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MICROECONOMIC ANALYSIS AND POLICY

Study guide for students of the 2nd stage of higher education,
specialty 1-25 80 01 "Economics"

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The study guide reflects the issues of the formation of microeconomic policy and microeconomic analysis. The main issues of models and the state of markets, firm costs, pricing methods and many others are considered. The guide is addressed to students of the 2nd stage of higher education, specialty 1-25 80 01 "Economics".

1. Introduction to Microeconomics. Supply and demand model

1.1 The subject and object of microeconomics. Methods and principles of microeconomic analysis.

Microeconomics is a part of economic theory that studies the decision-making mechanism of individual economic entities that use limited resources to satisfactionof their needs.

The object of microeconomics is the economic activity of people and the general economic problems that arise in its process, which are resolved in accord with existing institutions.

The subject of microeconomics is economic relations related to the effective use of limited resources; decision-making by individual agents of the economy in the context of economic choice.

Microeconomics is based on the following assumptions:

1. **economic atomism** – microeconomics focuses on the behavior of economic agents who make and implement their decisions in the course of economicactivity;
2. **economic rationalism** – economic agents evaluate their benefits and costs, the comparison of which in the process of making economic decisions makes it possible to determine the most effective actions of a particular economic agent that ensure the extraction of maximum income.

In microeconomics, the study of the rarity of resources is of particular importance.

The rarity of resources is the inconsistency of the amount of resources with the amount that is necessary to meet the needs of the individual, production, and society.

Production resources that are used to produce one product cannot be used to produce another product. So there is **a problem of choice in the economy**. That is, economic agents need to make a choice based on the following questions:

1. What products and in what quantity to produce?

From an economic point of view, everything has an alternative cost.

Alternative cost – is the value of the best of the rejected options.

For example, when choosing between the opportunity to enter a university and get ajob, a young person prefers to study, then the alternative cost of his choice will be calculated as the cost of studying plus the salary that he refused when choosing to study,because he did not manage to combine work and study. The salary in this case is lostopportunities.

When choosing an alternative option, two principles are usually followed:

1. The principle of maximum – to get the biggest benefit using the availablelimited resources.
2. The principle of the minimum is to achieve a certain set result with minimalcosts.

2. How to produce?

Goods and services can be produced in various ways, one of which is more effective.

Efficiency in production is a situation in which it is impossible to produce a larger quantity of one product without sacrificing the ability to produce a certain quantity of another product.

3. For whom to produce goods and services?

The solution to this question is related to the problem of efficiency. Efficiency in distribution is a situation in which it is impossible to satisfy the desireof one person more fully by redistributing the existing amount of goods, without damaging the satisfaction of the desires of another person.

Depending on the approach to explaining the behavior of individual economic entities, microeconomic theory is divided into **positive and normative.**

Positive microeconomics looks at the facts and the relationships between these factors and answers the questions: «what is» or «what can be?».

Normative microeconomics offers a list of actions, determines which economic conditions are desirable or undesirable, and answers the question: «what should be?».

The main methods of studying of positive microeconomic theory:

- **Marginal analysis** (marginalism) – the essence of which is that economicphenomena are analyzed not only in a complete form, but also in a constantly changing form.
- **Functional analysis**, which assumes the following sequence of research: first, thetypical quality of the phenomenon is identified, then the factors that affect this quality are established. And finally, the method of interaction of factors with the previously established quality is determined.

It is considered that a value is a variable if it changes its value under the influence of certain factors.

- **The equilibrium approach** means that microeconomics studies a state of relativestability, that is, when there are no internal trends to change such a state. If, with a slight change in external conditions, the economic situation changes significantly, such an equilibrium is called unstable. If, in the case of external changes in the system itself, there are forces that restore the previous

position in the system, such an equilibrium is called stable.

- **The method of verifiability of the theory**, according to which the theory should receive partial or indirect confirmation in practice. In the case where the theory doesnot agree with the facts, the theory is either improved or rejected and a new one is created.

Proponents of the **normative approach** widely use modeling of economic phenomena and processes, that is, the study of objects of knowledge is carried out not directly, but indirectly, by creating models.

In microeconomics, two types of models are used - **optimization and equilibrium models.**

Optimization models are used to study the behavior of individual economic agents.In these models, the main working categories are marginal usefulness, marginal product, marginal cost, marginal revenue, etc.

Equilibrium models are used to study the relationships between economic agents. By means of equilibrium models, both the equilibrium and non-equilibrium positions of the economic system are studied.

Microeconomic theory is the basis for the development of microeconomic policy. This policy is determined by the Government, which sets specific goals for marketsor industries and applies certain market and industry regulatory instruments to achieve these goals.

1.2 Supply and demand: factors and characteristics. Changes in supply and demand.

Demand is a solvent need.

The main factors influencing the buyer's choice:

1. **The price factor** – that is, the price of a given product, work, or service

2. The non-price factors:

- **prices of substitute goods**, that is, replacing this product in consumption (For example, substitute goods are coffee and tea (you can replace coffee with tea, as longas they perform the same functions, satisfy the same needs and have similarconsumer qualities));

The higher the price of one substitute product, the greater the demand for another substitute product.

- **price of complementary goods**, that is, complementary to each other in consumption (for example: a car and fuel for this car).

The higher price of one of the complementary goods, the lower the demand for the other of these complementary goods.

- **consumer's income;**

The higher income of the consumer, the greater the level of demand they presents, because they have more money.

- **the number of buyers of this good;**

The more people who want to buy a product, the higher the level of market demandfor that product.

- **tastes and preferences of the consumer;**

This also affects the amount of demand. What is now fashionable will be in greaterdemand than what is now unfashionable.

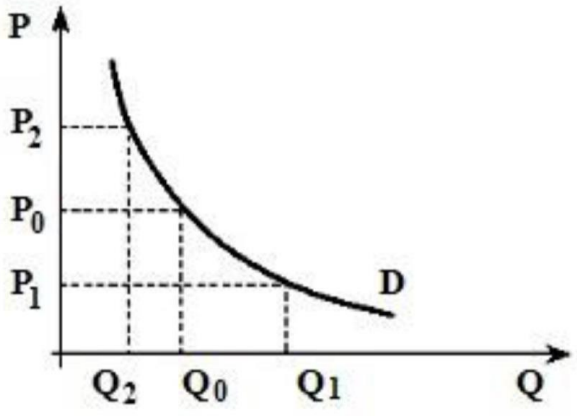
- **consumer expectations;**

The consumer can expect that in the future, for some reason, the price of the product will increase, so in order not to pay more for it later, he decides to buy this product now. This leads to the fact that the demand for the product increases.

The dependence of the value of demand on the price of the product is reflected in the law of demand.

The law of demand states that, all other things being equal, the lower the market price of a good, the greater the amount of demand, and the higher the market price of a good, the less the amount of demand.

This is reflected in a graph called the "Demand Curve".



Picture 1 – Demand curve

P – is the price,

Q – is the quantity of goods and services,

D – is the demand curve.

Exceptions from the law of demand:

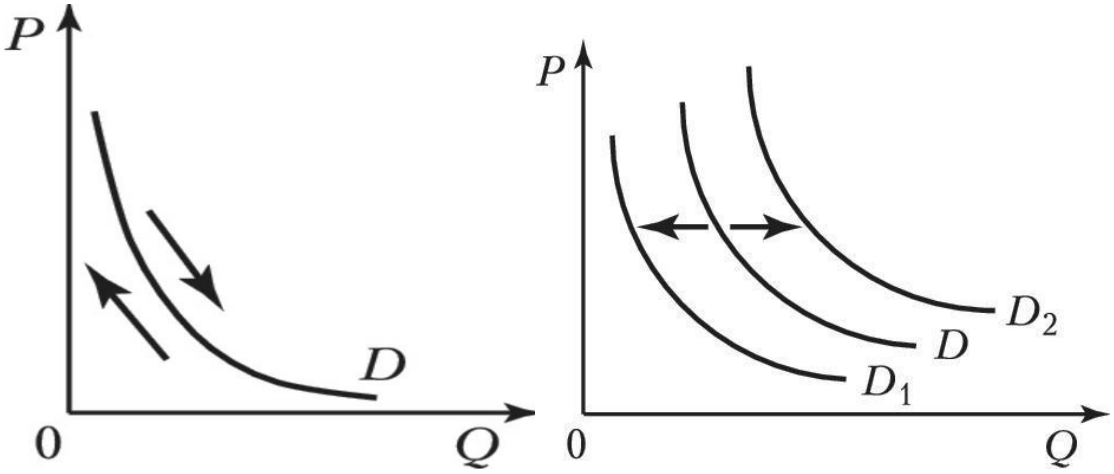
1. The first exception concerns essential goods (this is called the «Giffen paradox»). In relation to this group of products, when the price increases, the amount of demand for them does not change.

2. The second exception affects high-quality goods and luxury goods (this is calledthe «Veblen effect»). When the price falls, the demand does not increase, but reduces,because these products highlight the high social status of aseparate category of people. So if the price of luxury goods falls, then the demand for them will also fall.

3. The third exception concerns inflation expectations. In such conditions, before thenext price increase, there is a noticeable increase in the volume of demand. When people expect the price of an item to rise in the future, they are currently buying it in large quantities because it will be much more expensive in the future.

The demand curve does not stand still, it can move.

So, when the price of a product changes, there is a movement along the demand curve. If one of the non-price factors affecting demand changes, this is indicated by the movement of the demand curve itself.



Picture 2 – Movement of the demand curve

Supply is a concept that reflects the behavior of a product manufacturer on the market, its readiness to produce a certain amount of goods and services for a certainperiod of time and in certain conditions.

The supply has a qualitative and quantitative side.

The qualitative side of the supply is that the desire or even the ability to produce thisproduct and deliver it to the market is not enough. The offer arises only when this economic entity is ready to make a transaction for the sale of this product deliveredto the market.

The quantitative side of the supply is determined by the maximum

quantity of goodsprepared for sale for a certain period of time and in given conditions.

Let's determine the factors that influence the choice of the seller:

1) **price factor** - the price of this product;

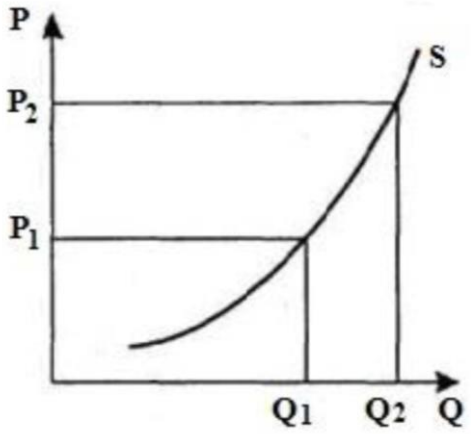
2) **non-price factors:**

- **prices of goods-substitutes;**
- **prices of complementary goods;**
- **production costs** (if a manufacturer spends a lot of money to produce a product, he will not have the resources left to work on increasing the supply. In this case, the supply will be reduced);
- **taxes** (the more money a product manufacturer spends on taxes, the less resourcesit has to expand its production and increase its supply);
- **the number of manufacturers of this product on the market** (the greater the number of manufacturers of this product on the market, the greater the total supply);
- **expectations of manufacturers** (if manufacturers expect that in the future the priceof their product may fall, then they will make it so that they sell it now in greater quantities, before the price falls. accordingly, in this case, the supply will grow).

The connection between the price of a product and the quantity of its supply is reflected in the law of supply.

The law of Supply states the following: all other things being equal, the higherthe market price of a product, the greater the supply quantity, and the lower the market price of a product, the smaller the supply quantity.

This is reflected in a graph called the "Supply Curve".



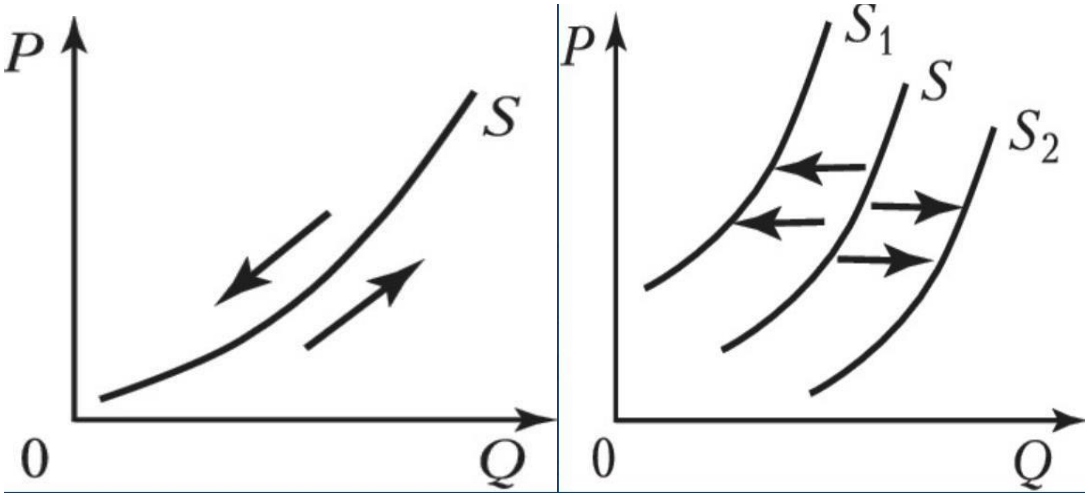
Picture 3 – Supply Curve

On this graph:

P – is the price,

Q – is the quantity of goods and services,S is the supply curve.

When the price of a product changes, there is a movement along the supply curve. If one of the non-price factors affecting the supply changes, thisis indicated by the movement of the supply curve itself.

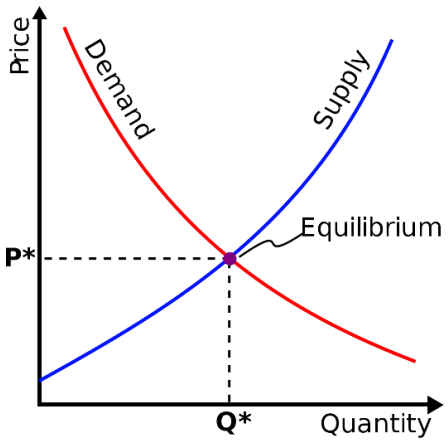


Picture 4 – Movement of the supply curve

1.3 Interaction of supply and demand. Market equilibrium. Static and dynamic models of market equilibrium.

In the product market, the interests of buyers clash with the interests of sellers. In this case, the buyer needs the seller, and the seller needs the presence of the buyer. In order to realize their economic interests, they are forced to seek consent, their consent is the market balance.

Market equilibrium is a situation when the plans of buyers to buy a certain amount of economic goods at a certain price completely coincide with the plans of manufacturers (sellers) to bring economic goods to the market at the same price.



Picture 5 – Market equilibrium

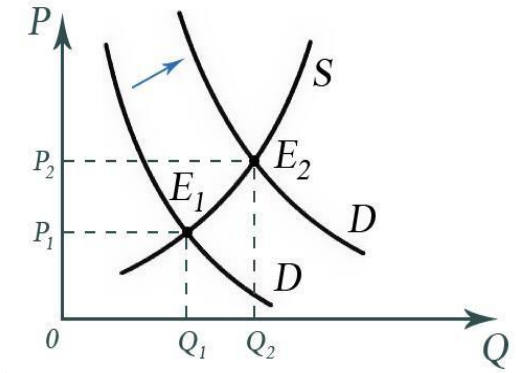
At the intersection of the demand curve and the supply curve, there is an equilibriumpoint. This is the point at which the level of demand is equal to the level of supply.

