INTERNATIONAL COLLEGE of YAYASAN MELAKA

ICYM

Open Distance Learning

BECN 1064
PRINCIPLES OF ECONOMICS

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Developed by: International College of Yayasan Melaka

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UNDERSTANDING COURSE GUIDE

Refer and understand this *Course Guide* carefully from the beginning to the end. It describes the course and how you use the course material. It suggests the learning time to complete the course successfully. Referring the *Course Guide* will help you to clarify important contents that you might miss or overlook.

ABOUT THE COURSE

BECN 1053 Principles of Microeconomics is subject for Diploma in Accountancy offered by School of Business Management in ICYM.Thiscourseisworth3credithoursandshouldbecoveredto 14 weeks.

You should be acquainted with learning independently and being able to optimize the learning modes and environment available to you. Make sure refer right course material and understand the course requirements as well as how the course is conducted.

LEARNING TIME SCHEDULE

It is a standard ICYM practice that learner accumulate 40 study hours for every credit hour. As for this three-credit hour course, you are expected to spend 120 study hours. Table 1 gives an estimation of how the 120 study hours could be accumulated.

Table 1: Estimation of Student Learning Time

Distribution of Student Learning Time by Chapter	CLO	Teaching and Learning Activities					
		Face to Face				Non-Face to Face (Independent Learning)	Total
		L	T	P	O		
Introduction to Microeconomics • Definition of economics • Differences between microeconomics and macroeconomics • Basic economic concepts • Basic economic problems • Production possibilities curve (PPC) • Economic system • Capitalism • Socialism • Mixed economy"	CLO1	4	2			10	
"Demand and Supply • Definition of demand • Classification of goods and services • Law of demand • Determinants of demand • Change in quantity demanded versus change in demand • Exceptional demand • Price elasticity of demand • Income elasticity of demand • Cross elasticity of demand • Definition of supply • Law of supply • Determinants of	CLO1					10	

supply • Change in quantity supplied versus change in supply • Exceptional supply • Price elasticity of supply"							
Market equilibrium • Definition of market equilibrium • Equilibrium price and output • Changes in equilibrium price and output • Government intervention in the market • Market failure"	CLO2				8	10	
Theory of consumer behavior • Definition of consumer behavior • Utility approach • Cardinal approach • Law of diminishing marginal utility • Relationship between Total Utility and Marginal Utility • Ordinal approach • Indifference curve and indifferent schedules • Budget line	CLO2				8	10	
"Theory of production • Definition of production • Classification of factors of production • Production function	CLO3				6	10	

• Short run production function: one variable and one fixed output • Law of diminishing marginal returns • Isoquant analysis and isoquant curves • Marginal rate technical substitution • Long run production function "							
Cost of Production • Cost concepts • Cost curves in the short run • Isocost analysis and map. • Cost curves in the long run • Economies of scale • Diseconomies of scale • Concept of revenue "	CLO3	4			2	10	
"7. Market structure I : Perfect competition and Monopoly • Introduction • Theory of a firm • Market structure • Perfect competition • Monopoly • Comparison of monopoly and perfect competition "	CLO3				6	9	
"8. Market structure II : Monopolistic competition and	CLO3				6	9	

Oligopoly • Introduction • Monopolistic competition • Oligopoly"							
						Sub-Total SLT	124
Continuous Assessment		%	Face to Face		Non-Face to Face (Independent Learning)		
			Physical	Online			
1	Quiz	10		3	5		
2	Tests	20		3	5		
3	Assignment	30		4.5	8		
4							
						Sub-Total SLT	28.5
Final Assessment		%	Face to Face		Non-Face to Face (Independent Learning)		
			Physical	Online			
1	Final Examination	40	2.5		7.5		
						Sub-Total SLT	7.5
						GRAND-Total SLT	**160**

COURSE LEARNING OUTCOME

By the end of this course, you should be able to:

1. Define the concepts and theories of microeconomics. (C1, PLO1)

2. Explain the demand, supply and elasticity components and issues in related situation. (C2, PLO1)

3. Calculate the components cost using the suitable methods. (C4, PLO2)

4. Describe the types of market structure. (C2, PLO1)

COURSE SYNOPSIS

The course will enable the students to acquire knowledge on the basic principles of microeconomics and the applications of microeconomics components. This will help to enhance the student's knowledge in the subsequent related course.

This course is divided into 8 topics. The synopsis for each topic can be listed as follows:

Topic 1 students will learns the definition or economics, the concept of economics and type of economics.

Topic 2 students will learns about demand and supply. This topic contains law of demand and supply, the determinant of demand and supply.

Topic 3 students are introduced to market equilibrium.in this topic student will learn how to identify market equilibrium using graph and equation.

Topic 4 students are introduced to the behavior theory. The student will learns about total utility and marginal utility to maximize the satisfaction.

Topic 5 student will introduced the classification of factors of productionand law of diminishing marginal returns.

Topic 6 students will learns describes cost concept and explain the relationship between cost and production.

Topic 7 students learn about characteristic of perfect competition and monopoly market.

Topic 8 students will learns about students learn about characteristic of monopolistic competition and oligopoly market.

LEARNING GUIDANCE

The learning guidance is important to understand before you go through this module. Understanding the learning guidance will help you to organize your study of this course in a more objective and effective way. Generally, learning guidance for each topic is as follows:

Learning Outcomes: This part is to measurable, observable, and specific statement that clearly indicates what you should know and be able to do because of learning in each chapter. By go through each topic, you can continuously gauge your understanding of the topic.

Self-Learning Material: To aid you in your subsequent learning and to report on what you have learned. The activities are in-text questions (ITO) and self-assessment questions (SAQ), assignment on each chapter of the material to monitor and develop your own learning.

Activity: Question and activity within module can be constructed to put back the dialogue between student and module in learning activity. With the given question or task, you are encouraged to read the description or explanation within a module, so you can answer the question or solve the problem proposed.

You are encouraged to read since you realize that without reading the description or explanation, you will not be able to answer the question or the assignment. Text question is applied to you to pay attention to a certain problem rather than to assess the learning progress.

Self-assessment question is such a task that requires written answer form you. If you complete the task, you are asking to check your answer with the answer key provided in the module.

Self -assessment is be developed in various form of test questions, there are easy question, fill in the blank, multiple choices, true-false and matching.

Summary: You will find this part at the end of each topic. This component helps you to recap the whole topic. By going through the summary, you should be able to gauge your knowledge retention level. Should you find

points in the summary that you do not fully understand, it would be a good idea for you to revisit the details in the module.

Key Terms: This component can be found at the end of each topic. You should go through this component to remind yourself of important terms or jargon used throughout the module. Should you find terms here that you are notable to explain, you should look for the terms in the module.

References: The References section is where a list of relevant and useful textbooks, journals, articles, electronic contents, or sources can be found. The list can appear in a few locations such as in the *Course Guide* (at the References section), at the end of every topic or at the back of the module. You are encouraged to read or refer to the suggested sources to obtain the additional information needed and to enhance your overall understanding of the course.

TOPIC 1

INTRODUCTION TO ECONOMICS

LEARNING OUTCOMES

By the end of topic, you should be able to:

1. Define of microeconomics
2. Describe basic economic concept: scarcity, choices and ooportunity cost.
3. Explain the basic economics problem
4. Use the production possibilities curve(PPC) to explain the basic economic concpets
5. Explain the four economic systems : capitalism, socialism, mixes economy and islamic economy

1.1 Introduction of Economics

1.2 Business Ethics and Its Issues
Factor of production

Business Ethics and Its Issues

In order to produce goods and services, an economy needs to have resources. The larger the **amounts** of resources an economy has, the larger will be the amount of goods and services it can produce. Resources can be divided into four categories known as the four factors of production: **land, labour, capital and enterprise.**

Land

Land refers to the gifts of nature that are used to produce goods and services. It includes plots of land, natural resources, fishes in the sea and trees in the forests.

Labour

Labour refers to the physical and mental effort that people devote to the production of goods and services.

Capital

Capital refers to the goods that are produced for use in the production of other goods. It includes factories and machinery.

Enterprise

Enterprise refers to the ability and the willingness to take risk.

1.3 Basic Economic Concepts

Although resources are limited, human wants are unlimited, and this gives rise to scarcity. **Scarcity** is the situation where limited resources are insufficient to produce goods and services to satisfy unlimited human wants.

Scarcity necessitates choice. **Choices** have to be made. In other words, due to scarcity and hence the inability to produce all goods and services, society must choose what goods and services to produce.

The opportunity cost is the cost of one choice in terms of the best forgone alternative. When a choice is made, an opportunity cost is incurred. In other words, when society chooses what goods and services to produce, it is choosing what goods and services not to produce.

1.4 Production Possibilities Curve(PPC)

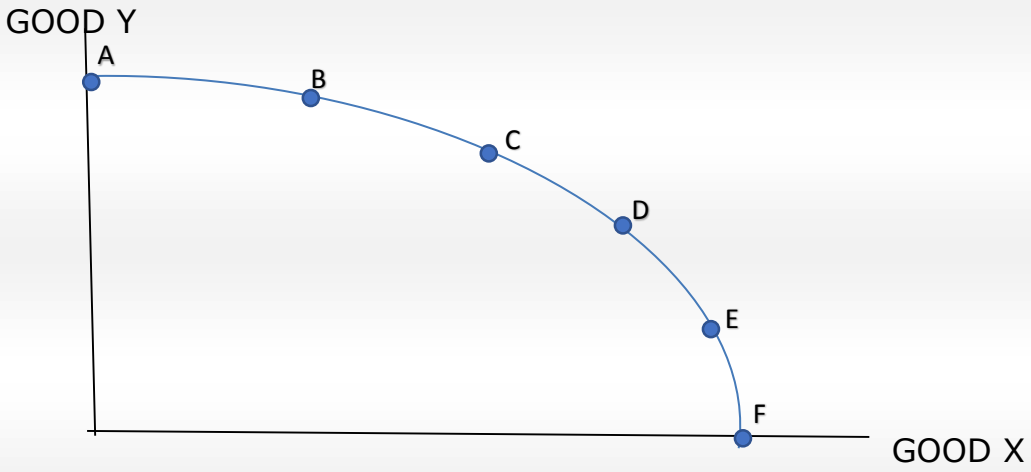
The production possibility curve (PPC) shows all the possible combinations of two goods that can be produced in the economy when resources are fully and efficiently employed, given the state of technology, assuming the economy can only produce the two goods.

Assumptions of PPC:

- The economy is operating in full employment and full production capacity (full efficiency)
- The amounts of resources available is fixed.
- The state of technology does not change throughout production.
- The economy only produces two goods.

COMBINATION	GOOD X	GOOD Y
A	0	50
B	10	48
C	20	45
D	30	40

In the above table, A, B, C, D, E and F are the possible combinations of good Y and good X that the economy can produce using its resources fully and efficiently.



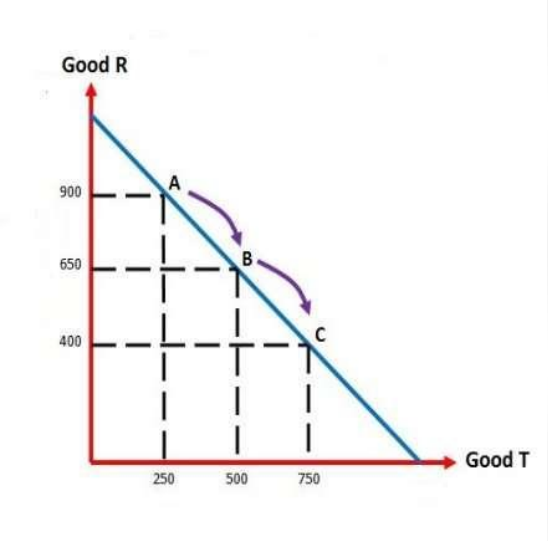
The PPC reflects scarcity, choice and opportunity cost. Although the points inside and on the PPC are attainable, the points outside the PPC are not. Scarcity is reflected by the unattainable points that lie outside the PPC, such as point G and point H. The PPC is a series of points rather than a single point. Choice is reflected by the need for society to choose among the series of points on the PPC, such as point C and point D. The PPC is downward sloping. Opportunity cost is reflected by the negative slope of the PPC which indicates that an increase in the production of one good will lead to a decrease in the production of the other good.

1.4.2 Shape of the Production Possibility Curve

The PPC is concave to the origin because the opportunity cost of producing each good increases as its quantity increases as resources are not equally suitable for producing different goods. As the economy produces more and more of a good, it has to use resources that are less and less suitable for producing the good to actually produce the good. This means that increasingly more units of resources are needed to produce each additional unit of the good. Therefore, increasingly more units of other goods have to be forgone to produce each additional unit of the good resulting in an increase in the opportunity cost.

Increasing opportunity cost.

The production possibility curve of increasing opportunity cost is concave from its origin. Increasing opportunity cost means the more units of good T produced, the more the opportunity cost of good R. Assuming that the factory has to forgoes 20 units of good R so that the factory is able to produce 50 more units of good T. If the factory wishes to increase the production of good T from 100 units to 150 units, they have to let go 60 units of good R. In this case, it clearly shows us an increasing opportunity cost.



Constant opportunity cost

Constant opportunity cost occurs when the production possibility curve is linear. The relationship between opportunity cost and quantity supplied is the same. Assuming that a factory wishes to increase their production of good T from 250 units to 500 units, the factory has to sacrifice 250 units of good R in order to increase the production of good T.

