

Introduction to Business Economics and business decisions

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RELATIONSHIP BETWEEN ECONOMIC CONCEPTS AND BUSINESS DECISIONS

Introduction

- **Business economics may be considered as economics applied to problem solving and decision making for the firm**
- **A business firm which is a decision making unit is confronted with the problem of scarcity of resources**
- **It has to deal with the problem of scarcity of resources which have alternative uses**
- **There is, a similarity between an economic and a business problem.**
- **Both deal with scarcity and alternative uses of scarce resources to produce goods and services to maximize satisfaction**

MEANING AND DEFINITION OF BUSINESS ECONOMICS

- **Businesses economics** is a discipline which deals with the application of economic theory to business management
- **Business economics is now termed as “Managerial Economics”**
- **Acc. to McNair & Meriam** “business economics consists of the use of economic models of thought to analyse business situations”
- **Spencer & Seligman** “business economics is the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management”

THE RELATION

Economic Concept/Theory

- 1. Demand Analysis**
- 2. Production and Cost Analysis**
- 3. Market Structure Analysis**
- 4. Project Appraisals**
- 5. Firm's behaviour Analysis**
- 6. Risk and Uncertainty Analysis**

Business Economics/Decisions

- 1. Product, pricing, innovation, marketing**
- 2. Input-Output analysis, use of technology, productivity improvement, recycling wastes, environmental compliance**
- 3. Price-output decisions, marketing, diversification, market expansion, mergers, take-overs**
- 4. Investment decisions**
- 5. Profit determination, sales and market share targets, stakeholders' interest**
- 6. Economic forecasting and planning**

IMPORTANCE/SIGNIFICANCE OF BUSINESS ECONOMICS

- **Business economics helps in reaching various business decisions like what to produce?, how much output to produce?, what production techniques to use?, how to make investment decisions?**
- **It is applicable in production mgmt, inventory mgmt, marketing mgmt, finance mgmt, HRM**
- **business economics helps to achieve social welfare and economic welfare goals**
- **It helps in achievement of business mgmt goals related to cost revenue, profits, etc**
- **Business economics is a selection of tools of economic principles, methods and analysis applied to business mgmt on decision making**
- **It is concerned with making rational choices to yield maximum returns out of minimum resources**

BASIC CONCEPTS OF BUSINESS ECONOMICS

1. OPPORTUNITY COST

- This concept of opportunity cost is very important in economic analysis to understand how choices are made by households, firms and governments
- The opportunity cost of a chosen activity or commodity is the value of the next best alternative that is foregone
- The choice and sacrifice needs to be made because;
 - (a) *resources are scarce; and*
 - (b) *resources have alternative uses*
- For example, a given plot of land may be used for producing either 100 quintals of rice or 150 quintals of sugarcane.
- If it used for producing rice, then its opportunity cost is 150 quintals of sugarcane which is the next best alternative forgone/sacrificed

OPPORTUNITY COST

- **The concept is very significant for business economic analysis of choices because resources have more than one use**
- **Sometimes opportunity cost can be measured in terms of money but sometimes it cannot be.**
- **Business economics include all costs, whether they reflect monetary transactions or not**
- **Opportunity cost of using factors that belong to the entrepreneur herself, like capital from personal savings, own premises, or her own skills, need to be added to explicit or transaction cost in order to arrive at economic cost.**
- **The concept of opportunity cost is used to determine factor incomes like rent, interest and wages. Thus to an economist, opportunity costs are as important as explicit monetary costs.**

functional relations and tools for economic analysis

1. variables

- Economic theories and models are constructed to explain economic activities.
- An economic model is a simplified representation of real world phenomena.
- For example, the Law of Demand is used to understand the relationship between price and quantity demanded.
- **a variable is something whose magnitude can change or can take on different values**
- Variables frequently used in business economics are price, profit, revenue, cost, investment
- variables are represented by a symbol

1.variables

- An **endogenous variable** is a variable that is explained within a theory
- An **exogenous variable** is determined by factors outside the theory
- For example, the theory of value helps to determine the equilibrium price
- In this model, price and quantity demanded and supplied are endogenous variables
- consumer preferences, prices of related commodities, input costs, advertisement, government policies are outside factors but they also have an influence on price, demand and supply.

