Modern Commerce

for

Secondary Schools

FORM

Student's Book

TQ Publishers

Published by:
TQ PUBLISHERS LIMITED
P.O BOX 6154,
DAR ES SALAAM, TANZANIA

+255 737 619835
+255 737 619835
info@tqpublishers.co.tz
www.tqpublishers.co.tz
tqpublishers
tqpublishers
tqpublishers

BCOM (Accounting), CPA (T), ACCA Diploma in IFRS, Directorship Certificate (Institute of Directors in Tanzania).

ISBN 978–9987–630–01–1

Table of Contents

Preface

This is the first edition of **Modern Commerce Book for Secondary Schools Form Two** that contains both textbook notes and review questions and answers for students and teachers regarding the Commerce course for Tanzanian Secondary Schools. It has been written in accordance with the new Commerce subject syllabus for ordinary secondary education issued in 2016.

The book is designed to meet the demands of the Secondary School Commerce subjects syllabus for Form Two and the needs of any other students learning business subjects and is organised to provide Students with what has been found to be the most appropriate sequencing of chapters to enable them to build a stable foundation of business terms and knowledge. The language used is simplified as much as possible to enhance profound understanding to most Tanzanian students.

This book is resourceful and consists of many illustrations and examples as prescribed in the current new syllabus. Hence, it is expected that students and teachers will find this book very helpful in the course of learning and teaching respectively.

In order to make the best use of this resource, Students should consider the following matters, which are a proven path to success:

- At the beginning of each chapter, there is a list of learning objectives. These will lead students to know what is needed and what will be covered as per new syllabus requirements.
- By the end of each chapter, students will have to check what has been learnt against the recap of the entire chapter that follows the main text.
- After the main text, students will find a number of illustrations and photographs. These will facilitate learning and enhance their knowledge of the notes, thus will assist them to comfortably do various exercises which will enable students to understand the lessons well.
- Practical examples which are familiar to our day-to-day life have been used to facilitate understanding of a particular concept.
- Students should study as many illustrations in the book as possible at the points where they appear. This is very important. They will reinforce students learning and facilitate making concrete some of the ideas that may otherwise appear very theoretical.

- The answers for each chapter are at the end of the book. Students should not look at the answers before they attempt the questions otherwise they will just be cheating themselves. Once they have answered questions, they can then check their answers at the end of the book and make sure that they understand them before moving on.
- Students should attempt questions when they reach their sections, i.e. multiple-choice questions, matching items, filling in the gaps and narrative questions. If they get any wrong answer, they should revise the chapter and redo the exercises before moving on to a new chapter.
- Questions have been set to facilitate review of materials covered in the main text of a particular chapter.
- Teachers should guide students to find time to do as many exercises as possible.

We wish you all the best in your studies and we trust that this book will enable you to pass your examinations well; we trust that you will get the rewards you deserve!

Enjoy learning...

TQ Publishers
October, 2019

Chapter 3

Theory of Demand

Learning objectives

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

(a) Describe the concept of demand,
(b) Understand the law of demand and its assumptions,
(c) Understand the way of representing the concept of demand,
(d) Describe the concept of change in quantity demanded,
(e) Understand the factors that cause shift of demand curve,
(f) Understand the interrelated demand,
(g) Describe the concept of elasticity of demand and
(h) Explain the importance of elasticity of demand.

Introduction

Demand and supply theories are the most fundamental concepts which govern the economy. Demand and supply form a relationship between quantity of commodity that consumers wish to buy and the quantity that producers wish to sell at various prices and the quantity. It is the main model of price determination used in economic theory. Application of these theories is observed in our daily lives. However, in this chapter the concept of demand and factors which affect change in demand will be covered in detail while the theory of supply will be dealt with in chapter 4.

3.1 Concept of demand

Demand is defined as the ability and willingness to pay for a demanded quantity of a commodity at a given price at a particular period of time. It also implies a desire backed by ability and willingness to pay; for a person to have a mere desire to purchase a commodity is not demand. This concept of demand refers to an 'effective' demand which is willingness and ability of consumers to purchase goods at different given prices.

Effective demand excludes latent demand where the willingness to purchase goods may be limited by an inability to afford it or lack of knowledge.

Demand is said to be 'latent' if consumers would like to be able to purchase goods. For example, usually a consumer would buy 10 GB of internet bundle per week. However, if one has an unexpected drop in income, one may not be able to afford internet connectivity. When his income returns to normal, his latent demand will turn into effective demand.

In order to qualify and meet the demand concept requirements, a person must possess adequate resources and must be willing to spend his or her resources to buy the commodity.

The quantity demanded is defined as the quantity of a commodity that people are willing to buy at a particular price at a particular point in time, which is being represented by various ways including: schedule, curve and mathematical function.

3.2 The law of demand

The price of a commodity is the most important determinant of its demand and the only determinant in the short period when all other determinants of demand are assumed to remain constant. The relationship between price and demand is expressed by the law of demand.

The law of demand states that: "*The lower the price of a commodity, the higher the quantity of that commodity is demanded and the higher the price of the commodity, the lower the quantity of that commodity is demanded assuming other factors remain constant (ceteris paribus).*"

Price for commodities changes everyday which also affects decisions to buy. This leads to demand being unstable, i.e. demand keeps changing as price changes.

Assumptions of the law of demand

If all other factors will not remain constant, the law will not apply, i.e. the law of demand will only apply when prerequisite factors remain constant. The factors that make the law of demand to apply are also known as assumptions of the law.