1.5 Economic system

All economies face the problem of scarcity and hence are required to make the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce. However, economies vary in the way they make these three fundamental economic decisions in terms of the degree of government intervention. An economic system is a way of making the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce. There are three types of economic systems: Capitalism, Socialism and Mixed economy system.

1.5.1 In capitalism system, all the factors of production in the economy are owned by private individuals. All economic decisions are made by private

individuals. Private individuals can engage in productive activities, choose what to buy, where to work, etc. There is total economic freedom and the role of the government is confined to the provision of national defence, maintaining law and order, issuing currency, etc. Private individuals pursue self-interest. Firms seek to maximise profit, consumers seek to maximise satisfaction and owners of factors of production seek to maximise factor income. Competition exists in all economic activities. Firms compete for resources and sales, consumers compete for goods and services and owners of factors of production compete for employment of their resources.

In capitalism system, the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce are made by private individuals with no government intervention.

1.5.2 Socialism

The Socialism system is an economic system in which the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce are made by the government with no involvement of private individuals. The Socialism system is also known as the centrally planned system. The Socialism system was first advocated by Karl Marx in his famous book, 'Das Kapital', which was published in 1867. He argues that capitalism will fall which will lead to the rise of socialism and eventually to communism.

In the Socialism system, all the factors of production in the economy are owned by the government. All economic decisions are made by the government. Private individuals cannot engage in productive activities, choose what to buy and where to work, etc. There is no economic freedom. Private individuals cannot pursue self-interest and competition does not exist.

In the Socialism system, the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce are made by the government with no involvement of private individuals

1.5.3 Mixed economy

The mixed system is an economic system in which the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce are partly made by private individuals and partly made by the government. Therefore, a mixed economy is comprised of the private sector and the public sector. In reality, every economy is a mixed economy. Due to the flaws of both the market system and the command system, all economies in the world are a mixture of both economic systems. Even command-oriented economies such as North Korea and Cuba rely on the market system to some extent and market-oriented economies such as Singapore and Hong Kong have some degree of government intervention.

In the mixed system, some of the factors of production in the economy are owned by private individuals and some are owned by the government. Economic decisions are partly made by private individuals and partly made by the government. Although private individuals can engage in productive activities, choose what to buy and where to work, they are restricted by the government. Although there is economic freedom, it is restricted by the government. Although private individuals can pursue self-interest, they are restricted by the government. Although competition exists, it does not happen in all forms of economic activities.

In the mixed system, the three fundamental economic decisions of what and how much to produce, how to produce and for whom to produce are partly made by private individuals and partly made by the government.

Checkpoint 1

Short Questions

1. Differentiate between microeconomics and macroeconomics.
2. Explain the concpet of opportunity cost with examples.
3. Explain how capitalism system solves economic problems.

ACTIVITY

Using appropiate graph, draw the production possibilities curve(PPC) and explain the concept of scarcity, choices and inefficiency.

KEY TERM

microeconomics	**macroeconomics**
scarcity	**choices**
choices	**inefficiency**

Self Assessment

Login to Elearning to do Self Assessment1

SUMMARY

- Economic divide into:microeconomics and macroeconomics
- Three economic concept: scarcity, choices and opportunity cost.
- There are four type of economics system:capitalism, socialism, mixed economy and islamic economic.

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 2

DEMAND AND SUPPLY

LEARNING OUTCOMES

By the end of topic, you should be able to:

1. Explain the meaning of demand, law of demand and market demand.
2. Construct a demand schedule and demand curve.
3. Distinguish between a change in quantity demanded and a change in demand.
4. Explain the meaning of supply, law of supply and market supply.
5. Construct a supply schedule and supply curve.
6. Calculate the elasticities of demand and elasticities of supply.

2.1 DEMAND AND LAW OF DEMAND

2.1.1 Definition: Demand is Refers to the entire relationship between the price of the good and the quantity demanded of the good.

Law of demand : Other things remaining the same, the higher the price of goods, the smaller the quantity demanded; and the lower the price of a good, the greater is the quantity demanded.

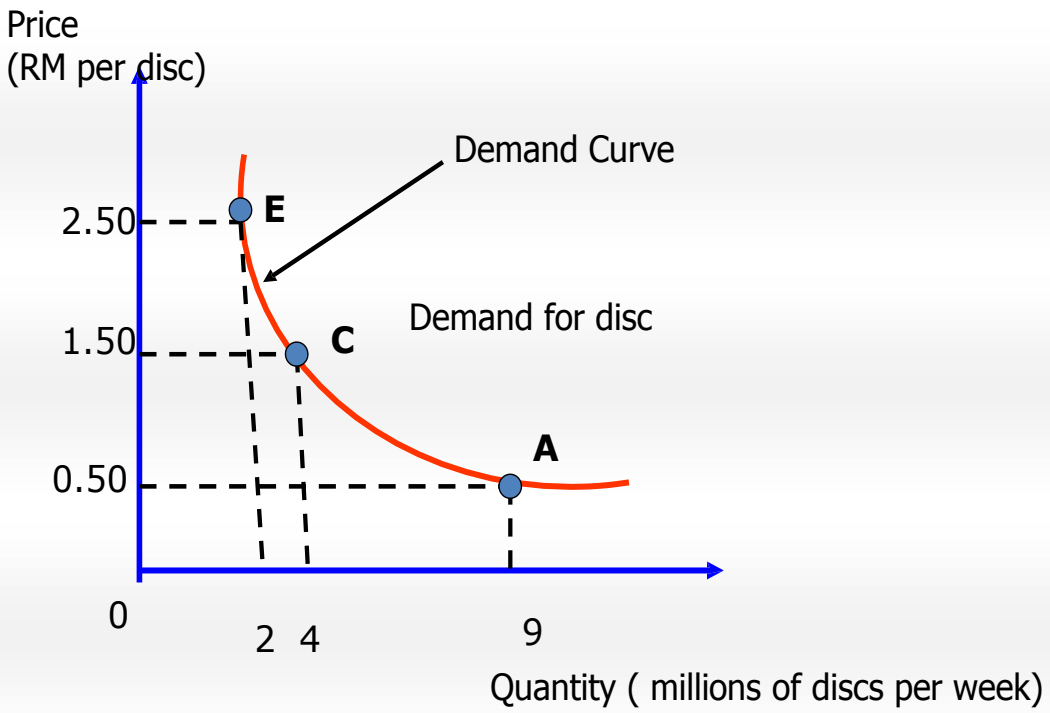
2.1.2 Demand schedule

Lists the quantities demanded at each price when all the other influences on consumers' planned purchases remain the same. – Example: Price = RM 2.00 Quantity Demanded = 3 units per week.

Combination	Price of CDs (RM)	Quantity of CDs(unit)
A	0.50	9
B	1.00	6
C	1.50	4
D	2.00	3
E	3.00	2

2.1.3. Demand curve

Shows the relationship between the **quantity demand** of a good and its **price** when all other influences on consumers' planned purchases remain the same.



2.1.4 Determinants of demand

When price changes, quantity demanded will change. That is a movement along the same demand curve. When factors other than price changes, demand curve will shift. These are the determinants of the demand curve.

- **Income**: A rise in a person's income will lead to an increase in demand (shift demand curve to the right), a fall will lead to a decrease in demand for normal goods. Goods whose demand varies inversely with income are called inferior goods (e.g. Hamburger Helper).
- **Consumer Preferences**: Favorable change leads to an increase in demand, unfavorable change lead to a decrease.
- **Number of Buyers**: the more buyers lead to an increase in demand; fewer buyers lead to decrease.
- **Price of related goods**:

a. Substitute goods (those that can be used to replace each other): price of substitute and demand for the other good are directly related.

Example: If the price of coffee rises, the demand for tea should increase.

b. Complement goods (those that can be used together): price of complement and demand for the other good are inversely related.

Example: if the price of ice cream rises, the demand for ice-cream toppings will decrease.

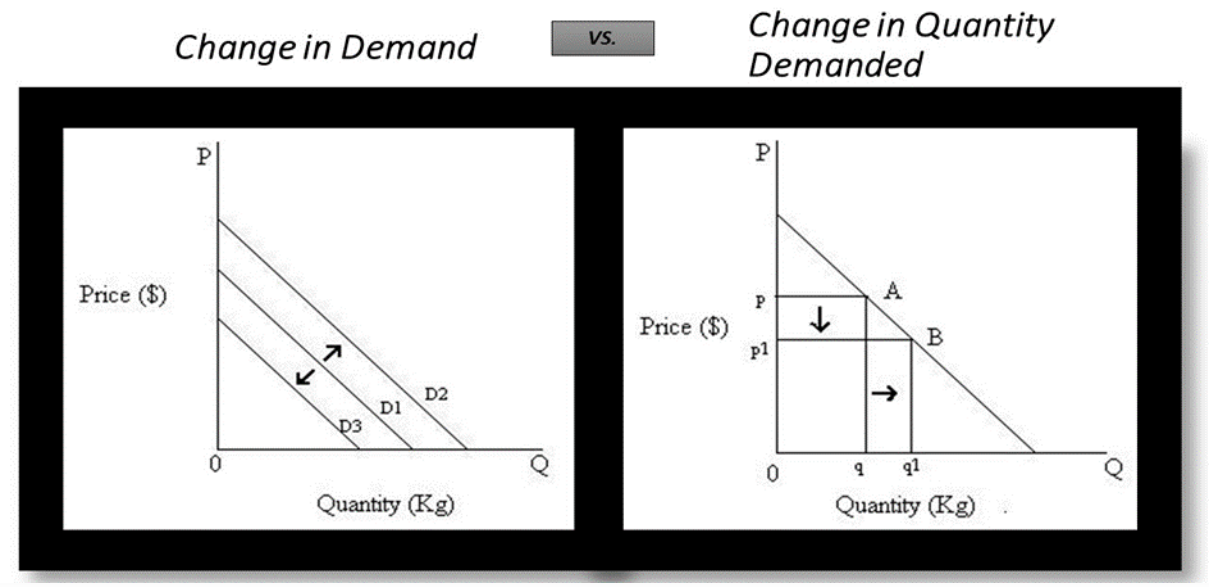
- **Expectation of future:**

a. Future price: consumers' current demand will increase if they expect higher future prices; their demand will decrease if they expect lower future prices.

b. Future income: consumers' current demand will increase if they expect higher future income; their demand will decrease if they expect lower future income.

2.1.5 Change in quantity demanded vs change in demand

BASIS FOR COMPARISON	DEMAND	QUANTITY DEMANDED
Meaning	Demand is defined as the willingness of buyer and his affordability to pay the price for the economic good or service.	Quantity Demanded represents exact quantity (how much) of a good or service is demanded by consumers at a particular price.
What is it?	It lists out quantities that would be purchased at various prices.	It is the actual amount of goods desired at a certain price.
Change	Increase or decrease in demand	Expansion or contraction in demand.
Reasons	Factors other than price	Price
Measurement of change	Shift in demand curve	Movement along demand curve
Consequences of change in actual price	No change in demand.	Change in quantity demanded.



2.2 SUPPLY AND LAW OF SUPPLY

2.2.1 Definition : ability and willingness to sell or produce a particular product or service in a given period of time at a particular price.

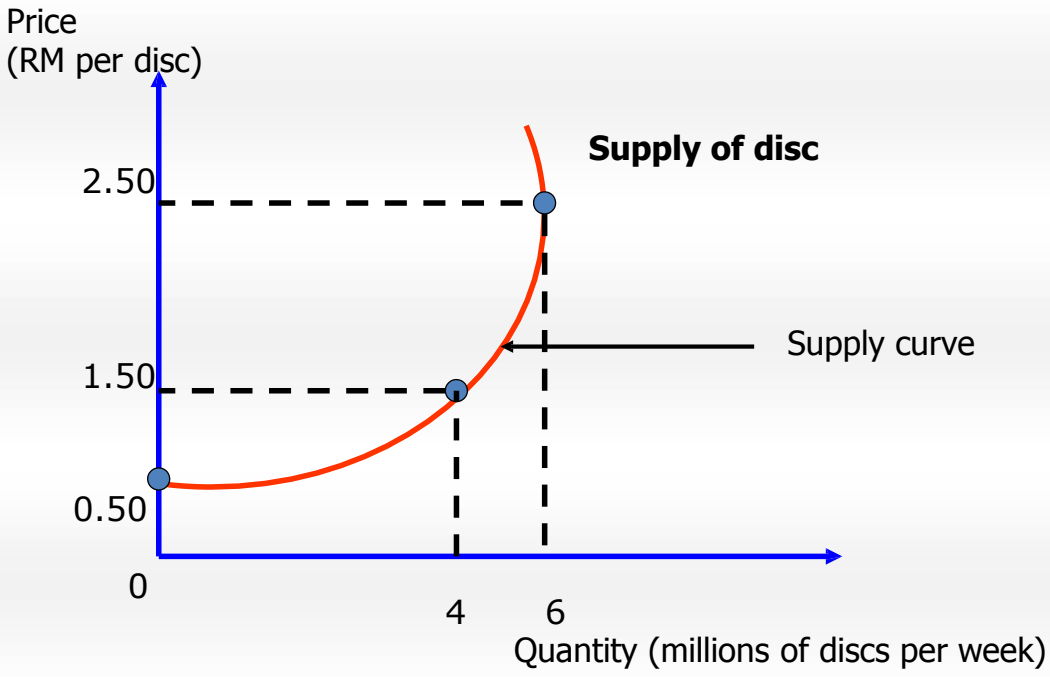
2.2.2 Law of supply : Other things remaining the same, the higher the price of a good, the greater is the quantity supplied; and the lower the price of a good, the smaller is the quantity supplied.