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2. functions

- **A function shows the relationship between two or more variables.**
- **It indicates how the value of dependent variable depends on the value of independent variables.**
- **For instance, economists generally link the volume of consumption by the households to the receipts of disposable income**
- **Such behavior is specified by saying that consumption is a function of disposable income.**
- **This functional relationship between consumption and disposable income can be expressed as**
- **$C = f(Y)$**

Continue....

3. equations

- The expression $Q = f(P)$ states that Q is related to P .
- **An equation specifies the relationship between the dependent and independent variables**
- For instance, the functional relationship between price and quantity demanded can take different forms.
- The specific relationship between two or more variables is expressed in the form of an equation.
- For instance the function $Q = f(P)$ can be expressed in a simple equation as

$$Q = a - bP$$

- Where, b = constant and it has a value $> \text{zero}$ but $< \text{one}$.
- Q = constant proportion of price.
- For example if b is 0.5 then the quantity demanded would fall by 0.5 for every unit rise in price.
- The negative sign indicates the inverse relationship between price and quantity demanded.

3. equations

- **‘a’** and **‘b’** are parameters and have values $> \text{zero}$.
- The equation also shows that quantity demanded is an inverse linear function of price.
- The coefficient, **‘a’** denotes quantity demanded at zero price.
- When price = zero, $bP = \text{zero}$, but quantity demanded will not be zero but will be = **a**
- **‘b’** measures the slope of the demand curve
- It is measured as $\Delta Q / \Delta P$
- The demand curve has a negative slope, hence the negative sign.

4. ECONOMIC DATA AND TOOLS

- **Tools for Economic Analysis**
- **To analyse economic issues and the relationship between variables economists use **data****
- **Relevant, quantifiable data is absolutely essential for making business decisions**
- **The relationship between variables can be expressed either in words, in numerical schedules or tables, in mathematical equations, or in graphs**

Tools for economic analysis

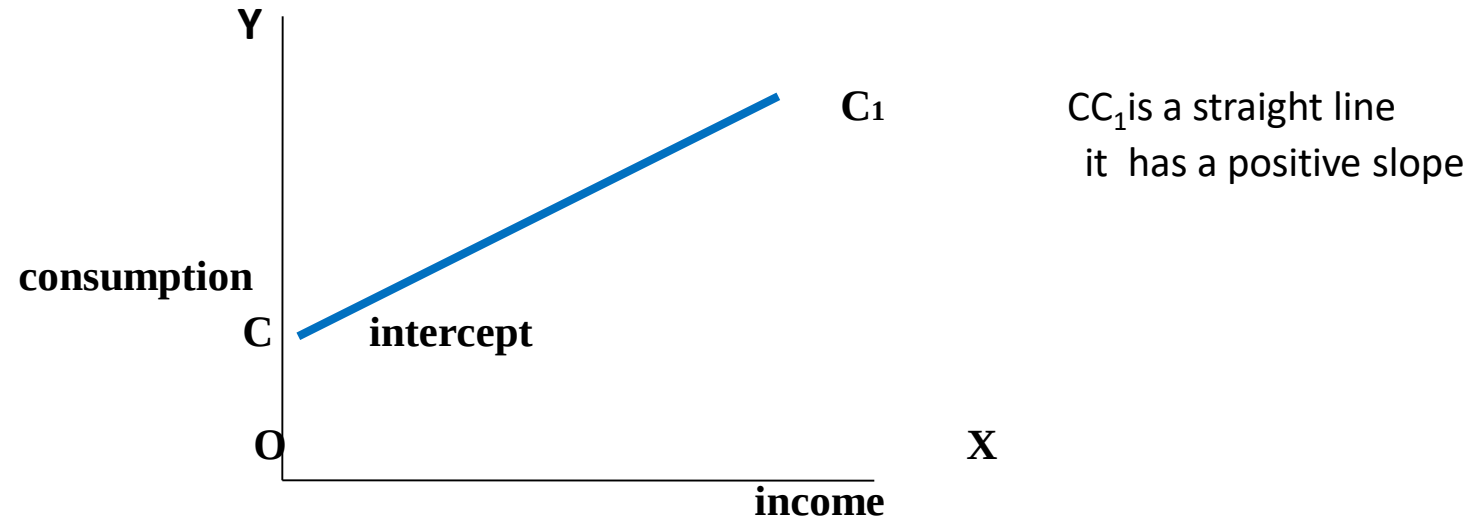
- For example,
- the relationship between the quantity supplied of a commodity and its price can be expressed in the following ways:
 1. A sentence explains the direct relationship
 2. A supply equation $Q_{sx} = -c + dP_x$
 3. A table will give different levels of supply at different prices
 4. An upward rising curve with price on the Y-axis and supply on the X-axis.

