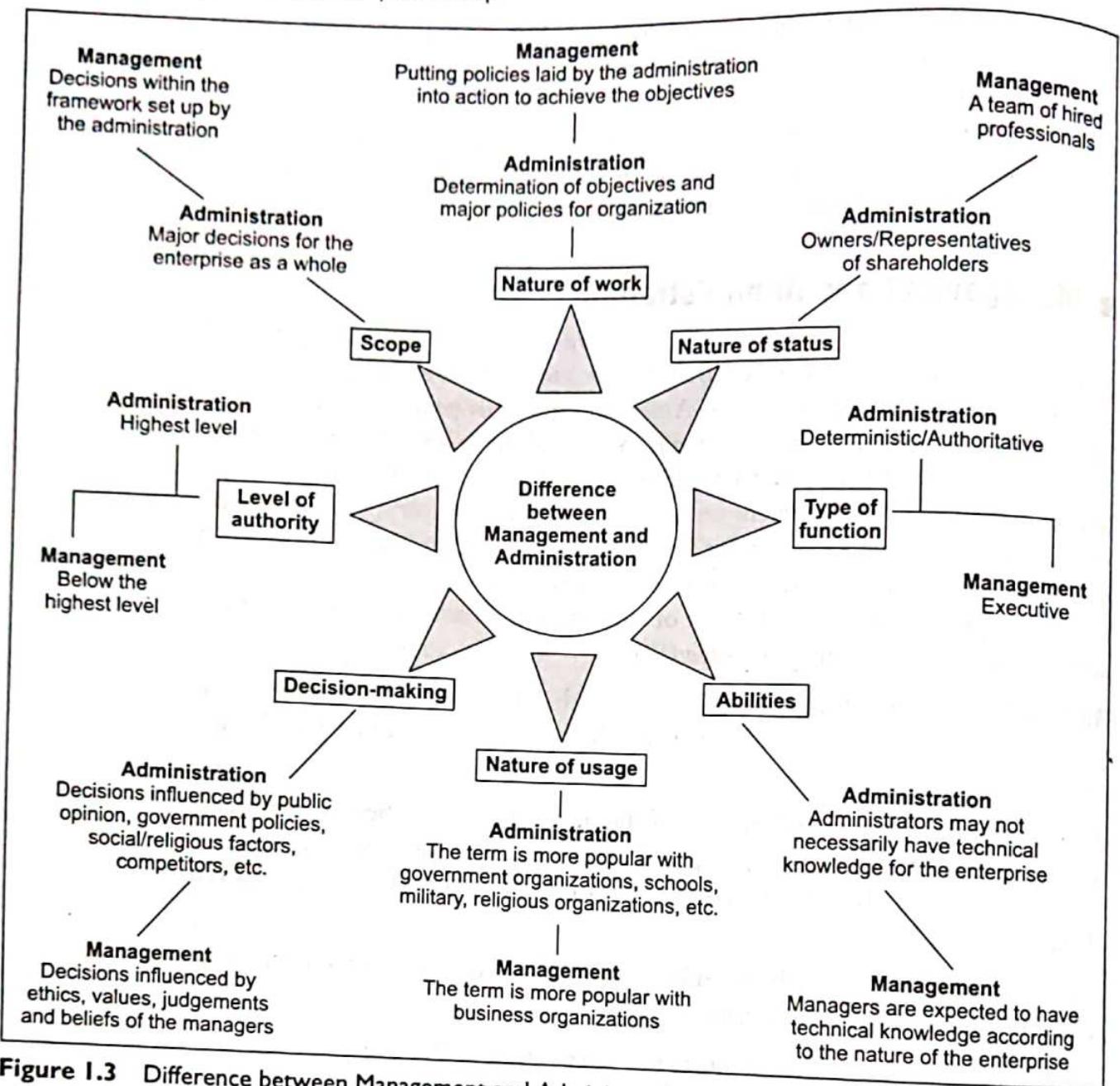
*Administration* is the force which lays down the object for which an organization and its management are to strive and the broad policies under which they are to operate.

An *organization* is the combination of the necessary human beings, materials, tools, equipment, working space, and appurtenances (accessories) brought together in systematic and effective correlation, to accomplish some desired object.

*Management* is the force which leads, guides and directs an organization in the accomplishment of the predetermined object.

While defining these terms, Schulze himself contends, "the words *management* and *administration* are so frequently used synonymously that one rather hesitates to draw a distinction between them, for, after all, usage gives a word its meaning." He justifies his explicit distinction between the two terms by pointing towards the American model of the government, whereby the President typifies the administrative force, while the various governmental heads of departments typify the management force.

If we draw a parallel between a business enterprise and the American government, the Board of Directors of the enterprise may be taken as the administrative force, while the Chief Executive Office (CEO) along with his subordinates would form the management force. Figure 1.3 shows the difference between management and administration.



**Figure 1.3** Difference between Management and Administration

### ■ Decision and Execution

This characteristic of management requires the managers to decide and execute. Decision-making is an attribute which is of paramount importance for a manager. A manager has to take decisions all the time, some of which have short-term impact, while others have long-term impact.

Management has various tools and techniques to aid the decision-making on part of the manager. Thus, the expectation is that the manager will make informed and calculated decisions based upon past experiences rather than hunch or gut-feel.

As achievement of results is necessary for a manager, s/he has to implement the decisions as well. A well-thought of decision would not yield desired results

unless it is meticulously implemented. Hence, decision and execution should go like hand in glove on part of a manager.

## ■ Managing People, Technology, and Finance

The key ingredients that decide the sustainability of an organization are its competent workforce, sound technology, and prudent financial judgements. Managing these resources (people, technology, and finance) is vital for any organization.

### Managing the people

*Managing the people* is undoubtedly the most important and challenging task for managers, as human beings may be compared to the most complex of machines—they have feelings, emotions, and sentiments. Getting things done through people may not always be a cakewalk. People need to be motivated, trained, and directed to make them *do* the work wholeheartedly.

When we talk about people, these may not only be the subordinates or superiors within the organization, but also vendors, customers, stakeholders, and shareholders. It is important to understand the subtle difference between the terms *stakeholders* and *shareholders*. Shareholders are the people or organizations holding an equity stake in the enterprise. They share the profit and bear the losses depending upon the performance of the enterprise. Stakeholders may be anybody affected by the operations of the enterprise—employees, shareholders, government, suppliers, customers, or local people getting affected (e.g. local people getting displaced due to a factory being set-up on a land where they currently live). It is thus important for a manager to develop the art and skills of dealing with such a vast variety of people.

### Managing the technology

*Technology* is increasingly becoming crucial for the success of an enterprise irrespective of industry. The kind of transformation organizations have witnessed due to rapid advancements in technology over the past few years is dramatic. For example, in the banking industry, Internet banking has become more of a norm than exception within a short time span of past few years. Thus, it is imperative that recent advances in technology are monitored and deployed by managers in order to keep their organizations competitive.

Another example from the textile machinery—our local Indian machines (manufactured in places like Coimbatore) are finding it difficult to compete against the more sophisticated German machines in the Indian market. Under pressure from the Chinese competition, the Indian textile manufacturers prefer German machines to increase their production capacities. This goes on to demonstrate how important it is for our local textile machinery manufacturers to improve their research and development capabilities.

Management of technology is therefore an integral part of a manager's responsibilities. The processes used in transforming the input resources into output of desired goods and services are also dependent upon the technology used, thus adding to its importance.

### **Managing the finances**

Needless to say, *managing the monetary part* of an enterprise is necessary for a manager. It starts with the preparation of budgets for various activities of the organization, keeping a track of the money invested, ensuring a return on investment (revenue generation—the top line) and finally, the profits (or losses) made (the bottom line).

In addition, the manager has to pay attention to the market price of the equity shares of the company, as the primary objective of an enterprise is to maximize the wealth of the shareholders. The Ambanis of Reliance are famous for protecting the interest of their shareholders under the worst of circumstances.

Managing money is important in non-profit organizations as well, as the focus there is to minimize the cost of operations while fulfilling the strategic organizational objectives.

## **■ Managing the System**

The systems approach to management envisages that a manager should be adept in managing the complex system comprising of *resources, processes, situations, and relations*.

### **Resources**

*Resources* are the men, machines, materials, tools, equipment, capital, buildings, facilities, etc. Resources are not unlimited for an organization which makes it all the more important for a manager to deploy and use a judicious mix of various resources in achieving the end objective of favourable results.

There may be close interrelationships between some of these resources, which need to be understood by the manager. For example, if the manager decides to install highly automated machines in the plant, it may lessen the number of workers required in the factory. Similarly, if a bank increases the number of ATM machines in a city, it would require lesser number of teller counters and personnel manning them in its branches.

### **Processes**

*Processes* are the predetermined steps followed by an organization to convert various resources (inputs) into desired output of products and services. Ill-conceived processes may result in wastage of resources, effort and worst of all—low quality products and services. A manager has to, thus, carefully design and deploy suitable processes, which eliminate the wastes and optimally utilize the resources for best results.

There are various management techniques like *methods analysis* which aid the managers in this effort. For example, a thorough process analysis may reveal that the patients in a hospital have to unnecessarily wait for long durations at various stages of their medical examination, check-ups, tests, medicine distribution at the dispensary, etc. This would require redesigning of the patient OPD (Out-Patient Department) process so as to reduce waiting time of the patients.

### Situations

*Situations* of various sorts often demand prompt action/decision from a manager. Some of the situations may be unprecedented and abrupt with very less reaction time on part of the manager. A positive attitude, will, and patience to handle such situations are expected from a manager.

Three examples come to mind when we talk of extreme situations managers may face over their career time. One is that of Manjunath, an executive of Indian Oil Corporation Ltd (and an alumnus of IIM Lucknow) who was shot dead a few years back by a retail outlet owner in Lakhimpur Khiri (U.P.) for his honest actions to stop adulteration of petroleum products at the outlet.

Another equally appalling situation was faced by L.K. Chowdhury, the CEO of Graziano, an Italian electronics MNC with office in Greater Noida, when on 22 September 2008, the workers dismissed by him had beaten him to death. Such situations are not limited to the Indian context as the third instance is about Sid Agarwal, the CEO of SiPort in California, who was shot dead by a sacked employee, Jing Hua Wu in November 2008.

These incidents have raised several questions and debates in business schools about the approach managers should adopt to avoid such gory incidents. However, all situations faced by managers may not be this extreme. For example, a manager may have to handle a crisis due to delay in delivery of raw material from a supplier, resulting in halting of production in the factory.

### Relations

*Relations* developed by a manager with customers, subordinates, superiors, suppliers, government officials, media, etc. play a major role in growth/survival of an organization. It requires a conscious effort on part of a manager to continually communicate with people, exchange views with them or to send them greetings/gifts on festivities, etc.

Ambanis of Reliance are often accused of maintaining close relations with government officials and political parties to swing some government policies in their favour. However, this approach is neither new nor illegitimate in the present business context, as long as ethical and legal limits are not broached.

## ■ Management Functions

Management functions are often confused with two related concepts—functional areas of management and the scope of management. Let us discuss each of these concepts to understand the difference between them.

### Management functions

As shown in Figure 1.4, the core of management shows the modified form of management functions initially identified by Fayol (1916). These are the functional activities in which managers are involved. Fayol's original management functions were *planning, organizing, command, coordination, and control*. However, Gulick (1937) adapted the acronym POSDCORB from Fayol with the initials representing *planning, organizing, staffing, directing, coordination, reporting, and budgeting* (Wren, 2003, p. 100).

However, most modern texts follow the acronym POSDC and have confined the management functions to *planning, organizing, staffing, directing, and controlling*. This book also follows the same convention as shown in Figure 1.4. Shenhari and Renier (1996) have very succinctly captured the essence of each of these management functions as under:

**Planning** Selecting objectives and the means for accomplishing those objectives.

**Organizing** Designing a structure of roles for people to fill.

**Staffing** Selecting and developing people to fill organizational roles effectively.

**Directing** Taking actions to motivate people and help them see that contributing to group objectives is in their own interest.

**Controlling** Measuring and correcting activities of people to ensure that plans are being realized.

We shall be discussing in detail each of the above managerial functions in the next few chapters.

### Functional areas of management

As shown in Figure 1.4, the management functions are applicable equally well to the organization functions or organizational areas (at times referred to as the functional "areas" of management). The organizational functions are operations, marketing, finance, strategy, human resources, and management information systems (MIS) (Bhat and Kumar, 2008).

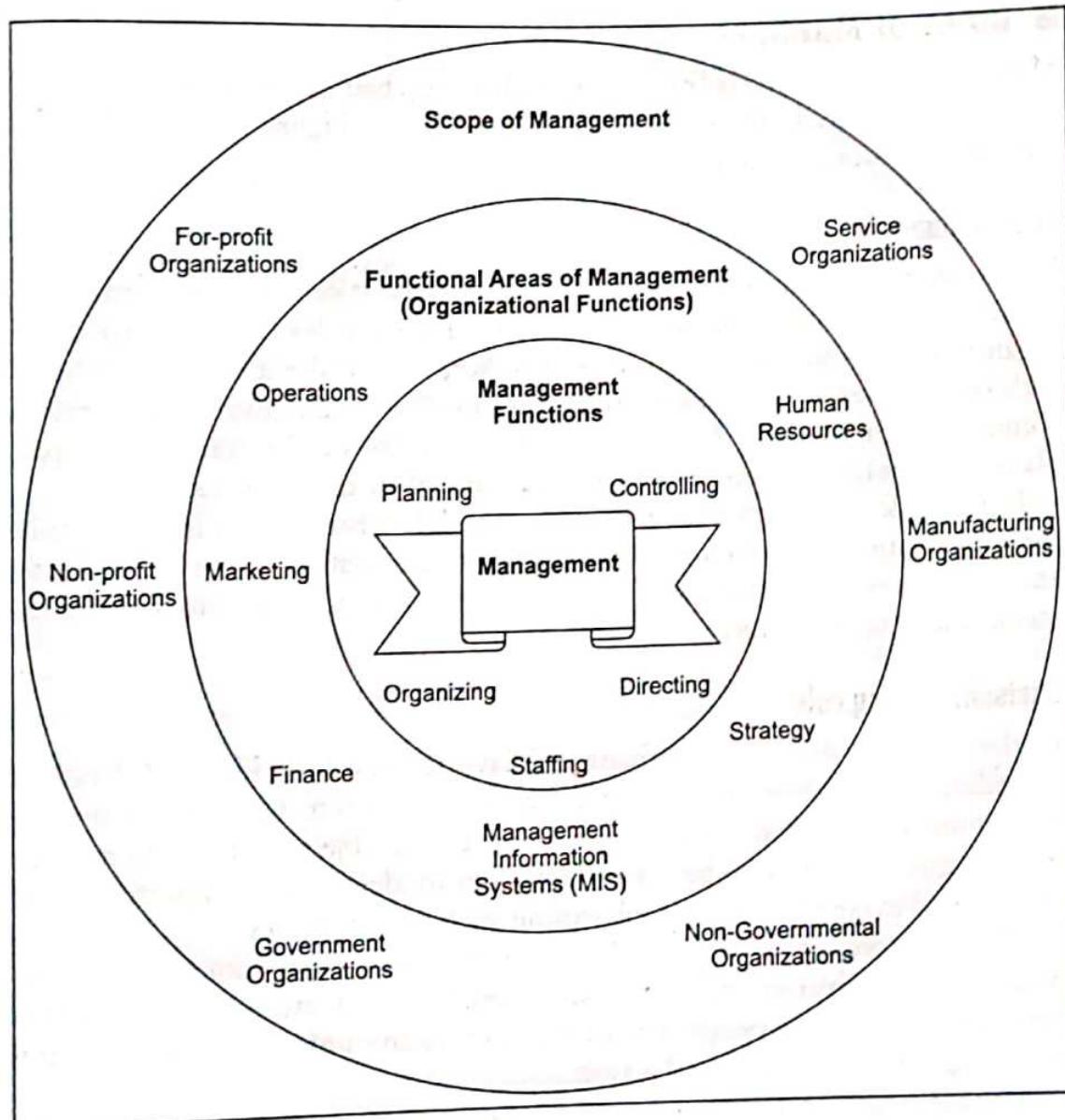
**Operations** are constituted by the transformation process which converts various types of inputs into desired products and services. **Marketing** is a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. In practice, marketing includes activities like advertising, branding, selling, distribution, etc.

The organization function of **finance** is about time, money, risk, and the interrelationships thereof. In layman's terms, **strategy** is all about long-term planning for achieving the long-term goals of the organization. Human resources is the organizational function which deals with selection and recruitment of employees, performance appraisal, compensation, rewards, recognition, training

and development, etc. The *MIS* focuses on providing needed information to the managers in a useful format and at a proper time by using contemporary information technologies.

### Scope of management

The outermost periphery in Figure 1.4 depicts the scope of management which is truly vast. It encompasses for-profit as well as non-profit organizations, government as well as non-governmental organizations, and service as well as manufacturing organizations. It is in fact difficult to find an area of activity where management is not applicable.



**Figure 1.4** Scope, Functional areas of Management, and Management Functions

For-profit organizations like business enterprises need management for wealth maximization of their shareholders. Non-profit organizations like educational institutions, healthcare organizations, etc. value management for keeping their cost of operations at optimal levels.

Government organizations like municipal corporations, water supply departments, electricity boards etc. use management to effectively use the taxpayer's money in providing best possible services to the public. Non-governmental organizations like environmental agencies, etc. benefit from management in achieving their societal objectives in a cost-effective manner.

Manufacturing organizations extensively use management to increase productivity, to enhance quality of the products manufactured and in innovating new products. Similarly, service organizations benefit from management in providing an exemplary service experience to the customers.

## ■ Roles of Management

Managers perform a myriad of roles in discharging their duties. Mintzberg (1973) classified managerial roles into three broad categories (Figure 1.1), namely *information roles*, *decision-making roles*, and *interpersonal roles*.

### Information role

In the *information role*, managers are expected to use state-of-the-art communication channels to extract the latest information and use it for the advantage of the organization. For example, it is necessary to keep a track about what the competitor's latest moves are. A manager, thus, must use formal and informal channels of communication to know about the competitor's actions and accordingly, prepare plans to offset their moves in order to retain and grow the market share.

In this role, managers need to *monitor* the latest happenings in and outside the organization, have to *disseminate* relevant information to the subordinates and at times, need to act as *spokespersons* of the organization to interact with the media and people at large.

### Decision-making role

In their *decision-making role*, managers have to take four kinds of decisions according to Mintzberg (1973). The first and foremost is to act as an *entrepreneur* within the organization and try to set new goals and objectives for it. In management jargon, they need to be the *intrapreneurs* to identify new opportunities of growth and make the organization exploit such opportunities.

The next role is that of a *disturbance-handler*—a manager should take appropriate decisions in crisis situations like strikes, lock-outs, etc. to resolve conflicts between two or more people and to take care of any unforeseen circumstances requiring urgent attention and action.

Managers have to also act as *resource allocators*. Resources are limited for any organization and optimal utilization of resources helps in minimizing the costs and in increasing the competitiveness of the firm in the market. There may be instances whereby there may be several competing options for resource allocation and managers have to choose the ones which would result in the best yields and outcomes. For example, a manager may have to choose between spending

capital resources in either promoting the existing portfolio of products or in research and development for creating new innovative products.

Another important decision-making role for a manager is to act as a fierce *negotiator*. Negotiating prices of supplies with vendors, negotiating selling prices of products with clients, negotiating with trade unions for arriving at fair compensation structures for workers, are a few examples here.

### **Interpersonal role**

The *interpersonal role* puts demands on managers in three respects. Firstly, they have to act as a *figurehead*, i.e. to perform ceremonial and social duties like presenting the progress report before the Board of Directors in board meetings, to preside over major events, e.g. launch of a new product, etc. Secondly, managers have to act as *leaders* in directing and motivating people. At last, they have to perform the role of acting as a *liaison* or an interface with other departments outside their purview to achieve coordination and to create synergy.

## **■ Managerial Phases**

Leavitt (1986) proposed three phases of management, namely *path-finding*, *problem-solving*, and *implementing* (Figure 1.1). According to him, all three phases are important in the “management mix” and should be balanced by a manager to achieve success.

### **Path-finding phase**

In the *path-finding phase*, a manager should think as an entrepreneur and a strategist in setting the mission, vision, and direction for the organization. In this phase, a manager should use all the creativity in coming up with new ideas, innovations, and radical transformations for the organization. S/he needs to establish an ethos for the organization and create a culture such that the environment all across the organization is conducive for creativity. Therefore, in this phase, the manager need not necessarily be focusing upon meticulous planning, but on enthusing the whole organization with fresh thinking and ideas for the betterment of the organization.

### **Problem-solving phase**

In the subsequent phase of *problem-solving*, a manager is expected to use rationale and critical thinking to analyze the various aspects of the ideas originated during the path-finding phase. This requires allocating resources, setting priorities, and ensuring that there are no roadblocks to be encountered later. Here there is scope for intuitive judgements based upon past experience in addition to informed planning and organizing.

### **Implementation phase**

The third phase of *implementation through people* is equally important. It is indeed an art to motivate, persuade, cajole, coerce, or intimidate people to get

the work done during this phase. It is always easier if the people charged with the responsibility of implementation are doing it with their heart and soul rather than just to fulfill orders from the manager. Hence, the people skills are of paramount importance in this managerial phase.

### ■ Responsibilities of a Manager

Shenhar and Renier (1996) present four responsibilities of a manager based upon the goals to be achieved by him/her. These are: responsibility for results, responsibility to people, responsibility to the organization, and responsibility towards self (Figure 1.1).

#### **Responsibility for results**

Responsibility for results is of course the most pressing demand on the manager. The manager has to demonstrate achievement of results for the department s/he is in charge of. For example, a sales manager's performance is gauged on the basis of sales targets achieved in a quarter.

#### **Responsibility to the people**

A manager has responsibility to the people who work under him. They look up to him for motivation, rewards, incentives, promotions, bonus, and recognition for the hard work put in by them. The manager has to take care of their growth and development in the organization and has to, at times, become a mentor to some of them in distress.

#### **Responsibility to the organization**

Responsibility to the organization for its well being and for projecting its positive image to the outside world is expected out of a manager. It requires a sense of belongingness, empathy, and camaraderie. It is the responsibility of a manager to safeguard his organization from any risks of bankruptcy under the circumstances of an acute downturn. Of course, it is a mutually shared responsibility with other manager colleagues in the organization to protect its interests.

#### **Responsibility towards self**

A manager also has a responsibility towards self in the sense that he should take care of his own career development rather than depending upon the organization to do so (though many organizations do take care of this aspect). It is their own responsibility to find time for proper relaxation at regular intervals for giving a sustainable performance day-after-day rather than wearing themselves down with managerial burden and blaming the superiors for the same. It would require efficient time management on their part to discharge regular duties while finding suitable amount of time for rest, relaxation, and rejuvenation.

### Points to Ponder

- Management is an art because it requires the creativity and subjective skills of a manager like the communication skills, negotiation skills, motivational skills, etc. Every individual manager has his own personal traits—attitude, ethics, values, and style, which constitute an art form.
- Management is also a science as it requires a systematic study based upon scientific methods to analyse business problems and to find optimal solutions.
- Human knowledge and skills are of great utility at all levels of management.
- Difference between the terms *administration* and *management* can be understood by drawing an analogy with the American model of the government, whereby the President typifies the administrative force, while the various governmental heads of departments typify the management force.
- The management functions (POSDC) are applicable equally well to the organization functions or organizational areas (at times referred to as the functional areas of management), namely operations, marketing, finance, strategy, human resources, and management information systems (MIS).
- The scope of management is truly vast as it is difficult to find an area of activity where management is not applicable.

### **ANAND MAHINDRA'S TWO CENTS WORTH TO INDIAN IT INDUSTRY**

Mahindra & Mahindra has broken the unspoken rule that says automakers must design, engineer, and test their own vehicles while spending hundreds of millions of dollars in the process. Along the way, they can divvy up contracts to suppliers who will build the components for them. Mahindra, instead, tried something suppliers had been suggesting for years. The company built a brand-new vehicle with virtually 100 percent supplier involvement from concept to reality for \$120 million, including improvements to the plant. The Mahindra Scorpio SUV had all of its major systems designed directly by suppliers with the only input from Mahindra being performance specifications and program cost. Design and engineering of systems was done by suppliers, as was testing, validation, and materials selection. Sourcing and engineering locations were also chosen

by suppliers. The rest is history—Scorpio has been immensely successful in the country.

Anand Mahindra, vice chairman and managing director of Mahindra & Mahindra, was invited at the 2008 Nasscom Leadership Summit to share his thoughts about the Indian IT industry. In his discourse, Mahindra compared the evolution of the Indian IT industry with the Trimurti—the trinity in Indian mythology of *Brahma* the creator, *Vishnu* the sustainer, and *Shiva* the destroyer. While addressing the gathering of distinguished IT professionals at the Summit, this is what Mahindra had to say:

You people have gone through a stage, where like *Brahma*, you created something out of nothing. You created a new and global industry. You created a service sector that is today, a major pillar of our GDP. But most importantly, you created a perception of a

new India, both in the world and in Indian hearts and minds. Brahma created a physical landscape; you sowed the seeds of a new mental and psychological landscape. In that sense, you are truly the Brahmans of the age of liberalization.

But creation is only the first phase. You then have to move on to the next phase of sustaining that creation—to the realm of Vishnu the preserver. Creation is a one-time affair. Sustaining that creation is obviously a longer haul, subject to many attacks and crises. Perhaps that is why Vishnu comes not in one, but in ten incarnations. Every time there is a new danger, he changes his *avatar* to a form best suited to meet that danger. At various times, he has come as a fish, as a tortoise, as a dwarf. But his most interesting avatar came when he had to fight the demon *Hiranyakashyap*. Hiranyakashyap was a bad guy, who had obtained an amazing boon from the gods. Neither man nor beast could kill him; he could not be killed by daylight or at nighttime, within his home or outside it, on the ground or in the sky. All this made him pretty invincible—he went on a rampage, and only Vishnu could tackle him.

The IT industry today faces challenges every bit as complex as those Hiranyakashyap posed for Vishnu. It is hit by a macroeconomic tsunami of adverse currency changes, rapidly escalating costs in both salaries and infrastructure, and inadequate talent pools below the tier 1 and 2 institutions. At the company level, firms are beginning to feel the penalties of poor differentiation and lack of focus (trying to be all things to all people); and an over-emphasis on high volumes and price competition. Suddenly, the industry seems to have fallen off its pedestal. You are facing your very own Hiranyakashyap. It is interesting to see how Vishnu dealt with him.

How do you destroy someone who cannot be killed by man or beast, inside or outside,

by day or night, etc.? The demon pretty much had all bases covered. So Vishnu took on the *Narasimha* avatar to bypass the boon. Narasimha was a hybrid creature; half-man half-lion, and therefore neither man nor beast. He killed Hiranyakashyap at twilight, which is neither day nor night. He killed him in the courtyard, which is neither inside a house nor outside it. And he killed the demon by placing him across his knee and tearing him apart, thus circumventing the terms of the boon that he could not be killed either on the ground or in the sky.

Now that is what I call an innovative algorithm! So what are the lessons for the IT industry in this story? Well, the first thing Vishnu did was to reinvent himself. It was not the gentle and contemplative Vishnu who fought Hiranyakashyap—it was the fearsome Narasimha avatar. Vishnu reinvented himself to suit the circumstances. The circumstances have changed drastically. Reinvent yourselves.

Do I have all the answers on the modes of reinvention? No, obviously not, otherwise I'd be out there filing patents, although I can suggest two broad approaches.

First, why don't we design business models that challenge traditional industry approaches and then transform our organizations, people and processes to execute. If we simply keep knocking on the doors of clients with our traditional offshoring options, we'll meet the fate of hearing aid salespersons: our best customers won't hear the doorbell!

For example, software-on-demand and open source models changed the rules of the software game. Can we not try to change the rules of the game this time around? Why didn't we invent Zoom technology or Virtualization? Thus far, India's brand of innovation has been identified with the IT industry, but is it truly innovative? Is it really game-changing? Ironically, you can

now look to the old smokestack industries for inspiration.

A few weeks ago, an Indian car company made a game-changing move. Maybe the Nano will ultimately not retail for a hundred thousand rupees. Maybe it won't have great margins, or replace as many motorcycles as it would like to, but it was a game-changing move; it fired a shot that was heard around the world. Can the IT world make any such claim?

There was an old saying, apparently adopted by the IT industry, that the secret of success is to jump every time opportunity knocks. And how do you know when opportunity knocks? You don't, you just keep jumping! So when are we going to stop simply jumping every time a client seems to sneeze, and actually create products and IP that become their own opportunities?

Why aren't IT companies using the massive potential of India's soft power, the film and TV business to exploit technological dominance of what Tata Motors calls the *last mile* but is actually the *first mile* in the brave new interactive world?

Secondly, why don't we try to focus on a vertical industry (e.g., telecom) or horizontal domain (e.g., supply chain management) selecting the key dimensions of competitive differentiation—product vs. service, breadth vs. depth, speed of delivery, customer service responsiveness, fixed or outcome-based pricing, proprietary technology or intellectual property, and so on.

And let us be prepared to make hard decisions along the way—change people who don't fit, walk away from businesses that doesn't fit. It is essential, while attempting this, however, to recognize that focus, differentiation, and brand building require time and investment. Selling value or doing business differently than the norm tends to elongate sales cycles, which tends to put pressure on cash

flow and we need to resist the temptation to broaden our offerings or slash prices just to win the business and keep people busy.

Along with reinvention, during the course of reinventing himself, Vishnu figured out the loopholes in the boon, and regrouped his physical and mental aspects to take advantage of these loopholes. That is something the IT industry can do as well. It is often been pointed out that the Chinese word for "crisis" is also the Chinese word for "opportunity"—I love that mindset. I truly believe that the adverse rate of the dollar can be viewed as the glass half-empty or the glass half-full. Sure it affects margins. But it is also a chance to take advantage of the loophole and buy yourselves what you don't have, so that you can regroup your structure to meet the challenge.

To me, the fact that our currency is more valuable and our price earnings ratios are still higher than average, means that we can acquire the front-ends and the large IT businesses that we never thought we could before. And the bigger the better. If people are egging us on to leapfrog, then they should also cheer as you bid for companies that seem bigger fish than you. It is happening all the time today in the manufacturing sector—Tata Corus being the stellar example—and we at Mahindra, while starting from scratch, have inorganically compiled together a portfolio of acquisitions that make us the fourth largest steel forging company in the world today.

This is not without historical precedent. If you look at Japan and South Korea, both of them went through a phase of enduring the world's skepticism, then painstakingly building strong and competent domestic businesses, and then on the back of global liquidity support and strong price earnings ratios, compressing time by acquiring global firms and their customer credibility.

In effect, by acquiring the strengths and skill sets you need, you will regroup your

profile and create a new entity, which can vanquish your challenges as effectively as Vishnu vanquished Hiranyakashyap.

And finally, while reinventing yourselves, you will have to bring in some of the aspects of the third element of the Trimurti—that of Shiva the destroyer. Destroy, for example, the premise that cost arbitrage is the way to go. Recognize that the low cost, high volume offshore outsourcing battle has already been fought and won. Often, when strategic frames grow rigid, companies, like countries, tend to keep fighting the LAST war. If you are not already on the winners list, you need to think of other ways to compete on value and differentiation, rather than price and scale. Destroy the premise that success comes only from size, and desist from comparisons with other Indian companies. There are still many IT companies in India who define success as “We want to be one of the top ten Indian IT companies.” Why not, for example, “We

want to be the world’s #1 banking back office solutions provider?”

And lastly, perhaps the time has come to destroy the notion that the world may be your oyster but India is not. There is a huge domestic market in middle class and corporate India that has not been plumbed. Even selling to the bottom of the pyramid is profitable today. But it needs a creative destruction of the current mindset and a re-think on many of the assumptions we hold dear. So, in conclusion, perhaps there really isn’t that much distance between avatars in the mythological sense and avatars in the technology sense. Perhaps they are both symbolic expressions of the same reality. In their different ways, they both underline the same message—that it is necessary in any situation to reinvent, regroup and re-think our way out of whatever challenges confront us (Mahindra, 2008).

### **Discussion questions**

1. Up to what extent do you agree with Anand Mahindra’s view that the Indian IT industry needs to reinvent itself?
2. Is India’s IT industry truly innovative? Justify with suitable rationale.

## **■ ■ DEVELOPMENT OF MANAGEMENT THOUGHT**

Management thought seems to have its roots grounded in ancient and medieval times, when scholars, priests, kings, and courtesans were trying to develop their administrative skills (Figure 1.5). Management started developing into its full-fledged form during the industrial revolution in Europe when the *classical management movement* started gaining its pace. The time frame usually assigned to this movement is 1885 to 1940, though initial references to its evolution can be traced back to 1796.

The next stage of the development of management thought is popularly known as the *behavioural management movement* with its starting time somewhere around 1930. This movement continues to traverse through the current times. However, due to its inception in the early part of the twentieth century,

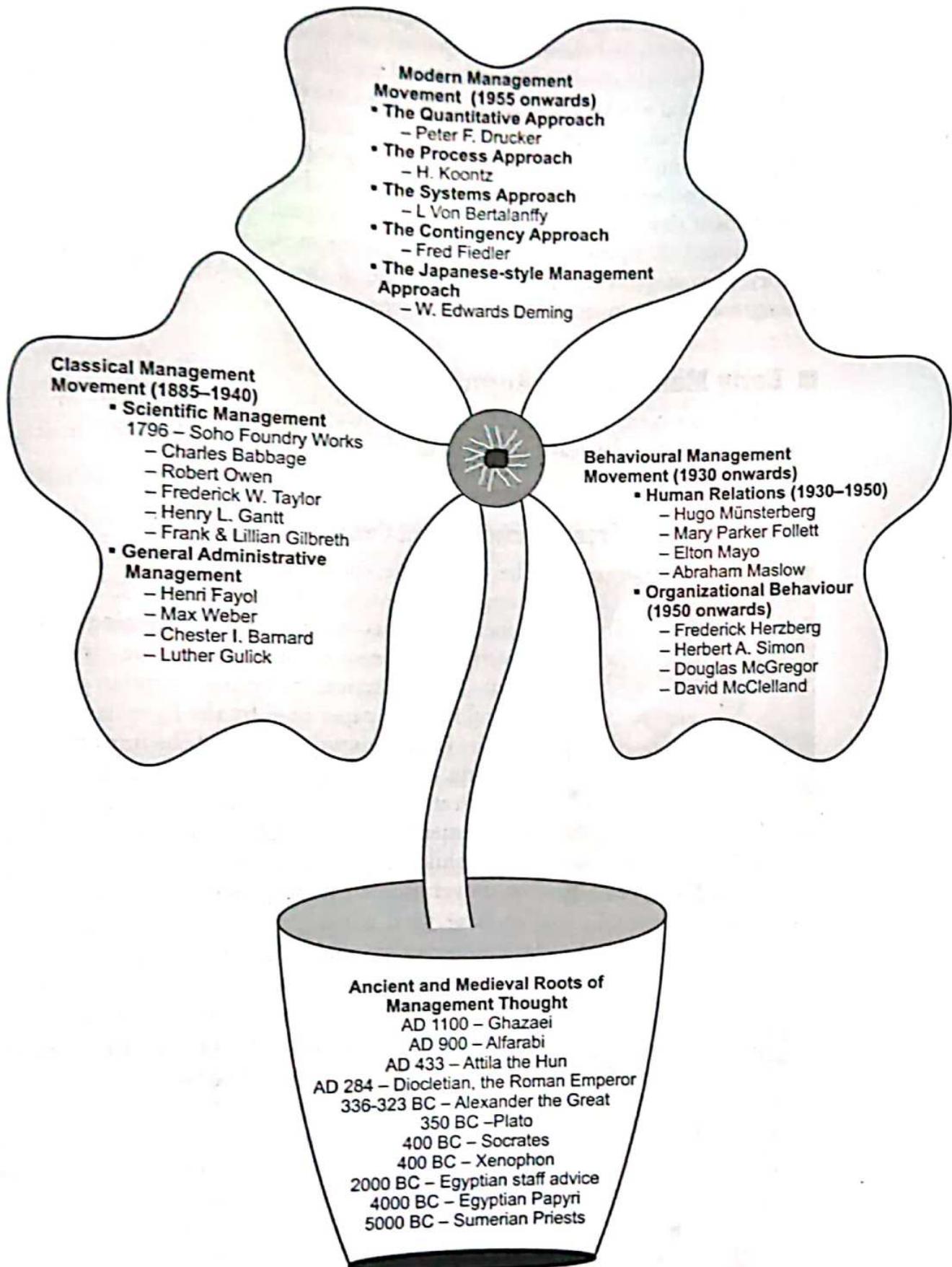


Figure 1.5 Development of Management Thought

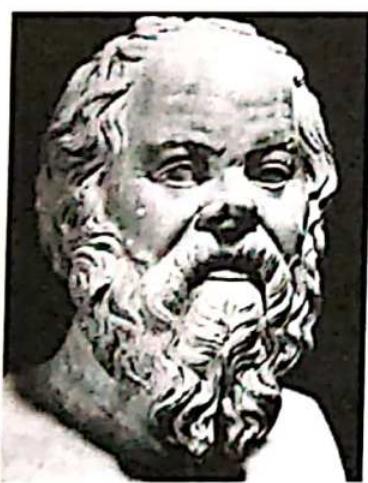
we shall discuss it under the early management approaches along with *ancient and medieval roots* and *classical management movement*.

The *modern management movement* was arguably heralded by Peter Drucker with his seminal work—*The Practice of Management* (1954), in which he explained the various lacunae in the American management systems by giving various pragmatic examples, case studies and proposing solutions thereof. Perhaps, this book by Drucker served as a harbinger to the end of American dominance in management thought and the imminent rise of Japan. We shall assign to it the period from 1955 to the present times. This is the most fascinating period in the history of management, particularly because of the forays of Japanese-style of management in the mainstream management thought.

## ■ Early Management Approaches

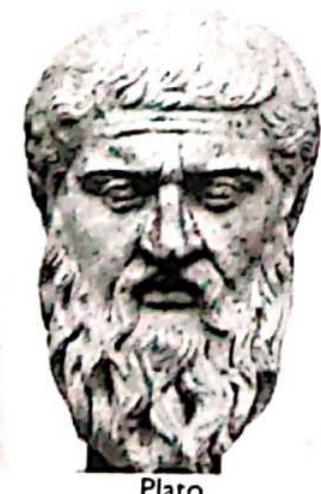
The early management approaches include ancient and medieval roots of management thought, classical management movement, and behavioural management movement.

### Ancient and medieval roots of management thought



Socrates

The oldest references to the roots of management thought can be traced back to about 5000 BC. The Sumerian priests were found to keeping written records of business transactions in the city of Ur (Iraq). The transcriptions on the Egyptian papyri (a natural form of paper used by the Egyptians) reveal that the Egyptians were aware of the importance of planning, organizing, and controlling. Also, there are indications that staff advice existed in Egyptian management by 2000 BC. Socrates, a classical Greek philosopher, is credited with first proposing, the universality of management in 400 BC and in the same year, another Greek scholar, Xenophon (a contemporary and admirer of Socrates) is said to have recognized management as a separate art (Claude, 1968). Socrates is also credited with defining management as a skill separate from technical knowledge and experience (Higgins, 1991).



Plato

In 350 BC, Plato – another Greek philosopher and a disciple of Socrates – described the principles of specialization. In his work, *The Republic*, Plato explained the ways to groom carefully selected persons into leaders by training them in specialized

skills and knowledge (Osigweh, 1985). Ancient Greek scholars seem to have contributed a lot to the ancient management thought, as one of their greatest kings, Alexander the Great, used a staff organization system during his military campaigns from 336 BC to 323 BC (Claude, 1968).

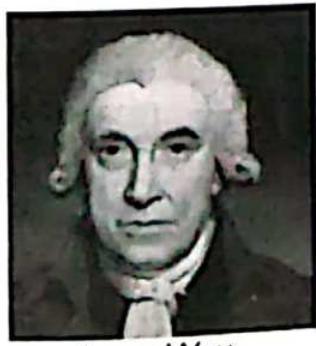
In AD 284, the Roman king, Diocletian seems to have understood the significance of delegation of authority and chain of command, when he created organizational hierarchies by dividing his empire into 101 provinces and further grouping them into 13 dioceses (districts) (Osigweh, 1985). The accounts of Attila the Hun, the king of an empire stretching from Germany to major part of Eastern Europe, indicate that he was instrumental in unifying the various Hunnish tribes of those times into a nation in AD 433 and believed leadership to be a privilege (Roberts, 1987). In AD 900, Alfarabi (one of the greatest scientists and philosophers of Persia) identified the traits of a leader, while another scholar, Ghazaei suggested the traits of a manager in AD 1100 (Claude, 1968).

### Classical management movement

The classical management movement has two thrust areas, *scientific management* and *general administrative management*. Let us discuss each one of these parts of the movement separately.

**Scientific management.** Scientific management methods called for optimizing the way that tasks were performed and simplifying the tasks enough so that workers could be trained to perform their specialized sequence of motions in the one "best" way. Scientific management started gaining momentum during the evolution of the industrial activity in Europe during the late nineteenth century. However, the concepts had started taking roots much earlier during the late eighteenth century.

The fundamental objective of scientific management was to find better ways of improving the productivity in the factories, as Europe transitioned from small-scale handicraft industry to large-scale mass production activities. Thus, scientific management can be deemed as the inception of operations management stream of the management thought.