When there is an equilibrium in the market, there is an equilibrium price (P*) and anequilibrium quantity (Q*). **The equilibrium price** is the price for which the seller is ready to sell the product,and the buyer is ready to buy it. **The equilibrium quantity** is the quantity of products that the seller is ready to sell,and the buyer is ready to buy from the seller.

The market equilibrium chart also tends to shift.

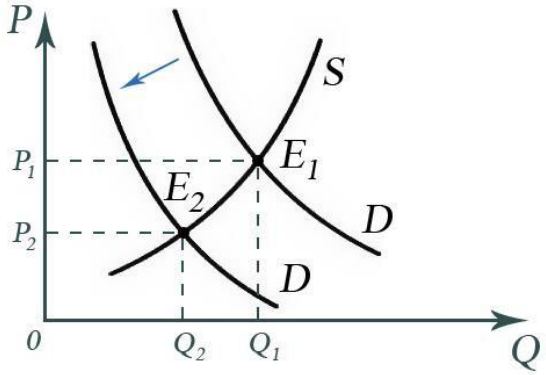
There are four possible effects of shifts in the supply and demand curves.

1. An increase in demand causes the demand curve to shift to the right, resulting in an increase in both the equilibrium price and the equilibrium quantity of the good



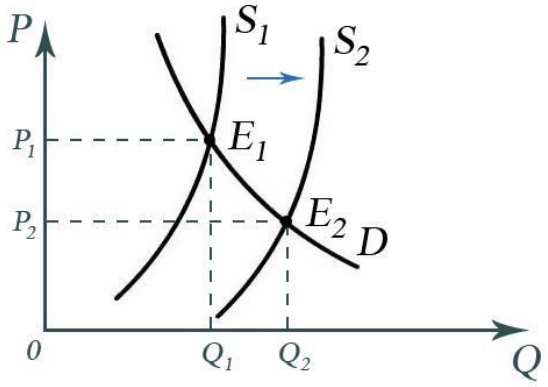
Picture 6 – Movement of the demand curve to the right

2. A decrease in demand for the good shifts the demand curve to the left, resultingin a decrease in the equilibrium price and the equilibrium volume.



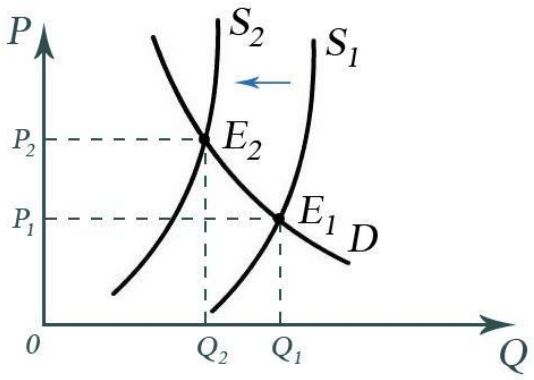
Picture 7 – Movement of the demand curve to the left

3. An increase in supply shifts the supply curve to the right, resulting in a decreasein the equilibrium price and an increase in the equilibrium quantity of the good.



Picture 8 – Movement of the supply curve to the right

4. A decrease in the supply of goods shifts the supply curve to the left, resulting in an increase in the equilibrium price and a decrease in the equilibrium quantity of goods.



Picture 9 – Movement of the supply curve to the left

1.4 Elasticity of demand.

Elasticity describes the degree of response of one variable (in this case, supply or demand) to a change in another variable-price or another factor. It shows the extentto which a change in price or other factor affects the amount of supply or demand.

The degree of reaction of the quantity of demand for a product to a change in its price characterizes the elasticity of demand for the price. The indicator of such a reaction is the coefficient of elasticity of demand for prices

It is defined as the proportion of the change in the volume of demand (in%) to the change in price (in%).

$$E_P^D = \frac{\Delta Q,\%}{\Delta P,\%}$$

ΔQ – is a variation in the volume of production,

ΔP – is a variation in the price of the product.

The price elasticity of demand coefficient shows how many percent changes in the demand for a product as a result of a change in its price by 1%.

Different products differ from each other in the degree of demand response to pricechanges. Depending on this, there are goods of elastic demand, goods of inelastic demand, and goods of single elasticity of demand. If, with a change in price, the volume of demand and, consequently, sales changes by a larger percentage than theprice has changed, then the demand for this product will be **elastic.**

If the change in price causes a slight change in demand, by a smaller percentage thanthe price has changed, then the demand for this product is **inelastic.**

The unit elasticity of demand occurs when a change in price causes a correspondingchange in the amount of demand. In this case, the price elasticity of demand coefficient is equal to one.

As an exception, there are two more options for price elasticity of demand. Thus, if,with a constant price or with its insignificant fluctuations, the amount of demand increases to the limit of the customer's abilities, then there is **an absolutely elastic demand.**

This situation is usually possible in an inflationary environment. If any change in price does not affect the amount of demand, then there is an **absolutely inelastic demand.**

The price elasticity of demand is influenced by factors:

1. **The importance of the product for the consumer.** As a rule, the demand for basic necessities is inelastic, since people cannot do without them. Therefore, an increase in their prices does not lead to a significant reduction in their consumption.

2. **The share of the cost of purchasing this product in the total cost of the consumer.** Usually, the greater the share of the cost of buying a given product in thetotal cost of the consumer, the higher the elasticity of demand.

3. **Availability of substitute goods**. The more good substitutes has a product, the higher the elasticity of demand.

4. **The time factor**, that is, the period of time during which the consumer has the opportunity to respond to a change in price. And the longer this period is, the more elastic the demand is.

The amount of demand also changes when income changes. The relationshipbetween changes in income and changes in the volume of demand reflects the income elasticity of demand, which shows how demand will change when income changes. To characterize this dependence, the coefficient of elasticity of demand forincome is used, which is determined by dividing the value of the relative change inthe volume of demand for a product by the value of the relative change in consumerincome:

$$E_P^D = \frac{\Delta Q, \%}{\Delta I, \%}$$

ΔQ –is a variation in the volume of production,

ΔI – is a change in the amount of income.

This coefficient shows by what percentage the value of demand will change with a one-percent change in consumer income.

1.5 Elasticity of supply

The response of the supply volume to the price change reflects the elasticity of the supply at the price. It shows the extent to which a change in price

affects the amountof supply. The indicator of this change is the coefficient of elasticity of supply. It iscalculated as the ratio of the change in supply (in%) to the change in price (in %).

$$E_P^S = \frac{\Delta Q, \%}{\Delta P, \%}$$

ΔQ – is the change in supply,

ΔI – is the change in price.

Depending on the degree of response of the supply to the price change, the supplycan be:

1) **elastic** if the supply quantity changes by a greater percentage than the percentageof the price change;

2) **inelastic** if the supply volume changes by a smaller percentage than the percentageof the price change;

3) **absolutely elastic**, if at a certain price the manufacturers are ready to offer anyrequired quantity of the product.

4) **absolutely inelastic**, if the change in price does not cause a change in supply.

As supply is linked to the production process, so it is slower to adapt to price changes than demand. Therefore, the most important factor affecting the elasticity of supplyis the time factor, it is the period of time available to the manufacturer to respond toa change in price. And the longer this period, the more elastic the supply will be.

In addition to the time factor, the elasticity of the price supply is influenced by the following factors:

1. The degree of capacity usage. The higher the degree of capacity usage, the less possibility for increased manufacture and supply, and the lower the elasticity of supply.

2. The possibility of keeping the products and the cost of keeping them. If there are opportunities to keep products until the best situation on the market, then the supplywill be more elastic.

3. Technological specifics of production. In those sectors where the manufacture cycle is characterized by a significant duration, it is quite difficult to manipulate the quantity of production. Therefore, in such industries, the supply is inelastic.

2. General concepts of the economics of industry markets

2.1 The concept and essence of the economics of industry markets

Economics of industry markets are an area of research that involves the analysis of the economy and the organization of various sectors of the modern economy and emerging market structures.

The main objective of the economy of industry markets is to study the functioning of markets and enterprises, as well as to study the economic policy of the state related to the management of markets and market structures.

The area of economic research of industry markets are: the organization of individual markets and industries, the activities of firms in the industry, the impact of their decisions on the industry organization, the patterns of the formation of different market structures, the principles of the behavior of firms in different markets, the results of their behavior for the entire economy, options of industry policy of the state.

The main object of the analysis is the study of how production activities are harmonized with the demand for goods and services through an organizing mechanism (such as the free market) and how changes and imperfections in the organizing mechanism affect the progress made in meeting economic needs.

The scope of the study of the modern theory of the organization of industry markets covers three groups of issues:

- the company's theory: its scope, organization and behavior;

- Imperfect competition: exploring the conditions for acquiring market power, its form of manifestation, the factors of its preservation and loss, price and non-price rivalry;

- Society's business policy: what should be the optimal business policy (both traditional antitrust policy, market regulation, deregulation, liberalization of entry conditions into the industry, privatization, stimulation of technological and product innovations, competitiveness).

2.2 Industry market

Any economic system and commodity organization of the economy is no exception, includes at least **three groups of economic agents**: state, business and households.

Households may be represented by individuals or groups of individuals Household is a joint decision-making company, such as families. consumption). Household income is taxed - this is how the interaction between households and government agencies is carried out. Household savings are placed in financial institutions, so households become participants in the financial market.

Civil institutions in **business,** as well as households, become subjects of different markets.The business is divided into two groups. At the same time, the first one delivers finished products to the market of goods and services. The second group serves these manufacturing firms. These include the institutions of market infrastructure (banks, exchanges, warehouses, communications, transport, insurance companies). They buy everything they need for business in the resource market and labor market, thus acting as one of their fundamental links. Cash, temporarily not involved in business, firms place on the financial market, and the missing money receives in the same market in the form of loans. Revenues received by business entities are also taxed, and the rules of conduct of firms are set by the state.

Firms can act as individuals and complex hierarchical organizations, whose main function is to convert resources into benefits, and perform the same dual function as households, with the only difference being that in the market of inputs they act as buyers, and in the market of benefits - in the role of sellers.

The state is the main economic entity in any economic system. Thus, the state, like households and firms, plays a dual role in the market: consumer and supplier (this is how the public sector in the economy is born) or government

intervention in firms operating in the insolvent market.

In today's world, each institution - civil, state and market - has its own role in meeting the needs of a well-functioning society. The diversity of contacts between all the actors of the market organization is the basis for the development of various markets: financial, resource, commodity, labor market.

Approaches to the organization of industry markets

The scientific foundation of the economy of industry markets is primarily associated with the works of Adam Smith in the 18th century and Alfred Marshall in the 19th century, devoted to the classical approach to the theory of the firm and the market of perfect competition. Further in the 19th century, Antoine Augustin Kurno and Joseph Bertrand explored market equilibriums, including oligopoly strategies to determine efficient output. At the same time, the works of Antoine Augustin Kurno are aimed at making decisions in the field of production, and the works of Joseph Bertrand are focused on the price.

At the beginning of the 20th century, **the main approaches to the analysis of the organization of industry markets** were formed: Harvard School and Chicago School (analysis from the point of view of price theory). The first approach can be called a systematic approach. The second approach is based on the use of microeconomics models and pricing theory.

The Harvard paradigm was developed by Harvard professors Edward Mason and Joe Bain in the 1930s and 1950s. There are three main elements at the center of this approach.

Market structure	→	The company's behavior	→	Market performance

Picture 10 – Basic paradigm of industry markets economics

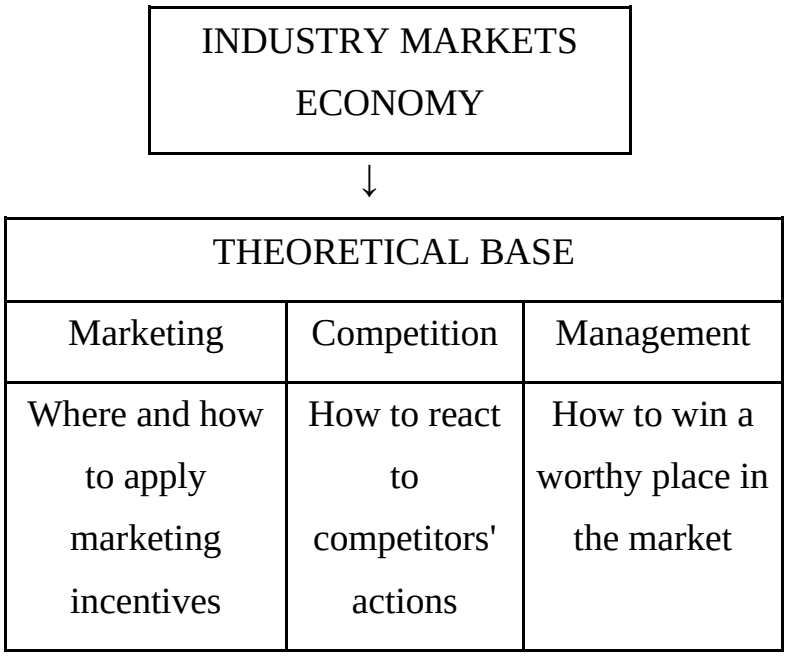
Later, a more complex version of the proposed paradigm, a reverse-related option, was used. There is another important element: Government. Government policy is aimed at improving the efficiency of the functioning of industry markets. Regulatory measures can have a permanent or periodic impact on the market structure, for example, when mergers are banned or encouraged. Government agencies can directly influence the market performance by regulating the prices of monopolistic producers. But at the same time, government intervention is welcomed only in the case of insolvent industry markets. If the markets operate effectively on their own, government intervention is not permissible.

The performance of industry markets depends significantly on the behavior of sellers and buyers. The behavior of producers depends on how the product strategy is implemented, how prices are set, how consumers are organized and whether they are able to influence these processes. In this regard, manufacturers decide to increase or reduce investments, choose an advertising strategy, innovate in the expectation of achieving a private result.

The Harvard paradigm has been criticized by **the Chicago School,** whose representatives characterize the industry market from a point of view of microeconomics. George Stigler, one of the early proponents of the microeconomic approach, even suggested that the economics of industry markets do not exist as a separate area of knowledge in economic theory, but simply coincides with the theory of contract price (conventional price theory) in microeconomics. The development of this approach is linked to advances in pricing theory on the one hand and the availability of statistical information at a more detailed microeconomic level on the other.

The study of the economics of industry markets is based mainly on the theoretical basis of microeconomics, through which methods determine the competitiveness of the company in the market. In addition, this discipline uses management marketing techniques to determine the company's place in the

market and the ability to attract new buyers, i.e. large opportunities to market the manufactured goods.



Picture 11 – The theoretical foundation of the economy of industry markets

In modern research **on the economics of industry markets,** three areas of **research** have been significantly developed:

1) the use of theoretical models in the analysis of oligopolistic markets. The industry market experts are increasingly trying to improve models, bringing them closer to the processes of real markets;

2) using transactional cost theory in comparative market analysis. Transaction costs analysis allows for formal microeconomics models to explain why market structure, firm behavior and performance vary between different industries;

3) development of the theory of adversarial markets. The theory of adversarial markets develops the concept of potential competition, where the competitiveness of one or more firms in the market increases if there is a threat of entry into the market of other firms.

