
Introduction To Managerial Economics

Terms

- Market
- Customer/Consumer
- Firm/Industry
- Utility

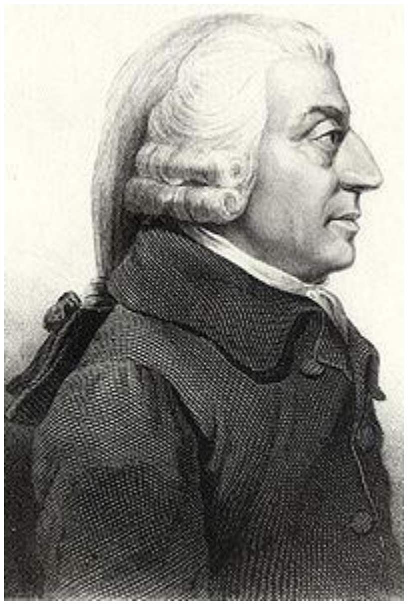
Economy. . .

. . . The word ***economy*** comes from a Greek word ***Oikonomos*** *which means* "**one who manages a household**."

Economics is the study of how society manages its <u>scarce</u> resources.

Lionel Robbins

Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.



- **Adam Smith** (1723 – 1790) was a Scottish Economist.
- He is said FATHER OF ECONOMICS
- He is also FATHER OF CAPITALISM
- His Book: WEALTH OF NATIONS
- We want to talk about POVERTY not wealth.

What is Microeconomics and Macroeconomics ?

- Ragnor Frisch : Micro means " Small" and Macro means "Large"

Microeconomics deals with the study of individual behaviour.

- It deals with the equilibrium of an **individual consumer, producer, firm or industry.**

Macroeconomics on the other hand, deals with economy wide aggregates.

- Determination of National Income Output, Employment
- Changes in Aggregate economic activity, known as Business Cycles
- Changes in general price level , known as inflation, deflation
- Policy measures to correct disequilibrium in the economy, Monetary policy and Fiscal policy

Difference between Managerial Economics and Economics

Economics	Managerial Economics
Comprehensive and wider scope	Narrow and limited scope
It has both Micro and Macro in nature	It is essentially Micro in nature and Macro in analysis
It is both Normative and positive science	It is mainly a Normative science
It is concerned with the formulation of theories and principles	It is concerned with the application of theories and principles of economics
It discusses general problems	It discusses Individual problems

- *Positive statements* are statements that attempt to describe the world as it is. ***Positive economics*** studies economic behavior without making judgments. It describes what exists and how it works.
  - Called descriptive analysis

- *Normative statements* are statements about how the world should be. ***Normative economics,*** also called policy economics, analyzes outcomes of economic behavior, evaluates them as good or bad, and may prescribe courses of action.
  - Called prescriptive analysis

A Definition: ME

The application of mathematical, statistical and decision-science tools to economic models to solve **managerial problems**

Some managerial problems:

What product to produce

What price to charge

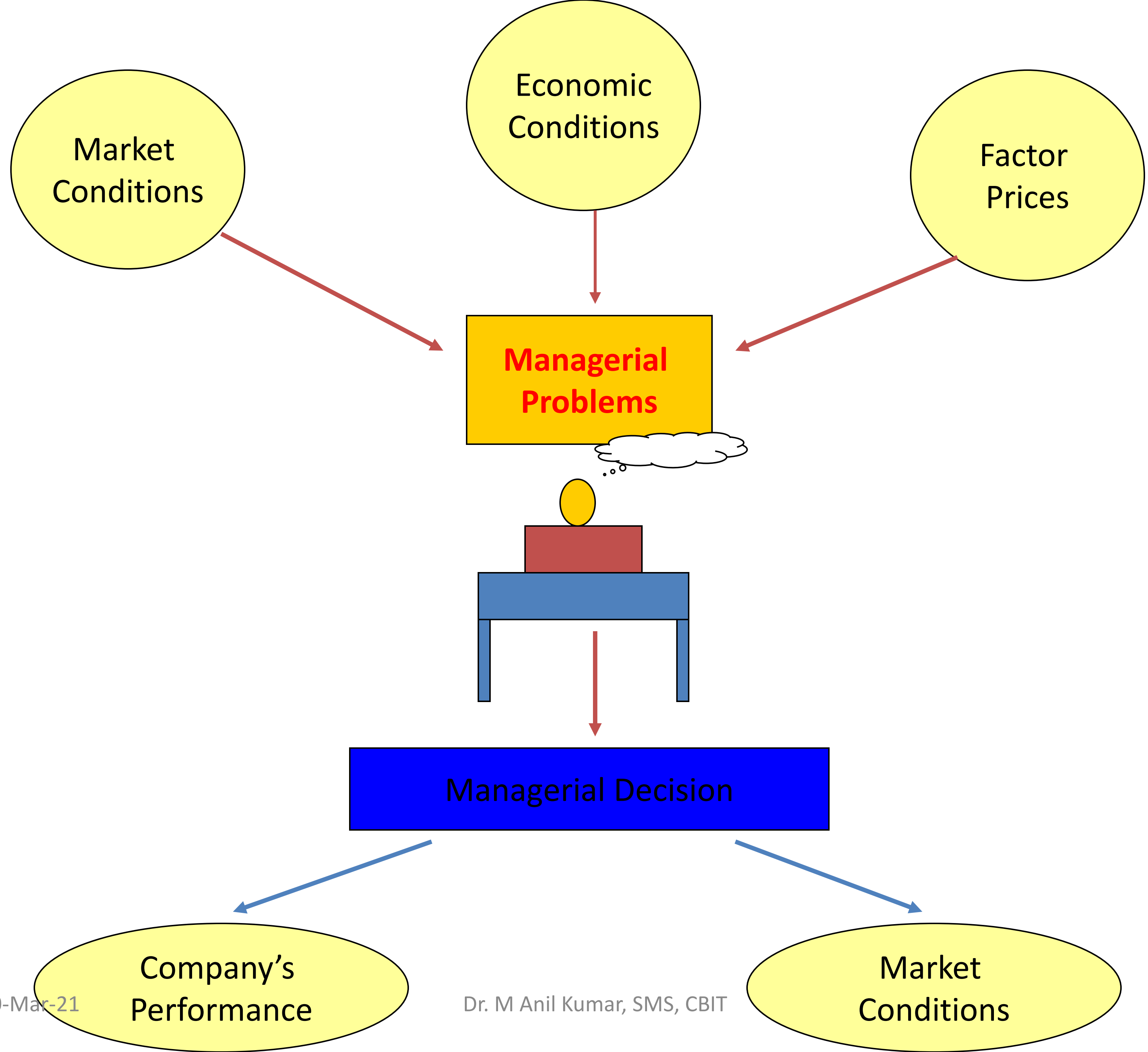
Where/how to get financing

Where to locate

How to advertise

What method of production to use

Whether or not to invest in new equipment


Market Conditions
Economic Conditions
Factor Prices
Managerial Problems
Managerial Decision
Company's Performance
Market Conditions

