Managerial Economics

M.Com IVth Sem.

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Introduction To Managerial Economics

Objectives

After studying this unit, you will be able to:

- Explain the nature and scope of managerial economics
- Identify the role of economics in decision making .
- Discuss the concept of economic analysis

Introduction

Countless firms have used the well-established principles of managerial economics to improve their profitability. Managerial economics draws on economic analysis for such concepts as cost, demand, profit and competition. It attempts to bridge the gap between the purely analytical problems that intrigue many economic theorists and the day-to-day decisions that managers must face. It now offers powerful tools and approaches for managerial policy-making. It will be relevant to present here several examples illustrating the problems that managerial economics can help to solve. These also explain how managerial economics is an integral part of business. Demand, supply, cost, production, market, competition, price, etc. are important concepts in real business decisions.

1.1 Meaning and Definition of Managerial Economics

Managerial Economics is a discipline that combines economic theory with managerial practice. It tries to bridge the gap between the problems of logic that intrigue economic theorists and the problems of policy that plague practical managers. The subject offers powerful tools and techniques for managerial policy-making. An integration of economic theory and tools of decision sciences works successfully in optimal decision-making in face of constraints. A study of managerial economics enriches the analytical skills, helps in the logical structuring of problems, and provides adequate solution to the economic problems.

To quote Mansfield, "Managerial Economics is concerned with the application of economic concepts and economic analysis to the problems of formulating rational managerial decisions."

According to McNair and Meriam, "Managerial economics is the use of economic modes of thought to analyse business situations."

"Managerial Economics is concerned with the application of economic principles and methodologies to the decision making process within the firm or organisation under the conditions of uncertainty," says Prof. Evan J Douglas.

Spencer and Siegelman define it as "The integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management."

According to Hailstones and Rothwel, "Managerial economics is the application of economic theory and analysis to practice of business firms and other institutions."

1.2 Nature of Managerial Economics

A close interrelationship between management and economics has led to the development of managerial economics. Management is the guidance, leadership and control of the efforts of a group of people towards some common objective. It does tell us about the purpose or function of management but it tells us precious little about the nature of the management process.

Koontz and O'Donell define management as the creation and maintenance of an internal environment in an enterprise where individuals, working together in groups, can perform efficiently and effectively towards the attainment of group goals. Thus, management is:

1. Coordination
2. An activity or an ongoing process
3. A purposive process
4. An art of getting things done by other people.

On the other hand, economics, in its broadest sense, is what economists do. Economists are primarily engaged in analysing and providing answers to manifestations of the most fundamental problem, scarcity. Scarcity of resources results from two fundamental facts of life:

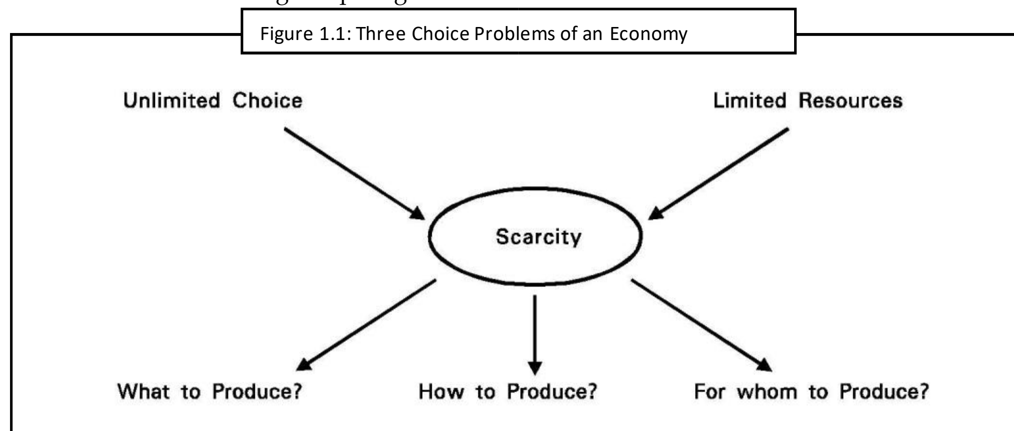
1. Human wants are virtually unlimited and insatiable, and
2. Economic resources to satisfy these human demands are limited.