3. Analysis of the structure of markets. Market dynamics

3.1 Approaches to Defining Industry Market Boundaries

There are a huge variety of market definitions, and they tend to be related to research objectives. But their essence boils down to the fact that ***market*** **is a set of economic relations about the purchase and sale of goods at prices set on the basis of the interaction of supply and demand as a result of competition.**

Differences between market and industry are based on the fact that the market is united by a satisfying need and the industry is the nature of the technologies used.

It is very important to highlight the boundaries of the market. Identify the boundaries of the industry market when it is born, to what limits it expands and when it fades.

There are several types of market borders:

1. *Product borders* reflecting the ability of products to replace each other in consumption;
2. *Time limits* to compare market development over time;
3. *Local borders that* limit the markets under consideration within a territory.

Sometimes, having identified the boundaries of the market, it is necessary to identify the firms producing goods in this market. This is done with two metrics, **the specialization indicator and the coverage indicator.** Let us consider the production of goods by enterprises, which we have classified as an industry. In this case:

1. Specialization is the share of sales of goods to the total sales volume of enterprises we have related to this industry;
2. The coverage is the share of sales of goods by companies we have attributed to the industry to the total volume of sales of goods.

Due to the different types of boundaries of industry markets, it is possible to distinguish the types of markets in the economic organization. The classification of markets is important in highlighting types of market structures, organizing production activities by firms, conducting regulatory activities by government agencies.

Markets can be classified according to a variety of criteria:

1. **For the functional purpose of market relations facilities** - consumer goods and services, industrial goods, intermediate goods, know-how, raw materials, labor, securities, shady, recycled materials, etc.
2. **Geographical location** - local, regional, national, world.
3. **Degrees of restriction** of competition - monopolistic, oligopolistic, monopsonic, free, mixed, etc.
4. **Industries** - automotive, oil, agricultural raw materials, food, etc.
5. **Sales:** Wholesale, Retail.

An in-depth understanding of the "market" category requires taking into account its place in the entire public production system. Before you start researching an industry market, it is necessary to determine not only its boundaries, but also the stage of development, the degree of isolation and the level of organization.

3.2 Analysis of barriers to entry and exit barriers of firms into the market in the structure of the industry market

The complexity, and sometimes even the inability to enter a particular market or enter a particular industry, depends on the relevant barriers. Their presence has a significant impact on the level of concentration and competitive situation in the industry (on the market). This makes market barriers one of the important research challenges in the economics of industry markets.

Barriers of entry are factors of an objective or subjective nature that prevent new firms from organizing profitable production in the industry.

Strategic entry barriers can only be formed by dominant (active) firms, i.e. firms with market power.

1) Limiting pricing. It is important for a potential competitor to know what the price will be in the industry after it enters the market.

Firms already operating in the industry, knowing the aggregate supply and demand, can assign such a price to prevent the undesirable appearance of new competitors on the market. This policy is called pricing, limiting entry. The prohibitive price is usually below the level that maximizes short-term profits, meaning the firm pursuing a pricing policy that restricts entry faces a choice between short-term profit and the threat of entry. For entry-limiting pricing to be effective, the firm must first assess exactly the costs of its production and potential competitor, as well as the terms of demand;

2) a high degree of product differentiation. An old firm to prevent new firms from entering the market can fill the market with a significant number of substitute products, so it will be difficult for the new firm to find a niche among the abundance of trademarks;

3) long-term contracts with suppliers and buyers. It will be difficult for a new firm to find resource suppliers or a market if such contracts exist in the industry;

4) vertical integration;

5) agreed pricing policy;

6) availability of reserve capacity;

7) additional investment in equipment.

8) need for significant advertising costs. Advertising costs increase the minimum output in the industry, which is necessary for the organization of efficient production, and reduce its expected profit.

Non-strategic barriers to firms entering the industry market.

Non-strategic barriers created by fundamental industry conditions,

objective factors and independent of the activities of firms or weakly affected.

1. Industry market capacity. In this case, the degree of market saturation, the level of solvent demand, the activity of foreign competitors are considered.

Market capacity is the aggregate solvent demand of buyers; the possible annual sales volume of a certain type of product at the prevailing average price level.

There are two levels of market capacity: potential and real. The real capacity of the market is the first level.

Calculating the capacity of the market should carry space-time certainty. The higher these indicators, the higher the entry barrier level.

2. Capital expenditure barriers or the amount of initial investment required to enter the commodity market.

The more competitive the capital market is, the more developed the infrastructure, the easier it is to obtain credit, the fewer barriers to entry into the commodity market.

3. Barriers based on the advantage (absolute or relative) of cost.

Absolute advantages mean that the long-term average cost function of existing firms in the industry is located all over the cost of potential competitors. Absolute benefits are achieved by older firms having access to cheaper and/or better sources of resources, or by using their past innovations.

You can determine the level of this entry barrier by formula

$$B = \frac{AC_b}{AC_d}$$

Where Acb – is the average cost of firms operating in the market;

ACd – is the average cost of firms wishing to enter the market.

Often also use a metric called the "barrier index":

$$I_b = \frac{q}{n}$$

Where q – the volume of the company's products;

n – the number of employees of the company.

The higher the index, the higher the relative costs of the industry.

4. Administrative barriers. They are created by state authorities at all levels.

5. The state of the market infrastructure. Good infrastructure reduces entry barriers.

6. Criminalization of the economy.

When analysing market barriers, both barriers to entry and exit barriers are taken into account, between which there is a close relationship.

***Exit barriers* are factors of an objective or subjective nature that prevent the company from leaving the industry without significant losses.** Exit barriers are usually all sorts of irreversible costs that cannot be recovered.

The imperfection of the legislative system and the lack of market relations can complicate the company's exit from the industry.

3.3 Acquisitions and Mergers

In addition to the sale of resources, goods and services on the market, firms are also being sold on the market. Consequently, there are mergers and acquisitions in such a market.

Acquisitions can be made in the form of transaction groups:

1) An agreed merger- when Firm A acquires Firm B on the terms recommended by the management of Firm B to its shareholders;

2) contested acquisitions usually implemented by offering to buy shares by the firm, directly from their holders, bypassing the management of the company;

3) Rejection - each firm has a certain number of units.

4) Buyout by managers - this type of transaction is similar to the previous one, except that the branch is sold not to another firm, but by its manager.

In addition, mergers differ in terms of the markets to which participating firms belong. **There are horizontal mergers** when both firms operate in the same

grocery market. **Vertical mergers** occur when a firm acquires either a supplier or a buyer's firm. In the case where there is no horizontal or vertical connection between the two merging firms, the merger is called **conglomerate.** Many cases of mergers of diversified companies may include elements of several of the above methods.

The pure theory of mergers assumes that the management of an active firm effectively uses its own resources and just as effectively plans to use them in the acquired enterprise.

The motive for the mergers is the assumption that the firm's market power will be strengthened, as after the merger the degree of market concentration will increase, and this will give the combined firm greater market power. At the same time, a larger firm is able to dictate industry policy.

The reason for the merger may be the desire to reduce advertising and other costs of promotion, even if the strengthening of power does not increase profits, because the result of the merger depends not only on the actions of the two firms, but also on the reaction of other competitors in the market.

In addition, the motive for the merger is the expectation of a synergies gain that is otherwise unavailable, such as the implementation of economies of scale. But this is not always achievable in the short term, as the merger can be reduced to a simple connection of two small plants of suboptimal size. The winnings should be shown in a long period, when the total production will be concentrated on a smaller number of plants and, thus, the savings will be realized.

Mergers of firms lead to clear benefits from such actions:

1) Merger allows you to acquire a specific resource in the form of an organized manufacturer with its own mechanism of combination of resources;

2) When a merger automatically increases the share of this association in the market;

3) The merger allows you to bypass the barriers of entry to the market. The

acquired company is already a participant in this market;

4) Merger drastically reduces the time lag of starting a business, as the implementation of the investment program takes considerable time. Here it is minimized;

5) The degree of risk of business organization in the purchased enterprise and in the proven market is much lower than in the implementation of its own investment program.

3.4 Characteristics of market structure types

Market activity depends to a large extent on the state of the market situation.

Commodity market conditions are a temporary economic situation characterized by a set of signs expressing the state of the goods market at a certain point in time.

The main signs of market conditions are:

1. Change in domestic and foreign trade.
2. The dynamics of production and construction.
3. The movement of inventories.
4. Price dynamics.
5. Number of employed and unemployed.
6. The dynamics of production costs.
7. The income of the population.

Three levels of market research:

1. General economic level.

2. Industry - shows the situation in the industry of national or world economy;

3. Commodity - shows the position of individual goods on the national and global market.

All **market factors that stimulate or restrain the development of** the market are divided into:

1. Constant market factors.

2. Temporary.
3. Cyclical.
4. Not cyclical.

Active (dominant) firms are particularly interested in the economics of industry markets. The characteristics of building their behavior in industry markets determine the conditions of either a competitive environment or monopolization of the market. In today's economy there are a variety of types of industry market structures - competitive and non-competitive. However, as a result of their evolutionary development, the tendency to monopolize the market prevails. These processes take place as the transition from a completely competitive firm to a monopoly is gradual, and sometimes the internal nature of the firm is changed during integration.

Analysis of the types of market structures allows us to describe:

1. The ratio of perfect and effective competition.
2. A model of monopolistic competition.
3. Monopoly through assessment from the perspective of the welfare economy.
4. Monopoly through determining factors and calculating public losses.
5. Methods of maintaining the dominant position of monopolies.
6. Natural monopolies and methods of regulating them.
7. A multi-product and bilateral monopoly.
8. Developing perceptions of market structures through the concept of adversarial markets.

Each of the characteristics of the market in its own way affects the parameters of its functioning. The combination of market characteristics determines its structure or market type. It is obvious that different combinations of market characteristics can reveal a fairly wide range of market structures.

Among the most common types of market structures are pure

competition, monopoly, monopolistic competition and oligopoly.

All four models assume the passive role of buyers in the market and emphasize the behavior of producers of goods (sellers). If we consider the possible characteristics of the market on the part of demand, the list of market structures will be significantly replenished. In addition to the monopsony model, well known from microeconomics, we can mention the model of two-way monopoly (when the single seller interacts with the single buyer) or the model of bilateral oligopoly (when several sellers are opposed to the market by several buyers).

4. Costs of the company

4.1 The content of production costs and its classification. Economic and accounting approaches to costs.

Production costs are the costs of producing and selling products in monetary form.

Classification of production costs:

- individual costs are the costs of a particular business entity;
- social costs are the costs of producing a certain type and volume of products from the perspective of the entire national economy;
- production costs are the costs of producing goods and services (for example, raw materials, fuel, transport services, etc.);
- circulation costs are the costs associated with the sale of manufactured products, circulation costs are divided into additional and net costs.

The economic understanding of costs is based on the problem of limited resources and the possibility of their alternative use. The use of resources in this production process excludes the possibility of their use for another purpose. The choice of certain resources for the production of a product means that it is impossible to produce an alternative product. Essentially, all production costs are opportunity costs. Therefore, the **economic cost** of any resource selected for use in the production process is equal to its value in the best possible use case.

In addition, the costs are divided into **external and internal.**

An external costs are production costs that reflect the consumption of factors of production in monetary terms at their purchase prices (for example, wages, raw materials costs, rent, etc.). External production costs are also called **explicit, actual or accounting costs**. In this case, the resource providers are not the owners of this company.

At the same time, a firm can also use its own resources. The costs of your own and self-used resource are unpaid, or internal costs.

Internal costs are the monetary income that the firm sacrifices by using its own resources independently, that is, it is the income that could be received by the firm for independently used resources in the best possible way of using them. For example, if the company is located in a room owned by the owner of the company, then the opportunity to rent out this room and receive rent is lost.

Internal costs also include the normal profit.

Normal profit is the minimum income that an entrepreneur must receive in order to remain in this business.

Accounting costs are always only external costs. Its **include:** depreciation of fixed assets plus the cost of raw materials plus wages plus overhead costs (management, advertising, packaging, storage, etc.)

Internal and external costs add up to the **economic costs** of the company.

4.2 Production costs in the short term. Fixed, variable, total, average, and marginal costs

First of all, let's understand what is the difference between a short-term and a long- term period.

The short-term period is the period when most of the production remains constant, fixed, and to increase (or reduce) the volume of production, the firm can change only one factor of production.

In **the long-term period**, the firm can make changes to all factors of production. It can not only hire additional employees, but also build or purchase additional premises and equipment that meet the new market conditions.

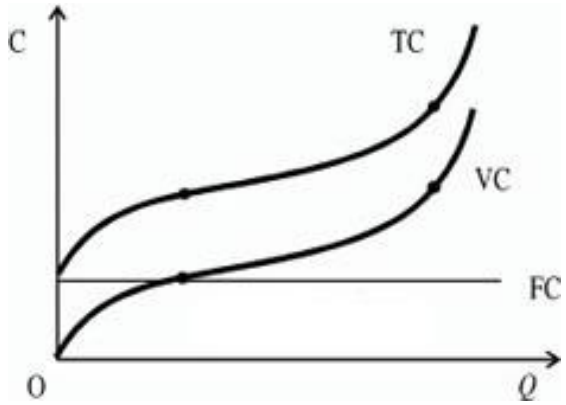
Fixed costs do not change with changes in the volume of production and must be paid even if the firm does not produce anything. For example, rent payments, amortization payments, property taxes, insurance premiums, salaries for management personnel, etc. These costs do not depend on how much production the company will produce. Their amount will always be constant.

Variable costs vary depending on changes in production volume. For example, the cost of raw materials, fuel, energy, transportation services, most of

the labor force, etc. Variable costs are zero when products are not produced, and they increase as production increases.

Total costs are the sum of fixed and variable costs.

$$TC = TFC + TVC$$



Picture 12 – The graph of fixed, variable, and total costs

The picture shows a graph of fixed, variable, and total costs. On this graph:

TC – total costs.

VC– variable costs. FC – fixed costs.

C – cost value.

Q – is a production quantity.

For economic analysis, average costs are of particular interest.

Average costs are also constant, variable, total, and marginal.

- *average variable cost* (AVC) - the cost of a variable factor per unit of production;

The average variable costs are calculated by dividing the variable costs by the volume of production.

$$AVC = \frac{VC}{Q}$$

- *average fixed cost* (AFC) is the fixed cost per unit of production;

The average fixed cost is calculated by dividing the fixed cost by the volume of production.

$$AFC = \frac{FC}{Q}$$

- *average total cost* (ATC) is the cost per unit of production;

The average total cost is calculated by dividing the total cost by the volume of production. As you already know, total costs are the sum of variable and fixed costs. Thus, the average total cost is equal to the sum of the average fixed and average variable costs.

$$ATC = \frac{TC}{Q} = \frac{FC}{Q} + \frac{VC}{Q} = AFC + AV\text{C}$$

- *marginal* - is the additional costs for the production of another unit of production. They show how much money it will cost the enterprise to increase the volume of production output by one unit, or how much you can "save" by reducing the volume of production by this last unit.

