MBA-Distance Education (Second Year)
Semester-IV
Lesson No. 1

MCS (416)
MANAGEMENT CONTROL SYSTEMS

AUTHOR: Dr. A.K. VASHISHT

INTRODUCTION TO MANAGEMENT CONTROL SYSTEMS

STRUCTURE

1.1 OBJECTIVES

The objectives of this lesson are;

- Explain the concept of management control systems
- Discuss the boundaries of management control systems
- Examine the Characteristics of management control systems
- Explain the Structural Foundations of management Control Systems
- Introduce the Techniques of management control systems

1.2 INTRODUCTION

Given the complexity of modem organizations and the volatility of the business environment, it is essential to have a control system that ensures that an organization remains focused on its goals. Such a system requires the involvement of all the functions of management. In other words, a management control system is inter-disciplinary in nature. Management must design and implement control systems that are required for effective managerial performance. A well designed and implemented control system helps managers take effective and timely decisions. The purpose of a management control system is to help the management of an organization coordinate and steer activities towards the achievement of the firm's objectives.

1.3 MANAGEMENT CONTROL SYSTEMS DEFINED

The term 'management control' was given its name by Robert N. Anthony (Otley, 1994). According to him **Management Control Systems (MCS)** is a system set up in an organization to gather and use information to evaluate the performance of different organizational resources like human, physical, and financial and also the organization as a whole considering the organizational strategies. MCS is set up to influence the behavior of organizational resources to implement organizational strategies It might be formal or informal. Robert N. Anthony (2007) defines Management Control as the process by which managers influence other members of the organization to implement the organization's strategies. Anthony & Young (1999) showed management control system as a black box. The term black box is used to describe an operation whose exact nature cannot be observed. MCS involves the behavior of managers and these behaviors cannot be expressed by equations. Anthony & Young (1999) showed that management accounting has three major subdivisions: full cost accounting, differential accounting and management control or responsibility accounting. Management control covers the whole organization, where technical control relates to subunits, or activities of subunits. Psychological considerations are dominant in management control systems, while logical rules apply to technical control systems. According to Anthony, a technical control system is analogous to a thermostat, while a management control system is highly dependent on the human behavior. Technical control can be programmed based on a set of objective rules. Management control requires subjective judgment. Therefore, failing to make the distinction between management control and technical control can create many problems within an organization.

Homgren et al. (2005) consider MCS as a system for motivating employees for better performance. They define management control system as an integrated technique for collecting and using information to motivate employee behavior and to evaluate performance.

Maciariello et al. (1994) consider management control system is concerned with coordination, resource allocation, motivation, and performance measurement. The practice of management control and the design of management control systems draw upon a number of academic disciplines. Management control involves extensive measurement and it is therefore related to and requires contributions from accounting especially management accounting. Second, it involves resource allocation decisions and is therefore related to and requires contribution from economics especially managerial economics. Third, it involves communication, and motivation which means it is related to and must draw contributions from social psychology especially organizational behavior

1.4 BOUNDARIES OF MANAGEMENT CONTROL

It is imperative to distinguish management control from other planning and control systems, namely strategy formulation, operational control and financial control. Management control lies between strategy formulation and operational control. Strategy formulation focuses on long run, operational control on short term operating activities and management control lies in between. Strategy formulation is concerns with the process of deciding the organization's strategies while management control involves the process of implementing such strategies. Operational control focuses its attention on specific tasks which are performed by organizational units, while management control takes care of functioning of organizational units. Management control is concerned with all activities whereas financial control deals activities having financial implications only.

1.5. CHARACTERISTICS OF MANAGEMENT CONTROL SYSTEMS

Management control is a system involving all segments of an organization. It aims at improving organizational effectiveness. An effective management control system must possess the following characteristics.

1. Strategic Plan and its Communication

There should be well delineated strategic plan and it should be communicated to all seniors and subordinates who are responsible for their execution.

2. Profit Plan and Budget

Profits plans and budgets should be prepared and used for controlling performance of different departments and divisions.

3. Motivation of Subordinates

It is necessary to motivate the employees to work efficiently and willingly. A proper incentive system should be formulated for this purpose.

4. Effective management Information System

It is imperative to design an effective management information system in the organization to generate reliable and timely information for making reasoned decisions.

1.6 STRUCTURAL FOUNDATIONS OF MANAGEMENT CONTROL SYSTEMS

An attempt should be made to identify the main features of various subunits in an organization. A firm is divided into simpler, more homogeneous subunits or departments. Each department is quite different from the other and these differences are extremely important from the point of view of planning and control. In describing each subunit of the organization from the viewpoint of designing appropriate planning and control mechanisms, the most important attribute of each subunit or department is whether its outputs can be quantified and measured. The second major attribute of various types of departments is whether the processes they use are well-defined and understood.

From these two considerations, we can classify departments into four categories.

Measurable outputs (Most Manufacturing departments)	Type I
Focus on output not measurable (Some staff departments such as legal, some marketing departments)	Type II

In the case of Type I departments, the process is known and the output is measurable. They can be managed easily. In Type-II departments the process is unknown but outputs can be measured. They require control mechanisms that focus on the extent to which desired outputs are achieved. Type III departments are difficult to manage. In these departments one has to focus on whether accepted procedures and practices are being followed. Type IV departments have both processes and outputs which are not clear. Here the focus is to control the quantity and quality of inputs or resources provided to these departments.

1.7 TECHNIQUES OF MANAGEMENT CONTROL SYSTEMS

Management control systems use many techniques such as

- Balanced scorecard
- TQM
- Kaizen (Continuous Improvement)
- Activity-based costing
- Target costing
- Benchmarking and Bench trending
- JIT

- Budgeting
- Capital budgeting
- Program management techniques, etc.

Balanced scorecard

The **balanced scorecard** (BSC) is a strategic performance management tool for measuring whether the smaller-scale operational activities of a company are aligned with its larger-scale objectives in terms of vision and strategy.

By focusing not only on financial outcomes but also on the operational, marketing, and developmental inputs to these, the Balanced Scorecard helps provide a more comprehensive view of a business, which in turn helps organizations act in their best long-term interests. This tool is also being used to address business response to climate change and greenhouse gas emissions.

Organizations were encouraged to measure, in addition to financial outputs, those factors which influenced the financial outputs. For example, process performance, market share / penetration, long term learning and skills development, and so on.

The underlying rationale is that organizations cannot *directly* influence financial outcomes, as these are "lag* measures, and that the use of financial measures alone to inform the strategic control of the firm is unwise. Organizations should instead also measure those areas where direct management intervention is possible. In so doing, the early versions of the Balanced Scorecard helped organizations achieve a degree of "balance" in selection of performance measures. In practice, early Scorecards achieved this balance by encouraging managers to select measures from three additional categories or perspectives: "Customer", "Internal Business Processes" and "Learning and Growth."

Total Quality Management

Total quality management is the organization-wide management of quality. Management consists of planning, organizing, directing, control, and assurance. Total quality is called *total* because it consists of two qualities: *quality* of return to satisfy the needs of tlje shareholders, or *quality* of products.

International Organization for Standardization (ISO): defined Total quality management as follows;

"TQM is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society." ISO 8402:1994

In Japan, TQM comprises four process steps, namely:

1. *Kaizen* - Focuses on "Continuous Process Improvement", to make processes *visible, repeat- able* and *measurable.*
2. *Atarimae Hinshitsu* - The idea that "things will work as they are supposed to" (for example, a pen will write).
3. *Kansei-* Examining the way the user applies the product leads to improvement in the product itself.

4. *Miryokuteki Hinsbitsu* - The idea that “things should have an aesthetic quality” (for example, a pen will write in a way that is pleasing to the writer

TQM requires that the company maintain this quality standard in all aspects of its business. This requires ensuring that things are done right the first time and that defects and waste are eliminated from operations.

Activity-based costing (ABC)

Activity-based costing (ABC) is concerned with logical treatments of overheads. It is a costing model that identifies activities in an organization and assigns the cost of each activity resource to all products and services according to the actual consumption by each. In this way an organization can establish the true cost of its individual products and services for the purposes of identifying and eliminating those which are unprofitable and lowering the prices of those which are overpriced.

In a business organization, the ABC methodology assigns an organization’s resource costs through activities to the products and services provided to its customers. It is generally used as a tool for understanding product and customer cost and profitability. As such, ABC has predominantly been used to support strategic decisions such as pricing, outsourcing and identification and measurement of process improvement initiatives.

instead of using broad arbitrary percentages to allocate costs, ABC seeks to identify cause and effect relationships to objectively assign costs. Once costs of the activities have been identified, the cost of each activity is attributed to each product to the extent that the product uses the activity. In this way ABC often identifies areas of high overhead costs per unit and so directs attention to finding ways to reduce the costs or to charge more for costly products.

Target Costing

Target costing involves setting a target cost by subtracting a desired profit margin from a competitive market price. It is a pricing method used by firms. It is defined as “a cost management tool for reducing the overall cost of a product over its entire life-cycle with the help of production, engineering, research and design”. A target cost is the maximum amount of cost that can be incurred, on a product and with it the firm can still earn the required profit margin from that product at a particular selling price.

. To compete effectively, organizations must continually redesign their products (or services) in order to shorten product life cycles. The planning, development and design stage of a product is therefore critical to an organization’s cost management process. Considering possible cost reduction at this stage of a product’s life cycle (rather than during the production process) is now one of the most important issues facing management accountants in industry. Japanese companies have developed target costing as a response to the problem of controlling and reducing costs over the product life cycle.

Benchmarking

The term benchmarking was first used by cobblers to measure one’s feet for shoes. They would place the foot on a “bench" and mark to make the pattern for the shoes. Benchmarking is most used to measure performance using a specific indicator It is the process of comparing the business processes and performance metrics including cost, cycle time, productivity, or quality to another that is widely considered to be an industry standard benchmark or best practice.

Benchmarking is a process used in management and particularly strategic management, in which organizations evaluate various aspects of their processes in relation to [{best practice companies' processes, usually within a peer group defined for the purposes of comparison. This then allows organizations to develop plans on how to make improvements or adapt specific best practices, usually with the aim of increasing some aspect of performance. Benchmarking may be a one-off event, but is often treated as a continuous process in which organizations continually seek to improve their practices.

Just-in-time (JIT)

Just-in-time (JIT) is an inventory strategy that strives to improve a business's return on investment by reducing in-process inventory and associated carrying costs. To meet JIT objectives, the process relies on signals (Kanban) between different points in the process, which tell production when to make the next part. Kanban are usually “tickets' but can be simple visual signals, such as the presence or absence of a part on a shelf. Implemented correctly, JIT can dramatically improve a manufacturing organization's return on investment, quality, and efficiency.

The philosophy of JIT is simple: inventory is waste. JIT inventory systems expose hidden causes of inventory keeping, and are therefore not a simple solution for a company to adopt. The company must follow an array of new methods to manage the consequences of the change. The ideas in this way of working come from many different disciplines including statistics, industrial engineering, production management, and behavioral science. The JIT inventory philosophy defines how inventory is viewed and how it relates to management.

In short, the just-in-time inventory system focus is having *the right material, at the right time, at the right place, and in the exact amount*, without the safety net of inventory. The JIT system has broad implications for implementers.

Budgeting

Budget generally refers to a list of all planned expenses and revenues. It is a plan for saving and spending. The purpose of budgeting is to plan activities in a systematic manner and to provide requisite resources to execute these activities.

In summary, the purpose of budgeting is to:

1. Provide a forecast of revenues and expenditures i.e. construct a model of how our business might perform financially speaking if certain strategies, events and plans are carried out.
2. Enable the actual financial operation of the business to be measured against the forecast.

Capital budgeting

Capital budgeting (or investment appraisal) is the planning process used to determine whether a firm's long-term investments such as new machinery, replacement machinery, new plants, new products, and research development projects are worth pursuing. It is budget for major capital, or investment, expenditures.

Many formal methods are used in capital budgeting, including the techniques such as

- Accounting rate of return
- Payback period

- Net present value
- Profitability index
- Internal rate of return

Self- Check Questions (MCQs)

1. What is the primary focus of the Balanced scorecard?

a) Financial outcomes only b) Operations activities only

c) financial and operational outcomes d) marketing strategies only

2. According to the International organisation for Standardization (ISO) what is the central focus of TQM?

a) profit maximization b) customer satisfaction c) product quantity d) employee satisfaction

3. what is the primary goal of ABC in a business organisation?

a) maximizing profit margins b) lowering overall costs c) charging more for all activities

d) outsourcing all activities

1.8 KEY WORDS

Activity-based costing (ABC) is concerned with logical treatments of overheads. It is a costing model that identifies activities in an organization and assigns the cost of each activity resource to all products and services according to the actual consumption by each.

Balanced Scorecard is a strategic performance management tool for measuring whether the smaller-scale operational activities of a company are aligned with its larger-scale objectives in terms of vision and strategy.

Benchmarking is a process used in management and particularly strategic management, in which organizations evaluate various aspects of their processes in relation to [(best practice companies' processes, usually within a peer group defined for the purposes of comparison

Budgeting generally refers to a listing of all planned expenses and revenues under various heads. It is a plan for saving and spending.

Capital budgeting (or investment appraisal) is the planning process used to determine whether a firm's long-term investments such as new machinery, replacement machinery, new plants, new products, and research development projects are worth pursuing.

Just-in-time (JIT) is an inventory strategy that strives to improve a business's return on investment by reducing in-process inventory and associated carrying costs.

Management Control Systems (MCS) is a system set up in an organization to gather and use information to evaluate the performance of different organizational resources like human, physical, and financial and also the organization as a whole considering the organizational strategies.

Target Costing is a management tool for reducing the overall cost of a product over its entire life-cycle with the help of production, engineering, research and design.

Total Quality Management is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society.

1.9 SUMMARY

Management Control Systems (MCS) is a system set up in an organization to gather and use information to evaluate the performance of different organizational resources like human, physical, and financial and also the organization as a whole considering the organizational strategies. Management control lies between strategy formulation and operational control. Strategy formulation focuses on long run, operational control on short term operating activities and management control lies in between. Strategy formulation is concerns with the process of deciding the organization's strategies while management control involves the process of implementing such strategies.

Operational control focuses its attention on specific tasks which are performed by organizational units, while management control takes care of functioning of organizational units. Management control is concerned with all activities whereas financial control deals activities having financial implications only. Management control is a system involving all segments of an organization. It aims at improving organizational effectiveness. Management control systems use many techniques such as; Balanced scorecard, TQM, Kaizen (Continuous Improvement), Activity-based costing, Target costing, Benchmarking and Bench trending, JIT, Budgeting, Capital and Program management techniques etc.

1.10 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**
  1. What is management control/ examine its importance
  2. Discuss the boundaries of management control
  3. What are the factors which should be considered while designing management control.

SHORT QUESTION ANSWERS

1. Write a short note on Just in Time technique.
2. What do you understand by capital budgeting? Explain any two techniques.

1.11 SUGGESTED READINGS

1. Anthony, R. and Govindarajan, V., 2007. Management Control Systems, Chicago, Mc-Graw-Hill
2. Anthony, R. and Young, D., 1999. Management control in nonprofit organizations, Boston, McGraw-Hill.
3. Chenhall, R., 2003. Management control system design within its organizational context: Findings from contingency-based research and directions for the future, Accounting, Organizations and Society, 28(2-3), 127-168.
4. Horngren, C., Sundem, G. and Stratton, W., 2005. Introduction to Management Accounting, New Jersey, Pearson.
5. Maciariello, J. and Kirby, C., 1994. Management Control Systems - Using Adaptive Systems to Attain Control, New Jersey, Prentice Hall.
6. Mockler, The Management Control process
7. Otley, D., 1994. Management control in contemporary organizations: towards a wider framework, Management Accounting Research, 5, 289-299.
8. IBM, Management and Computer Information and Control Systems

1.12 SELF- CHECK QUESTIONS (ANSWER KEY)

1.7 1) c 2) b 3) b

LESSON NO. 2 AUTHOR: Dr. PUJA BHARDWAJ

DESIGNING THE CONTROL PROCESS AND MANAGERIAL CONTROL'S

STRUCTURE

2.0 OBJECTIVES

After studying this chapter, you should be able to:

1. Explain what transfer pricing means.
2. Understand various methods of transfer pricing.
3. Explain all related aspects of transfer pricing.

2.1 INTRODUCTION

The process of management begins with planning that facilitates determination of organizational objectives. This is followed by organizing that ensures availability of resources needed to attain the pre-determined objectives. Of course, having goals and resources is not enough to attain success. Every organization requires focused leadership that not only directs resources effectively but also motivates the most important resource namely manpower. In fact, these functions set the ball rolling. Success is still a distant dream as the firm is bound to face a number of problems in the course of execution of plans. This is where the control function becomes important.

2.2 CONTROL

Control is a managerial function that indicates deviation from plans and provides corrective actions to prevent future deviations. Control is essentially a managerial function that ensures a consistent, integrated and articulated plan of action. It compels management to bring about coordination between events so that they conform to the plans, it would not be wrong to say that planning without effective control is meaningless. In fact, control is such a critical function that any control problems can lead to huge losses and even organizational failure in some cases.

Control is a managerial function that is aimed at guiding actual performance towards expected performance. It helps in maintaining balance in organization activities by facilitating corrective action in case any deviation is noticed from the planned course of action.

Different authorities define control in different ways. Some of the prominent definitions are:

a. Koontz and O'Donnel: controlling is the measurement and correction of the performance of activities in order to ensure that the planned objectives are accomplished.

b. Henri Fayol: control consists of verifying whether everything occurs in conformity with the plans adopted, with the objective of pinpointing weaknesses and errors so that errors are rectified and their recurrence is avoided.

c. George R. Terry: controlling is determining what is being accomplished, that is evaluating the performance and if necessary, applying corrective measures so that the performance takes place according to plans.

2.2.1 Elements of control

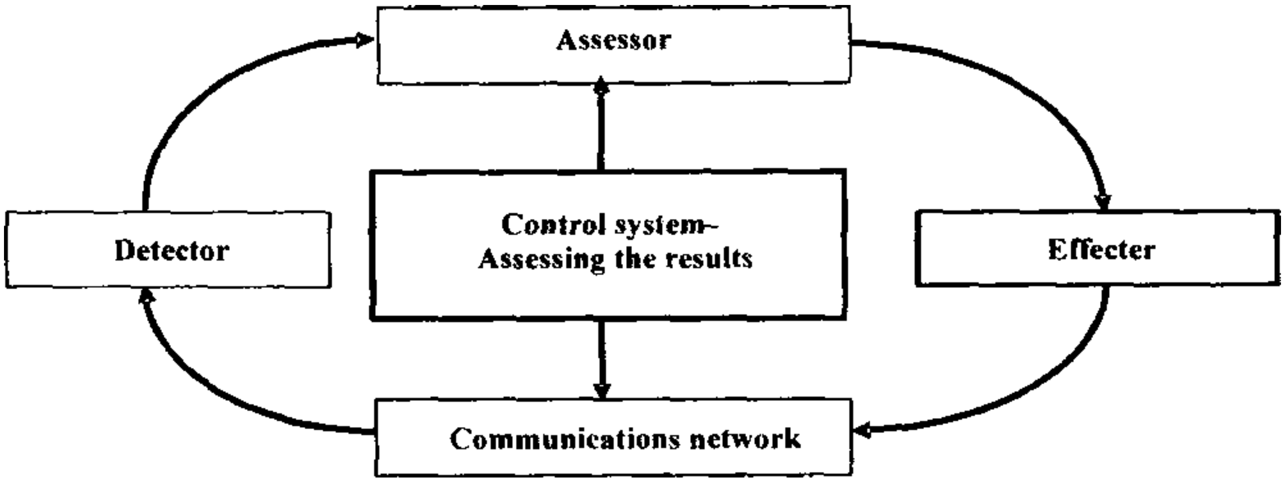
Every control system has at least four elements. These are:

a. Detector: This is a device that measures what is happening in the process that is being controlled. It aims at observing the process minutely.

b. An assessor: This is a device that involves assessing what is actually happening. It aims at comparing the actual result with the 'standard/expected' result i.e. what has happened with what should happen.

c. An effecter: This is a device that analyses the results and prescribes the mechanism to alter execution in case deviations are noticed. It Is basically a feedback mechanism that aims at setting things right.

Communication network: This is a device that ensures flow of information between the remaining three elements. It facilitates timely flow of results, deviations and corrective actions. The more effective the communications network the more effective control.



2.1.3 Nature of control

Managerial control possesses the following characteristics:

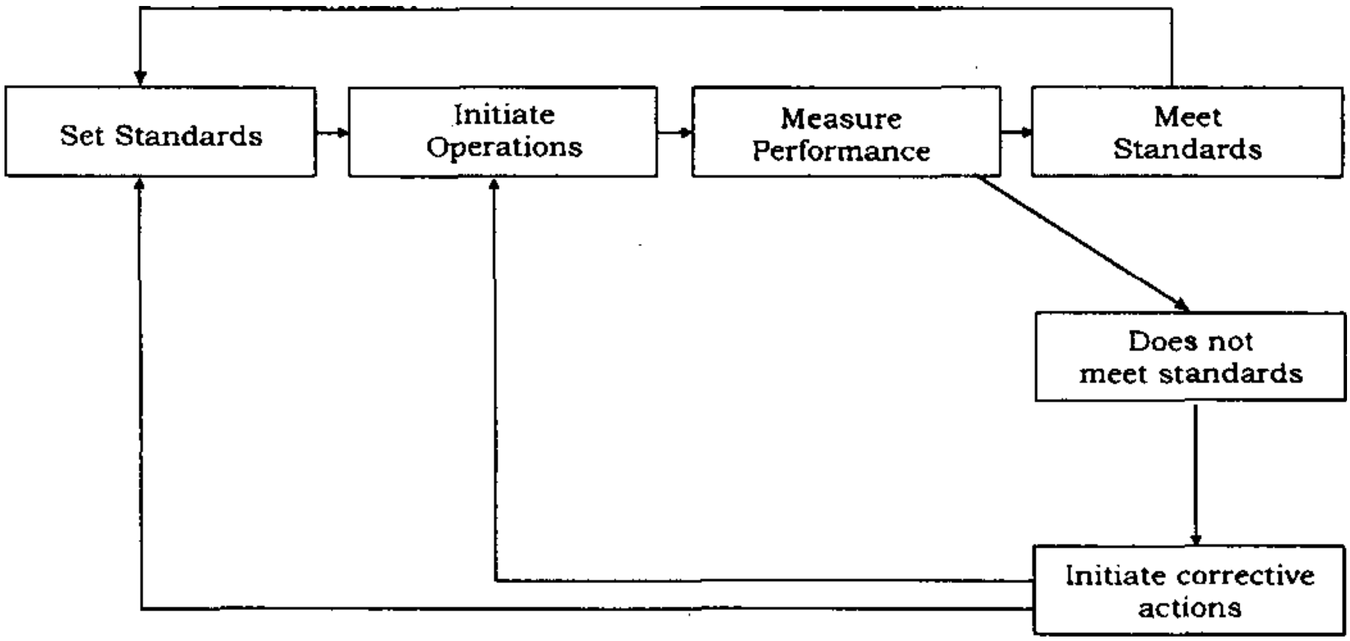
a. Managerial function: control is a follow-up process that succeeds all other managerial functions. While all other managerial functions help in evolving organizational goals, control ensures that the organization reaches the predetermined goals.

b. Continuous process: control is a continuous process that involves continuous review of performance and initiating corrective actions, if any deviations are noticed. The corrective action initiated to rectify deviations often result in changes in other managerial functions. The managers should be in a position to incorporate these changes as and when the need is felt.

c. Forward looking: controlling is always related to the future for it is the future that organizations try to control. But the fact remains that organizations draw from past experiences to prevent future deviations. Control is needed for it helps in minimizing wastages and losses by preventing deviations from standards.

d. Closely related to planning: planning is aimed at evolving consistent programmes while control aims at directing activities that are in conformity with the plans. As such, planning and control sire inter dependent and closely related to each other. The inter dependency is so high that control is based on plans and plans are based on control processes. This simply means that while control measures performance based on the goals laid down in the plans; future plans may be revised based on the deficiencies revealed by the control process.

2.2.3 Steps in control process



Prof. William Newman has identified the following essential steps in the control process. These include:

a. Setting standards: Every organization evolves plans and objectives that guide its activities. The objectives are classified into departments, sections and individuals. In order to attain these objectives, the organization evolves production targets, time standards, sales quotas, budgets etc. these standards provide the much-needed benchmark and help in comparing the same with actual performance. But before the budgeted and actual performances are compared the organization should ensure:

a. That the established standards are clear and meaningful

b. That specific individual is made responsible for attaining the objectives.

c. That strategic control points are evolved so that the responsible executives can concentrate on these points to attain how effectively the established standards are being adhered to.

b. Checking and reporting performance: Under this step the actual performance is compared with the established standards. The results of the analysis are then submitted to higher ups for appropriate corrections/decisions.

c. Introducing corrective action: As soon as the variations between standards and actual performance are reported, the concerned executive should take corrective steps. The corrective measures include:

a. Adjustment to external situation
b. Review of direction
c. Modifying the plans where necessary.