INTRODUCTION OF MANAGERIAL ECONOMICS

Concept of Managerial Economics

Managerial economics is by nature goal oriented and prescriptive which may be viewed as economics applied in decision making at the level of firm. Like an individual most of the problems of the firm emerge in allocation of scarce resources.

We can trace different ideas given by scholars in this subject.

"Managerial economics is the price theory in service of business executive."
-*D.J*. Watson

"Managerial economics can be viewed as an application of that part of microeconomics that focuses on such topics as risk, demand, production, cost, pricing, and market structure." -Petersen and Lewis

"Managerial economics is concerned with the ways in which managers should make decisions in order to maximize the effectiveness or performance of the organizations they manage." - Edwin Mansfield

What is Managerial Economics

- **Douglas - "Managerial economics is .. the application of economic principles and methodologies to the decision-making process within the firm or organization."**
- **Pappas & Hirschey - "Managerial economics applies economic theory and methods to business and administrative decision-making."**
- **Salvatore - "Managerial economics refers to the application of economic theory and the tools of analysis of decision science to examine how an organisation can achieve its objectives most effectively."**

INTRODUCTION OF MANAGERIAL ECONOMICS

Distinction between Managerial Economics and Traditional Economics

There are some differences between managerial economics and traditional economic theory because managerial economics seeks the help of other disciplines such as statistics, mathematics, accounting, management to get optimal solution to the managerial decision-making problems.

Differences between managerial economics and traditional economics which are outlined below:

i. Managerial economics concerns with the application of economic principles to the problems of the firm but the traditional economics deals with the body of principles itself.

ii. Managerial economics is highly microeconomics in character. It studies the problems of a firm but does not study the macroeconomic phenomenon. But traditional economics consist of both micro and macro economics.

INTRODUCTION OF MANAGERIAL ECONOMICS

Distinction between Managerial Economics and Traditional Economics (contd.)

iii. Traditional economics is a study of both firm and an individual, whereas managerial economics is a study of the problem of a firm only.

iv. Managerial economics focuses its attention in the study of profits because it has great influence primarily on entrepreneurial decision and value theory of the firm. In traditional economics, the microeconomics is a branch under which all the theories of factor pricing such as rent, wages, interest and profit are studied.

v. Traditional economics studies human behavior on the basis of certain assumptions, but these assumptions may not be true in managerial economics because managerial economics is concerned with practical problems.

Factors of production

- Land: Rent (Reward)
- Labour: Wage/Salary (Reward)
- Capital: Interest (Reward)
- Organization: Profit Loss

What is Managerial Economics (contd.)

- It is an application of that part of microeconomics that focuses on
- Risk
- Demand
- Production
- Cost
- Pricing, and
- Market Structure.
- It helps rational decision making through **MODEL BUILDING**

Nature of Managerial Economics

1. **Close to Micro-Economics** – finding solutions for different managerial problems of a particular firm (production schedules)
2. **Operates against the backdrop of Macro-Economics** – macroeconomic conditions of the economy are also seen as limiting factors for a firm to operate. (industrial policy and Inflation)
3. **Normative Statements** – one problem with normative statements is that they cannot be verified by looking at the facts, because they mostly deals with the future. (agreement or disagreement – L.P.G.)
4. **Prescriptive Action** – suggest the course of action from the available alternatives for optimal solution. (mention concept to given context)
5. **Applied in Nature –** case study method to conceptualize problem
6. **Offers scope to evaluate each alternative** - cost and revenue
7. **Interdisciplinary** – drawn from different subjects (as mentioned)
8. **Assumptions and Limitations** – validity is not universal (changes)

How Is Managerial Economics Useful? (Significance)

- Evaluating Choice Alternatives
  - Identify ways to efficiently achieve goals.
  - Specify pricing and production strategies.
  - Provide production and marketing rules to help maximize net profits.
- Making the Best Decision
  - Managerial economics can be used to efficiently meet management objectives.
  - Managerial economics can be used to understand logic of company, consumer, and government decisions.

INTRODUCTION OF MANAGERIAL ECONOMICS

Scope of Managerial Economics (contd.)

Microeconomics Applied to Operational Issues:

Operational issues of firms are of internal nature. Internal issues include all those problems which arise within the business organization and fall within the control of the management. Some of the basic internal issues are:

a) Choice of business and the nature of products, that is, what to produce,
b) Choice of size of the firm, that is, how much to produce,
c) Choice of technology, that is, choosing the factor-combination (technique of production)
d) Choice of price, that is, how to price the commodity,
e) How to promote sales,
f) How to face competition,
g) How to decide on new investments,
h) How to manage profit and capital,
i) How to manage an inventory, that is, stock of both finished goods and raw materials.

INTRODUCTION OF MANAGERIAL ECONOMICS

Scope of Managerial Economics (contd.)

Microeconomics deals with such questions confronted by managers. The following microeconomic theories deal with most of these questions.

a) **Demand Analysis and Forecasting: -** An understanding of the forces behind demand is a powerful tool for managers. Such knowledge provides the background needed to make pricing decisions, forecast sales and formulate marketing strategies. A forecast of future sales is essential before employing resources.

b) **Theory of Production and Production Decisions:** - Production theory explains the relationship between inputs and output. It also explains under what conditions costs increase or decrease; how total output behaves when use of inputs is changed; and how can output be maximized from a given quantity of resources. Thus, it helps the managers in determining the size of the firm, and the amount of capital and labour to be employed keeping in view the objectives of the firm.