Marginal costs are calculated by dividing the change in total costs by the change in production volume.

$$MC = \frac{\Delta TC}{\Delta Q}$$

There is also a division of costs into direct and indirect. **Direct** costs are those costs that can be fully attributed to a product or service. In other words, their value is directly reflected in the cost. These include: the cost of raw materials and materials used in the production and sale of goods and services; wages of workers directly engaged in the production of goods; other direct costs (all costs that are directly related to the production of goods). **Indirect** costs are costs that are not directly related to a particular product, but relate to the company as a whole. They include: costs for the salary of the administrative staff; rent; amortization; etc.

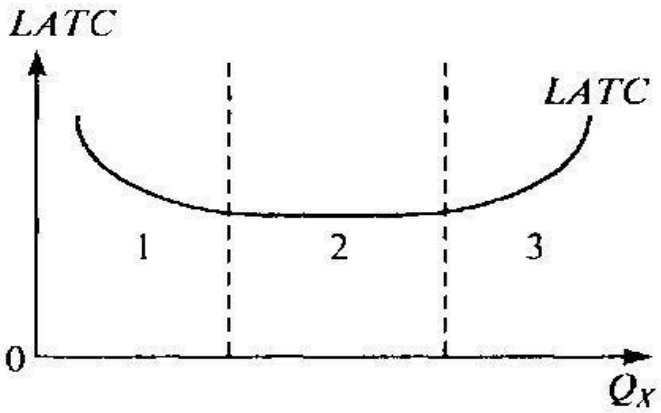
4.3 Production costs in the long term.
Positive and negative effects of scale of production

In the long-term, all costs are variable, because over the long-term time interval, thevolume of not only constant, but also variable costs can change.

In the long term, we will study the long-term average and long-term marginal costs.

Long-term average costs are the costs per unit of production volume that can be changed in an optimal way.

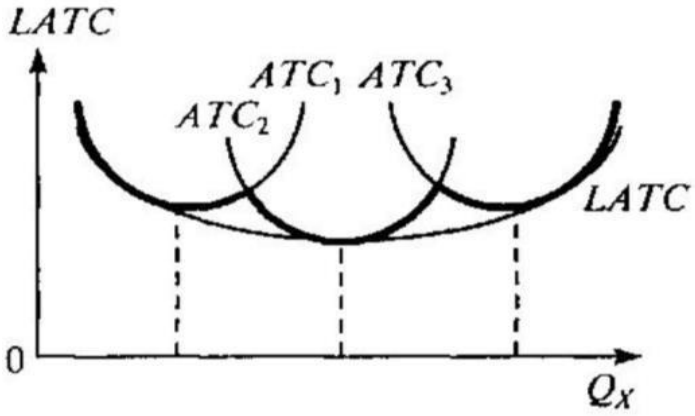
The slide shows the long-term average cost curve.



Picture 13 – The average cost of production in the long term

LATC – is the average cost of production in the long term

In order to see the difference between the average costs in the long-term and short- term periods, we compare the graphs of the average costs of the long-term and short-term periods.



Picture 14 – The average cost of production in the long term average costs in the

short term

On the graph of average costs in the long term, there are three graphs of average costs in the short term. The graph shows that the long-term period consists of severalshort-term periods.

The long-term average cost curve on the graph goes around all possible short-term cost curves, touching each of them, but not crossing them. This curve shows the lowest long-term average production costs of each output volume when all factors are variables. Each short-term average cost curve corresponds to an enterprise that is larger than the previous one.

A change in long-term average costs implies a change in the scale of production. The concept of "economies of scale" is associated with these changes. The scale effect can be positive, negative, and permanent.

The positive effect of scale is associated with a reduction in costs per unit of production as the volume of production increases. The positive effect of scale of production occurs in a situation where the volume of production increases faster thanthe cost increases, and, consequently, the average cost of production in the long-termperiod of the enterprise falls. Another important condition for saving due to the scaleof production is the use of efficient technology.

The reason for the emergence of **negative economies of scale** is the violation of the manageability of excessively large production. Under these conditions, long-term average costs increase as the volume of output increases. This is due to the fact thatlarge-scale production is harder to manage than small-scale production.

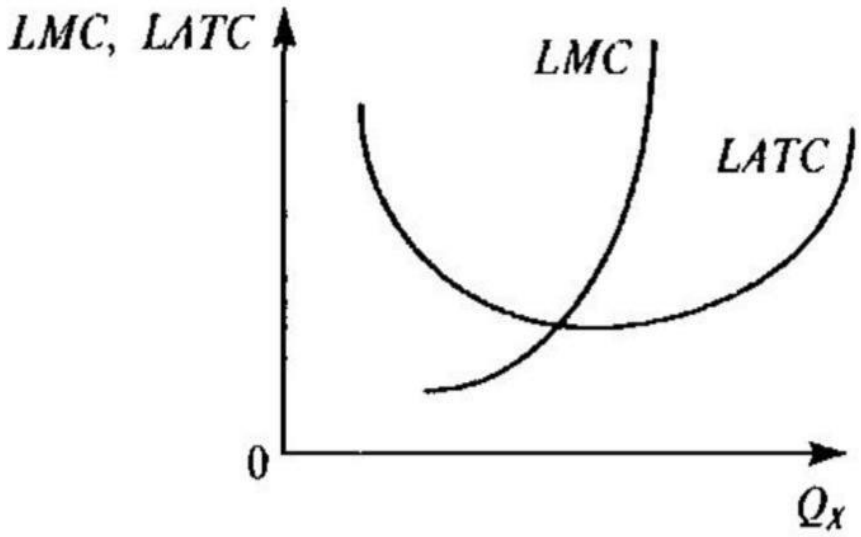
In an environment where long-term average costs do not depend on the volume of output, there is a **constant effect of scale.**

In the long term, there are also marginal costs.

Long-term marginal costs are associated with the production of an additional unit of production, when it is possible to change all the factors of

production in an optimalway. The change in marginal costs can be represented graphically as **a long-term marginal cost curve.**

To show the difference between long-term average costs and long-term marginal costs, we will draw these graphs together. So, LMC is the long-term marginal cost, LATC is the long-term average cost.



Picture 15 – The long-term marginal cost the long-term average cost

The analysis of short-term and long-term costs is the basis for finding the optimal size of production and the structure of production in the industry. The optimal production volume corresponds to the minimum average total cost and determines the point of technological optimum.

The point of technological optimum is the technologically optimal correlation of variable and constant resources of the company. The problem of optimal productionoutput is related to the search for a technologically optimal correlation of variable and constant resources. The optimal structure of the industry's production involves minimizing the average long-term costs. The search for the optimal structure of theindustry's production determines the achievement of an optimal ratio of positive and negative effects in the industry, ensuring minimum average long-term costs.

5. Market models

The market structure is a set of attributes that reflect the market organization, themethod of setting, the price and volume of production, as well as the type of interaction between firms in the industry.

Consider the **signs of a market structure:**

1. The number of manufacturers and their share in the market volume of sales.
2. Conditions for entering and exiting the industry.
3. The degree of producer control over prices.
4. Product Description.
5. Access to information.

In accordance with these characteristics, the following **types of market structures** are distinguished:

1. Pure competition.
2. Impure competition.

At the same time, **impure competition** is divided into:

2.1. Monopolistic competition.

2.2. Oligopoly.

2.3. Pure monopoly.

Let’s consider the characteristics of each type of market structure:

The first column shows all types of market structures - pure competition, monopolistic competition, oligopoly, and pure monopoly. The following columns describe each of these market structures by a specific characteristic.

Table 1 – Characteristics of each type of market structure

Market structure	Number of firms	Product nature	Terms of entry into the market	Access to information	Price control
Pure competition	Very large	Homogeneous	Very light	Equal access	Missing
Monopoly competition	A lot	Heterogeneous	Relatively light	Some limitations	Some, but limited
Oligopolia	several	Homogeneous or differentiated	Separate obstacles	Some limitations	Limited by mutual dependence
monopoly	one	Unique	Hard barriers	restrictions	considerable

In the markets of pure competition, there are a very large number of firms, and the product description is homogeneous. Easy conditions for entering the market, and there is no control over the price.

With monopolistic competition, a very large number of firms in the market, heterogeneous products, the conditions for entering the market are harder than with pure competition, but easier than in other market structures. There are restrictions on access to information. There is control over the price, but it is limited.

With an oligopoly, there are only a few firms operating in the market, and there areobstacles to entering the market. Access to information here is the same as in monopolistic competition and price control is limited by mutual dependence.

And, finally, with a monopoly on the market, only one firm operates. Due to the factthat the company is one, it produces unique products. There are very tight market entry barriers, limited access to information, and significant price controls.

Monopoly is the most striking manifestation of imperfect competition.

Monopoly is a condition in which a company has a unique product. There are naturalmonopolies due to natural factors, but most monopolies are encouraged by the State

- through the issuance of patents, copyrights, trademarks and franchises. Trademarksare unique symbols that identify a particular company or product.

A monopoly is a market structure that meets the following conditions:

1. The production of goods by the entire industry is controlled by one seller of this product, i.e. the monopolist firm is the sole producer of this good and represents theentire industry.
2. The product produced by the monopolist is special in its kind (unique) and has noclose substitutes, in this regard, the demand for the monopolist's product is, by a low degree of price elasticity, and the demand schedule for it has a sharply "falling" character.

All barriers can be divided into two groups — **natural and artificially created. Among the natural barriers are:**

1. Economic barriers-these are individual firms that, through constant improvement of technological processes, can achieve the lowest production costs when producinga very significant volume of products (positive economies of scale).
2. Technological barriers are associated with the existence of local utilities. The modern level of technology and technology makes competition here very difficult orsimply impossible.
3. Financial barriers-monopolized industries usually have a significant volume of production, so a new firm needs to make large investments to enter the industry, train qualified personnel, etc., which is associated with significant costs and blocksentry into the industry.
4. Ownership of certain types of resources.

Artificially created barriers include:

1. Legal barriers. The guarantee of patent rights for inventions, the granting of special privileges in the form of licenses for the production and sale of products, andthe secrecy of certain individual developments on the part of the government can lead to the concentration in the hands of one company of the bulk of patents and licenses for goods produced in the industry.

2. Methods of unfair competition — such an organization of competition in which economic entities resort to illegal methods of influencing competitors: the dissemination of false information about a competitor; the use of a system of dumping prices, when in order to ruin a competitor or oust him from the market fora short time, a price is set below the average cost; criminal and other methods.

Consider the types of monopolies:

1. closed monopoly. Market power and monopoly position in the market are due to legal barriers that exclude competition in the industry;

2. open monopoly. In the case of an open monopoly, the market power of the monopolist firm is the result of the innovative achievements of the firm itself (a new product, a new technology that provides a pronounced competitive advantage that allows you to displace competitors from the market, etc.).

3. natural monopoly. The market power of such firms is due to the achievement of the lowest costs per unit of output while meetingthe entire market demand for it;

4. monopsony — a special type of market structure, when market power is concentrated in the hands of the buyer, not the seller;

5. a two-way monopoly occurs when the monopoly power of the seller collides withthe monopoly power of the buyer.

In the market of <u>pure competition</u>, the following conditions are met:

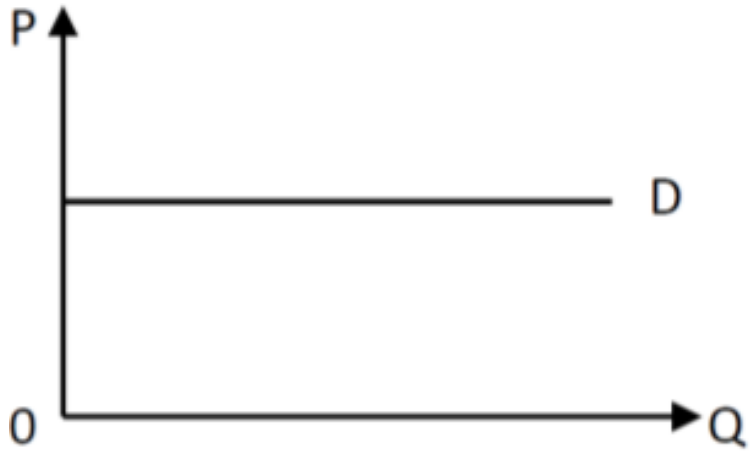
1) many competing sellers sell standardized products to many buyers;
2) each firm has less than 1% of total sales for any period;

3) individual firms do not see competitors as a threat to their market share of sales, and therefore are not interested in each other's production solutions;

4) information about prices, technology, profit is available. Firms have the ability to respond quickly to changing market conditions;

5) there are no restrictions for entering and exiting the market.

The demand of an individual firm operating in a purely competitive environment is absolutely elastic, since the competitive firm cannot influence the price, but agrees with the price set on the basis of the supply and demand of the entire industry. Therefore, thedemand curve of each firm will have the form of a horizontal straight line.



Picture 16 – Competitive firm's demand.

Graphic representation of a competitive firm's demand.

P – is the price,

Q – is the volume of production,

D – the amount of demand.

This model has a number of features, including the presence of a large number of sellers and buyers. There are so many of them that neither the sale nor the purchase can significantly affect the price and quantity of the product offered for sale. This isone of the most striking examples of a free market, since there are no limiting factorsuntil the government intervenes.

The next market model is an oligopoly, which differs significantly from the ones discussed above. Its first and main feature is the presence of a limited number of manufacturers on the market. Usually, these companies produce a similar but not identical product, have a large volume of production, and each of them controls a significant market share. Examples of oligopolies are producers of non-ferrous metals (especially aluminum), automobiles, tobacco products, etc.

The fourth model of the market is monopolistic competition. There are a few more companies here than in the oligopolistic model, but fewer than in the pure competition model. Monopolistic competition is most common among retail stores in a particular region, characterized by very similar products and almost the same cost structure.

The pure competition model, on the contrary, is characterized by a large number ofboth producers and buyers, so there are some problems and advantages of the monopsonic market model.

Price discrimination is the monopolistic practice of selling a product of a given quality at a given cost at different prices to different buyers.

Price discrimination can only be carried out by monopolies, because they set and control prices. In conditions of perfect competition, a single price for the benefit is formed, and the firm does not control the price, but accepts it as given, so price discrimination does not occur.

In order for a monopolist firm to conduct price discrimination, the market mustmeet the following conditions:

1. the seller should be able to divide buyers into groups based on the elasticity of demand for goods. Those buyers whose demand is highly inelastic will be charged a high price, while those whose demand is elastic will be charged a lower price.;
2. goods cannot be resold by buyers (or sellers) of one market to buyers (or sellers) of another market, since the free movement of goods from the " cheap "market to the "expensive" market will lead to a single price, which will make it

impossible todiscriminate prices;

3. buyers (for a monopoly) or sellers (for a monopsony) must be identifiable, otherwise market division is impossible.

The degree of price discrimination:

Price discrimination of the first degree (perfect discrimination) is observed when a price is set for each unit of a good equal to its demand price, so the sale pricesof the good are different for all buyers.

Price discrimination of the second degree occurs when the prices of goods are thesame for all buyers, but differ depending on the volume of purchases.

Price discrimination of the third degree assumes that different individuals of the good is sold at different prices, but every unit of the good purchased by each customer, will be charged at the same price.

If the price discrimination of the first two degrees assumed the division of goods into groups, then the price discrimination of the third degree assumes the division ofthe buyers themselves into groups or markets where their sales prices are set. Most often, monopolist firms turn to price discrimination in the course of competition to attract additional buyers.