2.2.3 Supply schedule:

Lists the quantities supplied at each price when all the other influences on producers' planned sale remain the same.

Example: Price = RM 1.00, Quantity supplied = 3 million CDs a week.

Combination	Price of CDs (RM)	Quantity supply of CDs(unit)
A	0.50	2
B	1.00	3
C	1.50	4
D	2.00	6
E	3.00	9



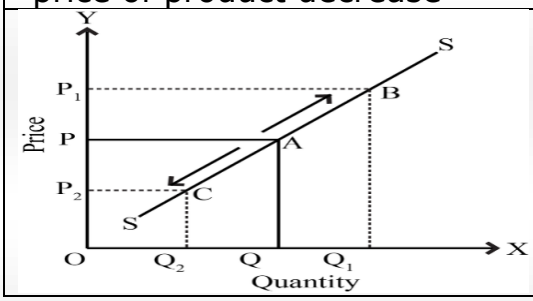
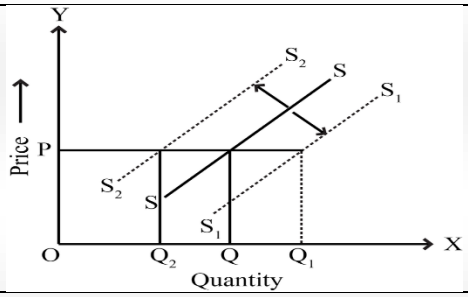
2.2.4 Determinants of supply

When price changes, quantity supplied will change. That is a movement along the same supply curve. When factors other than price changes, supply curve will shift. Here are some determinants of the supply curve.

- Production cost - Since most private companies' goal is profit maximization. Higher production cost will lower profit, thus hinder supply. Factors affecting production cost are: input prices, wage rate, government regulation and taxes, etc.

- Technology - Technological improvements help reduce production cost and increase profit, thus stimulate higher supply.
- Number of sellers - More sellers in the market increase the market supply.
- Expectation for future prices - If producers expect future price to be higher, they will try to hold on to their inventories and offer the products to the buyers in the future, and thus they can capture the higher price.

2.2.5 Changes in quantity supplied versus change in supply

Changes in quantity supplied	Changes in supply
Movement along the supply curve	Shft in the supply curve
Occurs when price of product changes	Occurs when there are changes in other factors such as technology,government policies, price of related good and etc.
Other factor remain constant	Price of product remains constant
Upward movement -price of product increase	Increase in supply(S_1-S_2)
Downward movement -price of product decrease	Decrease in supply (S_2-S_1)
	

2.3 ELASTICITY OF DEMAND

2.3.1 Price elasticity of demand(Ed)

Definition : measures the sensitivity or responsiveness of the quantity demanded due to a change in its price.

Formula :

$$Ed = \frac{\%\ \Delta \text{ in quantity demanded}}{\%\ \Delta \text{ in price}}$$

$$Ed = \frac{Q_2 - Q_1}{Q_1} \times 100 \Big/ \frac{P_2 - P_1}{P_1} \times 10$$

Co-efficient and relationship

Ed > 1	Elastic
Ed< 1	Inelastic
Ed= 1	Unit elastic
Ed=0	Perfectly inelastic
Ed = ∞	Perfectly elastic

2.3.2 Income elasticity of demand (Ey)

Definition : measures the sensitivity or responsiveness of the quantity demanded due to a change in its income.

Formula :

$$Ey = \frac{\%\ \Delta \text{ in quantity demanded}}{\%\ \Delta \text{ in income}}$$

$$Ey = \frac{Q_2 - Q_1}{Q_1} \times 100 \Big/ \frac{Y_2 - Y_1}{Y_1} \times 10$$

Co-efficient and relationship

Ey > 1	Luxury goods
0<Ey<1	Normal goods
Ed= 0	Normal goods
Ed=1	Inferior goods

2.3.3 Cross elasticity of Demand(Exy)

Definition : measures the sensitivity or responsiveness of the quantity demanded between quantity product(Qdx) due to change in the price of related product (Py).

Formula :

$$Exy = \frac{\%\ \Delta \text{ in quantity demanded of good X}}{\%\ \Delta \text{ in price of good Y}}$$

$$Exy = \frac{Qx_2 - Qx_1}{Qx_1} \times 100 \ / \ \frac{Py_2 - Py_1}{Py_1} \times 10$$

Co-efficient and relationship

Ex > 0	subtitutes goods
Ey<0	complementary goods
Ed= 0	No relationship

2.4 ELASTICITY OF SUPPLY

2.4 **Price elasticity of supply (Es)**

Definition : measures the sensitivity or responsiveness of the quantity supplied due to a change in price of a product or services.

Formula :

$$Es = \frac{\%\ \Delta \text{ in quantity demanded supplied}}{\%\ \Delta \text{ in price}}$$

$$Es = \frac{Q_2 - Q_1}{Q_1} \times 100 \ / \ \frac{P_2 - P_1}{P_1} \times 10$$

Co-efficient and relationship

Es > 1	Elastic
Es< 1	Inelastic
Es= 1	Unit elastic
Es=0	Perfectly inelastic
Es = ∞	Perfectly elastic

Checkpoint 2

Short Questions

1. Show the effect on the demand curve for coke according this assimption:
   a) When the price of pepsi increases.
   b) When the price of sugar increases.

ACTIVITY

Using a graph, distinguish between changes in quantity demanded and changes in demand.

Self Assessment

Login to Elearning to do Self Assessment 2

SUMMARY

- Demand is willingness to buy some product and supply is willingness to sell some product in a given period of time
- Three types of elasticity of demand : price elasticity, income elasticty and cross elasticity of demand..

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 3

MARKET EQUILIBRIUM

LEARNING OUTCOMES

By the end of topic, you should be able to:

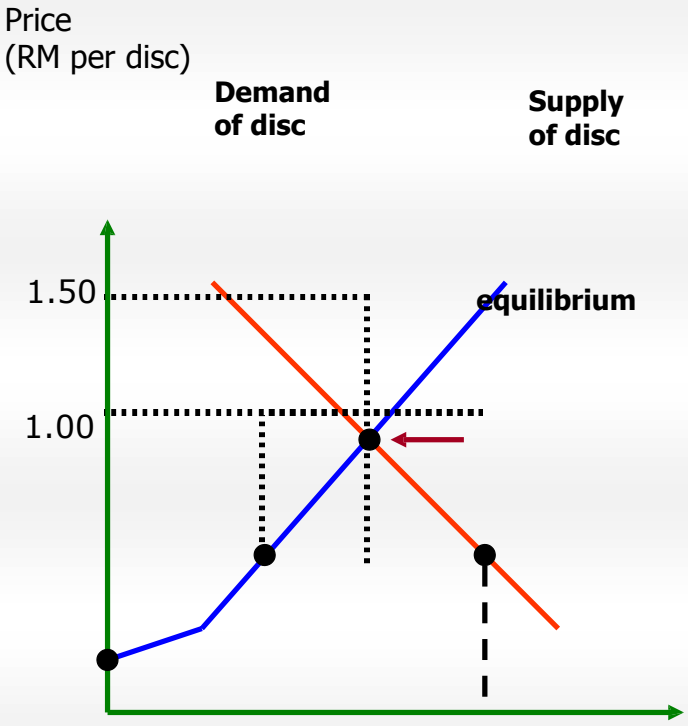
1. Describe how demand and supply interacts in the market to determine price and quantities.
2. Explain how changes in demand and supply can effect the equilibrium prices and how equilibrium quantities.

3.1 Definition of market equilibrium

A market is said to be in equilibrium if the price in the market is such that the quantity supplied (QS) in the market and the quantity demanded (QD) in the market are equal.

3.2 Equilibrium price and output

COMBINATION	PRICE OF DISC (RM)	QUANTITY DEMANDED OF DISC (UNIT)	QUANTITY SUPPLIED OF DISC (UNIT)	SURPLUS /SHORTAGE
A	0.50	9	0	9-0 = -9 (shortage)
B	1.00	6	3	6-3 = -3 (shortage)
C	1.50	4	4	4-4 = 0 (equilibrium)
D	2.00	3	5	3-5 = +2 (surplus)
E	2.50	2	6	2-6 =+4 (surplus)



A market is in equilibrium when the price is such that excess supply equals excess demand equals zero.

3.3 Equation of demand and supply

Demand function Qd = 20 – 2P

Supply function Qs = -4 + 2P

Set supply equal to demand and solve the equation for P.

$$\mathbf{QD = QS}$$

$$20 - 2P = -4 + 2P$$

$$20 - 2P = -4 + 2P$$

$$20 + 4 = 2P + 2P$$

$$24 = 4P$$

$$\frac{24}{4} = \frac{4P}{4}$$

$$6 = P$$

Replace 6=P in the demand function and supply function

QD = 20 - 2P

= 20 – 2(6)

= 8 unit

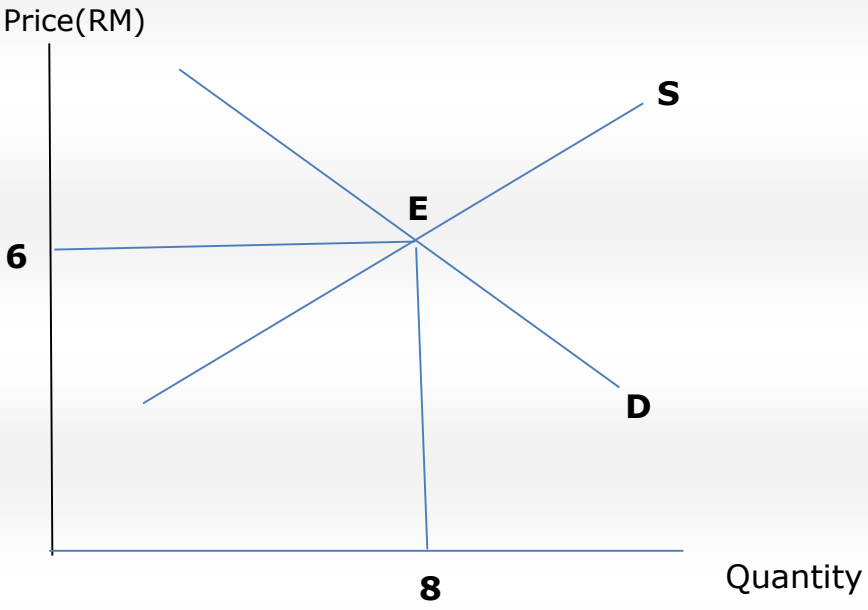
QS = - 4 + 2P

= - 4 + 2(6)

= - 4 + 12

= 8 unit

3.4 Diagram of demand and supply



3.5 Changes in equilibrium price and output

The market equilibrium will change when there is a shift in the demand and supply curve. There are 3 situation :

a) The demand curve shifts and supply remain constant.

Changes in demand can arise from a number of factor such as changes in consumer income.

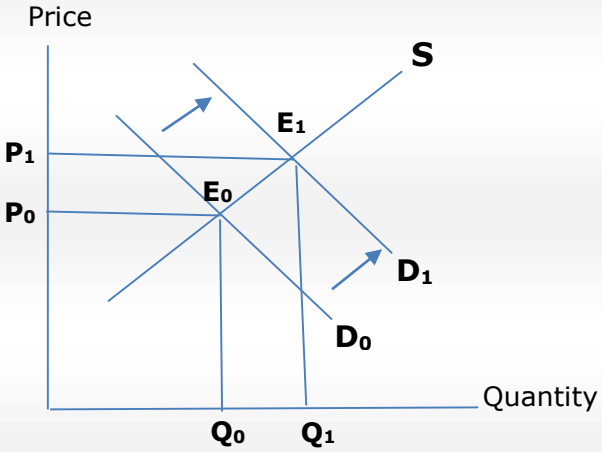


Figure 3.1 : increase in consumer income

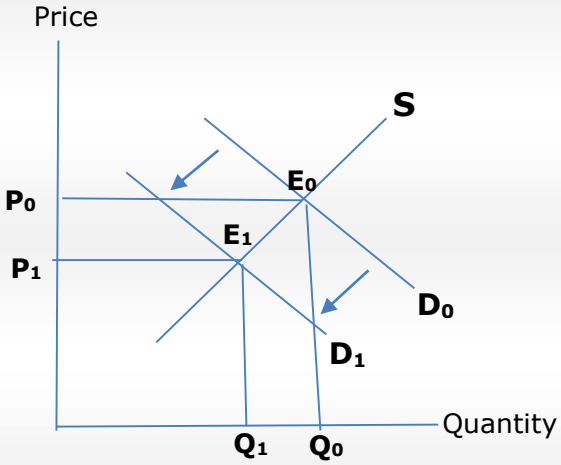


Figure 3.2:decrease in consumerincome

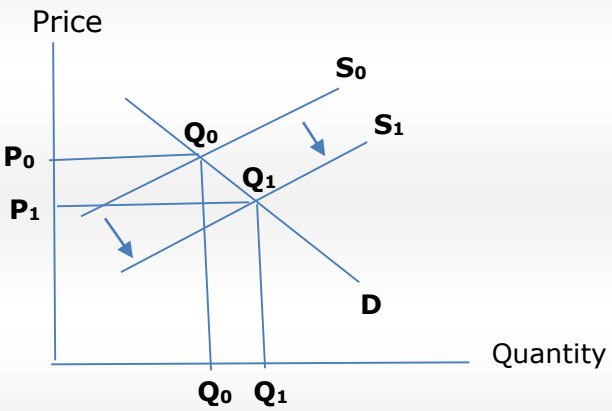
Equilibrium points at **E_0**, price equilibrium at **P_0** and quantity equilibrium at **Q_0**.