INTRODUCTION OF MANAGERIAL ECONOMICS

Scope of Managerial Economics (contd.)

c) **Market Structure and Pricing Theory:** - Price theory explains how prices of outputs and inputs are determined under different market conditions; when price discrimination is desirable, feasible and profitable; and to what extent advertising can be helpful in expanding sales in a competitive market. Hence, price theory can be helpful in determining the price policy of the firm.

d) **Analysis of Cost:** - Estimates of cost are essential for planning purposes. The factors determining costs are not always known or controllable which gives rise to cost uncertainty. Factors of production are scarce and they have alternative uses. Factors of production may be allocated in a particular way to get maximum output. Thus the analysis of costs and their links to output are also importance in managerial economics.

INTRODUCTION OF MANAGERIAL ECONOMICS

Scope of Managerial Economics (contd.)

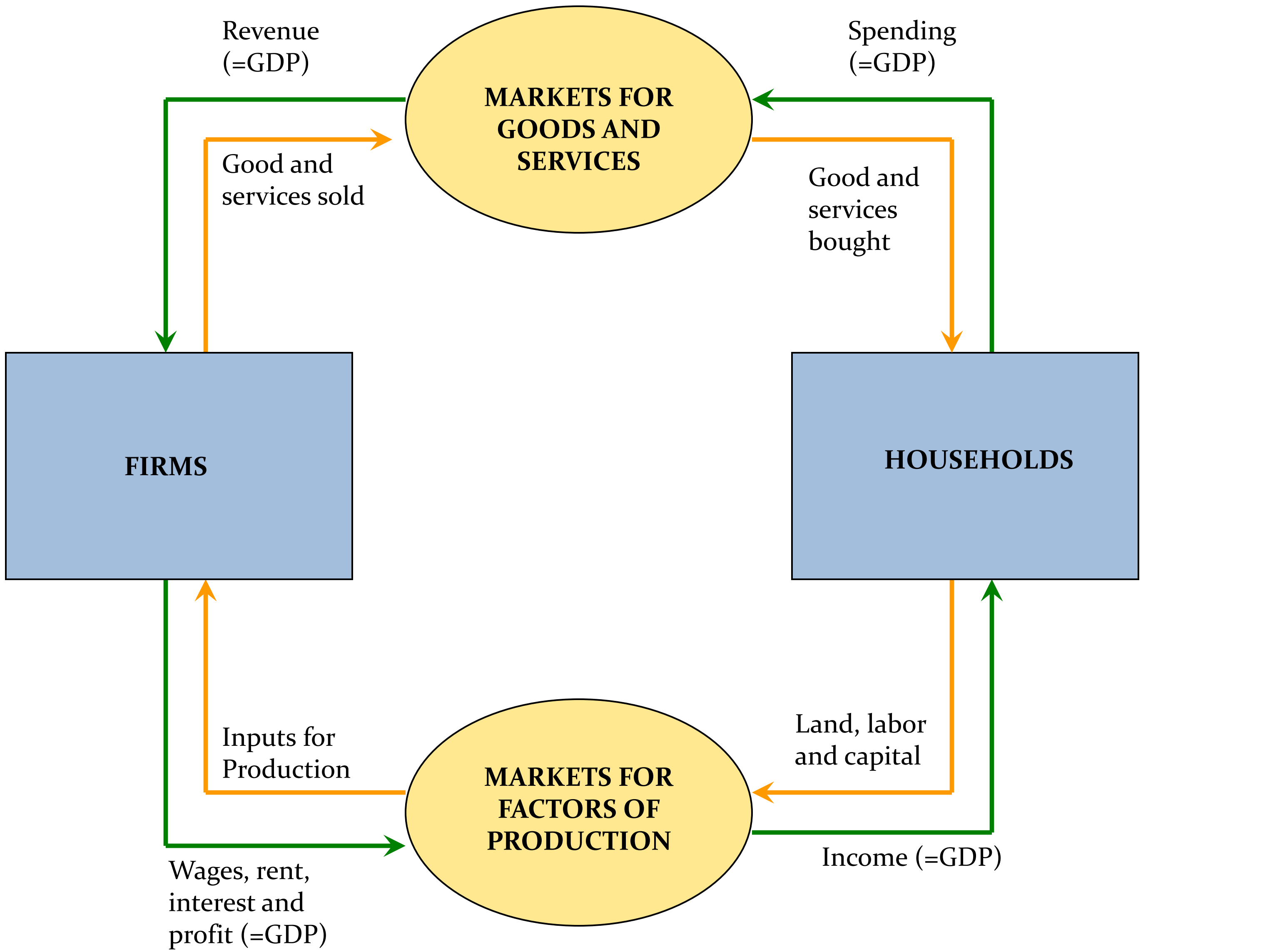
e) **Profit and Capital Management (Investment Decisions):** - Profit provides the index of success of a business firm. Profit analysis is difficult, because the uncertainty of expectations makes realization of profit planning and measurement difficult and these areas are covered in the study of managerial economics.

Capital management means planning and control of capital expenditures. Hence, it is very important for a firm to manage required capital through proper investment planning. The main topics covered are: cost of capital, types of investment decisions, and evaluation and selections of investment projects.

INTRODUCTION OF MANAGERIAL ECONOMICS

Scope of Managerial Economics (contd.)