James Watt

The successful creation of the steam engine by James Watt (1736–1819), a Scottish inventor and mechanical engineer, served as a harbinger of the industrial revolution in Great Britain and rest of the world. Having obtained the patent for the steam engine, Watt created a steam engine manufacturing company in partnership with Matthew Boulton in 1794. The company had a foundry called the *Soho Foundry Works*, which both the

partners decided to give under the joint control of their sons, James Watt Jr. and Matthew Robinson Boulton in 1796. Watt Jr. and Robinson deployed systematic techniques to manage their foundry like demand forecasting, facility layout and work flow, production planning, planned site selection, production standards and standardization of product standards. They also created systems to determine costs and profits for each machine manufactured. They meticulously developed training programmes for their employees, systems for compensation based upon work measurements and also, employee welfare programmes like sickness benefit programme executed by a committee of elected employees (Pollard, 1974).



Charles Babbage

Charles Babbage (1772–1871), a British mathematician, mechanical engineer and inventor, was a firm believer of the merits of division of labour. He promoted the idea of profit-sharing with the workers based upon their productivity and encouraged the use of employee suggestion schemes. He proposed the observational methods of studying manufacturing processes. His seminal work published in 1832, *On the Economy of Machinery and Manufactures*, is regarded as an important masterpiece of scientific management (Higgins, 1991).



Robert Owen

Robert Owen (1771–1858), a British social reformer, is remembered for his reforms regarding child labour in factories, providing meals in the factory to the on-the-job workers and creation of suitable housing facilities for the workers. The origins of human resources management can be traced back to these pioneering efforts of Owen. He used visual displays like painted signboards with four different colours attached to machines signifying various levels of productivity achieved by the individual workers working on these machines. These signboards served as *silent monitors* of worker productivity and everybody in the factory could easily see the accomplishment of a worker by viewing the colour of the signboard attached to his machine (Wren, 1972).

Frederick Winslow Taylor (1856–1915), an American mechanical engineer, is aptly hailed as the father of scientific management. His book *The Principles of Scientific Management* was published in 1911 and is regarded as a cornerstone of



Frederick Taylor

management thought. He is famous for his stopwatch time studies, in which he measured the time taken by workers in performing various parts of a task. He argued that by such measurements, a standard time can be arrived at, which can be used to create benchmarks for others to follow. According to him, this careful scientific analysis of a task helps in finding “one best way” of performing it.

In one such interesting experiment, he developed the “Science of Shoveling.” He observed that the same type and size of shovel was used by workers to lift material of different densities. He provided workers with customized shovels of shapes and sizes according to the densities of the material to be lifted. The productivity increased three to four times due to this innovation.

Taylor believed that the primary interest of the workers and an organization’s management team was the same—the management team wants better productivity from the workers, while workers want higher wages. Workers can command higher wages because their work is measurable. Once the workers understand the benefits of scientific management, they would immediately develop a better mental attitude towards the management team, thus eliminating the need for constructive criticism and complaints (Taylor, 1911).



Henry Gantt

*Henry Laurence Gantt* (1861–1919), an American mechanical engineer, is famous for the Gantt charts invented by him for use in project management. These charts served as visual display to gauge the progress of various activities in a project and are still used extensively in project management and other applications. Gantt worked with Frederick W. Taylor from 1887 to 1893 at Midvale Steel and Bethlehem Steel. Earlier, Gantt was the roommate of Taylor at the Stevens Institute of Technology. Using his Gantt charts,

Gantt was able to devise an incentive system to reward the workers who completed a task before the stipulated time. He also introduced incentive schemes for the supervisors who were able to train their workers well to enhance productivity.

*Lillian Moller Gilbreth* (1878–1972) and *Frank Bunker Gilbreth* (1868–1924), the American couple, were the pioneers in the field of industrial engineering. Lillian was a PhD in industrial psychology, while Frank had no formal education beyond high school. However, Frank had rare management insights and rose from being a bricklayer, to a building contractor, an inventor and eventually, to



Lillian and Moller Gilbreth

a management engineer/consultant along with his wife Lillian. Lillian served as an advisor to American Presidents—Hoover, Roosevelt, Eisenhower, Kennedy, and Johnson—on matters of civil defense, war production, and rehabilitation of the physically handicapped. The husband-wife duo is credited with the evolution of time-motion studies, through which they developed the *Laws of Motion Economy* having 22 principles dealing with the use of the human body, the workplace arrangement, and tools and equipment design (Gilbreth & Gilbreth, 1917).

**General administrative management.** While scientific management had a micro focus upon the workers, the tasks performed by them, and increasing worker productivity; general administrative management had a macro focus upon the organization as a whole. General administrative management is deemed as a harbinger of the modern organizational theory.



Henri Fayol

*Henri Fayol* (1841–1915) was a French executive and mining engineer. He is one of the most revered contributors of general administrative management and is credited with the creation of the *systematic management theory*. His most popular concept is that of the basic functions of a manager, namely planning, organizing, commanding, coordinating, and controlling. He emphasized upon the unity of command, i.e. there should be one supervisor for each worker in an organization (Fayol, 1916).



Max Weber

*Maximilian Carl Emil Weber* (1864–1920), a German political economist and sociologist, is known as the father of bureaucratic management. He created organizational hierarchies in which the lower level of the organization was accountable to the next higher level. In his view, qualification was the basis for recruiting an individual for a position in the office. In this hierarchy, an individual was given promotion on the basis of seniority or achievement or both (Weber, 1947).

*Chester Irving Barnard* (1886–1961) was an American executive and a proponent of early organizational theory. He proposed the acceptance theory of authority,



Chester Barnard

in which an employee first considers the validity of her superior's orders and then decides whether to accept it or not. According to this theory, the employee is likely to accept the directives of his boss if he has understood it, is able to follow it, and finds it in conformance with the organizational goals. In relation to the existence of informal groups within an organization, Barnard claimed that such groups occurred repeatedly without any unified purpose (Barnard, 1938). This is quite in contrast to the modern management theory, in which a major function of the informal organizational groupings is to fulfill inter-group goals that are not met by formal organizations (Pindur *et al.*, 1995).



Luther Gulick

*Luther Halsey Gulick III* (1892–1993), an American social scientist, is best known for the acronym POSDCORB proposed by him. POSDCORB stands for the seven activities of a manager, namely planning, organizing, staffing, directing, coordinating, reporting, and budgeting. This is indeed an expansion of the earlier work of Henri Fayol about the functions of a manager. Gulick was instrumental in contributing to the area of departmentalization of organizations, whereby he emphasized upon the need to avoid grouping dissimilar activities under a single department (Gulick, 1937).

### Behavioural management movement

During the 1930s, the detractors of scientific management started gaining support with the rationale that achieving simple mechanical efficiency is not just enough to achieve organizational success and there are many more things needed to be done regarding the human aspects of the organization. Thus, the behavioural management movement started gaining momentum with two thrust areas: *human relations* and *organizational behaviour*. The major contributions of behavioural management are that it produces understanding concerning motivation, group dynamics, leadership, and other interpersonal processes in organizations (Ivancevich *et al.*, 1994).

**Human relations (1930–1950).** Human relations involve the understanding of human needs, human behaviour, human conflicts, and informal human relationships.



Hugo Munsterberg

*Hugo Münsterberg* (1863–1916) was a German-American psychologist and is considered as the father of industrial or applied psychology. He believed that there is a strong correlation between scientific management and industrial psychology/human behaviour. He argued that both were aimed at improving efficiency through work analysis in a scientific way (Ivancevich *et al.*, 1994).



Mary Follett

*Mary Parker Follett* (1868–1933) was an American social scientist, who laid the foundations of modern organizational development with seminal contributions in conflict management, motivation, cooperation and authority (Fry, 1989). Prior to her work, people deemed conflicts in organizations in negative perspective only. She contended that conflict is a process in which considerable differences of opinion occur, but if the conflicts are resolved amicably, they may contribute in a constructive way for the attainment of organizational goals (Follett, 1941).



Elton Mayo

*Elton Mayo* (1880–1949) was an Australian psychologist, sociologist and organization theorist, who was initially a faculty member at the University of Queensland (Australia), but moved on to join University of Pennsylvania and later, the Harvard Business School where he spent a major part of his academic career as a professor of industrial research. Mayo is hailed as the founder of the human relations movement and is famous for the Hawthorne experiments at a factory of General Electric which he conducted

along with his colleagues. The findings of this study revealed that changes in the physical environment (like better lighting, temperature, etc.) and economic benefits (like increase in wages) had little effect on productivity, but the informal relationship between the supervisors, subordinates, and peers had a strong impact on increasing the productivity. Mayo deduced that informal or unofficial groups formed at work have a strong influence on the behaviour of those workers in a group and this human behaviour can be constructively utilized by managers to achieve better productivity and a congenial work environment (Hellriegel and Slocum, 1992).

*Abraham Maslow* (1908–1970) was an American psychologist. He is noted for his conceptualization of a five-tiered *hierarchy of human needs*, and is considered the father of humanistic psychology. Needs were defined as internal states which



Maslow

make certain outcomes appear attractive. According to Maslow, the genesis of motivation takes place through needs. Motivation was defined as the willingness to exert high levels of effort to achieve certain goals.

Maslow saw human beings' needs arranged like a ladder. The most basic needs, at the bottom, were physical—air, water, food, sleep. Then came safety needs—security, stability—followed by psychological or social needs—for belonging, love, and acceptance. At the top of it all were the self-actualizing needs—the need to fulfill oneself, to become all that one is capable of becoming.

Maslow felt that unfulfilled needs lower on the ladder would inhibit the person from climbing to the next step. Someone dying of thirst quickly forgets his thirst when he has no oxygen, as he pointed out. Therefore, Maslow recommended that lower level physiological needs should be fulfilled for individuals to get motivated for self-actualization (Maslow, 1943).

**Organizational behaviour (1950 onwards).** Organizational behaviour is the systematic study and careful application of knowledge about how people—as individuals and as groups—act within an organization.



Frederick Herzberg

*Frederick Herzberg* (1923–2000) was a noted American psychologist, who proposed the *Two-Factor Theory* (also known as *Motivation-Hygiene Theory*). He found that job satisfaction and job dissatisfaction acted independently of each other. Two-Factor Theory states that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction. It distinguishes between: motivators (e.g. challenging work, recognition, responsibility) which give positive satisfaction, arising from intrinsic conditions of the job itself, such as recognition,

achievement, or personal growth, and hygiene factors (e.g. status, job security, salary, and fringe benefits) which do not give positive satisfaction, although dissatisfaction results from their absence. Essentially, hygiene factors are needed to ensure an employee is not dissatisfied and motivation factors are needed in order to motivate an employee for higher performance (Herzberg, 1966).



Herbert Simon

*Herbert Alexander Simon* (1916–2001) was an American social scientist and a professor at Carnegie Mellon University. He contended that individuals behaving rationally do not try to arrive at an *optimal* decision, but a decision which is *good enough* to allow them to achieve a goal under the circumstances put forth by the environment (Simon, 1976).

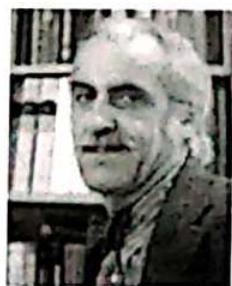


Douglas McGregor

*Douglas McGregor* (1906–1964) was a professor at the MIT Sloan School of Management, who believed that managers use either of the two theories, namely Theory X and Theory Y, to motivate their employees. Theory X has a negative connotation in the sense that it is based upon the traditional approach of direction and control, whereby managers place orders on their subordinates and place control mechanisms to keep an eye on the progress made by them. Thus, according to this theory, employees get

motivated to work due to coercion, fear factor and force. On the contrary, Theory Y is based upon the modern behavioural approach which treats employees as capable, responsible, and mature.

McGregor argued that most organizations at that time were fulfilling the basic needs of employees and therefore, the workplace needs to be reorganized in order to provide an environment for achieving higher-level social, esteem, and self actualization needs. This way, the work would be more enjoyable for the employees who would willingly commit themselves to sharing more responsibility for the achievement of organizational goals (McGregor, 1960).



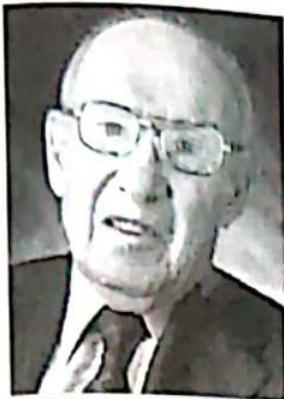
David McClelland

*David McClelland* (1917–1998) was an American psychological theorist, who argued that all types of needs may not be uniformly applicable to all individuals (as suggested by Maslow), as some needs are acquired through interaction with the environment, i.e. are learned or socially acquired. These are the need for achievement, need for power, and need for affiliation (McClelland, 1961).

## ■ Modern Management Approaches

The modern management movement builds upon the classical and behavioural movements by integrating the fundamental theories of management with contemporary approaches like quantitative, process, systems, contingency, and Japanese-style.

*Peter Ferdinand Drucker* (1909–2005), an Austrian-American scholar, is widely considered as the *father of modern management*. His landmark work *The Practice of Management* (1954) is deemed as the harbinger of the modern management movement. In his proposed model called *Management by Objectives* (MBO), he emphasized the need for setting clearly spelled-out objectives for every manager at all levels of the hierarchy in an organization. These objectives should be in



Peter Drucker

line with the overall goals of the business enterprise. These objectives should specify what performance outputs are expected to be generated by the manager's own managerial unit, how his unit may help other managerial units in achieving their objectives and last but not the least, what help the manager can expect from other units in achieving his own objectives. In nutshell, the emphasis from the beginning should be on teamwork and team results (Drucker, 1954).

### The quantitative approach

Quantitative management has its roots in the development of mathematical and statistical techniques to solve military problems during the Second World War (Ivancevich *et al.*, 1994). Over the years, it evolved into three major areas: *management science*, *operations management*, and *management information systems*. In management science, mathematical models are developed specifically to aid in decision-making and problem solving. Operations management has its focus on the application of management science to organizations. As the name suggests, management information systems are communication systems designed to provide relevant information to the managers as and when they require.

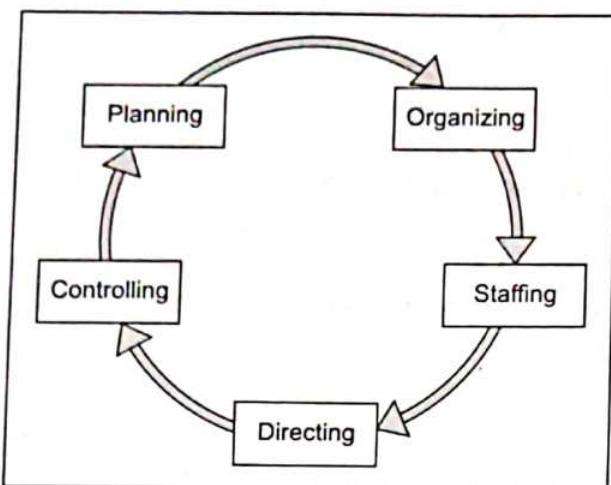
Linear programming for optimal allocation of resources, simulation models, inventory optimization models, scheduling theories, and game theory belong to the quantitative approach to management. The roots of strategic management can be traced back to game theory, in which various actions of competitor firms and the payoffs related to different outcome combinations are analysed to find the optimal strategy with highest expected payoff.

### The process approach

Koontz (1961) proposed that managing is a process and can best be dissected intellectually by analysing the functions of the manager as outlined by Fayol (1916). According to him, management is a universal process, regardless of the type of enterprise, or the level in a given enterprise, although the environment of management differs widely between enterprises and levels. Further, it is a continuous process in the form of a circular loop (Figure 1.6) such that the last function in the process, namely *controlling* leading back to the first function *planning* (Robbins, 1991).

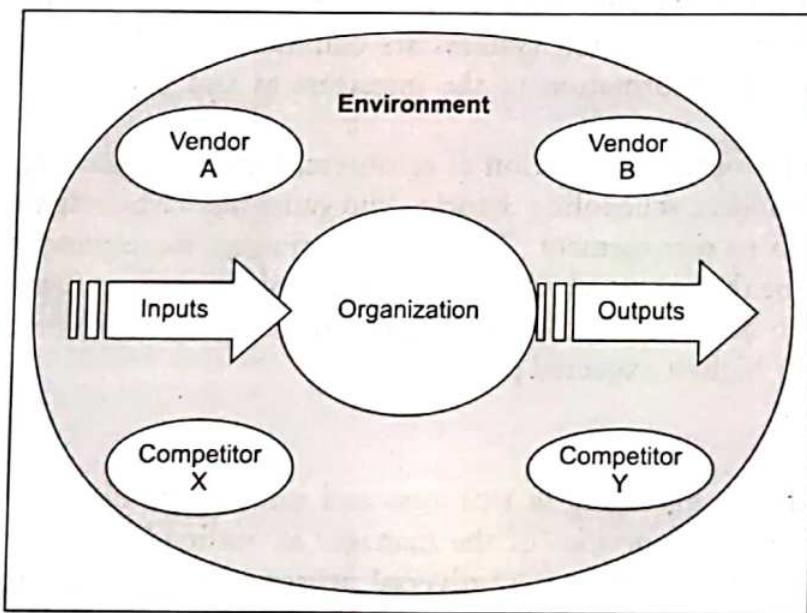
### The systems approach

Von Bertalanffy (1972) describes a *system* as consisting of connected parts joined to form a whole in which the coordinated and combined effect of the subsystems creates synergy. There are two types of systems: *closed* and *open*. Closed systems



**Figure 1.6**  
The Process Approach to Management

do not interact with the external environment, while open systems do so. Taylor's scientific management, Weber's bureaucratic theory, and Gulick's administrative principles are considered as closed system models, while the human relations and behavioural theories are deemed as an open system model.



**Figure 1.7**  
The Systems Approach to Management

In the systems theory, an organization is one of the elements in the business environment (along with its competitors, which are the other elements), which takes inputs of various types of resources from the environment and after processing them, it returns the output in the form of finished products and services (Figure 1.7).

### The contingency approach

The contingency approach (also known as *situational management*) suggests that there are many situational factors which make a business problem different from the other and hence, a unique approach to problem solving/decision-

making by managers is required rather than a generic approach. These situation factors can be external environment (say competitors, vendors, government, etc.), technology, organizational characteristics, characteristics of the manager, characteristics of the subordinates, etc.

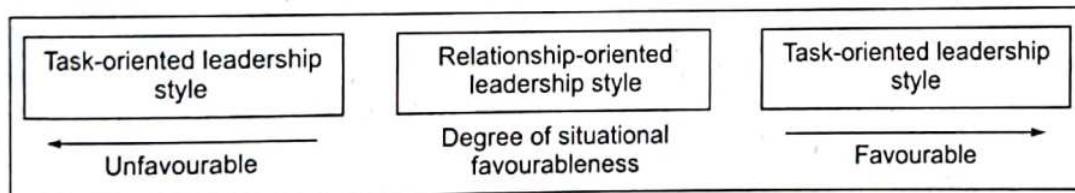
Fred Fiedler's model of contingency theory requires the leaders/managers to rate their least preferred coworker (LPC) on a bipolar scale of 1 to 8 (with "unfriendly" represented by 1 and "friendly" represented by 8). A high LPC score suggests that the manager/leader has a *human relations orientation*, while a low LPC score indicates a *task orientation*.

Fiedler assumes that everybody's least preferred coworker in fact is on average about equally unpleasant. But people who are indeed relationship-motivated, tend to describe their least preferred coworkers in a more positive manner, e.g. more pleasant and more efficient. Therefore, they receive higher LPC scores. People who are task-motivated, on the other hand, tend to rate their least preferred coworkers in a more negative manner. Therefore, they receive lower LPC scores.

So, the LPC scale is actually not about the least preferred worker at all, instead, it is about the person who takes the test; it is about that person's motivation type. This is so, because, individuals who rate their least preferred coworker in a relatively favourable light on these scales derive satisfaction out of interpersonal relationship, and those who rate the coworker in a relatively unfavourable light get satisfaction out of successful task performance. This method reveals an individual's emotional reaction to people with whom he or she cannot work.

The contingency theory allows for predicting the characteristics of the appropriate situations for effectiveness. Three situational components determine the favourableness or situational control:

1. *Leader-member relations*, referring to the degree of mutual trust, respect and confidence between the leader and the subordinates.
2. *Task structure*, referring to the extent to which group tasks are clear and structured.
3. *Leader position power*, referring to the power inherent in the leader's position itself.



**Figure 1.8** Identification of Appropriate Leadership Style

As shown in Figure 1.8, when there is a good leader-member relation, a highly structured task, and high leader position power, the situation is considered a *favourable situation*. Fiedler found that low-LPC leaders are more effective in extremely favourable or unfavourable situations, whereas high-LPC leaders perform best in situations with intermediate favourability (Fiedler and Chemers, 1974).

For example, task-oriented leadership would be advisable in natural disaster, like a flood or fire. In an uncertain situation, the leader-member relations are usually poor, the task is unstructured, and the position power is weak. The one who emerges as a leader to direct the group's activity usually does not know any of his or her subordinates personally. The task-oriented leader who gets things accomplished proves to be the most successful. If the leader is considerate (relationship-oriented), he or she may waste so much time in the disaster, which may lead things to get out of control and lives might get lost.

### **The Japanese-style management approach**

*William Edwards Deming* (1900–1993) is the most influential quality management guru, not only for the Japanese, but also for the rest of the world. The only difference is that the world came to know about Deming very late compared to the Japanese, who listened to him carefully, when nobody else was listening and implemented his concepts to become world leaders in quality.

After the World War II, the American companies were experiencing boom time because of the large capacities of their plants now available, which were earlier devoted to the war effort. The countries devastated in the war were willing to buy anything no matter of what quality and the Americans were ready to supply. The Americans were, thus, not bothered about quality at all at that time.

On the other hand, Japanese managers and engineers realized that they required new techniques to build their devastated country and economy fast. They invited Deming for his lectures on *statistical quality control*. In the early 1950s, he lectured to engineers and senior managers throughout Japan, including in his lectures principles now regarded as part of *total quality management* (TQM) or *company-wide quality* (Deming, 1982). Only in the year 1970, did the Americans recognize the efforts of Deming, but it was too late by then, as the Japanese had made inroads into the world markets and Americans were facing a tough competition from them.

The Japanese concepts of management like *just-in-time* (JIT), *single-sourcing*, the *Keiretsu system*, *kaizen*, *poka-yoke*, *hoshin kanri*, *quality circles*, and *quality function deployment* (QFD) provided a radically different approach to management compared to the American theories.

Schonberger (1982) defined the JIT system as to "Produce and deliver finished goods just-in-time to be sold, sub-assemblies just-in-time to be assembled into finished goods, and purchased materials just-in-time to be transformed into fabricated parts."

*Single-sourcing* is a concept whereby the Japanese companies try to forge long-term relationship with a single supplier, who is given the order for supplying a component for all the volumes required.

*Keiretsu* are vertically integrated groups with a dominant manufacturing firm and a network of major suppliers and subcontractors. There are six main groups in Japan: Mitsui, Mitsubishi, Sumitomo, Fuyo, Sanwa, and Dai-Ichi Kangyo. For example, Toyota, although a member of the Mitsui group, has developed

such an extensive network of suppliers and subcontractors that it has become the core company in its own entrepreneurial *keiretsu*. It is typical of companies within a *keiretsu* not to do any business with companies in another *keiretsu*.

*Kaizen* in Japanese means *continuous improvement* in every sphere of activity. *Kaizen* is a sub-system of JIT.

The Japanese word *Poka-Yoke* has been derived from *Yokeru* (in Japanese, to avoid) *Poka* (inadvertent errors). *Poka-Yoke* are simple and inexpensive devices used in order to ensure that zero defects are produced by the organization. The Japanese quality guru Shigeo Shingo (1986) propounded the concept of zero quality control using *Poka-Yoke* devices leading to "defects = zero." This concept is synonymous with terms like *fail-safing*, *fail-proofing*, *fool-proofing*, *error-proofing*, and *100% inspection*.

*Hoshin Kanri* literally means in Japanese: *ho*-method; *shin*-shiny metal showing direction; *kanri*-planning. A useful interpretation of the literal translation is that *Hoshin Kanri* is a methodology for setting strategic direction (Kondo, 1998).

*Quality circles* are voluntarily formed informal groups of workers with an objective to problem-solve and propose solutions (Olberding, 1998).

*Hin shitsu, ki nou, ten kai* in Japanese means *quality function deployment*. This methodology of designing the products and services starting from the "voice of the customer" was developed by Akao (1972). The American Society for Quality Control defines QFD as a "structured method in which customer requirements are translated into appropriate technical requirements for each stage of product development and production. The QFD process is often referred to as listening to the voice of the customer" (Bemowski, 1992).

### Points to Ponder

- The oldest references to the roots of management thought can be traced back to about 5000 BC. The Sumerian priests were found to keeping written records of business transactions in the city of Ur (Iraq).
- The fundamental objective of scientific management was to find better ways of improving the productivity in the factories, as Europe transitioned from small-scale handicraft industry to large-scale mass production activities.
- The major contributions of behavioural management are that it produces understanding concerning motivation, group dynamics, leadership, and other interpersonal processes in organizations.
- In the systems theory, an organization is one of the elements in the business environment (along with its competitors, which are the other elements), which takes inputs of various types of resources from the environment and after processing them, it returns the output in the form of finished products and services.
- The contingency approach (also known as situational management) suggests that there are many situational factors which make a business problem different from the other and hence, a unique approach to problem solving/decision-making by managers is required rather than a generic approach.

## HENRY FORD—AN ENTREPRENEUR'S RESISTANCE TO MANAGE THROUGH MANAGERS

Henry Ford (1863–1947) was an American engineer, an innovator, and founder of the Ford Motor Company. He is known as the father of the assembly line. The Model T produced by his company was the first successful attempt to large-scale manufacturing of affordable automobiles in America. He is also known for his "wage motive" in which he more than doubled the wages of deserving workers in his factory. This move proved immensely profitable, as not only it reversed the employee turnover, but also attracted the best of skilled mechanics to his factory from all over the region, thus reducing training costs while increasing productivity and improving quality manifold.

Drucker (1954) has vividly captured the resistance of the legendary Henry Ford to employ and groom managers to manage his company and the ensuing near-collapse of his company due to this approach. During the early 1920s, Ford enjoyed dominance in the American automobile market with about 75% of the market share commanded by its cars. However, by the time World War II started (late 1930s), its market share had plummeted to about 20%.

Insiders of the company and people in the automotive industry in general were waiting for the old man to pass away so that his only son Edsel Ford could take over and change the company's fortunes. Ironically, Edsel suddenly died during World War II, thus adding to the woes of the company.

The reason for an immensely successful company like Ford to land into such a dire situation

was simple—Henry Ford's resistance to manage his empire through professional managers. So much so that he had deliberately and consciously created a secret policing system whereby executives were spied on to find if they tried to take any decision on their own without consulting Ford. The rationale behind such a strange behaviour on part of Henry Ford was the fear of any conspiracy against him to dethrone him from his enviable position of authority. Therefore, he preferred to have executives who were good enough only to execute what they were told to do rather than manage on their own. During the 20 years of his (mis)rule, most of the good people had either been fired or had joined the rival General Motors after Ford's unprofessional attitude became unbearable for them.

The responsibility for a turnaround of business fell in 1944 on the young shoulders of Henry Ford II, the twenty-year-old grandson of Henry Ford with his father already dead and his grandfather rapidly failing. The young man had little experience, but still he understood the real reason for the problems of his company. It was not an easy task for him with his grandfather still alive and his police still in action. However, in the due course, he was able to rope in professional managers for top positions in the company and created a proper organization structure with full authority to the managers and commensurate responsibility. The rest is history as the turnaround of Ford Motor became a legend for American business.

### Discussion questions

1. Discuss more examples particularly in the context of Indian industry whereby entrepreneurs have been reluctant to delegate responsibilities to managers in their organization.
2. Is the tendency of Henry Ford to exercise excessive control over its employees typical of entrepreneurs? Can you cite some examples in which professional top management of some organization has demonstrated similar controls?

- Management is the process of getting things done through people for the benefit of the customer or the client. Management is perhaps the only subject in academics which enjoys the distinction of being a science as well as an art and a profession. This is so because the contributions in the evolution of this subject have come from all the directions—artists, social scientists, economists, engineers, administrators, and practicing managers.
- Knowledge symbolizes the science part of management, i.e. what the managers are supposed to know, while skills represent the art form, i.e. how the managers should *do or apply the knowledge*.
- The scope of management is truly vast. It encompasses for-profit as well as non-profit organizations, government as well as non-governmental organizations, and service as well as manufacturing organizations. It is in fact difficult to find an area of activity where management is not applicable.
- Management thought seems to have its roots grounded in ancient and medieval times, when scholars, priests, kings, and courtesans were trying to develop their administrative skills. Management started developing into its full-fledged form during the industrial revolution in Europe when the classical management movement started gaining its pace. The next stage of the development of management thought is popularly known as the behavioural management movement with its starting time somewhere around 1930. This movement continues to traverse through the current times.
- The modern management movement is the most fascinating period in the history of management, particularly because of the forays of Japanese-style of management in the mainstream management thought. The Japanese concepts of management like *just-in-time* (JIT), *single-sourcing*, the *keiretsu* system, *kaizen*, *poka-yoke*, *hoshin kanri*, *quality circles* and *quality function deployment* provided a radically different approach to management compared to the American theories.

## KEYWORDS

**Administration** is the force which lays down the object for which an organization and its management are to strive and the broad policies under which they are to operate.

**Controlling** is measuring and correcting activities of people to ensure that plans are being realized.

**Directing** is taking actions to motivate people and help them see that contributing to group objectives is in their own interest.

**Finance** is about time, money, risk, and the interrelationships thereof.

**Hoshin kanri** in Japanese literally means: *ho*-method; *shin*-shiny metal showing direction; *kanri*-planning. *Hoshin Kanri* is a methodology for setting strategic direction.

**Human relations** involves the understanding of human needs, human behaviour, human conflicts, and informal human relationships.

**Human resources** is the organizational function which deals with selection and recruitment of employees, performance appraisal, compensation, rewards, recognition, training and development, etc.

**Just-in-time system** is to: "Produce and deliver finished goods just-in-time to be sold, sub-assemblies just-in-time to be assembled into finished goods, and purchased materials just in time to be transformed into fabricated parts."

**Kaizen** in Japanese means *continuous improvement* in every sphere of activity.

**Keiretsu** are vertically integrated groups with a dominant manufacturing firm and a network of major suppliers and subcontractors.

**Management by objectives** means setting clearly spelled-out objectives for every manager at all levels of the hierarchy in an organization in line with the overall goals of the business enterprise.

**Management information system** focuses on providing needed information to the managers in a useful format and at a proper time by using contemporary information technologies.

**Management** is the process of getting things done through people for the benefit of the customer or the client.

**Marketing** is a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.

**Motivation** is defined as the willingness to exert high levels of effort to achieve certain goals.

**Needs** are defined as internal states which make certain outcomes appear attractive.

**Operations** are constituted by the transformation process which converts various types of inputs into desired products and services.

**Organization** is the combination of the necessary manpower, materials, tools, equipment, workspace, and appurtenances (accessories) brought together in systematic and effective correlation, to accomplish some desired object.

**Organizational behaviour** is the systematic study and careful application of knowledge about how people—as individuals and as groups—act within an organization.

**Organizing** is designing a structure of roles for people to fill.

**Planning** is selecting objectives and the means for accomplishing those objectives.

**Poka-Yoke** has been derived from Yokeru (in Japanese, to avoid) and Poka (inadvertent errors). **Poka-Yoke** are simple and inexpensive devices used in order to ensure that zero defects are produced by the organization.

**Quality circles** are voluntarily formed informal groups of workers with an objective to problem-solve and propose solutions.

**Quality function deployment** is a structured method in which customer requirements are translated into appropriate technical requirements for each stage of product development and production.

**Scientific management methods** are called so for optimizing the way that tasks are performed and simplifying the tasks enough so that workers could be trained to perform their specialized sequence of motions in one best way.

**Shareholders** are the people/organizations holding an equity stake in the enterprise. They share the profit and bear the losses depending upon the performance of the enterprise.

**Single-sourcing** is a concept whereby the Japanese companies try to forge long-term relationship with a single supplier, who is given the order for supplying a component for all the volumes required.

**Staffing** is selecting and developing people to fill organizational roles effectively.

**Stakeholders** may be anybody affected by the operations of the enterprise—employees,

shareholders, government, suppliers, customers, or local people getting affected (e.g. local people getting displaced due to a factory being set up on a land where they currently live). Strategy is all about long-term planning for achieving the long-term goals of the organization.

System consists of connected parts joined to form a whole in which the coordinated and

combined effect of the subsystems creates synergy. Closed systems do not interact with the external environment, while open systems do so.

Zero quality control means zero defects. This concept is synonymous with terms like fail-safing, fail-proofing, fool-proofing, error-proofing and 100% inspection.

## REVIEW QUESTIONS

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1. Define management and explain the important aspects of the definition.
2. How would you justify that management is an art, a science as well as a profession?
3. What kind of knowledge and skills are required on part of a contemporary manager?
4. What are the different levels or hierarchies of management? Are the knowledge and skills required by managers different at different levels?
5. How is management different from administration? Explain the various aspects of differentiation between the two terms.
6. It is argued that managers have two broad activities—decision and execution. Would you agree? Give reasons for your viewpoint.
7. Explain how managing people, technology, and finance are important aspects of management.
8. Explain the various facets of “managing the system” approach to management.
9. What are the management functions? How are these different from organizational functions or functional areas of management?
10. It is argued that management has universal application and has unlimited scope. Discuss.
11. Enumerate and explain the different roles of a manager.
12. What are managerial phases? Are there interrelationships between these phases?
13. Enumerate and explain the various responsibilities of a manager.
14. Make a schematic diagram to outline the development of management thought.
15. Elaborate on the ancient and medieval roots of management thought.
16. Who were the contributors in the scientific management stream of the classical management movement? Briefly explain their contributions.
17. Who were the contributors in the general-administrative management stream of the classical management movement? Briefly explain their contributions.
18. Who were the contributors in the human relations stream of the behavioural management movement? Briefly explain their contributions.
19. Who were the contributors in the organizational behaviour stream of the behav-

- journal management movement? Briefly explain their contributions.
20. Explain the various facets of the quantitative approach in modern management theory.
  21. How are the process and systems approach to management different or similar in modern management theory?

## REFERENCES

- Akao Y. (1972), "New product development & Quality Assurance" *Standardization and Quality Control*, April, Vol. 25, pp. 7-14
- Barnard C. (1938), *The Functions of the Executive*, Harvard University Press, Cambridge, MA
- Bemowski K. (1992), "The Quality Glossary," *Quality Progress*, Feb., p. 26
- Bhat A. and Kumar A. (2008), *Management: Principles, Processes, and Practices*, Oxford University Press, New Delhi
- Business Week (2007), "Indra Nooyi: Keeping Cool In Hot Water," [www.businessweek.com](http://www.businessweek.com) (accessed on 1 Nov. 2008)
- Claude S. G. (1968), *The Evolution of Management Thought*, Prentice-Hall, Englewood Cliffs, NJ
- Dandapani U. (2005), "Indra Nooyi's mantra for success," <http://archives.chennaionline.com> (accessed on 1 Nov. 2008)
- Deming W.E. (1982), *Out of Crisis*, MIT Center for Advanced Engineering Study, Cambridge, MA
- Drucker P. F. (1954), *The Practice of Management*, Harper & Brothers Publishers, New York
- Drucker P.F. (1973), *Management Tasks, Responsibilities, Practices*, Harper & Row, New York, NY
- Fayol H. (1916), *Industrial and General Administration*, Translated by J. A. Coubrough for International Management Institute (Originally published in Bulletin de la societe de l'industrie minerale, No. 3)
- Fiedler F. E. and Chemers M. M. (1974), *Leadership and Effective Management*, Scott, Foresman, Glenview, Illinois
- Fry B.R. (1989), *Mastering Public Administration from Max Weber to Dwight Waldo*, Chatham House, Chatham, NJ
- Follett M.P. (1941), "Constructive conflict", in Metcalfe, H.C. and Urwick, L. (Eds), *Dynamic Administration: The Collected Papers of M.P. Follett*, Harper Brothers, New York, NY, pp. 30-49
- Gay E. F. (1944) to Shaw, Shaw Papers, 31 January 1944 as cited in Cuff R. (1996) Edwin F. Gay, Arch W. Shaw, and the uses of history in early graduate business education, *J. of Management History*, Vol. 2 No. 3, pp. 9-25
- Gilbreth F.B. and Gilbreth L.M. (1917), *Applied Motion Study*, Sturgis and Walton, New York, NY
- Gulick L. (1937), "Notes on the theory of organization, in Shafritz, J.M. and Ott, J.S. (Eds), (1992) *Classics of Organization Theory*, 3rd ed., Brooks/Cole, Pacific Grove, CA
- Hellriegel D. and Slocum J.W. Jr, (1992), *Management*, 6th ed., Addison-Wesley, Reading, MA, pp. 39-65
- Herzberg F. (1966), *Work and the Nature of Man*, World Press, Cleveland, OH
- Higgins J. M. (1991), *The Management Challenge: An Introduction to Management*, Macmillan, New York, NY, pp. 33-61

- Ivancevich J.M., Lorenzi P., and Skinner S.J. (1994), *Management: Quality and Competitiveness*, Richard D. Irwin, Boston, MA, pp. 40-67
- Katz R.L. (1955), "Skills of an effective administrator," *Harvard Business Review*, January-February, pp. 33-42
- Kondo Y. (1998), "Hoshin kanri-a participative way of quality management in Japan," *The TQM Magazine*, Vol. 10 No. 6, pp. 425-431
- Koontz H. (1961), "The management theory jungle," *J. of the Academy of Management*, December, pp. 174-88
- Leavitt H.J. (1986), *Corporate Pathfinders*, Dow Jones-Irwin, Homewood, IL
- Mahindra A. (2008), "IT industry has its own *Hiranyakashyap* to battle," Nasscom Leadership Summit, 14 February
- Mary Parker Follett Foundation (2008), [www.follettfoundation.org/mpf.htm](http://www.follettfoundation.org/mpf.htm) (accessed on 1 Nov. 2008)
- Maslow A. (1943), "A theory of motivation," *Psychological Review*, Vol. 50, pp. 370-96
- McGregor D. (1960), *The Human Side of Enterprise*, McGraw-Hill, New York, NY
- McClelland D. (1961), *The Achieving Society*, Van Nostrand, Princeton, NJ
- Mintzberg H. (1973), "The manager's job: folklore and fact," *Harvard Business Review*, July-August, pp. 49-61
- Nooyi I. (2008), "The best advice I ever got," Fortune, April, <http://money.cnn.com> (accessed on 1 Nov. 2008)
- Olberding S. R. (1998), "Toyota on competition and quality circles," *J. for Quality & Participation*, Mar/Apr, Vol. 21 No. 2, p. 52
- Osigweh C. A. B. (1985), *Professional Management: An Evolutionary Perspective*, Kendall/Hunt, Dubuque, IA
- Pindur W., Rogers S. E., and Kim P. S. (1995), "The history of management: a global perspective" *J. of Management History*, Vol. 1 No. 1, pp. 59-77
- Pollard H.R. (1974), *Developments in Management Thought*, William Heinemann, London, 1974
- Roberts W. (1987), *Leadership Secrets of Attila the Hun*, Warner Books, New York, NY
- Robbins S.P. (1991), *Management*, 3rd ed., Prentice-Hall, Englewood Cliffs, NJ, pp. 30-59
- Schonberger R. J. (1982), *Japanese Manufacturing Techniques: Nine Hidden Lessons in Simplicity*, Free Press, New York
- Schulze J. W. (1919), *Office Management*, McGraw-Hill, New York
- Shenhar A. (1990), "What is a manager? A new look," *European Management Journal*, June, pp. 198-202
- Shenhar A. J. and Renier J. (1996), "How to define management: A modular approach", *Management Development Review*, Vol. 9 No. 1, pp. 25-31
- Sheldon O. (1930), *The Philosophy of Management*, Sir Isaac Pitman & Sons, London
- Shingo S. (1986), *Zero Quality Control: Source Inspection and the Poka-yoke System*, Productivity Press, Cambridge, MA
- Simon H.A. (1976), *Administrative Behaviour*, 3rd ed., Free Press, New York, NY
- Taylor F.W. (1911), *Principles of Scientific Management*, Harper and Brothers, New York, NY
- Von Bertalanffy L. (1972), "The history and status of general systems theory," *Academy of Management Journal*, Vol. 15, December, pp. 407-26
- Weber M. (1947), *The Theory of Social and Economic Organization*, trans. by A.M. Henderson and T. Parsons, Free Press, New York, NY
- Wren D. (1972), *The Evolution of Management Thought*, Ronald Press, New York
- Wren D. A. (2003), "The influence of Henri Fayol on management theory and education in North America," *Entreprises Et Histoire*, No. 34, December, pp. 98-107

# PLANNING



The Delhi Metro Rail Corporation and its Chairman, E. Sreedharan, have become synonymous with meticulous planning and seamless execution.

## Learning Objectives

After reading this chapter, you will be able to answer the following questions:

- What is planning?
- What are the types of plans?
- What is the importance of planning?
- How is planning done?
- How do managers perform decision-making?