Effect on equilibrium price = price increase from **P_0 to P_1**because of the consumer income increase lead the demand increase.

Effect on equilibrium quantity = quantity increase from **Q_0** to **Q_1**.

The demand curve shift to right form **D_0** to **D_1**.

b) The supply curve shifts and demand remains constant.



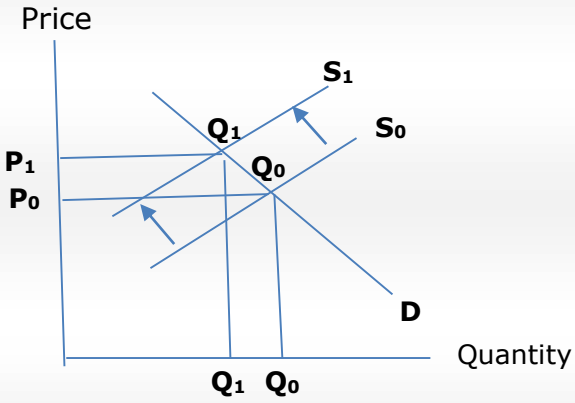


Figure 3.3 : cost of production decrease

Figure 3.4:cost of production increase

changes in supply can also occur because of technology changes, changes in cost production and etc.

Equilibrium points at **E_0**, price equilibrium at P_0 and quantity equilibrium at **Q_0**.

In figure 3.3 when cost of production decrease, supply curve will shift to the **right** from **S_0** to **S_1** and price will decrease from **P_0** to **P_1**. Quantity will increase from **Q_0** to **Q_1**.

In figure 3.4when cost of production increase, supply curve will shift to the **left** from **S_0** to **S_1** and price will increase from **P_0** to **P_1**. Quantity will decrease from **Q_0** to **Q_1**.

Checkpoint 3

Short question

1. Discuss the effect on equilibrium price and quantity for Perodua Ativa in Malaysia if :
   a) Income of Malaysian's citizen increase.
   b) Government increase the taxes on petrol.

ACTIVITY

Demand function and supply function for Good X is given:

Qd= 60-2P

Qs=2P

Calculate the equilibrium price and quantity for Good X.

Self Assessment

Login to Elearning to do Self Assessment 3

SUMMARY

- Market equilibrium occur when quantity demand equal to quantity supply.

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 4

CONSUMER BEHAVIOR

LEARNING OUTCOMES

By the end of topic, you should be able to:

1. Explain total utility and marginal utility.
2. Define and explain the law of diminishing marginal utility.
3. Explain the law of equi-marginal utility and consumer equilibrium

4.1 Definition of Consumer Behavior

Consumer behaviour is a study of how consumer with his limited resources (income) purchases various goods and services.

Utility: the satisfaction obtained from consuming a commodity.

4.2 Utility Approach

Cardinal utility : utility is measurable by placing a number of alternative where the utility can be added.
Example: an apple equals 5 utils.
Ordinal utility : utility is not measurable but can compared.
Example : an apple is preffered to durian.this only means that an apple has higher utility compared to a durian.

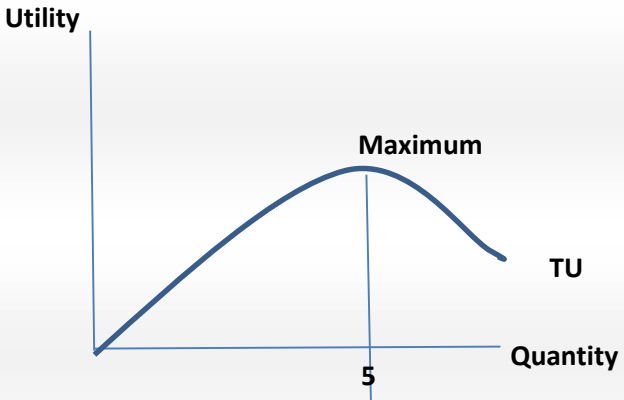
4.3 Cardinal Approach

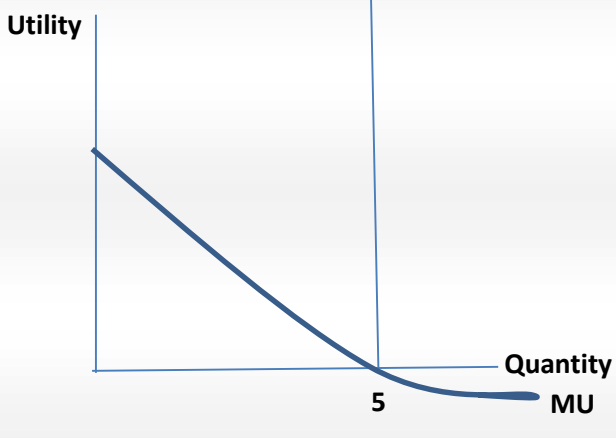
Total utility (TU) is the total satisfaction that a person derives from the consumption certain goods and services.

Marginal utility (MU) is the additional total utility derived from consuming one more unit of the same kind of goods or services.

Marginal utility (MU) = change in total utility
change in total quantity

Units of Durian	Total utility	Marginal utility
1	20	20
2	35	15
3	45	10
4	50	5
5	50	0
6	45	-5
7	35	-10
8	20	-15





4.4 Law of equi-marginal utility

Situation: Arwin has an income of RM37 and the price of goods P, Q and R are RM5, RM1and RM4

Q	GOOD P			GOOD Q			GOOD R		
	TU	MU_P	MU_P/P_P	TU	MU_Q	MU_Q/P_Q	TU	MU_R	MU_R/P_R
1	21	21	4.2	7	7	7	16	16	4
2	41	20	4	13	6	6	30	14	3.5
3	59	18	3.6	18	5	5	42	12	3
4	74	15	3	22	4	4	50	8	2
5	85	11	2.2	25	3	3	55	5	1.25
6	91	6	1.2	27	2	2	58	3	0.75
7	91	0	0	28	1	1	60	2	0.5

Combination 1 2P + 4Q + 1R = RM37
2(5) +4(1) + 1(4) = RM37
10+ 4 + 4 = RM37
18 ≠RM37

Combination 2 4P + 5Q + 3R = RM37
4(5) +5(1) + 3(4) = RM37
20+ 5 + 12 = RM37
RM37 = RM37

The total budget (income) is RM37, so combination 2 reflects the consumer equilibrium because it fulfils both conditions.

Arwin will purchase 4 units of Good P, 5 units of Good Q and 3 units of Good R.

4.5 Ordinal Approach

Budget line: represents the various combinations of two goods, which can be purchased with a given amount of money and the given price of each unit.

Suppose a consumer has RM12 to purchase Good X and Good Y. Figure 4.4 illustrates the different combination of X and Y which can be purchased with the limited income(RM12).

If the price of good X is RM1 per unit, the consumer can buy 12 units of good X. If the price of good Y is RM0.50 per unit, the consumer can buy 24 unit of good Y. By joining point a and B, we get a budget line.

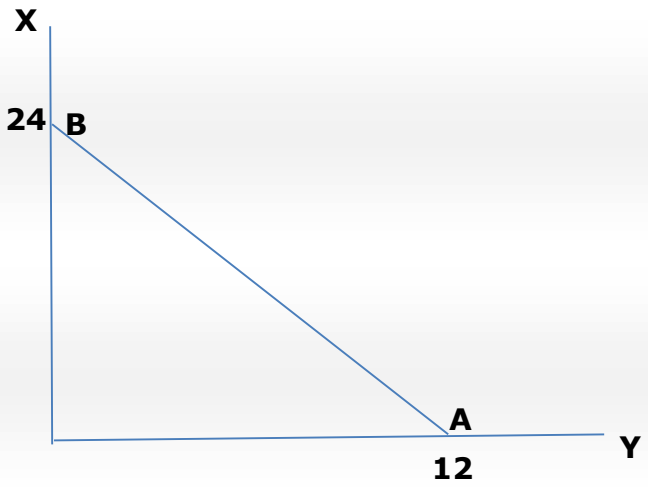


Figure 4.4 : budget line of good X and Y

Checkpoint 4

Short Questions

1. What utility?
2. By using a graph, explain budget line.

Activity

Explain the relationship between TU and MU.

KEY TERM

Utility	**cardinal approach**
Ordinal approach	**Budget line**
Marginal utility	**Total utility**

SUMMARY

- Utility is a satisfaction obtained from consuming a commodity.
- Total utility is a total satisfaction that a person derives from the consumption of certain goods and services.
- Marginal utility (MU) is the additional total utility derived from consuming one more unit of the same kind of goods or services.
- Budget line represents the various combinations of two goods, which can be purchased with a given amount of money and the given price of each unit.

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 5

THEORY OF PRODUCTION

LEARNING OUTCOMES

By the end of topic, you should be able to:

1. Describe the classification of factor of production.
2. Explain the law of diminishing marginal returns and the stages of production in the short run.

5.1 Definition of production

Production means the process of using the factors of production to produce goods and services.

Production means the transformation of inputs and outputs.

5.2 Definition of inputs and outputs

The term 'inputs' refers to things that a firm buys and uses in production, example land, labour, capital and entrepreneur.

'Outputs' refers to what we get at the end of the production process, example finished products.

5.3 Definition of factors of production

'Factors of production' refers to the goods and services which assist the production process.

5.4 Classification of factors of production

Land	Capital
• All natural resources which are available for free. • Example: land surface, air, water, lakes, seas, minerals, forest, mountains and others.	• Man-made wealth is used to produce more wealth. • Example: buildings, factories, machinery, tools, equipment, inventories of goods, trucks, railroads, raw materials and money.
Labour	**Entrepreneurship**
• All physical or mental activities by man for monetary award. • Example: lecturers, educational book editors, doctors, electricians, farmers, lawyers, floriest, graphis designers and engineers.	• Human ability to combine the factors of procustion, and iniate the process of production. • An entrepreneur bears the risks involved.

5.5 Production functions

Production function refers to a statement on the functional relationship between inputs (factors of production) and outputs (goods and services).

Production functions can be represented by the following mathematical equation:

Q= f (K, L, M, etc)

Where,

Q= the amount of output per unit of time (depends on the quantity of imputs)

K, L, M, etc = the various factors of production, like capital, labour, raw materials, etc

5.6 Short run and long run production functions

A **fixed input** is an input where the quantity does not change according to output, example machinery, land, buildings, tools, equipment and others.

A **variable input** is an input where the quantity changes according to output, example raw materials, electricity, fuel, transportation, communication and others.

The **short run** time frame has at least one input which is fixed, but other inputs vary.

The **long run** time frame, on the other hand, has inputs which all variables. In the long run, firms can alther inputs to increase the output.

5.7 Short run production function – one fixed input and one variable

Q= f(L,K), K ⟶ Quantity of capital is fixed

Or

Q= f(L,K), L ⟶ Quantity of labour is fixed

5.8 Definition of Law of diminishing marginal returns

The law of diminishing marginal returns states that if the quantities of certain factors are increased while the quantities of one or more factors are held constant, beyond a certain level of production, the rate it increase in output will decrease (total production will increase in a decrease rate) and eventually the marginal product.

OR

'The law of diminishing marginal return states that as more of a variable input is used while other inputs and technology are fixed, the marginal product of the variable input will eventually decline.'

5.9 Definition of Total Product (TP) and Average Product (AP)

Total Product (TP) is defined as the amount of output produced when a given amount of input is used (together with fixed inputs.)

Average Product (AP) is defined as the average obtained by dividing the TP by the amount of input used.

$$\text{Average Product } (AP_L) = \frac{\text{Total Product}}{\text{Total Labour}}$$

$$AP = \frac{TP}{L}$$

$$\text{Average Product } (AP_K) = \frac{\text{Total Product}}{\text{Capital}}$$

5.10 Definition of Marginal Product (MP)

Marginal Product (MP) is defined as the change in the TP of input, corresponding to an additional unit change in its labour.

Marginal Product is the additional to total product when one moreunit of labour is employed.