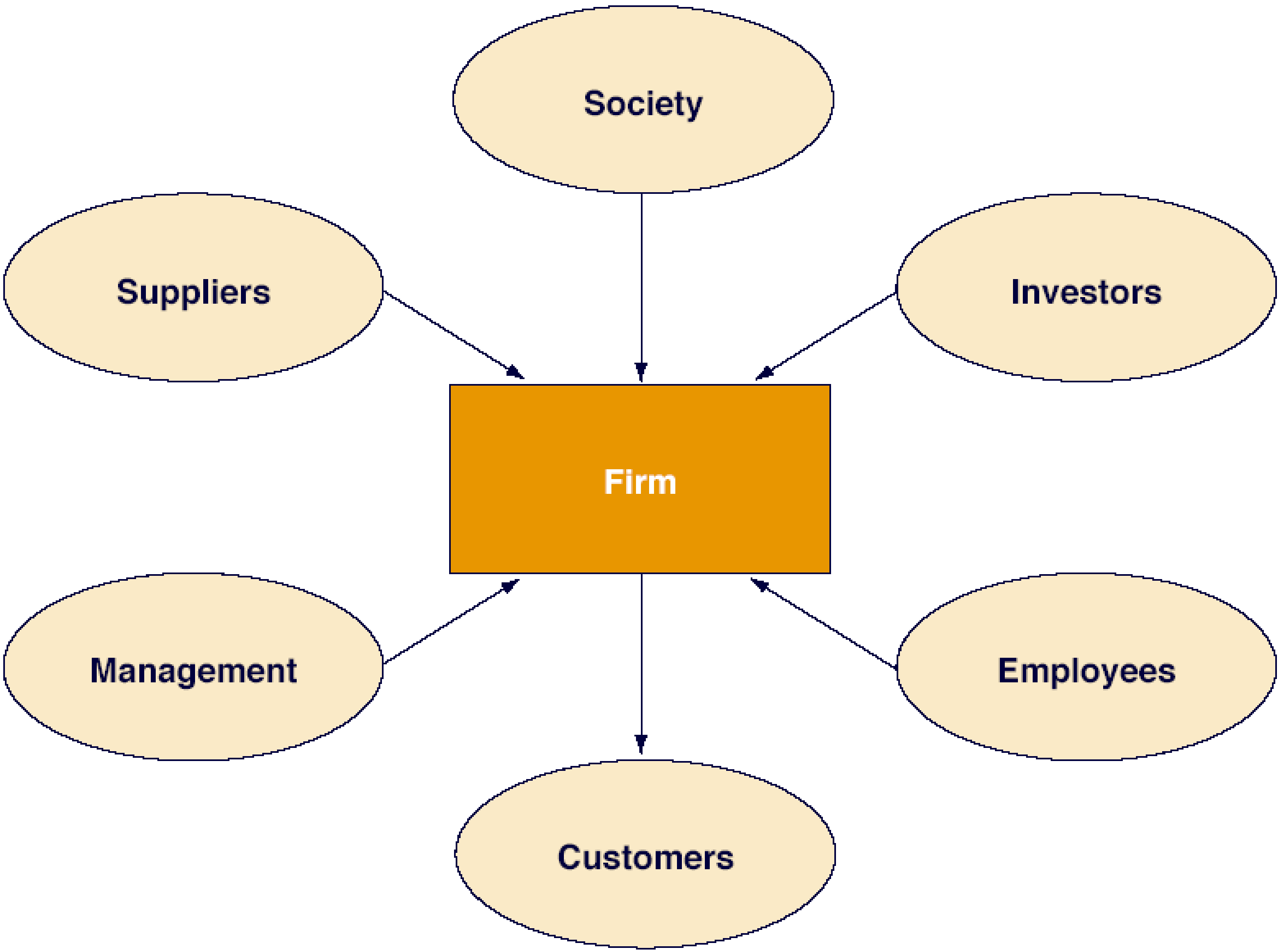
f) **Inventory Management: -** Inventory refers to a stock of raw materials or finished goods which a firm keeps. Management of inventory is very important for a firm to keep intact of its current production and supply capacity and to meet the challenges arising from change in market and other conditions. In this regard, a major question that arises is: how much of the inventory is the ideal stock? If it is high, capital is unproductively tied up, and that might be useful for other productive purposes if the stock of inventory is reduced. On the other hand, if the level of inventory is low, production will be hampered. Hence, managerial economics uses different methods which are helpful in minimizing the inventory cost.



THE CIRCULAR FLOW DIAGRAM

Assumptions

- Assumption: The economy composed of households and firms only
- Households: own factors of production, consume goods and service
- Firms: hire factors of production to produce goods and services


Society
Suppliers
Investors
Firm
Management
Employees
Customers

MANAGERIAL ECONOMICS Relationship with other areas in;

- Economics,
- Production Management,
- Marketing,
- Accounting and
- Personnel

Relationship with other areas

- **Managerial Economics and Traditional Economics:** Managerial Economics has been described as economics applied to decision-making. It may be viewed as a special branch of economics bridging the gap between pure economic theory and managerial practice.

- Traditional Economics has two main divisions: microeconomics and macroeconomics. Microeconomics; also known as price theory, is the main source of concepts and analytical tools for managerial economics. To illustrate, various microeconomic concepts such as elasticity of demand, marginal cost, the short and long runs, opportunity cost, various market forms, etc., are all of great significance to managerial economics. The chief contribution of macroeconomics is in the area of forecasting. The modern theory of income, employment, trade cycles, etc. has implications for forecasting general business conditions. As the prospects of an individual firm often depend greedy on general business conditions, individual firm forecasts depend on general business forecasts.

Relationship with other areas

- **Managerial Economics and Production Management**: Production is defined as the creation of utility by transforming input into output. It usually refers to manufacturing activity and the term operations are used to denote a wider meaning, encompassing all economic activity which creates economic utility.
- Operations personnel have four basic responsibilities to fulfill while producing a firm's products or services:
  1. Supply of quantities,
  2. Maintenance of time-bound deliveries,
  3. Fulfillment of quality requirement, and
  4. Economizing production operations.
- For this, the personnel have to deal with a number of inter-related areas including production planning, production control, quality control, methods analysis, materials handling, plant layout, inventory control, work management, and wage incentives.
- A knowledge of Economics would help operations personnel not only to economize their production operations but also help them

a) To monitor and analyse the input market,

b) To monitor market maturity, technical maturity, and competitive maturity of products being produced,

c) To have better coordination with the R & D department with respect to product and process innovation, and

d) To take decisions on production targets.