## ■ ■ THE PLANNING PROCESS

The words *plan* and *planning* are commonly used in several contexts. It can be an architectural plan to create a building, a plan to rescue a beleaguered economy (like the current meltdown witnessed in the US economy), a business plan for creating a new entrepreneurial venture, or a plan to capture an enemy post during a war.

According to the Oxford Dictionary for the Business World, a *plan* is a method or procedure for doing something; a design, a scheme, or an intention. According to Webster's Dictionary, *plan* is the general word for a proposed method of action or procedure. In other words, a plan is a set of actionable decisions which has been selected from among a number of alternative sets. If

an alternative did not exist, it would be meaningless to say that we are planning anything (Starr, 1966).

Planning implies the development of a program for accomplishing the organization's desired objectives and goals. Planning is choosing a course of action and deciding in advance what is to be done, in what sequence, when, and how (Megginson, Mosley & Pietri, 1986). The business environment is highly dynamic in today's world. Therefore, it requires critical thinking and analysis while formulating the plans keeping in view not only the current scenario, but also the scenario which is likely to prevail by the time these plans would be implemented.

### THE TAJ MAHAL: AN EPITOME OF METICULOUS PLANNING

Voted in 2007 as one of the Seven Wonders of the World, the Taj Mahal (Figure A) is a mausoleum constructed in Agra by emperor Shahjahan in the fond memory of his beloved wife Mumtaz, after her demise in 1631. Shahjahan purchased a plot of land from Raja Jai Singh on the banks of Yamuna River for building the Taj Mahal. Raja Jai Singh was also instructed by Shahjahan to provide a regular supply of special, hard and non-porous white marble from the quarries of Makrana.



Figure A The Taj Mahal

The bank of river Yamuna was chosen so that the colossal structure could tower magnifi-

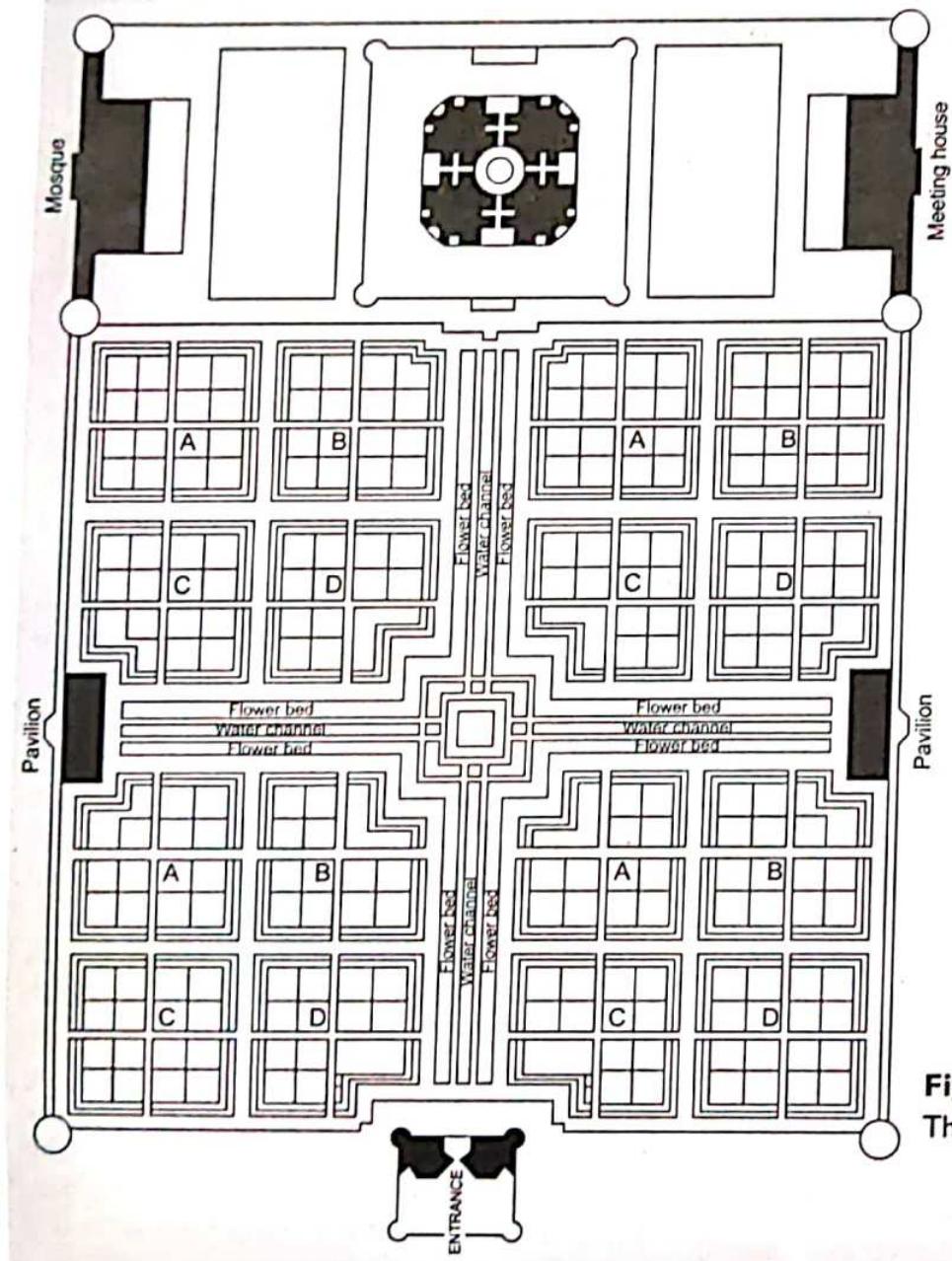
ciently and imposingly over its surroundings. The river takes a sharp turn at this place, almost at right angle so that a water-shed is made where the thrust of water is minimum. It was the safest point on the river bank. A 2½-mile (4.02 km) road ramp was built to haul huge pieces of marble to the site of the construction. Strangely the scaffolding of this magnificent building was made, not of wood or bamboo, but with bricks. It is probable that the lack of wood made the architects to make brick scaffoldings.

Though Shahjahan provided the vision behind the entire concept, he was assisted in his endeavour by a number of architects. The name of the architect, which is often mentioned during the building of Taj Mahal, is that of Muhammad Isa Khan, who hailed from Shiraz in Iran. It is also said that a creative nucleus of 37 people formed the core advisory group behind this gigantic project. The construction of Taj Mahal commenced in 1632. Work on the mausoleum started in frenzy with thousands of artisans and labourers toiling ceaselessly day after day. It is said that the Taj Mahal took 21 years to complete, with the help of an army of 20,000 labourers, who worked under the guidance of Shahjahan. It is also said that the royal coffers went dry after this project was over.

A perfect piece of architecture, the Taj Mahal is built according to a predefined plan. It is built according to the Islamic concept of Paradise, where an enormous, shimmering pearl white dome stands supported by four corner pillars, from which flow the rivers of grace. The Taj Mahal is marked by perfect symmetry and harmony, be it the shape of the four towering minarets; the cupolas (*chhatris*); the central arch in the façade; the perfectly arranged arched recesses

on both the *stories*; the intricate pietra dura (stone inlay work); the delicate lattice work on marble windows or the magnificent dome. Even the mosque and the guesthouse (*mehmankhana*) are a mirror image of one another (Figure B).

However, there is one thing, which breaks the perfectly harmonious plan of the Taj Mahal—its position. Instead of locating the Taj Mahal in the middle of the *Charbagh* (four garden plan), Shahjahan built the mausoleum



**Figure B**  
The Master Plan

at the far end of the garden, with the back wall falling straight down to the bed of Yamuna River.

Over 1,000 elephants were used to transport building materials during the construction. Teams of twenty or thirty oxen were strained to pull blocks on specially constructed wagons. An elaborate post-and-beam pulley system was used to raise the blocks into desired position. Water was drawn from the river by a series of purs, an animal-powered rope and bucket mechanism, into a large storage tank and raised to a large

distribution tank. It was passed into three subsidiary tanks, from which it was piped to the complex.

The genius of the builder and his innovations are also reflected in yet another feature of its planning. In the Taj Mahal, the builder has substituted the false gateways with beautiful water-pavilions on the east and the west sides, each rising at the end of the broad water canal. It appears as if the water channel was chiefly planned to give a suitable background for the water pavilion.

### Discussion questions

1. Discuss if the Yamuna river bank at Agra was an ideal location for the Taj Mahal. Can you suggest some other equally good location options available during those times?
2. Do you think that the planning of the Taj Mahal in terms of project cost and time was carefully performed at the outset?

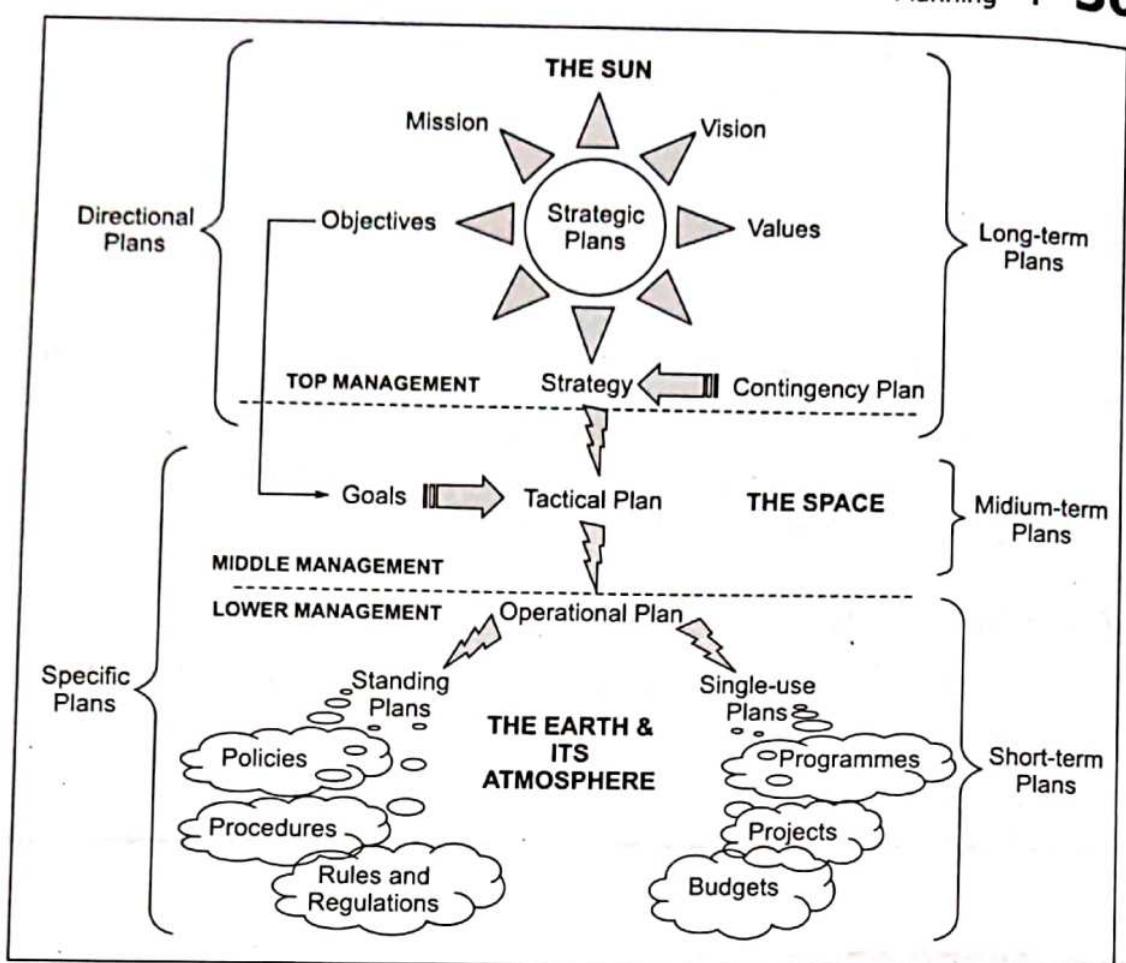
## ■ ■ TYPES OF PLANS

Plans are of various types as shown in Figure 2.1. Let us discuss them and try to understand their utility in different scenarios.

### ■ Strategic Plans

These are long-term plans spanning a planning horizon of about 3 to 10 years. Strategic plans set out the overall direction for the firm keeping in view the long-term objectives to be achieved. In strategic planning, the top management tries to answer such questions as: "What is the environment we are operating in?", "Where are we heading?", "How do we take the organization from the current state to a higher state of success?" The various types of strategic plans are *mission* (including *vision* and *values*), *objectives*, and *strategies* (Megginson, Mosley & Pietri, 1986).

**Vision.** A desired future state of the organization. Imagination and inspiration are important components of a vision. Typically, a vision can be viewed as the ultimate goal of the organization, one that may take 5 or even 10 years to achieve.



**Figure 2.1**  
Types of Plans

**Mission.** The purpose or reason for the organization's existence, i.e. what business we are in, what we do, and whom we serve.

**Values.** What the organization stands for and believes in. These are the principles to be observed to meet the vision or principle to be served.

Let us take some examples from the Indian Industry.

### Infosys

**Vision.** To be a globally respected corporation that provides best-of-breed business solutions, leveraging technology, delivered by best-in-class people.

**Mission statement.** To achieve our objectives in an environment of fairness, honesty, and courtesy towards our clients, employees, vendors, and society at large.

#### The values that drive Infosys: C-LIFE

**Customer delight** A commitment to surpassing our customer expectations.

**Leadership by example** A commitment to set standards in our business and transactions and be an exemplar for the industry and our own teams.

*Integrity and transparency* A commitment to be ethical, sincere and open in our dealings.

*Fairness* A commitment to be objective and transaction-oriented, thereby earning trust and respect.

*Pursuit of excellence* A commitment to strive relentlessly, to constantly improve ourselves, our teams, our services and products so as to become the best.

### Aditya Birla group

**Vision.** To be a premium global conglomerate with a clear focus on each business.

**Mission.** To deliver superior value to our customers, shareholders, employees, and society at large.

### Hero group

**Vision.** We, at the Hero Group, are continuously striving for synergy between technology, systems and human resources to provide products and services that meet the quality, performance, and price aspirations of the customers. While doing so, we maintain the highest standards of ethics and societal responsibilities, constantly innovate products and processes, and develop teams that keeps the momentum going to take the group to excellence in everything we do.”

**Objectives.** These are the desired outcomes in such areas as customer service, profitability, and social responsibility, that the management of an organization hopes to attain.

**Strategies.** Once the top management of an organization has created the mission, vision, values and objectives, they are ready to create the strategies or grand plans for achieving them. Strategies are long-term plans which are chosen from a set of possible options after careful analysis of the opportunities and threats offered by the external environment as well as the strengths and weaknesses of the organization vis-à-vis competitors.

**Goals.** The terms *objective* and *goal* are often used synonymously. However, there is a subtle difference between the two. Goals are more concrete aims of the organization and more specific than the objectives. Goals are the specific means by which the ultimate objectives of the organization are achieved (Boone & Kurtz, 1984). For example, during the late 1950s, General Electric (GE) had the objective “Provide fair return on investment” and its corresponding goal as “20% on investment (after taxes); 7% on sales (after taxes)” (Lanzillotti, 1958).

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As shown in Figure 2.1, the strategic objectives are translated into (say annual) goals, while the strategy is broken down into (say annual) tactical plans.

### ■ Contingency Plans

Today's business environment has become highly volatile and unpredictable due to global competition. Organizations, therefore, have to be prepared to change their strategies in the wake of drastic changes often encountered in the environment. It is much more beneficial if organizations follow a proactive approach of developing alternative strategies for various scenarios which may prevail over a period of time. These alternative plans are called *contingency plans*.

Thus, contingency planning involves identifying alternative courses of action which can be implemented if and when the original plan proves inadequate because of changing circumstances. As shown in Figure 2.1, contingency plans are kept ready alongside the business grand strategy currently under implementation.

### ■ Tactical Plans

The strategy developed by the top management is helpful in winning the corporate "wars" against the competition, while the tactical plans help in winning the shorter duration "battles". As we know, winning many battles leads to winning the war. In a similar way, well thought of tactical planning (say for a duration of a year) derived from the business grand strategy aids in long-term survival and growth of the organization.

Strategic planning has the focus of providing directions on what the organization would be doing in the future (in the long-term), while tactical planning is all about deciding how these activities would be accomplished (in the medium-term). For example, the strategy of Laxmi Niwas Mittal group for the past decade has been to grow inorganically by acquisitions of steel companies worldwide. The successful acquisition of Luxembourg-based Archelor in 2006 was a tactical plan in line with this overall strategy through which Mittal Steel acquired many plants over the years in Mexico, Canada, Germany, and Kazakhstan.

### ■ Operational Plans

Operational plans (also called *functional plans*) are very specific, focused and short-term plans in line with the tactical (say annual) plans. These plans pertain to the various functional departments of an organization like finance, operations, marketing, HR, and IT. The time duration covered by these plans can be monthly, weekly, or even daily. For example, the production plans prepared by a manufacturing organization fall into this category. If the tactical goal is, say, to increase the revenue by 20% this year (in line with the business objective of, say, doubling the revenue in the coming 5 years) and the corresponding tactical plan is to gain 10% new business (from new clients) while increasing 10% business

from existing clients, the operational plan of the marketing department may be to create a new advertisement for electronic media to attract new clients while arousing the interest (and business volumes) from existing clients.

Similarly, the corresponding operational plan of the production department may be to reduce production costs by 10% which in turn will help in offering better pricing to the clients and thus, in attracting new clients would be easier (while gaining more business from the existing clients). Hence, operational plans strive to utilize the available resources optimally in order to support the tactical plan (and achievement of the tactical goals).

As shown in Figure 2.1, there are two types of operational plans, namely standing plans and single-use plans. *Standing plans* (also called *continuing* or *ongoing plans*), are usually made once and retain their value over a period of a year (or a couple of years), while undergoing periodic revisions and updates during this time frame. These periodic revisions and updates ensure that the standing plans remain in tune with the (annual) tactical plans. There are basically three types of standing plans – *procedures*, *policies*, and *rules and regulations*.

### **Procedure**

A set of step-by-step directions that explains how activities or tasks are to be carried out is called a procedure. By defining the steps to be taken and the order in which they are to be done, procedures provide a standardized way of responding to a repetitive problem. For example, standard operating procedures (SOPs) are pictorially displayed over complex machines in factories to aid (as well as remind) the operator to follow the exact sequence of steps as explained there. This becomes a useful mechanism to ensure quality of products processed by the operator on the machine.

Similarly, the purchase departments of an organization usually have standard procedures to be followed. For example, in India, the public sector units (PSUs) like Indian Oil Corporation Ltd (IOCL), Steel Authority of India Ltd (SAIL), Bharat Heavy Electricals Ltd (BHEL), etc. have the standard procedures prescribed by the Comptroller and Auditor General of India (CAG) to purchase items from vendors. As per this procedure, a PSU has to float an open tender and invite proposals from vendors. Out of the proposals received, the procedure prescribes the selection of the lowest bidder (popularly known as the L1). The merits (and demerits) of this procedure are however debatable.

### **Policies**

Policies are guides to managerial action. Policies are general statements that explain how a manager should attempt to handle routine management responsibilities. An organization may have policies in a number of areas: quality, environment, safety, human resources, etc. These policies guide day-to-day decision-making. For example, an organization may have the policy of providing “equal employment opportunity to all” implying that no biases would be done in relation to caste, creed, religion, or nationality.

### **Rules and regulations**

These are explicit statements that tell an employee what he or she can and cannot do. These are "do" and "don't" statements put into place to promote the safety of employees and the uniform treatment and behaviour of employees. For example, it is a rule in Maruti Suzuki plant at Gurgaon that anybody entering the factory premises must wear a helmet provided by the main gate security in order to ensure the safety of the visitor inside the factory.

*Single-use plans*, as the name suggests, are made for activities which do not recur or repeat. Thus, such plans are required for activities which have one-time occurrence. As shown in Figure. 2.1, the types of single-use plans are *budgets*, *projects*, and *programmes*.

**Budgets.** These are financial plans which predict sources and amounts of income and how much they are used for a specific organization, activity or department. For example, an annual budget is announced by the Union Railways Minister for the Indian Railways. Every year, the Railway budget has some unique features or the other, which distinguish it from the budgets for the previous years.

**Project.** It is a temporary endeavour undertaken to create a unique product or service. Due to the uniqueness of the product or service to be created by it, every project is unique in itself and thus, qualifies to be categorized under single-use plans. For example, the Indian Oil Corporation Limited (IOCL) has numerous refinery and pipeline projects, many of which have been completed while the others are ongoing.

**Programme.** It is a schedule or an ordered list of events to take place. For example, an inauguration programme for a new facility which includes the ribbon cutting, speeches by key officials/invited guests, tour of the new facility for the guests, etc. in a predetermined sequence.

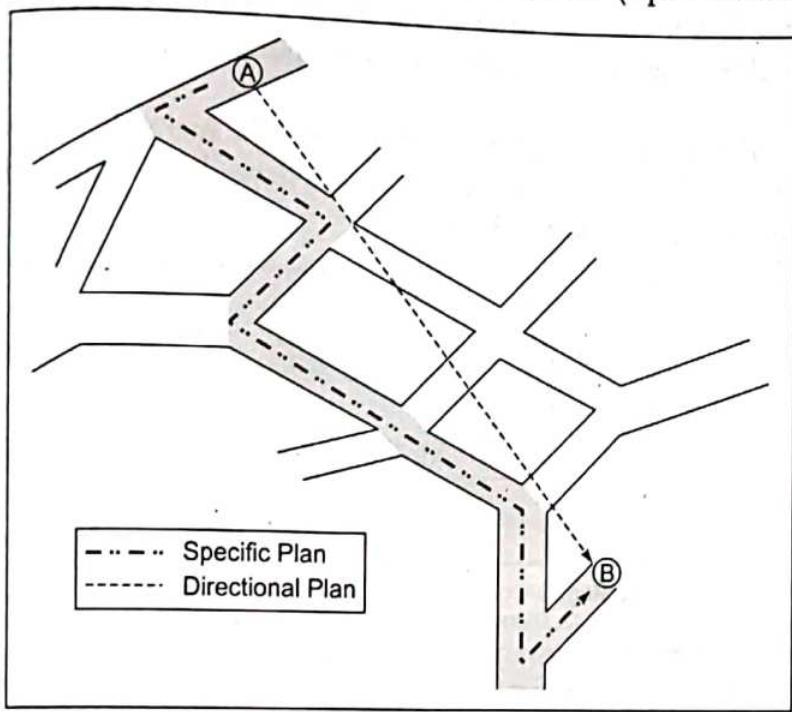
### **■ Directional Plans versus Specific Plans**

McCaskey (1974) challenged conventional descriptions of planning as necessarily tied to setting specific goals (specific plans). In his view, instead of specifying concrete measurable goals, the planners should work more from who they are and what they like to do. This type of planning without goals is called *planning from thrust* or *directional planning* which points to the positive characteristics of the process.

A device sometimes used to identify direction for an individual is to consider events and activities in the recent past which have been most deeply satisfying to him. From those events, the individual tries to identify a pattern which describes a direction for himself. Objects which lie along the path in which the direction is moving may become goals. But even when goals are chosen, one goal might easily be substituted for another as long as it lies on the general path of the direction.

Directional planning thus has a lot of flexibility compared to specific planning, however it is much more stressful and cumbersome for planners who are accustomed to planning with specific goals. Therefore, as shown in Figure 2.1, directional planning is more suitable for top management who are involved in strategic planning and the entrepreneurs creating their new business ventures. Managers in lower hierarchies of the organization, involved in tactical and operational planning are better off working with specific plans based upon specific goals (which are guided by the overall directional plans provided by the top management).

Figure 2.2 shows an example to demarcate between directional and specific plans (adapted from Robbins, 1994, p. 191). The directional plan only provides a general direction for a traveller in a city map depicted in this figure. The traveller has the liberty to choose any set of routes suitable to him as per personal preference. However, in a specific plan, the traveller is given a specific route between the source A and the destination B (a predetermined goal).



**Figure 2.2**  
Directional and  
Specific Plans

## ■ Hierarchy of Plans

The hierarchy of plans is evident from Figure 2.1, which shows the hierarchy of the managers involved in the different types of planning. Strategic planning and contingency planning are performed by the top management of an organization due to their highest importance in having a long-lasting impact upon the organization and its future. A flawed strategy may lead to havoc for an organization vis-à-vis competitors.

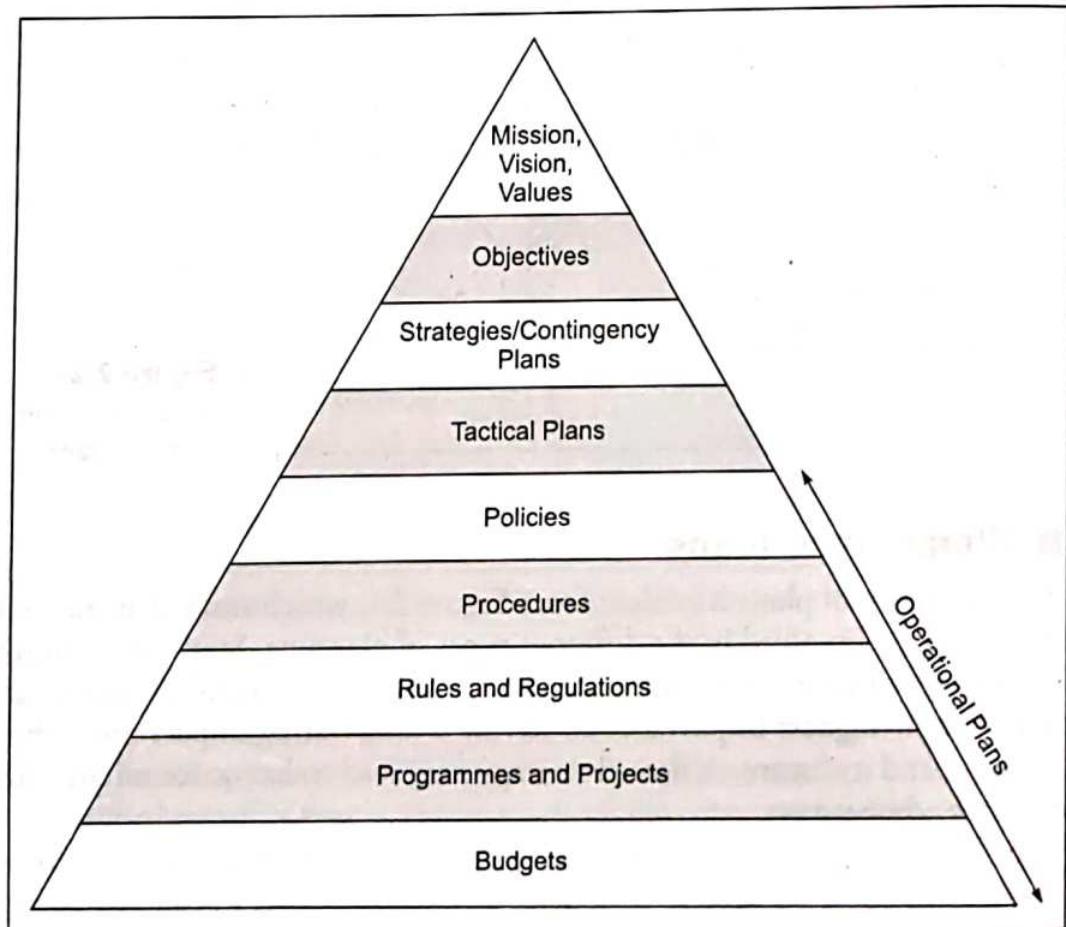
In case the chosen strategy does not yield expected results due to abrupt changes in the business environment, contingency plans prepared by the top management may be invoked. The contingency plans replace the existing failed

strategy under these circumstances and thus, command a hierarchy at par with strategic plans. Figure 2.1 depicts the strategic plans as the Sun with sunrays emanating from it in the form of mission, vision, values, objectives, and strategy, illuminating the whole organization.

The next place in the hierarchy of plans is secured by tactical plans, which are created by the middle-managers of the organization and have a medium-term planning horizon (say one year). As depicted by the Space in Figure 2.1, tactical plans are closer to the Earth (the implementation realm of plans) and are much more focused than the strategic plans. Any flaws in tactical plans have medium-term impact due to their medium-term time frame.

The lowest level in the hierarchy of plans is occupied by the operational plans (standing as well as single-use plans), which are represented in Figure 2.1 as the Earth and its environment (clouds). The operational plans take care of the nitty-gritty (the brass tacks) in various functional areas of the organization and its diverse divisions, hence coming closest to the realm of implementation. These plans are created by the lower rung of the organizational hierarchy and have short-time frame. Therefore, the impact of any lapses in operational plans is felt in the short-term.

Figure 2.3 recaptures the hierarchy of plans. It also shows the hierarchy of the different types of operational plans, namely the policies, procedures, rules and regulations, programmes and projects, and budgets.



**Figure 2.3**  
Hierarchy of Plans

Having understood the hierarchy of plans, we should keep in mind that strategic, tactical, and operational plans are interlinked to each other through the objectives and goals. Therefore, a frequent failure of operational plans may have the impact of weakening the tactical plans. Similarly, failure of tactical plans on many occasions may have a negative impact upon the strategic plans, and the top management may have to revise the strategic plans (at times by invoking the contingency plans). Hence, it must be emphasized that despite the highest hierarchy enjoyed by the strategic plans, their success is heavily dependent upon the success of lower-level plans, namely the tactical and operational plans. Clearly, the crucial role of middle and lower management in the organizational hierarchy should not be underestimated for the successful implementation of the overall grand strategy of the firm.

### **Points to Ponder**

- Goals are more concrete aims of the organization and more specific than the objectives.
- The strategy developed by the top management is helpful in winning the corporate "wars" against the competition, while the tactical plans help in winning the shorter duration "battles."
- Directional planning has a lot of flexibility compared to specific planning, however it is much more stressful and cumbersome for planners who are accustomed to planning with specific goals.
- In case the chosen strategy does not yield expected results due to abrupt changes in the business environment, contingency plans prepared by the top management may be invoked.
- Despite the highest hierarchy enjoyed by the strategic plans, their success is heavily dependent upon the success of lower-level plans, namely the tactical and operational plans.

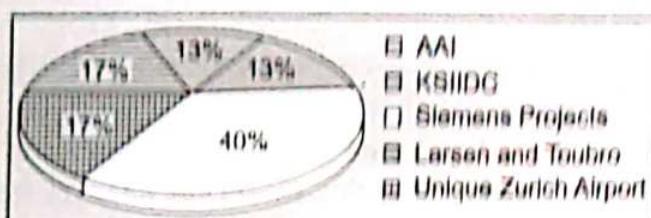
### **THE BANGALORE INTERNATIONAL AIRPORT**

The new Bangalore International Airport is envisioned to meet the growing aviation needs of the city through the development of a passenger-friendly, well-operated, and financially sound airport. Located east of the Bangalore-Hyderabad national highway (NH 7), the new airport is 37 kilometres away from Bangalore and 4 kilometres south of Devanahalli. The site spans an area of 3,900 acres and comprises of all the modern amenities a traveller looks for in terms of convenience, comfort, and connectivity.



**Figure A** The Bangalore International Airport

The Bangalore International Airport Ltd (BIAL) shareholding pattern consists of private promoters holding 74% equity stake and the state holding the remaining 26%. The private promoters include: Siemens Projects Ventures, Larsen & Toubro, and Unique Zurich Airport. The two state promoters are the Karnataka State Investment and Industrial Development Corporation (KSIDC), and the Airports Authority of India (AAI). The shareholding pattern is depicted in Figure B.



**Figure B** Shareholding Pattern in BIAL

BIAL's design and business plans are based on two passenger traffic forecasts:

- SH&E UK, appointed by KSIDC (Government of Karnataka) in the year 2000,
- Lufthansa Consulting (LHC), appointed by BIAL in the year 2002 to revalidate the SH&E traffic forecast.

With the passenger traffic at the HAL airport increasing from 2.3 million in 2001

to approximately 5 million in 2005, BIAL appointed LHC once more in 2005 to update the traffic forecast and develop planning parameters. In an extensive report conducted by Lufthansa Consulting, the potential traffic flow from 2005 to 2025 was analysed. The new forecast showed a significant increase in passenger figures and aircraft movements in the coming years. These revised forecasts for passenger and cargo traffic are shown in Table A.

It was evident from Lufthansa Consulting's revised projections that during the last few years, Bangalore has experienced a strong growth in traffic at its existing HAL airport with prominent international airlines—Air France, British Airways, Gulf Air, Jetstar Asia Airways, KLM, Lufthansa, Malaysian Airlines, Royal Nepal Airlines, Singapore Airlines, and Sri Lankan Airlines already operating from Bangalore.

The study estimated the international airport's opening year (2008) traffic flow to be 6.7 million passengers. Given the new traffic figures, the facilities proposed initially were deemed to be grossly inadequate to cater to the new peak hour demand. Since the task of giving a final shape to agreements had taken three years and aviation requirements

**Table A** Revised Forecasts by Lufthansa Consulting

Scenario	2005	2010	2015	2020	2025
Optimistic	4,613,742	10,190,762	13,922,812	18,193,819	23,444,068
Most likely	4,470,904	8,540,579	11,369,184	14,536,743	18,441,082
Conservative	4,328,269	7,144,506	9,777,469	12,284,213	15,377,190

(I) Total passengers

Scenario	2005	2010	2015	2020	2025
Optimistic	124,904	257,263	334,795	420,367	538,844
Most likely	122,157	234,017	299,303	375,118	469,179
Conservative	118,378	198,565	255,033	316,118	391,855

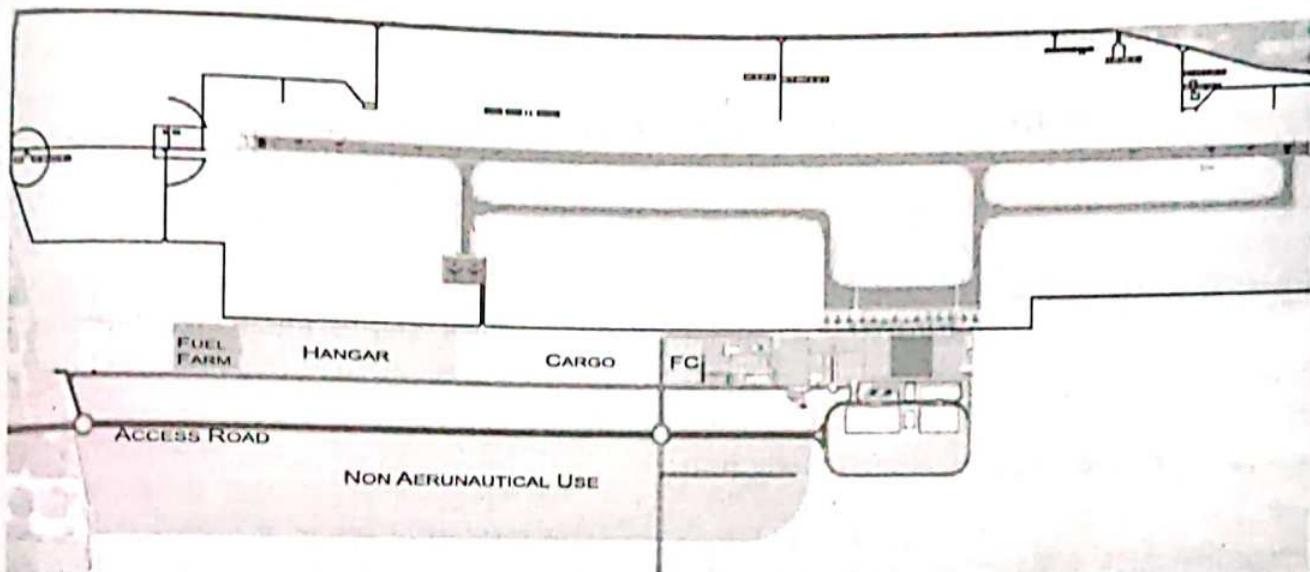
(II) Total Cargo (tonnes)

had changed during the interregnum, the design of the project was changed and scope extended. Figure C shows the initial design, while Figure D shows the revised design of the airport.

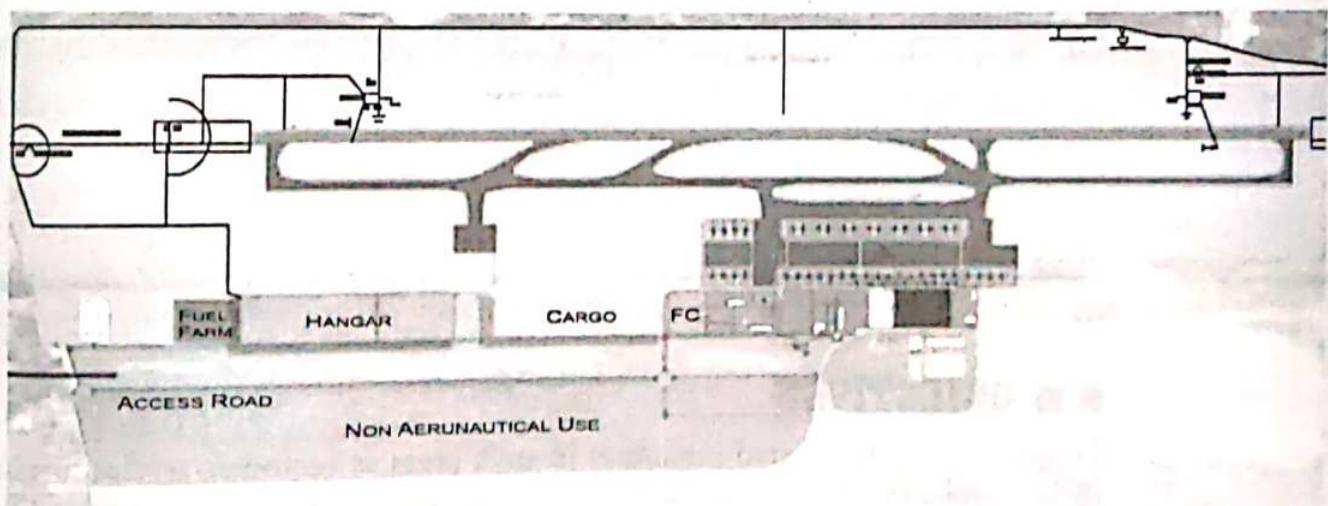
The re-design saw an increase in the size of the terminal, number of aircraft stands, new taxiway layouts, and landside infrastructure. However, the re-design was incorporated into the present project schedule as BIAL was committed to open the new Bangalore International Airport in April 2008. The

project managers eventually were able to complete the project one month before the scheduled completion date.

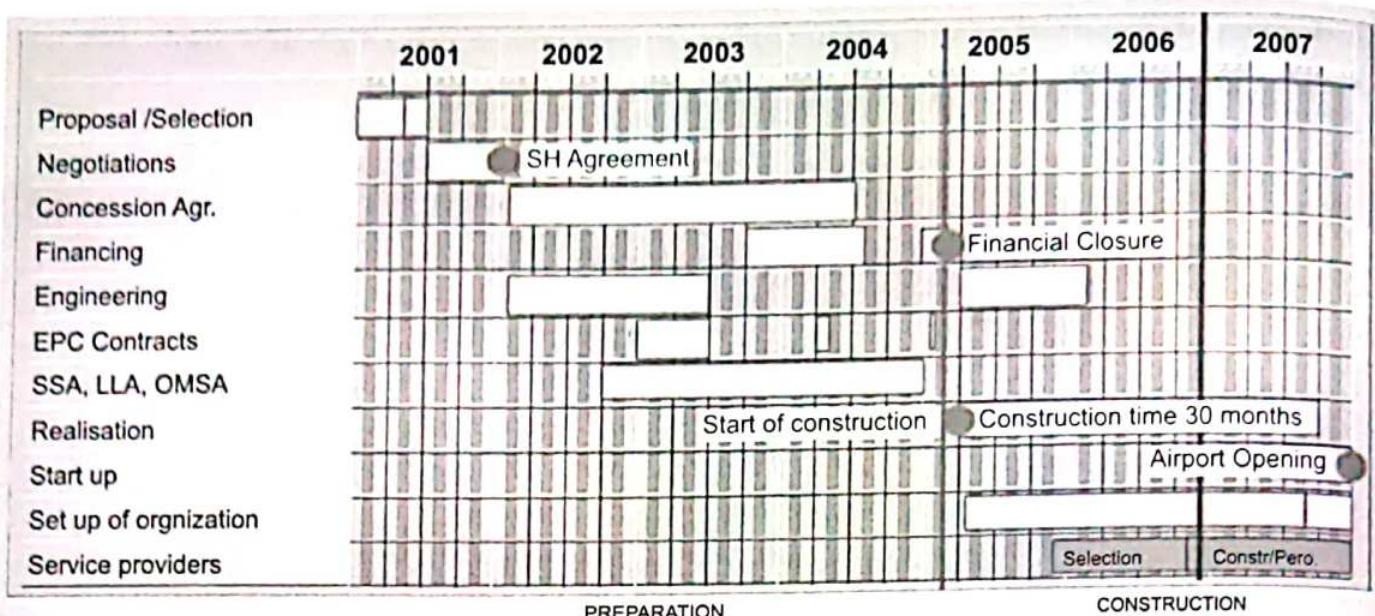
Construction of the Airport commenced on 2 July 2005 and continued, including the testing phase, for 33 months. The project progressed very well according to the time schedule of the project, which is shown in Figure E. The total project cost of BIAL stands currently at Rs 1,930 crores. The re-designing entailed an additional capital investment of about Rs 500 crores over and above the original



**Figure C** Initial design of the airport



**Figure D** Revised design keeping in view the increased traffic projections



**Figure E** The time schedule of Phase I

project cost of Rs 1,411 crores. The selected partners of BIAL invested an additional 700 crores in their infrastructures. Phase I of the new airport was ready by March 2008 and Phase II is expected to complete by 2015.