Those assumptions of the law of demand include:

(a) Consumer's income: The law will not exist if there is a change in the consumer's income. For example, the rise in price level also increases consumer's income at the same time, consumers will not fear to buy goods at high prices as their incomes increase and vice versa.

(b) Weather and climate change: If the price of a commodity falls and weather condition is not favourable to use such a commodity, consumers will not buy it even at low price; but if the price of a commodity rises and weather condition is favourable for the use of such commodity, consumers will buy it even at that higher price.

(c) Price change expectations: If change is expected in the price of any commodity, the law of demand will not apply. For example, if the price of a commodity is expected to fall in the near future, consumers may not purchase greater quantities of this commodity because they will wait for the fall in price level.

(d) Preferences and tastes: If taste of the people changes, demand will shift regardless of whether the low or high.

3.3 Representation of the concept of demand

The concept of demand can be represented in three different forms, namely:

- Demand schedule,
- Demand curve and
- Demand function

(a) Demand schedule

Demand schedule is a table showing quantities of a commodity demanded at different price levels at a particular time. Generally, there is an inverse relationship between the price and the quantity demanded. A graphical representation of a demand schedule is called a demand curve while a mathematical representation of the relationship between price and quantity demanded is referred to as demand function.

Table 3.1: Demand schedule for rice at Mavunoko Market for the week ended 16th December 2018

Price (Tshs)	Quantity of product (kg)
3,500	10
3,000	20
2,500	30
2,000	40
1,500	50

There are two types of demand schedules, namely:

- Individual demand schedule and
- Market demand schedule.

(i) Individual demand schedule: This is a representation in the form of a table showing the quantity of a commodity purchased by one person in the market. For example, Mr. Itegekuga bought various quantities of sugar at different levels of price as shown below:

Table 3.2: Individual demand schedule for week ended 29th December 2018

Price (Tshs)	Quantity of Commodity in kg
4,000	10
3,000	20
2,000	30
1,000	40

(ii) Market demand schedule: This is the sum of individual demands. That means, it is the total quantities of commodity demanded by various individuals in the market.

In order to get a market demand schedule, we sum the quantities demanded by two or more persons in the market at one level of price, for example the demands of Mr. X and Mr. Y

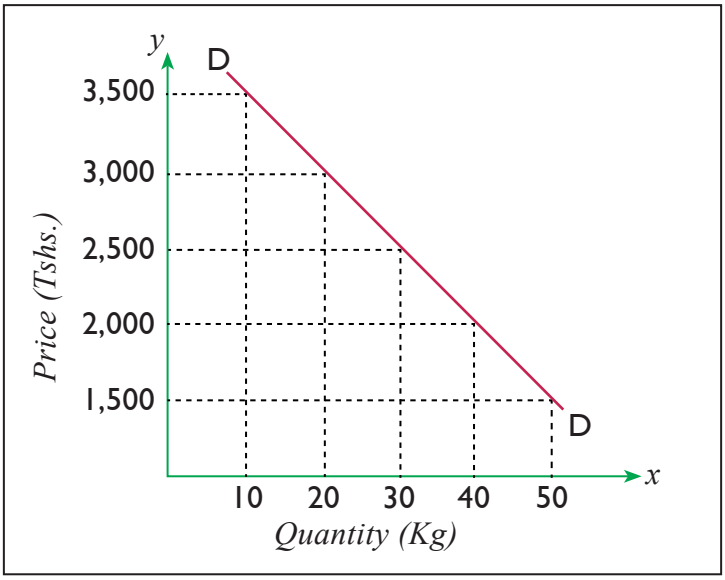
Table 3.3 Market demand schedule for week ended 20th December 2018

Individual demand schedule				Market demand schedule	
Mr. X		Mr. Y		Mr. X + Mr. Y	
Price	Quantity (kg)	Price	Quantity (kg)	Price	Quantity (kg)
1,000	45	1,000	55	1,000	45 + 55 = 100
2,000	30	2,000	40	2,000	30 + 40 = 70

(b) Demand curve

Demand curve is a graphical representation of the relationship between the price of commodity and the quantity demanded in a given period of time. Demand curves are used to estimate behaviours in competitive markets and are often combined with supply curves to estimate the *equilibrium price*.

Figure 3.1 Demand curve

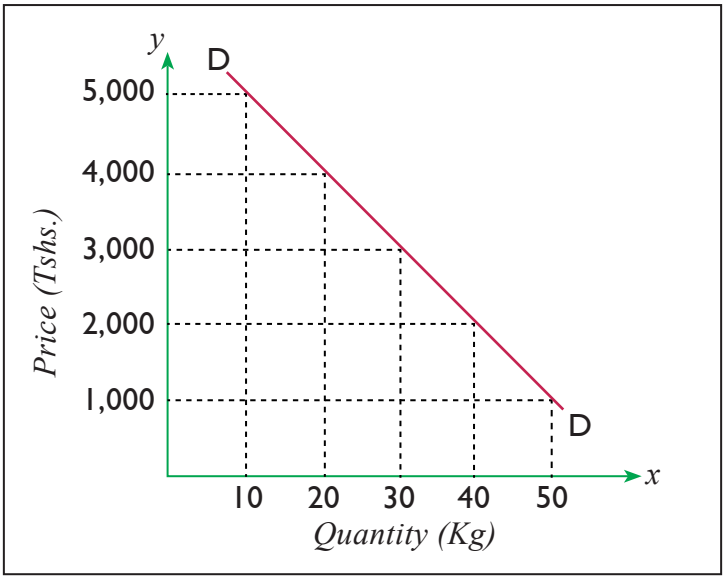


Likewise, there are two types of demand curves, namely:

- Individual demand curve and
- Market demand curve.