2.2.4 Significance of control

Control is a regulatory function. It aims at measuring the progress in plans and providing direction to management thinking. While control is an indispensable function of management, what disturbs one is the fact that most managers think that control is an external function i.e. it has to originate from the higher level. But the great management thinker Peter Drucker advocates "self-control". It refers to a system of control where every level ensures that the planned course is pursued and all the planned targets are achieved with ease. Thus, imposition of control from outside does not always produce a conducive environment for work.

In light of the above argument, one can list the significance of control as follows:

a. Control has a positive impact on employee performance as it makes employees more cautious while performing their duties.
b. Control provides the basis for future action and reduces the chances of mistakes being repeated by suggesting preventive steps.
c. Control facilitates decision-making. The process of control helps in initiating corrective measures.
d. Control facilitates decentralization of authority as the top executives get the feedback on a regular basis.
e. Control and planning go hand in hand. Control ensures that plans are being implemented in the real sense.
f. Control helps in bringing coordination among divisions by providing unity of direction.

2.2.5 Limitations of the control process

Control suffers from the following limitations

a. Control is not always effective as external factors such as government policy, technological changes, changes in fashion etc. cannot be accurately predicted.
b. Control is very time consuming and costly activity.
c. Control proves ineffective when standards of performance cannot be expressed in quantitative terms. For example, human behavior and employee morale.
d. Subordinates may resist control as it reduces their freedom. It also becomes ineffective when it is not possible to make individuals responsible for performance.

2.3 MANAGEMENT CONTROL

Organizations are established to pursue and attain various objectives. Attainment of objectives requires resources that are often scarce. In order to succeed with scarce resources, it becomes necessary that organizations use these resources effectively and efficiently and avoid wastages. It is here that management control becomes necessary.

Concept of management control

Management control is all about ensuring that the necessary resources are mobilized and *are deployed effectively so that the planned objectives are met without much difficulty, It is all about the organization, methods and procedures adopted by management to provide reasonable assurance that available resource and assets are properly deployed and safeguarded against waste, mismanagement and frauds. For these appropriate systems and procedures are evolved and the related revenues and expenditures are properly recorded and accounted for, facilitating proper maintenance of accounts and preparation of reliable financial reports.

Management control covers the administrative, accounting and financial management areas. It is important to note that the process of management control should be carried out within the framework established by the organization for pursuing its goals and objectives.

2.3.1 Management control defined

Different authors have defined management control differently. But the focus remains on attainment of organizational objectives. Let us look at some of the important definitions:

a. Robert Anthony and Vinay Govindrajan: Management control is the process by which managers influence other members of the organization to implement the organization's strategy.

b. William Newman: Newman considers the domain of control system to be the control function of management. According to him - Control is one of the basic phases of managing, along with planning, organizing and leading. Control is an integral and essential art of the management process and all the managerial efforts of an organization.

c. Robert Anthony: management control is a total system that embraces all aspects of all the Arm's operations and assures that all operations are in balance.

In order to ascertain the effectiveness of management control, organizations use a tool known as Management Control Evaluation. It is a documented evaluation of a program or administrative component to determine whether adequate control techniques exist to achieve cost effectiveness.

2.3.2 Characteristics of management control

The basic characteristics of management control are:

a. Management control focuses on programs and responsibility centers

b. Management control relies on two types of information viz. planned data and actual data. While planned data covers programs, budgets, and standards, actual data provides information on what is actually happening in the organization.

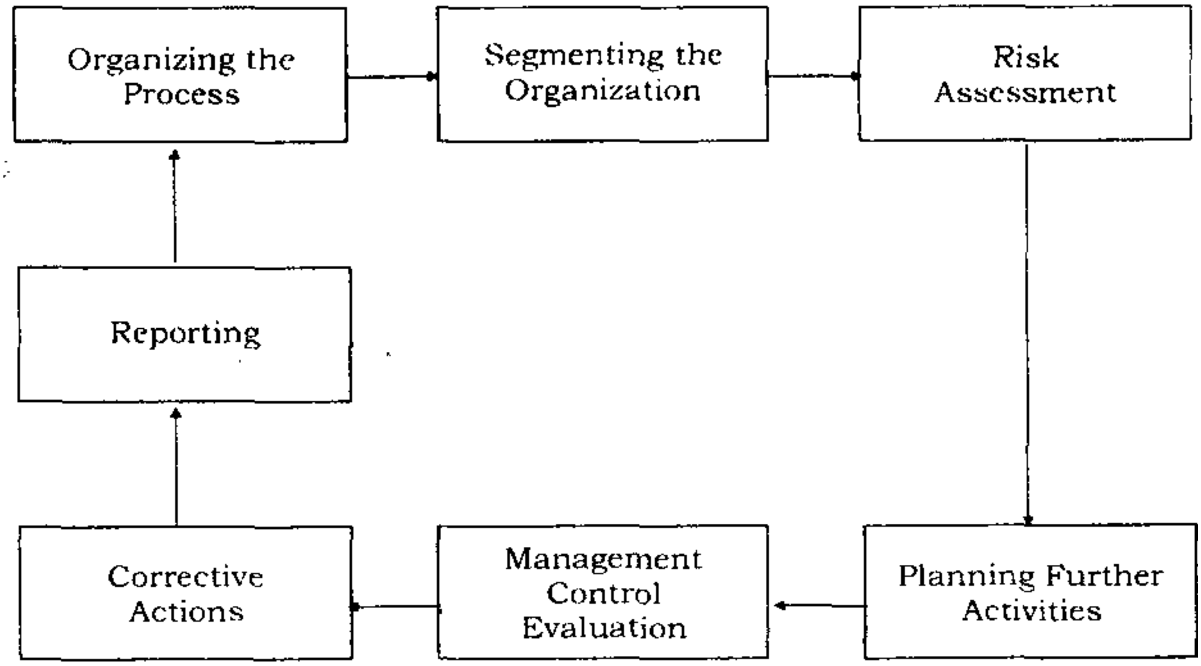
c. Management control is a system that includes all the aspects of the organization. It aims at assuring that all aspects are in balance and are operating in close coordination.

d. Management control is built around financial structure, as no activity is possible unless adequate financial resources are available. This does not mean that non-financial resources such as number of employees, rejections and spoilages etc. are not important. These are well integrated with the financial resources.

e. Management control follows a definite pattern and time schedule. The entire process is elaborately defined and set in policies and procedure manuals.

f. Management control should be coordinated and integrated to the other subsystems operating in the organization. This is the only way to ensure that the organization functions effectively and efficiently.

2.3.3 Process of management control



Management control cannot be designed or evaluated without *an* understanding of the demands of the roles being controlled. Greater the understanding greater is the chance of success. The U.S. Department of Transportation (Federal Highway Administration) recommends the following management control process:

(a) **Organizing the process:** This step includes all the actions required to manage the process including assignment of responsibilities for planning, directing and controlling the process. It also includes development of an information system to track the status of evaluations and corrective actions.

(b) **Segmenting the organization:** This step involves segmenting the organization into organizational units. Once this is done the programs and administrative functions in each unit are identified and integrated.

(c) **Risk assessment:** Once the administrative functions are identified, a risk assessment is conducted to determine which programs or functions are most susceptible to loss through waste, fraud or abuse. The risk assessments are conducted on a triennial cycle.

(d) **Planning further activities:** The functions that are to be subject to significant risk are identified and noted. The organization then develops plans and schedules for the performance of activities designed to strengthen management control systems. These include improving monitoring procedures, issuing or clarifying instructions, requesting an audit, identifying management priorities and resource constraints.

(e) **Management control evaluations:** The evaluation process is initiated to determine where new control may have to be created or existing controls need to be strengthened.

(f) **Corrective actions:** The organization analyses the recommendations resulting from risk assessment, control evaluations and other related activities. The results are then used for initiating timely and appropriate corrective actions.

(g) **Reporting:** The results of the risk assessment, evaluations and the corrective actions are put in the form of a report and forwarded for further action. The report should be prepared regularly giving details of the ongoing evaluations and planned corrective actions. The planned corrective actions naturally lead one towards organizing the process once again and this circular flow of the control process continues.

2.3.4 Factors affecting management control

Effective implementation of management control involves the following factors:

(a) Identify the key factors in the business operations. These factors need to be controlled in order to achieve the given targets or goals.

(b) The basis for establishing standards of performance such as budgets, standard cost, ratios etc. These variables form the basis of comparison with actual.

(c) Define the information required for measuring the performance. The data may relate to accounting information or operational information.

(d) Establishing a reporting system is essential to identify and evaluate performance and reporting the results to superiors.

(e) The process of measuring may lack objectivity and thus get biased. This is a common problem in social sciences.

(f) The traditional measurement system often conceals more than it highlights. The need here is of management control that focuses attention on crucial events and results.

(g) The control system should be able to monitor the external environment for it is this environment that affects the earning potential of the organization.

(h) Management control specialists should be able to understand and report on measurable and non-measurable variables, the past and the future and the internal and external environment. Failure to do this renders management control ineffective.

2.3.5 Principles of Management Control

In order to ascertain the effectiveness of management control, organization undertake the evaluation process. This process ensures attainment of cost effectiveness. The evaluation process analyzes:

The system of management controls

The process of in-house audits and other management review.

The analysis focuses on computer security financial systems. The entire evaluation aims at effective management control based on following principles

1. **Principle of Assurance of Objective:** All organizations exist for attainment of pre-determined objectives. These objectives are attained through team effort. This principle aims at assuring that controls contribute to the accomplishment of organizational objectives by detecting deviations and initiating corrective measures.
2. **Principle of Efficiency of Control:** This principle states that control is efficient if deviations are detected early and corrective action is attained with minimum negative consequences.
3. **Principle of Control Responsibility:** Control succeeds only when there is proper delegation

of authority resulting in effective responsibility and accountability. Managers responsible for the execution of plans should exercise control.

4. **Principle of Future Controls:** Effective control aims at detecting present and future deviations from plans. The control process is always forward-looking acting as sensors for anything, which is not according to a plan.
5. **Principle of Direct Control:** Control depends upon the quality of managers responsible for it. Managers should be groomed by delegating authority, giving responsibility and handling people under him.
6. **Principle of Reflection of Plans:** This principle says that control should be customized to suit the individual plans. Standard control process cannot be applied to all strategies.
7. **Principle of Organization Suitability:** Controls must be designed to reflect organization structure or hierarchy. Controls should be applicable to manager's authority area so that performance can be measured against the plans evolved by the managers.
8. **Principle of Individuality of Control:** Controls should be formulated to suit individual nature of managers.
9. **Principle of Standards:** Effective control requires objective, accurate and suitable standards to facilitate performance measurement. Standards not only facilitate precise measurement but also help in controlling events.
10. **Principle of Controlling Strategic Points:** Effective control system should give importance to strategic points, i.e. select certain key factors and determine whether the performance conforms to the plans or not. Detailing of every aspect will create confusion.
11. **Principle of Exception:** This principle suggests that taking corrective actions is required only in case of significant deviations. No action is needed if unless deviations beyond normal limits are noticed.
12. **Principle of Flexibility of Controls:** Controls should be flexible enough to incorporate changes in goals without any dislocation of activities.
13. **Principle of Review:** Controls should be review periodically in view of changes in goals of the company, business environment and overall economic scenario.
14. **Principle of Action:** The whole exercise of control is justified only when the actions are taken in case the abnormal deviations are reported.

- **Self- Check questions (True/ False)**

1. Planning without effective control is meaningful.
2. Control problems can lead to huge losses and organizational failure.
3. Greater understanding increases the chance of success in management control.
4. Management control can be designed or evaluated without an understanding of the demands of the roles being controlled.

2.4 SUMMARY

Control is a system which sensor deviation from plans and provides corrective actions to prevent future deviations. There are basically four elements of control namely; detector which measures what is being done in the process, assessor which compares the actual result with planned, effector which gives the feedback for deviations and communication network which ensures the proper flow of information regarding this system in the organization. Management control system is concerned with control of resources in the organization. It sees to whether all the sources are mobilized and utilized according to the plans or not.

2.5 GLOSSARY

- **Decentralization:** It is the process of dispersing decision-making from top management to lower management.
- **Detector:** This is a device that measures what is happening in the process that is being controlled. It sums at observing the -process minutely.
- **Assessor:** This is a device that involves assessing what is actually happening. It aims at comparing the actual result with the 'standard/expected[1] result i.e. what has happened with what should happen.
- **Effecter:** This is a device that analyses the results and prescribes the mechanism to alter execution in case deviations are noticed. It is basically a feedback mechanism.

2.6 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**

1. Define Control. Explain the elements of control.
2. Describe the process of management control system.

- **SHORT QUESTION ANSWERS**

1. Explain the factors affecting management control.
2. Write any three limitations of control.

2.7 SUGGESTED READINGS

- Anthony and Govindrajan, Management Control Systems, 10th Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- R.C. Shekhar Management Control Systems: Text and Cases, Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- Anil Agashe, Satish Inamdar and Jayant Oke, Management Control Systems, 1st Edition, Pune: Everest Publishing House.
- Colin Dury, Management Accounting for Business Decisions, 2nd Edition, London: Thomson Learning.
- Guidance notes on Transfer Pricing - ICAI Publication

2.8 SELF- CHECK QUESTIONS (ANSWER KEY)

2.3 1) False 2) True 3) True 4)False

Lesson No. 3 | **AUTHOR: MANJIT SINGH, Ph.D**

UNDERSTANDING STRATEGIES

STRUCTURE

3.0 OBJECTIVES

After studying this chapter, you should be able to understand the concept of strategy, classify the companies according to their strategy, and the various models for understanding different types of strategy.

3.1 CONCEPT OF STRATEGY

A strategy describes the general direction in which an organization plans to move to attain its goals. A firm develops its strategies by matching its core competencies with industry opportunities. The task of analyzing the organization's external and internal environment and then selecting an appropriate strategy is normally referred to as strategy formulation. According to Kenneth R. Andrews, "Strategy formulation is a process that senior executives use to evaluate a company's strengths and weaknesses in the light of the opportunities and threats present in the environment and then to decide on strategies that fit the company's core competencies with environmental opportunities". Strategies can generally be found at two levels - Strategies for the whole organization and strategies for the business units within the organization. Both of. These are explained in detail below:

Corporate Level Strategy:

The principal concern of a corporate strategy is identifying the business areas in which a company should participate in order to maximize its long-run profitability. So, the corporate strategy is concerned more with the question of where to compete than with how to compete in a particular industry. When choosing business areas to compete in, a company has several options. It can focus on just one business or it can diversify into a number of different business areas.

The primary issues at the corporate level are the definition of businesses in which the firm should participate and the deployment of resources among those businesses. Also, to succeed, corporate level strategies should "create value" and to create value a corporate level strategy should enable a company, or one or more of its business units, to perform one or more of the value creation functions at a lower cost, or perform one or more of the value creation functions in a way that allows for differentiation and a premium price.

Thus, a company's corporate strategy should help in the process of establishing a distinctive competency and competitive advantage at the business level. There is, therefore, a very important link between corporate - level strategy and competitive advantage at the business level.

3.2 CLASSIFICATION OF COMPANIES IN TERMS OF THEIR CORPORATE LEVEL STRATEGY

Single Industry Firms:

For many companies, corporate strategy entails concentrating on competing successfully within the confines of a single business (that is, focusing on a single industry or market). Examples of companies that currently pursue such a strategy include Mc Donald's with its focus on the fast-food restaurant business; Coca- Cola, with its focus on the soft drink business; and Big Bazaar with its focus on department store retailing. Coca Cola, at one time pursued diversification strategy (by owning Columbia Pictures and a Wine producing business). But later on, it found that diversification dissipated rather than creating value and it also realized that running an entertainment business was diverting valuable top management attention from its core soft drink operation. So, it divested its business, refocusing on a single operation. There are some clear advantages to concentrating on just one business area which are listed as follows:

One advantage is that the company can focus its total managerial, financial, technological, and physical resources and capabilities on competing successfully in a single area. This strategy can be important in fast growing industries, where demands on the company's resources and capabilities are likely to be substantial, but where the long-term profits that flow from establishing a competitive advantage are also likely to be very significant.

Another advantage of concentrating on a single business is that the company thereby "sticks to its knitting". What this means is that the company sticks to doing what it knows best, and does not make the mistake of diversifying into areas that it knows little about and where its existing resources and capabilities add little value. Companies undertaking such diversification are likely to discover after the event that they are involved in a business they do not understand and that their uninformed decision making may have a serious and perhaps detrimental effect.

Concentrating on one business area, however, also has disadvantages. Companies that concentrate on just one business may be missing out on opportunities to create value and make greater profits by leveraging their resources and capabilities to other activities.

Diversified Firms:

Another major option for a company when it is choosing business areas to compete in is diversification. There are two main types of diversification - Related diversification and unrelated diversification.

Related Diversification is diversification into a new business activity that is linked to a company's existing business activity, or activities, by commonality between one or more components of each activities value chain. Normally, these linkages are based on manufacturing, marketing or technological commonalities. These linkages are also known as Operating Synergies and consist of ability to share common resources and ability to share common core competencies. The diversification of Phillip Morris into the brewing industry with the acquisition of Miller Brewing is an example of related diversification because there are marketing commonalities between the brewing and tobacco business (both are consumer product businesses in which competitive success depends on brand - positioning skills). Another example of related diversification firm is Proctor and Gamble that has business units in diapers (Pampers), detergent (Tide), shampoo (Heads & Shoulders), and some others.

Unrelated Diversification is diversification into a new business area, which has no obvious connection with any of the company's existing areas. -Firms such as Textron, operate in a number of different industries (writing instruments, helicopters, chain saws, machine tools, etc) and except for financial transactions, its business units have little in common. Unrelated diversified firms are also known as "Conglomerates".

A diversified company can **create value in three main ways:** (1) through superior internal governance, (2) by transferring competencies among businesses, (3) by realizing economies of scope.

Superior Internal Governance:

In the context of a diversified company, governance has to do with the effectiveness of the senior managers in managing sub- units and individuals within the businesses. Diversification can create value when the senior executives of the company manage the different business units within the organization so well that they perform better than they would if they were independent companies. Certain senior executives seem to have developed a skill for managing businesses and pushing the heads of those business units to achieve superior performance. Jack Welch of General Electric and Bill Gates of Microsoft stand out as examples. Companies that succeed at creating value through superior internal governance reveal the following features:

Transferring Competencies:

Companies that base their diversification strategies on transferring competencies seek out new businesses related to their existing business by one or more value creation functions - for example, manufacturing, marketing, materials management and research and development. They may want to create value by drawing on distinctive skills in one or more of their existing value creation functions in order to improve the competitive position of the new business. Alternatively, they may acquire a company in a different business area in the belief that some of the skills of the acquired company can improve the efficiency of their existing value creation activities. If successful, such competency transfers can lower the costs of value creation in one or more of a company's diversified businesses or enable one or more of these businesses to perform their value creation functions in a way that leads to differentiation and a premium price. For such a strategy to work, the competencies being transferred must involve activities that are important for establishing a competitive advantage.

Economies Of Scope:

The sharing of resources such as manufacturing facilities, distribution channels, advertising campaigns, and R&D costs by two or more business units give rise to economies of scope. Each business unit that shares resources has to invest less in the shared functions. For example, the costs of General Electric's advertising, sales and service activities in major appliances are low because they are spread over a wide range of products. Economies of scope are related to economies of scale. For example, by producing the components for the assembly operations of two distinct businesses, a component - manufacturing plant may be able to operate at greater capacity; thereby realizing economies of scale in addition to economies of scope. Thus, a diversification strategy based on economies of scope can help a company attain a low - cost position in each of the businesses in which it operates. Diversification to realize economies of scope can therefore be a valid way of supporting the generic business - level strategy of cost leadership. However, like competency transfers, diversification to realize economies of scope is possible only when there are significant commonalities between one or more of the value creation functions of a company's existing and new activities. Consequently, the strategy should be pursued only when sharing is likely to generate a significant competitive advantage in one or more of a company's business units.

While diversification can create value for a company, it often ends up doing just the opposite. Michael Porter observed that the corporate diversification strategies of most companies have dissipated value instead of creating it. More generally, a large number of academic studies support the conclusion that extensive diversification tends to depress rather than improve company profitability. One reason for the failure of diversification to achieve its aims is that all too often the bureaucratic costs of diversification exceed the value created by the strategy. The level of bureaucratic costs in a diversified organization is a function of two factors namely:

Number Of Businesses:

The greater the number of businesses in a company's portfolio, the more difficult it is for corporate management to remain informed about the complexities of each business. The information overload in extensively diversified companies may lead corporate level management to base important resource allocation decisions on only most superficial analysis of each business unit's competitive position. Furthermore, the lack of familiarity with operating affairs on the part of corporate- level management increases the chances that business - level managers might deceive corporate - level managers. Thus, the information overload can result in substantial inefficiencies within extensively diversified companies that cancel out the value created by diversification. These inefficiencies include the suboptimal allocation of cash resources within the company and a failure by the corporate management to successfully encourage and reward aggressive profit - seeking behavior by business - unit managers.

Extent of Coordination:

The coordination required to realize value from a diversification strategy based on competency transfers or economies of scope can also be a source of bureaucratic costs. Both the transfer of distinctive competencies and the achievement of economies of scope demand close coordination among business units. The bureaucratic mechanisms needed for this coordination give rise to bureaucratic costs.

A more serious matter, however, is that substantial bureaucratic costs can result from a firm's inability to identify the unique profit contribution of a business unit that is sharing resources with another unit in an attempt to realize economies of scope. For example, a company that has two business units - one producing household products (such as liquid soap and laundry detergent) and another producing packaged food products. The products of both units are sold through supermarkets. In order to lower the. costs of value creation, the parent company decides to pool the marketing and sales functions of each business unit. Pooling allows the units to share the costs of a sales force and gain cost economies from using the same physical distribution system. The company is organized into three divisions: a household products division, a food products division, and a marketing division.

Although such an arrangement may create value, it can also give rise to substantial control problems and hence bureaucratic costs. For example, if the performance of the household products business begins to slip, identifying who is to be held accountable - the management of the household products division or the management of the marketing division - may prove difficult. Indeed, each may blame the other for poor performance: the management of the household products division might blame the marketing policies of the marketing division, and the management of the marketing division might blame the poor quality and high costs of products produced by the household products division. Although this kind of a problem can be resolved if corporate management directly audits the affairs of both divisions, doing so is costly in terms of both the time and the effort that corporate management must expend.

The existence of bureaucratic costs places a limit on the amount of diversification that can be profitably pursued. It makes sense for the company to diversify only as long as the value created by such a strategy exceeds the bureaucratic costs associated with expanding the boundaries of the organization to incorporate additional business activities. Thus, the greater the number of business units within a company and the greater the need for coordination among those business units, the larger the bureaucratic costs are likely to be. Hence a company that has twenty businesses, all of which are trying to share resources, incurs much larger bureaucratic costs than a company that has ten businesses, none of which is trying to share resources.

To conclude, we can say, that out of the three corporate level strategies, related diversified firms perform the best, single industry firms perform the next best and unrelated diversified firms do not perform well over the long term.

Implications of The Control System Design

Corporate level strategy is a continuum with single business strategy on one hand, related diversification in the middle of the spectrum and unrelated diversification at the other extreme. Many companies do not fit neatly into one of the three classes. A firm's location on this continuum depends upon the extent and type of diversification. Hence, the key issue for control system designers is - How should the structure and form of control differ across a single industry firm, a related diversified firm and an unrelated diversified firm.

Business Unit Strategy:

Business level strategy refers to the plan of action that strategic managers adopt for using - a company's resources and distinctive competencies to gain a competitive advantage over its rivals in a market or industry. That is, a business unit in one firm competes with a business unit in another firm. Business unit strategies basically deal with how to create and maintain competitive advantage in each of the industries in which a company has chosen to participate.

The strategy of a business unit depends on two interrelated aspects - its mission and its competitive advantage

Business Unit Mission:

Business unit mission relates to the overall objectives of the firm. Since resource deployment is an important task of the senior management, therefore, several planning models have been developed to help corporate level managers of diversified firms to effectively allocate resources. Thus, both the corporate office and the business unit general manager are involved in identifying the missions of individual business units.

The two most widely used planning models are —

Boston Consulting Group's two- by- two growth - share matrix, and

General Electric Company/ Me Kinsey 8s Company's three- by- three industry attractiveness - business strength matrix

While these models differ in the methodologies, they use to develop the most appropriate missions for the various business units, they have the same set of missions from which to choose
- build, hold, harvest, and divest.

BUILD: This mission implies an objective of increased market share even at the expense of short - term earnings and cash flows.

HOLD: This mission is geared to the protection of the business unit's market share and competitive position.

HARVEST: This mission has the objective of maximizing short term earnings and cash flow, even at the expense of market share.