The airport development plan is staggered across several phases. The initial phase development completed by March 2008 includes a passenger terminal, a 4,000-metre-long run-

way, entrance/exit taxiways, isolation bay, airside road system, two-way access road, air traffic complex, aeronautical equipment, rescue and fire-fighting facilities, airline support facilities, fuel farm, terminal parking, administration and maintenance buildings, ground equipment maintenance area, cargo complex, and boundary/security wall.

### Discussion questions

1. Shouldn't project planners incorporate suitable time cushion for taking necessary approvals from the government while planning such mega projects as the Bangalore International Airport (to avoid re-designing as it happened in this case)? Discuss.
2. How helpful in planning is it to have the government as a shareholder in such mega projects?

## ■ ■ OBJECTIVES

Objectives are the desired outcomes in such areas as customer service, profitability, and social responsibility, that the management of an organization hopes to attain.

## ■ SMART Objectives

Organizations should set SMART objectives for themselves: S – Specific, M – Measurable, A – Attainable, R – Relevant/Realistic, and T – Time-bound.

### Specific objective

Specific objectives use action verbs to state in clear and definite terms about the expected outcomes. Let us take the example of the aim of an airline stated below:

*Our aim is to establish excellent quality and standard that the world will talk about...*

The above broad aim can be broken down into several service quality parameters. One of the parameters in service quality happens to be the employee behaviour with the passengers. A specific objective in this regard may be stated as:

*Employees should demonstrate exemplary behaviour with the passengers for high passenger satisfaction.*

In the above statement, “high passenger satisfaction” is the expected outcome which has been stated in clear and definite terms.

### Measurable objective

Measurable objective means that its intended outcome should be one for which it is feasible to collect accurate and reliable data using more than one method of measurement. In our example, “passenger satisfaction” in relation to the employee behaviour with passengers can be measured by way of surveys (feedback forms), focus group interviews (by having face-to-face discussion with a group of 6–12 passengers), complaint forms, etc. Therefore, it fulfills the criteria for measurable objectives.

### Attainable objective

Attainable objective means that it should be appropriately limited in scope so that it is feasible and is within the manager’s control and influence to achieve. In our example of “high passenger satisfaction”, we need to limit the scope of the term “high” to help the manager in making an assessment if it is feasible to achieve it. We would therefore modify the objective statement in our example as under:

*To achieve “very good” to “excellent” ratings from the passengers on employee behaviour with the passengers.*

Thus, in this format of the objective, the manager gets the freedom to fix specific levels of passenger ratings (which are achievable or attainable) based upon past

(recent) records of the airline in passenger feedback surveys. For instance, if the recent record of the airline has been pretty dismal in terms of passengers ratings for employee behaviour (and most customers have given ratings like "bad" and "just satisfactory"), the manager may decide to replace the term "very good to excellent ratings" to "good to very good ratings" in the objective statement to make it more attainable in the near future.

### **Relevant objective**

Relevant objective signifies that the objective should be within reach or availability of the resources, knowledge, and capabilities of people who would try to achieve it. In our example, it would be unreasonable to set the implied target level in the objective that each and every passenger should rate the airline's employee behaviour as "very good" to "excellent" with no passenger choosing the lower ratings like "bad" or "satisfactory."

It may be beyond the company's resources to have feedback of all its passengers (a large random sample would be more feasible) and secondly, achieving 100% ratings on "very good" and "excellent" employee behaviour would be a daunting task!. Therefore, keeping in view the resources of the company, the objective can be modified as under to make it more relevant or realistic:

*To achieve "very good" to "excellent" ratings from at least 80% of the surveyed passengers on employee behaviour with the passengers.*

Thus, adding the term "from at least 80% of surveyed passengers" makes the earlier uphill task within the reach of the people charged with achieving the objective.

### **Time-bound objective**

Time-bound objective requires a clear mention of the time-frame in which the objective should be achieved. In our example, we would need to incorporate the time factor as under:

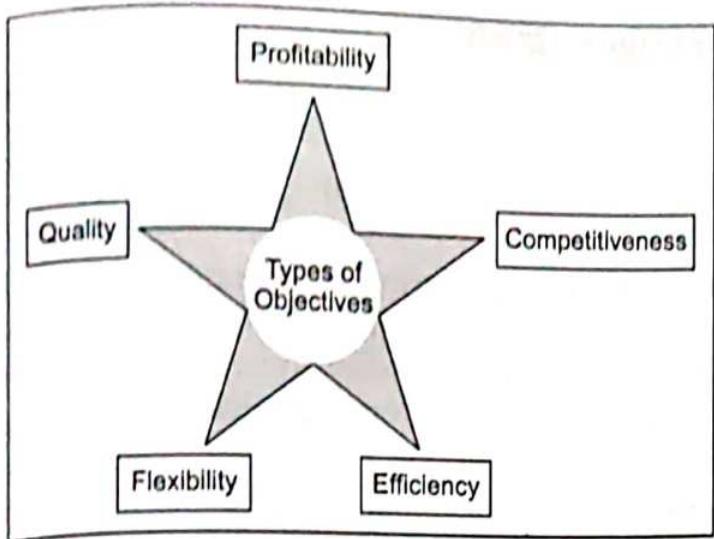
*To achieve "very good" to "excellent" ratings from at least 80% of the surveyed passengers on employee behaviour with the passengers in the year 2009–10.*

Thus, a mention of the (financial) year 2009–10 provides a clear time frame in which the objective has to be achieved.

SMART objectives are necessary for management by objectives (MBO) which would be covered later in this section.

## **■ Types of Objectives**

Grossman (2000) has classified various types of objectives into five categories as shown in Figure 2.4.



**Figure 2.4**  
Types of Objectives

**Profitability.** It is the very reason for the existence of business enterprises. It is therefore natural that some of the objectives of a business organization focus upon profitability. Such objectives are often expressed in terms of the return on investment, profit before interest and taxes (PBIT), market value of shares, etc.

**Competitiveness.** It is another important category of objectives in which the organizations strive to move forward in terms of market share. It is desirable for any business organization to attain the market leadership by capturing the highest market share. The market leader, on the other hand, strives to retain this coveted position and tries to maximize the market share gap with the closest competitor.

**Efficiency.** Efficiency-related objectives, like capacity utilization, employee turnover, productivity, inventory turns, lead time, delivery time, etc., form another category of objectives. As is obvious, through these objectives, the organizations try to make their operations cost-effective and try to eliminate wastages of various sorts everywhere in their facilities.

**Flexibility.** It is another dimension which has assumed great importance in this age of highly volatile and dynamic business environment. The customer preferences change continually and abruptly, thus demanding companies to be flexible enough to adjust to such changes promptly. Frequent introduction of new features in products and services, identification of new class of customers, innovations to create radically new products and services, etc. are the objectives pertaining to this category.

**Quality.** It is the dimension which received maximum attention during the 1980s and 1990s across the world. Needless to say, its importance is paramount even today. In this category of objectives, common measures are: defect-rate, zero-defect, sigma-level, throughput, mean time between failures, mean time to repair a defect (MTTR), customer satisfaction index, etc.

## ■ Management by Objectives (MBO)

Drucker (1954) emphasized the need for setting clearly spelled-out objectives for every manager at all levels of the hierarchy in an organization.

- These objectives should be in line with the overall goals of the business enterprise.
- These objectives should specify what performance outputs are expected to be generated by the manager's own managerial unit, how his unit may help other managerial units in achieving their objectives, and last but not the least, what help the manager can expect from other units in achieving his own objectives.
- In a nutshell, the emphasis, from the beginning, should be on teamwork and team results.

## ■ Balanced Scorecard

The balanced scorecard methodology (see Figure 2.5) emerged from the study "Measuring Performance in the Organization of the Future" conducted in the early 1990s and sponsored by the Nolan Norton Institute (the research arm of KPMG). The study was motivated by the belief that existing performance measurements, which tended to rely heavily on financial accounting measures, were rapidly reaching a point of obsolescence. From a year-long study, Kaplan and Norton (1992) developed a framework for integration and performance measurement which included incorporated strategic, operational, and financial measures. According to Kaplan and Norton (1992):

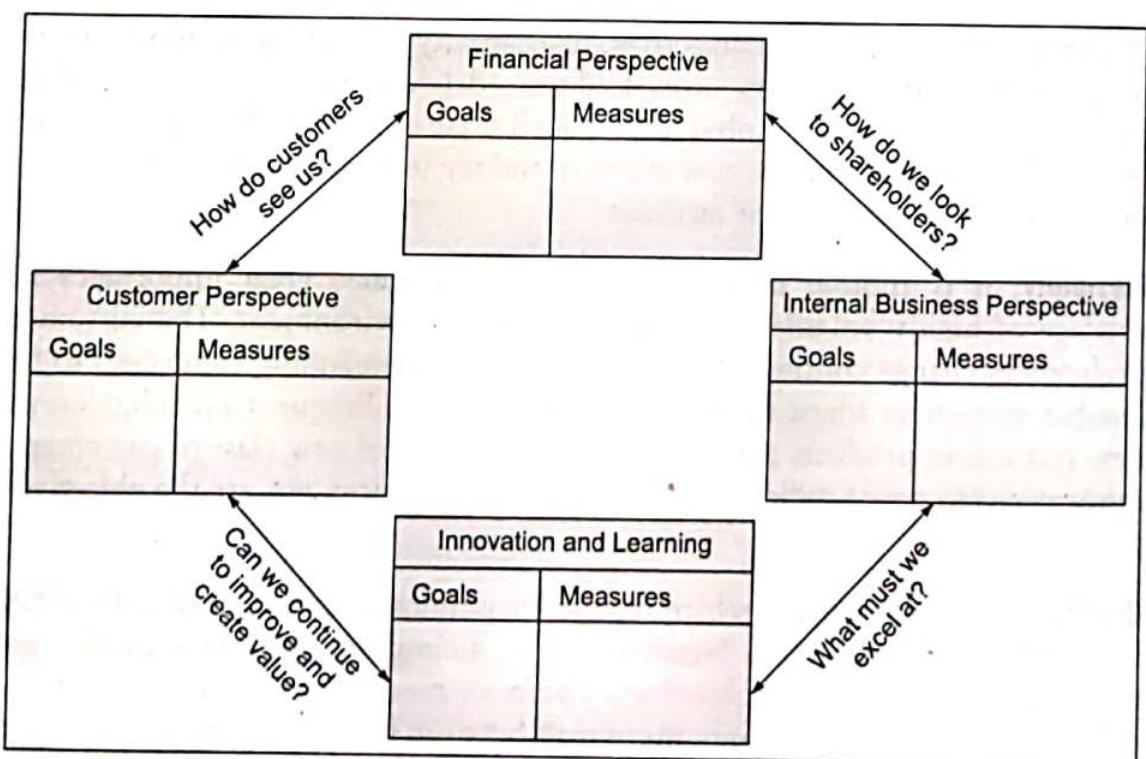


Figure 2.5 The Balanced Scorecard

Managers should not have to choose between financial and operational measures. No single measure can provide a clear performance target or focus attention on the critical areas of business. Managers want a balanced presentation of both financial and operational measures (Kaplan and Norton, 1992).

The balance scorecard provides answers to four basic questions:

- How do customers see us? (customer perspective)
- What must we excel at? (internal perspective)
- Can we continue to improve and create value? (innovation and learning perspective)
- How do we look to shareholders? (financial perspective)

From the financial perspective, the scorecard helps in systematic scrutiny of key financial criteria, which the company must achieve to maintain its standing in the corporate world. The customer perspective aids the process of translating strategic statements to specific measures that really matter to the customer, such as quality and delivery time. The internal perspectives focus attention on critical internal operations that are needed to satisfy customer requirement and help in identifying and building the necessary competencies for competitive success. The innovation perspective emphasizes the need to look further into the future, thereby helping to break away from a short-term focus.

The scorecard works via a process in which managers for each of the above perspectives set goals, and specific measures for each are stipulated in order to achieve each goal. In this manner, high level goals are cascaded downwards into the organization through a process of tight specification while utilizing a consensus approach. The scorecard, in this way, helps to translate and implement strategy. The strategic linkages enable the scorecard measure to be tied together in a series of cause-and-effect relationships. The scorecard thus can be used not only to clarify and communicate strategy, but also to manage strategy.

The advantages of the scorecard are that in a single report, it presents many of the seemingly disparate elements of a company's agenda. It also helps prevent sub-optimization by forcing managers to consider all operational measures at the same time (Ahmed and Rafiq, 1998).

## ■ MBO and the Balanced Scorecard

Dinesh and Palmer (1998) have captured the similarities and differences between MBO and the balanced scorecard.

### Similarities

- They are both based on the development of strategic measurements (although the balanced scorecard is more explicit about what those strategic measurements are).
- In essence, both systems are based on goal congruence throughout an

organization, and each details an iterative process based on collaboration between and within all levels of an organization.

- A further similarity between the two systems is that the balanced scorecard measures have been tied to rewards and incentives as a useful motivational tool.

### Differences

- A notable difference between the two systems is their degree of explicitness. MBO is an open-ended management system based on the collaborative determination of goals and measures (without detailing what those goals and measures should be).
- The balanced scorecard is also based on the collaborative determination of goals and measures, but is more focused than MBO as it prescribes the four categories of customer satisfaction, internal processes, innovation and learning, and financial measures.

### Points to Ponder

- If an alternative did not exist, it would be meaningless to say that we are planning anything.
- It requires critical thinking and analysis while formulating the plans keeping in view not only the current scenario, but also the scenario which is likely to prevail by the time these plans would be implemented.
- There is a need for setting clearly spelled-out objectives for every manager at all levels of the hierarchy in an organization.
- No single measure can provide a clear performance target or focus attention on the critical areas of business. Managers want a balanced presentation of both financial and operational measures.

### AIRBUS 380

Airbus 380 (A380) is the most ambitious project of Airbus Industrie till date. The mammoth-sized double deck plane is so huge that the runways of very few airports worldwide can accommodate its landing and take off. This is one project which has made Airbus face a myriad of unforeseen production problems and embarrassing delays resulting in severe monetary penalties to be paid to airlines, which placed the orders for the superjumbo with Airbus.

One issue was that the CATIA computer tool used in the airplane's digital design was not sufficiently accurate when it came to designing electrical systems. The problem was made worse by Airbus's switch to aluminum wiring when the model was designed for copper wiring, which has very different physical properties. According to Airbus officials, the complexities were caused in A380 production by airlines requiring extensively customized interiors—which can

affect the wiring, some of which goes to the seats—were indeed a big factor in what went wrong.

Gustav Humbert and Noel Forgeard, the co-CEOs of the European Aeronautic Defence and Space Company (EADS)—the company which effectively controls Airbus—had to step down as a result of delays in A380 production schedules. Both men had been under intense pressure after Airbus revealed that its A380 superjumbo would be delayed by seven months. Humbert accepted his responsibility for the delay, a setback which led to a collapse in EADS' share price and ultimately cost the firm up to 2 billion in lost profits.

New problems were detected on Airbus's giant A380 super jumbo jet, adding to the woes of the fledgling aircraft which is already afflicted with wiring problems. Problems with section 19 of the fuselage were detected during trial flights in Toulouse, southern France. News of the delays saw 5.5 billion euros briefly wiped off the market

value of EADS, which owns 80 percent of Airbus.

The manufacturing process adapted by Airbus for creating its planes is scattered across various countries in Europe. Parts are manufactured in different countries, which are later sent to its final assembly lines in Toulouse, France for joining the parts together. A380's big size made this process difficult and raised questions about Airbus's rationale of not having the final assembly line on a port city.

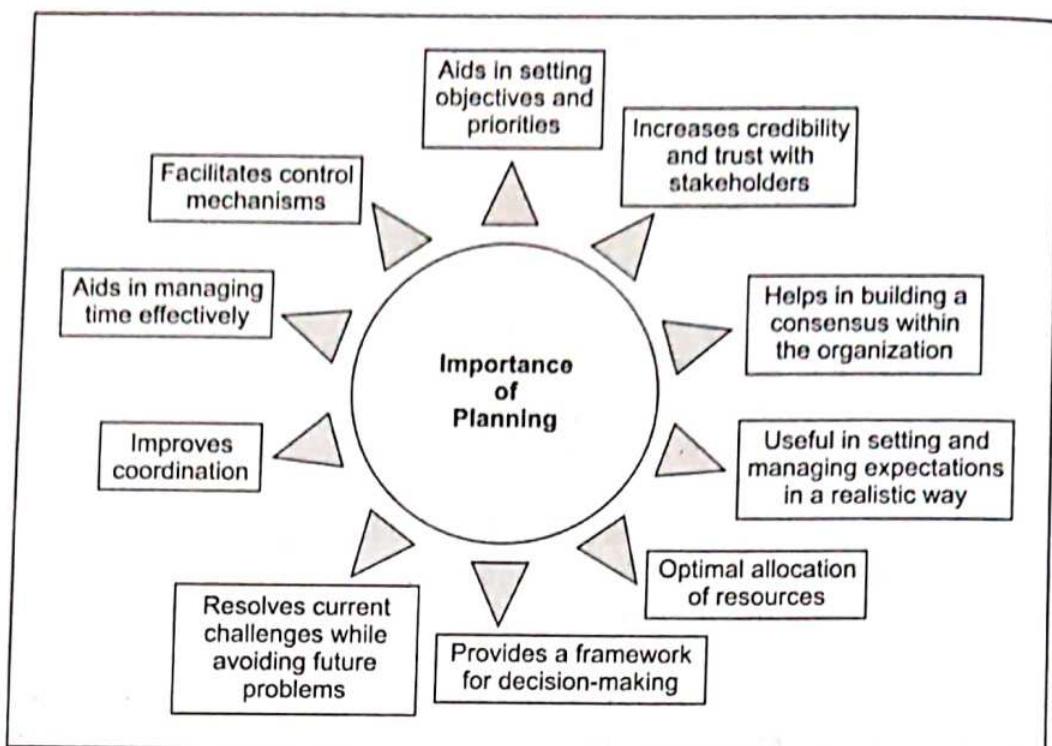
The critics of this dream machine were silenced up to great extent when it successfully undertook its test flights across different parts of the world during early 2007. The A380 can carry a human cargo of 555 passengers on two decks. Currently, Airbus has orders to deliver 166 of the beasts to carriers including Emirates, Korean Air, Qantas, Virgin Atlantic, Singapore Airlines, Air France, and India's Kingfisher Airlines. In 2008, Singapore Airlines became the first A380 in service with its maiden flight from Singapore to Sydney.

### Discussion questions

1. Up to what extent the manufacturing process (scattered across various countries in Europe) adapted by Airbus to manufacture its planes be blamed for the delays and cost overruns of A380, when it has been following the same process for many decades to manufacture its planes?
2. Do you think that the existence of co-CEOs (two CEOs) for Airbus at that time might have contributed to the planning failures of A380?

## ■ ■ IMPORTANCE OF PLANNING

The importance of planning can be highlighted by discussing about the benefits it brings about and the kind of problems which may erupt in its absence. As shown in Figure 2.6, planning has numerous reasons which support its utility and importance in the sphere of management.



**Figure 2.6**  
Importance of  
Planning

### Setting objectives and priorities

Planning aids in setting objectives and priorities for the managers. Drucker (1954) in his theory on MBO recommends that every manager should be given clear objectives to be achieved. As discussed earlier, strategic planning results in setting strategic objectives, which boil down to tactical goals and further seep down to aid in operational planning. Thus, planning aids in setting these objectives for all managers in the organization and hence, guides the managers to be focused upon the objectives to be achieved.

In a practical scenario, managers are swamped with various activities everyday. It may not be feasible for them to devote equal attention to all these activities forced upon them. This leads them to think rationally and set priorities to these activities in the order of importance or "value-add" associated with them in the achievement of objectives set-out for them. Some activities may get pushed to future time frames or may be delegated to subordinates if deemed of less value-addition to the concerned manager (and her objectives).

### Credibility and trust of stakeholders

Planning indeed increases credibility and trust with the stakeholders of an organization. Stakeholders are people impacted directly by an organization's activities including the shareholders, employees, vendors, customers/clients, etc. They need to be often convinced by the managers about the merits of important actions taken by them which may directly impact the stakeholders.

It is always easier for the managers to take the stakeholders into confidence by sharing the elaborate and formal plans made by them in relation to such future important actions. For example, it is argued that the Tatas failed to communicate the societal and rehabilitation plans made by them for the farmers displaced at Singur (West Bengal) for the Nano car facility earlier planned there (before relocation of the same was forced to Sanand in Gujarat by the agitating farmers in Singur).

### **Building consensus**

Planning helps in building a consensus within the organization by providing a common platform for setting objectives for all managers. Higher level objectives as ends are directly tied to the lower-level objectives as the means for their accomplishment, thus creating a *means-end chain or hierarchy of objectives* (Schermerhorn, 2005). Thus, everybody directly or indirectly strives for achieving the organizational objectives. Planning (and the objectives thereof) thus serve as a single thread (of purpose) binding the whole organization.

### **Setting and managing expectations**

Planning is also useful in setting and managing expectations in a realistic way. The objectives assigned to every manager inform her about the expectations of the organization from her. While setting the objectives, the manager's expectations should also be taken into account so as to create a synergy between organizational (strategic or tactical) objectives/goals and the individual's objectives.

### **Allocation of resources**

Planning results in optimal allocation of resources. Planning helps allocate limited resources like staff, materials, and time in an orderly and systematic manner into various types of activities. In the absence of planning, there is increased likelihood of many resources becoming over-allocated while other resources remaining idle, thus resulting in wastage of organizational resources.

### **Framework for decision-making**

Planning provides a framework for decision-making. In the performance of various activities, managers have to often take decisions. Such decisions are much easier to take and are less prone to errors if backed by good planning done earlier. Thus, a well-developed plan created in the past guides a manager in taking suitable decisions in case of unforeseen problems encountered during the implementation of some actions. Planning helps decision makers by providing guidelines and goals for future decisions. Planning can help ensure that a coherent set of actions are implemented which are consistent with the values and priorities of the decision maker.

### **Current challenges and future problems**

Planning requires a manager to think critically about the activities being planned so as to resolve current challenges while avoiding future problems. This proactive approach helps in overcoming not only the present challenges but also prompts the managers to figure out possible hurdles in future and ways of avoiding the same.

### **Coordination**

Planning improves coordination in a big way. According to Drucker (1954), the objectives set out for every manager should specify what performance outputs are expected to be generated by the manager's own managerial unit, how his unit may help other managerial units in achieving their objectives, and last but not the least, what help the manager can expect from other units in achieving his own objectives. In nutshell, the emphasis from the beginning should be on teamwork and team results. Thus, the planning process which starts from setting the objectives improves camaraderie and a sense of teamwork.

### **Time management**

Planning aids in managing time effectively on part of managers. Time is perhaps the most important resource for the managers, which gets consumed at a constant rate. Proper utilization of time by managers into value-adding activities would of course be most desired. This is possible only when managers plan the activities of their day by sequencing tasks with higher priorities while pushing down the low priority tasks to subordinates or future periods of time.

### **Control mechanisms**

Last but not the least, planning facilitates control mechanisms. Planning helps a manager exercise more control in a situation, establish goals proactively and consider contingencies. Planning can help quantify goals and establish a means of measuring success. A feedback loop (a form of control mechanism) acts as a means of evaluating actual performance against planned performance of a product or service produced by the organization. Planning and control are rightly said to be the *Siamese twins* of management (Mosley & Pietri, 1975).

### **E. SREEDHARAN AND DELHI METRO RAIL CORPORATION**

"I was instrumental here in proposing your name for this decoration to my authorities. But it is the President of the French Republic himself, who, having naturally accepted my

proposal, went out of his way to make sure that your good name was put on his personal quota," French Ambassador to India, Dominique Girard said while presenting

E. Sreedharan with France's Knight of the Legion Honour.

In 2005, France's President Jacques Chirac has gone out of his way to ensure Delhi Metro MD, E. Sreedharan was enlisted on his personal quota for one of his country's most prestigious civilian awards. The Legion of Honour was originally awarded in France to soldiers for exceptional bravery and was instituted in 1802 by Napoleon Bonaparte.

Elattuvalapil Sreedharan was born in Chattanur, a small village near Palakkad in Kerala. In school, he was the classmate of the former Chief Election Commissioner of India, T. N. Seshan. He later studied at the Victoria College in Palghat and then graduated as an engineer from the Government Engineering College, Kakinada (now Jawahar Lal Nehru Technological University).

After a short tenure as a lecturer in Civil engineering at the Kerala Polytechnic in Kozhikode and a year at the Bombay Port Trust as an apprentice, he joined the Indian Railways in its Service of Engineers. His first assignment was in the Southern Railway as a Probationary Assistant Engineer in December 1954.

In 1963, disaster struck the Rameshwaram island when tidal waves washed away the Pamban bridge connecting it with mainland Tamil Nadu. A passenger train was swept away, killing hundreds of persons. The Southern Railway decided to restore the bridge and set a target of six months. General Manager B.C. Ganguly advanced the deadline by three months and the Railway Board assigned the task to a 31-year-old executive engineer, Sreedharan.

It was a tough task as it was an old bridge, built by the British in late-nineteenth century, with 146 spans and a steel girder which opens up for large vessels to pass under the bridge. Sreedharan took up the challenge and

advanced the deadline by a month, making the task tougher. He made the bridge functional in 46 days.

In 1970, as the deputy chief engineer, he was put in charge for implementation, planning, and design of Calcutta metro, the first ever metro in India. Sreedharan, who had been in the Indian Railways for 50 years, had successfully completed one mega-project earlier prior to taking up the Delhi Metro Rail Project—the Konkan railway between Maharashtra and Mangalore. The rail-line was mooted in 1990 by then railway minister George Fernandes, while talking to Railway Board members. After stating it, Fernandes himself dismissed it as impossible.

A month later, Sreedharan went to Fernandes with a well-charted out plan. "I told him that we will have to work in a different fashion," he recalls. Probably his enthusiasm infected Fernandes, who got cabinet approval for the project within three days. Maharashtra and Kerala immediately agreed to the project, but Karnataka chief minister Virendra Patil objected. Sreedharan, then a member of the Railway Board, went to Maharashtra, Karnataka, Goa and Kerala and got all the necessary approvals before his retirement.

But retirement was not to be as Fernandes wanted him to head the West Coast Railway. Thus the Konkan Rail Corporation was born. It created an engineering marvel by laying a rail network across the mountainous Western Ghats. Under his stewardship, the company executed its mandate in seven years.

The project was unique in many respects. It was the first major project in India to be undertaken on a BOT (Build-Operate-Transfer) basis; the organization structure was different from that of a typical Indian Railway set-up; the project had 93 tunnels along a length of 82 km and involved tunneling through soft soil. The total project covered

760 km and had over 150 bridges. That a public sector project could be completed without significant cost and time overruns was considered an achievement by many.

Sreedharan did not stop there. Everybody laughed when plans to build a metro rail in Delhi were announced. All knew about the chaos even a small, one-line metro in Kolkata had caused for a decade and a half. But Sreedharan took up the Delhi Metro Rail Project.

Sreedharan took up this task as Managing Director of Delhi Metro Rail Corporation (DMRC) in November 1997 on the condition that he should be allowed to choose his own team. Furthermore, he came to enjoy a fair degree of autonomy. Financial powers were vested in the managing director. Also, the managing director was the last authority on tenders. Another precondition was the minimum interference of the government.

The work culture was so designed as to reduce dependence on subsidies. Soon the message went down the line that there is nothing called a free lunch or freebies. The organization therefore was able to resist pressures from many quarters. Upon completion of the project, even the Prime Minister bought a ticket for enjoying a ride on the Metro.

Sreedharan seems to have mastered the art of dealing with political pressures. While sharing his experiences on this front during his DMRC tenure, he says, "We had to recruit many people at DMRC. Then a lot of pressure used to come for promotions in the organization. The main areas were contract awarding, staff recruitment, land acquisition—when you decide on a particular route and try to acquire the land, politicians immediately want you to shift the alignment, 'why don't you save this shop? why don't you save that house?'—this sort of thing used

to come. But we never changed any decision simply because somebody wants it. If it was required technically or from a professional angle, yes, we do it. Not because anybody wants it. They (politicians) want some people to be appointed and I don't. Similarly contracts; I do exactly what is required. Of late, politicians know I cannot be maneuvered or managed that way. But now I have seen that they respect these qualities. They know this is good for the country, good for the organization. Ultimately if the organization succeeds, the credit goes to the politician. So they are very happy about it. In the initial years, we had a lot of interference, now it is gradually tapering off."

Any other project of this magnitude might have got bogged down in litigations, but not so with the DMRC. Although there are about 400 cases pending in various courts, no stay order has been given till date. That meant the DMRC could go about executing its works without worrying too much about cost escalation or project delay.

In ensuring minimum inconvenience to motorists and pedestrians alike, the DMRC successfully converted a challenge into an opportunity. That paid dividends too. All utilities were diverted in advance to ensure that there was no disruption of water, electricity, sewerage, and telephone connections during the construction of the area. Barricades were put up. An alternate traffic plan was drawn up with the help of the Indian Institute of Technology, Delhi, and in collaboration with Delhi Police. Also, new roads were built or the existing roads widened to accommodate traffic.

The DMRC organized community interaction programmes for redressing problems that arose among the local people. Every Monday, heads of department would meet and set new or review targets. DMRC has also

devised a reverse clock to overtly display the exact number of days remaining to complete any particular task in the project.

The DMRC has also secured ISO 14001 certification for adhering to environment protection norms and the OSHSAS 18001 certification for meeting world standards in protecting the health of workers and passengers alike. Another hallmark of its operations has been labour standards. It employs 45 persons per kilometre of work. This ratio is one-third of that of the organizations elsewhere in the country.

A detailed *environmental impact assessment* has been done in 2004 to minimize the negative environmental impact of the Project during its construction stage. For every tree cut during construction, the DMRC is planting 10 trees in advance as compensatory afforestation. Around 26,000 trees have been planted at Najafgarh, Isapur, and Rebla Khanpur. Through proper care 30% of trees in the alignment have been saved.

Installation of storm water drains for disposal of wastewater, monitoring air and noise pollution, disposal of excavated materials are some of the measures taken during construction to minimize the damage to the environment and inconvenience to public.

The Delhi Metro project, which surprisingly is consuming over 70 percent of all the cement and steel being used in the Capital these days, managed to tide over a recent quantum jump in the price of steel by anticipating the rise and guaranteeing the orders placed by the contractors with the Steel Authority of India.

It was only through some farsightedness and close monitoring of the prices that DMRC managed to anticipate the rise. And immediately the DMRC took the unique initiative of stepping in and assuring SAIL that all the steel being sought by the contractors would be paid for.

Due to this initiative, the various contractors working on the project received the supply of steel at almost the prevailing rates before the prices went up. The steel price had shot up from around Rs 18,000 per tonne to around Rs 30,000 tonne per month within three months. While the rise affected many other projects, the Delhi Metro project smoothly sailed over it. Normally in such an event the contractors get panicky and either start asking for an increase in the contract amount or delay the construction in the hope that at a later stage they may be able to purchase the raw material at a lower price. In both the cases, the projects inadvertently suffer. But with the Delhi Metro, neither of this happened as the contractors—wise with their experience of working on the project—understood the need to place orders immediately rather than playing a waiting game.

As for the guarantee furnished by DMRC with SAIL, which actually clinched the deal for the contractors, DMRC had offered to make immediate payments to avoid any cost overruns. And it was given that the amount would be subsequently adjusted with the contractor's final payment.

It is this aspect of financial management of the project which has prevented cost overruns and delays in completion of various sections till now. Every detail of the payment to be made and the contract amount is given in the tender document. And all the contractors have been given the freedom to decide on how they would construct the project and give the estimate of the men and material involved and the estimated cost.

Also, while the penalty clauses are included in the contract to ensure timely completion, the DMRC also provides a counter-guarantee of sorts in which it stipulates that if the payment was delayed, then DMRC would pay interest on it. This has prevented delays in payments to

the contractors. To facilitate the continuation of the construction work, DMRC also releases 80 percent of the bill amount within 72 hours of its submission.

As for the rest of the 20 percent, it is disbursed within the next 25 days after detailed scrutiny. And to prevent any misuse of this clause, it has also been decided beforehand that till the entire 100 percent of the first bill is not disbursed, no payment will be made on subsequent bills. Also contractors found inflating bills run the risk of being heavily penalized and being deprived of the 80 percent quick payment arrangement.

The carrot-and-stick policy appears to have worked very well. But what really makes the difference is how DMRC handles its contractors and how other government departments handle them is the manner of preparation of the final bill. While in the Metro project the bills are prepared by the contractors and senior Metro officials subsequently scrutinize them, in other

places, these bills are usually prepared by the junior engineers or other engineers of the concerned departments which leads to all the ills plaguing various infrastructure projects.

DMRC has adapted some unique practices with its suppliers and contractors. DMRC inserts a clause into the contract with companies it gets into any supplier relationship that they must have an Indian partner. Consequently, the DMRC is procuring the trains from Bharat Earth Movers Limited, Bangalore, and elevators are also being produced indigenously. Another feature is the punctuality with which the DMRC pays its contractors, who are addressed by DMRC as associates. But the real marvel of the Delhi Metro project stems from the way in which a foreign-dependent project has been localized and re-engineered. This was done by roping in Indian companies as consortium members at each stage of the project. Table A shows the major international contractors of DMRC and their Indian partners.

**Table A** Major international contractors of DMRC and their Indian partners.

Operation	Contractors	Indian Partners
Civil Works; Ventilation and Air Conditioning	Kumagai Gumi Co., Shimizu Corporation, Itochu Corporation (Japan); Samsung Corporation (Korea); Skanska International (Sweden); Dyckerhoff and Windmann (Germany)	IRCON International; Hindustan Construction Co; Larsen and Turbo Ltd.
Supply of coaches and engine	Mitsubishi Corporation, Japan; KOROS, Korea	Bharat Earth Movers
Signaling and communication	Alstom Transport, France; Alcatel, Portugal; Sumitomo Corporation, Japan	Alstom Transport
Traction and Power distribution technology	Corba, Spain; ELIOP, Spain	IRCON International
Supply, Installation, Testing and Commission of power supply		ABB Ltd; Best and Crompton Engineering
Supply, Installation, Testing and Commissioning of ballast less tract	MVM, Australia	IRCON International

Over the course of the seven-year venture, several capabilities have been acquired by the Indian partners. In 2002, Indian engineering firm Bharat Earth Movers Ltd signed a contract with South Korean firm Rotem for manufacturing rust-proof, fiber-reinforced interiors steel coaches within India under a transfer of technology agreement. DMRC procured 240 coaches of which 60 (4 trains) are manufactured in Rotem, Korea. A year later, Bharat Earth Movers (BEML) released the first rake comprising two engines and four trailer coaches. BEML will manufacture the other 180 coaches (45 trains). Starting with the local assembly and testing of a few trains, BEML will manufacture the coach shell, traction motor, converter-inverter unit, battery, passenger announcement and information system, air-conditioning units and seats. This will help in acquiring capability and avoiding import of trains for the forthcoming metro projects in Bangalore, Ahmedabad, Mumbai, and Hyderabad.

Alongside the manufacturing practices, project management processes have also been transferred seamlessly. When the metro project started, a five-member consortium managed it. Four of them were global firms: Pacific Consultants International, Railway Technical Services and Tonichi Engineering Consultants from Japan, and Parson Brinkerhoff International from the US. Rail India Technical and Economic Services (RITES) was the only Indian consultant. Now, for the final stretch of the metro project, DMRC and RITES are confident enough to navigate the venture from here alone, even though the third stretch will pass through some of the most congested areas of Delhi. Better

still, DMRC's domain expertise acquired over the last several years is now being used to develop feasibility studies for other metro projects. The studies include route alignment, utility mapping, and projected demand for transport in the next five decades, soil testing, environmental impact, and system designing.

For example, the West Bengal government asked DMRC to prepare a detailed project report to connect the eastern city of Kolkata's existing metro rail with Howrah, an industrial hub on the other side of the river Hooghly which runs through the city. DMRC will use construction and technology similar to that used in English Channel (for linking Great Britain with France through Metro Rail) albeit on a smaller scale.

At another level, RITES, on behalf of DMRC, is in the process of completing a detailed project report for the southern cities of Bangalore and Hyderabad. Other metro projects in the pipeline include the western cities of Mumbai and Ahmedabad, the northern city of Lucknow, and the southern cities of Thiruvananthapuram and Kochi.

An important reason why DMRC's skills are being taken to other cities is the cost factor. At a presentation made to the Andhra Pradesh government in 2003, Sridharan pointed out that the cost of a 39.45 km metro project in Hyderabad was estimated at US\$ 712 million at April 2003 prices, which translated into a per km cost of US\$ 18 million. "The cost of the Delhi Metro project at US \$2.3 billion for 66 kms of tracks is higher since most of the technology has been sourced from abroad," Sridharan said during the presentation.

### Discussion questions

1. How similar/different would be your approach to handle political pressure vis-à-vis that of Sreedharan?
2. Which aspect of Sreedharan's planning of Delhi Metro Rail Project is most appealing to you and why?
3. Share other examples like DMRC in which compulsory partnership for foreign contractors with Indian contractors later helped in indigenization of products/services.

## ■ ■ STEPS IN PLANNING AND PLANNING PREMISES

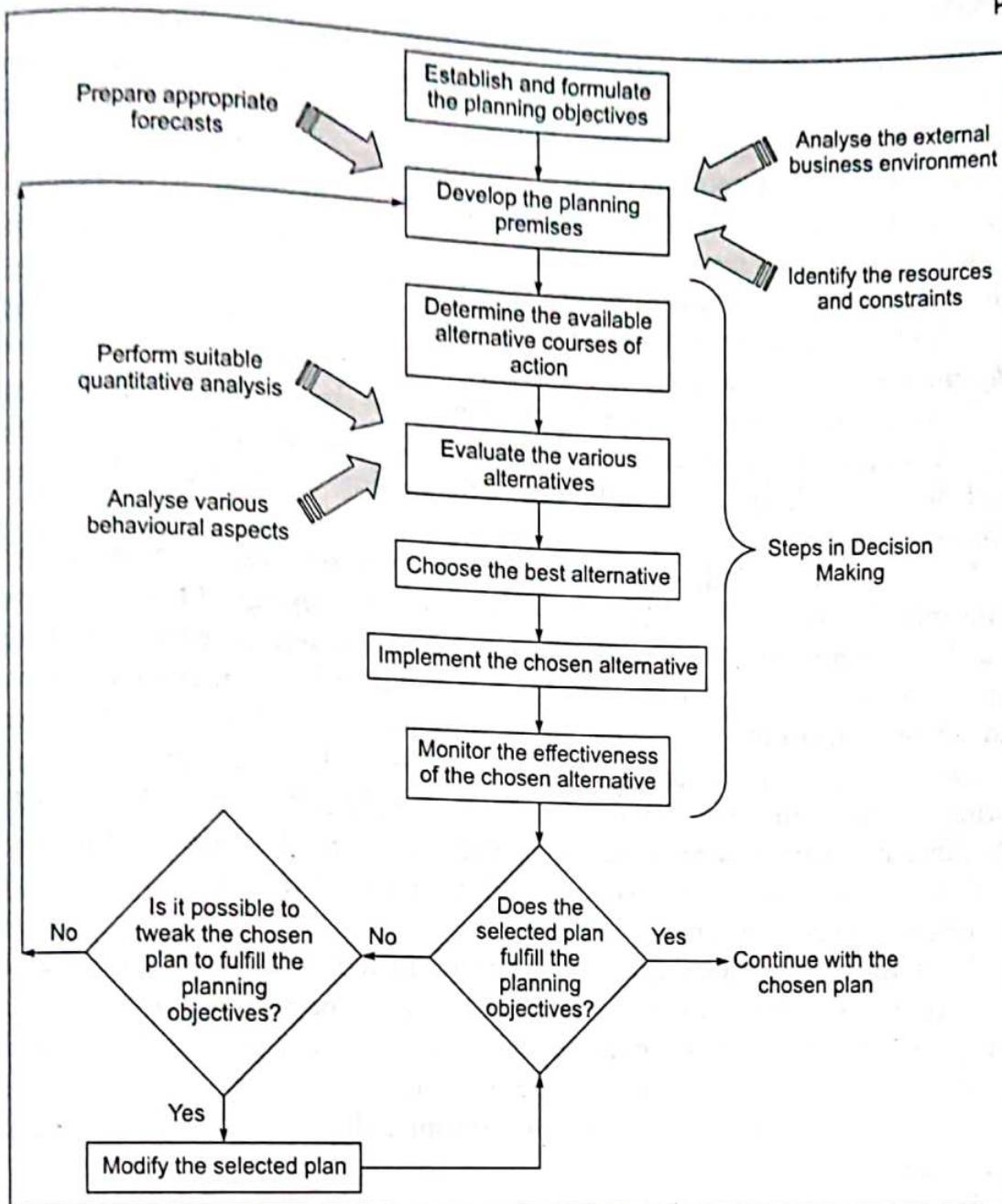
Systematic planning is constituted by various steps in the planning process as shown in Figure 2.7. The planning process starts with the formulation of planning objectives. Let us take an example to understand the planning process. Suppose that a company operating in the mobile phone handsets market has created a new mobile phone especially targeting the college students. It has innovative features like an inbuilt MP3 player, voice SMS, high-resolution camera, and a long battery life (say a month).