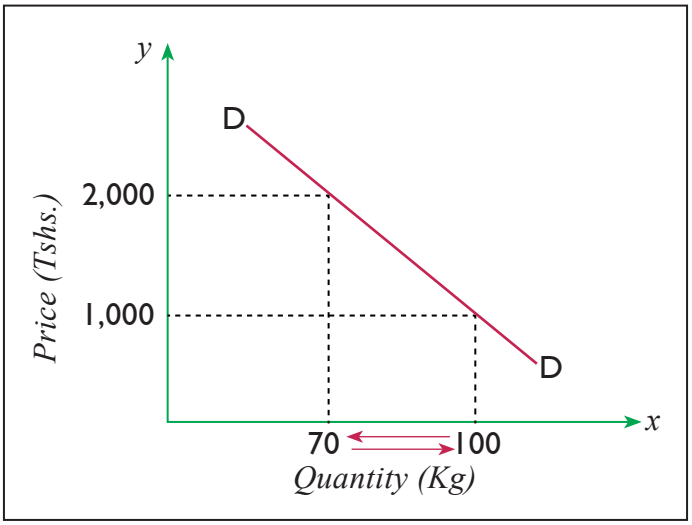
(i) Individual demand curve is a graphical representation of individual demand schedule as shown below.

Figure 3.2: Individual demand curve of Mr. Itegekuga.



(ii) Market demand curve refers to a graphical representation of market demand schedules. It is obtained by horizontal summation of individual demand curves.

Figure 3.3 Market demand curve of Mr. X and Mr. Y



Characteristics of demand curve are as follows:

(i) It has a negative slope due to the inverse relationship between quantity demanded and price.

(ii) The demand graph slopes downwards from left to right. This means that at a lower price, more quantities are demanded than at a higher price.

(c) Demand function

This is a mathematical relationship between demand and factors that determine demand. It is expressed as follows:

QD = f {P, Ps, TP, Wc, A, Y, Po, Ec}

Where:

QD = Quantity demanded, *f* = function of, P = Price of a commodity,

Ps = Price of substitution, TP = Taste and preference, Wc = Weather condition,

A = Advertisement, Y = Income, Po = Population and Ec = Economic condition.

A demand function is expressed as: – QD = f(p);

Where: QD = Quantity demanded.

f = Function of

P = Price level

Hence demand function is expressed as follows:

QD = – M (p) + C

Where:

P = Price

– M = Slope of a demand function

C = Constant

The slope of a demand function is always negative due to an inverse relationship between the quantity demanded and price.

3.4 Change in the quantity demanded/Movement along demand curve/ Extension or contraction of demand

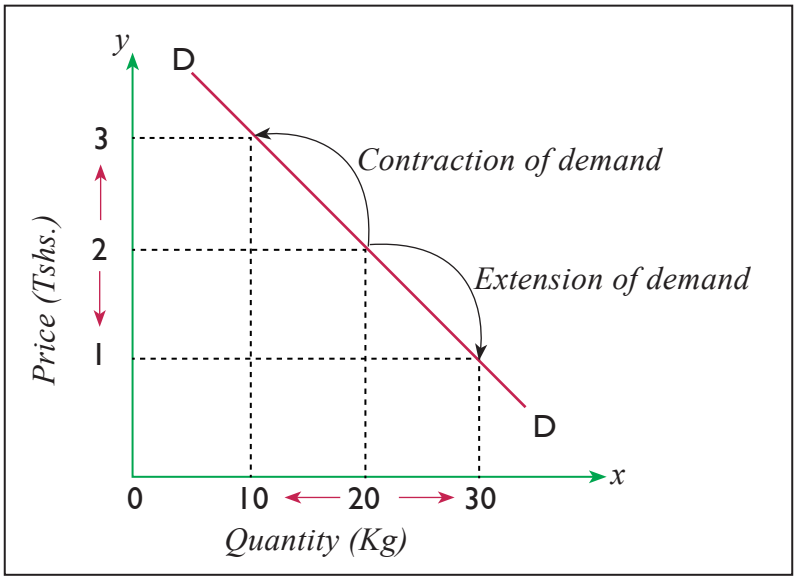
A change in the quantity demanded is the change in the number of units a person is willing to purchase that results from a change in the price of that good or service while all other factor remain constant. Examples of factors that remain constant are: economic conditions, tastes and preferences and weather conditions. This change occurs when demand moves at the same demand curve as shown in the next page.

Illustration 3.1

From the information given in the following demand schedule, draw a demand curve and show the change in the quantity demanded.

Price (Tshs)	1	2	3
Quantity demanded (kg)	30	20	10

Figure 3.4 Change in the quantity demanded curve



When the price of a commodity increases from Tshs 2 to Tshs 3, it causes the quantity demanded to decrease from 20 kg to 10 kg; and when the price of a commodity decreases from Tshs 2 to Tshs 1, it causes the quantity demanded to increase from 20 kg to 30 kg when all other factors affecting demand are assumed to remain constant.