Relationship with other areas

- **Managerial Economics and Marketing:** Managerial Economics helps marketing in two ways. First, as a basic discipline, providing tools and concepts of analysis and second, as an integrating area, providing its judgement on **the optimum sales volume under the given cost function of a firm, market structure, and the objective function to be optimized**. How much to sell under given circumstances is answered by an economist and how to sell the desired amount of output is the domain of the marketing manager. Sometimes, selling more than what is desired may harm the interest of the firm. It has, however, the sanction neither of Economics nor of marketing principles as both stresses on the protection of long run interests of the firm.
- Economics is of a great help to marketing in the sphere of pricing. Of the three basic aspects of pricing viz. **value theory, price theory, and pricing techniques**, the first two are the exclusive domain of Economics, while the third one forms part of both Managerial Economics and marketing. In the case of pricing techniques, there are varying practices in different organizations. In many pricing is handled by the accounts staff such as chartered accountants and company secretaries. There are several areas of marketing which are totally or heavily dependent on economic theory. These are:
- 1. Theory of the Firm
- 2. Concepts of goals and goal formulation
- 3. Market structures
- 4. Pricing

Relationship with other areas

- **Managerial Economics and Accounting:** Managerial economics and accounting are closely interrelated. Accounting can be defined as the recording of financial operations of a business firm. A business manager needs a lot of accounting information data for logical analysis in decision-making and policy formulation at the level of firm. The accounting data and information has to be presented in a methodological manner worthy of analysis and interpretation for decision-making and future planning. This is why a new branch of accounting known as 'management accounting' has developed to help correct managerial decision-making. The main task of management accounting is to provide the sort of data which managers need to solve some business problems accurately.

Relationship with other areas

- **Managerial Economics and Personnel Management:** A human resource manager has to concern himself with two types of problems: (i) an effective utilization of human resources in terms of costs and productivity and (ii) improvement in the terms and conditions of employment as an adjunct to employee satisfaction. Manpower planning, at the micro level, is another important function of an HRD manager wherein a firm ensures that it has the right number and the right kind of people, at the right places, at the right time, doing work for which they are economically most useful.
- Managerial economics can help personnel management by analysing the economic and financial aspects of personnel problems both in relation to the economic welfare of the firm and to the prevailing environment of the economy as a whole. It explains the economic implications of policies and strategies and judges their consistency with respect to organizational objectives as well as internal and external constraints. It can provide a safety range for wage negotiations with trade unions. Business forecasting could provide information for devising employment norms of the sales force.

How managerial economics is usefulness to engineers

- Meaning of Engineering Economics:

  Engineering is the profession in which knowledge of the mathematical and natural sciences gained by study experience and practice is applied with judgment to develop ways to utilise economically the material and forces of nature for the benefit of mankind.

- Engineering Economics is a subject of vital importance to Engineers.
- This subject helps one understand the need for the knowledge of Economics for being an effective manager and decision maker.

How managerial economics is usefulness to engineers

- **“Managerial Economics plays a very crucial role in engineering”.**

1. It has wide scope in manufacturing, construction, mining and other engineering industries. Examples of economic application are as follows:
   - Selection of location and site for a new plant.
   - Production planning and control.
   - Selection of equipment and their replacement analysis.
   - Selection of a material handling system.

2. Better decision making on the part of engineers.

3. Efficient use of resources results in better output and economic development.

4. Cost of production can be reduced.

5. Alternative courses of action using economic principles may result in reduction of prices of goods and services.

6. Elimination of waste can result in application of engineering economics.

7. More capital will be made available for investment and growth.

8. Improves the standard of living with the result of better products, more wages, and salaries, more output etc. from the firm applying engineering economics.

Basic concepts of Managerial economics

- Incremental Principle,
- Time perspective,
- Discounting Principle,
- Opportunity Cost,
- Equimarginal Principle,
- Contribution,
- Negotiation Principle

Incremental Principle

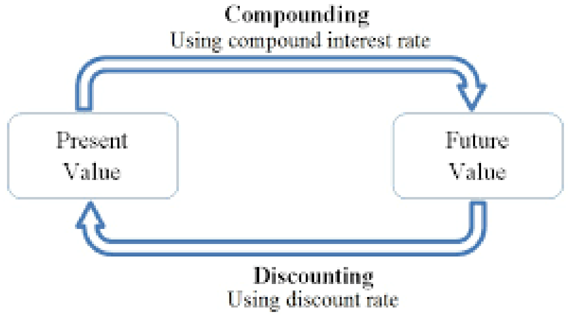
- Incremental principle gives an idea to increase the production not only with one more product it could be any quantity till the profit exists.
- According to this principle profit can be existed either by increasing sales or total revenue or by decreasing total cost
- Decision Rule,
- **i.e.** **TC<TR……**TC=TR**……**TC>TR

Time Perspective Principle

- According to the principle all decisions should be under **two formats i.e. short run and long run,** Because of the decisions characteristics.
- So each decision should be made in Short run basis as well as long run basis.
- According to short run decision the long run decision will get change.