The company wants to create an advertising plan to quickly penetrate the market with this product before the competitors can come up with a similar product. Thus, in this instance, the planning objective for the company is to reach out to a large population of college students in the shortest possible time.

The next step is developing the *planning premises*, i.e. pre-suppositions or assumptions about the future scenarios in which the plans to be created would be implemented keeping in view the business environment. While developing the planning premises, a manager must perform the forecasting of the scenario which is expected to prevail by the time the plans would be implemented.

In our example of advertising plan for the new innovative mobile phone, forecasting would be required to know about how many college students currently own a mobile phone, what is the growth rate of this market, and what are the buying patterns of college students with respect to mobile handsets. This information would be helpful in creating relevant planning premises, e.g. in the first month of the advertising campaign, the advertisements should reach out to at least 50% of the college students.

As shown in Figure 2.7, the external business environment has to be analysed. For example, which existing models of the competitors come closest to the new mobile handset being introduced by the company, what is their market share, how much time the competitors would take to develop a similar handset by reverse engineering (after the innovative handset is launched, the competitors would try to understand the technology by dismantling it layer by layer), etc. The manager has to also keep in view the available resources and constraints while developing the planning premises. For example, there may be a budget



constraint that a maximum of Rs 5 crores are earmarked to be spent on the advertising campaign for the new handset.

As shown in Figure 2.7, many of the subsequent steps in the planning process are common to decision-making.

## ■ Decision-Making

Decision-making is a process in which a best course of action is selected out of a set of alternatives for achieving a desired outcome. Managers are required to take decisions often when faced with a problem. The decision-making process thus starts with the understanding and definition of the problem.

For example, the workers in your factory have suddenly gone on strike while demanding increase in wages, while you as the factory manager are faced with the problem of bringing the workers back to work the soonest possible, as a huge order from an important client is pending for execution. In such a scenario, you would need to understand the various facets of the problem, for example how much is the increase in wages being demanded by the workers, what are the wages offered by competitor or other factories in the near vicinity, when was the last time workers received an increment in wages, etc. Thus, *problem definition* is an important step in the decision-making process.

In the planning process, the problem definition is already done while creating the planning premises. Thus, the next step common to both the planning process and decision-making can be followed—determining the available alternative courses of action.

In our example of the new mobile phone handset, there can be various available alternatives for planning the advertising campaign. One alternative can be to focus upon electronic media and create advertisements to be aired on youth channels like Channel V, MTV, etc. The other alternative can be to advertise on hoardings near the colleges and universities. The next alternative can be to use print media as the primary medium of the campaign by inserting print advertisements in youth magazines like Stardust, Filmfare, Gladraggs, etc. Another alternative can be to use posters in the canteens of colleges. Yet another option can be to use all forms of media and dividing the advertising budget amongst them in some proportion.

Next, the various alternatives have to be evaluated by using the quantitative analysis while keeping in view various behavioural aspects. For example, linear programming (LP) is a technique which can be utilized to find the optimal proportion of allocation of the advertising budget in various types of media to be used for the advertising campaign to maximize the outreach of the intended audience.

Behavioural aspects may make an alternative less lucrative. For example, on careful analysis it may be revealed that a majority of college managements do not allow for advertisement posters in their canteens. Thus, this alternative becomes less likely choice of being selected.

The best alternative is chosen after careful evaluation of the alternatives. Let us assume that advertisements in electronic media emerged as the chosen alternative in our example. It is thus decided that an advertisement would be created and aired on youth channels like Channel V and MTV.

In the next steps of the planning process, the selected alternative is implemented and its effectiveness is monitored. The initial results of implementation start giving the managers an idea about the effectiveness of the plan. The decision question here is: Does the selected plan fulfill the planning objectives? If yes, the plan is continued in implementation. If not, the next decision question faced by

the managers is: Is it possible to tweak the chosen plan to fulfill the planning objectives? If the answer to this question is yes, the necessary modifications are done and the modified plan is implemented to see if now the planning objectives are met. If the answer is no, the planning process has to be restarted from setting up of the planning premises (as the external environment might have changed during this time of initial implementation of the chosen plan).

In our example, let us suppose that the advertisements aired on Channel V and MTV did not produce the desired results (say gauged by the initial sales of the newly launched handset). The manager then decides to tweak the plan by realizing that it is a major cricket season in the country with some important cricket tournaments being relayed by sporting channels. It is decided to air the advertisements on the sporting channel (say ESPN) during the time slots of the cricket match. If this tweaked plan produces the desired outcomes, the plan can be continued in its present form.

As is evident from the last part of the above discussion, the last few steps of the planning process invariably culminate into a control mechanism which helps in refining the chosen plan further.

## ■ Sequential Decision-Making

In many managerial situations, decisions have to be taken one after the other in a sequence. The decisions taken earlier have an impact upon the decisions to be taken later in the sequence.

*Decision tree analysis* is a technique, which is used to analyse decision situations that are sequential in nature. In this technique, a diagram is made to represent the various decision options and their outcomes. This diagram resembles a tree with various branches coming out from the main stem and therefore, it is called a *decision tree*.

In the decision tree diagram, small rectangles are used to represent the point of decision called the *decision node*. Here a choice is to be made for the best decision option from a set of options branching out from this node. Small circles are used to represent the point of outcomes or events as a result of choosing a decision option. These circles are called the *event* or *outcome nodes*. Various outcomes branch out from these nodes. These outcomes are not under the control of the decision maker and any one of these may occur according to the probabilities assigned to them. The probabilities are assigned to these outcomes on the basis of past experience or by expert judgements.

The decision tree is analysed for the best decision sequence by the *roll-back technique*. In this technique, the decision nodes in the later part of the tree are analysed first and then, the decision nodes in the earlier part. Hence, the name is roll-back technique. Let us take up an example to understand the decision tree analysis.

## DELIGHT CAFE

Delight Café is a popular fast food center at Jayanagar in Bangalore. The fast food has a heavy rush of customers during the lunch and dinner hours on all the days. The proprietor of Delight, Girish Nair, is considering expansion of the space in the restaurant so that more tables may be accommodated for more customers. This requires Rs 6 lakh of investment.

Another option before Nair is opening a new fast food center at Koramangala, another locality in Bangalore, where he is getting a prime location and it seems the demand is pretty high there for Delight's popular stuff. This option requires Rs 7 lakh investment.

Nair does not have the capital to undertake both the investments simultaneously. He can undertake any one option at a time and if it results in strong demand from customers, he can undertake the other option then or stop any further investment.

Both the options lead to complete loss of investment if there is weak demand from the customers. Strong demand after capacity expansion of existing facility has 60% chance

and will result in Rs 10 lakh profit (over investment). Strong demand after creating the new facility at Tollyganj has 80% chance and will result in Rs 9 lakh profit (over investment). Give your advice to Nair about the best course of action by using the decision tree analysis.

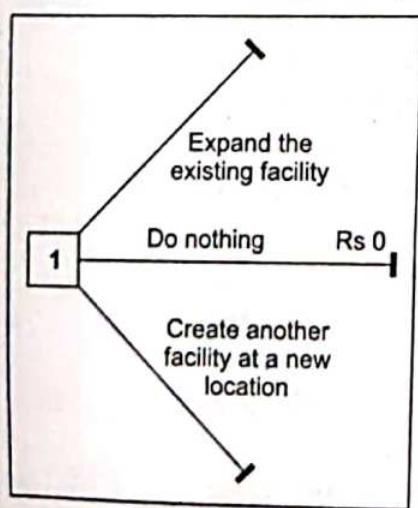
### Solution

Initially there are three decision options for Nair—expand the existing facility, create another facility at a new location, or do nothing. We make a small rectangle to represent decision node 1 and three lines emerging out from it to show the three decision options as shown in Figure A. Note that the “do nothing” option results in Rs 0, as it requires no investment and gives no profit.

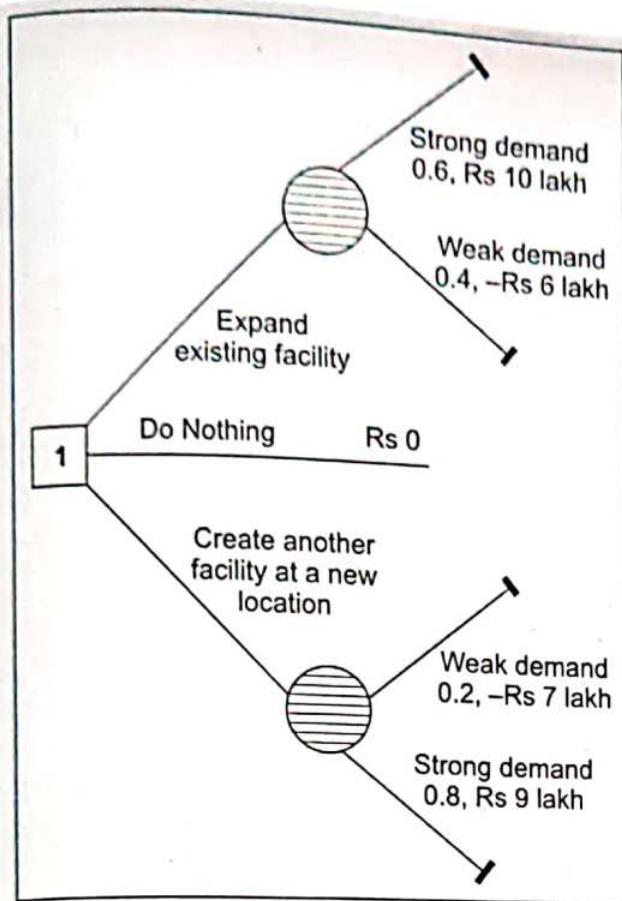
Expand the existing facility decision option results in two outcomes or events. Either the demand will be strong with a probability of 0.6 and a profit of Rs 10 lakh, or the demand will be weak with a probability of 0.4 and a loss of Rs 6 lakh investment.

Similarly, create another facility at a new location decision option results in two outcomes or events. Either the demand will be strong with a probability of 0.8 and a profit of Rs 9 lakh, or the demand will be weak with a probability of 0.2 and a loss of Rs 7 lakh investment. We make small circles to represent event nodes at the end of two decision options and branch out the outcomes from it as shown in Figure B.

The weak demand event will lead to no further action on part of Nair. The strong



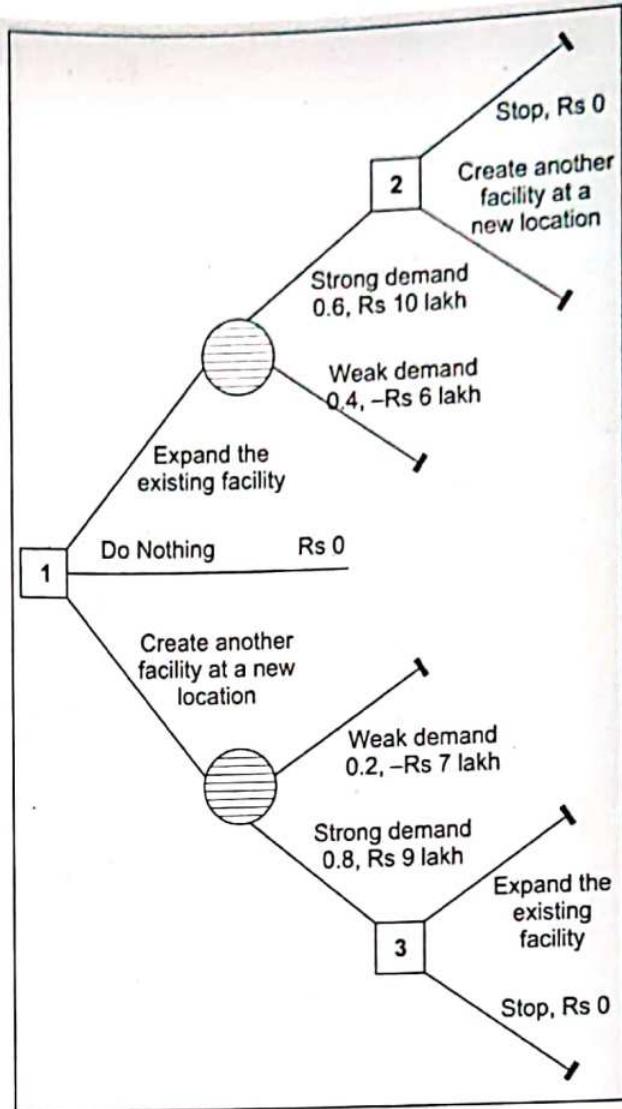
**Figure A**

**Figure B**

demand will lead to another decision node, where the decision options are either to stop resulting in Rs 0 profit or to undertake the other investment (see Figure C).

At this stage, “expand the existing facility” and “create another facility at a new location” decision options will again result in the same two outcomes each as earlier (Figure D). The decision tree diagram is made and now, we need to evaluate either decision node 2 or 3, as both are at the same distance from the starting node 1. The roll-back technique requires the decision nodes at later stages in the decision tree to be evaluated first, therefore, we evaluate node 2.

At node 2, there are two alternatives—“create another facility at a new location” and “stop”. These alternatives are shown in

**Figure C**

the first table of the Excel spreadsheet shown in Figure E. The outcomes of the alternative “create another facility at a new location,” i.e. strong demand and weak demand are also shown along with their probabilities of occurrence (0.8 and 0.2 respectively) and the conditional values (Rs 9 lakh and minus Rs 7 lakh respectively).

To obtain the expected value for each outcome, we multiply the conditional value with the corresponding probability (in cell E3, we have entered the formula = C3\*D3). We sum up the expected values of the two outcomes

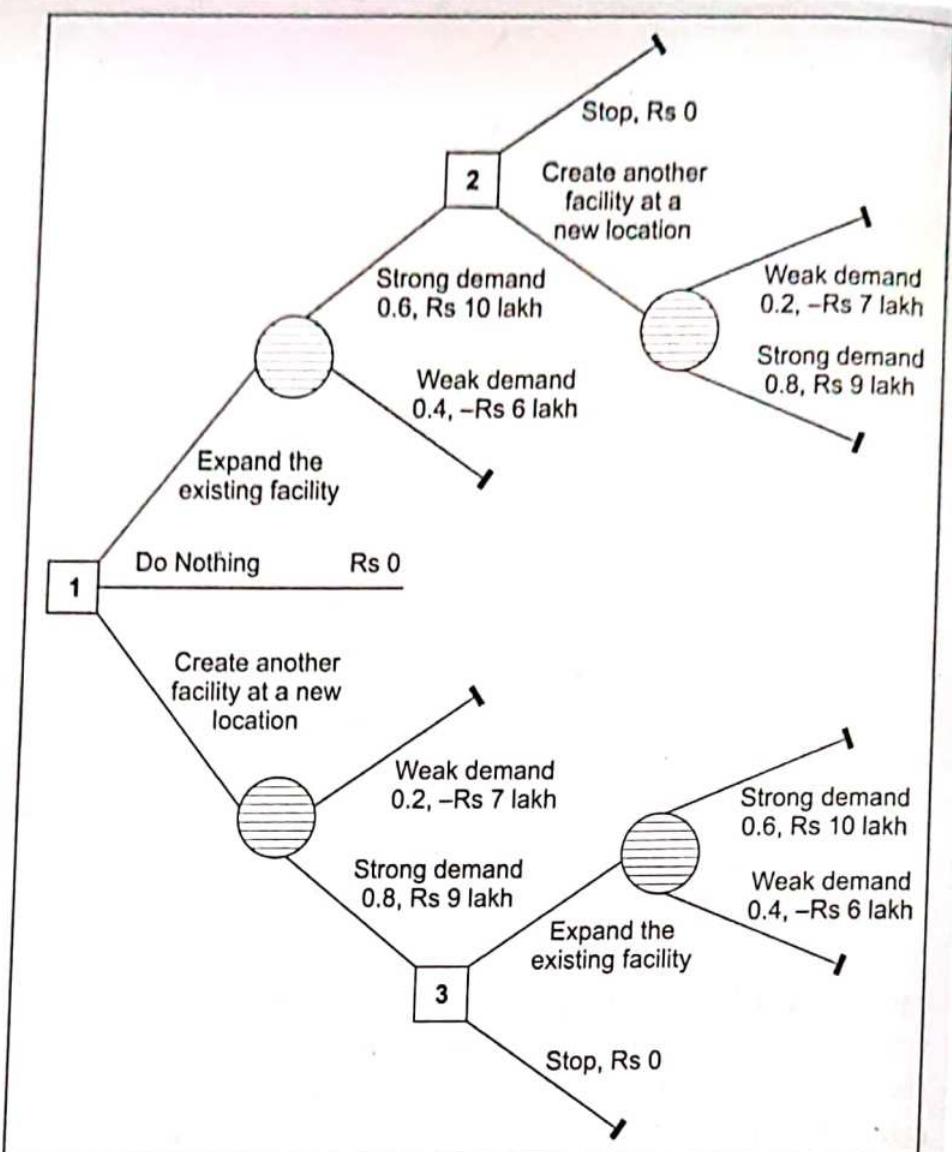


Figure D

in cell E5 (by selecting the cells E3, E4 & E5 and then, clicking on the  $\Sigma$  in the toolbar) to get the total value as Rs 5.8 lakh. For the “stop” alternative there is no outcome and its conditional value is Rs 0. Thus, its expected value is also 0.

When we compare the expected values of the two alternatives at node 2, we find that the value Rs 5.8 lakh is a better option than Rs 0. Hence, we cancel the “stop” option by putting a cross (see Figure F) and choose “create another facility at another location.”

We write Rs 5.8 lakh at node 2 as it is now the expected value at this node.

We repeat the above procedure for node 3 and choose the option “expand the existing facility” with the expected value of Rs 3.6 lakh as shown in Figure F. Now, we consider node 1, which has three decision options. We construct a table for node 1 on MS Excel as shown in Figure E. Note that for “expand the existing facility” option and its strong demand event, we have added the Rs 5.8 lakh expected value to Rs 10 lakh conditional

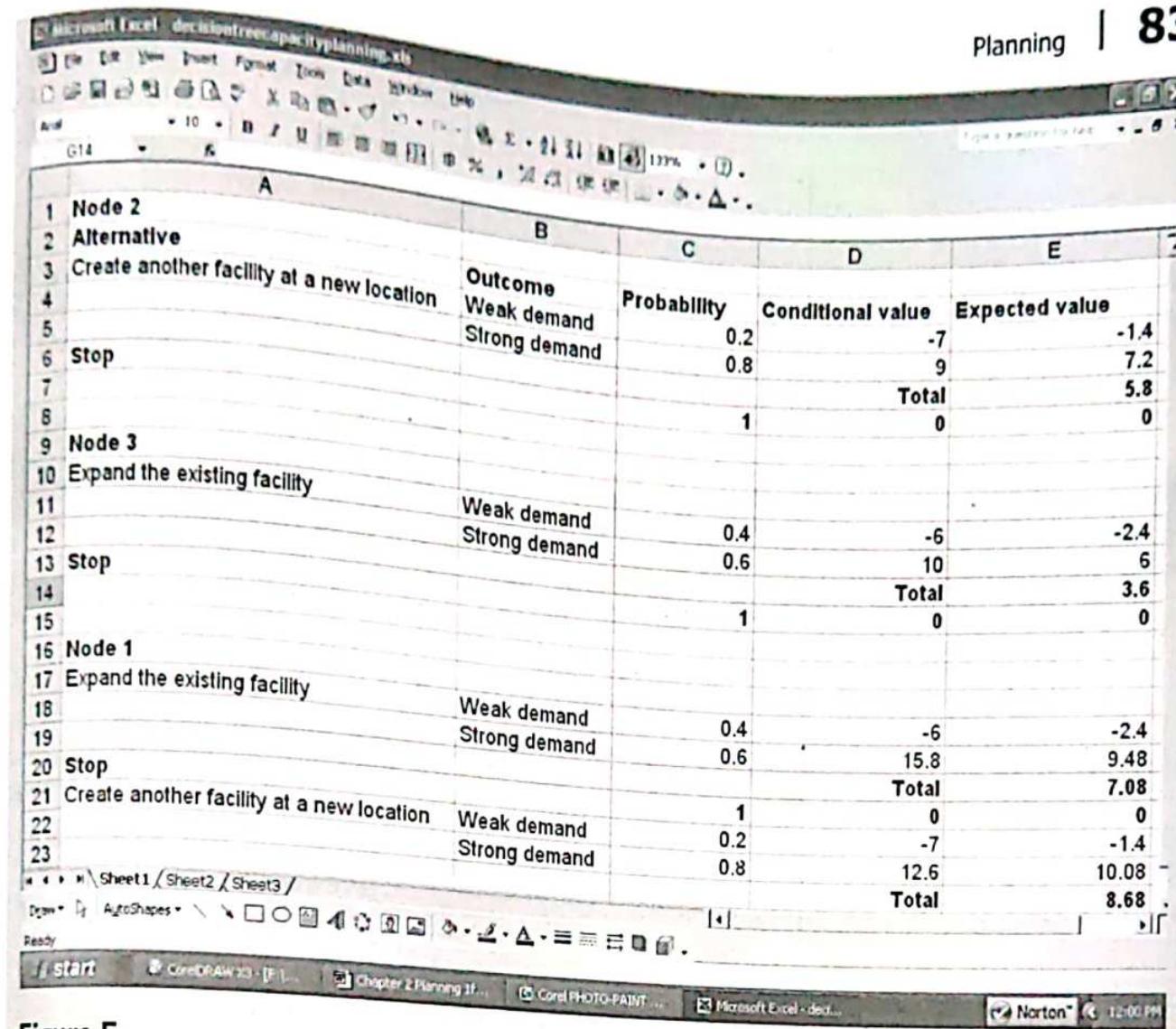


Figure E

value of the strong demand event to get Rs 15.8 lakh conditional value for this event.

Similarly, for “create another facility at a new location” option and its strong demand event, we have added the Rs 3.6 lakh expected value to Rs 9 lakh conditional value of the strong demand event to get Rs 12.6 lakh conditional value for this event.

Thus, for node 1, we get three expected values for the three decision options as Rs 7.08 lakh, 0, and Rs 8.68 lakh. The value Rs

8.68 lakh is the highest for the option “create another facility at a new location.” Therefore, this is the best option and we strike off the other two options as shown in Figure F.

Hence, our advice to Nair is that he should create another facility at Koramangala in Bangalore and if there is strong demand for his fast food there, he should expand his existing facility. Otherwise, he should stop any further investment.

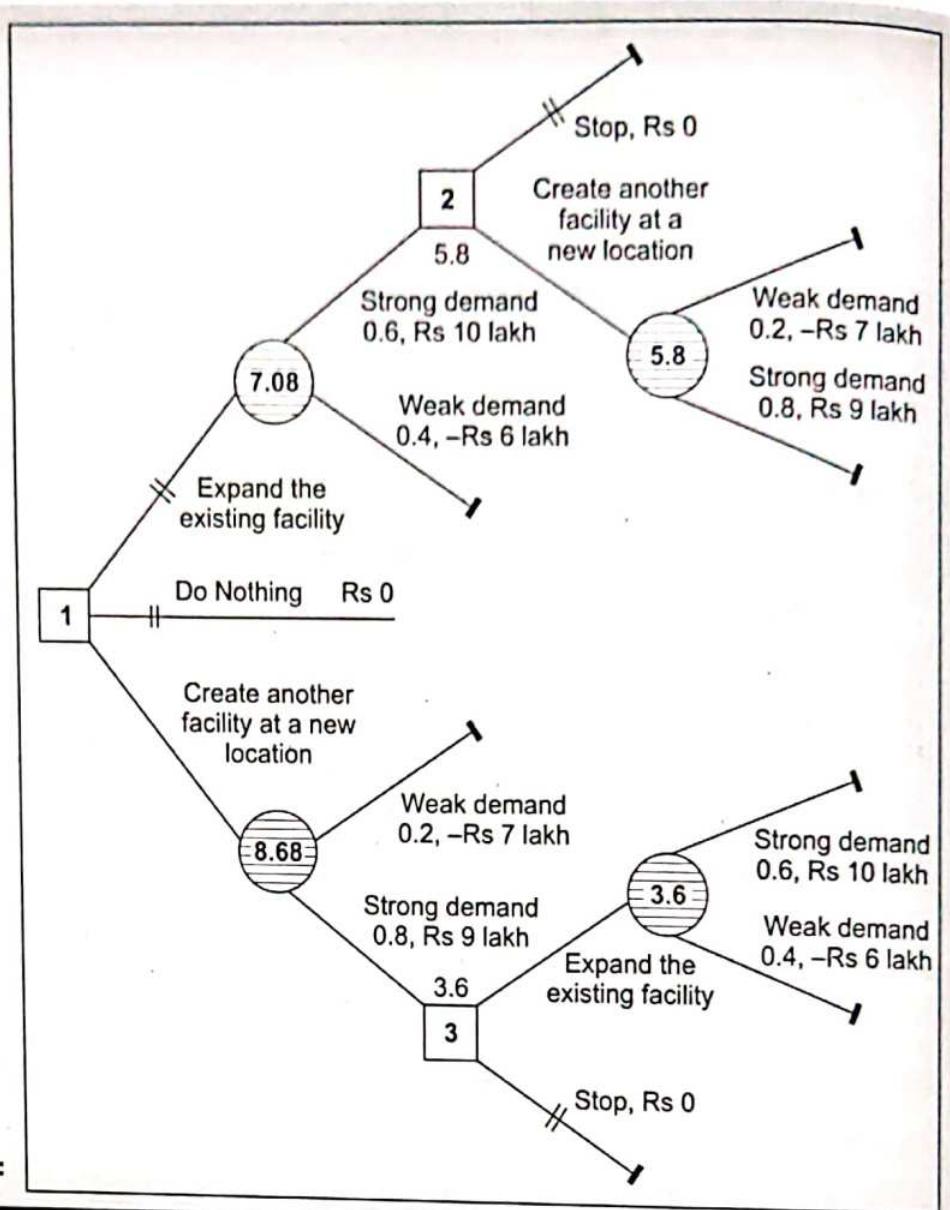


Figure F

### Points to Ponder

- Planning increases credibility and trust with the stakeholders of an organization.
- Planning helps a manager exercise more control in a situation, establish goals proactively, and consider contingencies.
- Planning process invariably culminates into a control mechanism which helps in refining the chosen plan further.
- The decisions taken earlier have an impact upon the decisions to be taken later in the sequence.

## SUMMARY

- Planning is the first and the most important function of management.
- There are broadly three types of plans, namely strategic, tactical, and operational.
- A firm must set out the objectives for itself, which should be SMART (S-Specific, M-Measurable, A-Attainable, R-Realistic and T-Time-bound).
- Objectives can be categorized into five broad categories, namely profitability, competitiveness, efficiency, flexibility, and quality.
- Management by objectives (MBO) requires setting clearly spelled-out objectives for

every manager at all levels of the hierarchy in an organization.

- A balanced scorecard is helpful in balancing the objectives from the customer perspective, innovation and learning perspective, internal perspective, and the financial perspective.
- The planning process includes decision-making.
- In many managerial situations, decisions have to be taken one after the other in a sequence and the decisions taken earlier have an impact upon the decisions to be taken later in the sequence.

## KEYWORDS

**Budgets** are financial plans which predict sources and amounts of income and how much they are used for a specific organization, activity, or department.

**Contingency planning** involves identifying alternative courses of action which can be implemented if and when the original plan proves inadequate because of changing circumstances.

**Decision tree analysis** is a technique, which is used to analyse decision situations that are sequential in nature.

**Decision-making** is a process in which a best course of action is selected out of a set of alternatives for achieving a desired outcome.

**Directional planning** is a type of planning without goals and points to the positive characteristics of the process.

**Goals** are the specific means by which the ultimate objectives of the organization are achieved.

**Mission** is the purpose or reason for the organization's existence, i.e. what business we are in, what we do, and whom we serve.

**Objectives** are the desired outcomes in such areas as customer service, profitability, and social responsibility, that the management of an organization hopes to attain.

**Operational plans** (also called *functional plans*) are very specific, focused and short-term plans in line with the tactical (say annual) plans.

**Plan** is a set of actionable decisions which has been selected from among a number of alternative sets.

**Planning** is choosing a course of action and deciding in advance what is to be done, in what sequence, when, and how.

**Planning premises** are the presuppositions or assumptions about the future scenarios in which the plans to be created would be implemented keeping in view the business environment.

**Policies** are general statements that explain how a manager should attempt to handle routine management responsibilities.

**Procedure** is a set of step-by-step directions that explains how activities or tasks are to be carried out.

**Programme** is a schedule or an ordered list of events to take place.

**Project** is a temporary endeavour undertaken to create a unique product or service.

**Rules and regulations** are explicit statements that tell an employee what he or she can and cannot do.

**Single-use plans** are made for activities which do not recur or repeat.

**Standing plans** (also called *continuing or ongoing plans*) are usually made once and these plans retain their value over a period of a year (or a couple of years) while undergoing periodic revisions and updates during this time frame.

**Strategic planning** has the focus of providing directions on what the organization would

be doing in the future (in the long-term), while tactical planning is all about deciding how these activities would be accomplished (in the medium-term).

**Strategic plans** set out the overall direction for the firm keeping in view the long-term objectives to be achieved.

**Strategies** are long-term plans which are chosen from a set of possible options after careful analysis of the opportunities and threats offered by the external environment as well as the strengths and weaknesses of the organization vis-à-vis competitors.

**Values** signify what the organization stands for and believes in.

**Vision** is a desired future state of the organization.

If it decides right, the success rate is 60% with a probability of 80%.

If the company there is 80% positive response (drug). After this if the company chances are 50% success leading to failure will have the negative effect.

## REFERENCES

Ahmed P., 2010. *Benchmarking techniques in marketing*, Vol. 5 No. 1.

Boone L. & Kurt Lewin, 2004. *Managing the firm*, 10th edn, Prentice Hall.

Dinesh D., 2008. *Objectives of planning*, fall 2008, pp. 36-37.

Drucker P. F., 1999. *Harcourt*.

Grossman G.M., 1990. *Journal of Political Economy*, 98(2), pp. 275-299.

Kaplan R. S. & Norton D.P., 1992. *Harvard Business Review*, 70(1), pp. 134-147.

## REVIEW QUESTIONS

1. Define plan and planning.
2. What are objectives? Enumerate the various types of objectives and briefly explain them.
3. Explain the key points of the MBO theory.
4. What is a balanced scorecard? How is it similar/different from the MBO?
5. Explain the various types of plans and the interconnections between them.
6. What is the hierarchy of plans? Are some plans more important than others?
7. Justify with suitable reasoning the importance of planning.
8. What are planning premises? Give some examples.
9. Explain the various steps in the planning process with suitable illustrations.
10. What is decision-making? Explain the various steps in decision-making.
11. What is sequential decision-making? How is the roll-back technique useful in sequential decision-making using the decision tree diagram? Explain with a suitable illustration.

## NUMERICAL PROBLEM

The R&D division of Medico Pharma, a pharmaceutical firm based at Ahmedabad, has invented an ayurvedic medicine for curing HIV positive patients. Medico is faced with three

decision options—to manufacture the drug, to sell the idea to some other firm, or to conduct a market study before taking any action.

If it decides to manufacture the drug outright, the success of the drug has a chance of 60% with a profit of Rs 12 lakh, while its failure will result in a loss of Rs 2 lakh.

If the company conducts a market study, there is 80% chance that the study will give positive report (favourable to the launch of the drug). After the positive report of the study, if the company manufactures the drug, the chances are 70% that the drug will be a success leading to a profit of Rs 10 lakh, while the failure will result in a loss of Rs 3 lakh. After the negative report of the study, if the com-

pany manufactures the drug, the chances are 30% that the drug will be a success leading to a profit of Rs 10 lakh, while the failure will result in a loss of Rs 3 lakh.

A competitor firm is willing to pay Rs 5 lakh if Medico sells the idea to it before the market study, Rs 6 lakh if Medico conducts the study giving positive results and Rs 4 lakh if Medico conducts the study giving negative results.

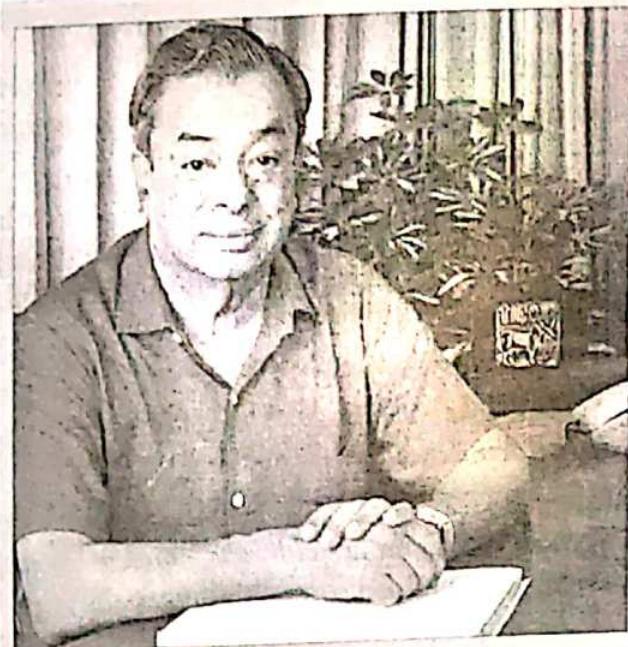
What course of action should Medico follow? Give your advice using the decision tree analysis.

## REFERENCES

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- Ahmed P. K. and Rafiq M. (1998), "Integrated benchmarking: a holistic examination of select techniques for benchmarking analysis," *Benchmarking for Quality Management & Technology*, Vol. 5 No. 3, pp. 225-242
- Boone L. E. and Kurtz D. L. (1984), *Principles of Management, Second Edition*, New York: Random House Business Division
- Dinesh D. and Palmer E. (1998), "Management by objectives and the Balanced Scorecard: will Rome fall again?", *Management Decision*, Vol. 36 No.6, pp. 363-369
- Drucker P. F. (1954), *The Practice of Management*, Harper & Brothers Publishers, New York
- Grossman R. J. (2000), "Measuring up," *HR Magazine*, February, pp. 28-35
- Kaplan, R.S. & Norton, D.P. (1992), "The balanced scorecard—measures that drive performance," *Harvard Business Review*, 70, 71-9
- Lanzillotti R. F. (1958), "Pricing objectives in large companies," *American Economic Review*, December, pp. 921-940
- McCaskey M. B. (1974), "A contingency approach to planning: Planning with goals and planning without goals," *Academy of Management J.*, Vol. 17, No. 2, June, pp. 281-291
- Megginson L. C., Mosley D. C. & Pietri P. H. Jr (1986), *Management: Concepts and Applications, Second Edition*, New York: Harper & Row
- Mosley D. C. & Pietri P. H. (1975), *Management: The art of working with and through people*, Encino, CA: Dickenson Publishing, p. 27
- Robbins S. P. (1994), *Management, Fourth Edition*, Prentice Hall, Englewood Cliffs, NJ
- Schermerhorn J. R. Jr. (2005), *Management*, 8th ed., John Wiley & Sons USA
- Starr M. K. (1966), "Planning Models," *Management Science*, Vol. 13 No. 4, December, pp. 115-141

# ORGANIZING AND STAFFING



*Dr Verghese Kurien, aptly known as the father of white revolution in India, empowered the poor dairy farmers through the cooperative movement.*

## **Learning Objectives**

After reading this chapter, you will be able to answer the following questions:

- What is organizing?
- What are the various principles of organization?
- In which ways can the organizations be departmentalized?
- What is staffing?
- How is selection and recruitment done in organizations?

## **■ ■ NATURE AND PURPOSE OF ORGANIZATION**

Organizing is the second basic function of a manager amongst the five functions identified by Fayol (1916), namely planning, organizing, commanding, coordinating, and controlling. Organizing is the function of management which involves arranging human and other resources for the achievement of goals. After a manager has planned to perform certain tasks, s/he needs to deploy various types of resources to ensure that the end objectives are met.

*Organization* is a group of individuals with a common goal, bound together by a set of authority-responsibility relationships (Megginson, Mosley & Pietri, 1986).

Barnard (1938) introduced the formal and informal aspects of the organization. As the literal meaning of the term "formal" implies, this form of organization is formally created by assigning responsibilities to individuals along with commensurate authority. However, Barnard argued that an "informal" organization always exists within the formal organization whereby individuals are associated with each other due to human bonding. In his own words, "... informal organizations are necessary to the operation of formal organizations as a means of communication, of cohesion, and of protecting the integrity of an individual" (Barnard, 1938).

Table 3.1 captures the key differences between the formal and informal organizations (adapted from Reif, Monczka & Newstrom, 1973, p. 392).

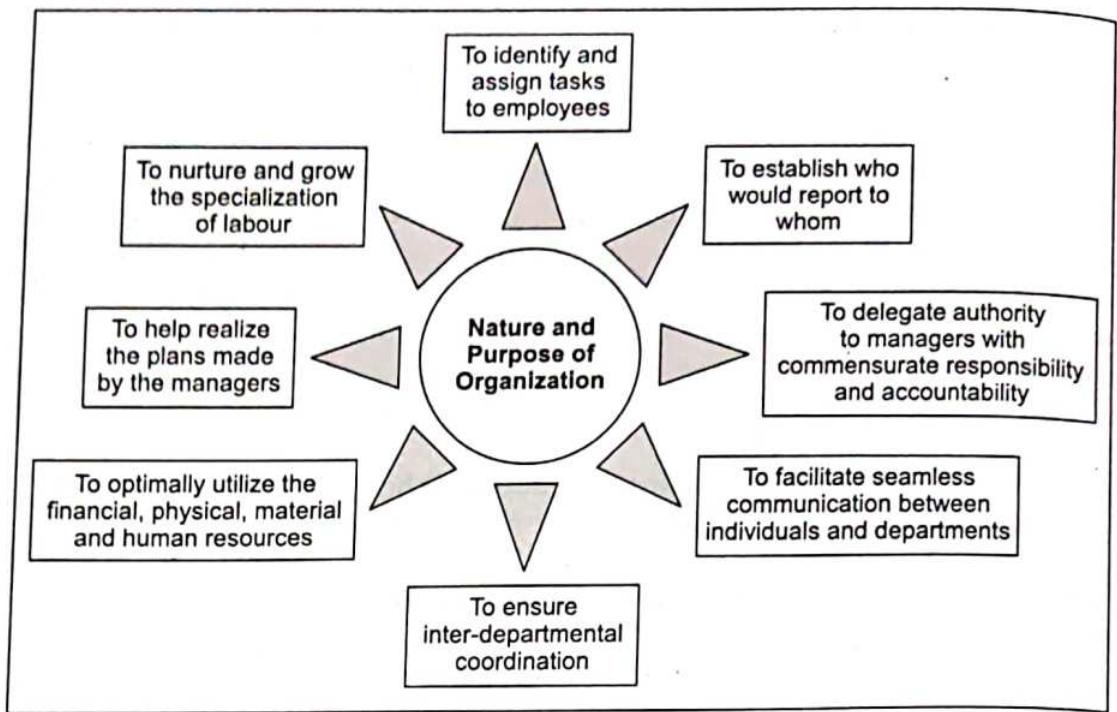
**Table 3.1** Difference between formal and informal organizations

Formal Organization	Informal Organization
<ul style="list-style-type: none"> <li>▪ Mandatory participation</li> <li>▪ Driven by authority</li> <li>▪ Represented by formal hierarchical structure with superior-subordinate relationships</li> <li>▪ Job description for each member</li> <li>▪ Performance appraisal at regular intervals</li> <li>▪ Chain of command</li> <li>▪ Formal communication</li> <li>▪ Policies</li> <li>▪ Control exercised through supervision</li> <li>▪ Organizational objectives are at the core</li> </ul>	<ul style="list-style-type: none"> <li>▪ Social group voluntary membership</li> <li>▪ Driven by personal influence and group cohesion</li> <li>▪ Represented by a small group of friends or associates (known as "Clique")</li> <li>▪ No specific job profile for a member</li> <li>▪ Co-member subjective evaluation</li> <li>▪ Social interaction and teamwork</li> <li>▪ Grapevine</li> <li>▪ Group culture and traditions</li> <li>▪ Control happens through peer-pressure</li> <li>▪ Group objectives are at the core</li> </ul>

Figure 3.1 shows the nature and purpose of organization. Organization helps in identifying various tasks to be performed for the achievement of organizational goals and assigns them to individuals to perform. It also clearly establishes the reporting responsibilities, i.e. who would report to whom. It delegates authority to the managers with commensurate responsibility and accountability for the discharge of their duties.

It facilitates seamless communication between one individual and the other, and similarly, between any two departments. It ensures that any two departments coordinate well with each other in the achievement of organizational goals. It aids in optimal utilization of financial, physical (like land, buildings, machinery and equipment), material and human resources.

By virtue of planning superseding organizing, organization helps in the realization of plans made by managers. It also helps in nurturing and growing the



**Figure 3.1** Nature and Purpose of Organization

special skills and talents of the employees by virtue of the *division of labour* (or *specialization of labour*).