3.5 Shift in demand curve or change in demand

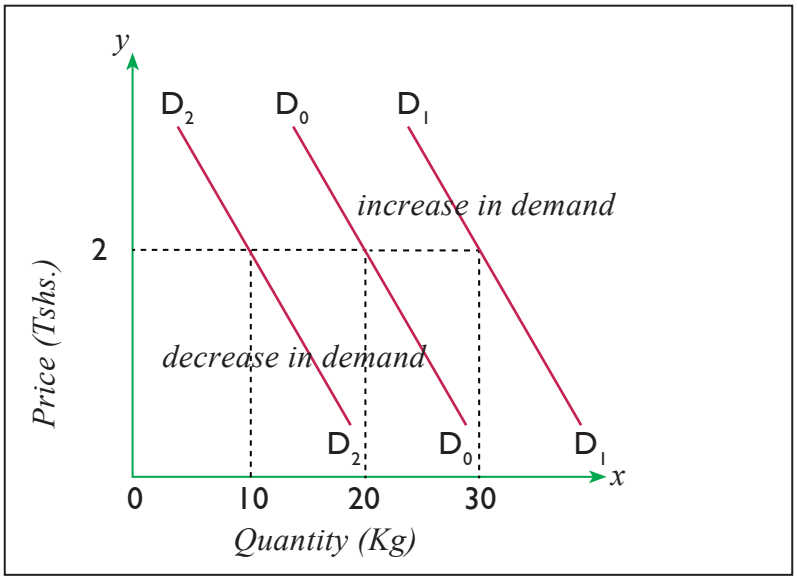
A shift in the demand curve refers to a change in demand. A shift in the demand curve occurs when the whole demand curve moves to the right or left. For example, an increase in income would mean people can afford to buy more commodities even at the same price. So, the entire curve moves to the right.

Illustration 3.2

From the following demand schedule, drawn a demand curve and show the change or shift of demand

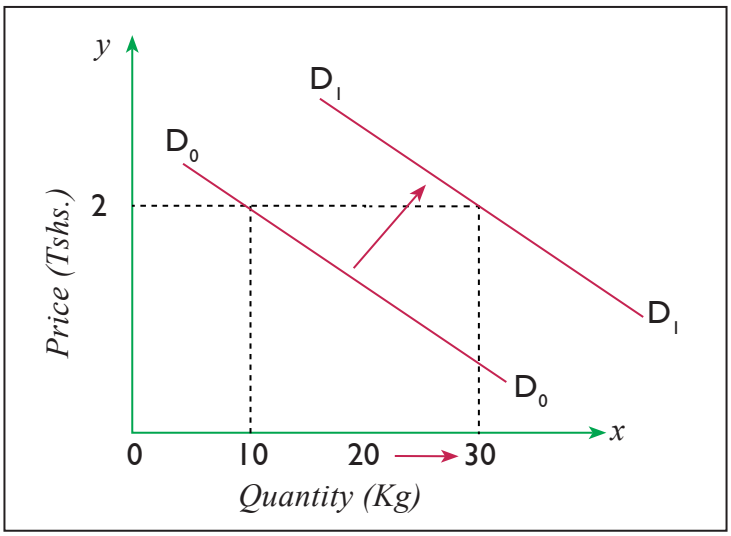
Price (Tshs)	2	2	2
Quantity demanded (kg)	10	20	30

Figure 3.5 Shift in demand/ change in demand curve



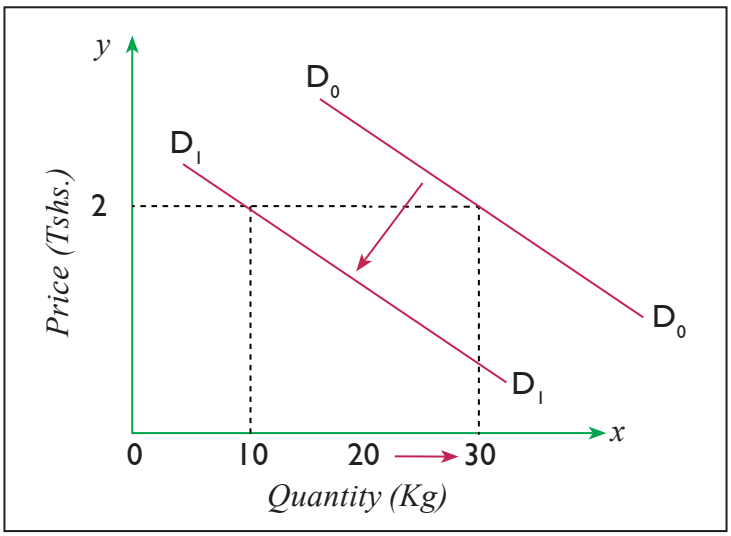
- An increase in demand is a situation where the quantity demanded increases, while price remains constant. For example, the above diagram shows that when price remains at Tshs 2, the quantity demanded increases from 20 kg to 30 kg and that causes the demand curve to shift from left to right (D_0 D_0 to D_1D_1).
- A decrease in demand is a situation where the quantity demanded decreases while price remains constant, i.e. the diagram above shows that when price remains at Tshs 2, the quantity demanded decreases from 20 kg to 10 kg and that causes the demand curve to shift form right to left downward (D_0D_0 to D_2D_2).

Figure 3.6 Increase in demand curve



Factors that could have caused increase in demand include: Increase in income, increase in the level of advertising of a product, price expectations, favourable weather condition and increase in the price of a substitute. The same are explained in detail below.

Figure 3.7 Decrease in demand curve



Factors that could have caused decrease in demand above include: reduction in income, declined in the level of advertising of a product, price expectations, unfavourable weather condition and decrease in the price of a substitute. The same are explained in detail below.

