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BLOCK 1 CONCEPTS AND TECHNIQUES

This block, consisting of three units, introduces you to the subjeot of Managerial Economics.

The first unit concentrates on the scope and methodology of the subject.

In the second unit, teh concepts on scarcity, marginalism, opportunity costs, time perspective, discounting, risk and uncertainty, etc., are briefly explained.

The third unit introduces you to the basic technique of measurement and optimisation, both constrained and unconstrained, using calculus.

Taken as a whole, the Block 1 outlines the conceptual frame work and points towards the technical nature of the subject.

UNIT 1 INTRODUCTION TO MANAGERIAL ECONOMICS

Structure

1.0 INTRODUCTION

In MBDM-103, you have been exposed to the socio-economic environment. Given the environment, the management thinks and takes or makes decision. Almost all such decisions, in one way or the other, relate to economic variables like demand, price, supply, stock, input, output finance, profit and the like. In the name of Managerial Economics, we will now concentrate on these economic decision variables and the economic decision process. Traditionally, the problem of optimal decision by firms and individuals has been studies in microeconomic theory. Managerial Economics, as a separate discipline owes its origin to the growing disenchantment with economic theory in providing solutions to the problem faced by business. This does not mean that Managerial Economics provides ready-made solutions to business problems. What it provides is a tool-box of analysis and a technique thinking which can be helpful in conceptualising the problems faced by management of a business firm. Thus, Managerial Economics is supposed to enrich the **Conceptual and technical skill** of a manager facing business decision problems.

1.1 OBJECTIVES

Managerial Economics is the application of economic analysis to evaluate business decisions. In view of this, in this introductory unit, our objective is to:

- explain the nature and form of economic analysis.
- identify the business decision araes where economic analysis can be applied
- spell out the relationship between Managerial Economics and other disciplines
- outline the methodology of managerial economics.

1.2 ECONOMIC ANALYSIS

The concern of Economics is with the economic problem and its identification, description, explanation and solution, if possible. **An economic problem** is a problem of choice and valuation. The problem of choice arises because limited means (resources) with alternative uses are to be utilised to satisfy ends (wants) which are unlimited and of varying degree of importance. Had resources like men, materials, machines, money, time, energy etc., not been scarce, there would have been no problem of choice; scarcity is at the root of all economic problems of choice. We have to choose between ends, between means, between use of means and satisfaction of ends. Because of scarcity of resources, we have to constantly match ends to means; this is called **'economic activity'**. The optimal economic activity is to maximise the attainment of ends, given the means and their scarcities or to minimise the use of resources, given the ends and their priorities.

Decision-making by management is truly economic in nature because it involves choice from among a set of alternatives- alternative cources of action. A manager, in any function at any level in any organisation, always exercises choice in the name of decision- making. A finance manager chooses the sources and uses of funds. A production manager chooses the product-mix. A personnel manager chooses the staffing pattern. A sales manager chooses the market segments. A purchase manager chooses the quality of materials. Such example canf be multiplied to suggest that each and every manager chooses one thing or the other from among a set of alternatives. A manager's choice is dictated by his objectives and constraints. The optimal decision-making is an act of optimal economic choice, considering objectives and constraints. The optimal decision-making is an act of optimal economic choice, considering objectives and constraints. This justifies an evaluation of managerial decisions through concepts, precepts, tools and techniques of economic analysis.

Economic analysis may be of various types and forms :

i) Micro vs. Macro Analyis : In micro economic analysis the problem of choice is analysed focusing on single individual entitles like a consumer, a producer, a seller, an investor, a commodity, a factor, a market and the like. In macro economic analysis, the problem is approached from the angle of totality or aggregates like national income, national consumption, national investment, general price level etc.

ii) Partial vs. General Equilibrium Analysis : The optimal economic choice defines the state of equilibrium. To attain the state of stable equilibrium, the economic problem may be analysed part by part - one at a time - assuming "other things remaining the same". This is partial equilibrium analysis. For example, given the price, the cost budget, the technology and the input requirement, the purchase manager has to decide on the quantity and quality of the materials he purchases. By contrast, this assumption of "givens" or "other things remaining equal" may be relaxed and interdependence or interactions among variables may be allowed. This is general equilibrium analysis.

iii) Static, Comparative Static vs. Dynamic Analysis : This has reference to the time dimension of the analysis of the problem. A problem may be analysed :

- at a point of time, allowing no change (Static)
- at a point of time, allowing once-for-all change (Comparative Static)
- over a period of time, allowing successive changes (Dynamic)

iv) Positive vs. Normative Analysis : In positive economic analysis, the problem is analysed in objective terms based on principles and theories. In normative economic analysis, the problem is analysed based on value judgement (norms) and, therefore, the policy prescriptions are explicitly stated.