5. Graphs

- **A graph is a diagram showing how two or more sets of data or variables are related to one another**
- **Business economics makes extensive use of graphs to analyse economic relations.**
- **The important points to understand about a graph are :**
 1. **The horizontal line on a graph is referred to as the horizontal axis, = the **x axis**. The vertical line is known as vertical axis = **y axis**.**
 2. **The tower left hand corner where the two axis meet is called the origin. It signifies 0,**
 3. **The variables are represented on the two axis.**
 4. **The kind of relationship between the variables on the axis is depicted in the curve or curves shown in the graph.**
 5. **For example, if the relationship between the variables is inverse, then the curve will be downward sloping or will have a negative slope.**

6. Curves

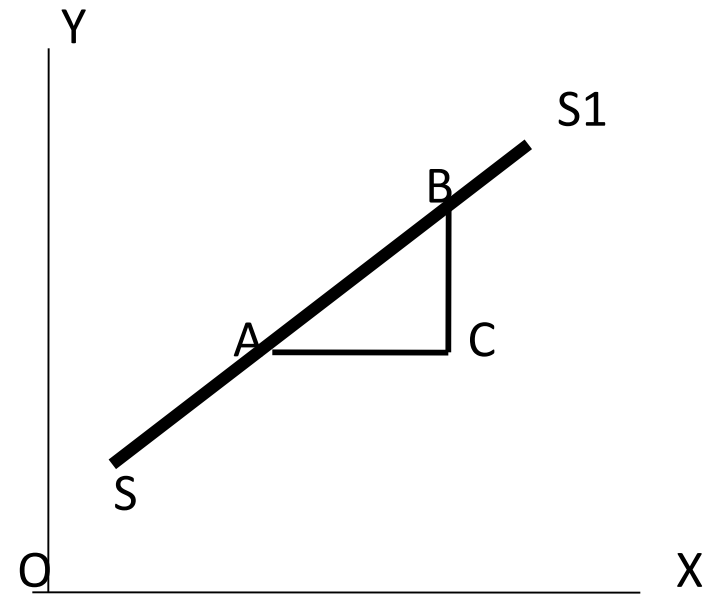
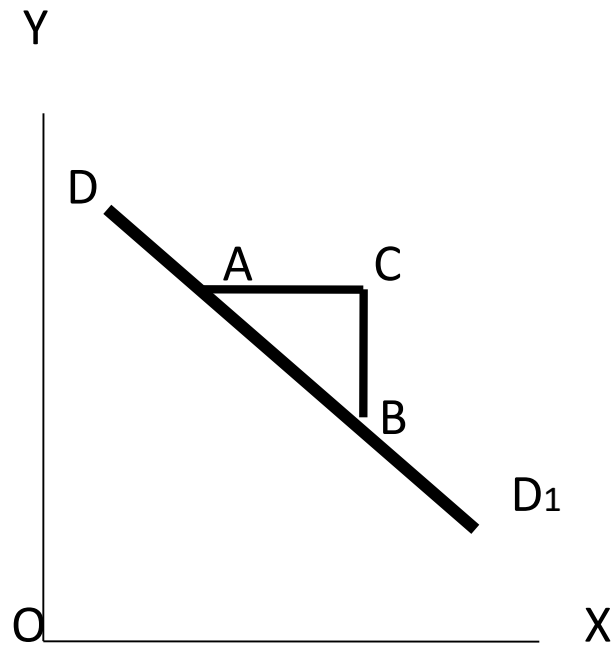
- The functional relationship between the variables specified in the form of equations can be shown by drawing lines in the graph.
- the line depicts the relationship between the variables.
- **The line is called a curve in economics**
- A curve can be liner (straight line) or non-liner depending on the data used.
- Direct relationship occur when variables move in the same direction, (increase or decrease together) On the other hand, inverse relationships occur when the variables move in the opposite direction.
- For instance, the relationship between consumption and income is expressed by drawing a line as in the diagram