Factors for shift in the demand curve

Factors that lead to shift in the demand curve or changes in demand are as follows:

(a) Price of other commodities: Change in demand for goods is also due to prices of other goods, especially those which are related to it as substitutes or complements.

Substitute goods: These are defined as goods which have the same level of utility. The increase in the price of one commodity leads to an increase in the demand of another commodity; and decline in the price of one commodity leads to a decrease in the demand of another commodity.

For example, chicken and beef are substitute goods. When the price of chicken is reduced to Tshs. 3,500 per kilogram from Tshs. 5,000 per kilogram when the price of beef increased from Tshs. 7,000 per kilogram to Tshs. 8,000 kilogram, the demand for chicken will definitely increase while that of beef will go down, other factors remain constant.

Complementary goods: These are defined as goods which are used together, e.g sugar and tea.

(b) Change in climate and season: Changes in demand for certain products are due to change in climatic or weather conditions. For example, during the hot weather,

there is a greater demand for cold drinks, fans, coolers, etc. Similarly, demand for umbrellas and raincoats increases during the rainy season.

(c) Person's disposable income: Change in income also leads to change in demand for various goods. That is why consumers with higher current disposable incomes (income after tax and receipt of benefits) spend larger amounts on goods and services than those with lower incomes.

For instance, Mr. Kimweli's monthly net salary increased from Tshs. 1,500,000 to Tshs. 3,500,000. Before the increase, he was unable to afford 50 kg of beef and 20 kg of fish for his family as part of his favourable meal in a month. Due to increase in his monthly salary, now Mr. Kimweli will be able to afford 50 kg of beef and 20 kg of fish for his family for breakfast, lunch and dinner.

(d) Consumer taste and preferences: Change in the tastes of consumers in favour of a commodity, say due to fashion and preference raises its demand, with no change in its price or prices of other commodities. On the other hand, change in tastes against a commodity leads to a fall in its demand.

Habits of people, the general life-style of the society like fashions, new clothes, age and sex of the consumers. Change in these factors changes consumer tastes and preferences.

(e) Consumer expectations about future price, income and availability of a commodity: Change in price in near future leads to a change in demand for a certain product. Consumer expectations regarding the future course of economic events, particularly regarding changes in prices, income and supply position of goods, play an important role in determining the demand for goods and services in the short-run.

For example, if consumers expect a rise in the price of a commodity, they will buy more at the current price. To the contrary, if consumers expect a fall in the price of certain goods, they will postpone their purchases of such goods with the intention to buy at a cheaper price later.

(f) Population change: Change in population size in a certain area leads to change in demand of a certain commodity. If population size is falling, due to deaths or movement of people because of wars, or any other geographical reasons, demand for goods in that area is expected to fall. However, the higher the number of people in a certain area, the higher the demand for commodity.

(g) Advertisement: Changes in demand for certain products are due to change in advertisement. Frequent and strong advertisements create awareness for a certain commodity to the consumers, and that leads to an increase in demand of that commodity, on the other hand, when an entity's product is not advertised frequently, its demand may decrease.

Demand for a commodity will increase when advertisements are made to inform potential buyers regarding the available and usefulness of the product being advertised. Beverage and mobile phone companies allocate significant budgets to be spent on advertisements.

3.6 Differences between demand and quantity demanded

The terms 'Demand' and 'Quantity demanded' refer to different but closely related concepts. Below are summarised differences between the two terms.

Basis for comparison	Demand	Quantity demanded
Meaning	Is defined as the willingness of a buyer and his affordability to pay the price for a commodity.	It represents exact quantity (how much) of a good or service is demanded by consumers at a particular price.
Scope	It lists 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 for its movements	Factors other than price which are income, price of substitute, advertisement, population, expected future change in price and weather and climatic change.	Price.
Measurement of change	Shift in demand curve either to the left or right.	Movement along the same demand curve.
Consequences of change in actual price	No change in demand.	Change in quantity demanded.

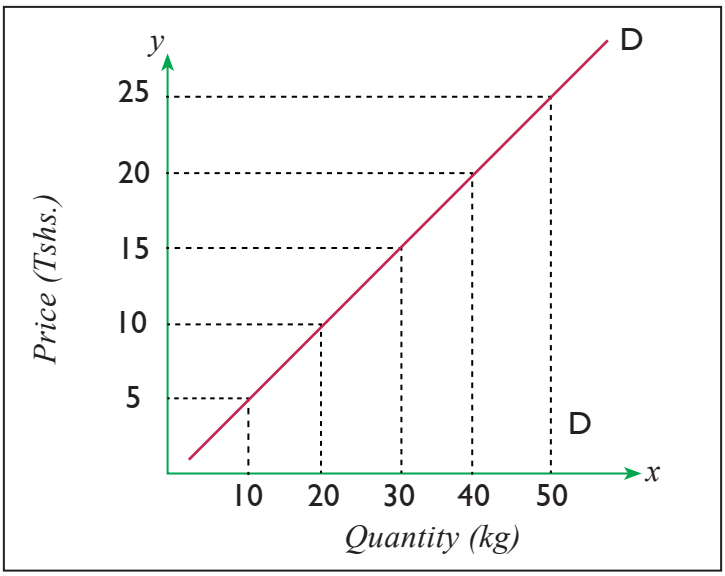
3.7 Exceptions of the demand

Demand that reacts differently from normal demand pattern is called *exceptional demand,* hence it has got an entirely different shape of demand curve. Sometimes, because of abnormal circumstances, the law of demand does not operate, where people may buy large quantities of a commodity even at an increased price.