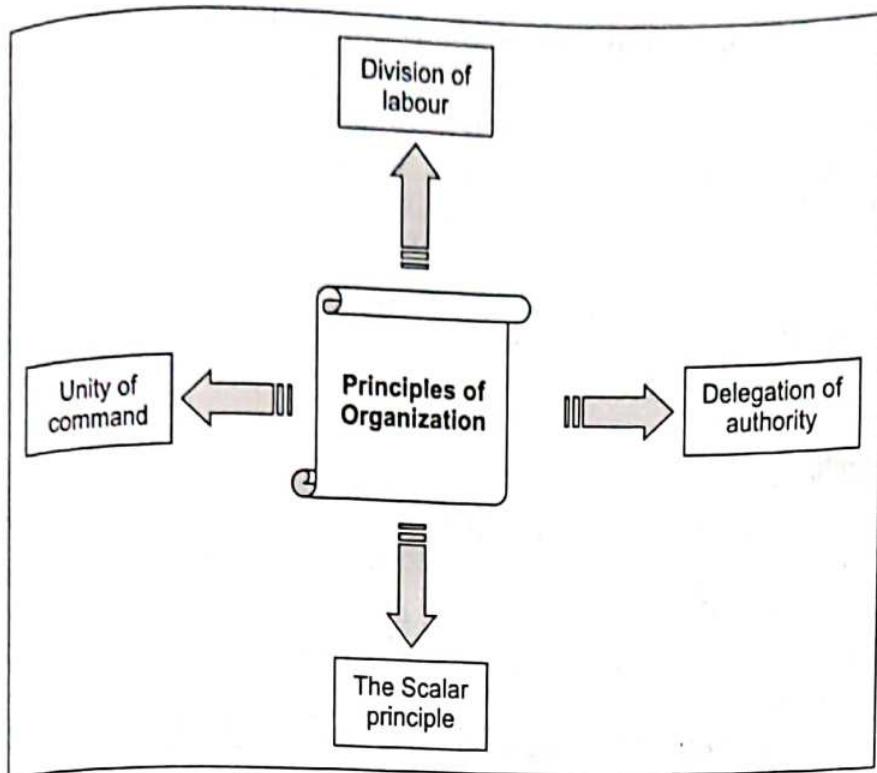
## ■ Principles of Organization

The four key principles of organization are shown in Figure 3.2. Let us discuss them one by one.

### Division of labour

Division of labour (also called the *principle of specialization*) was first highlighted by Plato in 350 BC when he compared the workmanship of people in small cities with their counterparts in big cities. In his own words:

*"Which would be better—that each should ply several trades, or that he should confine himself to his own? He should confine himself to his own. More is done, and done better and more easily when one man does one thing according to his capacity and at the right moment. We must not be surprised to find that articles are made better in big cities than in small. In small cities the same workman makes a bed, a door, a plough, a table, and often he builds a house too.....Now it is impossible that a workman who does so many things should be equally successful in all. In the big cities, on the other hand.....a man can live by a single trade. One makes men's shoes, another women's, one lives entirely by the stitching of the shoe, another by cutting the leather.....A man whose work is confined to such a limited task must necessarily excel at it (Plato as cited by Cornford, 1959)"*



**Figure 3.2**  
Principles of Organization

The application of division of labour principle can be found in contemporary organizations. The assembly lines in automotive manufacturing have work stations in a sequence and on each work station, a worker performs a highly specialized task. For example, on one work station, a worker fits the head lights to the chassis of the car which comes before his work station on a moving conveyor. On the next work station, another worker has the sole task of attaching the steering assembly to the car chassis. Yet another worker on the subsequent work station attaches the windshield to the chassis. Thus, workers are semi-skilled and are trained to perform a specialized task.

At the Hero Honda Motors Ltd factories in Gurgaon, Dharuhera, and Haridwar, a mobike comes off the assembly line in every 18 seconds. Naturally, it would not be feasible for any single person to assemble a mobike in just 18 seconds. This signifies the power of the division of labour (also called *division of work*).

This principle of specialization has major advantages in the form of increased productivity and decreased per unit cost of production for products having less variety. However, it has disadvantages like monotony on part of workers who feel bored of doing the same task over and over again. This anomaly can be overcome by job rotation of workers (e.g. assigning them to different work stations after every few months) and by job enrichment (e.g. by adding some supervisory duties to the task set of a worker).

### Delegation of authority

Authority refers to the rights inherent in a managerial position to give orders and expect the orders to be obeyed (Robbins, 1994). *Delegation of authority* is the process by which managers allocate authority downward to the people who report to them.

Delegation of authority should be accompanied with *responsibility* and *accountability* on part of the manager to whom the authority has been delegated. The manager should feel responsible or obliged to perform the duties assigned to him while using the authority vested in him. Similarly, the manager should be made accountable for the resources consumed by him in the discharge of duties.

When authority is suitably delegated, it leads to *empowerment*, in that the people have the freedom to contribute ideas and perform their jobs in the best possible ways (Schermerhorn, 2005).

### The scalar principle

The scalar principle states that there should be a clear and unbroken *chain of command* or *line of authority* from the top level of hierarchy to the lowest level by including all intermediate levels. If deprived of such an unbroken chain of command, the benefits of delegation would not be reaped to the fullest possible extent by the organization.

Schermerhorn (2005) contends that higher the number of levels in the hierarchy of the organization, the overhead costs increase, the communication flow slows down, decision-making becomes tardy and worst of all, the organization may lose contact with the customer. Therefore, a shorter chain of command is preferable by way of lesser number of hierarchy levels in an organization.

### Unity of command

Unity of command is another classical management principle which recommends that every individual in the organization should report to a single boss. This is necessary to avoid confusion on part of the individual if s/he receives directions and orders from more than one superiors. The situation may get even more complicated if the individual receives (at times conflicting) instructions from his/her boss and also from the boss's boss.

In contemporary organizations, however, there is relatively less unity of command due to cross-functional teams, matrix organization structures (discussed later in this chapter), etc. There are however other benefits in such cases which offset against the confusion resulting due to lesser/lack of unity of command in such scenarios.

### **THE SAGA OF VERGHESE KURIEN AND AMUL**

Vergheese Kurien was born on 26 November 1921 in Calicut, a seaport now known as Kozhikode, in the state of Kerala in southwestern India. He received his Bachelor of Science degree in 1941 and his Bachelor of

Engineering (Mechanical) with honours in 1944 from Madras University. He completed special studies in engineering at the Tata Iron and Steel Company Institute at Jamshedpur, Bihar, in February 1946. Nine months of specialized

training in dairy engineering followed at the National Dairy Research Institute of Bangalore (in the former state of Mysore). Further study in dairy engineering was undertaken in the US at Michigan State University where he was awarded a degree of Master of Science in Mechanical Engineering with distinction in 1948.

"Look at me, I took up a job in the Kaira District Cooperative Milk Producers' Union at Anand by accident. My specialization was metallurgy and the chairman of the selection committee for a British Government scholarship decided to give me the grant only if I chose to become a dairy engineer," says the Michigan State University alumnus. Soaked in the national fervor then and also to stand by his decision to quit his apprentice job at TISCO (because his uncle John Mathai was the director of Tata Industries and he didn't want to be a privileged apprentice), Kurien took off for the US in 1946, only to return to India to take up his assignment at Anand in 1949. Hunting for a place to stay, he ended up renting a ramshackle garage near the dairy.

Joining the Dairy Department of the Government of India, he was posted in May 1949 as Dairy Engineer at the Government Research Creamery, a small milk-powder factory, in Anand. Seven months later, he resigned to become the manager of the Kaira District Cooperative Milk Producers' Union in the same town. The Anand area, then in Bombay State and now in Gujarat, was being developed as the major outside source of milk for the Bombay Milk Scheme and the Kaira Union was the principal instrument through which the necessary increase of milk production was being achieved.

Bringing technical and administrative competence to the enterprise, Kurien's abilities have been complementary to the organizing talents of Tribhuvandas K. Patel, founder and then president of the Union.

Under the Colombo Plan, Kurien was awarded a Senior Fellowship in October 1952 for advanced training in dairy plan design and dairy engineering in New Zealand and Australia. The study was relevant to the Union's plan to replace its uneconomic and small dairy with a modern plant of much larger capacity.

Already recognized as a leading figure in dairy development in India, Kurien was an official Indian delegate to the International Dairy congresses held in Rome in 1956 and Copenhagen in 1962. He received the 1963 Ramon Magsaysay Award for Community Leadership.

In the predominantly vegetarian diet of South India, milk provides protein and cooking fat called *ghee*. For centuries, families kept their own milk cattle, usually buffalo. In Greater Bombay, as the population expanded beyond the island city to over three million in the 1960s, the cattle became a major problem. Crowded into unsanitary stables in congested residential areas, many animals died due to lack of grazing or other feed. Producers began to overcharge for milk which was often contaminated and adulterated and in ever shorter supply.

D. N. Khurody began, in the early 1940s, to evolve the scheme that later revolutionized the processing and marketing of milk in Bombay (now Mumbai). Before becoming the Dairy Commissioner and Joint Secretary to Maharashtra State, he was Milk Commissioner of Bombay City. In that capacity, he argued persuasively for government support and carried to implementation in 1949 the Aarey Milk Colony. Located 20 miles north of Bombay City (at Goregaon), this largest dairy establishment in Asia is a combination of model dairy farms and milk pasteurization plant. It distributed clean milk of controlled quality and price to about one-and-a-half

million city dwellers and over 300 hospitals and institutions (in the 1950s). Also purchased from Aarey by the Bombay Municipality was the milk issued free daily to some 72,000 undernourished school children (in the 1950s).

At the Aarey Colony, cattle owners paid rent for farms and the plant bought the milk. In the 1950s, over 20,000 cattle had been removed from Bombay city and suburbs by this means. With proper care, milk yield per animal increased from 18 to 20 per cent and thousands of calves and buffaloes had been saved from starvation or slaughter. A second plant at nearby Worli which began operation in 1962, was designed to service similarly the other one-half of the city population.

Bombay's growing demand for milk also provided the basis for a new rural way of life around Anand, some 200 miles inland. Here Tribhuvandas K. Patel and Verghese Kurien developed the Kaira District Cooperative Milk Producers' Union. It was organized in 1948 by combining two village milk producers' societies and a dairy processing 500 pounds of milk daily. The then President of the Union, Patel was the organizing genius in building this cooperative effort. As Manager, Kurien provided the necessary administrative and scientific direction to a hardworking staff of specialists, labourers and villager-aides. Rapid expansion, by 1962, had brought into the Milk Producers' Union 219 farmer societies with 46,400 members. Milk processed in that year grossed over US\$ 6 million.

The Kaira Union was encouraged by the then Bombay State Government, which contracted for its entire supply of pasteurized milk at stable, premium prices. Veterinary and technical aid was extended to villagers and the Public Works Department built new roads to facilitate collection of milk from outlying villages. Providing repasteurizing

and distribution facilities for the milk from Anand was the Aarey Milk Colony near Bombay.

A substantial increase in dry season milk production at Anand was stimulated by year-round requirements of the Aarey Colony. To absorb the surplus thus created during the more productive winter months, the Kaira Union ventured into milk processing. Generous financial assistance came from the Bombay Government and other help from UNICEF, New Zealand under the Colombo Plan and several foreign countries. The new plant was the first in India to produce milk powder, condensed milk and special powdered milk for babies. It was the first in the world to convert buffalo milk into powdered milk. Now marketing these products under the trade name of AMUL through their own all-India sales organization, the Union has often expanded its operations to meet mounting orders. These advances raised the quality of the dairy industry in Anand as farmer-owners under tutelage of their Union leaders gradually accepted new ideas of feeding and caring for cattle and handling milk.

Amul is the pioneering concept of dairy co-operative movement that started in India during 1946. The movement is synonymous with empowering the farmer and especially the rural women. India has today become the largest producer of milk in the world, thanks to this movement which has been successfully replicated in about 70,000 villages in over 200 districts in India. Amul is also one of the largest food brands in India with an annual turnover of \$500 million, and with products ranging from milk, butter, ghee, cheese, chocolates, ice-creams, and pizzas.

In 2005, Amul became the first Indian dairy products exporter to achieve a mark of Rs 100 crore in revenues. The year 2005 ended with an export turnover of Rs 115 crore (Rs

1.15 billion)—more than trebling its export turnover as compared to the previous year. Quoting from the 2005 speech of Chairman, Amul and patriarch of the cooperative movement in India, Verghese Kurien, “The diffusion of this visionary experiment has ensured the proliferation of numerous Amuls across India. Thus, Aavin, Him, Mahananda, Milma, Nandini, Omfed, Parag, Sanchi, Saras, Snowcap, Sudha, Verka, Vijaya, Vita—all are manifestations of Amul in its regional avatars.”

The cooperative has set new benchmarks in streamlining its operations by using automation and IT. Amul has installed about 3,000 Automatic Milk Collection System Units (AMCUS) at village societies to capture member information, milk fat content, volume of milk collected, and payment made to the member. This has ensured highest level of transparency and real time data collection throughout the organization. Hundreds and thousands of farmers throng its cooperative milk collection centers every day (morning and evening). They have been given plastic identification cards, which they insert in the AMCUS. The machine starts displaying the member's details on the computer monitor attached to it. The quantity of the milk brought by the farmer is measured and the machine also measures the fat content in the milk. Accordingly, the machine generates a printed slip to the farmer stating the value of the milk, to be carried to the adjacent payment counter to receive the full payment instantaneously.

Earlier, before this automation, the farmer-members were given paper passbooks and every time milk collection was done, the quantity of the milk taken from the member was written on it. For measuring the fat content, a small sample of the milk was

collected in a pouch to be taken to the lab for testing. This process normally used to take a week, only after which the farmer could receive the payment. Thus, it is obvious that this initiative has helped Amul to collect about 6 million litres of milk every day from around 2 million members with seamless accuracy and immediate payment to the farmer-member.

Milk being a perishable quantity, every minute saved in the collection process helps in its early preservation and subsequent value-adding processes. Even the end-products have a limited shelf life and hence, it is commendable for Amul to meticulously plan and execute all the operations with a clock-work precision, especially in view of its mammoth scale of operations. In the operations management jargon, the supply chain practices of Amul are akin to just-in-time (JIT) system and the rigorous time schedules followed by its 5,000 odd trucks twice every day for bringing milk to about 200 milk processing plants may qualify for “Six Sigma” level of precision.

Amul has implemented a customized ERP system designed by Tata Consultancy Services (TCS), which can be plugged into various points of the supply chain and the external system. Amul has connected all its offices and member dairies through VSATs and is in the process of web-enabling its entire supply chain (including transporters, member manufacturing units, suppliers, depots, and the entire field force) so as to capture key information at source and use it for decision-making.

A unique initiative of Amul is the use of Geographical Information System (GIS) by superimposing the product-wise sales data on the map of India demarcated into zones/depots in the GIS. This helps in sales and distribution planning. Amul's GIS also captures farmer-

member census information including animal census data. This way Amul is able to extract information relating to milk production and productivity of animals region-wise in Gujarat. Not only has it helped in predicting milk production levels, but also in suggesting remedies for lower milk production rate in a region. This GIS is capable of being used for monitoring veterinary health and controlling the outburst of any diseases.

Amul has repeatedly redefined the way business is done. In its endeavour to eliminate middlemen and bring the producer-farmer

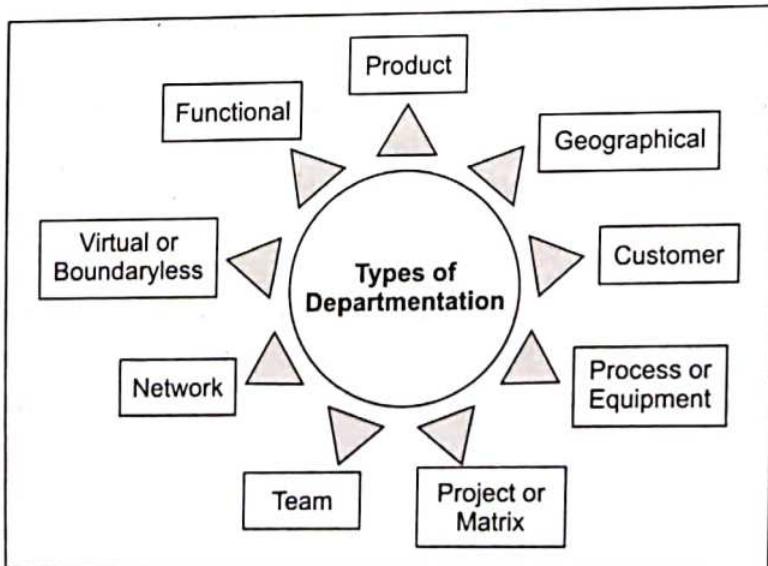
closer to the end consumer, Amul has started a cyberstore gifting service capable of directly servicing customers in 125 cities across the country. Distributors can directly place orders through Amul's extranet known as Cyber Amul ([www.amulb2b.com](http://www.amulb2b.com)). As a result, Amul has been receiving queries from overseas agents for distributing its products. Amul has recently become the world's biggest brand of vegetarian cheese (manufactured using rennet from either fungal or bacterial sources rather than animal sources).

### Discussion questions

1. Critically analyse and discuss the organizational capabilities of Verghese Kurien in empowering the poor milk farmers.
2. How important is the role of technology in organizing the collection of milk by Amul in villages?
3. Discuss the key learning you have taken from this case.

## ■ Types of Organization Departmentation

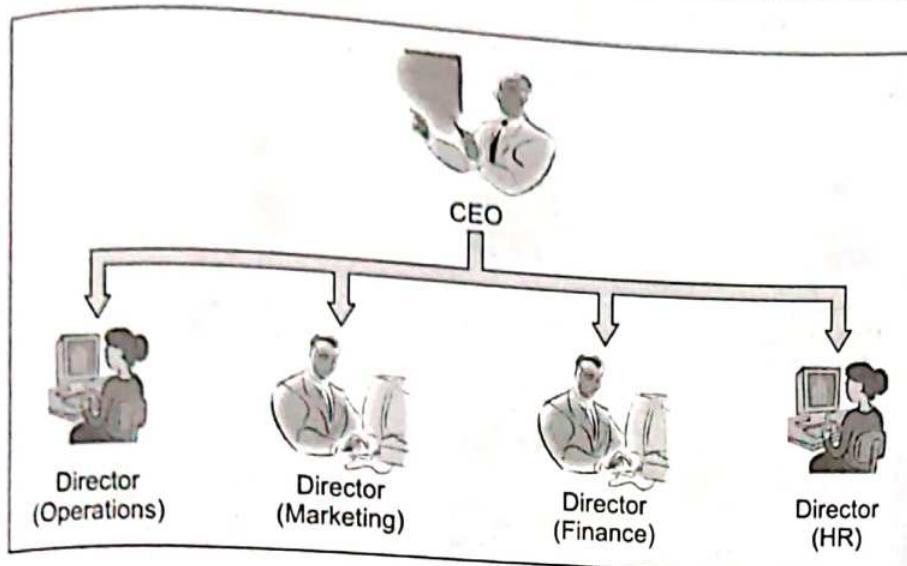
Departmentation is the way in which an organization groups its various activities. As shown in Figure 3.3, there are many ways in which organizations can be departmentalized. We shall take some examples of organizations in India to note that large organizations may use a combination of departmentalization methods in their organization structure. Let us first discuss the fundamental types of departmentation.



**Figure 3.3**  
Types of  
Organization  
Departmentation

## Functional departmentation

In this form of departmentation, similar activities or functional areas are grouped together. As shown in Figure 3.4, the directors of operations, marketing, finance, and human resources report to the Chief Executive Officer (CEO).



**Figure 3.4**  
Functional  
Departmentation

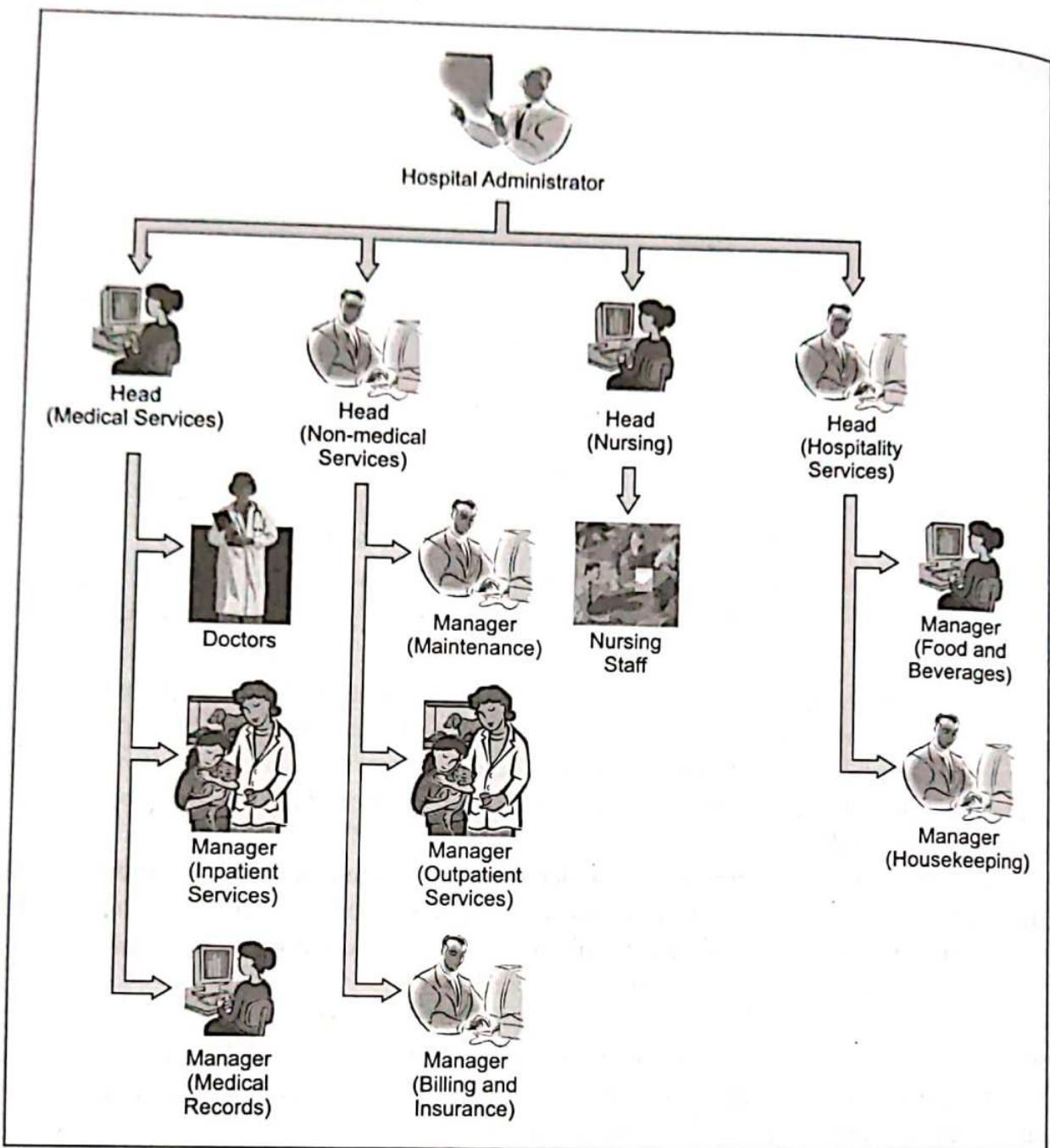
A major advantage of this kind of departmentation is that the principle of specialization is utilized to bring about efficiency in the organization. A major drawback is that the complete focus upon functional areas at lower level of the hierarchy leaves the responsibility of the overall performance of the organization on the higher level.

Figure 3.5 shows a functional form of departmentation in a hospital, whereby the functional areas are medical services, non-medical services, nursing, and hospitality services. The head of medical services oversees the doctors, manager (inpatient services) and manager (medical records).

The head of non-medical services is reported by manager (maintenance), manager (outpatient services) and manager (billing and insurance). All the nurses report to the head (nursing). The head of hospitality services has manager (food and beverages) and manager (housekeeping) under him.

## Product departmentation

An organization which is into manufacturing many products may find the functional departmentation too slow to respond to the market changes for various products. A product departmentation as shown in Figure 3.6 is more suitable for such organizations. For example, vice-president (soaps), vice-president (detergents), and vice-president (cosmetics) all report to the president of an organization. Each of these vice-presidents has GMs with functional responsibilities of, say, marketing, manufacturing, and supply chain management of their respective products.



**Figure 3.5** Functional Departmentation in a Hospital

A major advantage of this kind of departmentation is that the managers responsible for their products get the opportunity of managing all the facets and functional areas in totality. Later, it becomes easier for them to don the role of the organizational head, as they have experience of managing complete entities rather than only a functional area. A major disadvantage of this form of departmentation is the duplication of resources in the various product divisions.

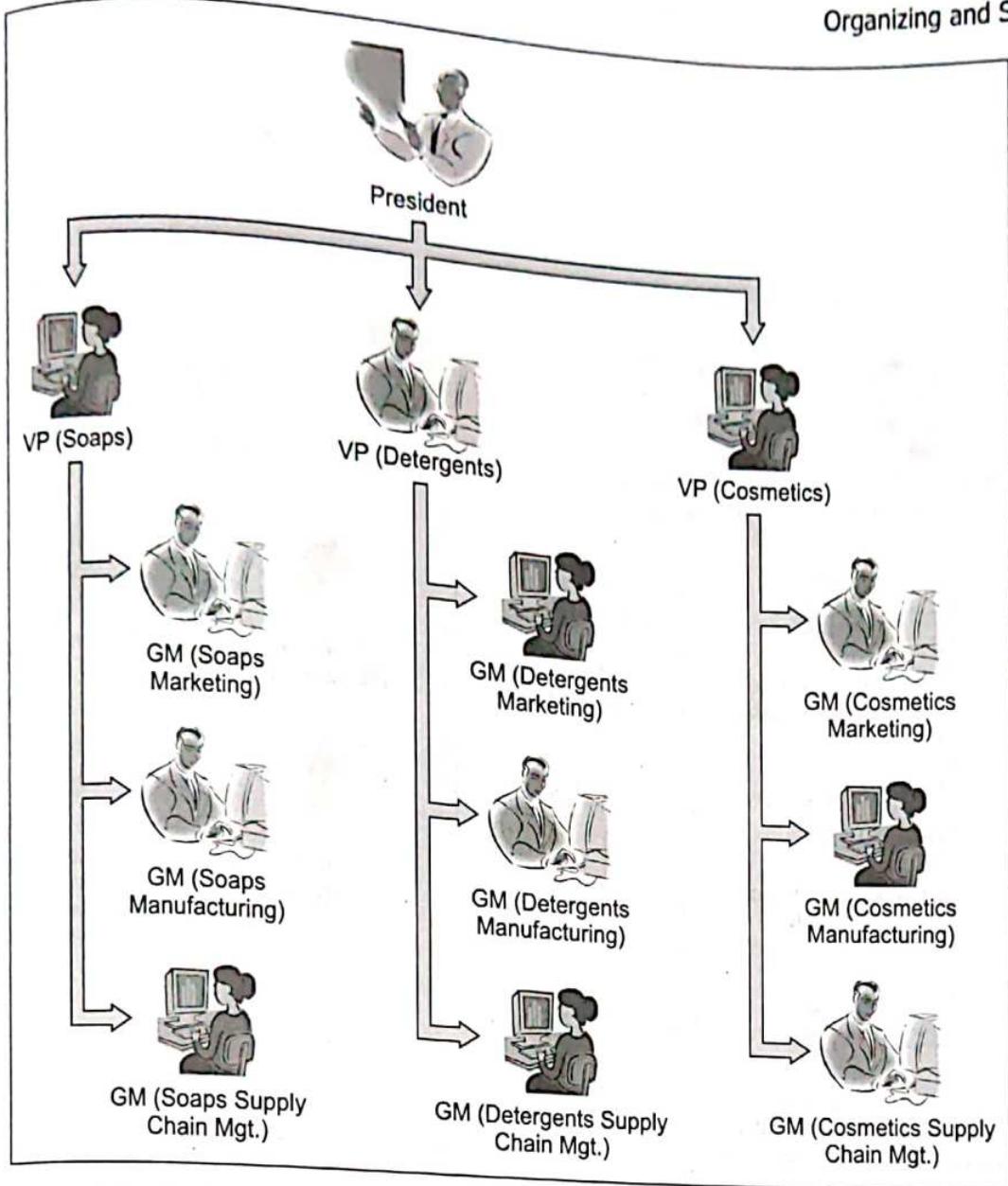
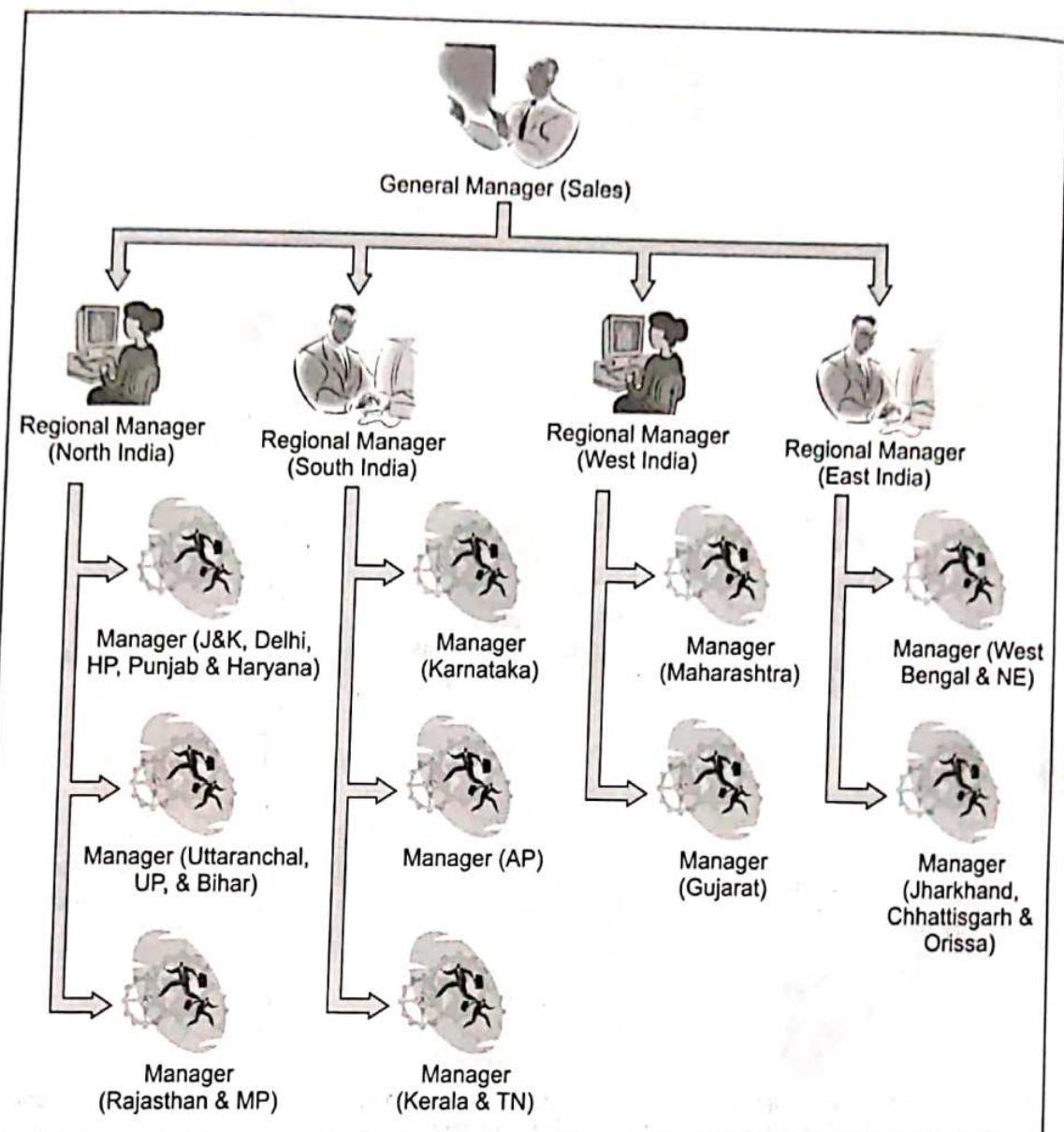


Figure 3.6 Product Departmentation

### Geographical departmentation

Geographical departmentation is the grouping of the organization according to the territorial areas, nationally or internationally. This kind of departmentation is suitable for organizations operating in various markets scattered geographically. Figure 3.7 shows the geographical departmentation in which the GM (sales) is reported to by the regional managers of the four regions in which India is segregated, namely north, south, east, and west. The regional managers are, in turn, reported to by the managers covering various states.

Figure 3.8 shows the organization structure of a Navratna public sector unit (PSU)—NTPC. It can be noted that the upper part of the structure is organized as functional departmentation with functions like HR, Finance, Projects, etc., while the lower part is departmentalized as per the geographical territories like



Northern Region (NR), Southern Region (SR), National Capital Region (NCR), etc. The Executive Director (SR) is reported to by the GMs of the three plants at Ramagundam, Simhadri, and Kayamkulam.

A major advantage of geographical departmentation is that the managers can focus upon the unique requirements of their region. The challenge however is for the top management to coordinate and control the managers in geographically dispersed regions.

### Customer departmentation

The focus in customer departmentation, as the name implies, is upon the customer. Here, managers are assigned different types of customers to service. For example, as shown in Figure 3.9, a GM takes care of institutional customer accounts (these are companies which give bulk orders), another GM is in charge

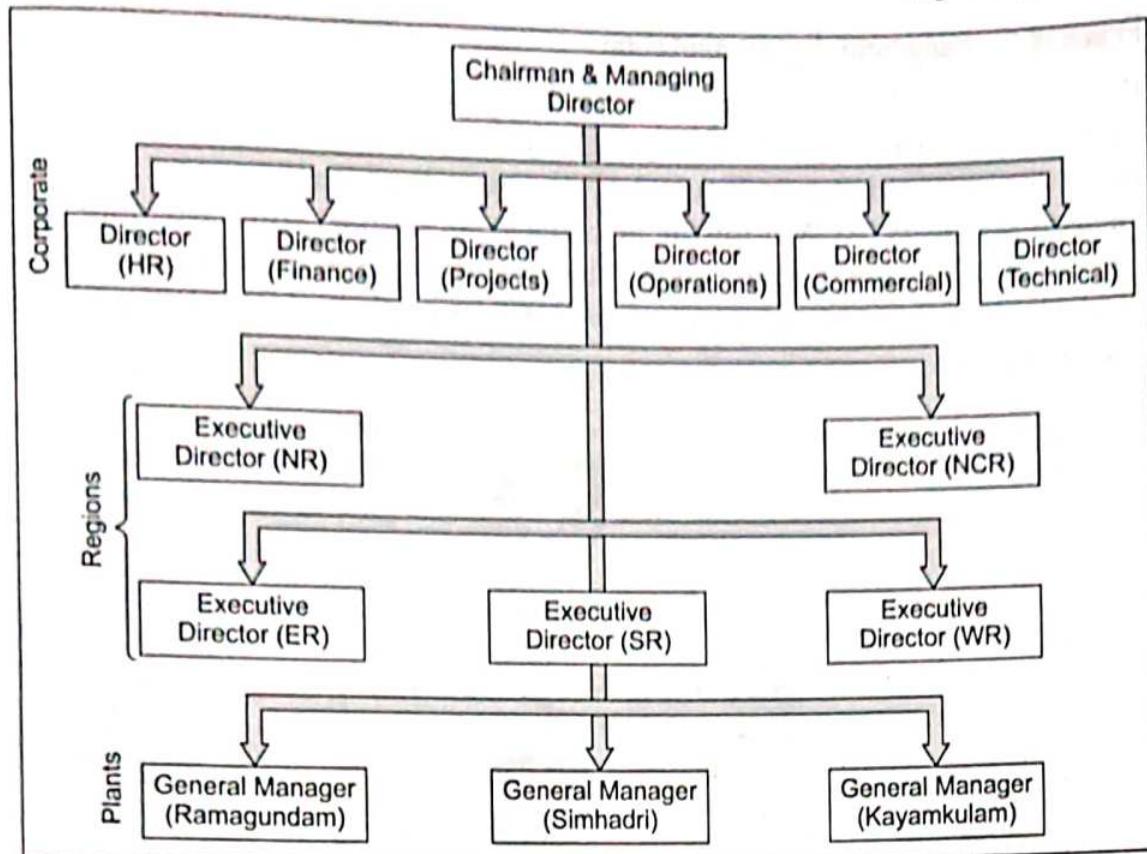


Figure 3.8 Organizational Structure of NTPC (Source: Jha, 2007)

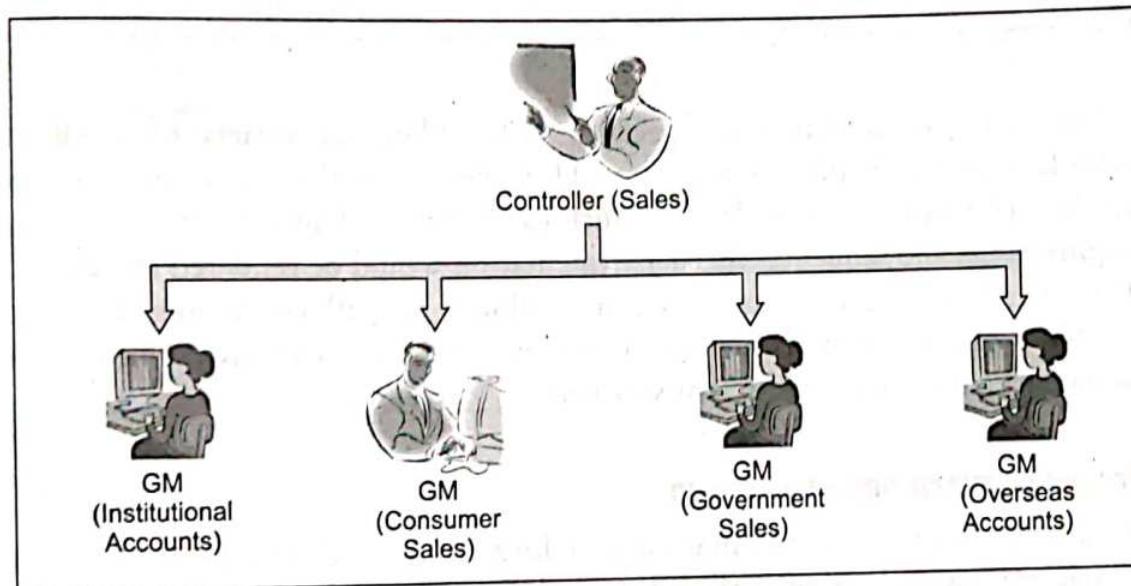


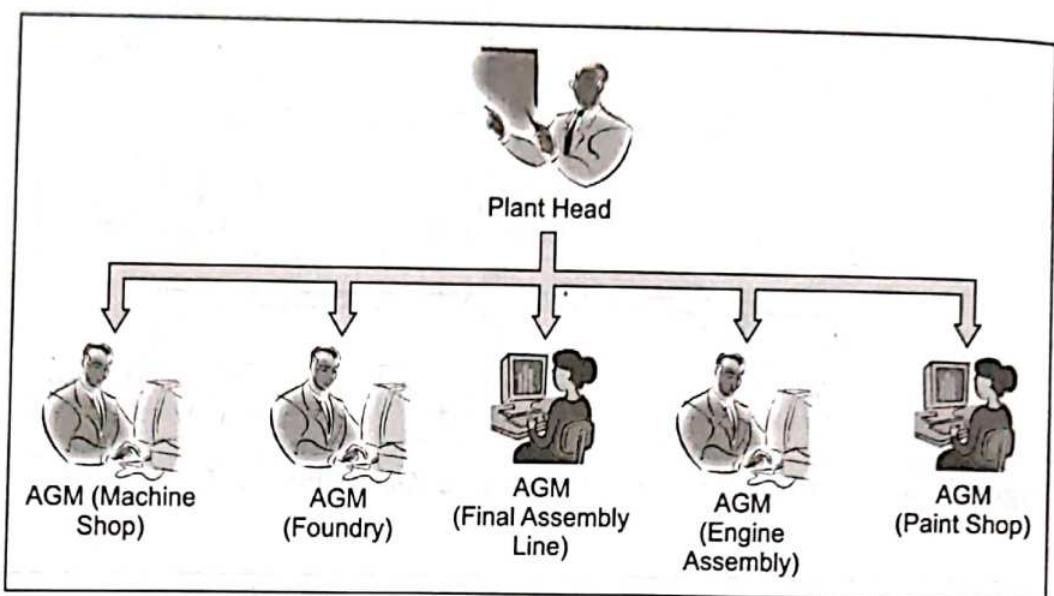
Figure 3.9 Customer Departmentation

of consumer sales (individual customers), the third GM is into government sales, and the fourth GM services overseas customer accounts.

The biggest advantage of such a departmentation is that the managers are able to address their customer's needs promptly and as per their unique requirements, while building long-term relations with them. The drawback however is under-utilization or duplication of resources for various types of customer divisions.

### Process or equipment departmentation

Process or equipment departmentation is found in manufacturing organizations in which parts of the production process are segregated to improve efficiency in the system. As shown in Figure 3.10, the plant head is reported by Assistant General Managers (AGMs) for the machine shop, foundry, final assembly line, engine assembly, and the paint shop. This kind of departmentation can be done on the basis of the equipment types as well. For example, welding, drilling, lathe machining, etc.