DIVEST: This mission indicates a decision to withdraw from the business either through a process of slow liquidation or outright sale.

3.3 BOSTON CONSULTING GROUP (BCG) MODEL

Autonomous divisions (or profit centers) of an organization make up what is called a business portfolio. When a firm's divisions compete in different industries, a separate strategy must often be developed for each business. The BCG matrix is designed specifically to enhance a multidivisional firm's efforts to formulate strategies. Introduced by the Boston Consulting Group, the BCG matrix graphically portrays differences among divisions in terms of relative market share position and industry growth rate. Relative Market Share position is defined as the ratio of a division's own market share in a particular industry to the market share held by the largest rival firm in that industry. It is given on the x- axis of the matrix. The y- axis represents the industry growth rate in sales. The business units are placed in one of the four categories - question mark, star, cash cow, and dog.

QUESTION MARKS:

The divisions in quadrant I have a low relative market share position, yet compete in a high growth industry. Generally, their firms cash needs are high and their cash generation is low. These are called question marks because the organization must decide whether to strengthen them or to sell them.

STARS:

Quadrant II businesses represent the organization's best long-term opportunities for growth and profitability. Divisions with a high relative market share and a high industry growth rate should receive substantial investment to maintain or strengthen their dominant positions.

CASH COWS:

Divisions in quadrant III have a high relative market share position but compete in a low-growth industry. They are called so because they generate cash in excess of their needs. They should be managed to maintain their strong position for as long as possible.

DOGS:

Quadrant IV divisions of the organization have a low relative market share position and compete in a slow or no market growth industry. Because of their weak internal and external position, these businesses are often liquidated, divested, or trimmed down through retrenchment.

BCG used the following logic to make strategic prescriptions for each of the four cells —

Business units that Call in the question mark quadrant are assigned the mission "build" market share. And business units that fall in the star quadrant are typically assigned the mission "hold* market share. Business units that fall in the cash cow quadrant are assigned the mission "harvest "for short term profits and cash flows whereas businesses in the dog quadrant have a weak competitive position in unattractive industries. They should be divested unless there is a good possibility of turning them around.

The major benefit of the BCQ matrix is that it draws attention to the cash flow, investment characteristics, and needs of the organization's various divisions. Thus, BCG matrix is useful for two purposes - decisions on the desirable market share positions and allocation of funds among the Strategic Business Areas (SBA). SBA is a distinctive segment of the environment in which the firm does (or may want to do) business. Applications of the BCG matrix showed it to be a useful tool for making strategic position decisions about SBAs and for near term strategic resource allocation. But evidence has also shown that BCG matrix is applicable under very special conditions. So, before the BCG matrix is used, it is essential to make sure that the future prospects are adequately measured by volume growth and the firm's relative competitive position by its relative market share. When the conditions are right, the BCG has the advantage of simplicity and proves to be an effective tool for the analysis of the firm's portfolio. When prospects and competitive conditions are complex, appropriately more complex measurements are needed for the two dimensions of the matrix.

The BCG matrix also has certain limitations:

First, viewing every business as either a star, cash cow, dog or question mark is an over simplification; many businesses fall right in the middle of the BCG matrix and are liras not easily classified.

Second, BCG does not reflect whether or not various divisions or their industries are growing over time, that is, the matrix has no temporal qualities; but rather is a snapshot of an organization at a given point of time.

- **Self- Check Questions (Fill in the blanks)**

1. The BCG matrix is designed to enhance a multidivisional firm's efforts to formulate ____________.
2. Divisions in quadrant III, known as ____________, generate cash in excess of their needs.
3. Corporate strategies are linked to ________ advantage at the business level.
4. Strategy formulation involves analyzing the organizational _________ and ____________ environment.

3.4 Competitive Advantage Five Forces Model:

Every business unit should develop a competitive advantage to achieve its mission. A company has a competitive advantage when its profit rate is higher than the average for Its industry, and that it has a sustained competitive advantage when it is able to maintain this high profit rate over a number of years. Two basic conditions determine a company's profit rate and hence whether it has competitive advantage: the amount of value customers place on the company's goods and services; and the company's cost of production. Michael Porter has described two analytical approaches – industry analysis and value chain analysis - as aids in developing a superior and sustainable competitive advantage. Both of these approaches are explained below:

Analyzing Industry Structure

An industry can be defined as a group of companies offering products or services that are close substitutes for each other. Close substitutes are products or services that satisfy the same basic consumer needs. The task facing managers is to analyze competitive forces in an industry environment in order to identify the opportunities and threats confronting a company. Michael E. Porter of Harvard School of business Administration has developed a framework that helps managers in this analysis. Porter's framework known as the **five forces model** focuses on the following forces that shape competition within an industry: the risk of new entry by potential competitors, the degree of rivalry among established companies within an industry, the bargaining power of buyers, the bargaining power of suppliers, and the threat of substitute products.

Porter argues that the stronger each of these forces, the more limited is the ability of established companies to raise prices and earn greater profits. Within Porter's framework, a strong competitive force can be regarded as a threat since it depresses profits. A weak competitive force can be viewed as an opportunity, for it allows a company to earn greater profits.

The task facing managers is to recognize how changes in the five forces give rise to new opportunities and threats, and to formulate appropriate strategic responses. Each of the five forces of the model is explained briefly as follows:

Potential Competitors:

Companies that are not currently competing in an industry but have the capability to do so if they choose are **potential competitors.** For example, electric utilities are potential competitors to telecommunication companies in the markets for phone service and internet access. **Incumbent companies** (those already operating in an industry) try to discourage potential competitors from entering the industry, since the more companies enter, the more difficult it becomes for established companies to hold their share of the market and to generate profits. Thus, a high risk of entry by potential competitors represents a threat to the profitability of the established companies. On the other hand, if the risk of new entry is low, incumbent companies can take advantage of this opportunity to raise prices and earn greater returns. Factors affecting entry barriers are capital requirements, access to distribution channels, economies of scale, product differentiation, technological complexity of product or process, etc.

Rivalry Among Established Companies:

The second of the Porter's five competitive forces is the extent of rivalry among established companies within an industry. If this rivalry is weak, companies have an opportunity to raise prices and earn greater profits. But if the rivalry is strong, significant price competition, including price wars may result. Price competition limits profitability by reducing the margins that can be earned on sales. Thus, the intense rivalry among established companies constitutes a strong threat to profitability. The extent of rivalry among established companies within an industry is largely a function of three factors: industry competitive structure, demand conditions, and the height of exit barriers in the industry.

The Bargaining Power Of Buyers:

The third of the Porter's five competitive forces is the bargaining power of buyers. A company's buyers may be the customers who ultimately consume its products (its end users), but they may also be the companies that distribute its products to end users, such as retailers and wholesalers. For example, Unilever sells its soap powder to end users; the major buyers of its products are supermarket chains, which then resell the product to the end users. Buyers can be viewed as a competitive threat when they are in a position to demand lower prices from the company, or when they demand better service (which can increase operating costs). On the other hand, when buyers are weak, a company can raise its prices and earn greater profits.

The Bargaining Power Of Suppliers:

The fourth of the Porter's competitive forces is the bargaining power of suppliers. Suppliers can be viewed as a threat when they are able to force up the price, that a company must pay for its inputs, or reduce the quality of the inputs they supply, thereby depressing the company's profitability. On the other hand, if the suppliers are weak, this gives a company the opportunity to force down prices and demand higher input quality.

Substitute Products:

The final force in the Porter's model is the threat of substitute products. Substitute products are the products of industries that serve similar consumer needs as the industry being analyzed. For example, companies in the coffee industry compete indirectly with those in the tea and soft drink industries. All three industries serve consumer needs for drinks. The existence of close substitutes presents a strong competitive threat, limiting the price a company can charge and thus its profitability. However, if a company's products have few close substitutes (that is if substitutes are a weak competitive force) then other things being equal, the company has the opportunity to raise prices and earn additional profits. Consequently, its strategies should be designed to take advantage of this fact.

Generic Competitive Advantage

Companies pursue a business level strategy to gain competitive advantage that allows them to outperform rivals and achieve above average returns. They can choose from two basic generic competitive approaches: cost leadership and differentiation. These strategies are called generic because all businesses or industries can pursue them regardless of whether they are manufacturing, service or not- for - profit enterprises. Each of the generic strategies results from a company's making consistent choices on product, market, and distinctive competencies - choices that reinforce each other.

Cost Leadership:

A company's goal in pursuing a cost - leadership strategy is to outperform competitors by doing everything it can to produce goods and services at a cost lower than theirs. Two advantages accrue from a cost leadership strategy. First, because of its lower costs, the cost leader is able to charge a lower price than its competitors yet make the same level of profit. If the companies in the industry charge similar prices, for their products, the cost leader still makes a higher profit than its competitors because of its lower costs. Second, if rivalry within the industry increases and companies start to compete on price, the cost leader will be able to withstand competition better than other companies because of its lower costs. For both these reasons, cost leaders are likely to earn above average profits.

Differentiation:

The objective of the generic differentiation strategy is to achieve a competitive advantage by creating a product (good or service) that is perceived by customers to be unique in some important way. The differentiated company's ability to satisfy a customer's need in a way that its competitors cannot means that it can charge a premium price. The ability to increase revenues by charging premium prices allows the differentiator to outperform its competitors and gain above average profits.

Value Chain Analysis:

The term value chain refers to the idea that a company is a chain of activities for transforming inputs into outputs that customer's value. The process of transforming inputs into outputs comprises a number of primary and support activities. Each activity adds value to the product.

Primary activities have to do with the design, creation and delivery of the product, as well as its marketing, and its support and after sales service. In the value chain, the primary activities are broken down into four functions - R&D, production, marketing and sales, and service. The Support activities of the value chain provide inputs that allow the primary activities to take place such as materials management, human resource, information systems and company infrastructure.

Thus, the role played by the different functions of the company - such as production, marketing, R&D, service, information systems, materials management and human resources helps to drive down costs and increasing the perception of value through differentiation in the value creation process.

3.5 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**
  1. How do you classify companies according to the corporate level strategies?
  2. Explain the various models for strategic position analysis.
- **SHORT QUESTION ANSWERS**
  1. Write a short note on cost leadership.
  2. Explain the concept of BCG Model.

3.6 SUGGESTED READINGS

- Anthony, R.N. and Govindarajan, V., Management Control Systems, 12th edition, New Delhi: Tata McGraw Hill Publishing Company.
- Maciariclllo, J.A. and Kirby, C.J., Management Control Systems, 2nd edition, Prentice Hall of India, New Delhi

3.7 SELF- CHECK QUESTIONS (ANSWER KEY)

3.3. 1) strategies 2) cash cows 3) Competitive 4) internal, external

MC8 (416)

MBA- Distance Education (Second Year) Semester-IV **MANAGEMENT CONTROL SYSTEMS**

Lesson No. 4

AUTHOR: MANJIT SINGH, Ph.D

ORGANIZATIONAL CONTEXT OF MANAGEMENT CONTROL SYSTEM

STRUCTURE

4.0 OBJECTIVES

After studying this chapter, you should be able to distinguish between the formal and informal factors influencing the managerial control systems.

4.1 INTRODUCTION

Management control system influences the human behavior. Good management control systems influence the human behavior in a goal congruent manner, i.e. they ensure that individual actions taken to achieve personal goals also help to achieve the organizational goals. A control system is a set of formal and informal systems that are designed to assist management in directing the organization to the achievement of its purpose by bringing unity out of the diverse efforts of sub units and of individuals. These two sets of systems are distinct but are highly inter-related sub divisions of control systems. The two sets of control system can be described as follows.

Mutually Supportive Management System Model

A formal system makes possible the delegation of authority and helps in understanding the structure, policies and procedures to be followed by members of the organisation. Formal documentation of these structures, policies and procedures assists members of the organisation in performing their duties. In the mutually supportive management system model, the structures and procedures assist the management in planning and maintaining strategies to meet organizational goals. Formal control systems and sub-systems are designed to focus upon the needs of the customers and markets to be consistent with informal system and to be mutually supportive to each other.

4.2 FORMAL CONTROL SYSTEM

Formal control system processes can be divided into two parts;

- Formal planning process
- Formal reporting process

Formal planning includes strategic planning and an operation planning strategic planning system is necessary to assist in the planning and control of strategic thrusts or projects of an organisation. It is a framework within which an organisation decides upon its goals and objectives, strategies and capital allocation. Operations planning system is necessary for the co-ordination of organisation objectives in achieving short terms objectives. The most important tool of operations planning is budgeting within which all the activities of the organisation are planned for the upcoming year. The cost accounting system of the organisation is used to provide measurement information for both operational and strategic planning.

Formal Reporting Process encompass detailed reports that are prepared to assess the progress against both strategic plans and operational plans of the organisation. Monthly, quarterly and yearly comparisons are made and detailed operating variances are calculated to assess progress toward achieving operating plans.

Infrastructure

The infrastructure of formal control systems consists of the organization structure and patterns of autonomy. The corporate structure needs to include the provision for both the strategic and operational mode of operations and the patterns of autonomy include designations of responsibility and measurement methods. Profits centre is established at various levels. Each profit centre acts like a small business organisation with profit responsibility. Profit centres develop a spirit of customer responsiveness, entrepreneurial management and adaptation.

Rewards

It is essential for the manager to induce his employees to put their whole hearted efforts in the organisation in order to achieve the organizational objectives. For this, incentives and rewards must be given to the employees. But the organisation cannot pay incentives more than what is receives from its value creating activities, so it must match incentives to the value contributions of individuals in the organization. Incentives takes form of both materialistic and non-materialistic and include all forms of monetary compensation, together with non-monetary forms such as status, increased autonomy, pride of workmanship etc. Formal individual rewards include compensation which reflects individual contribution to performance regarding short term objectives and long-term goals. Group rewards are those which are tied to overall organisation performance. These group rewards are based on short performance as well as long term performance.

Co-ordination and Integration Mechanisms

Communication within the organisation is necessary for co-ordination, for resource allocation decision making, for conflict resolution and for developing commitment and trust within the organization. Formal co-ordination mechanisms play a major role in bringing unity to the diverse efforts of the organisation and increase decision making capability across sub units of the organization. All coordinating mechanisms are dependent on timely and accurate information flows. Effective information and telecommunication systems are therefore key strategic asses for assisting co-ordination activities.

Committees

Two management committees are helpful for resource allocation decision making: one for operations and other for strategy. The primary role of these committees is to manage conflict in resource allocation.

Strategy Committee

This committee consists of top officers and managers of the organisation as well as number of top-level staff people. They are responsible for preparing goals, strategies plans and action programs.

Operating Management Committee

This committee has nearly the same composition as the strategy committee. It treats operational issue and allocation of resources between operating and strategic mode.

Formal Conferences

Formal meetings of the managers of organisation including those at the profit center level are held periodically in order to discuss the results of planning process to enhance communications.

Rules

Rules are shorthand for all types of formal instructions and controls including standing instructions, job descriptions, manuals etc. Rules range from most trivial to most important. Most rules are in force indefinitely until they modified. Some rules are guides which permits the organisation members to depart from them under specified circumstance or when their own best judgment indicat4s that a departure would be in the best interest of the organisation.

Some specific types of rules are listed follow: -

Physical Controls

Security guards, locked store rooms, computer passwords and other physical controls may be part of the control structure.

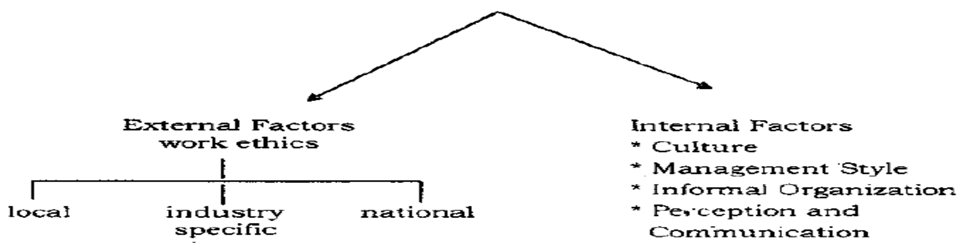
Manuals

Manuals are the guidelines rather than official order. With the passage of time some rules become outdated so manuals and other set of rules should be re-examined periodically to ensure that they are still consistent with the swishes of current senior management.

System Safeguards

Various safeguards are built into the information processing system to ensure that the information flowing through the system. It includes: cross checking totals with details, separating duties, counting cash and other portable assets frequently.

4.3 INFORMAL CONTROL SYSTEM



External Factors:

External factors are norms of desirable behavior that exist in the society of which the organisation is part. These norms include a set of attitudes which is also known as work ethics, which is manifested in employees' loyalty to the organisation, their diligences their spirit and their pride in doing good job. Some of these factors are local industry specific and national.

Local Factors

Factors which are specific to city or a region in which the organisation does its work are known as local factors.

Industry Specific Factors

These are those factors which specific to certain industry e.g. - Rail road industry has different norms from those of airline industry.

National Factors

These are those factors which are specific to a particular country e.g.; - Japan has reputation for excellent work ethics.

Internal Factors

Culture: -

The most important factor is the organizations own culture, the common beliefs, shared values, norms of behavior and assumption that implicitly accepted and explicitly manifested throughout the organisation. Cultural norms are explained why two organisations with identical formal management control system may vary in terms of actual control.

Organisation culture is also strongly influence by personality and policies of CEO and by those of lower-level managers with respect to the areas they control. If the organisation is unionized then the rules and norms accepted by the union also have major influence on the organisation culture, whenever an attempt is made to change the culture of the organisation it is always met with resistance.

Management Style: -

Management Style has strongest impact on the management control. Attitude of the subordinates reflects what they perceive their superior attitudes to be.

Informal Organization:-

Informal Organization is the organisation which does not follow the lines of authority and responsibility as it flows in formal structure. It helps in performance of duties and responsibilities quickly as compared to formal organisation structure which have long hierarchy.

Perceptlon and Communication

In working toward the goals of the organisation, operating managers must know what these goals are and what actions they supposed to take in order to achieve them, they receive this information through formal and informal channels. Despite of these channels sometimes it is not clear that what the senior management wants.

Moreover, the messages received from different sources may conflict with one another or subject to different interpretations.

- **Self- Check Questions (MCQs)**

1. What is a shorthand for all types of formal instructions and controls in formal control systems?

a) Autonomy patterns b) Committees c) Rules d) Manuals

2. What is the term used for factors specific to a city or region where an organization operates?

a) Industry factors b) local factors c) cultural factors d) national factors

3. Which committee is responsible for preparing goals, strategies, plans and actions programs in formal control?

a) Operations management committee b) Rules committee

c) Strategy committee d) Communications committee

4.5 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**
  1. Differentiate between formal and informal control system.
  2. Write a detailed note on organizational context of management control system.
- **SHORT QUESTION ANSWERS**
  1. How culture can affect the management control system.
  2. What do you understand by management style.

4.6 SUGGESTED READINGS

- Anthony, R.N. and Govindarajan, V., Management Control Systems, 12th edition, New Delhi: Tata McGraw Hill Publishing Company.
- Maciariello, J.A. and Kirby, C.J., Management Control Systems. 2nd edition, Prentice Hall of India, New Delhi

4.7 SELF- CHECK QUESTIONS (ANSWER KEY)

4.4 1) c 2) b 3) c

Lesson No. 5 **AUTHOR: MANJIT SINGH, Ph.D**

RESPONSIBILITY CENTERS: EXPENSE CENTERS AND REVENUE CENTERS

STRUCTURE

5.0 OBJECTIVES

After studying this chapter, you should be able to explain different types of expense centers and their control characteristics.

5.1 EXPENSE CENTERS

Expense centers are the responsibility centers in which the managers are responsible for costs incurred but have no revenue responsibilities. When we can measure only the expenses or costs incurred and not the revenue earned from a responsibility center; it is termed as Expense centre. The performance of an Expense centre is measured in terms of quantity of inputs used in producing a given output. A comparison between the actual input used and predetermined budgeted inputs is made to determine the variances which represent the efficiency of expense center.

5.2 TYPES OF EXPENSE CENTERS

There are two general types of expense centers: Engineered Expense centers and Discretionary Expense centers. These relate to the two types of cost viz. Engineered Costs and Discretionary Costs. Engineered costs are those for which proper amount can be estimated with reasonable reliability, for example, Material required to produce one unit of output, labor Cost required to produce one unit of output, etc. Discretionary costs are the managed costs for which no such engineered estimate is feasible. The costs to be incurred depend upon management's judgment under the circumstances in which these costs occur.

5.3 ENGINEERED EXPENSE CENTERS: -

The following characteristics are of engineered expense centers

1. The input can be measured in monetary terms
2. The input can be measured in physical terms.

3. The optimum rupee amount of input required to produce one unit can be determined

Engineered expense centers are usually found in manufacturing operations, warehousing, and in administrative support departments for instance Account receivable, Account Payable, Payroll sections, etc. Such units perform the tasks of repetitive nature for which standard costs can be developed. The other tasks performed by these centers, not measured by cost alone, are like their superiors are responsible for quality of products, volume of production, and efficiency. The quality standards, type and level of production are set, so that the manufacturing costs are not minimized at the expense of quality.

5.4 DISCRETIONARY EXPENSE CENTERS

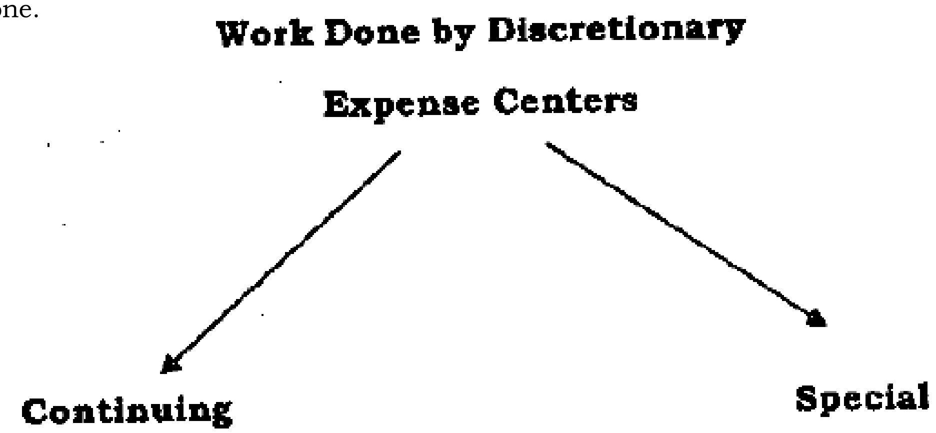
These centers include administrative and support units, research and development operations and some other marketing activities. The output of these centers cannot be measured in monetary terms. It reflects the management's decision regarding certain policies-

1. Whether to match or exceed the marketing effect of competitors?
2. The level of service the company should provide to customers?
3. The appropriate amounts to spend for Research and Development (R&D), financial planning, public relations and a host of other activities.

The managements view as to proper level of discretionary costs is always subject to change especially when new management takes over. In these types of costs, the difference between budget and actual expense is not a measure of efficiency rather. If actual expense does not exceed budgeted amount, the manager has lived within the budget.

5.5 CONTROL CHACTERISTICS OF DISCRETIONARY EXPENSE CENTRES

1. **Budget Preparation: -** The budgetary decisions made for discretionary expense centers that management makes differ from those of engineered expense centers. Management formulates the budget for a discretionary expense center by determining the magnitude of the job that needs to be done.



- Consistently from year to year. E.g. preparation of financial statements by controller

1. One-shot project. 2. e.g.-developing and office. installing a Profit- budgeting system in a new acquired division

The technique used is Management by objectives for preparing a discretionary expense center's budget, which is a formal process in which a budgetee proposes to accomplish specific jobs and suggests measurement to be used in performance evaluation. Incremental Budgeting or Zero-base review is the two methods used usually for carrying out the planning function for discretionary expense centers.

- **Incremental Budgeting:** - The starting point is current level of expenses. This amount is then adjusted for:
  - (i) Inflation
  - (ii) Anticipated changes in the workload of continuing job.
  - (iii) Special job and if the data are readily available the cost of comparable jobs in similar units.

The two drawbacks are-.'

- (i) This center's current level of expenditure is accepted and not reexamined during the preparation of budget.
- (ii) Managers typically want to increase the level of service and thus tend to request additional resources.

- **Zero-Base Review:** -An alternative budgeting approach is to make a thorough analysis of each discretionary expense center on a rolling schedule so that all are reviewed at least once every 5 years. Such analysis is termed as a Zero-base review. This intensive review attempts to ascertain the resources actually required to carry out each activity within the expense center from the scratch (afresh). It is a time-consuming review and in this the managers attempt to justify their current level of spending, and also attempt to accomplish the entire effort regarding Zero-base review as something to be put off indefinitely in favor of more pressing business.