Exceptional demand curve or graph:

This is a graph that shows a commodity bought at different price levels. Normally, at higher price more quantities of a commodity are bought than at a low price.

Figure 3.8 Exceptional demand curves



The following are features of exceptional demand curve or graph:

(a) It has a positive slope. This is due to the fact that at a higher price the response of consumers is high as more of the commodity will be demanded at a higher price than at a lower price.

(b) It slopes down from right to left.

Reasons for exceptions of the demand

The following are the causes of exceptional demand:

(i) Scarcity of certain products: When a certain product is scarce or is not available whenever demanded, consumers tend to buy more even at a higher price due to fear of more shortage. For example, unfavourable climatic conditions lead to scarcity of some products. When climatic condition is favourable and cause easy availability of a certain product, consumers will buy more even at a higher price.

(ii) Luxury goods: These are goods which are expensive in nature and not necessary to normal human life. Consumers buy them for prestige. Even if the price of these goods increases, consumers will still demand more of them.

(iii) Ignorance of consumers: Under normal circumstances, consumers may not be aware about the condition or situation existing in the market like price of some commodities. This leads consumers to buy a product of low price at a higher price. This normally occurs due to the fact that some consumers do not conduct a wide research of the market before engaging in buying transactions.

(iv) Speculations: This is an exception to the law of demand. Under this situation, whenever the price increases, it is presumed that the prices will further increase and under such speculations, people will go on purchasing more and more of goods. Thus, the rise in price of a commodity may not cause a reduction in its demand. This also happens when there is an expected acute shortage of a necessity commodity which results into a general panic buying.

(v) Giffen goods: These are inferior goods. In case of a rise in prices of these commodities, the quantity demanded also increases and vice- versa. There is a direct price-demand relationship. Low income earners spend major portions of their incomes on low-cost necessity commodities and less on expensive commodities.

3.8 Inter-related demand

This is defined as a demand for one commodity that is affected by a demand of another commodity. In other words, demand for one commodity is affected by a demand for another commodity either in a positive or negative way. For example, the demand for charcoal is related to the demand for firewood – substitute to each one. This means that when the price of charcoal increases its demand will fall as consumers will not be able to consume charcoal at a higher price. This will cause the demand for firewood to increase.

Relationships of inter-related demand are categorised into four groups, namely:

- Complementary demand,
- Derived demand,
- Competitive or substitute demand and
- Composite demand.

(a) Complementary demand: This refers to the demand of two commodities at the same time which are used together (jointly) to satisfy a certain want. Car and petrol complement each other. This means that an increase in the demand of car leads to an increase in the demand of petrol.

(b) Derived demand: This means that a demand for one commodity leads to the demand for another commodity. It means when a certain commodity is needed, it results into a demand for another commodity. Demand for an input is a result of a demand for an output. For example, a demand for sugarcane is derived from the demand for sugar. Thus, demand for sugar leads to an increase in the demand for sugarcane.

(c) Competitive or substitute demand: This refers to the demand of two commodities which have the same use (utility). In other words, it is a demand for two or more commodities which are substitutes to each other. For example rice and corn flour are substitute to each other. An increase in the demand for rice would lead to a decrease in demand for corn flour.

(d) Composite demand: This is the demand for commodities which are used for different purposes. Demand for timber is a composite demand as it is needed for many uses such as manufacturing of paper, timber, preparing charcoal and for building purposes. An increase in the demand for furniture will increase the demand for timber for production of furniture and reduces its availability for other uses.

3.9 Elasticity of demand

This measures the degree of responsiveness of change in the quantity demanded due to the change of price of a commodity or other factors like income, price of substitutes, weather and population.

Where quantity demanded is very responsive to change in price, i.e. a small change in price leading to a relatively large change in quantity demanded, then demand is said to be *elastic.* Where quantity demanded is relatively unresponsive to price changes, demand is said to be *inelastic.*

Elasticity of demand can be computed by either percentage or proportionate change methods as follows:

(a) Percentage method: According to the percentage method, price elasticity of demand is given as follows:

$$\text{Price elasticity} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$= \frac{-(\%\ \Delta QD)}{\%\Delta P}$$

(b) Proportionate change method:

$$\text{Price elasticity} = \frac{\text{Change in quantity demanded}}{\text{Change in price of commodity}}$$

$$= -\left(\frac{\Delta QD}{Q_O} \div \frac{\Delta P}{P_O}\right)$$

Note:

Price elasticity of demand is always negative. This is because of an inverse relationship between price and quantity demanded. In order to avoid negative answers, a negative sign is introduced to the formula.

Illustration 3.3

A change in price from Tshs. 600 to Tshs. 300 has caused a large proportionate change in the quantity demanded from 4 to 10 units.

Required: Compute price elasticity of demand:

Given: Old price (Po) = Tshs 600 Old quantity (Qo) = 4 kg

New price (Pn) = Tshs 300 New quantity (Qn) = 10 kg

Solution for illustration 3.3

By using the proportionate change method:

$$\text{Price elasticity} = \frac{\text{Change in quantity demanded}}{\text{Change in price}}$$

$$= -\frac{(\Delta QD \div \Delta P)}{Q_O \quad P_O}$$

$$= -\frac{(Qn - Q_O)}{Q_O} \div \frac{(Pn - P_O)}{P_O}$$

$$= -\frac{(10 - 4)}{4} \div \frac{(300 - 600)}{600} = 3$$

As the ratio is greater than one, price elasticity of demand is said to be elastic.