6. Transaction costs

6.1 The concept of transactions and transaction costs

All the costs of economic entities can be divided into two categories: production costs and transaction costs.

A transaction is any operation (action) of an economic entity that involves at least one counterparty.

In this case, it is important to determine the **difference between a transaction and an operation. An operation** can be performed by the subject without direct contact with anyone (for example, a worker on a line tightens a nut). **A transaction**, on the contrary, is made "collectively" (for example, the bank employee accepts the client's order), that is, in the case of a transaction, there is a counterparty.

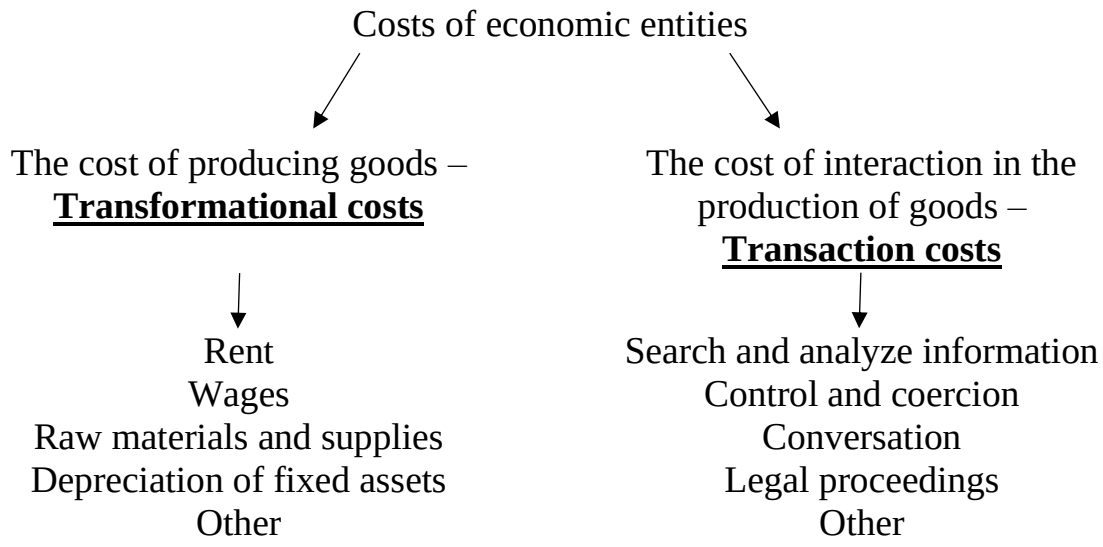
Transactions can be either "intra–company" (in the role of "counterparties" are colleagues-employees of the same firm), **or "market"** (in this case, third-party partners interact). Examples of transactions are diverse: from issuing an order and releasing materials from the warehouse to signing a contract and sending a batch of goods to the client.

Transaction costs are the costs of interaction between economic entities.

This type of cost includes any necessary expenditure of resources that are not directly directed to the production of economic goods, but ensure the successful implementation of this process.

The largest and most important block of transaction costs is the costs that accompany the company's activities.

From the point of view of the enterprise, all its costs can be divided into two categories: **transformational** (or their other name - production costs) and **transactional.**



Picture 17 – Costs of economic entities

The presence of transaction costs complicates the economic "picture of the world".

The methods of transaction cost analysis are used:

- logical constructions;
- applied research;
- testing hypotheses with empirical data;
- analysis of specific business situations and transactions.

Most of the applied research is focused on the main element of the capitalist system – the modern corporation. Scientists, in particular, consider the problems of creating reliable mechanisms for inter-company and intra-company contractual relations, optimizing the size of vertically integrated production complexes, the organizational structure of companies, and the corporate governance system.

6.2 Types of transaction costs

The transaction costs of a firm, as well as the transformational costs, are fixed and variable.

Variable costs include costs that increase with an increase in the number of transactions: the costs of control, decision-making, as well as the costs associated with negotiations and information retrieval, etc.

Fixed costs do not depend on the volume of transactions and consist primarily of the costs of creating and maintaining transaction management structures.

There is also sometimes talk of the existence of **"transactional capital"**. It consists of the main (investment transaction capital) and working capital. The main transactional capital is necessary for the creation of free markets, firms, and political structures. Current transaction capital is needed to finance the day-to-day costs that arise in the course of the markets and the political system.

Relative to the moment of conclusion of the contract, **the costs that precede the transaction** and **the costs that arise during the transaction**.

Agency costs occupy a special place in the classification of transaction costs. Agency **costs** arise when one party (the agent) acts on behalf of and on behalf of the other (the principal). At the same time, the agent can sometimes ignore the interests of its principal. There are many examples of such behavior: concealment of information, abuse of authority, etc.

The agency costs are the sum of:

- residual losses;
- the cost of control by the principal;
- the cost of providing guarantees on the part of the agent.

Depending on the mechanism of the origin of transaction costs, there are:

- internal (management);
- external (market);
- political (costs of the political market).

Market costs can be classified as follows:

- contract preparation costs (search for information);
- contract costs (negotiation and decision-making));
- expenses for monitoring and defending their interests (control and coercion).

Internal (management) transaction costs. This type of cost is associated with the implementation of the employment contracts concluded by the company.

For simplicity, let's assume that the employment agreements themselves have already been concluded, and now it is necessary to ensure their successful implementation. Management costs are thus reduced to the following:

1) the costs of building, maintaining and improving the organizational structure of the company. These costs are associated with a whole range of operations: personnel management, investment in information technology, PR, lobbying. As a rule, this is a constant transaction cost;

2) the costs for the management of the organization. Here you can distinguish two groups of costs:

- information costs – our expenses related to making decisions, monitoring and controlling the execution of orders, checking the performance of official duties, agency costs, information processing costs, etc.;
- expenses related to the physical movement of goods and components along the technological chains. An example is intra-company overhead costs: transportation and other costs associated with the movement of work in progress.

Political transaction costs. The nature of political transaction costs is similar to managerial transaction costs: to some extent, they can be considered agency costs, i.e., the price of interaction between the principal and the agent. In particular, **political transaction costs include:**

- the costs of creating and maintaining power structures . They include the costs of establishing a legal system, an executive and police apparatus, courts, etc. This list can be supplemented by such important elements of the political " superstructure "as parties, social movements and lobbying structures that directly participate in the"political game". All these organizations must be created for the " civilized implementation of the state monopoly on power»;
- the current costs of the political system. This category includes expenses related to the government's performance of its contractual obligations to the public. Recall that these include the provision of legislation, national security, arbitration functions, public transport, education, and others.

The market today can not exist in isolation from the political system, therefore, the costs that are caused by its work, inevitably fall on the economy.

6.3 An increase and a decrease of transaction costs

The seven main factors that reduce the transaction costs of subjects in a developed market economy:

1) a favorable legal framework. This is a legal structure that meets the following requirements:

- soundness in terms of the economic incentives created by the legal system;
- ease of market conditions;
- low level of corruption and bureaucratization;
- the existence of a centralized (state) mechanism for maintaining law and order, including a mechanism for resolving conflicts and enforcing compliance with agreements;

2) law-abiding economic entities, in particular-the recognition of other people's property rights. This quality not only reduces the costs of control and coercion on the part of the state, but also reduces the risk of opportunistic behavior of counterparties. This is extremely important from the point of view of mutual trust, which we highlight as the next factor;

3) high level of trust in the society. Trust in the world of transaction costs is an essential and very effective component. Unfortunately, trust cannot be artificially reproduced – it is the product of a long evolution. However, the state is able to speed up this process, contributing to the formation of a favorable legal framework;

4) macroeconomic and political stability. This factor reduces the level of uncertainty inherent in the economic system, which facilitates long-term planning and reduces the risk of investments;

5) optimal tax burden. Excessive tax pressures generate tax evasion and associated transaction costs;

6) the development of the information infrastructure of the economy. This parameter directly affects the cost of finding information;

7) informal rules, customs and traditions. An interesting example in this regard is Japan, where local businessmen pay great attention to personal relationships between partners. Compromise is always preferred over confrontation. Therefore, in the negotiation process, the parties usually do not resort to the help of lawyers. As a result, the propensity to use judicial mechanisms in Japan is much lower than in other developed countries (for example, in terms of litigation per capita, the United States is 20 times ahead of Japan).

Shadow sector. A special zone in transition economies can be considered the "shadow sector", in which many small and medium-sized entrepreneurs prefer to work. The peculiarity of their situation is that the legalization of business is hindered by high costs (mainly associated with taxes). But, remaining in the shadows, the firm finds itself in the area of the economy where transaction costs reach their maximum. The state almost completely removes itself from its functions. It is clear that no one guarantees shadow entrepreneurs their property rights. The firm's contractual rights are also not secured by anything. In these conditions, investments become extremely risky and unprofitable. There are difficulties with lending. In addition, such a business is very difficult to sell: the new owners of the company cannot be sure of the legitimacy of the rights to the acquired assets. As a consequence, firms remain small in size despite the potential benefits of economies of scale.

Investment gap. The concept of transaction costs explains why there are so few investments in transition countries with such a low capital-labor ratio. From the standpoint of neoclassical analysis, this is a certain paradox. Indeed, it follows from the course of microeconomics that the return on capital investments in these states should be simply colossal. Capital, on the other hand, must move from developed countries to developing countries. In fact, the opposite situation is observed. Investments in an emerging market are associated with high transaction costs: potential benefits are instantly taken away by all kinds of unproductive costs (bribes, "agency" costs, protection of company property, etc.). In addition, investments in

"transitional" countries are accompanied by the highest risks, which are primarily caused by the expectation of uncertain transaction costs. Indeed, if you look at the emerging market from the perspective of a potential investor, the following **typical problems** become obvious:

- changes in legislation. There is an increased risk of revising the conditions to the disadvantage of the owner;
- unclear rules. Usually, in developing countries, legislation is structured in such a way that a lot is left to the discretion of the official. This significantly increases the uncertainty and increases the risks of any investment;
- weak mechanism for ensuring the rules of the economy. If certain “rules” are established for the economy, then it is necessary to provide for a mechanism for their enforcement (coercion);
- the risk of illegal encroachments. The danger of illegal encroachment comes not only from competing entities, but also from officials (for example, manifestation of corruption) and the state (in the form of nationalization);
- non-transparency of reporting. We have already mentioned agency costs above. They arise with the separation of the functions of the owner of the company and its head. An investor who is not directly involved in the work of the company should be able to control the actions of his agents.

Management of the company's transaction costs. Transactions are essential for the smooth progress of production. This is the exchange of information, materials and other resources, which in itself does not lead to the emergence of any finished products or goods. Successful enterprise management requires a manager to have knowledge of the main types of transactions and the ability to develop an optimal "transaction plan" that allows you to perform the necessary operations with minimal costs.

There are several ways to reduce costs: identify and eliminate unnecessary transactions, stabilize the operation of an enterprise, and automate manual labor.

Reducing the number of transactions. Reducing unnecessary transactions

is one of the main ways to optimize enterprise costs. The experience of Japanese industry is interesting in this respect. Many enterprises in Japan have adopted and successfully implemented the concept of "just-in-time philosophy" based on the "principle of zero inventory." According to her, all the necessary units and parts must be delivered on time and only of high quality, which makes it possible to abandon a whole block of transactions associated with periodic replenishment of stocks, their storage, release, accounting, security, etc.

Enterprise stability. One of the main ways to reduce the number and complexity of transactions is to stabilize the operation of the enterprise. This means that managers need to minimize the number of technological innovations, structural and organizational changes, avoid endless revision of internal procedures, routines, etc.

Enterprise stability should be one of the main goals of a manager. You should not rush every time to eliminate visible flaws in his work. Experience shows that such tactics lead to a sharp rise in overhead costs, which leads to a decrease or no benefit from the most rational innovations. Every time an order is issued for procedural, technological or any other changes, the enterprise is swept by a wave of extraordinary transactions. Often, in addition to the quantitative one, there is also a qualitative problem - the need to do something for the first time. As a result, modernization can lead to an unreasonable workload of the company's employees, which can result in a deterioration in customer service and further costs. Careful planning of innovations in combination with the practice of their implementation helps to avoid similar situations.

Information collection and control. The basic principle to be followed is that you don't collect more data than you can process. It often happens that a firm reproduces too much data on product quality at all technological stages. At the same time, the quality itself may remain at a low level. This situation indicates that the relevant services simply do not have enough time to analyze the information - it is spent on collecting it. A rational way out of this situation could be to focus on individual "pain points" where quality problems arise most often.

Automation. Electronic media save on copying and transferring data, laser

technologies minimize the cost of entering information. Computer databases save storage costs, specialized software allows one-click reporting of almost any complexity, etc.

Another interesting way to reduce costs is the integration of software systems from various functional divisions of the company. There can be several options for such a combination: integration of engineering and production information blocks, interbranch, client network, etc.

A complex approach. There are three main methods of rational optimization of the transaction costs of the firm.

First, the analysis of transactions in terms of their necessity and alternative methods of implementation.

Secondly, the stabilization of the enterprise and the elimination of unnecessary innovations.

Third, the automation and integration of the company's software resources.

It must be added that the approach to the analysis of transactions should be balanced and complex. In particular, it is necessary to consider **the opposite effect that some attempts to minimize costs may bring.**

7. System of price methods

7.1 The concept of pricing methodology

Pricing methodology is a set of rules for building prices, reflecting the specifics of industries, productions, products.

Price methods are methods of price formation of goods and services within the framework of the adopted price strategy.

In a market economy, the peculiarity of the price method is that the price of the absolute majority of goods (services) is the result of the emerging market conditions, and not the standard set by the authorities.

Basic prices are usually changed to take into account differences between customers and terms of sale. in this regard, the following **price adjustment strategies** are used: price discounts, discriminatory pricing, psychological pricing, incentive pricing, and geographical pricing.

The price discount is given to the manufacturer of wholesalers and retailers, other customers for a certain period of time.

Use the following types of price discounts:

- cash discounts - lower prices for customers who pay bills promptly;

- discount for the number of goods purchased - reducing the price of buyers who buy goods in large quantities;

- functional discounts - lower prices for organizations of the movement system, performing certain functions for the sale of goods, its storage, etc.;

- seasonal discounts - discounts for buyers making off-season purchases;

- reducing the price of a new product, provided the old one is handed over.

Note that the introduction of a temporary price discount may be due to the need to resist the price policy of a competitor or the emergence of a new product.

Thus, **incentive pricing** is a temporary appointment of a price below the list price, sometimes below cost, in order to activate the sale for a short time. It is used to attract buyers who, along with cheap goods, can buy goods with regular mark-ups, as well as to reduce inventory.

- **Discriminatory pricing** is the sale of a product or service at two or more different prices, regardless of costs.

Discriminatory prices are in various **forms:**

- depending on the segment of buyers - different buyers pay different money for the same product (for example, selling the same product in a regular store and in a "luxury" store);

- depending on the version of the product - different versions of the goods are sold at different prices, but without taking into account the difference in costs;

- given the location - the goods are sold at different prices in different places, although the costs for these seats are the same, for example, the price of theatrical tickets is different for different seats in the hall;

- taking into account the time - prices vary depending on the season, day of the week and even the hour of the day.

- **Psychological pricing** is based on the fact that not only economic but also psychological factors are taken into account when determining prices.