Thus, we cannot have everything we want; we must make choices broadly between three areas:

1. What to produce?
2. How to produce? and
3. For whom to produce?

These three choice problems have become the three central problems of an economy as shown in Figure 1.1 Science of economics has developed several concepts and analytical tools to deal with the problem of allocation of scarce resources among competing ends.

Figure 1.1: Three Choice Problems of an Economy



Managerial economics, when viewed in this way, may be taken as economics applied to "problems of choice" or alternatives and allocation of scarce resources by the firms. Thus managerial economics is the study of allocation of resources available to a firm or a unit of management among the activities of that unit.

Did u know? What is positive and normative analysis in economics?

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.

Caselet Importance of Economics in our Life

Economics is the study of how finite resources are consumed by demand, according to the costs imposed by their supply in relation to that demand. In other words, economics tells us that a freeze in Florida that damages the orange crop will cause the price of orange juice to change and how the price will modify demand over time.

History

Modern economic theory is said to have originated in "The Wealth of Nations," a book written by Scottish scholar Adam Smith in 1776. The theory holds that rational self interest pursued by individuals and businesses in a free market society leads to optimal economic conditions. Significance

The study of economics helps formulate an understanding of the effects of financial actions and reactions by individuals and institutions. This understanding allows the projection of future economic conditions based on current indications.

Misconceptions

An understanding of economics assists governments in managing macroeconomic conditions such as limiting a recession by inducing recovery. However, economic theory is not foolproof because it is a social science based on the interplay between culture and money. Economic effects change as cultural customs change.

1.3 Scope of Managerial Economics

Managerial economics is concerned with the application of economic concepts and analysis to the problem of formulating rational managerial decisions. There are four groups of problem in both decision making and forward planning.

1. Resource allocation: Scarce resources have to be used with utmost efficiency to get optimal results. These include production programming, problem of transportation, etc.
2. Inventory and queuing problem: Inventory problems involve decisions about holding of optimal levels of stocks of raw materials and finished goods over a period. These decisions are taken by considering demand and supply conditions. Queuing problems involve decisions about installation of additional machines or hiring of extra labour in order to balance the business lost by not undertaking these activities.
3. Pricing problems: Fixing prices for the products of the firm is an important part of the decision making process. Pricing problems involve decisions regarding various methods of pricing to be adopted.
4. Investment problems: Forward planning involves investment problems. These are problems of allocating scarce resources over time. For example, investing in new plants, how much to invest, sources of funds, etc.

Study of managerial economics essentially involves the analysis of certain major subjects like:

1. Demand analysis and methods of forecasting
2. Cost analysis
3. Pricing theory and policies
4. Profit analysis with special reference to break-even point
5. Capital budgeting for investment decisions
6. The business firm and objectives

7. Competition.

An analysis of scarcity of resources and choice making poses three basic questions:

1. What to produce and how much to produce?
2. How to produce?
3. For whom to produce?

A firm applies principles of economics to answer these questions. The first question relates to what goods and services should be produced and in what quantities. Demand theory guides the manager in the selection of goods and services for production. It analyses consumer behaviour with regard to:

1. Type of goods and services they are likely to purchase in the current period and in the future, Goods and services which they may stop consuming,
2. Factors influencing the consumption of a particular good or service, and
3. The effect of a change in these factors on the demand of that particular good or service.

A detailed study of these aspects of consumer behaviour help the manager to make product decision. At some particular time, a firm may decide to launch new goods and services or stop providing a particular good or service. Knowledge of demand elasticities helps in setting up of prices in context of revenue of a firm. Methods of demand forecasting help in deciding the quantity of a good or service to be produced.

How to produce the goods and services is the second basic question. It involves selection of inputs and techniques of production. Decisions are made with regard to the purchase of items ranging from raw materials to capital equipment. Production and cost analysis guides a manager in personnel practices such as hiring and staffing and procurement of inputs. For example, the decision to automate clerical activities using PC network results in a more capital-intensive mode of production. Capital budgeting decisions also constitute an integral part of the second basic question. Allocation of available capital in long-term investment projects can be done through project appraisal methods.

Firms' third basic question relates to segmentation of market. A firm has to decide:

For whom it should produce the goods and services. For example, it has to decide whether to target the domestic market or the foreign market. Production of a premium good is another example of market segmentation. An analysis of market structure explains how price and output decisions are taken under different market forms.