2. **Cost Variability:** - Contrary to the costs in engineered expense centers, which are strongly affected by short run volume changes, costs in discretionary expense centers are not expected to fluctuate in the short run. This difference stems from the fact that while preparing the budgets for discretionary expense centers, management tends to approve changes that correspond to anticipate changes in sales volume. Furthermore, if one manager hires additional personnel, it is uneconomical for them to adjust the work force for short run. fluctuations.
3. **Type of Financial Control: -**The main purpose of discretionary budget is to control costs by allowing the manager to participate in the planning and sharing in the discussion of what tasks should be undertaken and the level of effort is an appropriate for each whereas the objective of engineered expense center is to become cost competitive by setting a standard and measuring actual costs against the standards. Thus, in discretionary expense center financial control is primarily exercised at the planning stage even before the costs are incurred.
4. **Measurement of Performance:** - The primary job of discretionary expense centers manager is to obtain the desired output. Spending an amount that is "on Budget" is considered satisfactory. Spending more than that is a cause for concern and spending less than that indicates that planned work is not being done. The following diagram explains the measurement of performance.

Spending an amount	**Result**
On budget	Satisfactory
More	Cause for Concern
Less	Planned work is pot done.

5.6 ADMINISTRATIVE AND SUPPORT CENTERS

These Centers include Senior Management, business unit management and Managers of Supporting staff units. The control function of Administrative and Support Centers is difficult because of the problems inherent in measuring output and the frequent lack of congruence between the goals of departmental staff and of a company as a whole.

The staff activities such as payroll activities are so in sequence that in fact, units are engineered expense centers. In other activities, however the principal output is advice and service -functions that are virtually impossible to quantity much less evaluate. Since output cannot be measured, it is not possible to set cost standards against which to measure financial performance.

Typically, the managers of administrative staff officers strive for functional excellence. Superficially the desire would seem to be congruent with company how goals, but in fact, much depends on how one defines excellence. A staff office for example may want to develop the ideal system & the ideal may be too costly. The severity of the above two problems is directly related to site and prosperity of the company. In small and medium sized business, the senior management is in close personal contact with staff units and can determine from personal observation what they are doing and whether a unit is worth its cost or not and in business with low earnings, regardless of size, discretionary expenses are often kept under light control whereas in large business senior management cannot possibly know about, much less evaluate all staff activities and if the company is profitable then there is temptation to approve staff requests for constantly increasing budgets.

The proposed budget for an administrative and support center usually consists of a list of expenses items with the proposed budget being compared with current year's actual expenses. But some companies demand elaborate presentation including the following components: -

(a) A section covering the basic costs of the center

(b) A section covering discretionary activities of center including a description of objectives and estimated costs of each.

(c) A section fully examined all proposed increases in the budget other than those related to inflation.

5.7 RESEARCH AND DEVELOPMENT CENTERS

The results of the Research and Development activities are difficult to measure in quantitative terms. It usually has at least a semi tangible output in the form of patents, new products, or new processes, but the relationship of output to input is difficult to appraise on an annual basis because the complete product of effort. Thus, inputs as stated in an annual budget may be unrelated to outputs.

The problem of R & D centers is similar to that in administrative centers. Their research manager typically wants to build the best research organization money could buy, ever if that may be more expensive than the company can afford. The activities conducted by the R & D organization lie along a continuum with basic research at one extreme and product testing at the other. Basic research has two characteristics-

(1) It is unplanned with management at best specifying the general area to be explored.

(2) There is often significant time lapse between the initiation of research and the introduction of a successful new product. As a project moves along the continuum from basic research to applied research to development to production engineering to testing, the amount spent per year keeps on increasing. Thus, if it appears that a

project will turn out to be unprofitable, it should be some cases failure is not discernible until the product reaches market.

There is no hard & fast rule determining the size of R & D budget. R&D programs consists of a list of programs plus a review is often conducted by research committee and this committee makes broad projections, which to expend, which one to cut, which one to discontinue, etc.

After a company has succeeded the R&D program and has implemented with a system of project approval, the preparation is a simple matter to start with through "Calendarization" of expected expenses for the budget period. The annual budget process also ensures that the actual costs will not exceed the budgeted amounts without management's knowledge.

It depends upon company to company, but usually monthly or quarterly most companies compare actual expense with budgeted expenses. In many companies, management receives two types of financial reports on R & D activities: -

1. Which compares latest forecast of total cost with approved amount for each active project is prepared periodically.
2. It consists of comparison between budgeted and actual expenses in each responsibility center.

The main purpose is to help research executives anticipate expenses and ensure that these expense commitments are being met.

5.8 MARKETING CENTERS

There are two group of activities grouped under marketing, The first one is filling of orders or Logistics and the second one involves efforts to obtain orders also called as order getting activities. Logistic Activities are those activities which are involved in moving goods from the company to its customers and collecting the amount due from customers in return. These activities include transportation, warehousing, shipping & delivery, billing, credit function & collection of accounts receivable. These centers are fundamentally similar to expense centers in manufacturing plants. In most companies now a days the paper work is involved in filling order & collecting receivable, which is at low cost by using internet.

Marketing Activities are activities which are undertaken to obtain orders for company products and it includes-test marketing, establishment, training, supervision of sales force, advertising and sales promotion. The evaluation of effectiveness is difficult than to measure a marketing organization's output because changes in factors beyond the marketing departments control may invalidate the assumptions on which sales budget were based.

5.9 REVENUE CENTERS

It is a responsibility centre where the performance is measured in monetary terms i.e. the revenue generated by the marketing / sales department but no formal attempt is made to relate the revenues with the inputs i.e. the expense or cost. Generally, sales department is not supposed to set selling prices and are not charged with the cost of goods sold, which they sell. The manager of the marketing department may be held responsible for the expenses incurred within the unit for which he is accountable. Primarily performance is measured on the basis of the revenue which is generated.

Keywords: *Responsibility centers, Expense Centers, Engineered expense centers, Discretionary expense centers*

- **Self- Check Questions (True/ False)**
  1. Staff activities such as payroll activities are not considered engineered expense centers.
  2. Managers of administrative staff officers typically do not strive for functional excellence.
  3. Financial reports on R & D activities often include a comparison between budgeted and actual expenses in each responsibility center.

5.10 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**
  1. What are the different types of expense centers? What are their control characteristics?
  2. Explain how various service departments can be controlled by creating them as expense centers?
- **SHORT QUESTION ANSWERS**
  1. Explain the various types of expense centres.
  2. Write a brief note on Research and development centers.

5.11 SUGGESTED READINGS

Anthony, R.N. and Govindarajan, V., Management Control Systems, 12th edition, New Delhi: Tata McGraw Hill Publishing Company.

Maciarieilo, J.A. and Kirby, C.J., Management Control Systems,2nd edition, Prentice Hall of India, New Delhi

5.12 SELF- CHECK QUESTIONS (ANSWER KEY)

5.9 1) True 2) False 3) True

Lesson No. 6 **AUTHOR: MANJIT SINGH, Ph.D**

PROFIT CENTERS

STRUCTURE

6.0 Objectives
6.1 Introduction to Profit centre concept
6.2 Business Units as profit centres and the constraints, advantages, challenges
6.3 Other profit Centres
6.4 Measuring Profitability and
6.5 Types of Profitability Measures
6.6 Self- Check Exercise
6.7 Suggested Readings

6.8 Self- Check Questions (Answer Key)

6.0 After studying this chapter, you should be able to

1. Explain what is a profit centre and what are the pre-conditions to create them.
2. Know what are the advantages and problems in the profit centre concept
3. Explain the various measures of profitability.

6.1 PROFIT CENTERS

Profit earning is the main motive of any business organization and as such profits are calculated to evaluate the performance of an organization by measuring the difference between the revenues and expenses. So, in an organization, various responsibility centers are made to review the performance of different factors separately. Responsibility centers constitute the structure of a control system and the assignment of responsibility to organizational subunits. Among the various types of responsibility centers which can be created by an organization, profit centers are important responsibility centers.

When a responsibility center's financial performance is to be measured in terms of profit, the center is called profit center. Profit is a very useful performance measure since it allows the senior management to use one comprehensive indicator rather than several. There are few preconditions or general considerations involved in deciding whether to establish a profit center in the first place. These are:

- Divisionalization: A functional organization is one in which each principal manufacturing or marketing function is performed by separate organization unit. When such an organization is converted into one, in which each major unit is responsible for both the manufacturing and the marketing, the process is termed as Divisionalization.
- Create autonomy: Autonomy is to create self-governance or freedom of action. As a rule, companies create business units because they have decided to delegate more authority to operating managers. Although the degree of delegation may differ from company to company, complete authority for generating profits is never delegated to a single segment of the business.

6.1.1 Conditions for delegating profit responsibility:

To delegate profit responsibility, the trade-offs must definitely be evaluated to measure the efficiency and effectiveness. Many management decisions involve proposals to increase the expenses with the expectation of an even greater increase in the sales revenue of the firm. Such decisions are said to involve expense/revenue trade-offs. Trade-off means to exchange something of value as a part of a compromise. But before it is safe to delegate such a trade-off decision to a lower-level manager, two conditions should exist:

1. The manager should have an access to the relevant information needed for making such a decision.
2. There should be some way to measure the effectiveness of the trade-off the manager has made.

A major step in creating profit centers is to determine the lowest point in an organization where these two conditions can be satisfied. All the responsibility centers fit into a continuous sequence, in which the elements change gradually, ranging from those that clearly should be profit centers to those that clearly should not be profit centers. The management must decide whether the advantage of giving profit responsibility offsets the disadvantages. As with all the management control system design choices, there is no clear line of demarcation. There are few advantages and difficulties of a profit centers. Establishing organization units as profit centers provides the following advantages:

- The quality and speed of decision may improve by establishing a profit center because they are being made by the managers closest to the point of decision and most of the decisions may not be referred to corporate headquarters.
- Profit consciousness is enhanced while creating a profit center since managers who are responsible for profits will constantly seek way to increase them. Profit centers' may also improve competitive performance because the output of profit centers is so readily measured and profit centers are particularly responsive to the pressures to improve their competitive performance.
- Top level management is relieved of day-to-day decision making, and can concentrate on bigger decisions and broader issues.
- Managers will be subject to fewer corporate restraints, and will be free to use their imagination and initiative.
- Profit centers provide top management with ready-made information on the profitability of the company's individual components.
- Since profit centers are similar to independent companies, they do provide an excellent training ground for general management. Their managers may get expertise in managing all functional areas.

However, the creation of profit centers may not be without difficulties. The challenges of creating profit centers are enlisted below:

- Profit centers may result in some loss of control because such creation will force the top management to rely more on the management control reports than on the personal knowledge of an operation, resulting in some loss of control.
- The top-level management might be more capable or better informed than the average profit center manager, then the quality of decisions made at the unit level may be reduced.
- Friction among business unit managers may increase over allocation of common costs, and the credit for revenues that were formerly generated jointly by two or more business units working together.
- Unnecessary competition may increase a manager may fail to refer sales leads to another business units better qualified to pursue them or may make production decisions that have undesirable cost consequences for other units.

- Divisionalization may impose additional costs because of the additional support staff for each profit center will be required.
- Competent general managers may not be available because there may not have been given sufficient opportunities to develop general management competence.
- The most dangerous implication may be too much emphasis on short-run profitability at the expense of long-run profitability. The business unit manager in the desire to report high current profits, may skip on R&D, training programs, or maintenance.

6.2 BUSINESS UNITS AS PROFIT CENTERS:

Most business units are created as profit centers since managers in charge of such units typically control product development, manufacturing, and marketing. These managers are in position to influence revenues and costs and as such can be held accountable. However, a business unit manager's authority may be constrained in various ways, which gets reflected in a profit center’s design and operation.

6.2.1 Constraints on Business Unit Authority:

To realize fully the benefits of the profit center concept, the business unit manager would have to be autonomous but practically such autonomy is not feasible. If such authority is delegated to business unit management, then all the authority that the Board of directors has given to CEO, senior management would fail to carry its own responsibility. Since a business unit structure represents trade-off between business unit autonomy and corporate constraints as such the effectiveness of a business unit organization is largely dependent on how well these trade-offs are made.

6.2.2 Constraints from other Business Units:

Problems occur when these Business units deal with one another. Managing a profit center involves control over three types of decisions, namely product decision, marketing decision and the procurement or sourcing decisions. If the business unit manager controls all these three activities, there is usually no difficulty in assigning profit responsibility and measuring performance. However, in an integrated company, it becomes more difficult to assign responsibility to a single profit center for all the above three activities in a given product line and as such separating the contribution of each business unit to the overall success of the product line may become difficult.

6.2.3 Constraints from Corporate Management:

The constraints imposed by corporate management can be grouped into three types, namely Those resulting from strategic considerations, uniformity, and those resulting from the economies of centralization. Most of the companies retain certain decisions, especially financial decisions, at the corporate level. Consequently, one of the major constraints on business units results from corporate control over new investments. Business units must compete with one another for a share of available funds. Thus, a business unit could find that its expansion plans are prevented from being accomplished just for the reason that another unit has convinced senior management that it has a more attractive program.

In general, corporate constraints do not cause several problems in a decentralization structure as long as they are dealt with clarity; business unit management should understand the necessity for most constraints and should accept them with good grace.

6.3 OTHER PROFIT CENTERS:

6.3.1 Functional Units:

Diversified companies are typically divided into business units, each of which is treated as an independent profit-generating unit. The subunits within these business units, however, may be functionally organized. It is sometimes desirable to constitute one or more of the functional units. There is no guiding principle declaring that certain types of units are inherited profit centers and others are not. Management's decision as to whether a given unit should be a profit center is based on the amount of influence the unit's manager exercise over the activities that affect the bottom line.

6.3.2 Marketing Department:

A marketing activity can be turned to a profit center by charging it with the cost of production sold. This transfer price provides the marketing manager with the relevant information to make the optimum revenue/cost trade-offs, and the standard practices of measuring a profit center's manager by the center's profitability provides a check on how well these trade-offs have been made. The transfer price charged to the profit center should be based on the standard cost, rather than the actual cost, of the products being sold. Using a standard cost base separates the marketing cost performance from that of the manufacturing cost performance. Which is affected by changes in the levels of efficiency that are beyond the control of the marketing manager.

6.3.3 Manufacturing Department:

The manufacturing activity is usually an expense center, with the management being judged on performance verses standard costs and overhead budget. This measure can cause problems, since it does not necessarily indicate how well the manager is performing all aspects of his job. Therefore, where the performance of the manufacturing process is measured against the standard costs, it is advisable to make a separate evaluation of such activities as Quality control, production scheduling, and make or buy decisions. One way to measure the activity of a manufacturing organization is to turn it into a profit center and give it credit for selling price of the products (minus) the estimated marketing expense. Although such an arrangement is not as perfect, mainly because many of the factors that influence the volume and the mix of sales are beyond the manufacturing's manager's control.

6.3.4 Service and Support Units:

When service units are organized as profit centers, their managers are motivated to control costs in order to prevent customers from elsewhere and the managers of the receiving units are motivated to make decisions about whether using the service is worth the price or not. Units for maintenance, information technology, transportation, engineering, consulting, customer services, and similar support activities can all be made into a profit centers. They may fulfill similar functions within business units. They charge customers for services rendered, with the financial objective of generating enough business so that their revenues become equal to their expenses.

6.4 MEASURING PROFITABILITY:

There are two types of profitability measurements used in evaluating a profit center. The first one is the measure of management performance, which focuses on how well the manager is doing. This measure is used for planning, coordinating, and the profits center's day-to-day activities and as a device for providing proper motivation for its managers. The second one is the measure of Economic performance, which focuses on how well the profit center is doing as an economic entity. The necessary information for both purposes usually cannot be taken from a single set of data, because the management report is used frequently, while the economic report is prepared only on those occasions when the economic decisions must be made. So accordingly, the system should be designed to measure management performance on routine basis, with economic information must be derived from these performance reports as well as from other sources.

6.5 Types of Profitability Measures:

A profit center's economic performance is always measured by net income i.e. the income remaining after all costs, including a fair share of corporate overhead. The performance of the profit center manager may be evaluated by five different measures of profitability, namely Contribution margin, Direct profit, Controllable profit. Income before income taxes, or Net income.

6.5.1 Contribution Margin:

Contribution margin represents the difference between revenue and variable expenses. The rationale for using it to measure the performance of profit center managers is that since fixed expenses are beyond their control, managers should focus their attention on maximizing contribution. However, the problem with this statement in that almost all the fixed expenses are either partially controllable, or entirely controllable by managers. As senior managers want the profits center to keep these discretionary expenses in line with the amount agreed on the budget formulation process, a focus on the contribution margin tends to direct attention away from this responsibility.

6.5.2 Direct Profit

This measure reflects a profit centre's contribution to the general overhead and profits of the firm. It incorporates all expenses either incurred or that are directly traceable to the profit centre. A weakness of the direct profit measure is that it does not recognize the motivational benefit of charging headquarters costs.

6.5.3 Controllable Profit

Headquarters expenses can be divided into two categories; controllable and non-controllable. The controllable expenses include expenses that are controllable, at least to a degree, by the business unit manager. For example, if these costs are included in the measurement system, profit will be what is left after the deductions of all expenses that may be influenced by the profit centre manager, A major disadvantage of this measure is that because it excludes non- controllable headquarters expenses, it cannot be directly compared with either published data or trade association data reporting the profits of other companies in the industry.

6.5.4 Income Before Taxes

In this measure, all corporate expenses are allocated to profit centres, based on the relative amount of expense each profit centre incurs. These are two arguments against such allocations. Firstly, since the costs incurred by corporate staff departments such as finance, accounting and human resource management are not controllable by profit centre managers, these managers should not be held accountable for them. Secondly it may be difficult to allocate corporate staff service in a manner that would properly reflect the amount of costs incurred by each profit centre. However, there are three arguments in favour of incorporating a portion of corporate overhead into the profit centres' performance reports. Firstly, corporate service units have a tendency to increase their power base and to enhance their own excellence without regard to their effect on the company as a whole. Secondly allocating corporate overhead costs to profit centres increases the likelihood that profit centre managers will question these costs, thus serving to keep head office spending in check. Thirdly the performance of each profit centre will become more realistic and more readily comparable to the performance of competitors who pay for similar services. Finally, managers know that their respective centres will not show a profit unless all costs, including the allocated share of corporate overhead, are recovered, they are motivated to make optimum long-term marketing decisions as to pricing, product mix, and that will ultimately benefit the company as a whole.

6.5.5 Net Income

As per this approach, companies measure the performance of domestic profit centres according to bottom line,i.e. the amount of net income after income tax. There are two principal arguments against using this measure. Firstly, after tax income is often a constant percentage of the pre-tax income, in which case there would be no advantage in incorporating income taxes, and secondly since many of the decisions that affect income taxes are made at headquarters, it is not appropriate to judge profit centre managers on the consequences of the decisions.

6.5.6 Revenues

Another approach towards measurement of profitability is the revenues of that business unit. However, choice of the appropriate revenue recognition method is important. Should revenues be recorded when an order is made, when an order is shipped, or when cash is received? Furthermore, there are other issues relating to common revenues that may require consideration. In some situations, two or more profit centre may participate in a successful sales effort; ideally, each centre should be given appropriate credit for its part in the transaction. Many companies do not devote a great deal of attention to solving these common revenue problems. They take the position that the identification of precise responsibility for revenue generation is too complicated to be practical, and that sales personnel must recognize they are working not only for their own profit centre but also for overall good of the company.

Self- Check Questions (MCQs)

1. **What is autonomy in the context of creating profit centers?**

a) Centralized control b) strict regulations c) Independence and freedom of action d) divisonalization

2. **Why might unnecessary competition increase among profit centers?**

a) To achieve autonomy b) due to the desire to report high current profits

c) to enhance profit consciousness d) to improve decision quality

3. **What does the contribution margin represent in a profit center?**

a) the difference between revenue and variable expenses b) the difference between revenue and fixed expenses

c) the total expenses incurred by the profit center d) the difference between revenue and controllable expenses

6.5.7 Summary

Most of the confusion in measuring the performance of profit centre managers results from failing to separate the measurement of the manager from the economic measurement of the profit centre. Managers should be measured against those items they can influence, even if they do not have total control over those items. Generally, these items probably include all expenses incurred directly in the profit centre. Manager should be measured on the after-tax basis only if they can influence the amount of tax their unit pays, and items that they clearly cannot influence, such as currency fluctuation, should be eliminated.

Keywords: *Revenues, profit centers, business units, net income*

6.6 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**
  1. What are the pre conditions to create profit centers? What are the advantages and challenges for creation of profit centers?
  2. What are the different measures of evaluating profitability of profit centers?

- **SHORT QUESTION ANSWERS**
  1. What are the conditions for delegating profit responsibility.
  2. Explain any two types of profitability measures.

6.7 SUGGESTED READINGS

- Anthony, R.N. and Govindarajan, V., Management Control Systems, 12th edition, New Delhi: Tata McGraw Hill Publishing Company.
- Maciariello, J.A. and Kirby, C.J., Management Control Systems,2nd edition, Prentice Hall of India, New Delhi

6.8 SELF- CHECK QUESTIONS (ANSWER KEY)

6.5.6 1) c 2) b 3) a

Lesson No. 7 **AUTHOR: Dr. PUJA BHARDWAJ**

TRANSFER PRICING

STRUCTURE

7.0 OBJECTIVES

After studying this chapter, you should be able to:

1. Explain what transfer pricing means.
2. Understand various methods of transfer pricing.
3. Explain all related aspects of transfer pricing.

7.1 INTRODUCTION

Transfer Pricing refers to the pricing of contributions (assets, tangible and intangible, services, and funds) transferred within an organization.

7.1.1 Transfer Price

Transfer price is a notional value at which goods and services are transferred between divisions in a decentralized organization.

7.1.2 Features:

Since the prices are set within an organization (i.e. controlled), the typical market mechanisms that establish prices for such transactions between third parties may not apply.

The choice of the transfer price will affect the allocation of the total profit among the parts of the company.

7.1.3 Objectives of Transfer Pricing

If two or more profit centers are responsible for product development, manufacturing and marketing, each center is entitled to share revenue when the product is sold. TP is mechanism to distribute this revenue among various profit centers.

TP should be designed to accomplish following objectives:

1. Trade off b/w Cost & Revenue: It should provide each business unit with relevant information it needs to determine optimum tradeoff between cost and revenue.
2. Goal Congruence: The system should be designed so that improving business profits will also lead to improving Company's profit.
3. Measuring Economic Performance: It should help measuring the economic performance of individual business units.
4. Simple & Easy: The system should be simple to understand and easy to administer.
5. Divisional Autonomy: Each divisional manager should be free to satisfy the requirements of profit center from external or internal sources. There should be no interference in the process by other divisions like buying centers and selling centers.

7.2 FIXING RIGHT TRANSFER PRICE

7.2.1 Fundamental Principle:

When profit centers of company buy products from or sell to, one another, following two decisions must be made periodically for each product:

4.0 Sourcing Decision: Should the company produce the product inside the company or purchase it from outside vendor.

5.0 Transfer Pricing Decision: If goods are produced inside the company, at what price should the product be transferred between profit centers.

7.2.2 Ground Rules:

The right transfer price should be fixed between the maximum and minimum limit. Minimum Limit: The minimum transfer price is the sum of selling division's marginal cost-plus opportunity cost of the resources used.

Maximum Limit: The Maximum limit is the lowest market price at which the buying division could acquire goods/services externally.

7.3 METHODS OF TRANSFER PRICING

There are various methods of transfer pricing explained below, company can choose any of the methods depending upon the nature of products, business units and industry.

7.3.1 Market Price Method:

It is the intermediate price that prevails in market between independent buyers and sellers.

The price becomes operational when there is competitive external market for transferred products i.e. huge external market exists.

Assumptions: If the goods cannot be bought from a division within the company, same will have to be purchased from the open market at the prevailing price.

Advantages: Divisional profit will represent its real economic contribution to total company's profit.

Comparison across companies.

Helps maintain product quality.

Less costly.

No role of senior management.

7.3.2 Cost Based Method:

Under cost-based methods there are several methods such as marginal cost and full cost.

1. **Marginal Cost:** Here the transfer price is equal to short term variable cost and opportunity cost of capacity to make the product. This price includes, direct material cost, direct labour cost and factory overheads.

   This price is feasible when selling division is operating below full capacity.

Advantages: It encourages maximum profits in the long run as all the pricing decisions will be based on cost-volume-profit relationship.

Limitations: Long run costs include all costs. Difficulty in ascertaining long run price. Selling division has to bear fixed costs and operating expenses.

2. **Full Cost:** In this method transfer price is based on full cost of the product. The capacity related cost is divided by no. of units to get capacity costs per unit. This unit cost is used to relate capacity related cost to current production. It is useful where external market price does not exist.

   Limitations: Varying price as cost per unit changes as capacity use varies. Mixes short run and long run costs. Concept is based on the equation: Variable cost + arbitrary mark up to cover capacity cost.