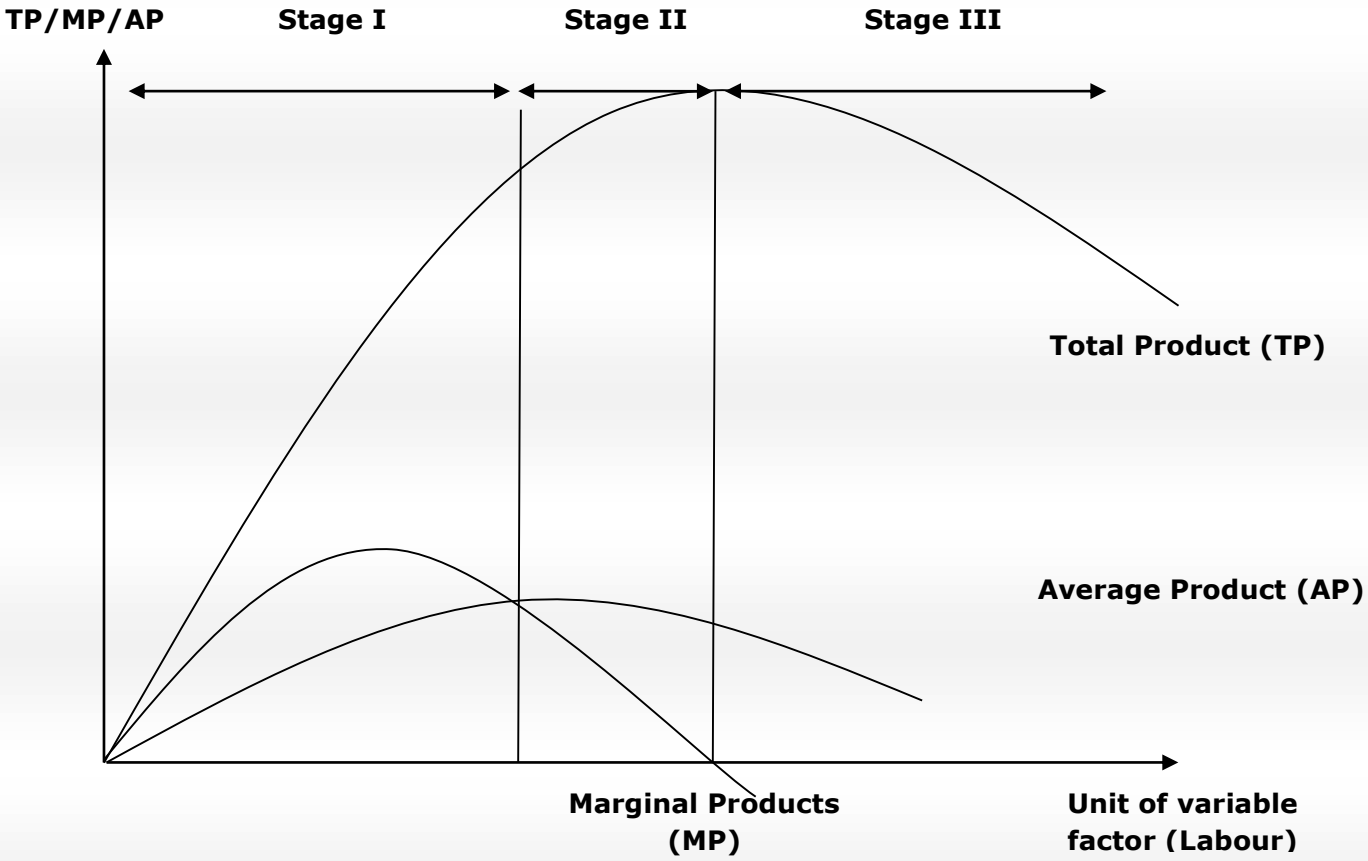
$$\text{Marginal Product } (MP_L) = \frac{\text{Change in Total Product}}{\text{Change in Labour}}$$

$$MP = \frac{\Delta TP}{\Delta L}$$

$$\text{Marginal Product } (MP_K) = \frac{\text{Change inTotal Product}}{\text{Change in Capital}}$$

Relationship between output and labour when capital is fixed.

Capital (fixed input)	Labour (variable input)	Total Product (TP)	Marginal Product (MP)	Average Product (AP)	Stage of Producttion
10	0	0	0	0	Stage I
10	1	8	8	8	
10	2	20	12	10	
10	3	33	13	11	
10	4	44	11	11	
10	5	50	6	10	Stage II
10	6	54	4	9	
10	7	56	2	8	
10	8	56	0	7	Stage III
10	9	54	-2	6	
10	10	50	-4	5	



Relationship between TP and AP

- When MP is increasing, TP will increase at an increasing rate.
- When MP is decreaseing, TP will increase at a decreasing rate.
- When MP is zero, TP is at its maximum.
- When MP is negative, TP declines.

Relationship between MP and AP

- When MP is above AP, AP is increasing.
- When MP is below AP, AP is decreasing.
- When MP is equals AP, AP is at its maximum.

5.11 Stage of production

Stage of production	Total Product	Marginal Product	Average Product
I	• Increases at an increasing rate • Increases at a decreasing rate	• Increases • Reaches maximum and begins to diminish	• Increases • Continues to increase
II	• Increases at a decreasing rate • Reaches maximum	• Continues to diminish • Become zero	• Reaches maximum and begins to diminish • Continues to diminish
III	• Diminishes	• Becomes negative	• Continues to diminish

Checkpoint 5

Short Question

1. Give definition Total Product(TP) and Marginal Product(MP).
2. Explain the relationship between TP and MP.

Activity

Using a graph. Discuss the level of production.

SUMMARY

- Production means the tranformation of inputs and outputs.
- A fixed input is an input where the quantity doea not change according to output instead of variable input changes according to output.
- There are 3 stages of production.
- When MP increasing, TP will increasing at an increasing rate.

KEY TERM

Input	**Output**
Average Product	**Total product**
Marginal Product	**Law of diminishing marginal return**

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 6

THEORY OF COST PRODUCTION

LEARNING OUTCOMES

By the end of topic, you should be able to:

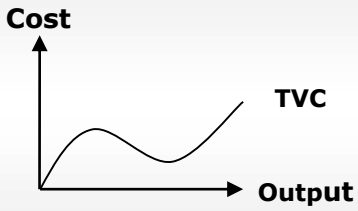
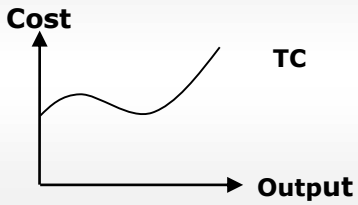
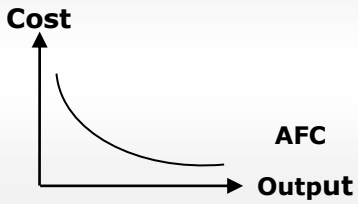
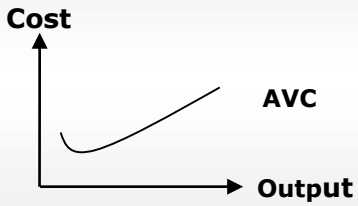
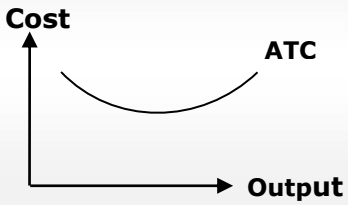
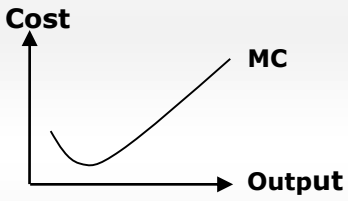
1. Describe several cost concepts
2. Explain short-run costs
3. Explain the relationship between cost and production
4. Derive and explain the long-run cost curve

6.1 Definition of cost production

Cost production refers to the expenses incurred by the producer in producing a particular quantity of output.

6.2 Cost curves in the short run

Cost curves	Definition	Curves
Total Fixed Cost (TFC)	The cost of input that are independent of output.	

Total Variable cost (TVC)	The cost of input that changes with output. It is incurred on the purchase of variable inputs.	
Total Cost (TC)	The sum of cost (all inputs)-fixed and variable inputs-used to produce goods and services. **TC = TFC + TVC**	
Average Fixed Cost (AFC)	The fixed cost per unit of output. **AFC = $\frac{TFC}{Q}$**	
Average Variable Cost (AVC)	The variable cost per unit of output. **AVC = $\frac{TVC}{Q}$**	
Average Total Cost (ATC)	The total cost per unit of output. **ATC = $\frac{TC}{Q}$** **ATC = AVC + AFC**	
Marginal Cost (MC)	The change in total cost (or total variable cost) that results from producing another unit of output. **MC = $\frac{\Delta TC}{\Delta Q}$** **MC = $\frac{\Delta TC}{\Delta Q}$**	

6.3 Summary of short-run cost curves

Costs	Symbols	Definitions	Formula
Total Fixed Cost	**TFC**	Cost of output that are independent of output.	**TFC = TC - TVC**
Total Variable Cost	**TVC**	Cost of input that changes with output.	**TVC = TC - TFC**
Total Cost	**TC**	Sum of cost all inputs	**TC = TFC + TVC**
Average Fixed Cost	**AFC**	Fixed cost per unit of output.	**AFC = $\frac{TFC}{Q}$**
Average Variable Cost	**AVC**	Variable cost per unit of output.	**AVC = $\frac{TVC}{Q}$**
Average Total Cost	**ATC**	Total cost per unit of output.	**ATC = $\frac{TC}{Q}$** **ATC = AVC + AFC**
Marginal Cost	**MC**	Additional cost incurred to produce an additional unit of output.	**MC = $\frac{\Delta TC}{\Delta Q}$** **MC = $\frac{\Delta TC}{\Delta Q}$**

Checkpoint 6

Short Questions

1. What is total fixed cost?
2. Differentiate between Total cost and Average cost.
3. Draw the curve for average product, marginal cost and average variable cost.

ACTIVITY

Complete the following cost schedule below.

Output	TFC	TVC	TC	MC	AVC	AFC	AC
0			**50**				
1			**70**				
2			**85**				
3			**95**				

KEY TERM

Total fixed cost	**Total variable cost**
Average cost	**Marginal cost**
Average variable cost	**Total cost**

SUMMARY

- This chapter discussed the type of production. There are 7 types of cost in producing a particular quantity of output.
- Total variable cost will increase when the output increase.
- Average fixed cost will decrease when the output increase.

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 7

PERFECT COMPETITION (PC) AND MONOPOLY

LEARNING OUTCOMES

By the end of topic, you should be able to:

1. Explore the characteristics of a perfect competition
2. Define a monopoly market and its characteristics economics
3. Compare between perfect competition and monopoly
4. Explain the short-run and long-run equilibrium in a perfect competition
5. Explain the short-run and long-run equilibrium in a monopoly

A. PERFECT COMPETITION (PC)

7.1 Definition of perfect competition

Perfect Competition (PC) is a market where there is a large number of buyers and sellers, buying and selling identical products, without any restriction on entry and exit and having perfect knowledge of the market at the same time.

Examples of products in a perfect competition market are agriculture goods such as vegetables, fruits and others.

7.2 Characteristics of perfect competition

Characteristics	Explanation
Large number of buyers and sellers	The existence of a large number of buyers and sellers. The quantity a single sellers in a market is so small compared to the overall industry. Therefore, no one can influence the market price of goods. Thus, in perfect competition, firms are price takers because the individuals sales volume is relatively small compared to market volume.
Homogenous or identical product	All the firms in a perfect competition market will sell identical or homogenous products. In the market structure, buyers cannot differentiate products in terms of quality, packaging, color and design. Hence, the firm cannot charge different prices for the terms of quality and packaging are not homogenous products.
Free entry and exit	In perfect competition, there are no restrictions on the entry of new firms to the industry or exit of firms. A new firm can easily enter into the perfect competition market and exit it any time it chooses.
Non-price competition	Sellers practise non-price competition, such as advertising, free gift, discounts, after sale services and promotions, when they cannot compete among themselves using prising strategies.

	However, in perfect competition market, the role of non-price competition is insignificant as many sellers sell the products at a fixed price and furthermore, the products are identical.
Perfect knowledge of the market	All the sellers and buyers will have perfect knowledge of the market. Sellers cannot influence buyers and similarly buyers cannot influence sellers. Sellers must know the prices charged by other sellers in the market and the buyers must know the price being charged by the other sellers. If any seller charges a higher price, the buyer will buy from different sellers because the products are identical with many sellers in the market.
Perfect mobility of factors of products	Factors of production can freely move from one place to another. There is no barrier on their movement. The existence of perfect mobility of factors of production in a perfect competition will lead to the existence of a large number of sellers in the market.
Absence of transport cost	There should not be any transport costs between sellers. In a perfect competition, it is assumed that various firms will work closely with each other so that transport costs are not incurred. If two identical products are at two different places, their prices will be different because of transport cost. Therefore, in perfect competition there will be no transport costs.

7.3 Short-run equilibrium

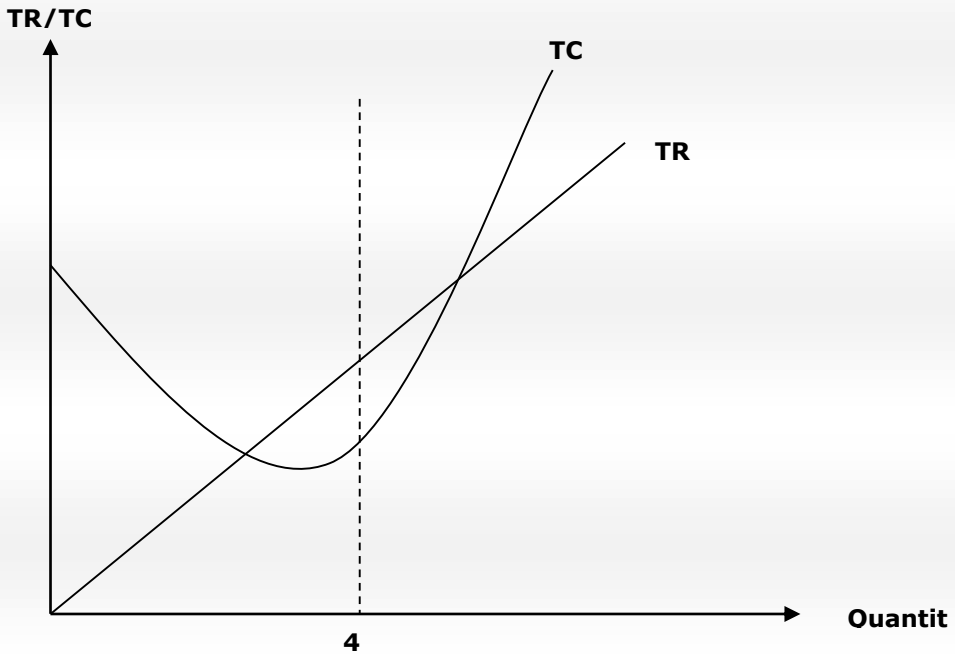
In the short-run, firms under perfect comopetition have a fixed price and maximize their profits by adjusting their output.