Appropriate business decision making with the help of economic tools has gained recognition in view of complex business environment. Since the macroeconomic environment is dynamic, it changes over time; managerial decisions have to be reviewed constantly. In this context, concepts of consumer behaviour, demand elasticities, demand forecasting, production and cost analysis, market structure analysis and investment planning help in making prudent decisions.

Task Identify some quantitative techniques used in managerial decision-making.

1.4 Economic Principles Relevant to Managerial Decisions

Key economic principles that are relevant to managerial decisions are discussed in the following sub-sections.

1.4.1 Division of Labour

I put the division of labor first mainly because Adam Smith did argue that division of labor is the key cause of improving standards of living. Modern economics doesn't do much with the concept of division of labor, but two closely related concepts are important:

1. Returns to Scale: Returns to scale may be increasing, constant or decreasing. Increasing returns to scale is the case that leads to special results, and division of labor is one cause (arguably the main cause) of increasing returns to scale.

2. Virtuous Circles in Economic Growth: For Smith, a major consequence of division of labor and resulting increasing productivity was a "virtuous circle" of continuing growth. Modern "virtuous circle" theories have more dimensions, but division of labor and increasing returns to scale are among them.

1.4.2 Opportunity Cost

The idea is that anything you must give up in order to carry out a particular decision is a cost of that decision. This concept is applied again and again throughout modern economics.

1. Scarcity: According to modern economics, scarcity exists whenever there is an opportunity cost, that is, where-ever a meaningful choice has to be made.
2. Production Possibility Frontier: The production possibility frontier is the diagrammatic representation of scarcity in production.
3. Comparative Advantage: A very important principle in itself and a key to understanding of international trade the principle of comparative advantage is at the same time an application of the opportunity cost principle to trade.
4. Discounting of Investment Returns: Another application of the opportunity cost principle that is very important in itself, this one tells us how to handle opportunities that come at different times.

1.4.3 Equimarginal Principle

This is the diagnostic principle for economic efficiency. It has wide applications in modern economics. Two of the most important are key principles of economics in themselves:

1. The Fundamental Principle of Microeconomics: This principle describes the circumstances under which market outcomes are efficient.
2. The Externality Principle: It describes some important circumstances in which the markets are not efficient.
3. Marginal Analysis: It is also an important principle in itself and very widely applied in modern economics. There is no major topic in microeconomics that does not apply marginal analysis and opportunity cost.

1.4.4 Market Equilibrium

The market equilibrium model could be broken down into several principles — the definitions of supply, demand, quantity supplied and demanded and equilibrium, at least — but these all complement one another so strongly that there is not much profit in taking them separately. However, there are many applications and at least four important subsidiary principles:

1. Elasticity and Revenue: These ideas are a key to understanding how market changes transform society.
2. The Entry Principle: This tells us that, when entry into a field of activity is free, profits (beyond opportunity costs) will be eliminated by increasing competition. This has a somewhat different significance depending on whether competition is "perfect" or monopolistic.
3. Cobweb Adjustment: This might give the explanations when the market does not move smoothly to equilibrium, but overshoots.
4. Competition vs. Monopoly: Why economists tend to think highly of competition, and lowly of monopoly.

1.4.5 Diminishing Returns

Perhaps the best-known of major economic principles, the Principle of Diminishing Returns is much more reliable in short-run than in long-run applications, so the Long Run/Short Run dichotomy is an important subsidiary principle. Modern economists think of diminishing returns mainly in marginal terms, so marginal analysis and the equimarginal principle are closely associated.

1.4.6 Game Equilibrium

Game theory allows strategy to be part of the story. One result is that we have to allow for several kinds of equilibriums.

1. Non-cooperative equilibrium
   (a) Prisoners' Dilemma (dominant strategy) equilibrium
   (b) Nash (best response) equilibrium, (but not all Nash equilibrium are dominant strategy equilibrium),
2. Cooperative equilibrium
3. Oligopoly

1.4.7 Measurement Principles

Economics is multidimensional, and that creates some difficulties in measuring things like production, incomes, and price levels. Some of the problems can be solved more or less fully.