There are further sub-types of Full Cost Transfer Pricing:

a) **Variable Cost:** Transfer price based on only variable cost of the product i.e raw material, direct labour and direct expenses.

b) **Actual Full Cost:** Under this type all the costs associated with the product either product cost or full cost is considered while deciding the transfer price.

c) **Full Cost-Plus Profit:** this type of transfer price includes all costs and some profit margin for the department transferring the product.

d) **Standard Costs:** this type of transfer price is based on standard cost of the product.

e) **Opportunity cost:** it is the opportunity cost of transferring the goods internally. It is the minimum price which selling department is ready to accept and maximum price which buying division is willing to pay. This method is used when the external market is imperfect.

Opportunity Cost for Selling Division: It is the external sales value of transferred product or the differential production cost of transferred product

Opportunity Cost for Buying Division: it is the price which would be required to purchase from the outside market. The profit that would be lost from producing the final product if the goods could not be obtained at economic price.

The transfer of goods is encouraged when the price of selling division is greater than the opportunity cost of selling division and the price of selling division is lesser than the opportunity cost of buying division.

7.3.3 Dual Price Method:

Under dual rate pricing, the selling division is credited with a price based on total cost + mark up and the buying division is debited with marginal cost. This strategy was introduced to overcome the problems associated with marginal cost method i.e. low morale in selling division, lack of motivation for buying division towards maximizing organizational profits.

Advantages:

Selling division is allowed to make profits.

Buying division has correct information for final pricing.

This technique will lead to some difference between two prices.

This difference is debited to common account i.e. Transfer Price Adjustment Account.

This amount is adjusted against the profits of both divisions at the end of the year.

Limitations:

It becomes complicated when large variety of goods is transferred between divisions.

The transfer Price adjustment account has to be maintained at head office level.

There is lower incentive for both divisions to deal in external market.

It protects selling division when external market is not doing well.

It does not encourage divisions to monitor performance of each other.

Reject the bid, either buy from outside or not to purchase at all Negotiated Price Succeeds Under Following Conditions:

External market should exist.

Market information is shared among negotiators.

Both divisions can sell / buy the goods externally.

Support from top management.

External bidders are willing to supply market information.

Negotiated Price Suffers Following Limitations:

Negotiation process is costly.

Conflict among divisions.

Result depends upon the negotiating skills of managers.

If top management interferes: against the principle of decentralization.

7.3.4 Alternative Methods

Transfer pricing can create significant problems in integrated companies. The profit center that sells may not be aware of upstream fixed costs and profit included in internal purchase price. Even if they are aware they might not reduce their profit to optimize company's profit.

To solve this problem, companies establish a formal mechanism whereby representative of buying and selling units meet periodically to decide on outside selling price and sharing of profits for products with significant upstream fixed cost and profits.

Example: A petroleum company has three divisions; crude oil division, refinery division and sales division. The crude oil division extracts the crude oil and sells it to the refinery division. Refinery division refines the crude through a process of fractional distillation. The output of refinery is then sold in the market by sales division.

In this situation, sales division may underestimate the cost incurred during extracting and processing. So it might sell final product at a price which is not high enough to recover fixed costs. Due to this sales division may earn revenues but company as a whole may incur losses. In order to prevent these kinds of problems, such companies adopt some other method of calculating transfer price like: Two Step Method, Profit Sharing and Two set of Process Methods

1. Two-Step Pricing: It includes fixed cost component and variable cost component. In a transaction of transfer of goods between two divisions, the cost of production of selling division is Rs. X per unit and fixed cost per month is Rs. Y and margin decided is Rs. Z per month. If n units of goods are sold, then transfer price of month will be: (nX + Y+ Z).

Or if the margin is included in variable component sat Rs. A per unit, then the transfer price will be :(nX + nA + Y)

2. Profit Sharing: It is also called the Spilt Method. Under this all the business units share the operating profit. In this the product is transferred to marketing unit at standard variable cost. And after the product is sold, the business units share the contribution earned which is selling price minus variable manufacturing and marketing cost.

Limitations:

How to decide about sharing percentage?

In case of disputes, senior management has to intervene.

Costly and time consuming.

3. Two set of Prices: Under this revenue is credited to manufacturing unit at the market sale price while the buying unit is charged with total standard costs. The difference between the outside sale price and standard cost is charged to parent firm's or head quarter's account. It is then eliminated when business units' statements are consolidated.

Disadvantages:

1. Sum of business units' profit is greater than overall firm's profit.
2. Illusion of business units making money whereas overall co may be losing money on account of debit to headquarters.
3. Might motivate business units to concentrate on internal transfers where they are assured of good markup than outside sales.
4. Additional book-keeping is required.

7.4 Other Aspects of Transfer Pricing

Behavioral Considerations: TP affects actions of employees.

Deterring Competitors: Profits at various stages of production may encourage competitors to enter in fray as business is profitable

Taxation: International Transfer pricing, Arm's Length Price

Repatriation of Funds: From subsidiary to headquarters.

Product Life Cycle: Transfer price is fixed according to the life cycle of the product.

Introductory Phase: Cost + Mark Up
Growth: Price of Closest substitute.

Decline: Price of identical goods.

Minority Shareholders: Reduction in amount paid to minority shareholders by depressing subsidiary's profit.

Using Subsidies to spread Risk: Big manufacturer financing the cost of machinery purchased by small manufacturer & then acquiring at adjusted TP

7.5 ADMINISTRATION OF TRANSFER PRICES

- Articulation and Communication of Transfer Pricing Strategy.
- Documentation of Transfer Pricing Process and Inter-Organization Agreements.
- Involvement of Multi-Disciplinary Team.
- Negotiation: Business units negotiate price among themselves. Prices sire nit set by central staff group (line management). It requires degree of subjectivity judgment so managers are better equipped with information on market & cost. Negotiated price is a result of compromises made by both buyer & seller. Rules of transfer pricing should be specific to avoid the effect of negotiation skills.
- Arbitration & Conflict Resolution: In case business units do not agree on price. Proper procedure should be in place for arbitrating negotiation disputes. Committee should be set up to review: Settling transfer price disputes, reviewing sourcing changes and changing transfer price rules

Arbitration process: Submission of cases by both parties and arbitrator reviews. Large no. of cases subject to arbitration means ground rules for fixing transfer price are faulty. Conflict resolution process determine the result of arbitration. Steps:

Forcing

Smoothing

Bargaining

Problem solving

It ranges from conflict avoidance through forcing & smoothing and conflict resolution through bargaining & problem solving

Product Classification:

Class I

Includes all products for which senior management wishes to control sourcing.

Sourcing can be changed by permission of senior management.

Class II

Products that can be produced outside the company.

Sourcing is determined by business units involved.

7.6 Transfer Pricing and International Transactions

Transfer Pricing at Arm's Length:

Transfer pricing provisions primarily require any income arising from an international transaction between two or more Associated Enterprises to be at arm's length price and comparable to similar transactions between unrelated enterprises.

This is a major concern for fiscal authorities who worry that multi-national entities may set transfer prices on cross-border transactions to reduce taxable profits in their jurisdiction.

This has led to the rise of transfer pricing regulations and enforcement, making transfer pricing a major tax compliance issue for multi-national companies.

Self- Check Questions (Fill in the blanks)

1. __________ price is a result of compromises made by both buyer & seller.
2. ___________ is the intermediate price that prevails in the market between independent buyers and sellers.
3. In ________________ pricing method the transfer prices are decided on the basis of cost; variable cost, marginal cost, full cost, opportunity cost and standard cost.
4. ___________________ is a notional value at which goods and services are transferred between divisions in a decentralized organization.

7.7 SUMMARY

Delegating authority depends upon the ability to delegate responsibility for profits. For delegating profit responsibility two conditions should exist: The responsibility manager has all the relevant information needed to make optimum profit decisions and his performance is measured on how well he has made cost revenue trade off.

Two decisions are involved in designing transfer price system: First is sourcing decision. Should the company produce the product inside the company or should it purchase from outside vendor? Second is transfer pricing decision? At what price should the product be transferred between profit centers?

Regarding transfer price method, transfer price should as close as possible to prevailing market price of the product. If it is not available then transfer price should be based on cost plus profit. Cost based transfer price can take standard cost as the base plus profit margin. There proper system should be in pace in case of negotiating transfer price and settling transfer price disputes.

7.8 ILLUSTRATIONS

Illustration 1:

Assist India Limited has just purchased a small company that specializes in the manufacture of a part identified as No. AIL-201. The company is a decentralized organization and as such treats the newly acquired company as an autonomous division called the Spare Parts Division with full profit responsibility. The Spare Parts Division incurred fixed costs of Rs. 30,000 per month and variable costs of Rs. 18 per unit. The selling price per unit is Rs. 30. The operating capacity of this division is 5,000 units per month. The Finished Goods Division of the company is currently purchasing 2,500 units per month of the part No. AIL-201 from an outside supplier at Rs. 29 per unit, which represents the normal price of Rs. 30 less quantity discount. The top management of the company wishes to decide what transfer price should be used.

The following alternative prices are under consideration:

a. The market price of Rs. 30
b. The price of Rs. 29 that the Finished Goods Division is currently paying to the outside supplier.
c. A negotiated price of Rs. 23.50 that is calculated as variable cost-plus half of the benefits of an internal transfer.
d. The full cost of Rs. 24 which is variable cost-plus fixed cost per unit.
e. Variable cost of Rs. 18

Recommend the most suitable transfer price.

Solution

a) The alternative of transferring the product at market price of Rs. 30/- is unrealistic because the Finished Goods division will never agree to pay a price more than the price it is currently paying.

Statement of profitability

Particulars	Spare parts division 5,000 units	Particulars	Finished goods division 2,500 units
Selling price	1,50,000	Buying price	75,000
Less: Variable cost	90,000	Less: price being paid to outsider supplier	72,500
Contribution	60,000		
Less: fixed costs	30,000	Additional amount being spent on account of internal transfer	2,500

Thus, the overall profitability of the organization would decline by Rs. 2,500/- which represents the additional amount being spent by Finished Goods division on account of internal transfers.

b) The price of Rs 29/- that the Finished Goods division is currently paying to the outside supplier would be the most appropriate transfer price if the top management wishes to treat the two divisions as autonomous investment centers. This price will bring all the benefits of internal transfer to the Spare Parts division while maintaining the position of the Finished Goods division. The details are shown below:

Statement of profitability

Particulars	Spare parts division 5,000 units	Particulars	Finished goods division 2,500 units
Selling price (2500 x30+2500x29)	1,47,500	Buying price	72,500
Less: variable cost	90,000	Less: price being paid to outsider supplier	72,500
Contribution	57,500		
Less: fixed costs	30,000		
Profit and loss	27,500	Additional amount being spent on account of Internal Transfer	NIL

c) A negotiated price of Rs 23.50 which is calculated as variable cost-plus half of the benefits of an internal transfer would be an appropriate transfer price if top management wishes to treat the divisions as investment centers, but wishes to share the benefits of an internal transfer equally between them, as follows:

Particulars	Spare parts division 5,000 units	Particulars	Finished goods division 2,500 units
Selling price (2500x30+2500 x 23.50)	1,33,750	Buying price	58,750
Less: variable cost	90,000	Less: cost being paid to outsider supplier	72,500
Contribution	43,750	Net savings	13,750
Less: fixed costs	30,000		
Profit and loss	13,750		

The working clearly indicates that both the divisions are able to benefit from this price.

d) The full cost of Rs 24/- will be appropriate as the transfer price if the top management treats the division as cost centres with no profit responsibility. All benefits from both the divisions will accrue to the buying division. This will help the company to earn profits as a whole, but affect the performance of the selling division (spare parts division) adversely. Another disadvantage of this cost-based approach is that inefficiencies (if any) of the selling division are passed on to the buying division:

Statement of profitability

Particulars	Spare parts division 5,000 units	Particulars	Finished goods division 2,500 units
Selling price	1,20,000	Buying price	60,000
Less: variable cost	90,000	Less: price being paid to outsider supplier	72,500
Contribution	30,000		
Less: fixed costs	30,000	Net savings	15,000
Profit and loss	NIL		

e) The transfer price at variable cost of Rs 18/- would be an appropriate transfer price for guiding the top management in deciding whether transfers between the two divisions should take place. Since Rs 18/- is less than the price prevailing in the external market and the selling division has excess capacity, the transfer should take place. This will maximize the profits of the company as a whole. But if transfer price of Rs 18/- is used all the benefits of the transfer will accrue to the buying division and it will hurt the performance of the selling division.

Illustration 2:

A company has two divisions A and B that operate as profit centres. Division A normally purchases its parts from Division B. Division A has been informed by Division B that they will be increasing the selling price to Rs. 1100 per unit. The manager of Division A therefore decided to purchase the component from the open market as the same is available at Rs. 1000 per unit. The manager of Division B is not happy with the decision of the manager of Division A.

The manager of Division B justifies that this increase is due to inflation. He further adds that if Division A purchases the components from external sources it will result in excess capacity in Division B and will also hurt the overall profitability of the company. He therefore suggests that Division A should continue purchasing the component from Division B.

You are provided with the following details relating to Division B:

Units sold to Division A	1000
Division B’s variable cost per unit	Rs. 950
Division B’s fixed cost per unit	Rs. 1100

Required:

a) Will the company as a whole benefit if Division A purchases the units from the external supplier for Rs. 1000? Assume that there are no alternative uses to the facilities of Division B.

b) What would be the effect if the outside selling price decreases by fcs. 80 per unit, assuming that Division B remains idle.

c) If Division B's facilities could be put into production for other sale:' at an annual cost savings of Rs. 1,45,000 should Division A still purchase its requirements from external sources?

Solution:

Alternative 1:

Statement of profitability

Particulars	Purchases from external, source	Purchases from division B
Total purchase value	10,00,00	—
Total outlay cost	—	9,50,000
Net cash outflow to the company as a whole	10,00,000	— 9,50,00

The above working shows that the company as a whole benefit if Division A buys from inside.

Alternative 2:

Statement of profitability

Particulars	Purchases from external source	Purchases from division B
Total purchase value	9,20,000	—
Total outlay cost	—	9,50,000
Net cash outflow to the company as a whole	9,20.000	9,50,000

The above working shows that the company as a whole benefit if Division A buys from the outside supplier for Rs 920/- per unit.

Alternative 3:

Statement of profitability

Particulars	Purchases from external source	Purchases from division B
Total purchase value	10,00,00	—
Total outlay cost	–	9,50,000
Net cash outflow to the company as a whole	10,00,000	-
	(1,45,000)	9.50,000
Revenue from using Division B's facilities	8,55,000	
		9,50,000

Here the company as a whole will be better off if Division A buys from external suppliers and the facilities of Division B are used elsewhere.

7.9 GLOSSARY

Cost Based Pricing, in this pricing method the transfer prices is decided on the basis of cost; variable cost, marginal cost, full cost, opportunity cost and standard cost.

Market Based Pricing, this method depends on market price of identical/similar products to decide the transfer price.

Market risk premium is expected return on a market portfolio minus risk free rate of interest. The investors require compensation for systematic risk which is reflected in beta.

Dual Pricing Under dual rate pricing, the selling division is credited with a price based on total cost + mark up and the buying division is debited with marginal cost.

Arm's Length the P/E ratio is equal to a stock's market capitalization divided by its after-tax earnings over a 12-month current or forward period.

7.10 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**

1. What do you mean by transfer pricing. Explain its objectives.
2. How to fix the transfer prices? Explain its procedure.

- **SHORT QUESTION ANSWERS**

1. What is cost based pricing method?
2. Describe the concept of market price method.

7.11 SUGGESTED READINGS

- Anthony and Govindrajan, Management Control Systems, 10th Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- R.C. Shekhar Management Control Systems: Text and Cases, Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- Anil Agashe, Satish Inamdar and Jayant Oke, Management Control Systems, 1st Edition, Pune: Everest Publishing House.
- Colin Dury, Management Accounting for Business Decisions, 2nd Edition, London: Thomson Learning.
- Guidance notes on Transfer Pricing – ICAI Publication

7.12 SELF- CHECK QUESTIONS (ANSWER KEY)

7.6 1) Negotiated 2) Market price 3) Cost-based 4) Transfer price

Lesson No. 8 **AUTHOR: Dr. PUJA BHARDWAJ**

INVESTMENT CENTERS

STRUCTURE

8.0 OBJECTIVES

After studying this chapter, you should be able to:

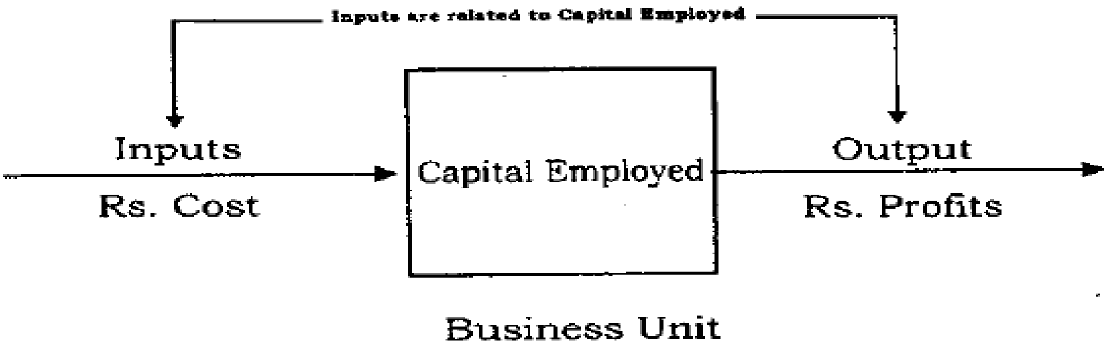
1. Explain the concept of an investment center.
2. Understand various methods of deciding about the investment base.
3. Explain all methods of evaluating investment centers.

8.1 INTRODUCTION

Investment center is a responsibility center in which the manager is responsible for all aspects of finance - costs, revenue, profit and investment

This takes responsibility of a manager to a greater depth Example; a division of a large MNC

The division is assessed in terms of its contribution to overall profits.



8.2 NEED OF INVESTMENT CENTER

Special type of profit centers where the management attention is focused on assets employed.

Comparison across different divisions with different investment base.

Comparison of absolute amount is not useful because of different number of resources used by different divisions.

Assets Employed = Net Fixed Assets + Net Current Assets

8.3 Dimensions of Investment Centers:

8.3.1 First Dimension: Autonomy

Full or Partial: Freedom for acquiring assets or taking initiatives to acquire assets.

8.3.2 Second Dimension:

Investment centers have explicit obligation to achieve expected profit related to the quantum of assets acquired. Investment Centers are evaluated on their profits not in absolute figures but profits in relation to the corresponding investments.

8.3.3 Dual Focus of Investment Centers

Relationship Between: - Centralised authority: Who sanctions the investment.

and

Decentralised functionary: Who is responsible to ensure minimum profits from investment.

8.4 KEY ISSUES IN INVESTMENT CENTERS:

8.4.1 Asset Acquisition

Steps:

Obtaining Information through; value chain analysis

Business Plans

Project Analysis

Annual Capital Budgets

Vendor & Contractor Decisions

8.4.2 Performance Evaluation

Here performance evaluation is not done in terms of absolute measures like costs and profits but with relative measures like ROI, RI and EVA.

8.5 TECHNIQUES OF PERFORMANCE EVALUATION:

8.5.1 ROI

ROI (Return on investment) = Net Income + Investment.

An alternative formulation of ROI based on Du Pont's formula is as follows:

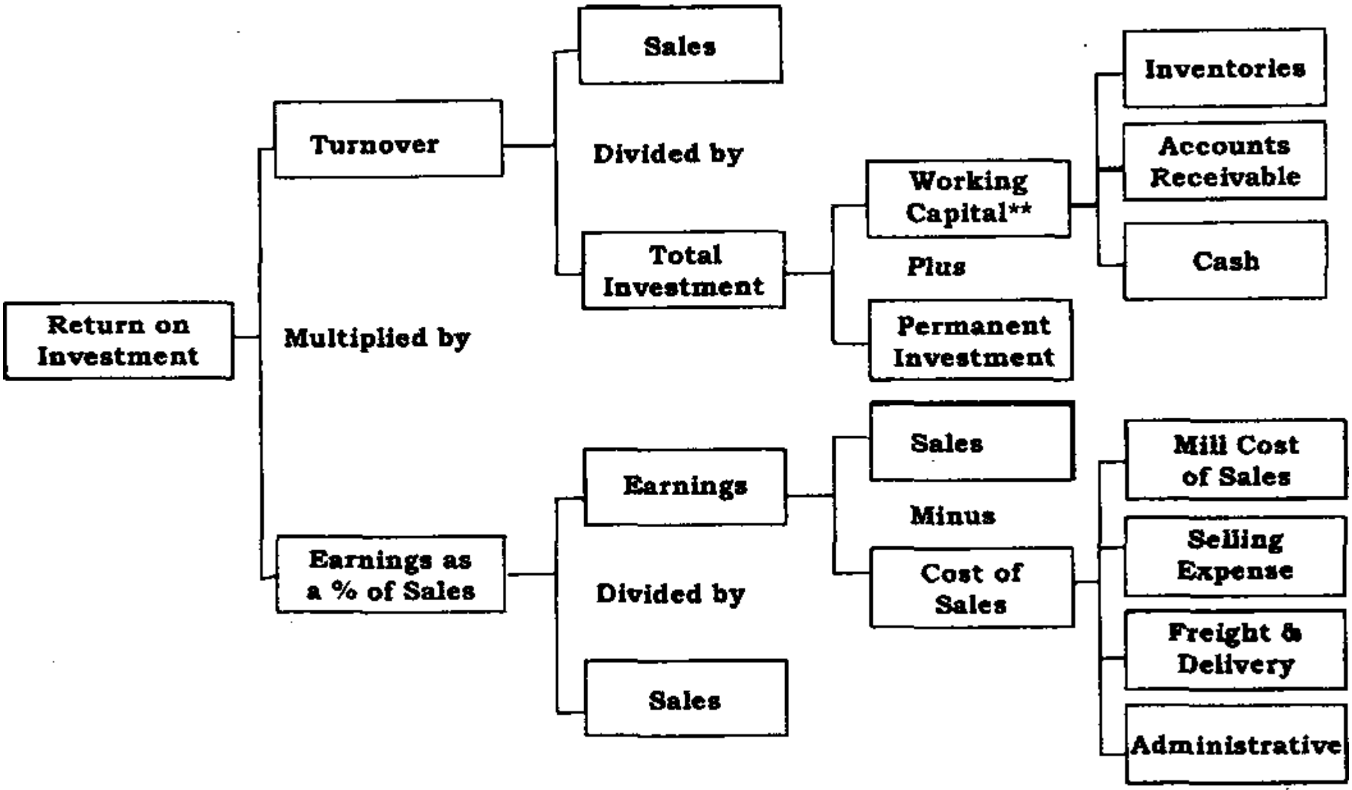
ROI = (Capital Turnover Ratio) * (Profit Margin on Sales)

= (Sales Investment) x (Net Income Sales)

The Capital Turnover Ratio (CTR) reflects management's ability to generate sales from a given investment base.

The Profit Margin is the Rate of Return on Sales (ROS) and measures management's ability to control the spread between prices and costs.

The Du Point Return on Investment Formula*



* Adapted from Relevance Lost Figure 4-1, p. 85. See their footnote 47 for the original source.
** Working capital also includes small amounts of deferred charges.

Methods of Increasing ROI

ROI may be increased in various ways. Some possibilities include the following.

1. Increasing Capital Turnover (CTR).
   a. Increase sales with the same the investment base.
   b. Decrease the investment base with the same sales level.
2. Increasing Profit Margin or Return on Sales (ROS).
   a. Increase prices with no unfavorable effects on sales.
   b. Decrease cost with no unfavorable effects on quality or increase in assets.
   c. Increase sales with no changes in prices or costs.

Investment Bases for ROI

How the investment should be measured?

1. Total assets available: Best overall measurement if the manager has control over all the assets. But the problem is how to value the assets?
2. Total assets employed: These are operating assets currently used. It excludes excess or idle assets such as vacant land or construction in progress. It is appropriate if some of the assets are not under the control of the manager.
3. Net Working Capital plus other assets i.e. Total Assets Less

Current Liabilities: This measurement increases the ROI because it reduces the investment base and allows for the use of short-term credit in the manager's performance measurement.

4. Stockholder's Equity or Net Worth: It provides a measure of both operating performance and financial leverage. The measurement of financial leverage is the difference between the ROI and the ROSE. Using ROSE creates a bias to increase debt or leverage and risk.

Measuring Assets for ROI

1. Gross Book Value: It is the historical cost of the assets.

This may encourage managers to dispose of old assets too soon, where assets are still useful, but not very efficient.

If disposal value < present value of expected net cash inflows.

This measurement favors old divisions with lower cost during inflationary periods.

2. Net Book Value: It is the historical cost less depreciation.

ROI increases when the asset is depreciated because the investment base decreases, the capital turnover ratio would increase.

Using net book value may encourage managers to keep old assets too long.

disposal value > present value of the expected net cash inflows.

If new assets were purchased, the ROI would decline.

This method also favors older divisions.