The two methods of determining profit maximization are the **total approach** and **marginal approach**.

1. **Total approach**

Short-run profit maximization (perfect competition)

Quantity	Total revenue	Total cost	Profit/Loss
0	0	60	-60
1	100	140	-40
2	200	210	-10
3	300	290	10
4	**400**	**390**	**10**
5	500	500	0
6	600	630	-30
7	700	800	-100



Profit is the difference between a firm's total revenue and total cost. In figure, the vertical distance between TR and TC at 4 units of output gives the maximum profit. So, profit maximixation for the firm is at a quantity of 4.

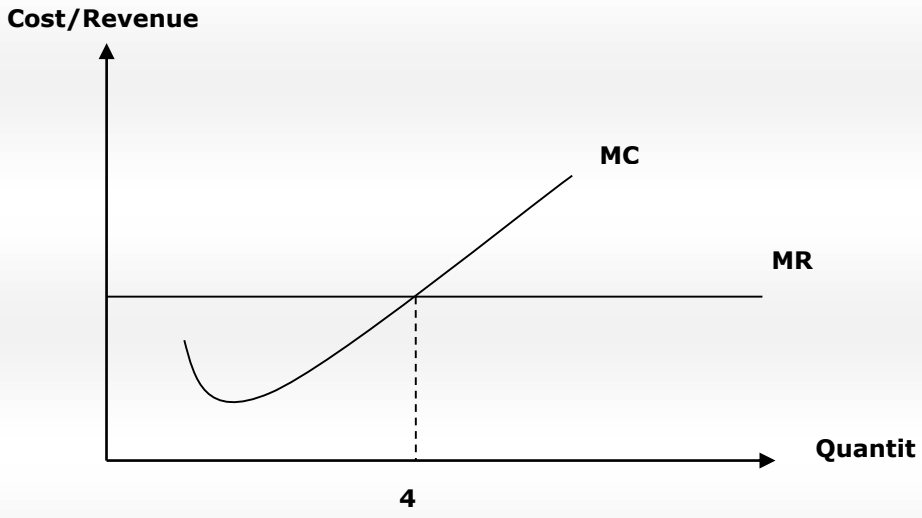
2. **Marginal approach**

Marginal approach is another means to determine the quantity of output a firm will offer at the equilibrium price. To find the equilibrium level, the firm must compare its marginal revenue and marginal cost.

A firm will maximize profit at a point where the marginal revenue equals marginal cost. This profit maximization condition is called **MR = MC rule.**

table of extended to calculate the MR and MC to find the profit

Quantity	Total revenue	Marginal revenue	Total cost	Marginal cost	Profit/Loss
0	0	-100	60	-	-60
1	100	100	140	80	-40
2	200	100	210	70	-10
3	300	100	290	80	10
4	**400**	**100**	**390**	**100**	**10**
5	500	100	500	110	0
6	600	100	630	130	-30
7	700	100	800	170	-100



Shows the MR and MC curves and the profit maximization output.

A firm in the short run will possibly enjoy three types of profits.

1. Supernormal profit or economic profit

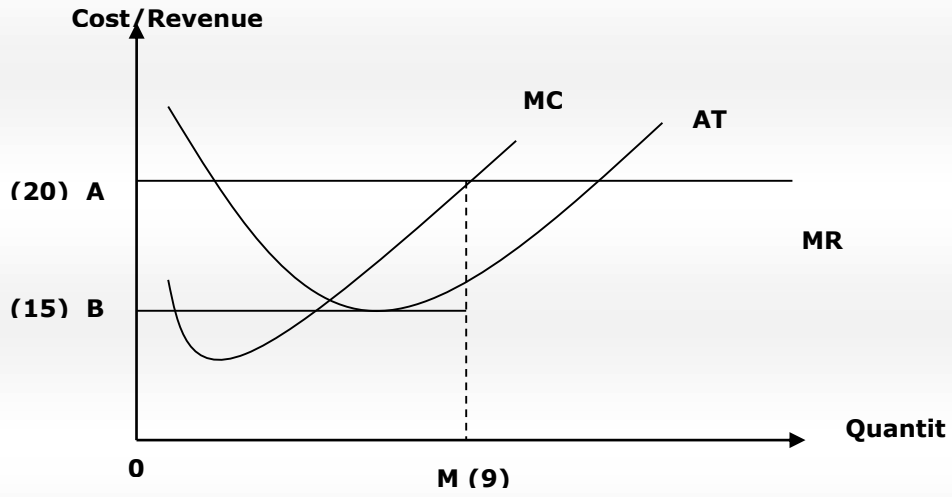
> The profit earned where total revenue is greater than total cost. Economic profit is also realized when price is greater than average total cost.

2. Subnormal profited economic losses

> The losses incurred because price is lower than the average total cost or when total revenue is less than total cost.

3. Normal profit or breakeven

> The profit necessary for a firm to stay in business. Normal profit is when total revenue equals total cost and where no profit or loss is incurred.



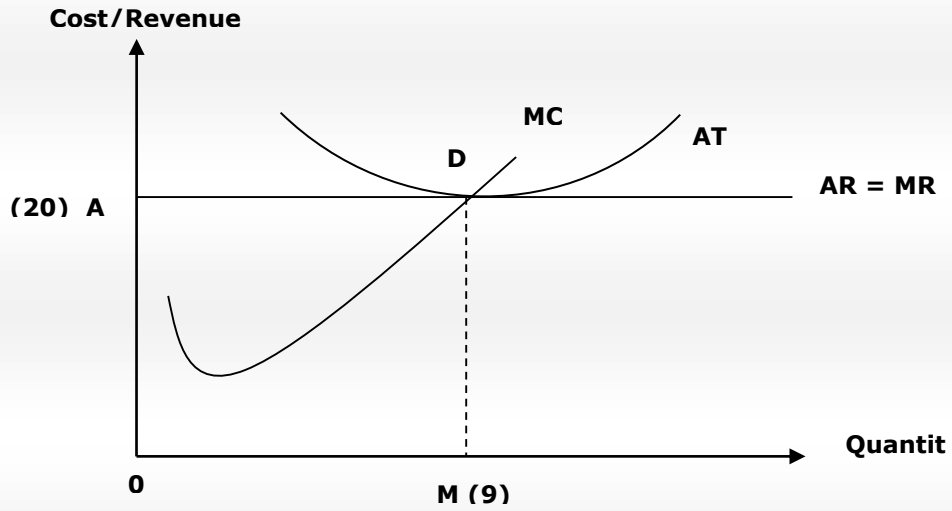
1. Supernormal profits

Market price greater than ATC & firms make profit.

Known as Economic Profit.

Calculation:
TR = 0A x 0M. TR = 20 x 9
TC =0B x OM. TC = 15 x 9

Therefore, P = TR-TC
= ABCD
=180-135
=<u>45</u> (PROFIT)



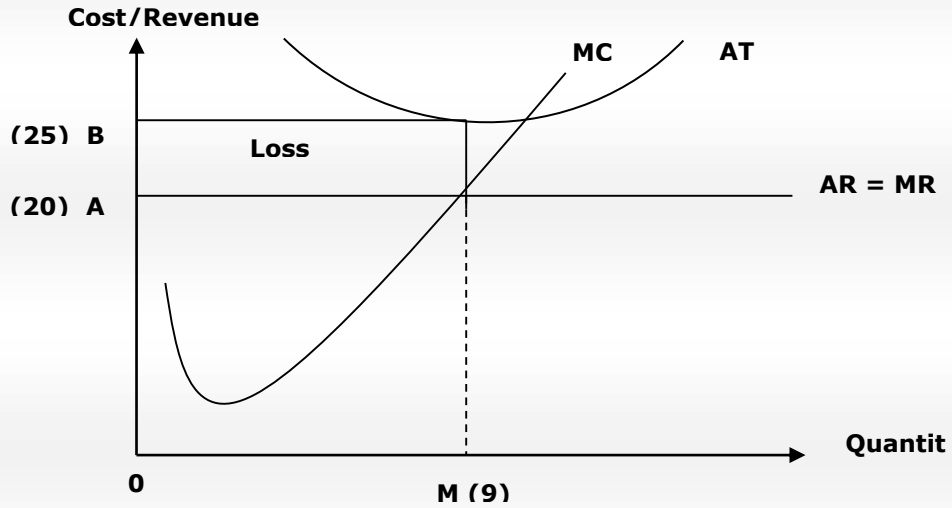
2. Normal Profits

Price equals minimum ATC, firm at breakeven profit.

<u>Breakeven</u> required for a firm to stay in the market.

Calculation:
TR = 0A x 0M. TR = 20 x 9
TC =0A x OM. TC = 20 x 9

Therefore, P = TR-TC
= 0
=180-180
=<u>0</u> (BREAKEVEN)



3. Subnormal profit

Price below minimum ATC & firm makes a loss.

Known as Economic Loss.

Calculation:
TR = 0A x 0M. TR = 20 x 9
TC =0B x OM. TC = 25 x 9

Therefore, P = TR-TC
= ABCD
=180-225
=-45 (LOSS)

7.4 Long-run equilibrium

Definition of demand

In the long run, there is ample time for the firm to make changes adjustments to the production process.

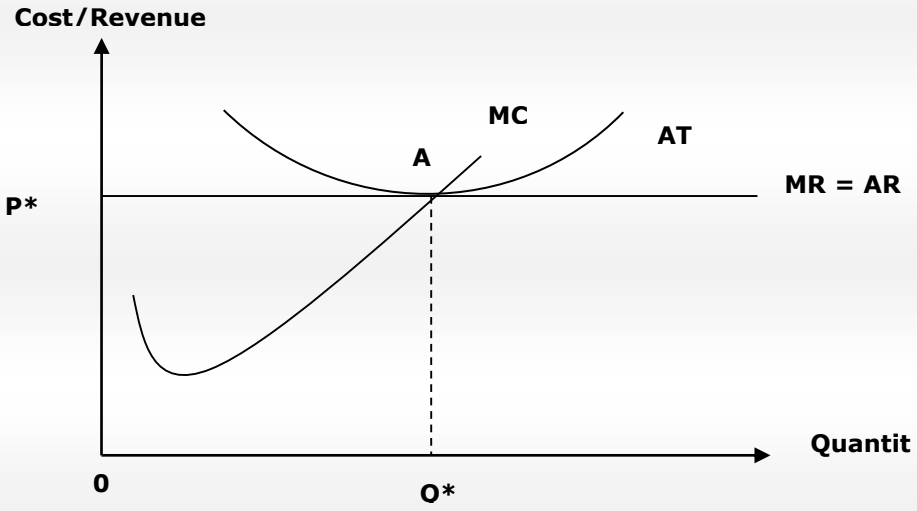
Demand and Law of Demand

All inputs are variable in the long run.

All firms in an industry will be in equilibrium when the long run MC equals the long run MR (MR = MC rule).

Perfect competition firms only earn economic profit or normal profit in the long run, due to the effect of free entry and exit.

The long run position of the perfect competition firmis illustrated in figure where point A is the lowest cost, being the lower point on the firm's long run average total cost curve.



Long-run equilibrium (perfect competition)

B. MONOPOLY

7.5 Definition of monopoly

Monopoly means existence of a single seller in the market producing a product that has no subtitutes.

Examples of monopoly in Malaysia are Tenaga Nasional Berhad (TNB), Telekom Malaysia and Jabatan Bekalan Air (JBA)

7.6 Characteristics of monopoly

One seller and a large number of buyers	A monopoly exists when there is only one seller of a product. The difference between a firm and an industry does not exist in a monopoly since there is only one seller. The monopolist is a firm as well as an industry in itself.
Product has no close subtitutes	There should not be any close substitutes for the product sold by a monopoly. If there are any subtitutes, the monopolist cannot charge a price according to his/her desire or he/she cannot be the price maker. In other words, a monopoly cannot exist if there is any competition or any substitute products. An example is water supply by Jabatan Bekalan Air or the Waterworks Department where water has no substitute.
Price maker	In a perfect competition, no single firm can influence the price and this called a price taker. The monopolist is a price maker since there is only one seller or one producer and it has the power to control the price in the market.
Restriction on the entry of new firms	In a monopoly market, there will be strict barriers to the entry of new firms. A monopolist faces no competition because of barriers to entry.

Advertising	Advertising in a monopoly market depends on the products sold. If the products are luxure goods such as imported cars, than the monopoly needs some advertisements to inform consumers about the goods. Local public utilities such as water, electricity, or home phone services do not need any advertisements from the monopolist since the consumer knows where to obtain such goods.