Psychologists have repeatedly noticed that there is a certain "threshold" effect of "round" prices. In this case, sellers set a price, for example, not $25, but $24.95. Because the second for buyers looks more attractive based on their psychological attitudes.

- **Geographical pricing** involves setting different prices for consumers in different parts of the country. Delivery of goods to remote areas implies higher transport costs than to the areas close to the manufacturer, and therefore higher prices.

The following **five strategies for adjusting prices on a geographical basis are highlighted:** pricing based on the price of free on bord, pricing based on a single delivery price, zone pricing, baseline pricing and payment-based pricing.

- pricing based on the price of free on bord**,** as well as transportation and other costs until it is delivered on board the ship at the port of shipment; the seller must, with his means, deliver and load the goods on board the ship.

- Pricing with a single delivery price - setting for all customers a single price with included shipping costs, regardless of the location of customers (the complete opposite of pricing based on the price of FOB).

- Pricing on the basis of the base point - the seller chooses a city as a base point and determines for all customers the cost of transportation from this city, regardless of whether This approach to determining the price of transportation leads to an increase in the total price for consumers close to the manufacturer and a decrease for remote consumers.

- Pricing with payment for delivery of goods - in this case, the seller to revitalize the business partially or completely assumes the actual cost of delivery of goods.

7.2 Basic pricing methods

Price methods used in modern practice are interconnected and form a **system of pricing methods,** which include two large groups of price methods:

The first group is estimated pricing methods.

The second methods of stimulating the marketing of products.

Estimated pricing methods are methods based on the company's intra-production conditions.

Estimated methods are divided into cost methods and methods taking into account the consumer effect.

Expensive pricing methods

Cost-based methods are a type of estimated pricing methods based on accounting **for production costs in a firm.**

Cost-effective pricing methods include the full cost method.

Full cost method is a method of pricing based on all costs, which, regardless of origin, are written off per product unit.

This method is used by firms whose position is close to monopoly and the marketing of products is virtually guaranteed.

The main advantage of the full-cost method is its simplicity. The basis of the

price determination is the real costs of the manufacturer per unit of production, to which the company's profit is added. In addition, it allows for a price limit below which it can only fall in exceptional cases.

However, this method has significant **drawbacks.** Secondly, the use of this method does not reveal cost-cutting reserves and takes full account of all the factors influencing the price.

The standard cost price method allows prices to be priced based on the calculation of costs by standards, taking into account deviations in actual costs from regulatory costs.

This method, unlike previously described, allows for factor analysis of costs. Deviations from standards (norms) are analyzed for specific reasons that have caused them.

The merit of the standard (regulatory) cost method is to be able to manage costs by deviations from norms rather than by their overall size. Deviations in each article periodically correlate with the financial results, which allows you to control not only costs, but also profits. The method provides a continuous comparison of costs and financial results, regardless of changes in production efficiency, deviations in capacity utilization.

This method has great potential in terms of pricing. Prices based on ideal standards (norms), on the one hand, orient firms to reduce costs, provide an opportunity to determine what exactly is needed to do so; and on the other hand, such prices are likely to be competitive in the market, as they reflect not only the individual characteristics of the firm, but also the acceptable level of production efficiency.

The direct cost price method is a method of pricing based on the determination of direct costs based on market conditions and expected sales **prices.**

The main advantage of this method is the ability to identify the most profitable products. Indirect costs are expected to change little or no change in the size of the product. Therefore, the higher the difference between the price of the product and the amount of reduced costs, the greater the gross profit and therefore profitability.

Using the direct cost price method allows you to generate prices based on optimal capacity utilization and maximum profit.

The direct cost price method can also be used to address some other tasks, such as assessing the need and impact of additional capital investments, deciding whether to produce components, some equipment to buy them themselves or better, to determine the amount of sales needed to generate acceptable income and a critical point of production, the best range structure of production, and the impact of changes in output on income.

A form of direct cost pricing is **the standard direct cost method,** which combines the merits of standard costs and direct cost. The standard direct cost price method allows you to manage reduced deviation costs.

The method taking into account the consumer effect. is a kind of calculation methods, where the basis of price formation is to take into account the effect of using new products from the consumer.

Consumer-based methods are used mainly in calculating the prices of interchangeable products.

The interchangeable product is products that meet the same needs, but differ in physical and chemical composition. Such goods cannot be built in a parametric series.

However, since these products meet the same needs, prices cannot be built in isolation. The relationship between the prices of the new and previously produced product is provided by the indicator of consumer effect, that is, the effect that the consumer can get when using a new product (material) instead of the previous one.

The price, according to this method, can be calculated according to the formula:

$$P_n = P_b + E_c + R$$

Where

Pn - the price of a new product;

Pb - the price of the basic, previously used product;

Ec - the effect of the consumer from replacing the old product with a new one;

R - the ratio of braking or moral aging of the product.

The higher the rate of scientific and technological progress, the lower the rate of braking or moral aging of the product.

Estimated methods in an administratively regulated economy are practically the only price method, since under such conditions there is no objective need to take into account market conditions.

In a market economy, the price calculated by the seller is only the basis for the formation of the price of the actual transaction.

The estimated price can coincide with the actual transaction price and even be higher if the seller acts as a monopoly and pursues a policy of full implementation of its exclusive position in the market. If the seller adheres to a reasonable price policy, then not only the price of the actual transaction, but also the offer price may be lower than the estimated price.

When the seller is operating in a competitive market, the discrepancy between the estimated price and the actual sale price is significant.

As has already been shown, in market conditions, the calculation methods themselves take into account to some extent the requirements of market conditions. An example is the advantages of standard (regulatory) costs compared to the full cost method analyzed above.

In a competitive environment, different pricing policies and different strategies play an important role in encouraging the marketing of products.

Methods of stimulating the marketing of products have the main goal to accelerate the sale of products and thus get a larger amount of profit.

In view of current practice, it is customary to allocate the following:

Methods to maximise sales based on demand elasticity. In the time of elastic demand, price reduction is used as a lever to stimulate sales, and increase in non-elastic demand.

However, elastic demand can occur when, with a relatively small price reduction, demand increases significantly more. This applies to long-lasting essential foods (sugar, salt, cereals), durable goods not subject to moral aging

(jewellery, real estate).

Unerpowered demand is observed if the increase in prices for this product does not cause a significant reduction in the volume of purchases. These are all weak or generally irreplaceable goods: salt, sugar, alcohol, tobacco products, etc.

The next type of price methods to stimulate the marketing of products – **methods of maximizing sales using price discounts**

The main types of discounts include:

- discounts on the price for increasing the volume of purchases, based on the elasticity of demand: the more elastic the demand, the more effective discounts of this type. Their variety can be considered discounts at seasonal sales;
- discounts on the price when using a payment form that is more beneficial to the seller than the one listed in its reference price. For example, paying in cash for a seller is preferable to selling an item on credit, as the risk level is reduced and the seller's settlements are guaranteed. As part of the payment of cash, a letter of credit is considered to be more profitable from the seller's point of view, as the buyer reserves the means of payment, which also reduces the risk to the seller. Discounts are available at an advance for the purchase of goods, etc.;
- The seller provides discounts on the price in case of long-term cooperation with the buyer;
- special discounts are given to buyers in which the seller is particularly interested. These include so-called privileged buyers, providing the seller with profitable orders, good advertising, etc.;
- refunds are given to the buyer when they return the goods previously purchased from the company of an outdated sample. These discounts are particularly common in the electrical and automotive industries;
- export discounts are provided by sellers when selling goods to foreign buyers to increase the competitiveness of their goods in the foreign market. These discounts are available in excess of discounts that apply in the domestic market.

Price surcharges (mainly in the sale of technically relatively complex products, for which the higher price level is due to the additional costs associated

with the buyer's special applications for technical performance and design of these products) can sometimes be used to stimulate sales.

Another striking example of psychological pricing is the **method of price gifts**.

At the same time distinguish gifts valid and imaginary. **Valid** gifts are, in fact, discounts on the price and are used in case of the threat of stopping the sale of the goods because of its moral aging.

The method of price gifts is used under the following conditions:

- As a gift, products (services) should be offered in demand.
- The gift should be aimed not only at the consumer, but also at the buyer and the person stimulating the purchase.

7.3 Price factors

Price-forming factors are a complex of interconnected economic, political and psychological forces and interests, under the influence of which price is formed.

Table 2 – Price factors

Classification of pricing factors	Factors	characteristic
By level	Macroeconomic	Operating on an economy-wide scale
	Industry	Industry-wide
	Microeconomic	Operating at the level of the company
In relation to the company's activities	External	Businesses that are not dependent on their activities
	Internal	Enterprise-defined
In the direction of impact	Progressive	Promoting price increases
	Regressive	Contributing to lower prices

The external factors of the enterprise cannot be influenced, but must be taken into account in the pricing process. Internal factors are factors controlled by an enterprise, determined by the nature of its activities, which it forms and can manage.

Macroeconomic factors relate to external uncontrolled factors and include: the state of the financial and credit sphere, tax and social policy, the conditions of reproduction and the industry structure of the economy, the current system of state regulation of prices, the level of inflation in the country, etc.

Industry factors influence the market prices of certain product groups.

Microeconomic factors. Trading companies operate in the consumer market and sell (resell) goods to the population (retail trade) or legal and individuals (wholesale trade).

The change in prices in trade occurs consistently in the process of promoting goods to the consumer market. In the most generalized form, the price in the trading enterprises consists of the purchase price, the amount of wholesale or trade allowance. Therefore, the price is formed in the process of promotion of the product, has an elemental composition, in each link to the price are added certain elements. The more links, the more elements in the price and the higher its level. The price of goods includes cost, profit, wholesale and trade allowances, as well as indirect taxes (excise (excise goods) and value-added tax).

One of the important factors determining the level of prices in trade are **the prices of purchase of goods,** as it is to them add allowances to traders.

Another important factor of the price is **the costs of the trading enterprise,**primarily the costs of circulation, as the advantage in the market is given to those enterprises that have a lower level. Lower costs are helped by the increase in sales, ensuring faster growth in productivity compared to wage growth, optimization of the range of goods, logistics, savings in material resources, improvement of the organization of the trading process, management systems, the choice of optimal channels of receipt of goods, improving contractual relations with suppliers in terms of agreement on purchase prices, terms and modes of payment. Current costs in the enterprise depend on the level of service, organization of advertising activities, building a competent marketing policy, the ability to promote the product to the market, the organization of service and after-sales service of buyers, etc.

The level of price depends on the quality of goods sold by the company, the

level of trade services provided, the parametric characteristics of the goods, the degree of their conformity to the fashion and tastes of consumers. This suggests:

- Examining the opinion of buyers about the quality of purchased goods, its matching price, the level of trade service;
- implementation of market research to explore potential and unmet demand, identify potential buyers, shape their consumer segments and implement on this basis an assortment and pricing policy that meets the needs of buyers. The competitive environment of the trade company also matters - the stronger the competition, the greater the impact on prices it has.

Conventionally price-forming factors can be divided into internal and external factors.

Internal factors. Internal factors include factors that the firm is able to influence.

First, these are cost management activities.

To operate effectively in each enterprise, it is necessary to manage all elements of the cost: material; labour; depreciation and other things. The purpose of such management at a particular firm is to create conditions for reducing (or stabilizing) costs. Thus, an increase in production can reduce overall costs and reduce their growth. Productivity growth, which outpaces wage growth, also reduces costs by reducing the share of wage costs. Improving the rationing of material resources reduces the cost of material resources.

Secondly, it is the formation of the optimal range of the company.

Thirdly, it is an improvement of market research, which implies a deeper study of the competitive environment, advertising activities, improving the image of the firm, etc.

Fourth, it is the attraction of financial resources and their efficient use. The optimal balance between own and borrowed financial resources can help to reduce or stabilize prices.

Fifthly, it is a reasonable formation and use of the price policy of the firm. From what price policy the firm uses, prices are formed for specific groups of

goods that can pursue different goals: to conquer the market segment (low prices); Creating demand for the company's products from potential consumers (low prices); Using a high company image (high prices); receiving super profits (high prices), etc.

Sixth, it is improving the organizational mechanism of the enterprise. It can include improving work with suppliers and consumers, choosing a system for payment of products and material resources, optimizing the organizational structure, etc.

External pricing factors include factors beyond the firm's control that the firm is unable to influence.

External factors due to the national economy:

- government price regulation;
- the development and application of state tax, monetary and depreciation policies;
- use of a system of customs duties on imported and export goods:
- Setting a minimum wage pile;
- antitrust policy;
- inflationary processes;
- the level of well-being of the people;
- tastes and preferences of consumers, etc.

External factors related to the global economy:

- changes prices in world commodity markets;
- changes in exchange rates
- global commodity and stock markets:
- use of prohibitions and restrictions in foreign trade of various countries, etc.

In marketing, it is customary to highlight the following concepts related to the price process: *pricing policy*, *strategy* and *tactics.*

Price policy is the intentions of the organization and the principles in the field of pricing, which it intends to adhere to when setting prices for goods and services.

A price strategy is a set of long-term agreed-upon provisions that determine the market price of a product in order to ensure marketing.

Chain tactics are a system of specific practical measures to manage the prices of the company's goods and services in the short term.

The main objectives of the price strategy in a market economy are:

1. Maximum profit at planned sales.
2. Maximizing price revenue, product sales or competitiveness.
3. Ensuring a given level of profitability.

Pricing strategy is a set of measures that allows to determine from a marketing point of view the level of prices and marginal prices for certain groups of goods.

Price management strategy is a set of measures to maintain price alignment with the diversity and characteristics of demand.

Low-price strategy. This strategy provides for the initial sale of non-patently protected goods at low prices to stimulate demand.prices by a sharp increase in the volume of purchases. It is unacceptable for markets with low demand elasticity. A significant increase in the price causes a negative reaction of the consumer. A type of such strategy is much more common, in which low prices do not rise or even decrease in the future, and the growth of total profits is achieved by high sales and reductions in unit production and marketing costs as a result of economies of scale. Thus, the initial low price is economically sound.

The strategy of extremely low prices is to set the price lower than most competitors in the market. That strictly follows the principle of trading popular goods at the lowest possible price.

The strategy of *high chains,* or other, provides for the sale of goods initially at high prices, At the implementation stage, the product is initially expensive, followed by simpler and cheaper models to attract more and more new market segments. It’s a riot. When reducing prices should take into account the reaction of consumers, who may perceive such a fact as evidence of a decline in the quality of goods or the possibility of further, even more price reduction, the imminent

replacement of this product with a newer model, low demand for goods. The high-price strategy is now widely applied.

The *single price strategy* provides for the same price for all consumers, wherever they are.

The strategy of stable prices involves the sale of goods at unchanged prices for a long period.

The *differentiated price strategy* is based on the heterogeneity of buyers and the ability to sell them goods at different prices.

This strategy involves a number of conditions, such as the additional costs of additional revenue as a result of its implementation, the existence of clear market segment boundaries, and the inability to resell goods from low-priced segments to high-priced segments.

The different price strategies are *the preferential strategy* and the discriminatory price *strategy.*

A concessional price strategy. For buyers in which the producer or seller has a certain interest, preferential prices are set.

Discriminatory pricing strategy. In accordance with this strategy, prices are set at the highest level for the product. It applies to buyers with a strong interest in purchasing the product, as well as to undesirable buyers.