3. Replacement Cost: It is cost of identical assets or similar assets that would provide the same level of service.

This may be more equitable for comparing different age divisions, but creates the problem of determining current value for all assets.

Total present value (i.e., discounted expected future net cash inflows) or appraisal value can be used to approximate current cost.

Advantages of ROI

1. It encourages managers to focus on sales, expenses 8a investments.
2. It encourages cost efficiency.
3. It discourages excessive investment in operating assets.

Limitations of ROI

1. It discourages mangers from investing in projects that would decrease the divisional ROI but increase the profitability of company as a whole.
2. It encourages managers to focus on short run at the cost of long run.

Residual Income

RI as an Alternative to ROI:

RI = Net Income - Minimum Desired Net Income.

The minimum desired rate of return used in the RI calculation is usually referred to as the cost of capital.

The cost of capital is a weighted average measure of the cost of long-term debt and stockholders' equity.

Features:

1. Like ROI, Residual income encourages short run orientation.
2. Residual income uses absolute measure of profitability, making direct comparison of profitability of divisions with different investment bases.

It is unfair, since the level of investment across the divisions are different.

Example:

Assume a firm has a minimum desired rate of return of 15 percent after taxes.

Recent results show the following for a division:

Net Income after taxes * $20,000 Total Assets - $100,000.

ROI = 20%

RI = ($20,000 - 15,000) = $5,000.

Would a manager evaluated on the basis of the ROI accept a new project with an expected return of 16, 18 or 19 percent?

Probably not, since it would reduce the division's overall ROI below 20%.

Would the manager accept the project if RI is used as the evaluation measurement.

Yes, since the return is above 15%, it would increase the division's residual income.

EVA

It is a financial performance method to calculate true economic profit of a corporation.

EVA can be calculated as net operating after taxes profit minus a charge for the opportunity cost of the capital invested.

Method

Net Sales

Operating Expenses

....

Operating Profit (EBIT)

Taxes

....

Net Operating Profit After Tax (NOPAT)

Capital Charges (Invested Capital x Cost of Capital)

....

Economic Value Added (EVA)

Features: EVA

EVA is an estimate of the amount by which earnings exceed or fall short of the required minimum rate of return for shareholders or lenders at comparable risk.

Unlike Market-based measures, such as MVA, EVA can be calculated at divisional (Strategic Business Unit) level.

Unlike Stock measures, EVA is a flow and can be used for performance evaluation over time.

Unlike accounting profit, such as EBIT, Net Income and EPS, EVA is Economic and is based on the idea that a business must cover both the operating costs AND the capital costs.

Usage: EVA

- Setting organizational goals
- Performance measurement
- Determining bonuses
- Communication with shareholders and investors
- Motivation of managers
- Capital budgeting
- Corporate valuation
- Analyzing equity securities

Measuring EVA in Practice

Capital Invested: Many firms use the book value of capital invested as their measure of capital invested. The book value does not reflect accounting choices made over time. In addition, the book capital may not reflect the value of intangible assets such as research and development.

Operating Income: Operating income has to be cleansed of any expenses which are really capital expenses or financing expenses.

Cost of capital: The cost of capital for EVA purposes should be computed based on market values.

Bottom line: If you estimate return on capital and cost of capital correctly in DCF valuation, you can use those numbers to compute EVA.

Advantages of EVA

1. EVA is closely related to NPV. Value of the firm will increase if you take positive NPV projects.
2. It avoids the problems associates with approaches that focus on percentage spreads - between ROE and Cost of Equity and ROC and Cost of Capital. These approaches may lead firms with high ROE to turn away good projects to avoid lowering their percentage spreads.
3. It makes top managers responsible for a measure that they have more control over. The return on capital and the cost of capital are affected by their decisions - rather than one that they feel they cannot control as well - the market price per share.

4. It is influenced by all of the decisions that managers have to make within a firm - the investment decisions and dividend decisions affect the return on capital and the financing decision affects the WACC

- **Self- Check questions (Fill in the blanks)**

1. _______________ is a responsibility center in which the manager is responsible for all aspects of finance - costs, revenue, profit, and investment.
2. __________ cost is the cost of identical assets or similar assets that would provide the same level of service.
3. ______ can be calculated as net operating after taxes profit minus a charge for the opportunity cost of the capital invested.

8.6 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**

1. Write a detailed note on investment center.

- **SHORT QUESTION ANSWERS**

1. Explain the merits and demerits of Return on Investment.

8.7 SUMMARY

Investment centre is a responsibility centre where the manager has the responsibility for costs, revenue, profit and investments. Basic issue in this case is how to measure an investment base. The techniques used for performance evaluation is Return on Investment (ROI), Residual Income (RI), and Economic Value Added (EVA).

8.8 GLOSSARY

ROI, is a ratio calculated by dividing net income by investment base.

RI is residual income which is left after deducting minimum desired income out of net income.

Economic Value Added: It is a financial performance method to calculate true economic profit of a corporation. EVA can be calculated as net operating after taxes profit minus a charge for the opportunity cost of the capital invested.

Capital charges are the invested capital multiplied by cost of capital.

Cost of Capital cost of raising the finance. Generally weighted average cost of capital is taken as a measure for cost of capital.

8.9 SUGGESTED READINGS

- Anthony and Govindrajan, Management Control Systems, 10th Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- R.C. Shekhar Management Control Systems: Text and Cases, Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- Anil Agashe, Satish Inamdar and Jayant Oke, Management Control Systems, 1st Edition, Pune: Everest Publishing House.
- Colin Dury, Management Accounting for Business Decisions, 2nd Edition, London: Thomson Learning.

8.10 SELF- CHECK QUESTIONS (ANSWER KEY)

8.5 1) Investment center 2) Replacement 3) EVA

Lesson No. 9

AUTHOR: SATINDER KUMAR

BUDGET PREPARATION: PROCESS, BEHAVIORAL ASPECTS

STRUCTURE:

9.0 OBJECTIVE:

- Come to know what is budget and how it is prepared
- Understand the master budget
- Behavioral aspect of budget
- Understand Budgeting and Budget process.

9.1 INTRODUCTION:

A budget is a plan that outlines an organization's financial or operational goal. It is an action plan. It helps a business allocate resources, evaluate performance, and formulate plans. Budget generally refers to a list of all planned expenses and revenues. An estimate of the income and expenditures for a future period of time, usually one year. A plan that estimates income and expenses in order to achieve financial goals.

A Budget is a plan that outlines an organization's financial and operational goals. So a budget may be thought of as an action plan; planning a budget helps a business allocate resources, evaluate performance, and formulate plans. While planning a budget can occur at any time, for many businesses, planning a budget is an annual task, where the past year's budget is reviewed and budget projections are made for the next three or even five years.

A budget is a comprehensive, formal plan that estimates the probable expenditures and income for an organization over a specific period. Budgeting describes the overall process of preparing and using a budget. Since budgets are such valuable tools for planning and control of finances, budgeting affects nearly every type of organization—from governments and large corporations to small businesses—as well as families and individuals. A small business generally engages in budgeting to determine the most efficient and effective strategies for making money and expanding its asset base. Budgeting can help a company use its limited financial and human resources in a manner which best exploits existing business opportunities.

- A quantitative expression of a plan of action prepared in advance of the period to which it relates.
- A means of translating the overall objectives of the organization into detailed plans of action.

An itemized forecast of an individual's or company's income and expenses expected for some period in the future. With a budget, an individual is able to carefully look at how much money they are taking in during a given period, and figure out the best way to divide it among a variety of categories. When making a personal budget, an individual will typically designate the appropriate amount of money to fixed expenses such as rent, car payments, or utility bills, and then make an educated estimation for how much money they will spend in other categories, such as groceries, clothing, or entertainment. By keeping track of where one's money goes, one may be less likely to overspend, and more likely to meet their financial goals.

Creating a set budget for a company should not be intimidating. It should, however, be planned in depth in order to achieve the maximum financial outcome. Whether you are starting a company budget or planning an existing company budget, the same rule applies—develop a strategic plan for a set budget as well as forecasting. To make a company budget plan, it is important to consider both the operation and financial aspects of the business. In other words, planning and controlling the budget is necessary in order to effectively manage the company budget plan; here's how. Businesses often use special types of budgets to assess specific areas of operation. A **cash flow budget**, for instance, projects our business's cash inflows and outflows over a certain period of time. Its main use is to predict our business's ability to take in more cash than it pays out. And if we are planning on starting a business, planning a budget plays an important role in determining our start up and operating costs.

- A budget for which expenditures are equal to income. Sometimes a budget for which expenditures are less than income is also considered **balanced budget.**
- The amount by which a company, or individual's spending exceeds its income over a particular period of time, called **deficit budget** or deficit spending, opposite of budget surplus
- Amount by which planned expenses exceed actual expenses called **Surplus budget** Opposite of budget deficit

A budget is a document that translates plans into money • money that will need to be spent to get your planned activities done (expenditure) and money that will need to be generated to cover the costs of getting the work done (income). It is an estimate, or informed guess, about what you will need in monetary terms to do your work.

A budget is not:

- Written in stone - where necessary, a budget can be changed, so long as you take steps to deal with the implications of the changes. So, for example, if you have budgeted for ten new computers but discover that you really need a generator, you could buy fewer computers and purchase the generator.

  Simply a record of last year's expenditure, with an extra 15% added on to cover inflation. Every year is different. (See also the section on different budgeting techniques.) Organizations need to use the budgeting process to explore what is really needed to implement their plans.
- Just an administrative and financial requirement of donors. The budget should not be prepared as part of a funding proposal and then taken out and dusted when it is time to do a financial report for the donor. It is a living tool that must be consulted in day-to-day work, checked monthly, monitored constantly and used creatively.

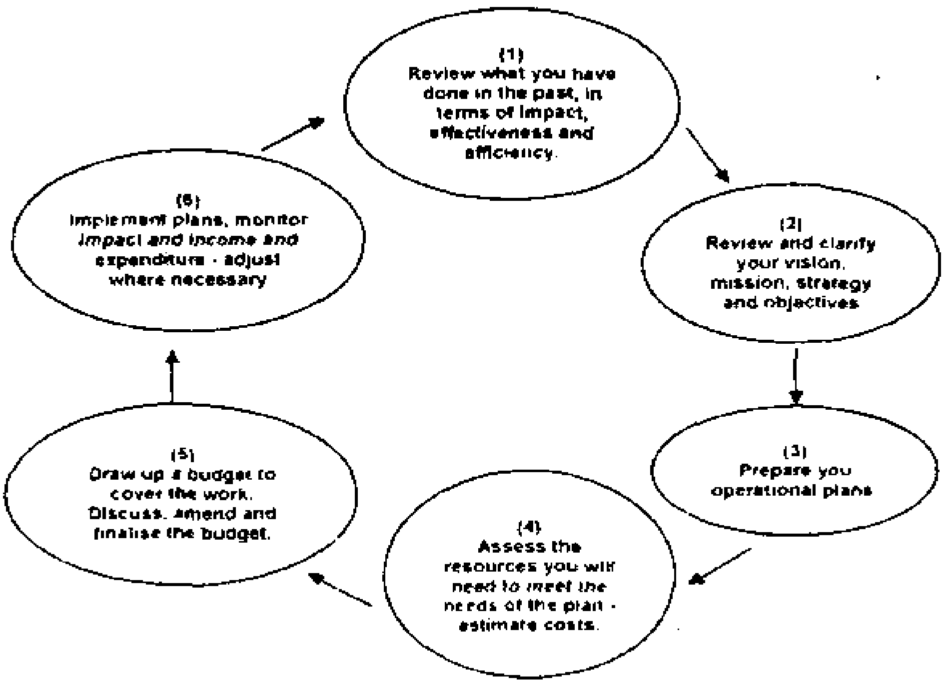
- An optimistic and unrealistic picture of what things actually cost - don't underestimate what things really cost in the hopes that this will help you raise the money you need. It is better to return unspent money to donors than to beg for a "bit more" so you can complete the work.

9.2 WHY IS IT IMPORTANT FOR AN ORGANISATION, PROJECT OR DEPARTMENT TO HAVE A BUDGET?

The budget is an essential management tool. Without a budget, you are like a pilot navigating in the dark without instruments.

- The budget tells you how much money you need to carry out your activities.
- The budget forces you to be rigorous in thinking through the implications of your activity planning. There are times when the realities of the budgeting process force you to rethink your action plans.
- Used properly, the budget tells you when you will need certain amounts of money to carry out your activities.
- The budget enables you to monitor your income and expenditure and identify any problems.
- The budget is a basis for financial accountability and transparency. When everyone can see how much should have been spent and received, they can ask informed questions about discrepancies.
- You cannot raise money from donors unless you have a budget. Donors use the budget as a basis for deciding whether what you are asking for is reasonable and well-planned.

9.3 PLANNING CYCLE MAY LOOK SOMETHING LIKE THIS:



9.4 DIFFERENT KINDS OF BUDGETS:

In addition to our main working budget - what we realistically expect to generate or raise, and how this will be spent - we can also have some "what if" budget options. "What if budgets allow us to prepare for the unexpected - whether it is good or bad. our "what if" budgets could include:

- A survival budgets. This is the minimum required in order for the organization or project to survive and do useful work.
- A guaranteed budget. This is based on the income guaranteed at the time the budget is planned. Usually the "guarantees" are in the form of promises from donors. However, unexpected situations, such as a donor grant coming through very late, may make it necessary to switch to your survival budget.
- An optimal budget. This covers what you would like to do if you can raise additional money. Once extra money comes in or is promised, it becomes part of your working budget.

9.5 CLASSIFICATIONS AND TYPES OF BUDGETS:

The budgeting process is sequential in nature, i.e., each budget hinges on a previous budget, so that no budget can be constructed without the data from the preceding budget. Budgets may be broadly classified according to how a company makes and uses its money. Different budgets may be used for different applications. Some budgets deal with sources of income from sales, interest, dividend income, and other sources. Others detail the sources of expenditures such as labor, materials, interest payments, taxes, and insurance. Additional types of budgets are concerned with investing funds for capital expenditures such as plant and equipment; and some budgets predict the amounts of funds a company will have at the end of a period.

A company cannot use only one type of budget to accommodate all its operations. Therefore, it chooses from among the following budget types.

The ***fixed budget***, often called a *static* budget, is not subject to change or alteration during the budget period. A company "fixes" budgets in at least two circumstances:

1. The cost of a budgeted activity shows little or no change when the volume of production fluctuates within an expected range of values. For example, a 10 percent increase in production has little or no impact on administrative expenses.
2. The volume of production remains steady or follows a tight, pre-set schedule during the budget period. A company may fix its production volume in response to an all-inclusive contract; or, it may produce stock goods.

The variable or ***flexible budget*** is called a ***dynamic*** budget. It is an effective evaluative tool for a company that frequently experiences variations in sales volume which strongly affect the level of production. In these circumstances a company initially constructs a series of budgets for a range of production volumes which it can reasonably and profitably meet.

After careful analysis of each element of the production process, managers are able to determine over-head costs that will not change (fixed) within the anticipated range, overhead costs that will change (variable) as volume changes, and those overhead costs which vary to some extent, but not proportionately (semi-variable) within the predicted range.

The ***combination budget*** recognizes that most production activities combine both fixed and variable budgets within its master budget. For example, an increase in the volume of sales may have no impact on sales expenses while it will increase production costs.

The **continuous *budget*** adds a new period (month) to the budget as the current period comes to a close. Under the fiscal year approach, the budget year becomes shorter as the year progresses. However, the continuous method forces managers to review and assess the budget estimates for a never-ending 12-month cycle.

The ***operating budget*** gathers the projected results of the operating decisions made by a company to exploit available business opportunities. In the final analysis, the operating budget presents a projected (pro forma) income statement which displays how much money the company expects to make. This net income demonstrates the degree to which management is able to respond to the market in supplying the right product at an attractive price, with a profit to the company.

The operating budget consists of a number of parts which detail the company's plans on how to capture revenues, provide adequate supply, control costs, and organize the labor force. These parts are: sales budget, production budget, direct materials budget, direct labor budget, factory overhead budget, selling and administrative expense budget, and pro forma income statement.

The operating budget and the ***financial budget*** are the two main components of a company’s ***master budget***. The financial budget consists of the capital expenditure budget, the cash budget, and the budgeted balance sheet. Much of the information in the financial budget is drawn from the operating budget, and then all of the information is consolidated into the master budget.

- **Self- Check Questions (MCQs)**

1. Which type of budget is not subject to change during the budget period?

a) Continuous budget b) fixed budget c) flexible budget d) combination budget

2. **What is the main purpose of operating budget?**

a) To project income for the company b) to determine the sources of income

c) to predict the amount of funds at the end of a period d) to control costs and organize the labor force

9.6 FINANCIAL FORECASTS AND BUDGETS:

A financial forecast projects where the company wants to be in three, five, or ten years. It quantifies future sales, expenses, and earnings according to certain assumptions adopted by the company. The company then considers how changes in the business climate would affect the outcomes projected. It presents this analysis in the pro forma statement, which displays, over a time continuum, a comparison of the financial plan to “best case” and “worst case” scenarios. The pro forma statement acts as a guide for meeting goals and objectives, as well as an evaluative tool for assessing progress and profitability.

Through forecasting a company attempts to determine whether and to what degree its long- range plans are feasible. This discipline incorporates two interrelated functions: long-term planning based on realistic goals and objectives and a prognosis of the various conditions that possibly will affect these goals and objectives; and short-term planning and budgeting, which provide details about the distribution of income and expenses and a control mechanism for evaluating performance. Forecasting is a process for maximizing the profitable use of business assets in relation to: the analyses of all the latest relevant information by tested and logically sound statistical and econometric techniques; the interpretation and application of these analyses into future scenarios; and the calculation of reasonable probabilities based on sound business judgment.

Future projections for extended periods, although necessary and prudent, suffer from a multitude of unknowns: inflation, supply fluctuations, demand variations, credit shortages, employee qualifications, regulatory changes, management turnover, and the like. To increase control over operations, a company narrows its focus to forecasting attainable results over the short-term. These short-term forecasts, called budgets, are formal, comprehensive plans that quantify the expected operations of the organization over a specific future period. While a company may make few modifications to its forecast, for instance, in the first three years, the company constructs individual budgets for each year.

A budget describes the expected month-to-month route a company will take in achieving its goals. It summarizes the expected outcomes of production and marketing efforts, and provides management benchmarks against which to compare actual outcomes. A budget acts as a control mechanism by pointing out soft spots in the planning process and/or in the execution of the plans. Consequently, a budget, used as an evaluative tool, augments a company's ability to more quickly react and make necessary alterations.

9.7 PRINCIPLES AND PROCEDURES FOR SUCCESSFUL BUDGETING:

To be successful, budgets should be prepared in accordance with the following principles:

1. **REALISTIC AND QUANTIFIABLE:** In a world of limited resources, a company must ration its own resources by setting goals and objectives which are reasonably attainable. Realism engenders loyalty and commitment among employees, motivating them to their highest performance. In adding, wide discrepancies, caused by unrealistic projections, have a negative effect on the credit worthiness of a company and may dissuade lenders. A company evaluates each potential activity to determine those that will result in the most appropriate resource allocation. A company accomplishes this through the quantification of the costs and benefits of the activities.

3. **HISTORICAL:** The budget reflects a clear understanding of past results and a keen sense of expected future changes. While past results cannot be a perfect predictor, they flag important events and benchmarks.

4. **PERIOD SPECIFIC:** The budget period must be of reasonable length. The shorter the period, the greater the need for detail and control mechanisms. The length of the budget period dictates the time limitations for introducing effective modifications. Although plans and projects differ in length and scope, a company formulates each of its budgets on a 12- month basis.

5. **STANDARDIZED:** To facilitate the budget process, managers should use standardized forms, formulas, and research techniques. This increases the efficiency and consistency of the input and the quality of the planning. Computer-aided accounting, analyzing, and reporting not only furnish managers with comprehensive, current, "real time" results, but also afford them the flexibility to test new models, and to include relevant and high-powered charts and tables with relatively little effort.

6. **INCLUSIVE:** Efficient companies decentralize the budget process down to the smallest logical level of responsibility. Those responsible for the results take part in the development of their budgets and learn how their activities are interrelated with the other segments of the company. Each has a hand in creating a budget and setting its goals. Participants from the various organizational segments meet to exchange ideas and objectives, to discover new ideas, and to minimize redundancies and counterproductive programs. In this way, those accountable buy into the process, cooperate more, work harder, and therefore have more potential for success.

7. **SUCCESSIVELY REVIEWED:** Decentralization does not exclude the thorough review of budget proposals at successive management levels. Management review assures a proper fit within the overall "master budget."

8. **FORMALY ADOPTED AND DISSEMINATED**: Top management formally adopts the budgets and communicates their decisions to the responsible personnel. When top management, has assembled the master budget and formally accepted it as the operating plan for the company, it distributes it in a timely manner.

FREQUENTLY EVALUATED: Responsible parties use the master budget and their own department budgets for information and guidance. On a regular basis, according to a schedule and in a standardized manner, they compare actual results with their budgets. For an annual budget, managers usually report monthly, quarterly, and semi-annually.

9.8 THE BASIC STEPS IN A STANDARD BUDGET PREPARATION SYSTEM COMPRISE THE FOLLOWING:

1. The first step in budget preparation should be the determination of a macroeconomic framework for the budget year (and ideally at least the next two years). The macroeconomic projections, prepared by a macroeconomic unit in the ministry of finance or elsewhere, should be agreed with the minister of finance. This allows the budget department within the ministry of finance to determine the global level of expenditure that can be afforded without adverse macroeconomic implications, given expected revenues and the level of deficit that can be safely financed. In a few countries, there are fiscal rules in place that may limit total spending or recurrent spending (e.g., the "golden rule").
2. The second step should be the allocation of this global total among line ministries, leaving room for reserves (a separate planning and a contingency reserve as explained below) to be managed by the ministry of finance.
3. The next step should be for the budget department to prepare a budget circular to give instructions to line ministries, with the indicative aggregate spending ceiling for each ministry, on how to prepare their estimates in a way that will be consistent with macro-objectives. This circular will include information on the economic assumptions-to be adopted on wage levels, the exchange rate and price levels (and preferably differentiated price levels for different economic categories of goods and services).
4. Step four is the submission of bids by line ministries to the budget department. Once received there needs to be an effective "challenge" capacity within the budget department to test the costing of existing and any new policy proposals.
5. The next step comprises the negotiations, usually at official and then bilateral or collective ministerial level, leading finally to agreement.
6. Finally, step six is Cabinet endorsement of the proposals for inclusion in the budget that will go to parliament.

9.9 BEHAVIOURAL ASPECTS OF BUDGETING:

The system of budgetary control can rely heavily upon individuals of an organization to make the system successful (Harris and Hazzard, 1992). The human aspect in the budgetary system can be just as complex as it is essential. All budgetary processes involve relationships between different people within the organization - these can be managers, employees and directors. Chadwick (1993) suggests that 'budgets are in fact designed to affect people's behaviour'.

9.9.1. GOAL CONGRUENCE:

- goals of individuals and groups should coincide with the goals and objectives of the organization as a whole.

9.9.2. PARTICIPATION:

- ideally want to involve all the people affected by the budget to improve their motivation towards the budget.

9.9.3. MOTIVATION:

- want to encourage responsibility
- do not want the budget seen as a pressure device
- want to set attainable targets
- want both rewards and penalties.

9.9.4. GOAL DEFINITION:

- people like clearly defined targets
- particularly agreed and accepted targets

9.9.5. COMMUNICATION:

- Feedback on performance must be timely and accurate to encourage success of the budget.

The **master budget** aggregates all business activities into one comprehensive plan. It is not a single document, but the compilation of many interrelated budgets which together summarize an organization's business activities for the coming year. To achieve the maximum results, budgets must be tailor-made to fit the particular needs of a business.

- **SALES FORECAST AND BUDGET:** The sales organization has the primary responsibility of preparing the sales forecast. Since the sales forecast is the starting point in constructing the sales budget, the input and involvement of other managers is important. The sales budget includes items such as: sales expressed in both the number of units and the dollars of revenue; adjustments to sales revenues for allowances made and goods returned; salaries and benefits of the sales force; delivery and setup costs; supplies and other expenses supporting sales; advertising costs; and the distribution of receipt of payments for goods sold.
- **ENDING INVENTORY BUDGET:** The *ending inventory budget* presents the dollar value and the number of units a company wishes to have in inventory at the end of the period.
- **PRODUCTION BUDGET:** After it budgets sales, a company examines how many units it has on hand and how many it wants at year-end. From this it calculates the number of units needed to be produced during the upcoming period.
- **DIRECT-MATERIALS BUDGET:** With the estimated level of production in hand, the company constructs a direct-materials budget to determine the number of additional materials needed to meet the projected production levels. A company uses the planning of a direct-materials budget to determine the adequacy of their storage space, to institute or refine Just-in-Time (JIT) inventory systems, to review the ability of vendors to supply materials in the quantities desired, and to schedule material purchases concomitant with the flow of funds into the company.
- **DIRECT-LABOR BUDGET:** Once a company has determined the number of units of production, it calculates the number, of direct-labor hours needed. A company states this budget in the number of units and the total dollar costs.
- **BUDGET OF COST OF GOODS SOLD:** At this point the company has projected the number of units it expects to sell and has calculated all the costs associated with the production of those units.
- **ADMINISTRATIVE EXPENSE BUDGET**: In the administrative expense budget, the company presents how much it expects to spend in support of the production and sales efforts. The major expenses accounted for in the administrative budget are: officers' salaries; office salaries; employee benefits for administrative employees; payroll taxes for administrative employees; office supplies and other office expenses supporting administration; losses from uncollectible accounts; research and development costs; mortgage payments, bond interest, and property taxes; and consulting and professional services.
- **BUDGETED INCOME STATEMENT**: A budgeted income statement combines all the preceding budgets to show expected revenues and expenses.