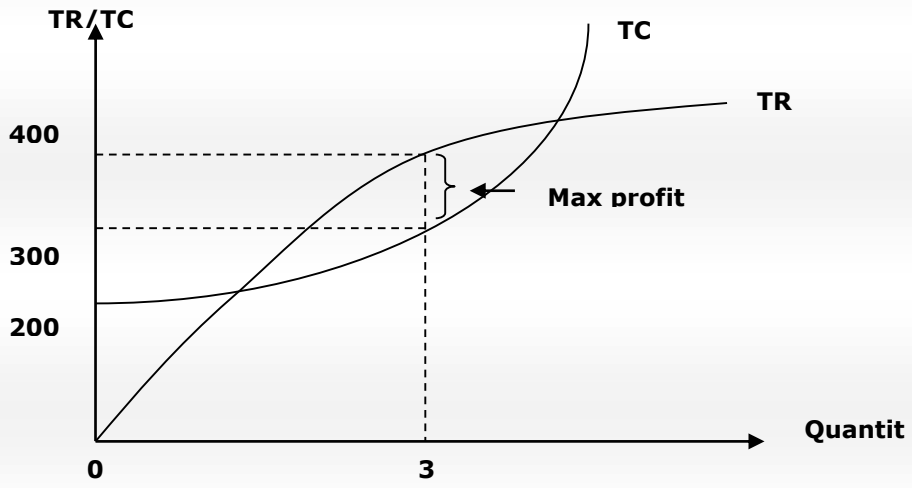
7.7 Short-run equilibrium

Short run is a time period in which there are fixed factors and variable factors. As discussed, in perfect competition, the short-run equilibrium in monopoly can also be determined by two approaches.

1. Total approach

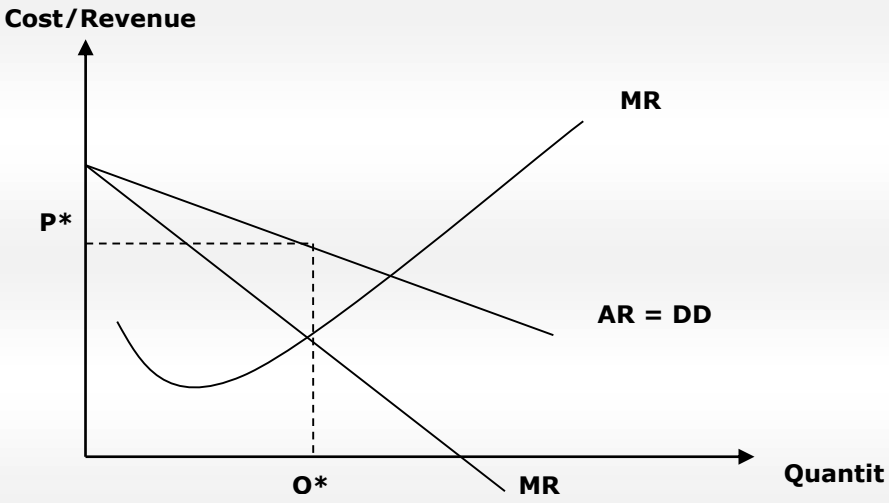
Short-run profit maximization (monopoly) – total approach

Quantity	Price (RM)	Total revenue	Total cost	Profit/Loss
0	200	0	120	-120
1	180	180	170	10
2	160	320	230	90
3	**140**	**420**	**300**	**120**
4	120	480	400	80
5	100	500	550	-50

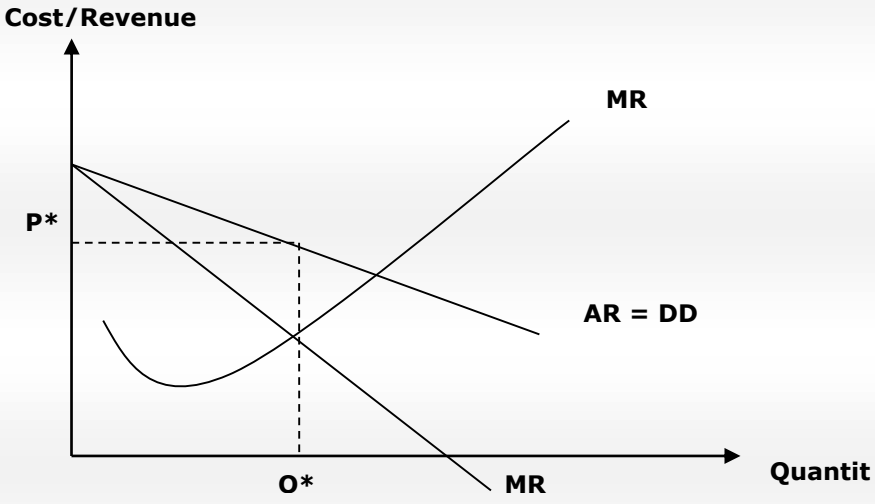


2. Marginal approach

To find the equilibrium level, the firm must compare the marginal revenue and margina cost. A firm will maximize profits at a point where the marginal called the MR = MC rule.



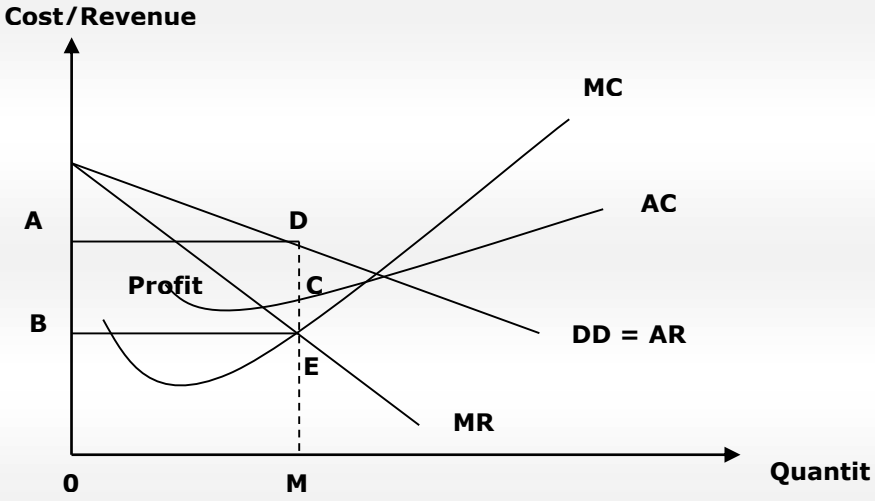
The MR and MC curves and the profit maximization output.



Short-run equilibrium in a monoply market

a. Supernormal profit

Firm makes profit when AC below AR



Calculation:

TR = 0A x 0M
TC =0B x 0M

TR = 20 x 9
TC = 25 x 9

PROFIT = TR-TC
= ABCD

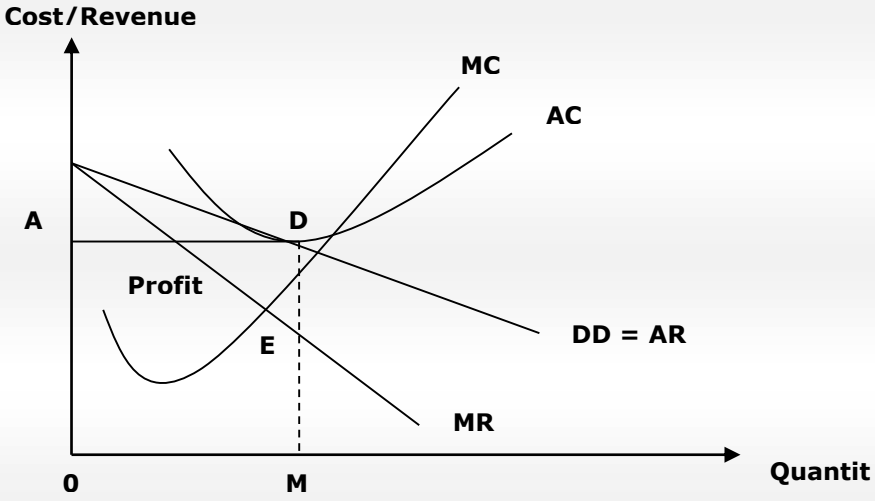
PROFIT = 200-50
= RM**150**

TR > TC

→ **ECONOMIC PROFIT**

b. Normal profits

Firm only earns normal profit when AC is equal to AR



Calculation:

TR = 0A x 0M
TC = 0A x 0M

TR = 10 x 10 = 100
TC = 10 x 10 = 100

PROFIT = TR-TC
= 0

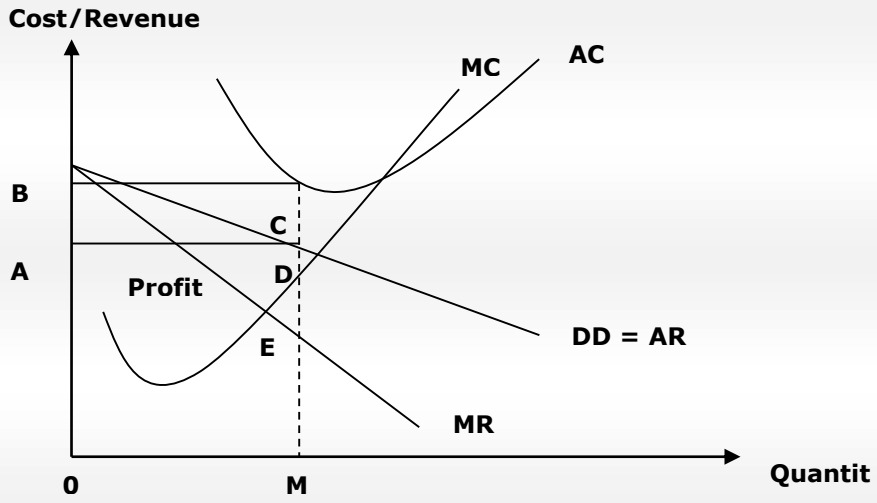
PROFIT = 100-100
= RM**0**

TR = TC

→ **BREAKEVEN POINT**

c. Subnormal profits

Firm makes losses when AC is above AR



Calculation:

TR = 0A x 0M
TC = 0B x 0M

TR = 10 x 10 = 100
TC = 15 x 10 = 150

PROFIT = TR-TC
= ABCD

PROFIT = 100-150
= -RM**50**

TR < TC

→ **ECONOMIC LOSS**

7.8 Long-run equilibrium

Long run is the time period in which the firm can adjust its input used in production.

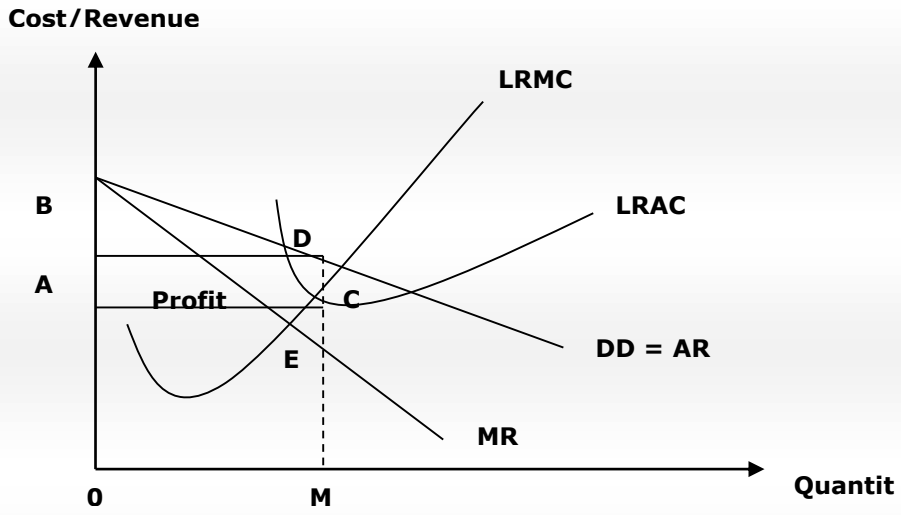
In the long run, all the factors of production are variables.

A monopolist firm in the long run is also in equilibrium at a point where MR = MC.

In the short-run, we observe that a firm can earn profit or even losses.

But in the long run, a monopolist will only earn supernormal profits.

A monopolist can make all necessary changes to costs as there are barriers to entry of new firms into the market.



7.8 Long-run equilibrium

Comparison	Perfect Competition	Monopoly
Characteristics	a large number of sellers selling a homogenous product.	Only one seller who sells the product which has no close substitutes.
Long run equilibrium	A perfectly competitive firm earns a normal profit in the long run because of free entry and exit into the industry.	A monopolist firm will earn a supernormal profit since there are barriers to entry for newcomers.
Price and quantity	The price in perfect competition lower than a monopoly market.	The price charged in a monopoly market is always higher than the perfect competitive price. However, the equilibrium quantity in a monoply is lower than in a perfect competition market.
Efficiency	A perfectly competition firm is more efficient than a monopoly if the perfectly competitive market firm produces at the lowest point of the minimum average cost and the product is standardized.	The monopolist has resources to enjoy economies of scale.

Checkpoint 7

1. Give 2 characteristic of perfect competition and mopoly market.
2. Why perfect competition market only earns normal profit in long run.

Activity

Differentiate between perfect competition and monopoly market.

SUMMARY

- Perfect competition sell identical product such as fruits and vegetables.
- Perfect competition earns normal profit in long run due to free entry and exit.
- Monopoly sell a product that has no subtitutes.
- Monopoly earns supernormal profit due to restriction entry of new firms.

KEY TERM

Barrier of entry	**breakeven**
Perfect knowledge	**Price maker**
Identical product	**supernormal profit**

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.