The dual pricing strategy involves the simultaneous operation of two tariffs for related services or goods. In recent years, the dual pricing strategy has become widespread, and the number of organizations that successfully use it is growing every year. World experience shows that the practice of double tariffs allows you to get more income than when setting a single price for a product or service.

The flexible price strategy, or flexible pricing *strategy,* involves a rapid change in the level of selling prices depending on the supply-demand ratio in the market.

The strategy of the price leader. When applied, the price of a product is set in accordance with the price offered by the main and sustainable competitor in the market.

Competitive pricing strategy involves some action or inaction in response to the reduction of competitors' chains on goods.

The strategy of countering price transparency involves the development and implementation of measures that can make it difficult for buyers to compare the prices of competing companies. For example, Sony changes model numbers for different retailers.

The strategy of setting prices for a set of goods involves the formation of a set of goods related by some principle and selling it at a price lower than the total price of the goods included in it. Applying the strategy becomes effective if this price difference is large enough.

Strategies for setting prices on a geographical basis allow you to take into account the price of the different position of the buyer relative to the place of production or shipment of the purchased product.

The strategy of setting a single price with delivery costs included in it involves using the same price, regardless of the location of the buyer. The price includes the average transportation costs. The advantage of using this strategy is the simplification of payments with customers, the ability to advertise the price regardless of the location of buyers. Its disadvantage is the deterioration of the competitive capabilities of the product in the market, where there are products of the same quality, but the price of which includes lower transportation costs.

The free-on-board pricing strategy means that from the moment the goods are loaded on board the carrier, the seller's obligations end and each buyer pays their own transportation costs. This strategy worsens the conditions for successful competition in geographically remote markets.

Strategy for setting zonal prices. Conceptually, this strategy is intermediate between the two described. According to it, two or more zones are geographically allocated, in which buyers from the same zone are served at the same price, while the pattern is realized – the farther the zone is from the seller, the higher the price. The main drawback of this strategy is shown in the relationship between the seller and the buyers, who are close to the border between the zones, but on different sides

of it. For them, a small difference in geographical location leads to a large difference in price.

The strategy of setting prices from the basis point. According to this strategy, a geographical location is selected, relative to which the transport costs included in the price for the delivery of the goods to the location of the buyers are determined. In this case, the actual place of shipment of the goods is not directly taken into account in the price. Thus, if the base point is located outside the place of production or storage of the goods, the price for buyers near the place of production may increase, and for buyers far from the place of production – decrease. When working in large spaces, they usually try to choose several base points in order to ensure the existence of competitive prices in the largest possible area.

The strategy of setting the price with delivery implies that the seller partially or completely assumes the delivery costs and does not directly include them in the price. This strategy is used when there is confidence that the profit from sales growth will cover additional transportation costs.

7.4 Pricing strategy of the company

The firm's pricing policy is the most important part of its overall economic policy, ensuring the firm's adaptation to changing economic conditions.

The company's pricing policy includes a system of price market strategies.

Pricing strategies — is a reasonable choice of a price (or a list of prices) from several options, aimed at achieving the maximum (standard) profit for the company in the planned period.

Each firm in the market conditions has many options for choosing price strategies. The list of possible strategies also depends on several factors. In order to avoid price abuses aimed at weak competitors or uninformed buyers, some countries have adopted laws regulating the choice of pricing strategies by firms. These laws prevent competitors from clashing, explicitly discriminating against certain categories of industrial buyers, or attempting to manipulate any firms. Certain laws exclude certain pricing options. The general motivation of the laws shows that no

strategy should reduce the level of competition, unless it is favorable to buyers.

Practice shows that a well-formed pricing strategy is one of the components of a company's commercial success, ensuring its competitiveness. The success and effectiveness of a pricing strategy depends, in particular, on how well the process of creating it is organized from the very beginning.

For the developers of the pricing strategy, it is necessary to draw up schemes and corresponding tests-questionnaires.

At the first stage of forming a pricing strategy when collecting initial information, the work is carried out in five directions:

1. Cost estimation includes determining the composition and level of incremental costs when sales volumes change, as well as determining the production volumes that can affect the amount of conditionally fixed costs.

2. Clarification of the financial goals of the company is carried out on the basis of choosing one of two possible priorities: the minimum profit from the sale of the relevant product (service) or orientation to achieve the highest level of profitability.

3. Identifying potential buyers includes identifying factors and assessing the consequences of their impact on the sensitivity of buyers to the price level and predicting the division of buyers into groups.

This work is carried out taking into account the following factors:

- the economic value of the product (service) sold);
- difficulty of comparison with analogs;
- the prestige of owning this product;
- budget restriction;
- the ability to split the purchase costs.

4. Clarification of the marketing strategy is necessary for the developers of the pricing strategy, since the choice of pricing solutions is strictly dependent on the marketing strategy chosen by the firm.

5. Identification of potential competitors includes the collection and analysis of data in the following areas: identification of firms that are the main competitors today and in the future; comparison of their prices with the prices of competitors,

determination of the main goal of competitors in the field of pricing; finding the advantages and weaknesses of the activities of competitors by relevant indicators (the volume of the assortment; specific price gain; reputation among buyers; the level of quality of the product).

The second stage of price strategy development — strategic analysis – is also carried out in five areas:

1. Financial analysis carried out in order to develop a firm's price strategy includes the following areas.

2. Segment analysis of the market.

3. When analyzing competition, it is necessary to determine the level of sales and profitability of the firm, taking into account the likely reaction of competitors, as well as the ability of the firm to increase the guarantee of achieving its goals in terms of volume and profitability of sales by focusing on the relevant market segments, where a stable competitive advantage will be achieved with minimal effort.

4. The assessment of external factors should be carried out in two main areas: the impact of inflationary processes and the impact of prices for raw materials and materials of suppliers.

5. When assessing the role of state regulation, studies are conducted to assess the impact of state economic policy on the level of income of the population in the target market segments and to predict possible consequences, as well as to assess the impact of state regulation in the field of prices on the price change planned by the firm and to predict possible consequences.

At the third stage of creating a price strategy, the company prepares a draft price strategy.

The process of developing a pricing strategy allows you to combine the efforts of all departments of the company to achieve key goals — to ensure competitiveness and conditions for survival. This is possible with the rational use of information by the company's services when developing a pricing strategy and justifying price decisions. Inattention to certain data at the first stage of developing a pricing strategy

can lead to erroneous pricing decisions, lower profits and even losses. Differentiated trade discounts and surcharges can become an effective tactical tool for implementing the chosen pricing strategy. However, their use should be controlled taking into account the level of final prices.

8. Product differentiation and advertising

8.1 The essence of product differentiation and the premise of its emergence

Product differentiation is a situation in which buyers view identical products of competing manufacturers as similar, but still not completely interchangeable.

The product produced by each company is somehow different from the products of other companies. Any of the manufacturers occupies a peculiar position of "mini-monopoly" (the only manufacturer of a particular narrow variety of this product) and has a certain power in the market.

The fact is that in the Soviet era, enterprises produced everything according to the same standards and technologies. And the range was extremely narrow: in the country produced about a dozen varieties of cars, about the same number of options of televisions, sausages, cheese, etc.

At the same time, factories have to compete with the superior foreign producers (in many industries, the world's leading producers are ten times larger than domestic ones, have immeasurably better financial base, use modern equipment, etc.). And all these advantages have had a particular impact in the field of standard, undifferentiated goods - the most popular types of clothing and footwear, household appliances, industrial equipment, which appeared in the markets after the liberalization of foreign trade.

Of the two main methods of competition - **price and non-price** - enterprises on extremely unfavorable terms were involved in the most rigid of them, namely - **in price competition.** Firms that conduct price competition, try to attract the consumer by setting lower prices than the rival. Accordingly, the size of profits is reduced, and if the price falls below the costs, then there are losses. At the same time, enterprises (especially when trying to enter foreign markets) often have to compensate for the undervalued prices and the lag in the quality of products.

With non-price competition, firms seek to attract the buyer not by lowering prices, but by increasing the consumer value of the product. This can be achieved in many ways: improving the quality of the product, better adapting it to the needs of a

particular group of consumers, creating a fundamentally new type of product, improving the service, activating advertising, etc. **At the same time, the basis for non-price competition is the differentiation of goods.**

Up until the post-war period, two methods of competition around the world were markedly dominated by price. Now, however, the situation has changed, and **non-price competition** has come to the first roles. This is due to a number of **advantages that** this type of competition provides to its conductive firms:

- Price battles have proved unprofitable for all participants in the struggle, and they are especially disastrous for small and medium-sized firms. In comparison with Western giants, most of them are our enterprises. The fact is that the larger the firm, the more significant financial resources it has and the longer it can sell goods at low prices. The price war in these conditions turns into a struggle for financial exhaustion.
- In today's highly developed economy, consumer demands have become more complex. The market began to accept numerous and various variations of goods, it became possible to attract consumers with increased quality, special properties of goods and/or services, etc. Special properties of goods are often more important than price attractiveness: for a suitable product the consumer is ready to pay the full measure, and the unsuitable will not take and on the cheap. That is, successful product differentiation is often a way of avoiding any competition in general, leaving in a completely free market niche.
- The cost of non-price competition, with the right approach, is cheaper for the firm than the cost of competition. Indeed, lower prices below the optimum level always lead to lower profits, and to a decrease in the stronger the reduction in prices. The relationship between non-price competition and profit is much more complex. A good commercial can cost as much as a bad one. The advantage of the first over the second may well be achieved not due to expensive technical techniques of shooting, but due to the interesting idea of the film, its greater clarity, etc., i.e. actually free. The same goes for product improvements: a small and therefore inexpensive design change, if well conceived, can make the product much more

convenient for the consumer. As a result, the growth of competitiveness will be achieved without high costs.

- Price competition is currently limited by law in most countries. Price reduction should not reach the level of dumping, i.e. the price cannot fall below the cost.

Thus, product differentiation provides monopolistic advantages to firms. However, access to such a market is not blocked by any other barriers, except for obstacles associated with product differentiation. In other words, product differentiation not only creates advantages for the firm, but also helps to protect them from competitors: it is not so easy to accurately repeat a new product for the market or at least find an equivalent response to a successful advertising campaign. Therefore, firms are quite consciously creating and supporting differentiation, thereby achieving for themselves additional profits, and bringing a variety of goods to the market of the country. At the same time, companies constantly have to reckon with the competition of other people's goods, similar to their own.

8.2 Product differentiation mechanism

In fact, each company operating in a competitive environment controls only a small fraction of the entire market for the product involved. However, product differentiation leads to the fact that the single market breaks down into separate, relatively independent parts - these **are market segments.** And in such a market segment, the share of even a small company can become very large.

Market segmentation is the process of dividing an entire market or industry into homogeneous parts (segments) on certain characteristics.

Product differentiation arises from differences in quality, service and advertising between them. Let's take a closer look at each of these product differentiation factors.

First of all, it should be emphasized that **quality** is not a one-dimensional characteristic, i.e. it is not limited to valuation, bad product or good. Even the basic

consumer properties of the simplest products are surprisingly diverse. In many cases, winning in some product property inevitably leads to a loss and another. Additional consumer properties, i.e. those features of the product that affect the lightness or convenience of its use (e.g., different sizes of packages, differences of packages, etc.) can also serve as a basis for differentiation of the product.

An important quality characteristic of the product is its location. For retailers and many services, it is generally crucial. For example, if the network of gas stations is rare, the nearest gas station automatically becomes a monopolist for its district.

Finally, even imaginary qualitative differences between them can be the basis of product differentiation. In particular, it has long been known that a significant percentage of smokers in the tests is unable to distinguish "their" brand from others, although in ordinary life faithfully buy only it. Let's pay special attention to this fact: from the point of view of market behavior of the consumer it does not matter whether the goods are really different. The main thing is that he felt that way.

Differences in **service** combine the second (after quality) large group of factors of product differentiation. The fact is that for a wide group of products, especially for technically complex consumer goods and many products of production purpose, the long-term nature of the seller-buyer relationship is characteristic. Expensive machine should work not only at the time of purchase, but also throughout the life of the service. The full service cycle includes pre-sale service; service at the time of purchase and after-sales service.

Each of these operations may be performed in a different volume (or not performed at all). As a result, the same product seems to decompose into a whole range of varieties, sharply different in their service characteristics and therefore turn into completely different products.

The third largest group of product differentiation factors is related to **advertising.**

First, advertising shows hidden differences in the product from similar products.

Second, it contributes to new needs.

Third, advertising creates product differentiation where there is really no difference between them. Many qualitative differences are imaginary. Behind these imaginary differences of quality very often hide quite real differences in the advertising supply of goods, although the consumer may not be aware of it.

The condition for maximizing a firm's profit in monopolistic competition is represented by the equality of marginal revenue and marginal costs.

8.3 Advertising and branding as product differentiation tools.

8.3.1 Advertising

Advertising is a paid, unidirectional and non-personal appeal, carried out through the media and other forms of communication, with the aim of forcing consumers to perform the desired action by the advertiser.

The role of advertising is of paramount importance in product differentiation.

The main purpose of advertising: to force the consumer to perform the action desired by the advertiser (to convince the consumer to buy a product, use a service, give fame to the company, promote the popularity of a political figure, inspire the audience with socially significant thoughts, etc.)

Advertising tasks:

1. Information-formation of awareness and knowledge about a new product, a specific event, about a company
2. Exhortation – the gradual, consistent formation of a preference that corresponds to the consumer's perception of the image of the company and its products; persuading the buyer to make a purchase; encouraging the fact of purchase
3. Reminder-maintaining awareness, keeping in the memory of consumers information about the product in between purchases; a reminder where you can buy this product
4. Positioning (repositioning, repositioning) of a product or company
5. Retention of customers loyal to the advertised brand
6. Image-building, creating an image of the company that is different from the images of competitors.

Advertising functions:

1. Economic.
2. Social.
3. Ideological.
4. Informational.
5. Motivational

and others.

Advertising must meet the following principles:

1. Focus.
2. Targeting.
3. Consistency.
4. Formal truthfulness.

The main participants of the advertising process:

1. Advertiser – a legal entity or individual who is a source of advertising information for the production, placement and subsequent distribution of advertising.

2. Advertising producer – a legal entity or individual who performs the complete or partial reduction of advertising information to a form ready for distribution.

3. Advertising distributor – a legal or natural person who places and / or distributes advertising information by providing and / or using property, including technical means of radio broadcasting, television broadcasting, as well as communication channels, airtime, and other means.

4. Consumers of advertising – legal entities or individuals to whom the advertising is or may be brought to the attention, as a result of which the corresponding impact of advertising on them is or may be.

From the manufacturer's point of view, advertising expands production and reduces costs. Indeed, increased marketing of **advertised products reduces**

average fixed costs. The transaction costs associated with the sale of the goods may also be reduced. If advertising manages to increase output in the long term, the cost reduction is due to savings on the scale of production.

Finally, **advertising helps to finance non-commercial information flows in society.** But the advertising placed in it necessarily catches the eye of hundreds of thousands of readers. Therefore, advertisers are willing to pay the media a lot of money for the placement of their materials.

At the same time, advertising has a number of negative aspects.

First, advertising helps create artificial needs. Not all the products that the consumer buys, which, seduced by advertising, actually needs him. Advertising affects not only the consciousness, but also the subconscious of people. Seeing the advertised product in the store, the consumer often buys it not because of the real need, but following the advertising "hypnosis."