1. Value Added and Double Counting: One for which we have a pretty complete solution is the problem of double counting: the solution is, use value added.
2. "Real" Values and Index Numbers: Since we measure production and related quantities in dollar terms, we have to correct for inflation. Index numbers are a pretty good workable solution, but there are some problems and criticisms.
3. Measurement of Inequality: Another issue is that the "average income" may not mean very much, because nobody is average and income is unequally distributed. Even if we cannot correct for that we can get a rough measure of the relative inequality and see where it is going.

1.4.8 Medium of Exchange

Money is whatever is generally acceptable as a medium of exchange. That means a bank, or similar institution, can literally create money, so long as people trust the bank enough to accept its paper as a medium of exchange. We might call this magical fact the Fiduciary Principle.

1.4.9 Income-Expenditure Equilibrium

Like the market equilibrium principle, but even more so, this model pulls together a number of subsidiary principles that complement one another and together constitute the "Keynesian" theory of aggregate demand. The implications of this theory are less controversial than the word "Keynesian" is — controversy has to do more with the details than the applications. Among the subsidiary principles are

1. Coordination Failure
2. The income-consumption relationship
3. The Multiplier
4. Unplanned inventory investment
5. Fiscal Policy
6. The Marginal Efficiency of Investment
7. The influence of money on interest
8. Real Money Balances
9. Monetary Policy

1.4.10 Surprise Principle

People respond differently to the same stimuli if the stimuli come as a surprise than they would if the stimuli do not come as a surprise. This new economic principle plays the key role with respect to aggregate supply that "Income-Expenditure Equilibrium" plays with respect to aggregate demand.

Rational Expectations: People don't want too many unpleasant surprises. If they use the information available to them efficiently, then they won't be surprised in the same way very often. This can lead to: (a) Policy ineffectiveness

(b) Permanence

(c) Path Dependence

1.5 Relationship of Managerial Economics with Decision Sciences

Managerial economics helps the managers in taking various strategic decision. Demand analysis and forecasting help a manager in the earliest stage in choosing the product and in planning output levels. A study of demand elasticity goes a long way in helping the firm to fix prices for its products. The theory of cost also forms an essential part of this subject. Estimation is necessary for making output variations with fixed plants or for the purpose of new investments in the same line of production or in a different venture. The firm works for profits and optimal or near maximum profits depend upon accurate price decisions. Theories regarding price determination under various market conditions enable the firm to solve the price fixation problems. Control of costs, proper pricing policies, break-even point analysis, alternative profit policies are some of the important techniques in profit planning for the firm which has to work under conditions of uncertainty. Thus managerial economics tries to find out which course is likely to be the best for the firm under a given set of conditions.

Economics and other Disciplines

Economics is linked with various other fields of study like:

1. Operation Research: This field is used in economics to find out the best of all possibilities. Operation Research is a great aid in decision making in business and industry as it can help in solving problems like determination of facilities on machine scheduling, distribution of commodities, optimum product mix, etc.

2. Theory of Decision Making: Decision theory has been developed to deal with problems of choice or decision making under uncertainty, where the applicability of figures required for the utility calculus are not available. Economic theory is based on assumptions of a single goal whereas decision theory breaks new grounds by recognising multiplicity of goals and persuasiveness of uncertainty in the real world of management.

3. Statistics: Statistics helps in empirical testing of theory. With its help better decisions relating to demand and cost functions, production, sales or distribution are taken. Economics is heavily dependent on statistical methods.

4. Management Theory and Accounting: Maximisation of profit has been regarded as a central concept in the theory of the firm in microeconomics. In recent years, organisation theorists have talked about “satisficing” (a decision-making strategy that attempts to meet criteria for adequacy, rather than to identify an optimal solution) instead of “maximising” as an objective of an enterprise. Accounting data and statements constitute the language of business. In fact, the link is so close that “managerial accounting” has developed as a separate and specialised field in itself.

Scope of economics expands to the frontiers of big companies, both- Indian and International.

1.6 Central Problems of an Economy

Every economy faces some problems. These problems are associated with growth, business cycles, unemployment and inflation. The macroeconomic theory is designed to explain how supply and demand in the aggregate interact to concern with these four problems. Economists these very important national problems as macroeconomic problems — that is, as problems that could not be understood or solved without an understanding of the workings of the economic system as a whole. The four distinctively macroeconomic problems are:

1. Recession

2. Unemployment

3. Inflation

4. Economic Growth or Stagnation

1.6.1 Recessions, Depressions and Economic Fluctuations

The event that created modern macroeconomics was called "the Great Depression," but the general term for decreasing national production, in modern economics, is a recession.