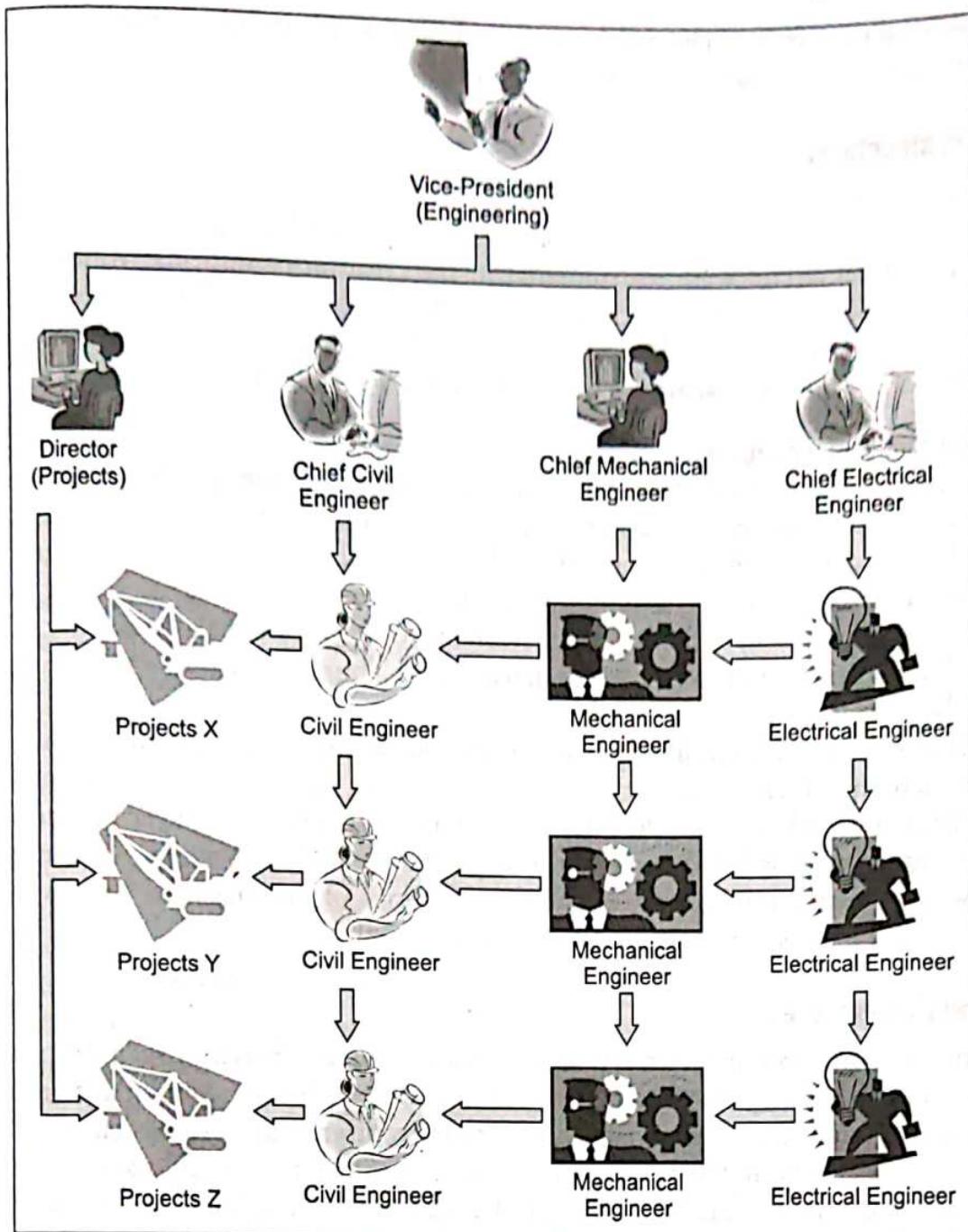


**Figure 3.10**  
Process  
Departmentation

Such a departmentation is especially useful when the variety of products manufactured in the plant is very large. However, when the variety of products produced is relatively less and the products can be grouped into similar processing requirements and sequence, this departmentation would be rendered less useful. The manufacturing cells (based upon a cellular layout) containing different machines organized in the processing sequence of a product group have been found to be more efficient in that scenario.

### Project or matrix departmentation

Project or matrix departmentation is a form of hybrid departmentation in which any two types of earlier discussed departmentation are conjoined to address a unique requirement. For example, the functional departmentation can be conjoined with product departmentation in a manner as shown in Figure 3.11 whereby personnel from different functional areas like mechanical engineering, electrical engineering, civil engineering, etc. are assigned to (say, new product development) projects.



**Figure 3.11**  
Project  
Departmentation

The personnel are either assigned to the projects on a full-time or part-time basis depending upon the extent of their involvement/requirement in the projects. During the period of their involvement in projects, such employees have dual reporting—to their functional head and the project head. The extent of authority vested in the project head on such personnel deputed from functional departments can vary on a case to case basis. After the culmination of the project, such personnel are sent back to their respective departments to perform their routine duties.

A major advantage of this departmentation is the congregation of people with varied expertise in the project team to facilitate the cause of the project within

a specified time frame. The disadvantage is difficulty in control mechanisms and performance appraisals due to dual reporting of such employees.

### **Team structures**

In contemporary organizations, informal and formal teams have become commonplace. The phenomenon of quality circles and TPM (Total Productive Maintenance) circles were instrumental in the creation of informal voluntary teams of workers in organizations during the 1980s and 1990s. These teams were formed voluntarily by workers to find workable solutions to problems faced in their work domains/machinery or to find better ways of doing things.

**Concurrent engineering.** It is a product design approach in which the design team includes personnel from the marketing department (to specify the customer requirements), engineering department (to look at the feasibility of the design), production department (to suggest if production capability exists for the design), materials department (to give inputs about the materials availability according to design specifications), and finance department (to suggest financial feasibility of the design) in addition to the design department. Thus, concurrent engineering involves a team structure.

This approach is radically opposite to the classical sequential product design approach in which design process takes place in stages moving from one department to other. Thus, the interdepartmental concurrent engineering teams save a lot of time and effort unlike the sequential approach in which feedbacks between departments, at times leading to rejections of the suggested designs at later stages, results in wastage of a lot of time and effort.

### **Network structures**

Network structures are relatively a new phenomenon whereby organizations have started making alliances and collaborations with their vendors, which extend beyond the conventional supplier-manufacturer relationships. The trust and confidence exhibited by organizations in treating their vendors as close partners has been the hallmark of recent times. Outsourcing is just one brick of this radical phenomenon.

With its Scorpio SUV, Mahindra & Mahindra (M&M) has broken the unspoken rule that says automakers must design, engineer, and test their own vehicles while spending hundreds of millions of dollars in the process. Along the way, they can divvy up contracts to suppliers who will build the components for them. Mahindra, instead, tried something suppliers had been suggesting for years. The company built a brand-new vehicle with virtually 100 percent supplier involvement from concept to reality for \$120 million, including improvements to the plant. The new Mahindra Scorpio SUV had all of its major systems designed directly by suppliers with the only input from Mahindra being performance specifications and program cost. Design and engineering of systems was done by suppliers, as was testing, validation, and materials selection. Sourcing and engineering locations were also chosen by suppliers.

Tatas are trying to bring a new dimension to the network structure through their ambitious Nano car project. In view of the socio-economic dimension in manufacturing the car, the company is looking at small satellite units, with very low break-even points, where the cars would be assembled, sold, and serviced. Tatas are planning to encourage local entrepreneurs to invest in these units, and to train these entrepreneurs to assemble the fully knocked-down or semi-knocked-down components that Tatas would send to them. These entrepreneurs would also sell the assembled vehicles and arrange for their servicing. This approach would replace the dealer, and, therefore, the dealer's margin, with an assembly-cum-retail operation that would be combined with very low-cost service facilities.

### **Boundaryless organization**

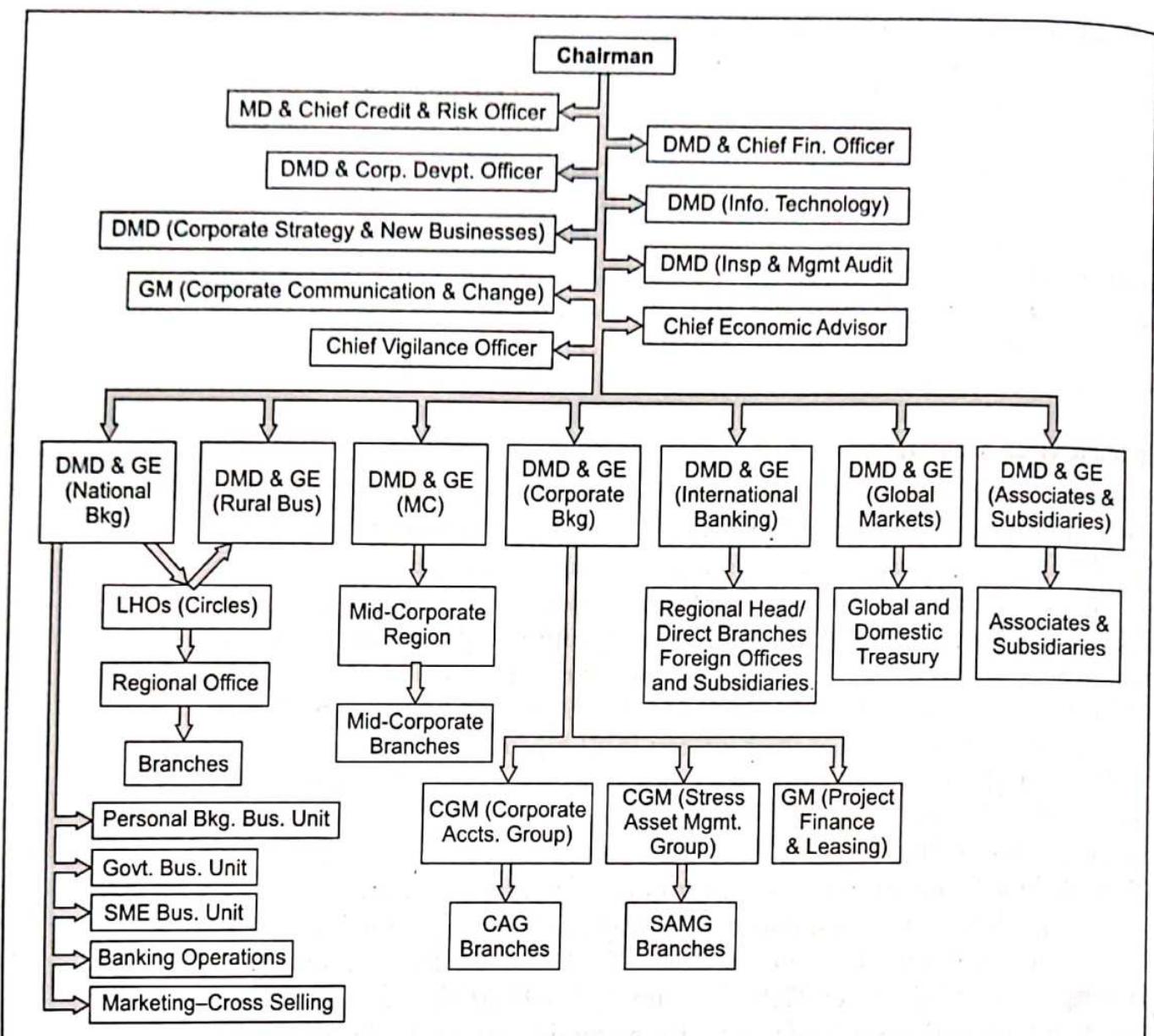
Leading-edge web-based technologies have brought radically new organization structures called virtual/boundaryless into existence. A typical example is that of "Wikipedia" ([www.wikipedia.org](http://www.wikipedia.org)), which has become the world's biggest online encyclopedia just within a short time span after its launch on 15 January 2001. The Wiki technology has allowed the updating of the Wikipedia content by anybody across the globe at any point in time. The whole content has been added by volunteers, who also act as watchdogs and promptly eliminate any discrepancies on the pages of their interest in Wikipedia.

Wikipedia has content on virtually any topic and has become the most popular source of ready-to-use information. Wikipedia is written collaboratively by volunteers from all around the world; anyone can edit it. Since its creation in 2001, Wikipedia has grown rapidly into one of the largest reference websites, attracting at least 684 million visitors yearly by 2008. There are more than 75,000 active contributors working on more than 10,000,000 articles in more than 260 languages. As of December 2008, there are 2,677,698 articles in English. Every day, hundreds of thousands of visitors from around the world collectively make tens of thousands of edits and create thousands of new articles to augment the knowledge held by the Wikipedia encyclopedia.

Wikimania is a conference for users of the wiki projects operated by the Wikimedia Foundation. Held every year at a new international location, Wikimania is organized by volunteers, who are the users of Wikipedia.

As mentioned earlier, most large organizations incorporate a combination of departmentation types. In the organizational structure of the State Bank of India shown in Figure 3.12, functional departmentation is evident with National Banking, Rural Business, Mid-Corporate, Corporate Banking, International Banking, Global Markets, and Associates & Subsidiaries.

Under the National Banking functional unit, customer departmentation has been done with Personal Banking Business Unit, Government Business Unit, Small & Medium Enterprises (SME) Business Unit, Banking Operations, and Marketing-Cross Selling.



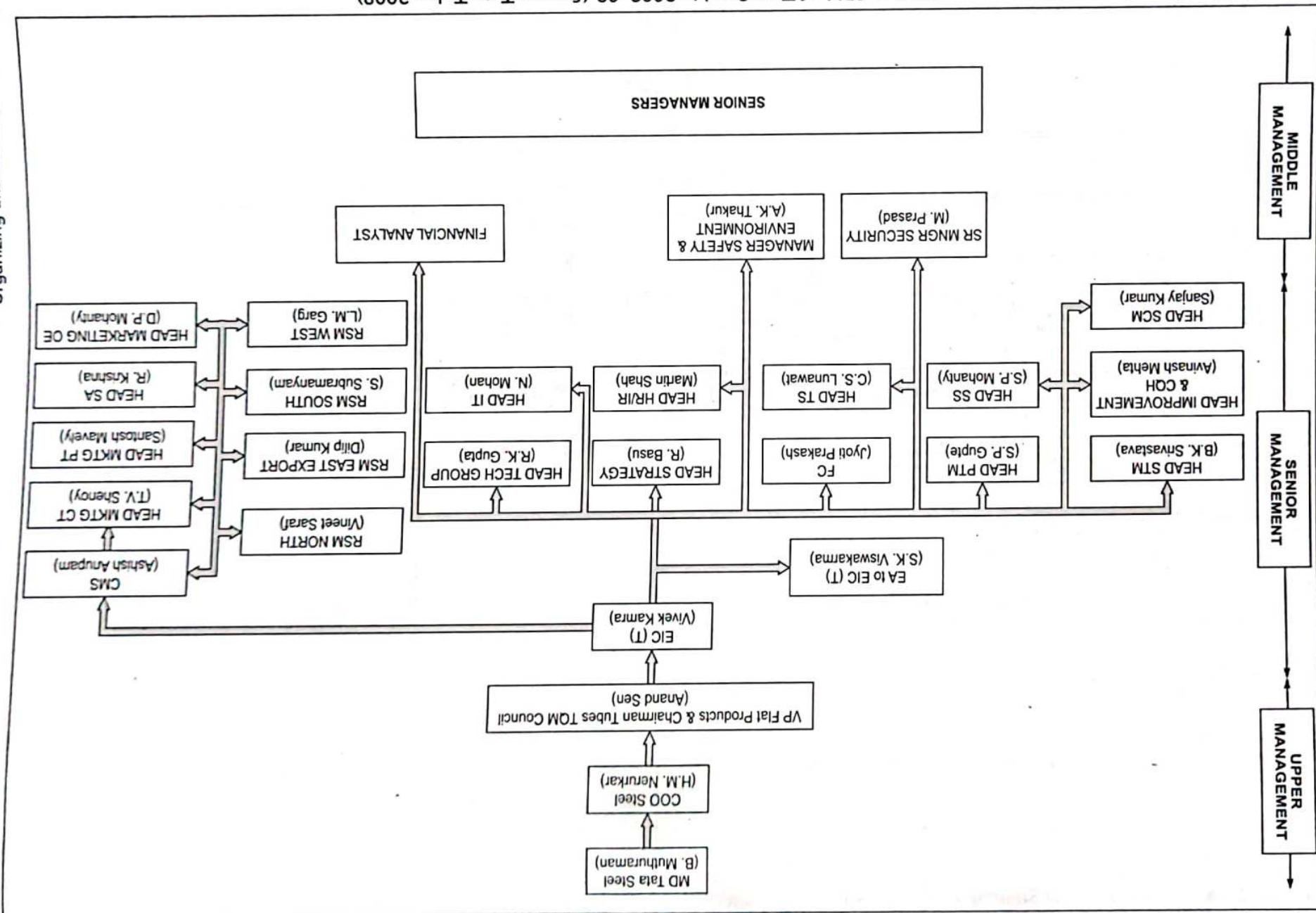
**Figure 3.12** Organizational Structure of the State Bank of India (Source: SBI, 2008)

Geographical departmentation has also been done for National Banking and Rural Business jointly in the form of Local Head Offices (LHOs), Regional Offices and Branches.

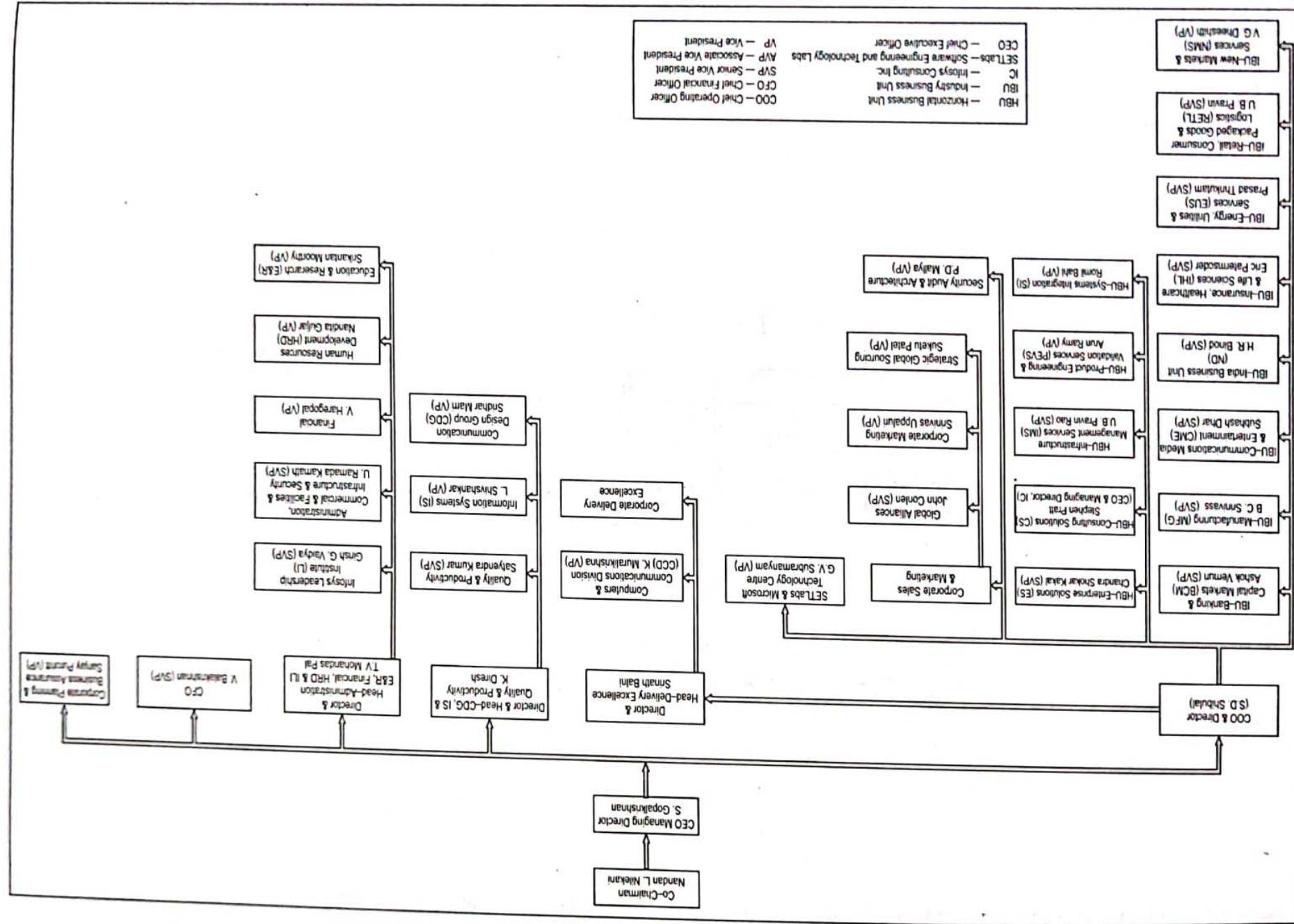
Figure 3.13 shows the organizational structure of Tata Tubes (a strategic business unit of Tata Steel). The functional departmentation is evident in the form of Financial Controller (FC), Head (Strategy), Head (Tech group), Head (IT), Head (HR/IR), etc., while geographical departmentation has been done through Regional Sales Managers (RSM)—North, East & Export, South, and West.

Figure 3.14 shows the organizational structure of Infosys with functional departmentation on the top in the form of Chief Operating Officer (COO), Chief Financial Officer (CFO), Director & Head (Administration, Education & Research, Human Resource Development & Infosys Leadership Institute),

**Figure 3.13** Organizational Structure of Tubes SBU of Tata Steel in 2008-09 (Source: Tata Tube, 2008)



**Figure 3.14** Organizational Structure of Infosys (in the Financial Year 2007-08) (Source: Infosys, 2008)



Director & Head (Delivery Excellence), etc. Customer departmentation has been achieved by its Industry Business Units (IBUs) like Banking & Capital Markets, Manufacturing, Insurance, Healthcare & Life Sciences, etc., while product departmentation is there in the form of Horizontal Business Units (HBUs) like Enterprise Solutions, Consulting Solutions, Infrastructure Management Services, Product Engineering & Validation Services, and Systems Integration.

## ■ Committees

Committees are groups of two or more persons formed for the purpose of coordinating, advising, or decision-making. Committees are of two types: *standing* (or *structural*) and *ad hoc*. Standing committees are permanent in nature and are a part of the organizational structure, while *ad hoc* committees are dissolved after their intended purpose has been achieved.

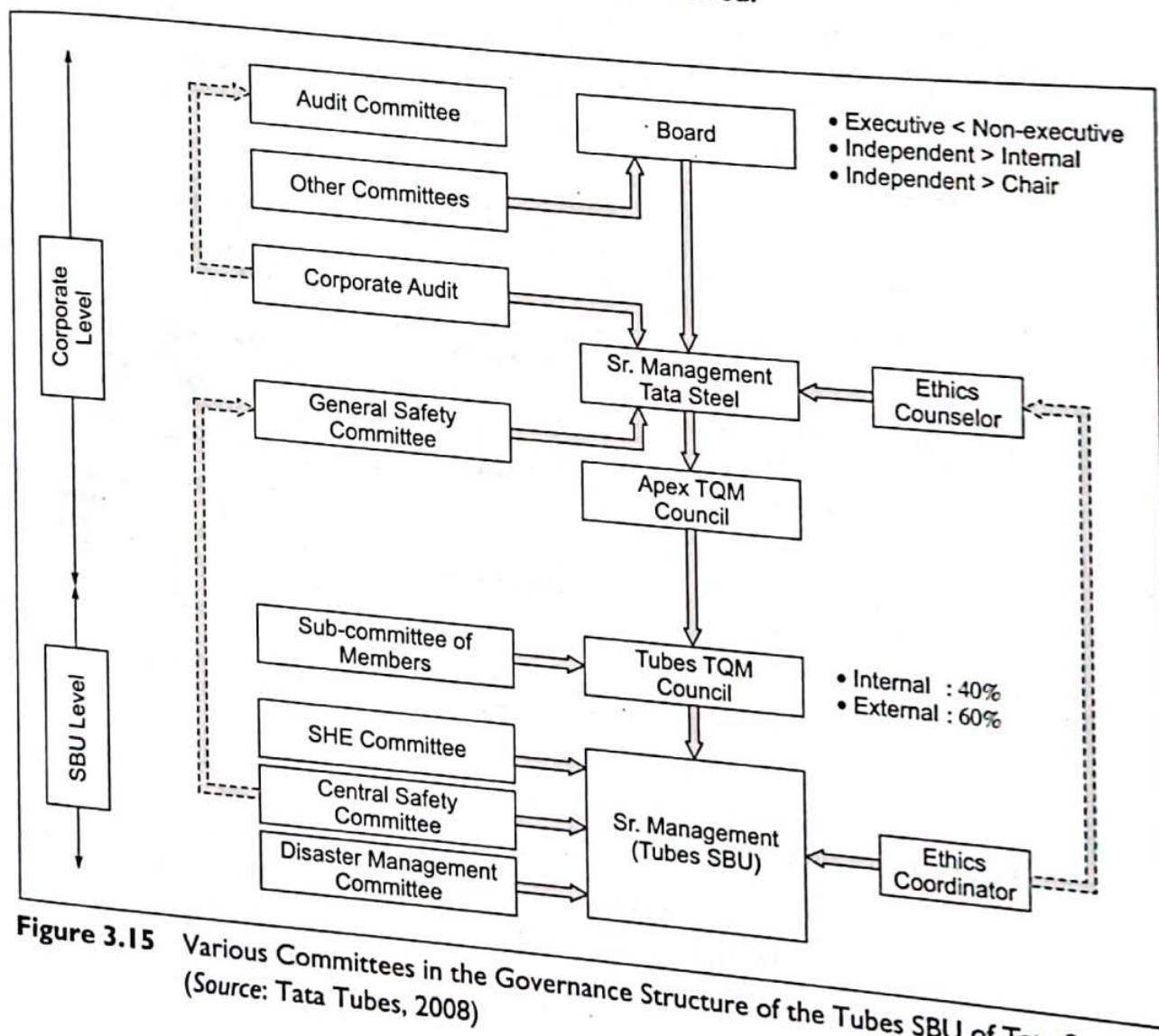
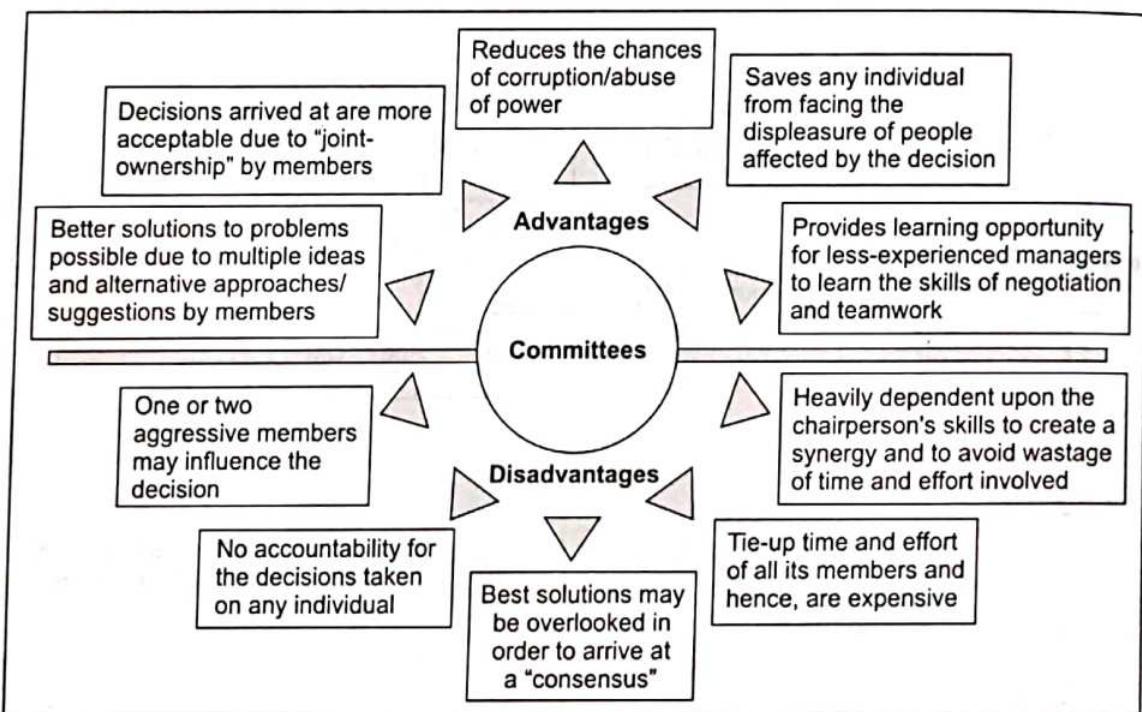


Figure 3.15 Various Committees in the Governance Structure of the Tubes SBU of Tata Steel  
(Source: Tata Tubes, 2008)

Figure 3.15 shows the various committees in the governance structure of the Tubes SBU (Strategic Business Unit) of Tata Steel. Evidently, the audit committee, SHE (Safety, Health & Environment) committee, disaster management committee, general and central safety committees are all standing committees at the Tubes SBU. An example of ad hoc committee can be the vigilance committee set-up to investigate the charges of corruption against an official in an organization. The committee is dissolved after it comes up with the report of its investigations to implicate or evict the concerned official.

Figure 3.16 shows the various advantages and disadvantages of committees. Due to the involvement of many individuals in a committee, there is a generation of multiple ideas and alternative approaches to problem-solving. Thus, the likelihood of arriving at better solutions increases in a committee compared to an individual's solution. The decisions taken by the committee are more acceptable to all (including the members of the committee) due to "joint-ownership" of these decisions by the members. Even if there is dissonance between members during the process of decision-making, the final decision is owned by everyone. At the very least, every member understands the rationale behind the decision and hence, the chance of its successful implementation increases.



**Figure 3.16** Advantage and Disadvantages of Committees

By virtue of many individuals involved in a committee, the possibility of corruption in its dealings or the abuse of power by an individual reduces considerably. Certain decision taken by the committee may displease the persons affected by it. For example, if a vigilance committee implicates an official in a case of corruption, it is natural that this official would not be happy with such findings/decision of the committee. However, since such a decision is made by

a group of people constituting the committee, any individual member would be saved of facing the brunt of this disgruntled official.

There are several disadvantages of the committees as well. In most instances, one or two individuals in a committee with an aggressive stance start dominating the group and may influence the decisions. If a decision proves out to be wrong, no particular individual in the committee can be made accountable for it. It has been observed that in most committees, the approach happens to be to arrive at a consensus. There are some merits of this approach, but the major disadvantage is that the best solutions may be overlooked at times in order to achieve a consensus. Committees tie-up the time and effort of many individuals at the same time and hence, are expensive to the organization. In order to create a synergy out of the group, the coordination and leadership skills of the chairperson of the committee are of paramount importance. In the lack of such skills (which happens in most instances), a lot of time and effort gets wasted in committees.

## ■ Centralization Vs. Decentralization of Authority and Responsibility

Centralization and decentralization, just like delegation of authority, are also about the degree to which authority and responsibility is concentrated or dispersed. However, there is an important difference between the two concepts. *Decentralization* is a much broader concept and refers to the extent to which upper management delegates authority downward to divisions, branches, or lower-level organizational units, whereas *delegation* usually refers to the extent to which individual managers delegate authority and responsibility to the people reporting directly to them (Megginson, Mosley & Pietri, 1986). The delegation of authority should allocate commensurate responsibility i.e. when one is given *rights*, one also assumes a corresponding *obligation* to perform (Robbins, 1994). The decision of Alfred P. Sloan to decentralize General Motors (GM) in 1921 is considered to be the first large-scale use of this approach (Dale, 1955).

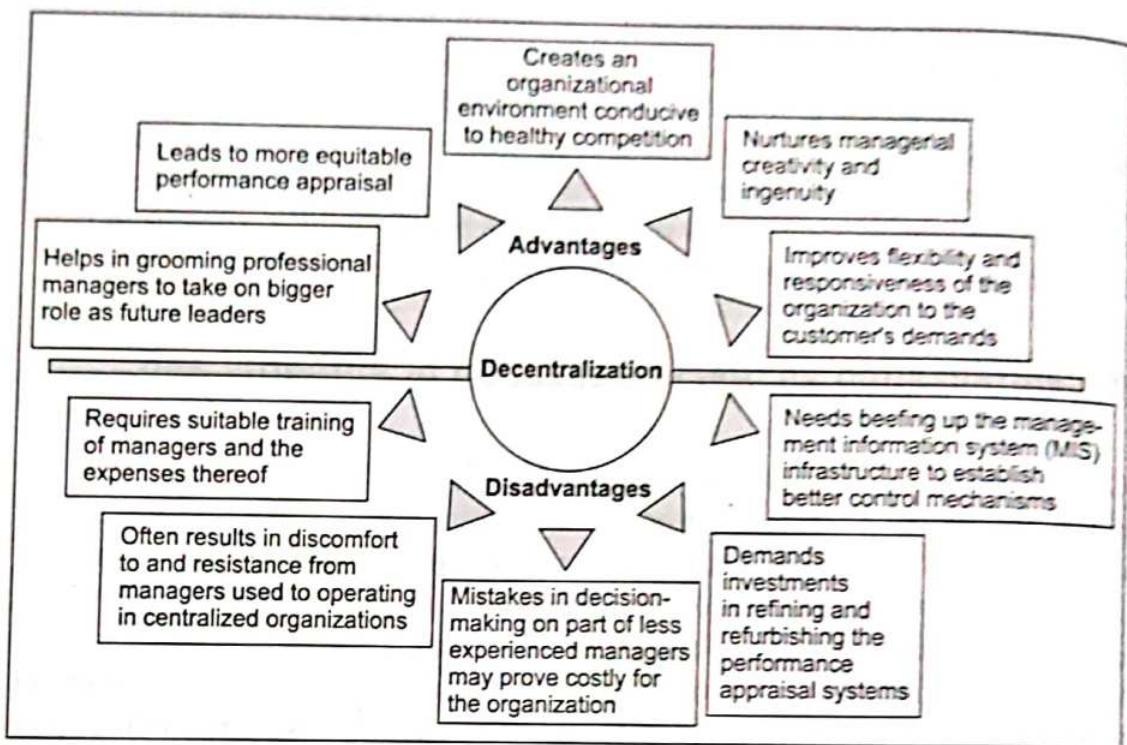
The concept of centralization and decentralization has been defined from three perspectives: *hierarchical*, *concentration*, and *participation*. In Steer's (1977) definition, centralization was viewed as the extent of power and authority held at the upper levels of the organization's hierarchy. Decentralization referred to the extent of power and authority extended down through the hierarchy.

In contrast, the concentration approach is typified by the work of Hage and Aiken (1970) and views centralization as the concentration of power and decision-making in the hands of a small proportion of individuals, regardless of organization level.

The participation perspective is characterized by Hage's (1980) assertion that the key to defining decentralization is the scope of actual participation or influence across hierarchical levels and substantive departments. In this approach, rather than the hierarchical position of the decision maker or dispersion of decisions across levels, the extent to which members participate in the decision process was viewed as the discriminator between centralization and decentralization.

### Advantages of decentralization

The various advantages and disadvantages of decentralization have been highlighted in Figure 3.17. By virtue of its requirement for middle and lower managers to assume authority and responsibility (to take decisions), decentralization helps in grooming these managers to assume more important roles as future leaders of the organization.



**Figure 3.17** Advantages and Disadvantages of Decentralization

In a decentralized organization, the performance of the managers is gauged on the basis of results achieved and objectives met rather than just their personality. Hence, the performance appraisal systems become more equitable.

The relatively liberal and open environment in decentralized organization leads to healthy competition amongst managers, who vie with each other to achieve more for the organization by using the authority and responsibility vested in them. Such an environment also nurtures creativity and ingenuity by allowing the managers to think rationally and act responsibly for best possible outcomes.

Last but not the least, decentralization at times means quick decision-making by managers on the site locally rather than to wait for decisions from the headquarters (in a centralized organization). This results in improved flexibility and responsiveness to the customer's demands, which turns into a competitive advantage.

### Disadvantages of decentralization

As every coin has two faces, decentralization has advantages as well as disadvantages. In order to make sure that the managers are well equipped with

proper skills of decision-making, suitable training programmes have to be provided to them before passing on the authority and responsibility to them. This involves expenses in training and development.

If a centralized organization is transformed into a decentralized one, the initial resistance and discomfort on part of managers used to operating in the centralized way, is natural. It is also expected that less experienced managers charged with the authority and responsibility in a decentralized organization may commit mistakes (especially in the beginning) which may prove costly for the organization.

The performance appraisal systems in a decentralized organization have to be refined and refurnished to capture the results achieved by managers with increased authority and responsibility.

Proper control mechanisms are a must for a decentralized organization so that top managers may have ready access to the real-time data and information about the key initiatives taken by the managers in the lower rungs. Therefore, investments in management information systems (MIS) become imperative to aid the top management in having such efficient control mechanisms.

### **JRD'S DECENTRALIZATION AND RATAN'S CENTRALIZATION FOR THE TATA EMPIRE**

Jehangir Ratanji Dadabhoy (JRD) Tata was born in Paris on 29 July 1904. His father was a first cousin of Jamsetji Tata, a pioneer industrialist in India. JRD became the chairman of the Tata Group in 1938. Under JRD's Chairmanship, the number of companies in the Tata Group, grew from 15 to over 100. Monetarily, the assets of Tata group grew from Rs 62 crores to over Rs 10,000 crores. He founded India's first commercial airline, *Tata Airlines* in 1932, which in 1946 became Air India (now India's national airline).

In the 53 years that the late JRD had been chairman of the group, Tata businesses were run in what even insiders call "an unstructured manner." JRD picked his managers—the Russi Modys, the Darbari Seths, the Sumant Moolgaokars, the Ajit Kerkars—and gave them little short of complete control over their businesses. According to Fredie Mehta,

an erstwhile director of Tata Sons, "That was JRD's style. He had this genius of identifying and inspiring geniuses that he saw around him."

Once he did that, JRD would give them near-entrepreneurial freedom, rarely stepping in the way of their decisions. Such an approach had its pluses. JRD's chief executives enjoyed tremendous opportunities to give vent to their entrepreneurial or managerial skills. And many of them emerged winners. For example, Seth built the group's tea and chemicals businesses; Mody ran Tisco without even a whisper of industrial relations problems; the late Moolgaokar fashioned Telco into an impressive engineering giant; Kerkar took a one-hotel operation and turned it into a 10,000 room international business.

But JRD's policy was like a double-edged sword. On the minus side, his managers got used to the freedom and ran their companies

the way they wished, almost like they were their own little empires. Says a Tata group insider: "Somewhere along the way, things got hazy and managers began to function like owners." The fact that the group had no effective retirement policy for its senior executives did little to prevent that. Observes a Bombay management consultant: "JRD himself decided to hang up his gloves at 86 and his managers who were in their seventies were not in a hurry to retire." Says a close associate of the Tatas: "It may not be nice to say so, but it was JRD who allowed these people to stay for too long."

Ratan Tata, an architecture graduate from Cornell University in 1962, currently serves as the group's Chairman. When JRD Tata chose this distant, not so successful relative as his successor, no wonder it raised many an eyebrow. During the time Ratan Tata became Chairman in 1991, the group apex company Tata Sons hardly held sway over the bigger Tata companies because of its low shareholdings (Tatas held minority stakes in group companies ranging from 0.01% to 15% at that time).

As over 80 percent of Tata Sons was held by charitable trusts, which could not subscribe to rights issues, the group had in the past tried to work on a proposal that could circumvent the problem. The idea was to get group companies to subscribe to fresh Tata Sons equity and thus enable the apex company to increase its holdings in the group companies.

In the late eighties that plan got stuck, chiefly because group satraps like Russi Mody resisted the move and Tata Sons shareholder Shapoorji Pallonji Mistry (a building magnate who holds 14 percent) couldn't be persuaded to dilute his holding. However, after assuming charge, Ratan was successful in increasing the shareholdings of Tata Sons in the group companies.

Tata Sons determined that it would require raising a capital of Rs 7 billion in 1995-96, to

realize a 1% increase in stake in each of the major Tata companies. To raise the necessary funds Tata Sons invited subscriptions to a Rs 3 million rights issue on September 1995. The shares were made available to Tata group affiliates (at a premium) through the renunciation of shares by various charitable trusts (having the rights). The additional money was raised by internal accruals, debt, and other strategies.

Ratan Tata's second parallel strategy to assume control of his empire was to oust JRD's entrepreneurial chieftains. A typical example is that of Ajit Kerkar. The man who, at age 28, found a badly managed, shoddily run hotel thrust on him courtesy JRD Tata; the man who in his own quiet and unassuming fashion not only turned it round and made it the happy hunting ground of the elite in Bombay but went on to build a chain of classy hotels across the country; the man who is widely credited with having built up Goa as the playground of the international tourist.

What is ironic, perhaps, is that Kerkar's troubles in 1997 stemmed from the desire of Ratan Tata to assume control of the high profile Indian Hotels Limited—ironic, given that at the outset, the Tata business empire had flatly refused to finance Kerkar's plans for turning it around. At the time Kerkar—one of the *supermanagers* installed by JRD Tata, and given full freedom to run the different wings of the family empire in their own individual ways—just went ahead and floated different companies, with different partners, to fund the expansion of the flagship Taj Hotel. The trick worked, and Kerkar promptly set his sights on Goa which, he figured, could become the next hotspot on the international tourist's itinerary. Again, the Tatas are said to have found the idea a shade too risky to sink their capital in. Kerkar, unfazed, just went ahead and raised the capital he needed from, who else, the rich and the famous clientele of the Hotel Taj, to such good effect that the Fort Aguada resort was opened in 1974.