You may note that the distinctions stated above are not watertight. There may be considerable movement from the once to the other, and some overlapping. By and large, Managerial Economics is **Primarily** micro, partial equilibrium type, comparative static, and positivist in approach, though occasionally we may make reference to elements of macro economics, general equilibrium, dynamic and normative policy issues. In fact, a manager has to keep his economic perspective wide open, but for analysis of his decision problem, he must approach his decision environment with a defined set of assumptions and methodologies. The manager himself is a micro economic entity and the firm where he functions is a microeconomic unit; and, therefore microeconomics is relatively more relevant for his tool kit.

Activity 1

a) In what way, is a manger's job an economic one?

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b) List a few economic problems :

Micro	Macro
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....	....
....	....
....	....

Static	Dynamic
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....	....
....	....
....	....

c) Against each statement listed below, name the type of economic analysis which will be relevant:

i) The procurement price for foodgrains fixed by the Government is designed to protect the farmers ....

ii) There is bearish trend in the stock market ....

iii) The explosive population growth in India is quite alarming ....

iv) The ONGC is planning an expansion programme ....

v) The NTC is making loss ....

vi) The textile industry is facing recession ....

d) Would you accept the view that the same economic problem can be explained through different analyses?

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1.3 BUSINESS DECISIONS

A decision is not a solution by itself; it is only an attempt towards a solution. A decision may solve an existing problem but it may also create a new problem.

Business decisions are often classified into categories depending upon the managerial function to which they relate it. From this standpoint, we may talk about:

i) **Financial Decisions :** Such decisions may relate to costing, budgeting, accounting, auditing, tax-planning, portfolio composition, capital structure, dividend distribution and the like.

ii) **Production Decisions :** Such decisions may relate to quantity and quality of product, choice of technology, product-mix, plant location and lay out, production scheduling, maintenance, pollution control etc.

iii) **Personnel Decisions :** Such decisions may relate to recruitment, selection, induction, training, placement, promotion, transfer, retirement or retrenchment of staff.

iv) **Marketing Decisions :** Such decisions may relate to sales volume, sales force, sales promotion, market research, customer service, packaging, advertisement, new product positioning etc.

v) Miscellaneous Decisions : This category may relate to all residuary items like purchasing, inventory control, information system, data processing, public relations etc.

In the realm of each decision area, one can further distinguish between

a) Scientific and intuitive decisions

b) Strategic and tactical decisions

c) Certain and uncertain decisions

d) Major and minor decisions

e) Hard and soft decisions, and so on.

The point to note is that whatever may be the functional nature or type, all managerial decisions involve some degree of choice and they are, therefore, essential economic in nature. Managerial Economics is, therefore, offered as one of the foundation courses for graduating in any functional area of management.

1.4 MANAGERIAL ECONOMICS

You should now be in a position to form some idea about the intent and content of managerial economics as a discipline. Managerial Economics concentrates on the decision process, decision model and decision variables at the firm level. The firm is viewed as a microeconomic unit located within an industry which exists in the context of a given socio-economic environment of business. The executives and the functional managers are stationed within the firm; these managers, either individually or jointly think, make and execute decisions. Their operation reflects the behaviour and culture of the firm.

Managerial Economics is concerned with the economic behaviour of the firm. To start with, it assumes that the firm maximises profit. Profit is defined as the difference between revenue and costs. The flow of revenue is determined by the demand conditions in the market, whereas the costs are influenced by the supply condition. Demand and supply interact with each other to determine prices — commodity prices in the product market and input prices in the factor market. Much would, of course, depend on the nature of the market structure — perfect or imperfect, free or regulated, buyer's or seller's etc. The firm or the managers on behalf of the firm placed in the contexts of a market environment, decide its economic strategy (in view of its objectives and constraints) and tactics. The tactical decisions are reflected in the course of operational decision variables like price, output, input etc. Such operation through economic decision variables affects the firm's level of profit. The firm can then evaluate its performance in terms of the rate of return on investment — intended and achieved. The firm will thus be in a position to estimate the element of risk and uncertainty it is subject to. In its decision-making process, tl firm's strategy is to minimise such risks and uncertainties through forecasting and forward planning.

The subject matter of Managerial Economics can now be lined up as follows:

Frame work of Concepts and Techniques	Topics of Managerial Economics
• Demand Analysis	• Demand Decisions
• Production and cost analysis	• Input-output Decisions
• Market structure analysis	• Price output Decisions
• Firms behaviour analysis	• Profit maximisation and alternative hypotheses
• Project Appraisal	• Investment Decisions
• Risk and uncertainty analysis	• Economic forecasting and planning

You may appreciate that analytical rigour is very important in our subject of Managerial Economics. At each stage of analysis of any economic decision variable, you should, threfore, be careful about the assumptions, concepts, techniques, logic of reasoning, conclusions and their applicability in the real world business situation.

Activity 2

Run down the list of topics noted above:
Think about the organic relations that exist among them. Can you work out an integrated structure of Managerial Economics? (Kindly note that you do not have to write out an answer. This is just a mental exercise for you).

1.5 RELATED DISCIPLINES

By its nature, Managerial Economics draws heavily on other disciplines like Economics, Accountancy, Mathematics, Statistics, Operations Research, Psychology and Organisational Behaviour. Let us state briefly the contributions made by each of these disciplines to Managerial Economics.