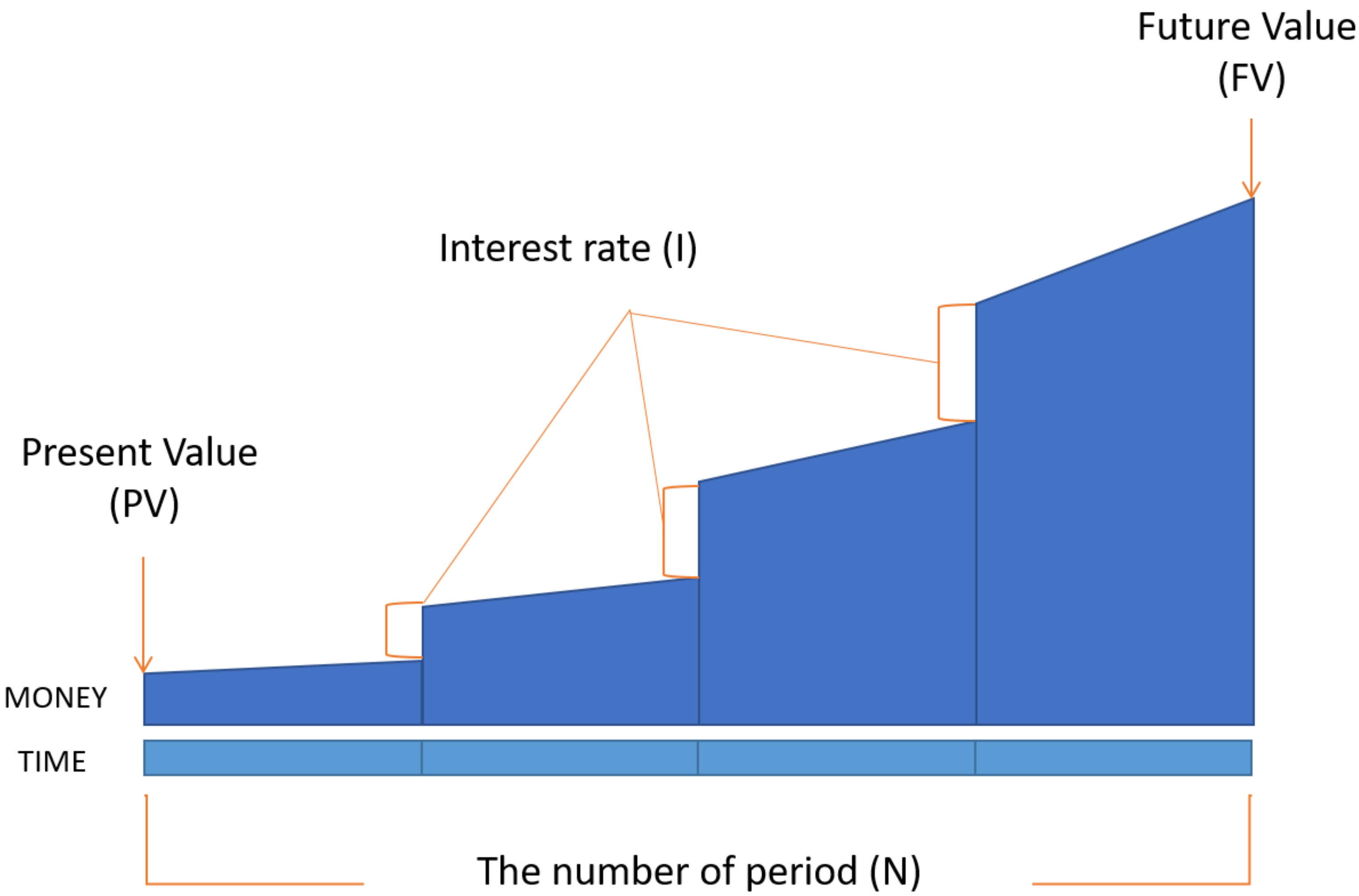
Discounting Principle

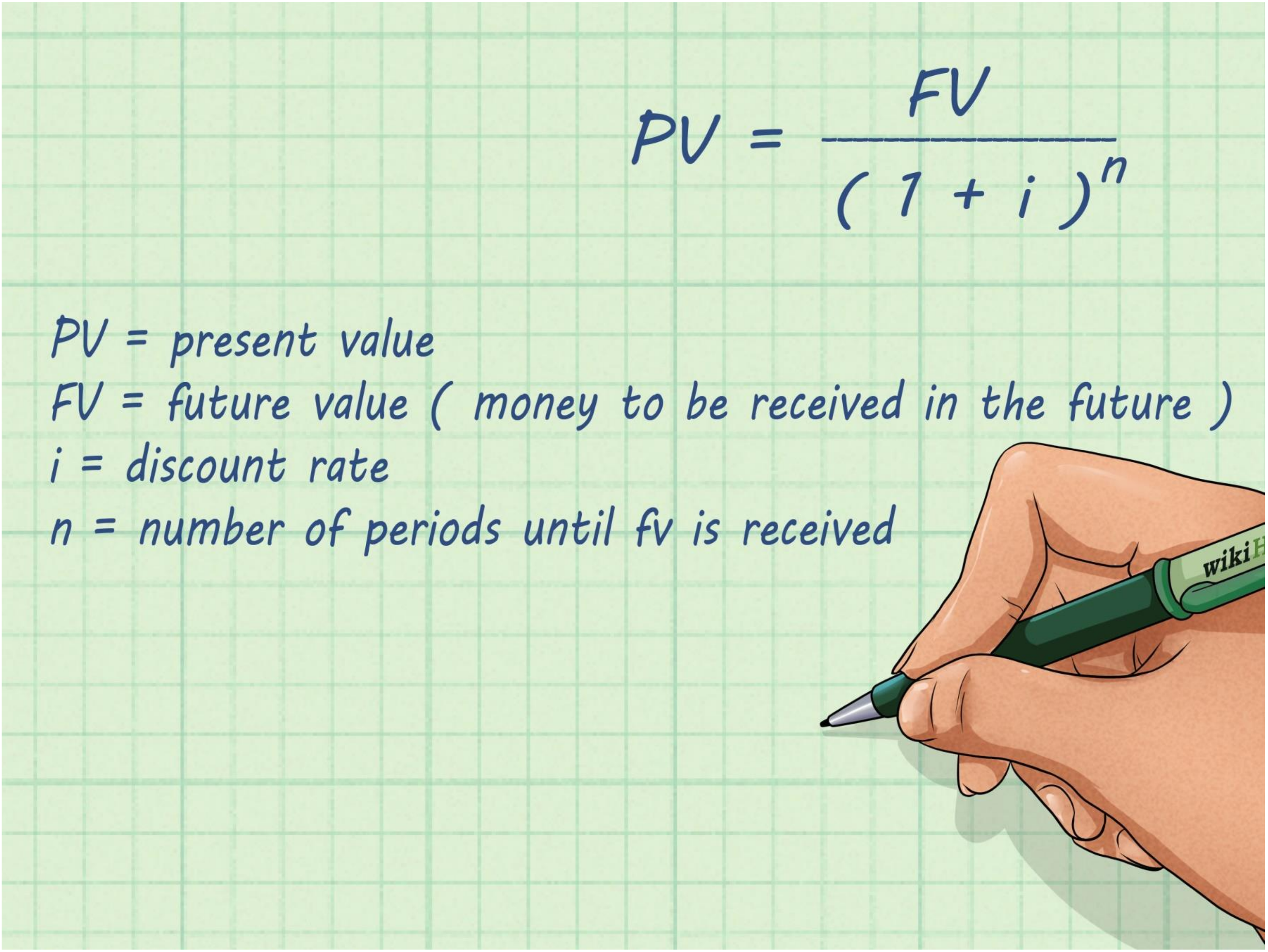
- According to this principle, if a decision affects costs and revenues in long-run, all those costs and revenues must be discounted to present values before valid comparison of alternatives is possible. This is essential because a rupee worth of money at a future date is not worth a rupee today. Money actually has time value.