Caution A recession is defined as a period of two or more successive quarters of decreasing production. Production is measured by a number of variables. Real Gross Domestic Product is one important measure. We will focus mainly on it.

But why do economists regard a recession as a problem?

It is not self-evident that a drop in production is a bad thing. For example, it might be that people want to enjoy more leisure, and spend less time producing goods and services. If production dropped for that reason, we would have no reason to think of it as an economic problem.

But, in some periods of recession, we have evidence that this was not what happened. In many recession periods, businesses that announced they were hiring had long lines of people who wanted to apply, with many more people than they could hire. This suggests that the people standing in line for a job had more leisure than they wanted, and would have preferred jobs and income to buy more goods and services. In the 1930's, some people sold apples or pencils in the street to get a little income, typically much less than they would have had in their old jobs. Again, this suggests that people had too much leisure and would have preferred more work and income. If this is so, then it seems that something was going wrong. In different terms, it seemed that the recession had caused unemployment.

Another possibility is that production might drop because a war or disaster had destroyed factories and other capital goods. But, in 1933, it seems very unlikely that the productive capacity of the economy could have dropped by 30%. There had been no war. And in fact, factories had been closed that could have been reopened and put to work, at the same time as many people were looking for work. Perhaps these circumstances show why the recession is regarded as a major economic problem.

Did u know? In which year "The Great Depression" occurred? It was in 1930.

1.6.2 Unemployment

Our second macroeconomic problem is unemployment. This problem is highly correlated with recession, but is distinct, and we need to look at it in its own terms. Unemployment occurs when a person is available to work and currently seeking work, but the person is without work. The prevalence of unemployment is usually measured using the unemployment rate, which is defined as the percentage of those in the labor force who are unemployed.

Economists distinguish between various types of unemployment. For example, cyclical, frictional, structural and classical, seasonal, hardcore and hidden. Real-world unemployment may combine different types. The magnitude of each of these is difficult to measure, partly because they overlap.

Unemployment is a status in which individuals are without job and are seeking a job. It is one of the most pressing problems of any economy especially the underdeveloped ones. This has macroeconomic implications too some of which are discussed below:

1. Reduction in the Output: The unemployed workforce could be utilized for the production of goods and services. Since they are not doing so, the economy is losing out on its output.

2. Reduction in Tax Revenue: Since income tax is an important part of the revenue for the government. The unemployed are unable to earn, the government loses out on the income tax revenue.

3. Rise in the Government Expenditure: The government has to give unemployment insurance benefits to the claimants. Hence the government will lose from both sides in terms of unemployment benefits and loss of tax revenue.

1.6.3 Inflation

In economics, inflation is a rise in the general level of prices of goods and services in an economy over a period of time.

A rising price level — inflation — has the following disadvantages:

1. It creates uncertainty, in that people do not know what the money they earn today will buy tomorrow.

2. Uncertainty, in turn, discourages productive activity, saving and investing.

3. Inflation reduces the competitiveness of the country in international trade. If this is not offset by a devaluation of the national currency against other currencies, it makes the country's exports less attractive, and makes imports into the country more attractive, which in turn tends to create unbalance in trade.

4. Inflation is a hidden tax on "nominal balances." That is, people who hold bonds and bank accounts in dollars lose the value of those accounts when the price level rises, just as if their money had been taxed away.

5. The inflation tax is capricious — some lose by it and some do not without any good economic reason.

6. As the purchasing power of the monetary unit becomes less predictable, people resort to other means to carry out their business, means which use up resources and are inefficient.

1.6.4 Economic Growth or Stagnation

Caution Stagnation is a period of many years of slow growth of gross domestic product, in which the growth is, on the average, slower than the potential growth in the economy.

Causes of Stagnation

1. Population growth might high.

2. Fewer people might choose to work.

3. The growth of labor productivity might slow.

Stagnation is economic growth that, while positive, is less than the potential growth of the economy. Some economists believe that stagnation is a serious problem and a cause of other problems, but since identification of stagnation depends on one's idea of the potential, it remains controversial whether the slowing we see is stagnation or a reduction of the potential.