Types of price elasticity of demand

There are five types of price elasticity of demand, namely:

- Elastic demand: Where the ratio is greater than 1, demand is said to be elastic,
- Inelastic demand: Where the ratio is less than 1, demand is said to be inelastic,
- Unitary demand: Where the ratio is equal to 1, demand is said to be unitary,
- Perfectly elastic demand: Where the ratio is unknown, undefined or infinity, demand is said to be perfectly elastic and
- Perfectly inelastic demand: Where the ratio is equal to zero, demand is said to be perfectly inelastic.

(a) Elastic demand: This means that a smaller change in price brings about a large proportionate change in quantity demanded. It means that demand is very sensitive to price changes.

(b) Inelastic demand: This refers to a situation in which large proportionate change in price bring a small unit change in quantity demanded.

(c) Unitary elastic demand: This means that a proportionate change in price brings about equal proportionate change in quantity demanded.

(d) Perfectly elastic demand: This means that demand changes while price remain constant. The amount demanded at the ruling price is infinite.

(e) Perfectly inelastic demand: This means that the quantity demanded does not change as price changes. It means demand is totally unaware of the change in price.

3.10 Importance of elasticity of demand

The elasticity of demand concept provides the basis for many business and economic decisions as summarised below:

(a) Business decisions: Change in price of goods brings about a change in the quantity demanded depending upon the value of elasticity of demand. Change in quantity demanded affects the total expenditure of the consumers and will therefore affect the profits of a business.

(b) Economic policies of government: Knowledge of the elasticity of demand helps the government and economic planners in formulating economic policies. The government can stabilise the prices of agricultural goods by following a policy of price support programme in the event of increased production.

(c) Determination of public utilities: The concept of elasticity of demand enables the government to decide which industry should be declared as public utility and consequently owned and controlled by the state. Products like electricity, gas, water, transportation, etc. have inelastic demand.

(d) Taxation policy: The government is interested in raising its revenue hence can impose higher indirect taxes (excise duty, sales tax, etc.) on commodities with inelastic demand. The demand for such commodities does not much fall, even when prices rise after the imposition of such taxes.

(e) Determination of factors of production pricing: Elasticity of demand helps in the determination of wages and share of each factor of production in proportion to its demand in the product. A factor with an inelastic demand commands a higher price compared to a factor with relatively elastic demand.

(f) International trade: The terms of trade can be determined by measuring elasticity of demand in two countries for each other's goods. In international trade, a country earns more profits by importing commodities which have elastic demand and exporting ones which have relatively less elasticity.

Recap of key issues covered in the chapter:

1. Demand is defined as the ability and willingness to pay for quantity demanded of a commodity at a given price at a particular period of time.
2. The law of demand states that: "the lower the price of a commodity, the higher the quantity of that commodity is demanded and the higher the price of the commodity, the lower the quantity of that commodity is demanded assuming other factors remain constant (ceteris paribus)"
3. The concept of demand can be represented in three forms, namely: demand curve, demand schedule and demand function.
4. Demand curve is a graphical representation of the relationship between the price of commodity and the quantity demanded for a given period of time.
5. Demand schedule is a table showing quantities of commodity demanded at different price levels at a particular time.
6. Demand function is a mathematical relationship between demand and the factors that determine demand.
7. A shift in the demand curve refers to a change in demand which is an increase or decrease in quantity demanded due to a change in other factors that determine demand other than price.
8. Factor for shift in demand includes: price of other commodities, person's disposable income, consumer taste and preferences, consumer expectation, population changes, and advertisement.
9. Elasticity of demand measures the degree of responsiveness of demand after a change in a product's own price or other factors like income, price of substitutes, weather and population.
10. Price elasticity of demand refers to the degree of responsiveness (increase or decrease) in demand due to change in price of the commodity only where other factors remain constant.

11. There are five types of price elasticity of demand, namely: elastic demand, inelastic demand, unitary demand, perfectly elastic demand and perfectly inelastic demand.
12. The concept of elasticity of demand is applied on various economic decisions which include business decisions, economic policies of government, determination of public utilities, taxation policy, determination of factor pricing and international trade.
13. Exception demand occurs when more quantity of goods are demanded at higher price and vice versa.
14. Inter-related demand: means demand for a good is also affected by the price of its substitute or complementary goods.

Exercise 3

Section A: Choose the most correct answer.

1. Demand curve normally slopes from _____ .
   A. left to right upwards
   B. right to left downwards
   C. right to left upwards
   D. left to right downwards

2. If the price elasticity of demand is greater than 1, then the price elasticity of demand is said to be _____ .
   A. elastic
   B. perfectly elastic
   C. inelastic
   D. unitary

3. Blue Band and Tan Bond are good example of interrelated demand known as _____ .
   A. composite demand
   B. competitive demand
   C. joint demand
   D. consumer demand

4. The movement along a demand curve is caused by _____ .
   A. change in price of a commodity
   B. change in consumers' income
   C. change in quantity demanded
   D. change in consumers' taste

5. Any price above equilibrium point for a given commodity leads to _____ .
   A. excess supply
   B. decrease in supply
   C. movement of demand curve
   D. excess demand

6. If a greater change in price brings about a small change in the quantity demanded, then the price elasticity of demand is said to be _____ .
   A. constant
   B. elastic
   C. inelastic
   D. unitary

7. When a commodity is used for two or more purposes, the demand for such a commodity is known as _____ .
   A. competitive demand
   B. composite demand
   C. derived demand
   D. joint demand