TOPIC 8

MONOPOLISTIC COMPETITION AND OLIGOPOLY

LEARNING OUTCOMES

By the end of topic, you should be able to:

1. Explain the characteristics of monopolistic competition
2. Explain the short-run and long-run equilibrium in monopolistic competition
3. Compare monopolistic competition and perfect competition
4. Define oligopoly and its characteristics
5. Explain price rigidity and the kinked demand curve model in an oligopoly market
6. Explain price leadership
7. Explore the formation of a cartel in an oligopoly market
8. Explain non-price competition

8.1 Definition of monopolistic competition

Monopolistic competition is a market structure in which a large number of small sellers sell close substitutes products.

Examples : shoes, books, watches, toothpaste, soaps, ice-creams, chocolates and others.

8.2 Characteristics of monopolistic competition

Large number of sellers	There are a large number of sellers in a monopolistic competition. Although, a large number of firms exist in a monopolistic competition market but it is less than perfect competition. The size of each firm is small and therefore, no individual firm can influence the market price. Hence, each firm follows an independent price-output policy.
Differentiated products	In monopolistic competition, the firms produce goods which are differentiated, example they are not indentical. Each seller will use various methods to differentiate their products from other sellers to create a preference among buyers or consumers. Differentiation of the product may be through the packaging, design, labeling, advertising and brand names.
Free entry and exit	Entry into and exit out of the monopolistic competition industry are unrestricted. New firms may enter the industry with close substitutes to the existing brand. Entry into and exit of a monopolistic competition are not as easy as in perfect competition because of product differentiation.
Non-price competition	In monopolistic compotition, there will be shift competition among firms for products and not for the price of the product. The producers or sellers in a monopolistic competition use various methods to

	attract customers to buy a particular brand. They create a sense of brand conciousness among customers. Types of non-price competition practices in monopolistic competition market are advertisements, promotions, discounts, free gifts, after-sales service and others.
Selling cost	Each firm tries to promote by using different type of advertisements that vary in cost. The different advertisements include banners, media advertisements, billboards, pamphlets and others. The expenditure incurred is known as selling cost and needs to be added to the cost of production.

8.3 Short-run equilibrium

The monopolistic competitive firm faces a downward sloping demand curve.

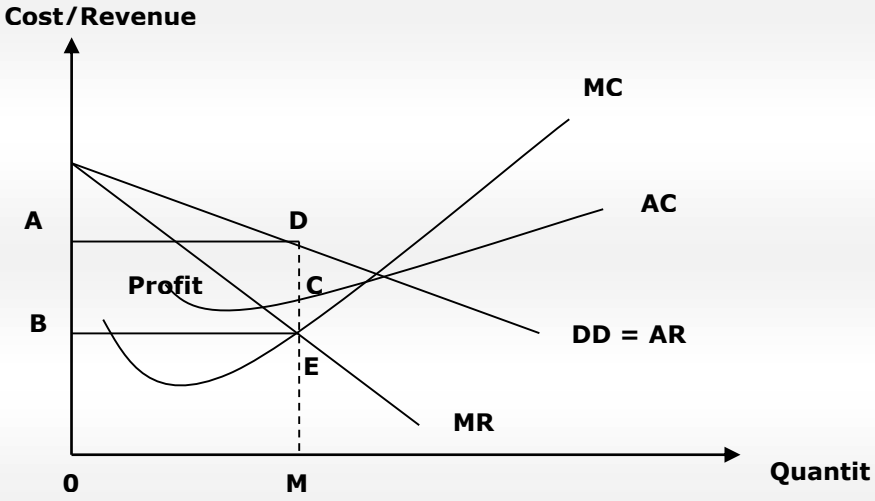
Each firm has a particular demand curve of its own which different from those of other firms.

In order to earn maximumprofit or suffer minimum losses, a monopolistic competitive firm compares its marginal revenue and marginal cost.

In the short run, a monopolistic competitive firm can earn supernormal profits, normal profits and subnormal profits.

a. Supernormal profit

Firm makes profit when AC below AR



Calculation:

TR = 0A x 0M TR = 10 x 10
TC = 0B x 0M TC = 5 x 10

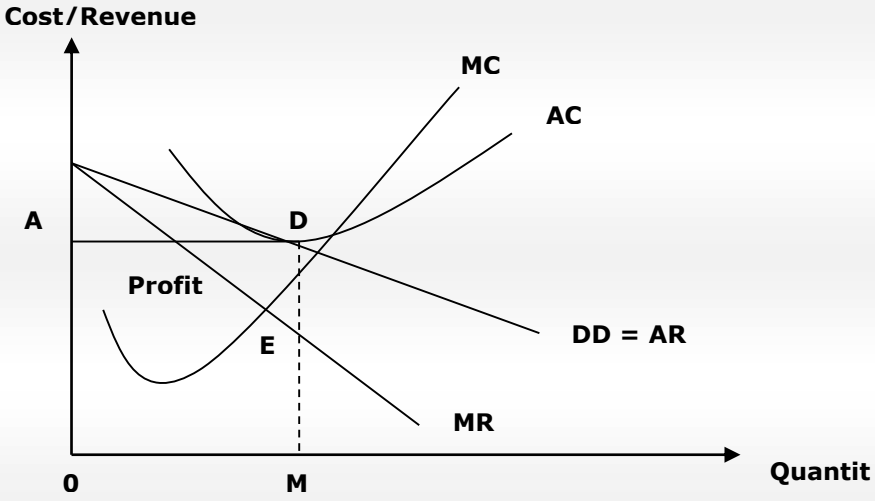
PROFIT = TR-TC PROFIT = 100-50
= ABCD = RM**50**

TR > TC

→ **ECONOMIC PROFIT**

b. Normal profits

Firm only earns normal profit when AC is equal to AR



Calculation:

TR = 0A x 0M
TC = 0A x 0M

TR = 10 x 10 = 100
TC = 10 x 10 = 100

PROFIT = TR-TC
= 0

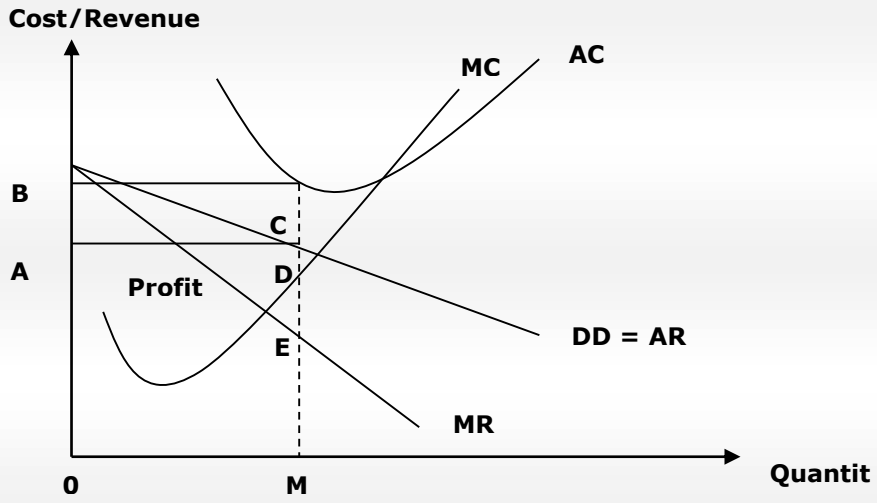
PROFIT = 100-100
= RM**0**

TR = TC

→ **BREAKEVEN POINT**

c. Subnormal profits

Firm makes losses when AC is above AR



Calculation:

TR = 0A x 0M
TC = 0B x 0M

TR = 10 x 10 = 100
TC = 15 x 10 = 150

PROFIT = TR-TC
= ABCD

PROFIT = 100-150
= -RM**50**

TR < TC

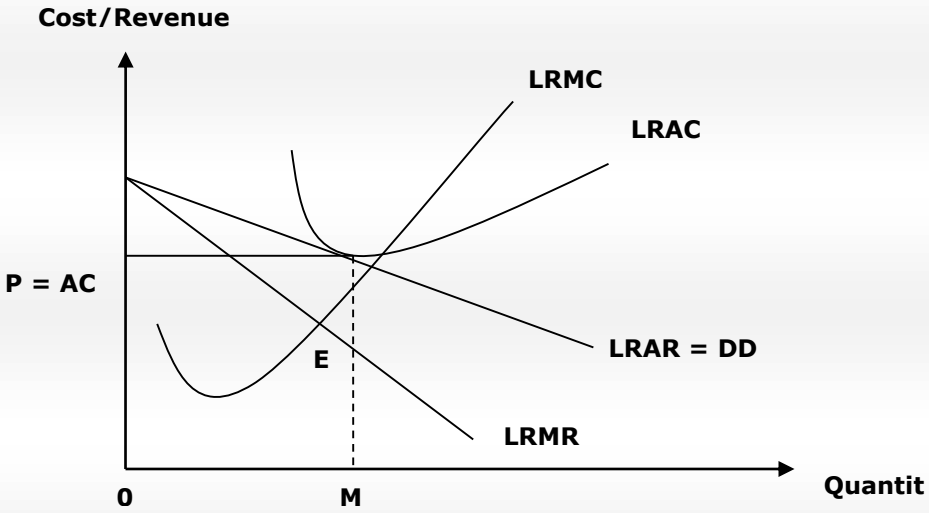
→ **ECONOMIC LOSS**

8.4 Long run equilibrium

Long run is a period where a firm will have sufficient time to make changes to production.

A monopolistic competitive firm in the long run is also in equilibrium at a point where MR = MC.

In the long run, a monopolistic competitive firm will only earn normal profits.



Long run equilibrium for monopolistic competition

8.5 Comparison between monopolistic competition and perfect competition

Similarities

Characteristics	Monopolistic competition	Perfect competition
Number of firms	Large	
Entry and exit in the market	Freedom	
Profit maximization	Firms will enable them to produce at marginal revenue which will be equal to marginal cost.	
Short run	Firms may earn supernormal profit, subnormal profit or normal profit	
Long run	Firms can only earn normal profit in both markets.	

Differences

Characteristics	Monopolistic competition	Perfect competition
Price determination	Each firm has its own price policy.	The force of demand and supply of the entire industry determine the prices in a perfect competition.
Products	The products are differentiated.	The products sold are homogenous.
Demand curve	Demand curve is downsloping and the marginal revenue list below the average revenue.	Perfectly elastic and marginal revenue equal to average revenue.
Selling cost	Selling cost occurs	Not selling cost

8.6 Definition of oligopoly

In the oligopoly market structure there are only a few firms in the industry. These few firms produce either identical or differentiated products and entry of any new sellers is difficult or impossible.

Examples of this market include the market for cigarettes, automobiles, television, cement and petroleum.

8.7 Characteristics of oligopoly

Few in number but large in size	The number of firms is small but the size of the firms is large. The market share of each firm is large enough to dominate the market. A few firms control the overall industry in an oligopoly.
Homogenous or differentiated product	The products sold in an oligopoly may be either homogenous or differentiated. For exampole, in Malaysia, petroleum and automobiles are in an oligopoly market where petroleum is homogenous but cars are differentiated products.
Mutual interdependence	The firms in an oligopoly always consider the reaction of their rivals when choosing the price, sales target, advertising budgets and other business policies.

	Since the number of firms is small, changes in price or output by one firm can have a direct effect on snother firm.
Barriers to entry	There are various barriers to entry. Although similar to a monopoly, the firms in an oligopoly will restrict new entrants into the market. The types of barriers to entry are economies of scale, force to merge, ownership of patents and copyrights to name a few.

8.8 Characteristics of four types of market structures

Characteristics	Perfect competition	Monopoly	Monopolistic competition	Oligopoly
Number of sellers	Large	One	Many	Few
Types of products	Identical or homogenous	Unique or no close substitution	Differentiated	Homogenous or defferentiated
Entry conditions	Very easy	Impossible	Easy	Difficult
Control over prices	None	More	Less	Some
Examples	Wheat, corn	Local phone service, electricity	Food, clothing	Automobiles, cigarettes
Profit maximization	MR=MC	MR=MC	MR=MC	MR=MC
Short-run equilibrium	Subnormal, supernormal or normal profit	Subnormal, supernormal or normal profit	Subnormal, supernormal or normal profit	Subnormal, supernormal or normal profit
Long-run equilibrium	Normal profit due to free entry and exit	Supernormal profit because of barrier to entry	Normal profit due to free entry and exit	Supernormal profit because of barrier to entry

Production efficiency (at minimum AC)	Yes	No	No	No
Short-down point	Short run: AR<AVC Long run: AR>AC	Short run: AR<AVC Long run: AR<AC	Short run: AR<AVC Long run: AR<AC	Short run: AR<AVC Long run: AR<AC

Checkpoint 8

Short Question

1. Define monopolistic competition market.
2. List the characteristic of monopolistic competition market and oligopoly market.
3. Explain the difference between monopolistic competition and oligopoly market.

ACTIVITY

Using a graph, why in long run, oligopoly earns supernormal profit.

KEY TERM

kartel	**Barrier of entry**
Homogenous product	**Unique product**
Mutual interdependance	**Selling cost**

SUMMARY

- Monopolistic competition sell close subtitutes product such as shamppo and shoes.
- There are ;arge number of seller in monopolistic competition sell differentiated product.
- Oligopoly produce edentical and differentiated product such as cigarettes, automobile and petroleum.

REFERENCEES

Vengedasalam.D, Madhavan.K *Principles of Economics , 2018:* oxford Fajar.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