Discounting

- Discounting can be defined as a process used to transform future rupees into an equivalent number of present rupees.
- This is essential because a rupee worth of money at a future date is not worth a rupee today. Money actually has time value. For instance, Rs.100 invested today at 10% interest is equivalent to Rs.110 next year.


Future Value
(FV)
Interest rate (I)
Present Value
(PV)
MONEY
TIME
The number of period (N)


$PV = \frac{FV}{(1 + i)^n}$
PV = present value
FV = future value (money to be received in the future)
i = discount rate
n = number of periods until fv is received
wikiH

Opportunity Cost

Equi-marginal principle……………………….

- Maximization occurs when the return on the last dollar spent is the same in all areas.

- In terms of a formula, a person wants

(Marginal Benefit of A)/(Price of A) = (Marginal Benefit of B)/(Price of B).

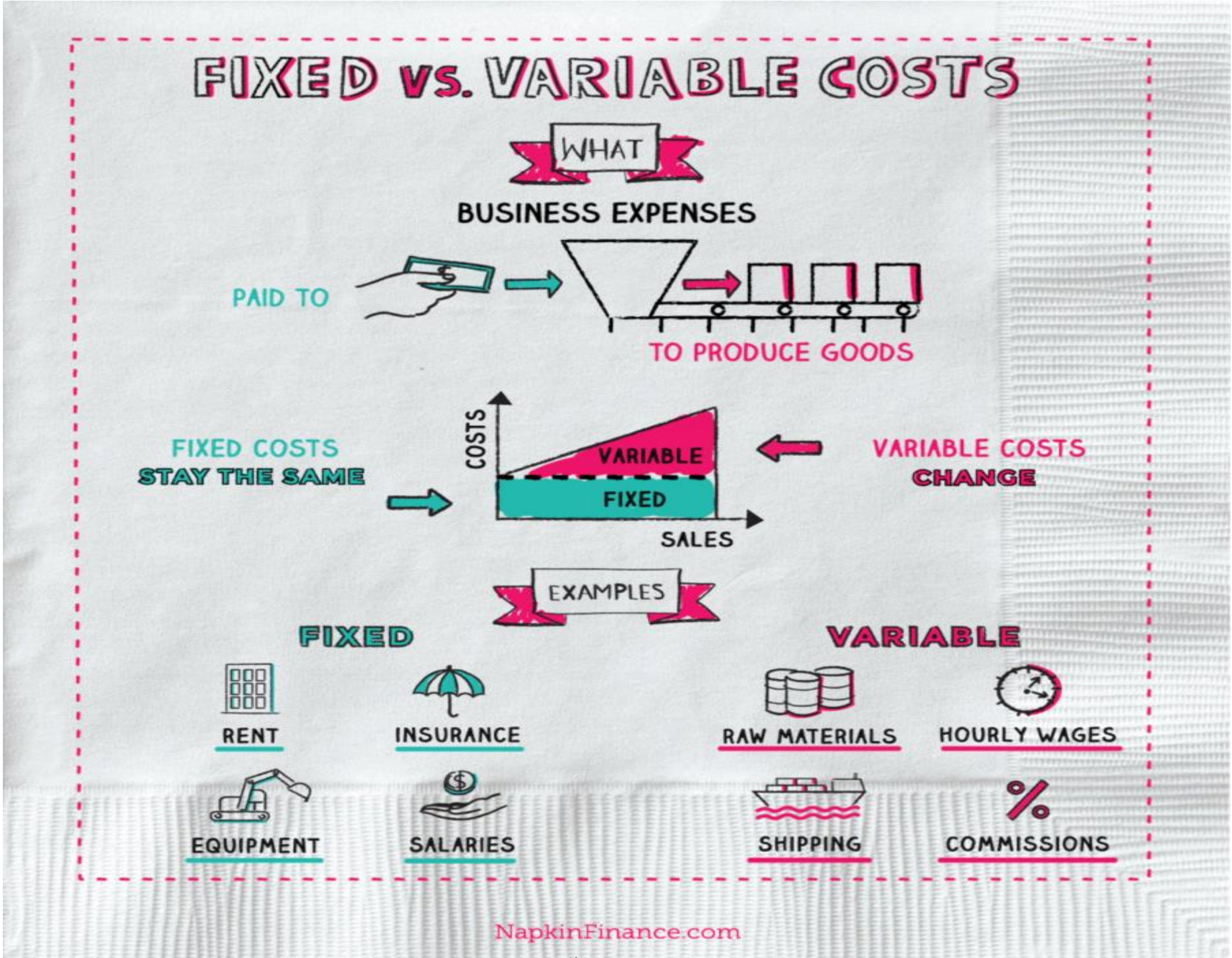
- I, as a consumer, am most satisfied with my market basket of consumption goods. (desired one)