7. slopes

- Slopes explains (how fast) at what rate, the dependant variable is changing in response to a change in the independent variable
- **Samuelson defines** “ slope is an exact numerical measure of the relationship between change in Y and the change in X”
- the **slope** = $\Delta Y / \Delta X$
- Y = dependant variable
- X = independent variable
- delta (Δ) = change

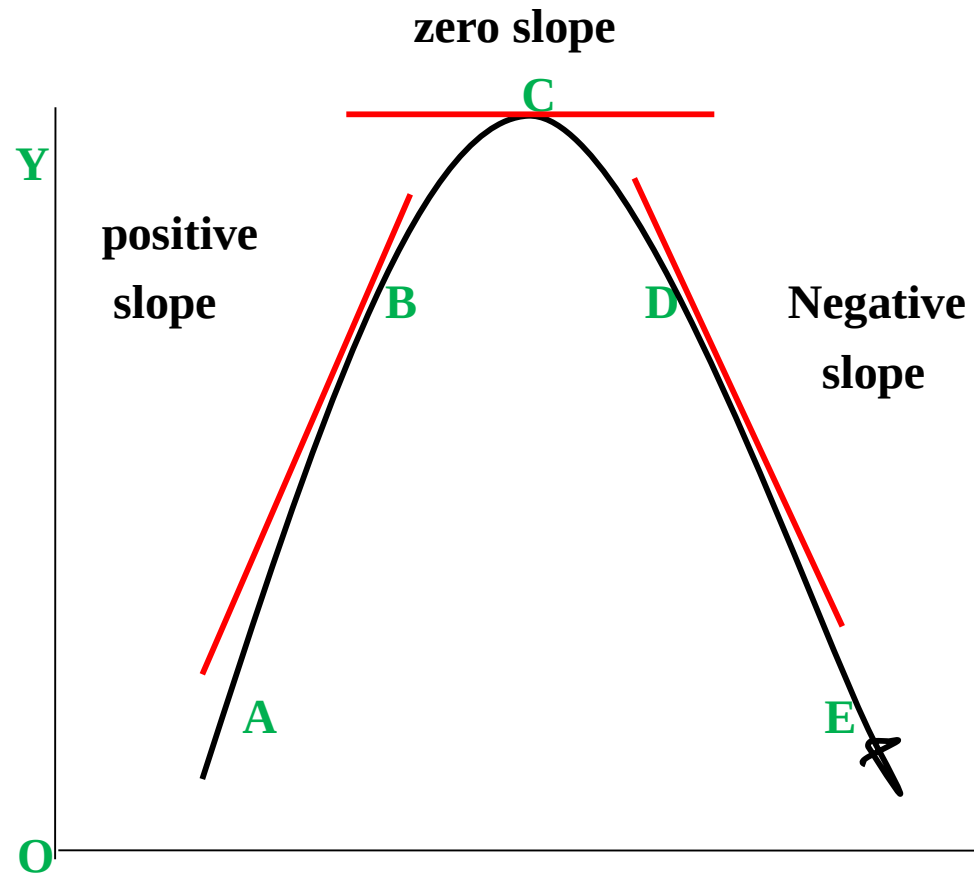
7. Slopes (slope of a straight line)



7. Slopes (slope of a straight line)

- The movement of A to B on the lines DD_1 and SS_1 may occur in two stages.
- First, there is a horizontal movement from A to C, indicating one unit increase in X
- Second, there is corresponding vertical movement up or down from C to B. The length of CB indicates the change in Y per unit change in X.
- Thus, the slope measures the change in Y per unit change in X.
- BC corresponds to change in Y (ΔY) and AC corresponds to change in X (ΔX)
- the slope of the line AB is $\Delta Y / \Delta X$.

7. Slopes (slope of a curved line)



The curve ABCDE, increases initially, reaches a maximum point at C and then declines

8. Intercepts

- The intercept is the point at which the line or the curve crosses the vertical axis
- In other words it is the height of the graph where the line crosses the vertical axis
- at point C the line CC_1 crosses the vertical axis
- The OC is the intercept
- It shows the value of consumption when income is zero
- In the equation, $C = a_1 + a_2Y$
- a_1 is the intercept i.e. the value of C when Y = zero
- There can be vertical and horizontal intercepts
- The vertical intercepts shows the value of Y variable when X variables is zero
- the horizontal intercept shows the value of X variable when Y variable is zero