The Administrative Reforms Commission in its report on "Strengthening Financial Management Systems", which was submitted in April 2009, has recommended that the current system of budget preparation, which follows both the top-down and bottom-up approaches should, be replaced by the top-down approach. The ARC was headed by current Union Law Minister M. Veerappa Moily. Large-scale unspent provisions by the ministries/ departments have prompted the ARC to make such a recommendation. The ARC has noted that large-scale unspent provisions are indicative of lack of efficiency in programme management at the departmental level in an annual budget cycle and undermine efficient use of public money which is one of the major objectives of any budgeting system.

Keywords: *budgeting, financial forecast, master budget, fixed budget, flexible budget*

- **Self- Check Questions (True/ False)**

1. Forecasting involves both long term planning based on realistic goals and short-term planning and budgeting.
2. Feedback on performance must be timely and accurate to encourage the success of the budget.
3. The sales forecast is primarily prepared by the sales organization, and the input of other managers is not important.

9.10 SUMMARY:

Budget is a plan that outlines an organization's financial and operational goals. Budget is a comprehensive, formal plain that estimates the probable expenditures and income for an organization over a specific period. Budgeting describes the overall process of preparing and using a budget. Creating a set budget for a company should not be intimidating. It should, however, be planned in depth in order to achieve the maximum financial outcome. Whether you are starting a company budget or planning an existing company budget, the same rule applies—develop a strategic plan for a set budget as well as forecasting. The budget is an essential management tool. Without a budget, you are like a pilot navigating in the dark without instruments. Different budgets may be used for different applications. Some budgets deal with sources of income from sales, interest, dividend income, and other sources.

9.11 SELF- CHECK EXERCISE:

- **LONG QUESTION ANSWERS**
    1. Should the Plant manager be held responsible for profits? Why? Why not?
    2. What is master Budget? Define different types of Budgets?
- **SHORT QUESTION ANSWERS**
    4. What is Budget? How it is prepared?
    5. Explain budgeting from behavioral point of view.

9.12 SUGGESTED READINGS

- Banham, Russ. "Better Budgets." *Journal of Accountancy.* February 2000.
- Brock, Horace R., Charles E. Palmer, and Billie M. Cunningham. Accounting *Principles and Applications.* 5th ed. New York: McGraw-Hill, 1986.
- Fearon, Craig. "The Budgeting Nightmare." CAM *Management.* May 2000.
- Hornyak, Steve. "Budgeting Made Easy." *Management Accounting.* October 1998.
- Livingstone, John Leslie. *The Portable MBA in Finance and Accounting.* New York: Wiley, 1992.
- Meigs, Robert F., and Walter B. Meigs. *Accounting: The Basis for Business Decisions.* 8th ed. New York: McGraw-Hill, 1990.
- Reason, Tim. "Building Better Budgets." *CFO.* December 2000.
- http: // in. news, yahoo, com /32/20090706/1056/ tnl-arc-wants-current-budget-preparation.html

9.13 SELF- CHECK QUESTIONS (ANSWER KEY)

9.5 1) b 2) d

9.9 1) True 2) True 3) False

Lesson No. 10 **AUTHOR: Dr. PUJA BHARDWAJ**

ANALYZING FINANCIAL PERFORMANCE REPORTS

STRUCTURE

10.0 OBJECTIVES

After studying this chapter, you should be able to:

1. Calculate Variances.
2. Prepare financial performance reports
3. Judge how these reports are used by senior management to evaluate business unit performance.

10.1 INTRODUCTION

In management control systems the performance of a responsibility center is measured through a document called financial performance reports.

Preparing financial performance reports involves collection, summarization, and reporting of financial information about various responsibility centers and comparing it against the budgeted figures.

Financial parameters on the basis of which segment's performance is evaluated are different for different responsibility centers.

Cost Center: cost elements and cost drivers

Revenue Centers: Sales or revenue

Profit Centers: various measures of profit

Investment Center: ROI/RI/EVA

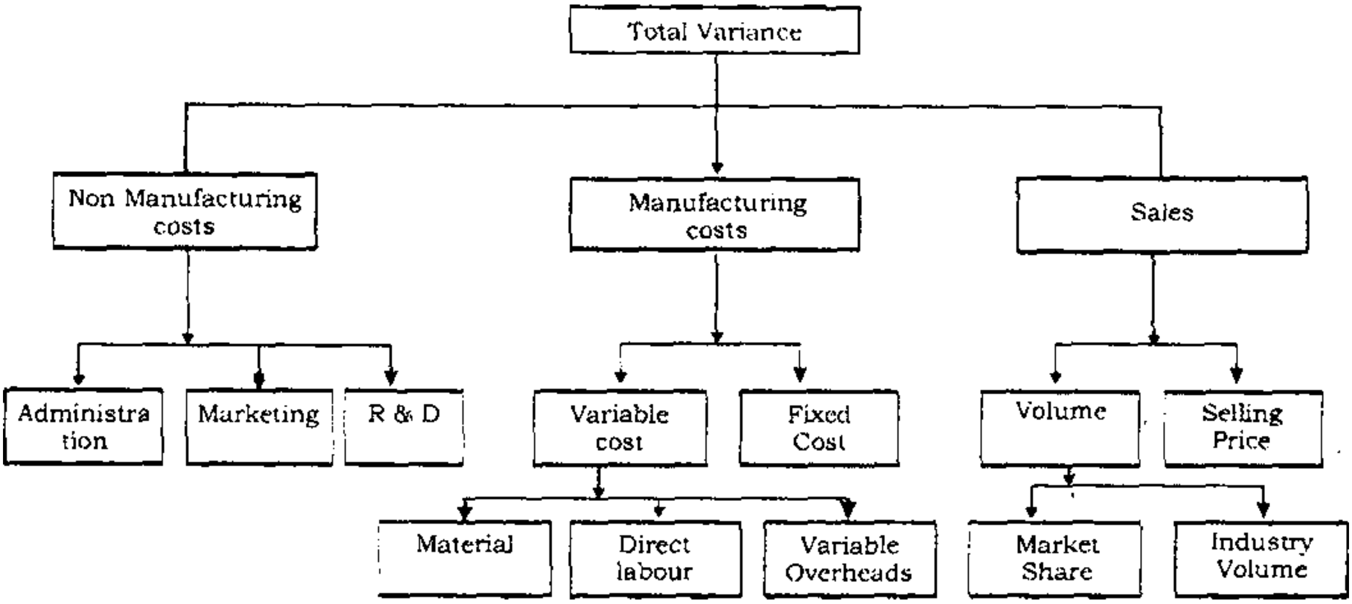
10.2 CALCULATING VARIANCES

Variance: a variance is the difference between a budgeted, planned or standard amount and the actual amount incurred/sold. Variances can be computed for both expenses and revenues.

The concept of variance is intrinsically connected with planned and actual results and effects of the difference between those two on the performance of the entity or company.

Variance analysis, in budgeting is a tool of budgetary control by evaluation of performance by means of variances between budgeted amount, planned amount or standard amount and the actual amount incurred/sold. Variance analysis is continuous process and can be done on monthly/quarterly basis. Variance analysis merely reports the degree of variance but detailed analysis is required to identify the causes of variances and organization unit responsible. Profit variances, between current performance and forecast/budget or between a current and previous period, may result from variances in revenues and/or costs.

Variance Analysis Disaggregation



As shown in above figure the total business unit performance is divided into revenue variances and expenses variances. Revenue variances are further divided into volume and price variance of total business unit and for each marketing responsibility center with in the unit. They can further be divided by sales area and sales district.

Expense variance can be divided into manufacturing and other expenses. Manufacturing expense can be further subdivided by factories and departments within the factories. Therefore, it is possible to identify each variance with the individual manager who is responsible for it.

The analytical framework used to conduct variance analysis incorporate the following ideas:

1. Identify key casual factors that affect profit.
2. Breakdown overall profit variances by key casual factors.
3. Focus on profit impact of variation in each casual factor.
4. Try to calculate specific, separable impact of each casual factor by varying only the factor while holding all the other factors constant.
5. Add complexity sequentially, one layer at time, beginning at a very common-sense level.
6. Stop the process when added complexity at a newly created level is not justifies by added useful insights into casual factors underlying the overall profit variance.

10.3 REVENUE VARIANCE

Revenue variances occur for one or both of the following main reasons:

a change in the level of activity (quantity sold)

a change in the selling price.

These variances can be combined to reconcile the total difference revealed by comparison of actual and standard. Revenue variances can therefore be divided into selling price variance, sales mix variance and sales volume variance. The calculation is made for each product line and product line results are then aggregated to calculate the total variance. The positive variance is favorable because it indicates that actual profit has exceeded the budgeted profit and negative variance is unfavorable.

Budget for August 2009 (Rs. 000)

	Product A		Product B		Product C		Total
Standard Volume (Units)	100		100		100		Budget
	Unit	Total	Unit	Total	Unit	Total	
Sales	1	100	2	200	3	300	600
Standard Variable Cost							
Material	0.5		0.7		1.5		270
Labour	0.1		0.15		0.1		35
Variable Overhead Cost	0.2		0.25		0.2		65
Total Variable Cost	0.8		1.1		1.8		370
Contribution	0.2		0.9		1.2		230
Fixed Costs							
Fixed Overheads		25		25		25	75
Selling Expense		17		17		17	50
Administrative Expense		8		8		8	25
Total Fixed Cost		50		50		50	150
Profit Before Taxes		-30		40		70	80

10.3.1 **Selling Price Variance: It is calculated by the difference between actual and standard selling price with actual volume.**

= (Actual Selling Price - Budgeted Selling Price) X Actual Quantity

Table 10 A Selling Price Variances, August 2009

	A	B	C	Total
Actual volume (units)	100	200	300	
Actual price per unit	0.90	2.05	2.5	
Budgeted price per unit	1.00	2.00	3	
Actual over/under budget per unit	-0.10	0.05	-0.5	
Favorable/unfavorable price variance	-10	10	-75	-75

10.3.2 Mix and Volume Variance

= (Actual Volume - Budgeted Volume) X Budgeted Unit Contribution

Table 10 B Mix and Volume Variances, August 2009

(a)	(b)	(c)	(d)	(e)	(f)
Product	Actual Volume	Budgeted Volume	Difference (b)-(c)	Unit Contribution	Variance (d)-(e)
A	100	100	…	…	…
B	200	100	100	0.9	90
C	150	100	50	1.2	60
Total	450	300			150

The total volume and mix variance are Rs. 1,50,000 favorable. The volume results from selling more units than budgeted. The mix variance results from selling a different proportion of products from that assumed in the budget. Because products earn different contributions per unit, the sale of different proportion of products than budgeted will result in a variance. If a business has a richer mix (higher proportion of products with higher contribution margin), the actual profit will be higher than budgeted and if it has a leaner mix, the profit will be lower. Mix and volume variance can further be divided into mix variance and volume variance.

Mix Variance

Mix variance for each product can be calculated from following equation:

= [(Actual Volume of sales) - (Total actual volume of sales * Budgeted Proportion) X Budgeted Unit Contribution)

Table 10 C Mix Variance, August 2009

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Product	Budgeted Proportion	Budgeted Mix at Actual Volume	Actual Sales	Difference (d)-(c)	Unit Contribution	Variance (e) * (f)
A	1/3rd	150	100	…	…	…
B	1/3rd	150	200	-50	0.2	-10
C	1/3rd	150	150	50	0.9	45
Total		450	450	…	…	35

Budgeted mix at actual volume is calculates by multiplying 1/3 with total volume i.e. 450.

It shows that higher proportion of product B and lower proportion of product A. since the per unit contribution of product B is highest than product A, mix variance is favorable by Rs. 35,000.

Volume Variance

It can be calculated by subtracting mix variance from combined volume and mix variance i.e. 1,50,000 - 35,000 =1,15,000. It can also be calculated for each product as follows:

= [(Total Actual Volume of sales) X (Budgeted Percentage) - (Budgeted Sales)] X Budgeted Unit Contribution

Table 10 D Volume Variance, August 2009.

(a)	(b)	<c)	(d)	(e)	W
Product	Budgeted Mix at Actual Volume	Budgeted Volume	Difference (b)-(c)	Unit Contribution	Variance (d) * (e)
A	150	100	50	0.2	10
B	150	100	50	0.9	45
C	150	100	50	1.2	60
Total	450	300	150	...	115

10.3.3 Other Revenue Variances

Revenue variances may be further sub divided. One extension of revenue analysis is to separate mix and volume variance into the amount caused by differences in market share and the amount caused by differences in industry volume. The principal is that business unit managers are responsible for market share but they are not responsible for industry volume as it is largely influenced by the state of economy. For this calculation industry sales data must be available.

The following equation is used to separate the effect of market penetration from industry volume on mix and volume variance.

Market Share Variance = [(Actual Sales) - (Industry Volume)] x Budgeted Market Penetration x Budgeted Unit Contribution.

The market share variance is calculated separately for each product and total variation is the algebraic sum.

The industry volume variance can be calculated as follows:

Industry Volume Variance = (Actual Industry Volume - Budgeted Industry Volume) x Budgeted Market Penetration x Budgeted Unit Contribution.

10.4 EXPENSE VARIANCE

Cost variances occur for one or more of three main reasons:

a change in the level of activity (quantity sold/produced),

a change in the price paid for resources

a change in the efficiency with which resources are used.

10.4.1 Fixed Cost Variance:

Variances between actual and budgeted fixed costa re obtained simply by subtraction, since these costs are not affected by either volume of sales or volume of production.

Table 10 E

	Actual	Budget	Variances
Fixed Overhead	75	75	...
Selling Expense	55	50	-5
Administrative Expense	30	25	-5
Total	160	170	-10

10.4.2 Variable Cost Variance:

Variable costs are the cost that varies directly and proportionately with volume. The budgeted variable manufacturing cost must be adjusted to actual volume of production.

Assume that August production was as follows: Product A: 1,50,000 units; Product B: 1,20,0 units and Product C: 2,00,000 units and variable manufacturing costs incurred were Material Rs. 4,70,000 Labour Rs. 65,000 and variable manufacturing overheads Rs. 90,000

Table 10 F

	Product					
	A	B	C	Total	Actual	Variances
Material	75	84	300	459	470	-11
Labour	15	18	20	53	65	-12
Overheads	30	30	40	100	90	10
Total	120	132	360	612	625	-13

The budgeted manufacturing expense is adjusted to the amount that should have been spent at the actual level of production by multiplying each element of standard cost for each product by the volume of production for that product.

In this example all the non-manufacturing costs were assumed to be fixed. If some of them had variable component, the variances should be calculated in same way as was use for calculation of manufacturing cost variances.

Table 10 G Summary Performance Report, August 2009 (Rs. 000)

Actual Profit (Table 10 A)	132
Budgeted Profit (Table 10 A)	80
Variance	52
Analysis of Variance	
Revenue variances:	
Price (Table B)	-75
Mix (Table C}	35
Volume (Table D)	115
Net Revenue Variance	75
Variable Cost Variance (Table 10 F)	
Material	-11
Labour	-12
Variable Overheads	10
Net variable Cost Variance	-13
Fixed Cost Variances (Table 10 E)	
Fixed Overheads	
Selling Expense	-5
Administrative Cost	-5
Net Fixed Cost Variances	-10
Variance	52

10.5 VARIATIONS IN PRACTICE:

The example explained the way of identifying variances that caused actual profit in the business to be different from the budgeted profit.

10.5.1 Time Period of the Comparison

In the given example, actual and budgeted figures for august 2009 were compared, same analysis can be done for the particular time period say for six months (Apr-Sep) Or (Oct-Mar).

10.5.2 Focus on Gross Margin

In the case of the companies where change in costs lead to change in selling price, the focus shifts from selling price to the gross margin. Gross margin is the difference between selling prices and the manufacturing costs.

10.5.3 Determining Standards

There are three type of standards; Predetermined standards, historical standards and external standards.

Pre-determined standards are the standards arrived at the start of period and after taking into account the past figures adjusted to changes in level of activity.

Historical Standards are the records of past actual performance. Results of current month may be compared with the results of past month.

External Standards are derived from the performance of other responsibility centers or of other companies in the same industry.

10.5.4 Full Cost Systems

Some of the companies follow full cost systems where all the variable as well as fixed overhead costs are included in inventory at the standard cost per unit. In case the ending inventory is higher than the beginning inventory some of the fixed overheads incurred remain ij inventory rather than treated as a part of cost of sales. If the beginning inventory is higher than ending inventory then more fixed costs were charged to cost of sales than actual amount spent in that period.

10.5.5 Amount of Detail

Level of detail in variance analysis depends upon complexity in product line and the variety of raw materials and different types of labour required for manufacturing that product.

Higher the number of products, raw material and labour used; more detailed analysis will be there.

10.5.6 Engineered and Discretionary Cost Centers

A favorable variance in engineered cost center is an indicator of good performance but in case of discretionary cost centers it may indicate that some tasks was not undertaken or accomplished.

10.6 LIMITATIONS OF VARIANCE ANALYSIS:

-It tells where the variance occurs but it does not specify the reason as to why that variance has occurred.

- Difficulty in determining the significance of variance. Whether a particular variance both favorable and unfavorable should be considered important or it can be tolerated.

- When performance reports are made all the variances are aggregated and variances can offset each other and lead to misleading interpretations.

-Only responsibility center managers know the real reasons for the variance but the top-level management depends upon the explanations given in performance reports.

-Variance analysis just shows what has happened but it does not the future effects of actions that manager has taken.

10.7 BEHAVIORAL CONSIDERATIONS IN PERFORMANCE EVALUATION

Financial Measures such as Profits, ROI/RI/EVA, ROCE, Sales Volume, Market Share, EPS, Profit / Sales and Return / Equity concentrate only on numbers and it ignores the behavioral aspects of performance. Conventional system concentrates only on financial measures rather than what managers need to create future value for various stake holders. In case all efforts are concentrated on increasing financial performance ethical issues takes backseat. Though financial indicators are basic measure of achievement but to have a comprehensive performance measure, non-financial measures / intangibles should also be included.

- **Self- Check Questions (Answer Key)**

1. In management control systems, the performance of a responsibility center is measured through financial performance reports.
2. The financial parameters for evaluating the performance of different responsibility centers are the same.
3. Variance analysis is a continuous process and can only be done on an annual basis.

10.8 SUMMARY

Variance analysis aims at determining the level of performance of the responsibility center.

Variance is a difference between expected standard cost and actual cost incurred. Unit standard cost includes the detail of both usage of resources and price to be paid for resources. Variance analysis involves breaking down the total variance to explain: how much it is caused by Usage of resources being different from standard and how much of it is caused by Price of resources being different from standard. These variances can be combined to reconcile the total difference revealed by comparison of actual and standard. In case of cost centers cost variances are calculated where as in case of profit center the budgeted profits are compared with actual profit to get variance. For measurement of performance of investment centre budgeted ROI/RI or EVA is compared with actual figures.

10.9 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**

1. Define variance. How to calculate variance? Explain in detail.

- **SHORT QUESTION ANSWERS**

1. Write a short note on Revenue variance.

10.10 GLOSSARY

Variance is the difference between standard and actual figures.

10.11 SUGGESTED READINGS

- Anthony and Govindrajan, Management Control Systems, 10th Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- R.C. Shekhar Management Control Systems: Text and Cases, Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- Anil Agashe, Satish Inamdar and Jayant Oke, Management Control Systems, 1st Edition, Pune: Everest Publishing House.
- Colin Dury, Management Accounting for Business Decisions, 2nd Edition, London: Thomson Learning.

10.12 SELF- CHECK QUESTIONS (ANSWER KEY)

10.7 1) True 2) False 3) False

Lesson No. 11 **AUTHOR: DR. PUJA BHARADWAJ**

PERFORMANCE MEASUREMENT SYSTEMS

STRUCTURE

11.0 OBJECTIVES

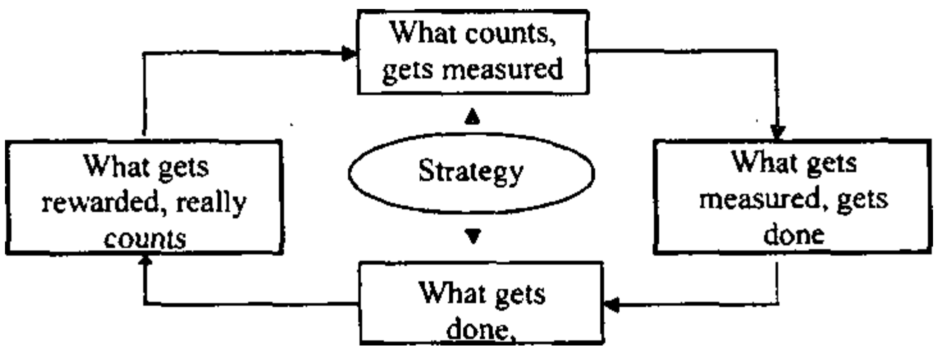
After studying this chapter, you should be able to;

1. understand the meaning of performance measurement system.
2. explain balance scorecard
3. understand how performance system is implemented
4. understand the concept of interactive controls.

11.1 INTRODUCTION

The basic objective of performance measurement system is to ensure that all the plans and strategies are well implemented in the organization. While designing the performance measurement system the company selects the measures which represents the strategy.

11.1.1 Designing Performance Measurement System



11.1.2 Limitations of Financial Control System

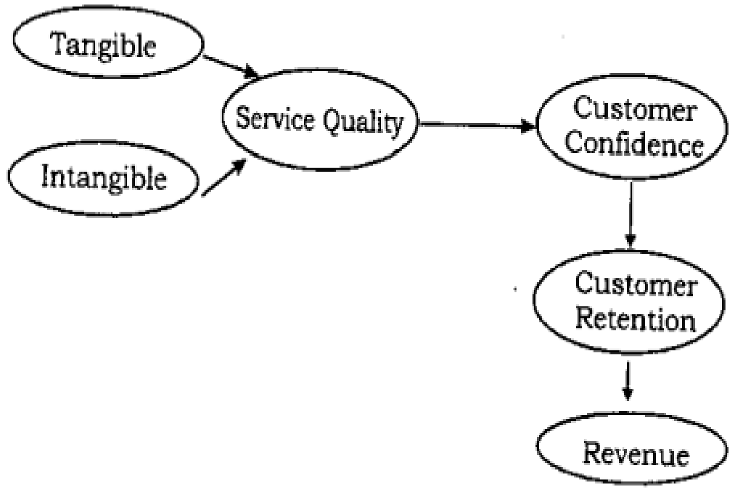
New operating environment has made isolated use of financial performance measures obsolete. Non-financial measures or intangibles like product pipeline, process capabilities, employees' skills, motivation, flexibility, customer loyalty and database are important parameters that can define company's profitability and future growth.

Importance of Intangibles:

1. Develop customer relationship that retains the loyalty of existing customers and enable new customer segments and market areas to be served effectively and efficiently.
2. To introduce innovative products and services desired by customer segments
3. Produce customized high-quality products and services at low cost and low lead time.
4. Mobilize employees' skills and motivation for continuous improvement in process capabilities, quality and response time.

Deploy information technology, data bases and systems.

Intangibles are important to business units as they include whole gamut of activities that determine future growth prospects of business entity.