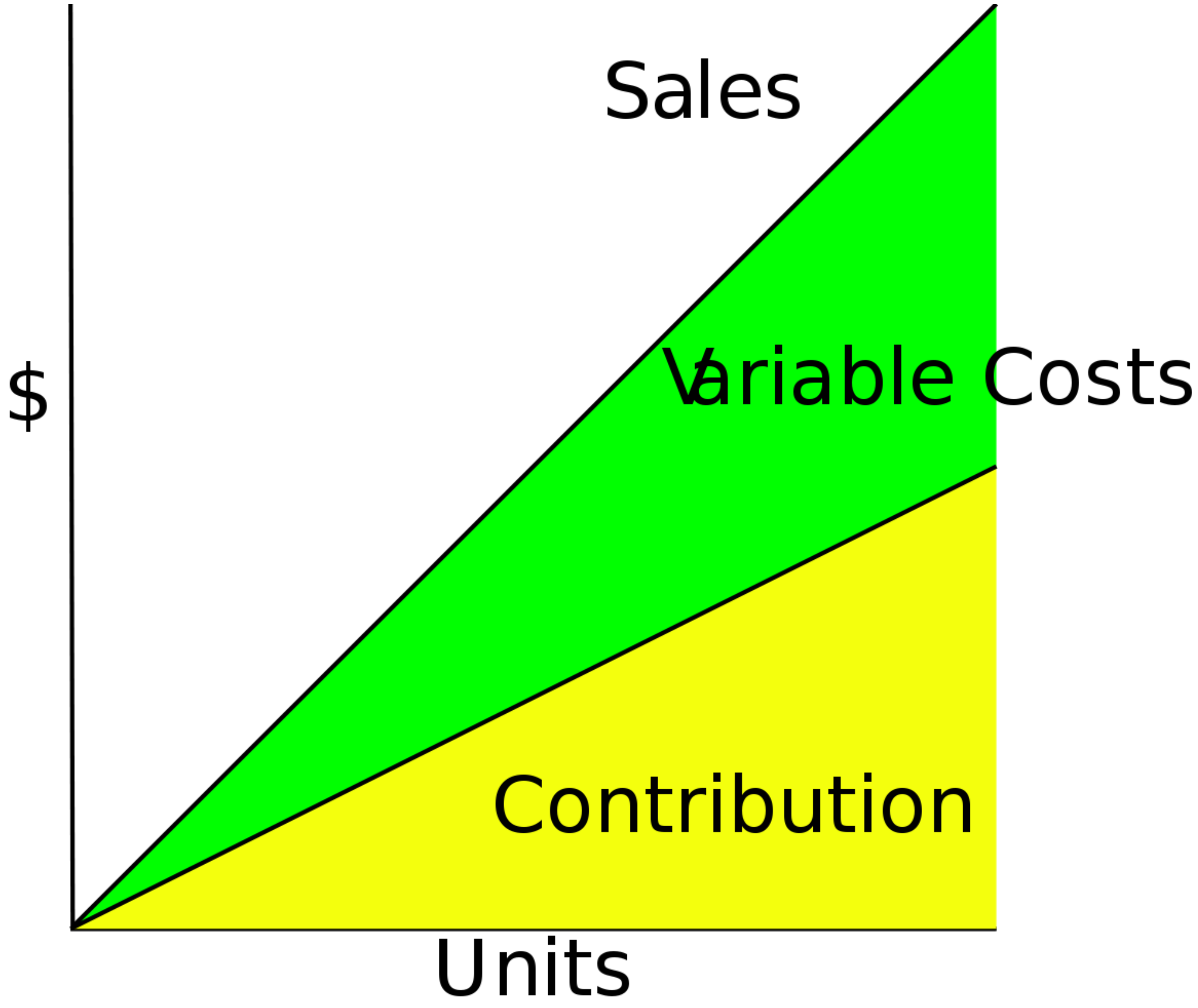
- This leads to the equimarginal principle that I should arrange my consumption so that every single good is bringing me the same marginal utility per dollar of expenditure.

- In such a situation, I am attaining maximum satisfaction or utility from my purchases. This is clear concept of equimarginal principle.

Contribution

- Unit Contribution is the per unit difference of incremental revenue from incremental cost.


FIXED vs. VARIABLE COSTS
WHAT
BUSINESS EXPENSES
PAID TO
TO PRODUCE GOODS
FIXED COSTS
STAY THE SAME
COSTS
VARIABLE
FIXED
SALES
VARIABLE COSTS
CHANGE
EXAMPLES
FIXED
RENT
INSURANCE
EQUIPMENT
SALARIES
VARIABLE
RAW MATERIALS
HOURLY WAGES
SHIPPING
COMMISSIONS
NapkinFinance.com


Sales
$
Variable Costs
Contribution
Units

DEFINING NEGOTIATION

- Negotiation is a process centered on a discussion that is intended to produce an **agreement**.
- In its simplest form, it could be considered to be about **power**. More than just about money, it involves issues of ego, leveraging, saving face, and being right. It can appear that the negotiator or team with the most power will triumph over a weaker team or win something important.
- In current business practices, however, negotiation often leads to **compromises**, where both sides make **concessions** to get as close as they can to exactly what they want. Other times, no concessions are available and a power struggle can go on for a long time.
- When negotiation is not effective, there are other options, such as bringing in a **mediator**, which can help both sides speak to one another and move towards a resolution instead of walking away and resolving nothing.

Negotiation Principle

PRINCIPLES OF NEGOTIATIONS

The Four Points of Principled Negotiation

PRINCIPLE #1 Separate the people from the problem.

Be soft on the people and hard on the problem.

PRINCIPLE #2 Focus on interests, not positions.

Learn to look behind positions for interests, some of which you may share.

PRINCIPLE #3 Invent options for mutual gain.

Use brainstorming techniques to create a larger number of quality ideas to serve your common interests.

PRINCIPLE #4 Insist on objective criteria.

Appeal to objective standards and outside sources to judge the quality of your agreements.

NBK

End of UNIT-1


THANK
YOU

Functions of a Managerial Economists:

- The main function of a manager is **decision making** and managerial Economics helps in taking rational decisions.
- The need for decision making arises only when there are more alternatives courses of action.
- **Steps in decision making :**
  - Defining the problem
  - Identifying alternative courses of action
  - Collection of data and analyzing the data
  - Evaluation of alternatives
  - Selecting the best alternative
  - Implementing the decision
  - Follow up of the action

- Specific functions to be performed by a managerial Economist :
  1. Production scheduling
  2. Sales forecasting
  3. Market research
  4. Economic analysis of competing companies
  5. Pricing problems of industry
  6. Investment appraisal
  7. Security analysis
  8. Advice on foreign exchange management
  9. Advice on trade
  10. Environmental forecasting

  - *Survey of British Industry by Alexander and Kemp*