By the eighties, Kerkar had parleyed that once sick hotel into a chain that embraced the US and Europe. In the process, he had also attained iconic status within the chain, commanding the fierce loyalty of his employees right up, and down, the hierarchy.

The memoirs of Adi Modi, one of the lieutenants of Kerkar clearly indicates how authority was delegated in Indian Hotels down the line with great success during those days (Modi founded the Bombay Brasserie restaurant in London in 1982 and later on became the director of Taj International Hotels' restaurants division):

My biggest mistake was to have a lack of confidence in my chairman and in myself. I was running a five-star deluxe hotel in North Yemen in March 1982 when I got a phone call in the middle of the night asking me to come to London. The call came through at about 2.30 am from my chairman, Ajit Kerkar. He said: "I want you immediately. Leave for London. I need you here."

Four hours later, I was on an Air France flight. When I got to London, I went straight to the place where my chairman wanted to start a restaurant, which was formerly Baileys Hotel on Gloucester Road, West London. In those days, it was an absolutely ramshackle place. I said: "What the hell have I got myself into?" They had a room booked for me: I still remember the number, 410. The room was chocolate-coloured and it was like a huge playground. The bathroom was pint-sized and dark green. I said: "Where have I come to?" It shook me to my bones.

Then I got a call asking me to come down to the lobby. My chairman was there and said: "Thank you for coming, please follow me." I followed him to a large space and he said: "I want you to do an Indian restaurant here. I don't know how you are going to do it but from today, it's your problem. There's £500,000 in the bank and you have an executive engineer to help. By September

30, I want the restaurant to be ready."

The place he showed me had all broken equipment stretching up to the ceiling, 15ft or 18ft high. I said to myself: "Have I been demoted? Did I do such a bad job before?" I had always worked in five-star hotels. I went back up to my room with tears in my eyes. Can you imagine being an assistant general manager of a 250-room brand-spanking new hotel and then going to this?

But slowly it got done. We took on contractors and got the restaurant started. I began to gain confidence and once it was ready and my chefs came in and we started producing food, I knew it hadn't been a mistake to come and it was going to be a hit. When we opened in December, it was a total success. And it has been such a success ever since that we have expanded from a 90-seat restaurant to having room for 265 diners.

I began to see that my chairman was right, and that he had seen the potential in the restaurant and in me. Now I realize that it was my mistake to doubt that.

It is, perhaps, this loyalty of subordinates and colleagues in IHL that is at the root of Kerkar's exit from IHL in 1997. His troubles began with Ratan Tata's installation at the head of the family empire. Unlike the founding father of the Tata clan, who believed in appointing top-draw managers and giving them their heads—Ratan Tata proved to be less trusting of his managers. Given that the Tatas hadn't provided little input, financial or otherwise, into the building up of IHL, Kerkar figured he didn't need Ratan to start telling him how to run his ship.

Then Ratan Tata came up with the rule that the various outposts of the Tata empire should pay the mother company a hefty sum (0.10% to 0.25% of each company's net income excluding taxes and non-operating profit depending upon its association with the brand) for the use of the Tata brand name—and again, Kerkar said nix to that.

Kerkar also refused to consider Ratan's idea that the Tata name be incorporated into the IHL brand-name.

All hopes of a smooth transition, however, faded when Bombay House nominees R. Krishna Kumar, managing director of Tata Tea, and S. Ramakrishna, managing director of Tata Industries, were tipped to take over as managing director and deputy managing director of IHL, respectively.

Upset that the nominees from within Indian Hotels—Camellia Panjabi and Leonard Menezes, both executive directors on the IHL board—were being given a raw deal, Kerkar decided to refuse the post of non-executive chairman, decided to quit the board and to make a few telling points on his way out, which would reflect badly on Ratan Tata's management of the empire.

Ratan Tata had his ways of doing things. He informed the Reserve Bank of India about alleged foreign exchange violations by IHL and Kerkar. The Tatas are said to have built up a dossier against Kerkar, planning for the day when the power struggle within the IHL would accelerate into open warfare. Thus, the RBI finds itself possessed of relevant documents relating to two alleged violations—the first, involving Global Depository Receipts issue by IHL subsidiary Oriental Hotels (which owns the Fort Aguada resort, among other things) to the tune of US\$30 million or thereabouts, while the second involves the Taj group's acceptance of dollar deposits from two foreign airlines (one of them being Singapore Airlines) that have offices in the Taj Hotel, Bombay.

### Discussion questions

1. Which approach did you like more – the decentralization of JRD Tata or the centralization of Ratan Tata? Discuss with suitable reasoning.
2. Compare and contrast the achievements of JRD Tata and Ratan Tata in the light of centralization and decentralization.
3. Decentralization should flow from top to bottom of the organization. Discuss.

At a time when professionals-turned-entrepreneurs are making their mark on the business landscape, despite his controversial innings towards the end of his tenure with the Tata group, Kerkar made a name for himself in the hotel sector in his new avatar, as the chairman of Tulip Star Hotels. It was set up as an entity to manage and own properties. In a short span of five years after he quit the Taj group in 1997, The Tulip Star now either owns, manages, or markets a number of properties that include the Bogmallo Beach Resort and the Nizmar Resort in Goa, the Kumarakom Lake Resort, the Aquaserene, Siena Village in Munnar, Renaissance, Cochin which are all in Kerala.

Ratan Tata's success after the centralization of the Tata group is history. He revamped the operations of Tata steel and made it one of the lowest cost producers of the world. Under him, Tata Consultancy Service went public and Tata Motors was listed in the New York Stock Exchange. He shelled out \$435 million for Tetley Tea, making Tata the world's No. 2 tea company. He made the critics eat their words when he launched India's first indigenous car—Indica. Those who had branded the car as "Ratan folly" went speechless when the car became an instant success and turned around Tata Motor fortunes. His new Rs 1 lakh "dream car" Nano project has caught international attention. Under Ratan Tata, the company touched almost all the new horizons—from telecom and teleservices to the recent Corus and South Africa ventures.

## ■ Span of Control

Span of control refers to the number of employees that report to a manager. It has an impact on the organizational structure. When the span of control is relatively narrow (say 2–3 employees per manager), the organizational structure is taller (with 4 levels in Figure 3.18a). On the other hand, a wider span of control (say 3–5 employees per manager) results in flatter organizational structure (with 3 levels in Figure 3.18b) for the same overall number of employees (say  $N = 19$  as in Figure 3.18).

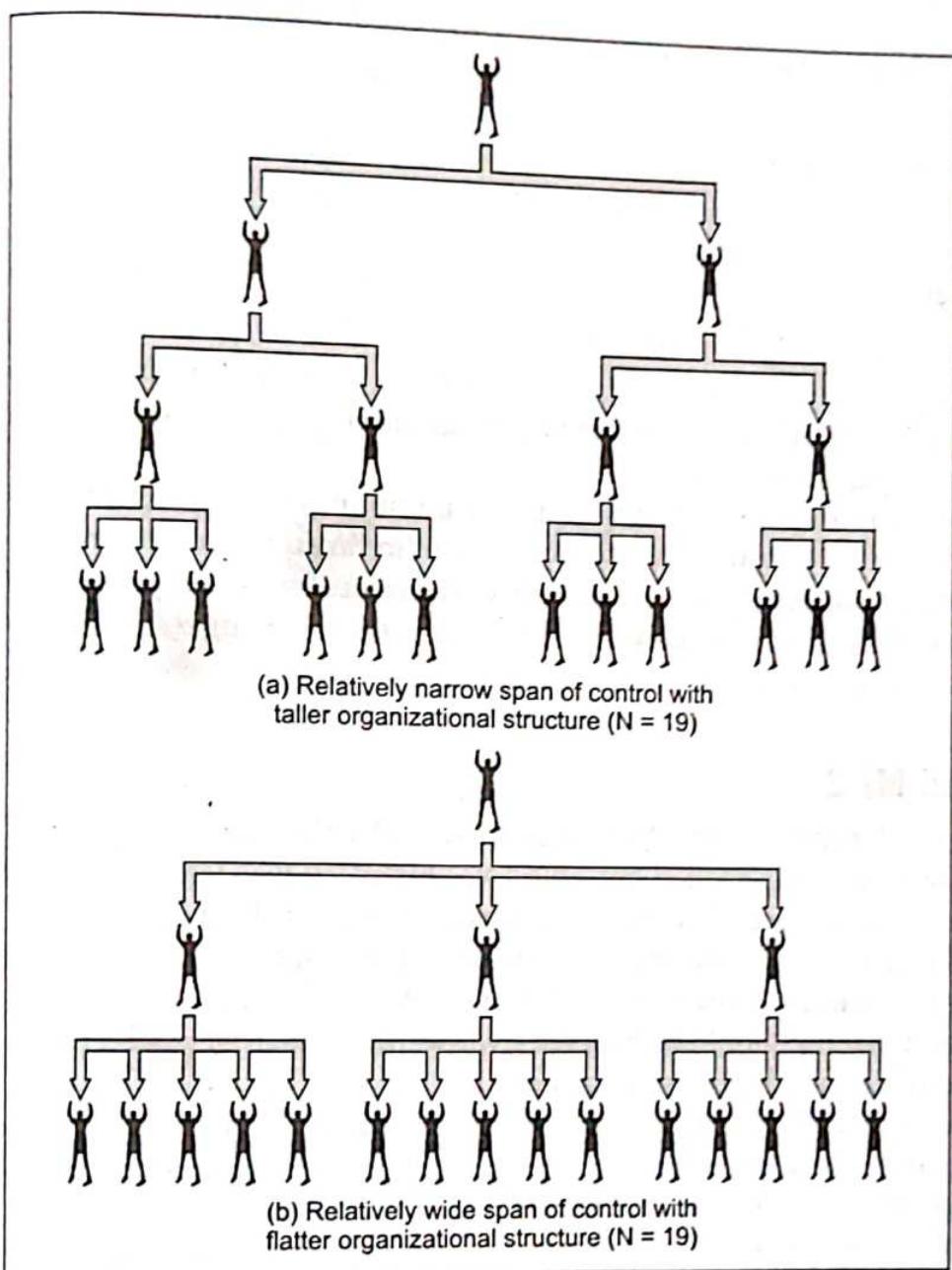


Figure 3.18  
Span of Control

A manager may supervise even 20–30 employees under her effectively when the operations are simple and repetitive in nature (as in fast food restaurants like McDonald's). At higher levels in the organization, however, it may be effective for only five to seven subordinates to report to a general manager (Hellriegel,

Slocum & Woodman, 1992). However, recent studies show that the actual number for the span of control varies considerably—by industry, company size, and type of work being done.

A median management ratio of 1 to 16 was found in the healthcare sector, but only 1 to 4 in information services. By company size, the median result also varies considerably—one manager to four employees in companies with 500 or less employees and one to nine in companies with 2,000 to 5,000 employees (Saratoga Institute, 2001). Here, the management ratio can be calculated by:

$$\text{Regular employees management ratio} = \frac{\text{Regular headcount}}{\text{Management headcount}}$$

where,

Regular headcount = Avg. no. of full-time and part-time regular employees

Management headcount = (Avg. no. of employees) – (officials and managers excluding project managers)

Urwick (1956) cited various reasons which put pressure upon organizations to overlook the recommended range of the span of control:

1. Reporting directly to the chief rather than some intermediate authority is considered an unofficial status symbol by an employee, thus negating the concept of span of control.
2. Cost considerations have always been of paramount importance for organizations, which overlook the span of control in favour of cost savings.
3. There are instances whereby higher level managers enjoy the power and authority of having a high number of subordinates reporting to them, thus promoting *empire-building*.

## ■ MBO and MBE

In his theory of Management by Objectives (MBO), Drucker (1954) emphasized the need for setting clearly spelled-out objectives for every manager at all levels of the hierarchy in an organization (as discussed earlier in Chapter 2). MBE stands for Management by Exception, a theory of management put forward by the father of scientific management, Frederick W. Taylor. In Taylor's view, routine decision-making should be handled by lower-level managers who report only exceptional cases to higher management.

MBE is an approach by which higher management devotes its time to investigating only those situations in which actual results differ significantly from planned results and leaves the routine decisions to lower level managers. The idea is that management should spend its valuable time concentrating on the more important items (such as shaping the company's future strategic course). Thus, MBE is the delegation of authority and responsibility to the front-line supervisors. A typical example is in quality control, when the supervisor is entrusted with the task of bringing back the process into control by finding an assignable cause for the variation going beyond the control limits set up for a particular parameter being measured.

Management by exception has great potential. It is a major time saver for the manager who shifts authority for decision-making and problem-solving downward. It saves time for the recipients of this authority, too; they no longer have to delay action while awaiting input from above. The lower-level managers also feel motivated and encouraged when their performance is gauged by their superiors on the basis of how well they are able to take routine decisions.

### **Points to Ponder**

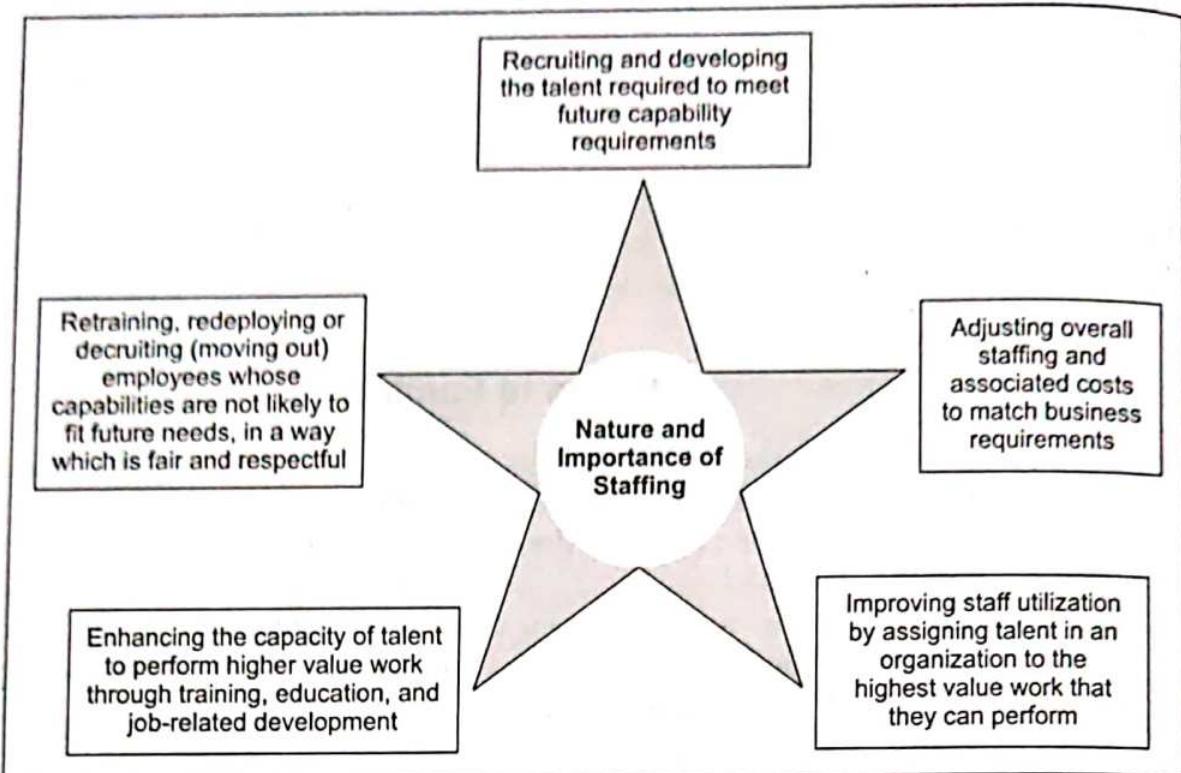
- Delegation of authority should be accompanied with *responsibility* and *accountability* on part of the manager to whom the authority has been delegated.
- There should be a clear and unbroken *chain of command* or the *line of authority* from the top level of hierarchy to the lowest level by including all intermediate levels.
- In a decentralized organization, the performance of the managers is gauged on the basis of results achieved and objectives met rather than just their personality.

## **■ ■ NATURE AND IMPORTANCE OF STAFFING**

A capable and efficient workforce is crucial for the success of an organization. The process of recruiting, retaining, developing, and nurturing the workforce is called *staffing*. Bechet & Walker (1993) stress upon the importance of aligning staffing with business strategy and provide staffing actions crucial in this vein. These staffing actions highlight the nature and importance of staffing as shown in Figure 3.19.

The staffing function in an organization has to recruit people with suitable qualifications, knowledge, and skills as per the current requirements of the organization. However, the business environment today is so dynamic that it is necessary to keep in view the future capability requirements of the organization in the wake of drastic technological changes and related learning challenges for the staff. The workforce size may need to be increased at some point in time, while it may require curtailment at other times, in view of the overall business strategy. It requires hiring and firing of employees, which involves a lot of effort on part of the staffing personnel.

Providing challenging and value-adding assignments to the existing talent in the organization helps in keeping them motivated and interested, while ensuring that the human resources are optimally utilized for the most value-adding activities for the organization. This requires meticulous performance appraisals of employees with well thought of promotion procedures and career planning for employees. Training, education and job-related development not only help in retaining the employees, but also in enhancing their capabilities and capacities to work smartly and to be more productive for the organization.



**Figure 3.19** Nature and Importance of Staffing

It is natural that over the period of time, some employee's skills may need upgradation through re-training. Some employees may need to be shifted to other departments where their experience and skill may be utilized, while some others may have to be retrenched (laid-off) in a respectful manner, e.g. by way of voluntary retirement. It is evident that these varied actions required on part of the staffing function make it one of the most important functions in the organization.

### **ETHOS OF EMPLOYMENT AT INFOSYS**

Infosys is one of India's most revered IT companies and has imbibed the ethos of employment nurtured by its chief mentor N. R. Narayana Murthy. Below is an extract of his speech during a Mentor Session.

I know people who work 12 hours a day, six days a week, or more. Some people do so because of a work emergency where the long hours are only temporary. Other people I know have put in these hours for years. I don't know if they are working all these hours, but I do know they are in the office this

long. Others put in long office hours because they are addicted to the workplace. Whatever the reason for putting in overtime, working long hours over the long term is harmful to the person and to the organization. There are things managers can do to change this for everyone's benefit.

Being in the office long hours, over long periods of time, makes way for potential errors. My colleagues who are in the office long hours frequently make mistakes caused by fatigue. Correcting these mistakes requires

their time as well as the time and energy of others. I have seen people work Tuesday through Friday to correct mistakes made after 5 PM on Monday.

Another problem is that people who are in the office for long hours are not pleasant company. They often complain about other people (who aren't working as hard); they are irritable, or cranky, or even angry. Other people avoid them. Such behaviour poses problems, where work goes much better when people work together instead of avoiding one another. As managers, there are things we can do to help people leave the office.

First and foremost is to set the example and go home ourselves. I work with a manager who chides people for working long hours. His words quickly lose their meaning when he sends these chiding group e-mails with a time-stamp of 2 AM, Sunday. Second is to encourage people to put some balance in their lives. For instance, here is a guideline I find helpful:

1. Wake up, eat a good breakfast, and go to work.
2. Work hard and smart for eight or nine hours.
3. Go home.
4. Read the comics, watch a funny movie, dig in the dirt, play with your kids, etc.
5. Eat well and sleep well.

### Discussion questions

1. Up to what extent do you agree with Murthy's suggestion to follow the normal working hours?
2. What should be the approach of employees to working hours when overtime payment

This is called *recreating*. Doing steps 1, 3, 4, and 5 enable step 2. Working regular hours and recreating daily are simple concepts. They are hard for some of us because that requires personal change. They are possible since we all have the power to choose to do them.

In considering the issue of overtime, I am reminded of my oldest son. When he was a toddler, if people were visiting the apartment, he would not fall asleep no matter how long the visit, and no matter what time of day it was. He would fight off sleep until the visitors left. It was as if he was afraid that he would miss something. Once our visitors left, he would go to sleep. By this time, however, he was overtired and would scream through half the night with nightmares. He, my wife, and I, all paid the price for his fear of missing out.

Perhaps some people put in such long hours because they don't want to miss anything when they leave the office. The trouble with this is that events will never stop happening. That is life! Things happen 24 hours a day. Allowing for little rest is ultimately practical. So, take a nap. Things will happen while you're asleep, but you will have the energy to catch up when you wake-up. Hence "love your job, but never fall in love with your company."

made by the company for hours spent by the employees over and above their normal working hours?

## ■ Process of Selection and Recruitment

*Recruitment* is a set of activities viz. advertising, establishing preliminary contacts and performing initial screening to create a qualified pool of job applicants for an organization. *Selection* involves choosing from a pool of applicants (created by the

recruitment process) the person or persons who offer the greatest performance potential (Schermerhorn, 2005). Table 3.2 enumerates the difference between recruitment and selection.

**Table 3.2** Difference between Recruitment and Selection

Recruitment	Selection
<ul style="list-style-type: none"> <li>• Recruitment process precedes the selection process.</li> <li>• It has a positive connotation due to encouragement given to potential applicants to apply for a job.</li> <li>• Its basic purpose is to create a pool of qualified human resources.</li> <li>• It does not result in any contract between the applicants and the organization.</li> </ul>	<ul style="list-style-type: none"> <li>• Selection process succeeds the recruitment process</li> <li>• It has a negative connotation due to rejection of unsuitable candidates who applied for the job.</li> <li>• Its basic purpose is to "choose" the best persons from the pool to fill the vacant positions.</li> <li>• It results in a job contract between the selected applicants and the organization employing them.</li> </ul>

It is quite a challenging task to find the right person to perform a job in an organization. A casual approach to selection and recruitment may result in problems of various sorts for the organization as well as the appointees. A proper matchmaking is required to ensure that the person being recruited for a particular position has the necessary skills, knowledge, and aptitude to perform the job. Figure 3.20 shows a typical process of selection and recruitment.

### Temporary or permanent employee?

The first step in the selection and recruitment process is to determine if the job should be filled by employing a temporary or a permanent employee. When an employee suddenly exits from the organization leaving behind a vacancy to be filled urgently, it is worthwhile in most instances to find a temporary employee to fill the post to allow for suitable timeframe for formal selection and recruitment of a permanent employee. In other scenarios, a particular job may be seasonal in nature and thus, temporary employees would be more suitable for such a job. For example, retail stores usually increase the number of employees during the festival season like Deepawali, Christmas, and Eid, keeping in view the huge rush of customers during this time. Many of these employees are temporary and are laid-off after the season gets over.

It is generally easier to handle temporary employment as these are short-term contracts and the employee knows from the beginning that the employment will lapse after the term gets completed. There are however advantages of this approach in which temporary employment gives the opportunity to the employee to demonstrate his capabilities to the employer and also, to learn the skills typical of the organization. Later, if the need be, the employer may consider the temporary employee for permanent employment.

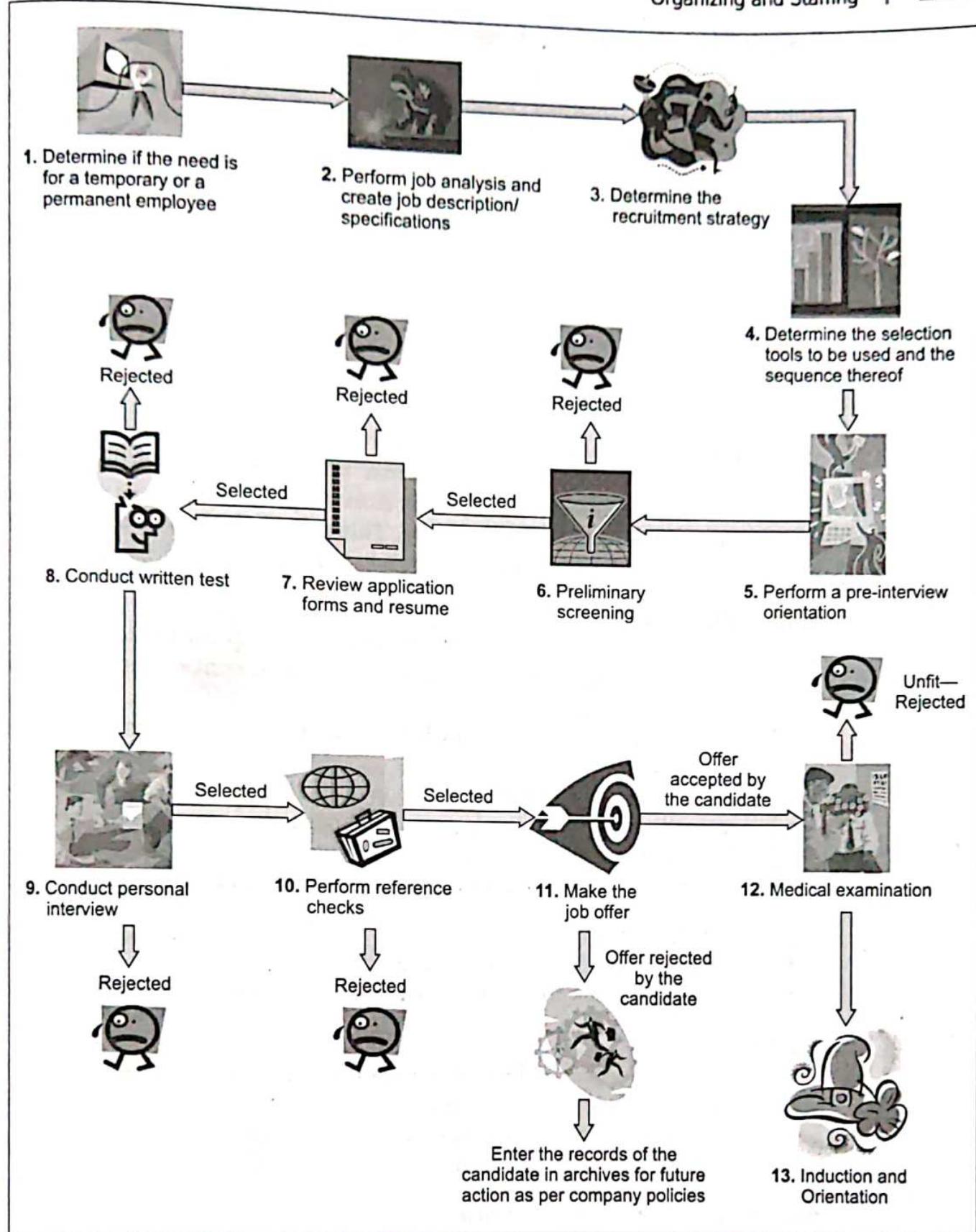


Figure 3.20 Process of Selection and Recruitment

### **Perform job analysis and create job description**

Successful employee selection is dependent on a clear understanding of a job's components. A job analysis is used to identify job tasks and responsibilities. This may be accomplished by collecting information about the position; by interviewing workers, supervisors, and other employers; and by observing current employees. The end result of job analysis is the job description and specifications. Let us take an example of a job description and specifications at the pharmaceutical major Novartis:

#### **General.**

- Job title: Program Director
- Department: Human Resources
- Reports to: Head of Learning

**Job purpose.** The Program Director designs and delivers learning programs that will enhance the skills and capabilities of Novartis' current and future leaders around the world. These programs are designed in close cooperation with and sponsored by members of the Executive Committee. This position reports to the Head of Learning and is based in Novartis worldwide headquarters in Basel, Switzerland.

#### **Major accountabilities.**

- Serves as an expert for the design, development, implementation, and ongoing updates of specific learning programs in close contact with the Head of Learning
- Is the first point of contact for the business partners and identifies the development needs
- Deals directly with all potential vendors in the design and development phase
- Is personally present in key learning programs, deals with internal senior faculty and senior business school, consultancy representatives
- Contributes to the overall learning strategy of the company

#### **Key performance indicators.**

- Feedback/Ratings on specific programs
- Favourable feedback from senior management partners

#### **Job dimensions.**

- Number of associates: Administrative Support depends on scope
- Financial responsibility: 5–10 Mio CHF
- Impact on the organization: Learning programs regarded as an essential part of people development, high impact on the job performance

#### **Background—education and experience.**

- University degree with a preference for MBA
- Strong business acumen
- Excellent people and communication skills
- 6–10 years experience in an internationally operating company

### Determine the recruitment strategy

The next step involves reaching out to the intended audience with the information that a vacancy exists for a particular position in the company. The objective here is to have as many applicants as possible for the vacancy so that the employer gets ample choice to find the best candidate for the job. Ways to advertise the position include: company website, present employees, previous applicants, trade journals, newspapers, vocational schools, universities, and employment agencies.

Many times, people come looking for work when there is no vacancy existing in the organization at that point in time. It is a good idea to make them fill up a simple form (requiring bare minimum information) so that they may be contacted when there is a relevant opening. Such a database is very handy for expanding the applicant pool for a job vacancy in the due course.

### Determine the selection tools to be used and the sequence thereof

There are various tools to check the abilities, knowledge, and skills of the applicants. For example, preliminary screening (say by using group discussions), application forms/resumes, written tests, personal interviews, reference checks, letters of recommendations, medical check-up, etc. Some tools are better than the other in some respects. Therefore, it is best to use a combination of them in a predetermined sequence.

Factors reflecting worker motivation, such as punctuality and attendance, may be elicited within the interview, but contacting previous employers may give more reliable information. If possible, try to verify evidence of specific skills, knowledge, and abilities at more than one point in the selection process (Billikopf, 2003). It is useful to identify specific tools which would be utilized for measuring the specific skills, knowledge or ability by using a table (see Table 3.3).

**Table 3.3 Identifying Selection Tools to Measure Skills/Knowledge/Abilities**

Skills/Knowledge/Abilities	Prelim. Screening	Appln. Form and Resume	Written Test	Personal Interview	Reference Checks
Educational qualifications		O			X
Subject knowledge			X	O	
Oral communication skills	O			X	
Written communication skills		O	X		
Leadership skills	O				X
Team spirit	O				X
Analytical ability			X		
Computer skills		O		X	
Dressing sense and physical appearance	O			X	

X - Principal method for measuring skill

O - Secondary method

The questions and situations to be used in the various methods deployed in the selection process need to be finalized beforehand keeping in view the various attributes to be gauged in the applicant. Some of the tools like the preliminary screening and application forms may be used to eliminate a proportion of the applicants when the number of applicants is very large. The sequence of the hurdles (in the form of selection tools) is generally kept such that the more expensive and time-consuming selection tools are used later in the selection process.

Inviting candidates to participate can include a description of the steps in the process, their sequence, and any required applicant preparation. The sequence of hurdles may be programmed to minimize travel and expense for both applicants and employer. A preliminary telephone interview with geographically distant applicants may eliminate unnecessary travel. Written tests can sometimes be mailed when they can be administered to applicants by a trusted, qualified third party (Billikopf, 2003).

#### **Perform a pre-interview orientation**

A pre-interview orientation is very helpful for the potential candidates. This orientation should brief them of the company profile, its activities, and future outlook. It allows the candidates to clarify any doubts about the job and the company by asking questions. It also helps in arousing the interest of the potential candidates to apply for the job in the company.

#### **Preliminary screening**

When the number of applicants for a job is very large, preliminary screening can be performed to eliminate less worthy candidates. Group discussions have been found useful for screening candidates for managerial positions. The communication skills, listening skills, team skills, and leadership acumen of the candidates are tested through group discussions. Some organizations prefer to conduct objective-type tests to screen out candidates.

#### **Review application forms and resumes**

Well-drafted application forms aid in capturing the academic and employment history of candidates. Similarly, resumes and curriculum vitae (CV) are helpful in this regard. The advantage of a standard application form vis-à-vis resume is that it facilitates easy comparison of the profile of two or more candidates on various parameters—gaps in employment, too short stints with organizations in the past, etc.—evident in the application form provide opportunity to the selection committee to seek clarifications later during the personal interview stage.

#### **Conduct written test**

Written tests constitute the next step in the selection process. There are various types of tests to measure knowledge, ability, skills, aptitude, attitude, honesty,

and personality. These are: power tests (to gauge the knowledge and analytical abilities), speed tests (to measure the ability to perform repetitive tasks in a set time frame), open-book-open-web exams (in which the candidates are allowed access to study material and the Internet), etc.

The formats of the tests can also be varied, e.g. multiple-choice, short-answer, fill-in-the-blank, and long-answer or essay questions. Naturally, essay questions are relatively time-consuming during evaluations compared to the objective-type tests (multiple choice), however they provide better insights about the candidate's written communication skills.

### **Conduct personal interview**

Candidates qualifying in the written test are subjected to the personal interview. Personal interview provides a perfect opportunity to the selection committee to check the personality, knowledge, verbal communication skills, etiquettes, dressing sense, and ability to respond to situations impromptu. Structured interviews require the questions and their sequence to be determined prior to the interview. A structured format is helpful in comparing the performance of two or more candidates.

### **Perform reference checks**

It is important to perform reference checks for the candidate, if found worthy during the personal interview stage. It provides various insights about the personality, academic and employment history of the candidate. The details of the people to be contacted for referencing are usually sought from the candidate in the application form/resume itself. Unless the candidate gives permission to do so, the current employers should not be contacted as it may unnecessarily create challenges of various sorts for the candidate. Reference checks can be performed through email or by phone calls.

### **Make the job offer**

If the reference checks result in good feedback about the candidate, an offer letter is sent to the candidate. Otherwise, it is customary to send a formal rejection letter. It is not uncommon that a few candidates do not accept the final offer of employment made by an organization. If no response is obtained from the candidate or a negative response about the offer is received, the records of the candidate are entered in archives for future action as per company policies. The policies of some organizations prohibit such an applicant from applying again for a job, while other organizations have a lenient and open policy whereby the candidate gets an opportunity to apply again in future.

The offer letter should include a joining date after consultation with the candidate. Normally, there is a notice period varying from 1 month to 3 months, which has to be given by the candidate to his current employer before exiting. If the selected candidate requires relocation to a new place, some time period

for transiting and settling down should be allowed. The relocation expenses are normally borne by the employer and all the modalities in this regard should be mentioned in the offer letter.

### **Medical examination**

A post-offer pre-employment medical examination (of the candidate and dependent family members) is a must especially when the company has to cover the candidate and his dependent family members by medical insurance. The cost of such a medical examination is borne by the employer.

### **Induction and orientation**

The new employees are most receptive to change in their career time, when they are joining a new employment. Therefore, formal induction and orientation of the employees help them in understanding the various facets of the organization. Unwritten rules, traditions or informal perks should be discussed with employees as part of the orientation period.

The first day in office is always special for everybody. Therefore, proper arrangements have to be made before the joining date of the employee. This includes suitable workstation/room, stationary, computer hardware/software, and a welcome gathering (as per the traditions of the organization).

### **Points to Ponder**

- Providing challenging and value-adding assignments to the existing talent in the organization helps in keeping them motivated and interested, while ensuring that the human resources are optimally utilized for the most value-adding activities for the organization.
- A proper matchmaking is required to ensure that the person being recruited for a particular position has the necessary skills, knowledge, and aptitude to perform the job.

### **SUMMARY**

- The dynamic business environment today has forced organizations to rethink the ways in which they earlier organized themselves in the conventional classical structures. More and more organizations are exploring to adapt to matrix, teams, network, and boundaryless structures.
- The traditional principles of division of labour, unity of command, span of control are increasingly being challenged by organizations, which are trying to reinvent themselves in the light of unforeseen global competition and phenomenal customer focus. The recent economic turmoil in the USA has pushed organizations to address

yet again the issue of centralization and decentralization.

- Staffing has been the most crucial activity in an organization, as attracting, retaining and nurturing talent in today's knowledge economy is quite challenging. In today's

times, when poaching of employees by competitors is more of a norm than exception, organizations need to develop ethos which can become a cornerstone for growing talent and providing exemplary career development.

## KEYWORDS

**Authority** refers to the rights inherent in a managerial position to give orders and expect the orders to be obeyed.

**Committees** are groups of two or more persons formed for the purpose of coordinating, advising, or decision-making.

**Concurrent engineering** is the product design approach in which the design team includes personnel from various departments.

**Decentralization** refers to the extent to which the upper management delegates authority downward to divisions, branches, or lower-level organizational units.

**Delegation** is the process by which managers allocate authority downward to the people who report to them.

**Empowerment** allows the people, due to the authority vested in them, to contribute ideas and perform their jobs in the best possible ways.

**Management by exception** is an approach by which the higher management devotes its time to investigating only those situations in which actual results differ significantly from planned results and leaves the routine decisions to lower level managers.

**Network structures** are relatively a new phenomenon whereby organizations have started making alliances and collaborations with their vendors, which extend beyond the conventional supplier-manufacturer relationships.

**Organizing** is the function of management which involves arranging human and other resources for the achievement of goals.

**Organization** is a group of individuals with a common goal, bound together by a set of authority-responsibility relationships.

**Recruitment** is a set of activities, viz. advertising, establishing preliminary contacts, and performing initial screening to create a qualified pool of job applicants for an organization.

**Selection** involves choosing from a pool of applicants (created by the recruitment process) the person(s) who offer the greatest performance potential

**Staffing** is the process of recruiting, retaining, developing, and nurturing the workforce.

**Span of control** refers to the number of employees that report to a manager.

## REVIEW QUESTIONS

1. Define organizing and organization.
2. Explain the nature and purpose of organization.
3. What is meant by division of labour?
4. What is delegation of authority and the scalar principle?
5. What is unity of command and why is it important?

6. Define departmentation and enumerate its various types.
7. Explain functional departmentation by taking a suitable example.
8. What is product departmentation? Give a major advantage and a major disadvantage of product departmentation.
9. Explain geographical departmentation by taking a suitable example of an Indian organization.
10. What is meant by customer departmentation? Explain it with an example of an Indian organization.
11. Explain process or equipment departmentation.
12. How does project/matrix organization violate the principle of unity of command?
13. Explain the contemporary organization structures—team, network, and boundary-less.
14. What are committees? Explain their advantages and disadvantages.
15. What is decentralization? Explain its advantages and disadvantages.
16. How does the span of control impact the organizational structure? What is an ideal span of control?
17. What are the various reasons that put pressure upon organizations to overlook the recommended range of the span of control?
18. What is management by exception? How is it similar/different from management by objectives?
19. What is staffing? Highlight its nature and importance.
20. Make a schematic diagram to display various steps in the selection and recruitment process.
21. Explain the job description/specifications by taking a suitable example.
22. How are the selection tools to measure skills/knowledge/abilities identified?
23. Explain the various points to be taken care of while performing the steps of creating job offer letter, medical examination, and induction/orientation.
24. How are formal and informal organizations different from each other? Can both these co-exist at the same time?
25. Define recruitment. How is it different from selection?

## REFERENCES

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- Bechet T. P. and Walker J. W. (1993), "Preview: Aligning Staffing with Business Strategy," *Human Resource Planning*, Vol. 16 Issue 2, pp.1-16
- Billikopf G. (2003), "Practical Steps to Employee Selection," *Labour Management in Agriculture: Cultivating Personnel Productivity*, University of California, (Available online: [www.cnr.berkeley.edu](http://www.cnr.berkeley.edu) – downloaded on 29 Dec. 2008)
- Cornford F. (1959), *The Republic of Plato*, Oxford University Press, New York, pp. 165-167
- Dale E. (1955), "Centralization Versus Decentralization," *Advanced Management*, June, pp. 11-16
- Drucker P. F. (1954), *The Practice of Management*, Harper & Brothers Publishers, New York
- Fayol H. (1916), *Industrial and General Administration*, Translated by J. A. Coubrough for International Management Institute (Originally published in Bulletin de la societe de l'industrie minerale, No. 3)

- Hage J. (1980), *Theories of Organizations*, Wiley, New York
- Hage J. and Aiken M. (1970), *Social Change in Complex Organizations*, Random House, New York
- Hellriegel D., Slocum J. W. and Woodman R. W. (1992), *Organizational Behavior*, 6th ed., West Publishing Company, St. Paul, MN
- Infosys (2008), "Infosys Annual Report 2007-08," Available online: [www.infosys.com](http://www.infosys.com) - downloaded on 22 Dec. 2008)
- Jha A.K. (2007), "Project Management in NTPC," Seminar on Project Management in Power Sector, ASSOCHAM, Hotel Le Meridian, New Delhi, November 30, Available online: [www.assocham.org](http://www.assocham.org) - downloaded on 22 Dec. 2008)
- Megginson L. C., Mosley D. C. and Pietri P. H. Jr (1986), *Management: Concepts and Applications*, 2nd ed., Harper & Row, New York
- Robbins S. P. (1994), *Management*, 4th ed. Prentice Hall, Englewood Cliffs, NJ
- Saratoga Institute (2001), *The Saratoga Institute Workforce Diagnostic System Benchmarking Reports 2001*, as cited in Davison B. (2003), "Management Span of Control: How Wide is too Wide?" *Journal of Business Strategy*, Vol. 24 No. 4, pp. 22-29
- Steers R.M. (1977), *Organizational Effectiveness: A Behavioral View*, Goodyear, Santa Monica, CA
- Tata Tubes (2008), "TBEM 2008," Available online: [www.tatatubes.com](http://www.tatatubes.com) - downloaded on 22 Dec. 2008)
- SBI (2008), "Organizational Chart," Available online: [www.sbi.co.in](http://www.sbi.co.in) - downloaded on 22 Dec. 2008)
- Schermerhorn J. R. Jr. (2005), *Management*, 8th ed., John Wiley & Sons, USA
- Urwick L. F. (1956), "The Manager's Span of Control," *Harvard Business Review*, May - June, pp. 39-47