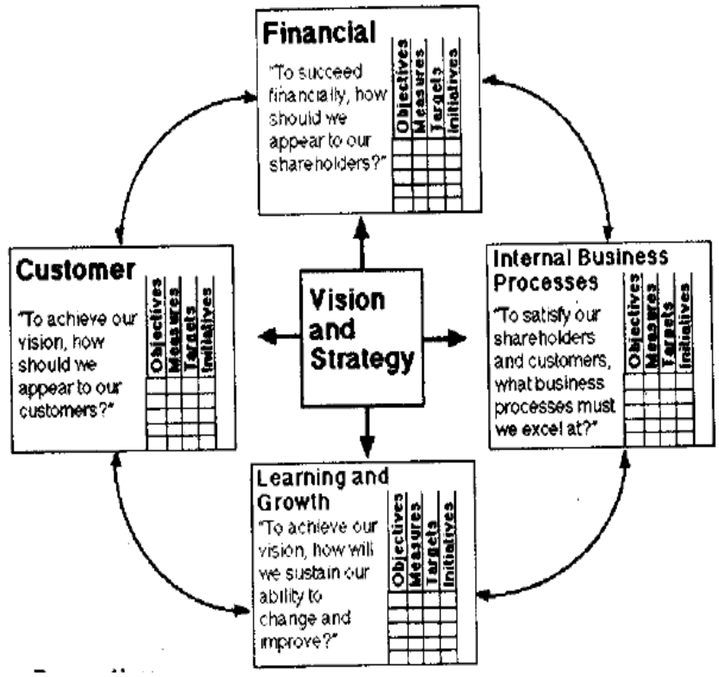
11.2 BALANCE SCORE CARD

The Collision between irresistible force to build long range competitive capabilities and immovable object of historical-cost financial accounting model has created new synthesis called Balance Score Card.

According to Kaplan & Norton, the balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology and innovation.

Features of Balance Score Card:

1. Performance Measurement Framework: BSC is comprehensive performance measurement framework that translate organization's strategy into clear objectives, measures, targets and initiatives.
2. Management System: The balanced scorecard is a management system (not only a measurement system) that can motivate breakthrough improvements in critical areas of product, process, customer and market development.



11.2.1 Four Perspectives

Balance score card evaluate the performance of the companies from four different perspectives namely financial, customer, internal and learning and growth.

Perspective	Generic Measures
Financial	Cost, Profit, ROI / EVA
Customer Internal Learning and Growth	Satisfaction, Retention, Market and Account share Quality, Response time, Cost and New product introduction Employee satisfaction and Information system availability

Further measures selected for a particular perspective will depend upon the goals or strategies of the company.

1. Financial Perspective

Goals	Measures
Survive	Cash Flow
Succeed	Quarterly sales growth 8s Operating Income by division
Prosper	Increase market share & ROE

2. Customer Perspective

Goals	Measures
New Products	Percent of sales from new products
Responsive Supply	On time delivery as defined by the customers
Preferred Supplier	Share of key accounts purchase
Customer Partnership	No. of co-operative engineering efforts

3. Internal Business Perspective

Goals	Measures
Technology Capability	Manufacturing Geometry v/s competition
Manufacturing Excellence	Cycle time, Unit cost & Yield
Design Productivity	Silicon Efficiency & engineering efficiency
New Product Innovation	Actual introduction schedule v/s plan

4. Learning and Growth Perspective

Goals	Measures
Technology Leadership	Time to develop next generation
Manufacturing Learning	Process time to maturity
Product Focus	% product that equals 80% of sales
Time to Market	New product introduction v/s competition

11.2.2 Key Value Drivers

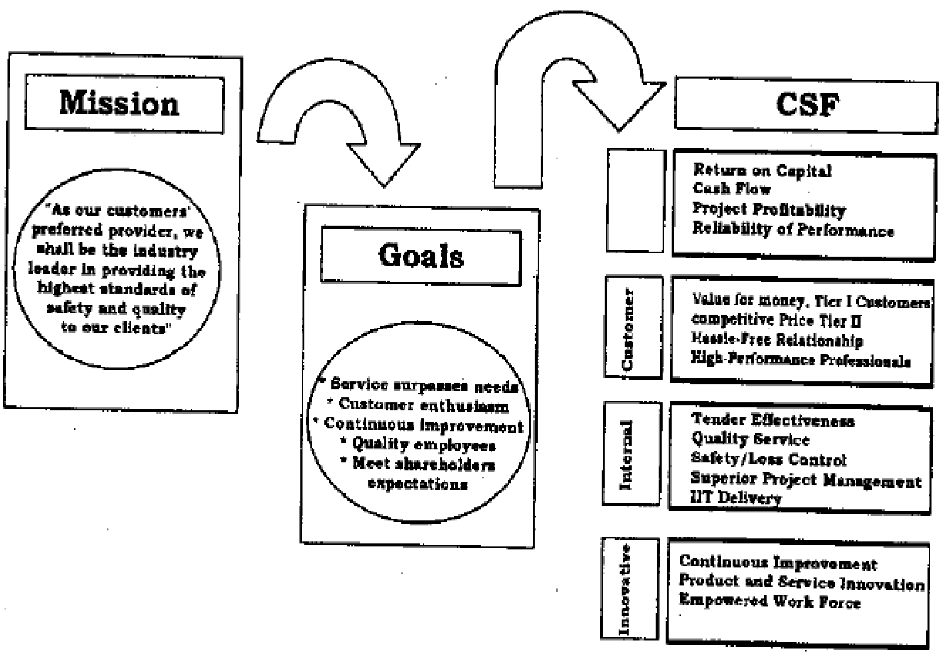
Key value drivers are the factors under which the business organization operates.

Key value drivers which drive these four perspectives:

1. Environmental: Govt, regulation, economic cycle, global, nation & local politics etc.
2. Organizational: Co. strategy, HR systems, policies, procedures, organization structure, pay system etc.
3. Group or Departmental: Work process, group relationships, work responsibilities, work assignments etc.
4. Individual: Personality, management style, skills, behavior etc.

11.2.3 Critical Success Factors

Critical success factors are the variables on which organization's performance is measured. It can also be defined as factors which are essential to the success of an organization.



11.2.4 Lead and Lag Measures

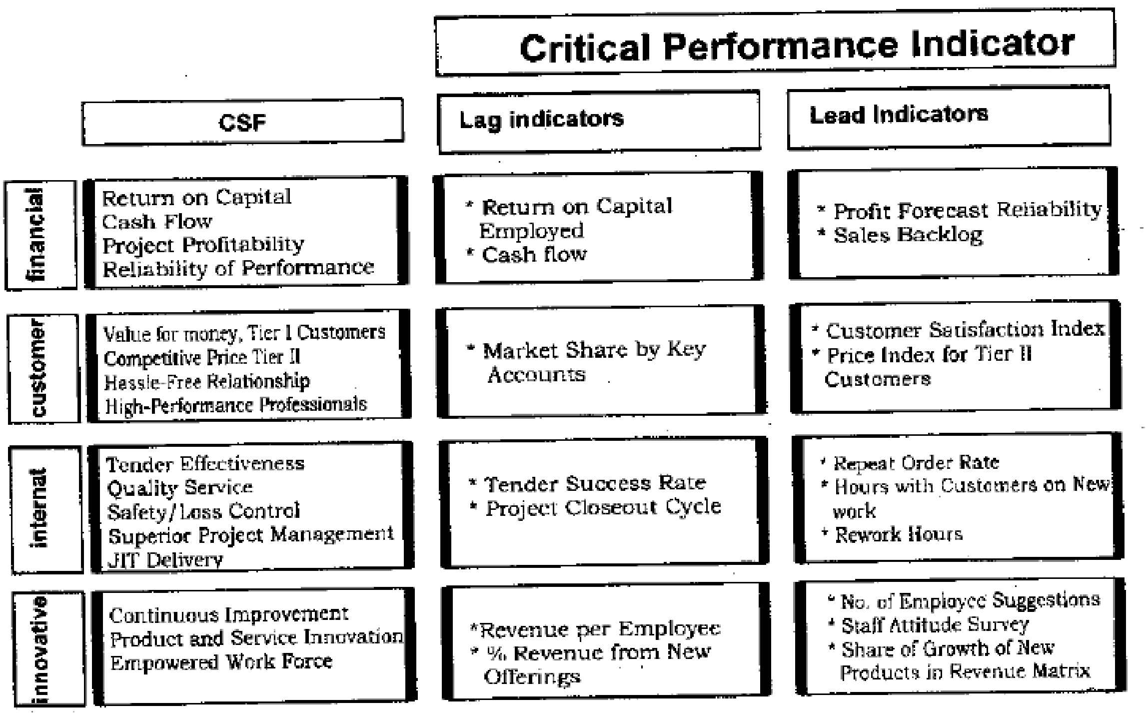
Success of BSC will depend upon the measures selected.

Ideally it should be mix of measures which tell negative occurrences in past and others tell us what is likely to happen in future if nothing is done to correct them and what needs to be done now.

Lag Measures: These indicate whether the targets are met or not.

Lead Measures: What is being done and allows for adjustment in performance so that goals are met successfully.

	Lag Measures	Lead Measures
Definition	Focus on results at the end of the time period. Normally historical performance.	Measures that drive or lead to the performance of lag measure. Normally Intermediate process & activities
Example	Revenue, Employee Satisfaction.	Grants Written, Absenteeism.
Advantage	Easy to identify.	Predictive in nature. Organizations can adjust.
Issues	Historical in nature, Do not reflect current activities. Lack predictive power.	May prove difficult to identify & Capture. Often new measures with no history in the organization.



11.2.5 Benefits of Balance Scorecard

1. Alignment of strategy with key performance objectives at all levels of the organization
2. Measuring and managing business performance effectively.
3. Strategic feedback.
4. Maximizing overall IT investment.
5. Double loop feedback.
6. Outcome metrics

11.3 IMPLEMENTING PERFORMANCE MEASUREMENT SYSTEMS

Implementing performance measurement systems involves for general steps:

1. Define Strategy: Scorecard builds a link between strategy and actions. Therefore, process of designing a scorecard starts with defining strategy. It is very important to have clear goals and their measures because strategies are developed on the basis of goals.

In case of single industry firm strategy can be developed at the corporate level and then applied to functional level. But in case of multi-business firm the separate strategy has to be developed at business unit level for each business unit.

2. Define measures of strategy: Second step is to develop measures of the strategy through which performance will be evaluated. Measures should be selected in such a way that it represents the essence of strategy. Individual measures should be linked with each other in cause-effect manner.

3. Integrate measures into management systems: Scorecard must be aligned and linked to all the existing management system (formal structures, informal structures, human resource practices) in the organization.

4. Review measures and results frequently:

   How is the organization doing according to the outcome measures?

   How is the organization doing according to the driver measures?

   How has the organization's strategy changed since last review?

   How have the scorecard measures changed?

Other important aspects of review are:

   They tell management that whether the strategy is being implemented correctly and how successfully it is working.

   They show that management is serious about the importance of these measures. They keep measures aligned to ever changing strategies.

   They improve measurement.

11.4 DIFFICULTY IN IMPLEMENTING PERFORMANCE MEASUREMENT SYSTEMS

1. Poor correlation between non-Financial Measures and Results: The negative aspect of non-financial measures is that they are difficult to quantify and their target achievement does not necessarily means achievement of results.

2. Fixation on Financial Results: Inclusion of non-financial measures in performance measurement system does not undermine the importance attached to financial measures. All the stakeholders to the business; shareholders, creditors, employees, board of directors are mostly interested in financial performance. Thus, this may overcast the long term and uncertain returns from non-financial measures.

3. Measures are not updated

   Generally once measures are decided they are not updated over a short period of time. Today's business scenario is constantly changing and thus the strategies. So, measures should be updated as soon as there is a change in strategy adopted by the business organization.

4. Measurement Overload: Identifying numerous measures for all the four perspectives will increase the number of measures in performance evaluation system, which can become very difficult to manage and control.

5. Difficulty in Establishing Trade-offs: Combing financial measures with non-financial measures gives a comprehensive idea about the company's performance. But proportion of weights to be attached to both financial and non-financial measures is very difficult to establish.

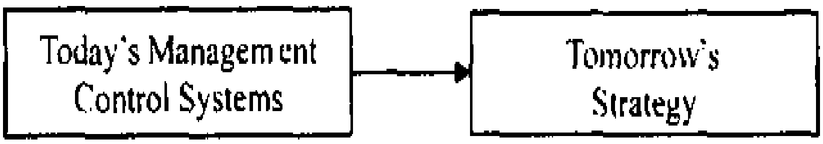
11.5 INTERACTIVE CONTROL

In case of rapidly changing environment, management control systems can also provide the basis of new strategies. This sis called interactive control.

Learning organization refers to the ability of organizational employees to learn to cope with environmental change on an ongoing basis. In such organization, employees at levels continuously scam the environment, identify potential problems and opportunities, exchange environmental information and experiment with alternate business models in order to successfully adapt to emerging environment. The main objective of interactive control is to facilitate creation of a learning organization.

Interactive controls alert management to strategic uncertainties. Strategic uncertainties are the fundamental environment shifts like customer preference, technology, competitors, life style, substitutes etc.

These interactive controls help managers to adapt to rapidly changing environment by thinking about new strategies.



11.5.1 Characteristics of Interactive Control

1. A subset of management control information that has bearing on the strategic uncertainties facing the business becomes the focal point.
2. Senior executive takes such information seriously.
3. Mangers at all levels of the organization focus on information produced by the business.
4. Superiors, sub ordinates and peers meet face to face to interpret and discuss the implications of formation of future strategic initiatives.
5. The face-to-face meetings take form of debates and challenge of the underlying data, assumptions and appropriate actions.

Interactive controls are not the separate system, they are the integral part of management control system. Interactive control information usually tends to be non-financial. As the strategic uncertainties different from business to business, senior executive in different companies might choose different parts of their management control systems to use interactively.

- **Self- Check Questions (Fill in the blanks)**

1. ___________ are the factors under which the business organization operates.
2. _____________ help managers to adapt to rapidly changing environment by thinking about new strategies.
3. __________ indicate whether the targets are met or not.

11.6 SUMMARY

Performance measurement system should be designed in keeping strategies in mind. All the measures of performance evaluation should be in sync with the goals and strategies. Balance score card is one of the comprehensive performance measurement systems which incorporate the financial measures with non-financial measures such as technology, internal process and customer satisfaction. Once performance measurement system is in place then efforts should be directed towards implementation of such system.

11.7 SELF- CHECK EXERCISE

- **LONG QUESTION ANSWERS**

  1. Define Performance Measurement System. What kind of problems faced by the organization while implementing performance measurement system?

- **SHORT QUESTION ANSWERS**

1. What are the features of interactive control?

11.8 GLOSSARY

Key Value Drivers: Key value drivers are the factors under which the business organization operates.

Critical Success Factors are the variables on which organization's performance is measured.

Lag Measures: These indicate whether the targets are met or not.

Lead Measures: What is being done and allows for adjustment in performance so that goals are met successfully.

Balance Score Card is performance measurement system which includes financial as well as non-financial measures like internal business process, learning and feedback and customer perspective into performance evaluation.

11.9 SUGGESTED READINGS

- Anthony and Govindrajan, Management Control Systems, 10th Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- R.C. Shekhar Management Control Systems: Text and Cases, Edition, New Delhi: Tata-McGraw Hill Publishing Company.
- Anil Agashe, Satish Inamdar and Jayant Oke, Management Control Systems, 1st Edition, Pune: Everest Publishing House.
- Colin Dury, Management Accounting for Business Decisions, 2nd Edition, London: Thomson Learning.

11.10 SELF- CHECK QUESTIONS (ANSWER KEY)

11.5 1) Key value drivers 2) interactive controls 3) Lag measures

Lesson No. 12 AUTHOR: WLAN JIT SINGH, Ph.D.

MANAGEMENT CONTROL OF MULTINATIONAL COMPANIES

STRUCTURE

12.0 OBJECTIVES

After studying this chapter, you should be able to explain what are the issues involved in the management control of Multinational companies and what are the management considerations of managerial control in MNCs.

12.1 INTRODUCTION

Multinational organizations are the organizations which operate in multiple countries. A country within which the multinational corporation does business is called the host country. The country within which it is headquartered is called the home country. In order to control the foreign operations, the initial focus should be on the formulation of strategies by the parent company for the foreign operation, and then the relevant key success factors must be determined under that strategy. Once the key success factor is determined, then the decision can be made upon the appropriate degree of autonomy for the foreign operations as well as the management system that are appropriate for the control of these operations.

Following illustrations shows the effect of strategies upon the management system: -

Strategies: - to penetrate the host country market with new innovative product that are appropriate for the host market. This strategy requires closer attention to the host market characteristics, high level of autonomy for foreign operations, and significant determination of decision making. Similarly different strategies will be having different key success factors and each may have different set of management control system that are appropriate for the implementation of these strategies.

12.2 ISSUES IN THE CONTROL OP FOREIGN OPERATIONS

The transfer pricing problem for the multinational firms is similar to the transfer pricing problem for the domestic firm with some important differences. For the domestic firms transfer prices mainly effect the allocation of the firm, total profit among various profit centers. In foreign operations there many other considerations which are important in arriving at the transfer price, which includes taxation, govt, regulations tariff, fund accumulation and joint venture.

Taxation

Different foreign countries have different income tax rate. Multinational Corporation can manipulate their income in order to avoid taxes.

Government Regulation

In the absence of Govt, regulations the firm would set transfer price to minimize the taxable income in the countries having high income tax rate. So Govt, tax authorities are aware of such facts and government, has passed the regulation within which the transfer prices can be calculated.

Tariffs

Tariffs are levied as percentage of import value of product the lower the price, lower will be the tariff. Tariffs for the goods shift to a shipped to a particular country will be low if the transfer price is low. Thus, the profit in that country and the income tax on profit will be high. Thus, the net effect of these factors must be calculated in deciding the appropriate transfer price.

Foreign Exchange Control

Some countries limit the amount of foreign exchange available to import certain, commodities. Under these conditions a lower transfer price allows the subsidiary to bring in greater quantity of these commodities.

Funds Accumulation

If a company wishes to accumulate its funds in one country, rather than in another, transfer prices are the ways of shifting funds into or out of a particular a country.

Joint Venture

Joint ventures also create complications in transfer pricing, e.g. - if a U.S firm has a joint venture operation in Japan with a local Japanese firm, then if the U.S parent charges a higher price for a component transferred to Japan, the Japanese joint venture partner is likely to resist that price since it lowers the profits of Japanese joint venture partner.

Cultural Difference

One of the important variables that influence management control within a multinational enterprise is cultural differences across countries. Multinational organization operates in multiple countries and so it has to deal with cultural differences as head office co-ordinates and controls its subsidiaries. Culture refers to shared values, assumptions and norms of behavior. When an organization expands its operations in different countries, the cultural differences have an important bearing on management control. According to Hofstede, cultures can differ across various dimensions, namely; Power Distance, Individualism/ collectivism, and uncertainty avoidance. Power distance refers to the extent to which power is unequally distributed and centralized. Individualism/ Collectivism refers to the extent to which people define themselves as individuals or as a part of a larger group. Uncertainty Avoidance refers to the extent to which people feel threatened by ambiguous situations. So, the type of control systems which have to be adopted in different countries depends on the culture which prevalent there.

- In individualistic culture employees prefer rewards based on individual performance whereas group-based awards are preferred by the employees in collectivistic cultures.
- In low power distance culture, decentralization in decision making and greater participation in budget preparation is preferred and opposite will be true in high power distance culture.
- Subjective performance evaluation will be more effective in low uncertainty avoidance cultures rather than in high uncertainty avoidance culture.

Executive in multinational organizations must understand and respect cultural differences and adapt management across countries.

12.3 COMPARABLE UNCONTROLLED PRICE METHOD

An arm's length price is ascertained from comparable sales of goods or services between the multinational firm and unrelated customers or between two unrelated firms. Circumstances that may affect the *price* include the quality of the product terms of sale, market level and geographical area in which item is sold, but quantity discounts, promotions allowance and credit differentials are excluded.

Transfer price: - price paid in comparable uncontrolled sales +adjustments

Controlled Sale- Transaction is between two members of controlled grow.

Uncontrolled Sale- one of the two parties is not a member of the controlled group.

Resale Price Method

Under this method the taxpayer works back from the final selling price at which property purchased from an affiliate is resold in an uncontrolled sale. This resale price is reduced by an appropriate markup percentage based on or by reseller selling similar property in a comparable market. This method can be used if

- There is no comparable uncontrolled sale
- The resale is made within a reasonable time before or after the intercompany purchase.
- The reseller has not added significant value to the property by physically altering it other than packaging labeling.

Transfer price: - applicable resale price -appropriate markup price± Adjustments.

Applicable resale price is the price at which property purchased in a controlled sale is resold by the buyer in an uncontrolled sale.

Appropriate markup=Applicable resale price* Appropriate markup percentage.

Appropriate markup percentage= Percent of gross profit earned by the buyer (reseller) or by another party in an uncontrolled purchase and resale similar to controlled.

Cost Plus Method

Under this method the starting point for determining the arm's length price is the cost of producing the product, computed in accordance with sound accounting practices. To this an appropriate gross profit expressed as percentage of cost and based on similar uncontrolled sale made by the seller a seller or the rate prevalent in the industry is added.

Transfer price = Costs+ appropriate markup ± adjustments

Appropriate markup = costs*appropriate gross profit.

Appropriate gross profit percentage= Gross profit percent (Expressed as a percent of cost) earned by seller or another party on uncontrolled sale similar to controlled sale.

12.4 EXCHANGE RATES

The cash flows of a domestic company are denominated in dollars and at a given moment each dollar has the same value as every other dollar, on the other hand cash flows of a multinational enterprise are denominated in several currencies and the value of each currency relative to the value of dollar is different at different times. These variations create complications in measuring the performance of subsidiaries and subsidiary mangers translation, transaction and economic exposure to change in exchange rates.

What Is Exchange Rate?

An exchange rate is the price of one currency in terms of another currency. It can be expressed either as the number of units of the home currency that are needed to buy one unit of foreign currency (called the direct quote or the number of units of foreign currency that are needed to buy one unit of home currency (called the indirect quote). E.g.- if the US dollar ($) is the home currency and the French franc (FF) is the foreign currency then to express the exchange rate as $0.20/ff is the direct quote and to express it as FF5/$ is the indirect quote.

Nominal Exchange Rate

Exchange rates that are usually quoted are called nominal exchange rates.

Spot Exchange Rate

The spot exchange rate is the nominal exchange rate that prevails on the given day.

Real Exchange Rate

The real exchange rate is the spot exchange rate after adjusting for inflation differentials between the two countries in questions.

Forward Exchange Rates

The exchange rates known today at which transactions can be entered into for completion at some future point in time are forward exchange rates.

Types of Exchange Rate Exposure

Translation Exposure

Translation exposure to exchange rates is the income statement and balance sheet exposure on multinational enterprises to change in nominal exchange rates. It results from the fact that MNCs must consolidate their accounts in a single currency although their cash flows are denominated in multiple currencies.

Transaction Exposure

Transaction exposure is the exchange rate exposure that the firm has in its cross-border transactions are entered into today but payments to settle the transaction are made at some future time. During the period that payment or receipt commitments are outstanding, nominal exchange rates could change and put the value of transaction at risk.

Economic Exposure

Economic exposure is the exchange rate exposure of the firm’s cash flows to real exchange rate changes. Economic exposure is also referred to as operating exposure or competitive exposure to exchange rates.

12.5 CHOICES OF METRIC IN PERFORMANCE EVALUATION

There are basically three possibilities for choice of metric in setting and tracking budgets: the exchange rate prevailing at the time budgets are set (initial exchange rate), the exchange rates projected at the time budgets are set (projected exchange rate) or the actual exchange rates prevailing at the time budgets are tracked (ending exchange rate). There are nine possible combinations of metrics in setting and tracking budgets.

Tracking budget

	Initial	Projected	Ending
Initial	I	2	3
Setting budget projected	4	5	6
Ending	7	8	9

Out of 9 cells only 5 underlined cells are feasible.

- Feasible ones consist of the three where the budget is set and tracked using the same metric (Initial-initial, cell 1; projected-projected, cell 5; ending' ending cell 9;)
- Similarly, it is feasible to set the budget using an "initial" rate and track it using an "ending" rate (cell 3) as well as to set at a "projected" rate and track at the "ending" exchange rate (cell 6).
- **Self- Check Questions (True/ False)**

1. An exchange rate is the price of one currency in terms of another currency.

2. Nominal exchange rates are exchange rates that are usually quoted.

3. The appropriate gross profit in the cost-plus method is expressed as a percentage

12.6 Summary

- Subsidiary managers should not be held responsible for translation effects. This objective can be achieved by using the same metric.
- Transaction effects are best handled through centralized co-ordination of the MNCs overall hedging needs.
- The subsidiary manager should be held responsible for dependence effects of exchange rates resulting from economic exposure
- Evaluation of the subsidiary as a basis for a decision to locate operations from a country should reflect the consequences of translation, transaction and economic exposures.

12.7 SELF- CHECK EXERCISE

- **SHORT QUESTION ANSWERS**

1. What are the issues involved in the managerial control of multinational Corporations?

- **LONG QUESTION ANSWERS**

1. Explain in details the concept of Arm's length price and its implications in management control of MNCs.

12.8 SUGGESTED READINGS

- Anthony, R.N. and Govindarajan, V., Management Control Systems, 12th edition, New Delhi: Tata McGraw Hill Publishing Company.
- Maciariello, J.A. and Kirby, C.J., Management Control Systems, 2nd edition, Prentice Hall of India, New Delhi

12.9 SELF- CHECK QUESTIONS (ANSWER KEY)

12.5 1) True 2) True 3) False