8. If a smaller change in price brings about a greater change in quantity demanded, then the price elasticity of demand is said to be _____ .
   A. constant
   B. elastic
   C. inelastic
   D. unitary

9. Find the price elasticity of demand using proportionate change method for maize when demand falls from 800 kg to 600 kg due to an increase in price from Tshs 40 per kg to Tshs 60 per kg.
   A. $\frac{3}{4}$ C. $\frac{20}{21}$
   B. $\frac{1}{2}$ D. $-\frac{20}{21}$

10. Which of the following statements is not correct?
   A. The higher the price of a commodity, the lower the quantity demanded.
   B. The lower the price of a commodity, the higher the quantity demanded.
   C. The lower the price of a commodity, the lower the quantity demanded.
   D. The greater the quantity of a commodity demanded, the lower its price.

11. Bread and butter, tea and sugar illustrate the type of interrelated demand known as _____ .
   A. joint demand
   B. composite demand
   C. competitive demand
   D. consumer demand

12. Which of the following does not influence consumer's decision to buy a commodity?
   A. Taste and preferences
   B. Income of a buyer
   C. Price of commodity
   D. Income of a seller

13. Market demand schedule refers to the _____ .
   A. sum of demands for only two people
   B. sum of demands for all people at a particular market
   C. individual demand
   D. sum of all demands less all supplies

14. If the price of a commodity decreases, it results into _____ .
   A. a fall in the demand of the commodity
   B. a fall in the supply of the commodity
   C. an increase in the demand of the commodity
   D. a rise in the price of a substitute commodity

15. Tea and coffee are two products which reflect _____ .
   A. composite demand
   B. joint demand
   C. competitive demand
   D. derived demand

16. Composite demand occurs where _____ .
   A. a commodity, especially raw materials, serves more than one purpose
   B. the demand for two commodities is linked together
   C. two commodities are substitute to one another
   D. there is a competitive demand

17. A demand for a given commodity is said to be inelastic where _____ .
    A. a change in demand is equivalent to a change in supply
    B. a slight change in price gives a large change in quantity demanded
    C. a change in price does not lead to a significant change in demand
    D. a change in price leads to a change in demand

18. What type of a demand is formed by a gas cooker and electric cooker?
    A. Derived demand
    B. Competitive demand
    C. Composite demand
    D. Joint demand

19. The following is one of the factors which influence demand:
    A. Weather condition
    B. Price of commodity
    C. Supplier's income
    D. Joint goods

20. There is a derived demand for one commodity or services when it is needed _____.
    A. for consumption
    B. for production process
    C. as a factor of production
    D. as a result of the demand for another commodity

Section B: Match words from List A with those in List B

List A	List B
21. Elasticity of demand	A. an increase or decrease in the quantity demanded by the consumers due to a change in the price of a commodity.
22. Demand curve	B. a good for which demand increases as price increases, and falls when price decreases.
23. Change in quantity demand	C. the degree of change or responsiveness of quantity demand of a commodity due to change of various factors affecting demand.
24. Joint demand	D. these are goods which are demanded together.
25. Giffen goods	E. two or more commodities which are jointly needed to satisfy a particular want.
26. Substitute goods	F. is the graphical representation of a demand schedule.

List A	List B
27. Derived demand	G. the ability and willingness to pay for quantity demanded of a commodity at a given price and period of time.
28. Complementary goods	H. is the demand for commodities which are used for different purposes.
29. Composite demand	I. These are goods with the same level of satisfaction. The demand for one commodity leads to a fall in the demand for another commodity.
30. Demand	J. Is the demand resulting from the demand for another commodity.

Section C: Write TRUE if a statement is correct or FALSE if a statement is not correct

31. The ability and willingness to pay for quantity demanded of commodity at a given price and period of time is known as demand.
32. Complementary goods are goods with the same level of satisfaction.
33. Substitute goods are goods which are demanded together.
34. The law of demand states that, "the lower the price of a commodity, the higher the quantity of that commodity is demanded; and the higher the price of a commodity, the lower the quantity of that commodity is demanded assuming all other factors remain constant".
35. Level of consumer's income is among the factors affecting elasticity of demand.
36. The degree of change or responsiveness of quantity demand of a commodity due to factors affecting demand is known as elasticity of demand.
37. Joint demand is the demand whereby two or more commodities are substitutes and have the same use and satisfaction.
38. Advertisement is one of the factors influencing change in demand.
39. Demand schedule is a graphical representation of demand curve.
40. Ceteris paribus is a Latin word which means 'other factors remaining constant'.

Section D: Answer the following questions

41. Study the demand schedule below and answer the questions that follow:

Price of commodity (Tshs per unit)	Quantity demanded (kg)
20	100
30	40
40	20
50	10

(a) Compute elasticity of demand when price rises from Tshs. 20 per unit to Tshs. 30 per unit.

(b) State if it is elastic, inelastic or unitary and give reasons for your answer.

42. Discuss the effects of the demand for a bicycle due to:
(i) An increase in income.
(ii) A rise in the price of petrol.
(iii) An improvement in the technology of bicycle production.

43. (a) Define the term 'interrelated demand'.
(b) Discuss types of interrelated demand.

44. (a) Describe six (6) factors that cause changes in demand for a commodity.
(b) When the price of certain goods rose by $2\frac{1}{2}$ % and quantity demanded fell by $\frac{3}{4}$%.
(i) Calculate its price elasticity of demand.
(ii) State if it is elastic or inelastic demand.