Secondly, advertising requires a large financial cost. Actively advertised consumer goods have associated costs of about 10% of the price of goods, and in some particularly intensive ways of promoting goods and up to 30-40% of the price of goods.

Thus, the *impact of advertising on costs is ambivalent:* on the one hand, it reduces costs, but on the other hand, it leads to an increase in them, because it itself requires costs. Which of these parties outweighs in each case depends on the effectiveness of advertising, because of how much sales growth it provides.

8.3.2 Branding

Brand - a set of ideas, opinions, associations, emotions, value characteristics about the product or service in the mind of the consumer.

It should always be remembered that **a brand - a concept legal, official, while a trademark exists only in the minds of consumers.** The concept of a brand is broader, since it also includes: the product or service itself with all its characteristics, the set of characteristics, expectations, associations perceived by the user and attributed to the product, as well as the promises of any benefits given by

the author of the brand to consumers-that is, the meaning that the creators themselves put into it.

The real heyday of the idea of branding fell on the second half of the 20th century, and it was associated with quite natural reasons - the appearance on the market of a large number of similar products. The development of technology has had a huge impact on human society. First, it was that we are all surrounded by technically complex devices that we use every day, with a poor understanding of how this thing works inside. Even more, modern consumers sometimes find themselves unable to understand all the characteristics of the product being bought. Here, the consumer comes to the aid **of a brand that distinguishes from all the characteristics of the product those that are important to the consumer, and facilitates the understanding of the product.**

The second task that the brand solves is the simplification of choice. Every day the consumer encounters a lot of similar products, and he just physically does not have time to compare all the annotations, percentage composition, readings to use and specifications. In this situation, branding is just a "rescue circle" - for each product stick simple, clear, clear non-specialist labels: expensive, but prestigious, "economically," "for beginners," "young and liberated" etc.

The main purpose of branding is to make the product recognized by the buyer, to stand out for it on the shelves of the store. If the buyer simply has the type of product associated with a certain product, then the goal of branding can be considered achieved. It's not important how, but people need to know about its existence, see in front of it not just a jar of corn, but a jar of corn for a particular firm. The purpose of branding is to impose your image on the buyer through advertising, as well as through annoying, bright and noisy advertising, or through a pleasant and warm feeling. Anyway, the product will be talked about, and willy-nilly it will be remembered.

Undoubtedly, there are other goals of branding. If the product is very popular, it is easier to implement, and therefore more willing to make a deal than with another little-known brand. Those companies that have achieved all the goals of branding

are now known not only in the countries where they originally worked, but in the rest of the world. The main thing that such well-known companies have extensively used in their branding policy - the goals of branding must be consistent, i.e. first one branding goal, then another. Thus, it is clear that the company, which is now successful in the market, just once correctly understood and set the goals of branding and now is the leader simply due to its fame in the right circles.

9. Vertical integration and vertical constraints in the industry market

9.1 Views of vertical integration and vertical contracts

In order to produce a final product that ultimately meets the needs of the consumer, several stages of resource conversion need to be completed. So, it is necessary to explore the resources, get them, deliver them to the place of processing, recycle in intermediate, and then in the final products, distribute and eventually deliver to the buyer. All of these interconnected stages of production, production, delivery and implementation can be performed independently by individual specialized companies, or all of these stages can be performed by one firm. The second case is that one large firm integrates all transformation processes.

Within the firm, the integration process can be carried out in two ways.

Firstly, at the expense of domestic assets. Expanding production by incorporating new stages in the manufacture of products has been called natural integration. The company is slowly but surely expanding, including all new stages of production.

Secondly, other firms may be acquired in the market. With the expansion of the number of stages of production, which takes place due to the accession of other firms, the company-buyer acquires and the accompanying business of once independent firms.

There are three **main types of corporate integration:**

1. Horizontal integration means that the firm has control over other independent firms at the same stage of the production process. In this case, a company resembling a cartel is organized, as companies that enter into an agreement on price, volume of production, market division are organized, seeking to monopolize the market. This is of particular interest to government antitrust authorities;

2. Vertical integration determines the company's control over other independent firms at successive stages of the production process. In this case, companies that produce raw materials and produce primary products are united, processing them and even independently selling products on the market. Such a

market also establishes control over the property of the enterprise or its behavior, but the units combined belong to different stages of the technological chain;

3. Conglomerate integration is the establishment of control of two or more different firms operating in different grocery markets. Consequently, a diversified company is a multi-product company operating in different markets.

A vertically integrated company is a company that includes more than one stage of final production.

In terms of the direction of integration, there are two types of integration, either for the previous (initial) or at the subsequent stages of the production process:

- An integration of the product, which includes the process of the firm's acquisition of enterprises related to the subsequent stages of product sales;
- An integration of a resource that consists of the firm's acquisition of resource suppliers.

In practice, there are firms that simultaneously apply product integration and resource integration. For example, if an oil refinery acquires a company that produces oil and related raw materials, as well as a network of gas stations.

Sometimes there are situations in the market where, for one reason or another, the dominant firm is unable to establish full control over the property of other firms in the integration process. However, the management of this firm still has the ability to control the management of divisions of different structures. In this case, there *is incomplete or partial integration.* This form of integration is evident in the activities of network companies.

There may be *quasi-integration in the* industry market. It occurs when an active firm has control over the conduct of formally independent firms in the absence of control over their property. At the same time, legally independent firms voluntarily agree to monitor their conduct.

Often large companies use a variety of ways to control vertically integrated structures. The forms of vertical control are varied. They depend to a large extent on the information environment in which the manufacturer is located.

Vertical restrictions are contracts entered into by an unintegrated firm with its

suppliers and buyers, which in addition to prices stipulate special terms of delivery, special conditions for the sale of manufactured products, inventory regulations, minimum or maximum resale price, etc. Vertical restrictions are obligations that a firm operating at one stage of the process chain of transactions between companies imposes on the conduct of the firm at another stage.

Vertical restrictions include:

Linear pricing is a situation where a monopolist company sets the resale price itself, and the choice of volume of purchases of intermediate products is left to the client firm;

Non-linear pricing in the form of a two-private tariff. In this case, the first firm in the vertical chain grants the second firm exclusive rights to its products in exchange for a franchise - the constant amount of "ransom" for access to the market, to which the price of a unit of intermediate goods is added;

Control of retail prices. Monopoly firms can set the so-called recommended price for traders. This can be both the maximum and the minimum resale price. Controlling the level of retail prices allows to influence the final demand and thus the profit of the manufacturer;

Rationing of sales volume. In this case, the manufacturer indicates to the retailer the minimum or maximum sales volumes at which the vertical contract remains valid. If these conditions are not met, the contract is terminated;

R*ight of exclusive territory.* It can be provided to several retailers to eliminate unnecessary competition. Exclusive territory is defined as spatial differentiation, when different traders sell their goods in different spatial markets, as well as market segmentation by type of buyer;

Limiting the number of traders. In order to eliminate excessive competition and the risk of a destructive "price war" and to prevent excessive differentiation of goods (too close to the same manufacturer's stores) or, when there is insufficient coordination of dealers' activities, a forced restriction of the number of traders of the same manufacturer is applied.

9.2 Motives of firms to vertical integration

Vertical integration plays a leading role in the organization of modern market structures. The efficiency of the industry market depends largely on the availability of complete information and the ability to properly implement economic policy, this determines the clarity of actions of firms. These determinants lead to vertical integration of market elements.

The main motives for firms to establish vertical control over other firms:

First of all, among the motives that motivate firms to create vertically integrated structures are:

1. The *company's desire to strengthen market power* (getting the benefit from monopoly conditions).

There are many reasons for firms' desire to strengthen monopoly power. Each of them increases the possibility of assigning a monopoly price or avoids monopoly prices for primary resources.

Vertically integrated firms create high entry barriers because they have the best opportunities to organize their operations. These firms also have advantages in obtaining primary resources and processing them, while firms seeking to enter the market have to organize these opportunities at several levels, resulting in high capital costs. In addition, the barriers may include: the specific location of resources, mining rights, copyrights, etc.

A large company also has the opportunity to organize effective price discrimination;

2. *The desire of firms to increase profits by solving the problem of "double allowance".* As a result of vertical integration of firms, the costs of the final product manufacturer for the intermediate product decrease, market sales growth and the price of the final product decrease. The result is a profit higher than the total profit of the producers of final and intermediate products;

3. Achieving of efficiency. Efficiency includes the use of technical conditions and cost savings in the transaction.

It can be achieved by the technological benefits of combining the stages of the

production process.

Savings and efficiency can also be achieved through increased organization level, better coordination and interpeneability of processes that eliminate additional costs and risks, as well as clear schedules and regulatory procedures.

4. The most important motivating factors for vertical integration are *the savings on transaction costs* associated with the preparation and conclusion of the contract. This is a direct saving, because the vertically integrated structure reduces the costs associated with negotiating and contracting. Without vertical integration, contradictions and trades regarding prices and sales volumes of raw materials and intermediate products are inevitable;

5. Reducing the risk of uncertainty. Vertical integration improves *information exchange* between the parties. This is due to the fact that vertically integrated firms are able to benefit from the merger by jointly searching for the necessary information about the prices and quality of products.

6. Avoiding excessive administrative burdens (evasion of state restrictions, taxes, regulatory control). The evasion of state restrictions, first of all, includes the minimization of taxation. When buying raw materials and intermediate products, suppliers are paid taxes. This creates an incentive for integration, as internal transactions are not taxed. Therefore, integrated firms have lower costs than their competitors.

One of the leading motives for vertical integration is the possibility of *diversifying* the company due to the fact that the components and parts created at the intermediate stages of production can be used in other products. Therefore, very often firms seek to produce a variety of products based on the use of the same type of components.

10. The content of innovative activity in the enterprise

10.1 The role of innovation in the modern economy. Innovation as a factor in economic growth

The ancestor of the theory of innovation in the economy, most modern authors consider the Austrian economist *Josef Schumpeter*, in his theory, Josef Schumpeter justified the leading role of innovation in the economic development, which occurs at the expense not only of increasing national reserves and means of production, but also of own redistribution of production facilities belonging to old combinations, in favor of new combinations.

Michael Porter opened four stages of competitive development of the **country:**

1. Stage of development based on factors of production (agriculture, mining).
2. Stage of investment capital development.
3. Stage of innovation development.
4. Stage of development on the basis of well-being.

There are **two trends in the global economy**:

1. Globalization;
2. Accelerating innovation (the reason is competition).

Countries that are part of the global technological core (USA, Japan, Germany, France, England) are currently developing on the basis of increased innovation.

The main regularity of innovation development is the constant acceleration of innovative processes and increasingly rapid change of technologies.

10.2 The basic concepts of innovation. Innovation classification

Innovation is the end result of intellectual activity, which is embodied in the form of new or improved products sold on the market, or a new or improved process used in practical activities.

There are criteria of innovation:

1. Scientific and technological novelty;
2. Practical embodiment (industrial applicability);
3. Commercial feasibility.

There is a concept of an innovation market that is associated with the market of ideas (innovations) and the capital market (investment). After all, innovation will be only that innovation, which is accompanied by investments in production.

The innovation market has a number of specific features:

1. A high degree of scientific and technological novelty and progressiveness, which reduces the degree of susceptibility of consumers;
2. Increased levels of uncertainty in different business settings;
3. A targeted focus on achieving relatively time-far-reaching results;
4. A pool of highly qualified professionals from different fields, unique material resources;
5. A high probability of getting unpredictable, but having an independent, intermediate results.

The innovation process is a combination of activities and actions to prepare and produce new products, as well as its consumption, associated with the creation of innovations that lead to the commercial use of new products and technologies.

The innovation process can be viewed from the point of view of the cyclicality of innovative fluctuations in the economy.

There are types of innovations by the level of novelty:

1) fundamentally new, which are new on a global scale;

2) Innovations are new within the country;

3) The products are new for this company.

Innovation is the driving force of entrepreneurship. The most supportive environment for innovation is competition, in which every entrepreneur strives to gain a competitive advantage through innovation.

The main incentive for innovation is the ability to generate additional profits due to the presence of significant differences in the production and sale of products on the market.

Entrepreneurial risk is the **main constraint** of innovation.

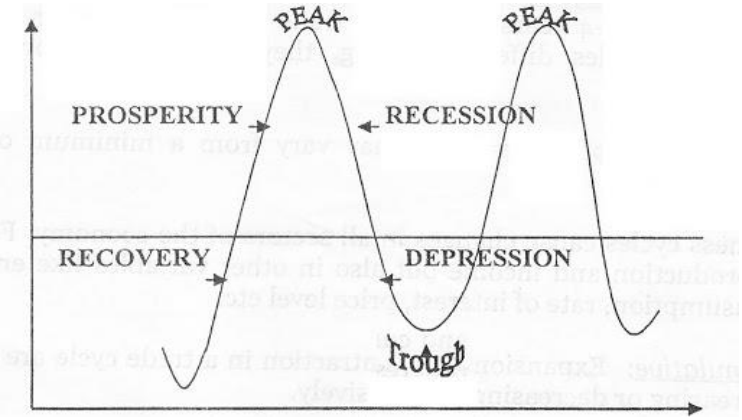
Since risk is an important attribute of innovation, effective innovation management involves finding the best forms of entrepreneurship that will most reduce the impact of risk. Usually this form is small enterprises, which try to market different types of innovations and, if successful, organize large-scale production.

10.3 Technological ways

Economically, the history of innovation is driven by development cycles. The economy is cyclical in nature (i.e. the economy is changing the stages of growth and recession), which is associated with the existence of a reproductive cycle. Cycles vary in duration depending on the cause of their occurrence: the shortest - seasonal, the longest - technological.

The technological cycle or way of life lasts about 50-60 years and is conditioned by the dominance of certain technologies in the development of the economy. When the dominant technology exhausts its capacity to modernize and further progress the economy, there is a need to find new technologies and a change of ways.

The main driving force behind the technological cycles are radical changes in the technological base of public production and structural adjustment.



Picture 18 – Phases of business cycle

Schumpeter describes four patterns of cycles:

1. Before the rise of the big cycle wave, there are profound changes in technology or production technology based on the emergence of cardinal discoveries and inventions;

2. Periods of increased waves in large cycles are accompanied by major social shocks, while in the downward area the shocks are insignificant;

3. The downward wave is characterized by depression in agriculture;

4. Large cycles are identified in the same unified process of economic development dynamics, in which the average cycles with their phases of recovery, crisis and depression are manifested.

Technological ways are divided into the following species:

First way (The end of 18th century - the beginning. 19th century) is based on water and steam engine technologies.

The industrial revolution at the turn of the 18thand19th centuries swept the weaving, chemical and metallurgical industries.

Training in the workplace has developed. The basis of education was made up of universities and scientific communities.

Infrastructure: transport and communications, canals and dirt roads.

Basic energy: hydropower.

Universal cheap resource: cotton.

Second way (the middle of 19th century) is based on the technologies of iron and steel (metallurgy) and the development of railways. The steam energy was mainly used.

Invented turbines, steam pump, telegraph, discovered electromagnetic induction, the theory of the magnetic field.

Mass primary education began to develop, technical universities and engineering specialties appeared.

Infrastructure: paved roads, telegraph.

Universal cheap resource: coal and iron.

Third way (The end of19th century - the beginning 20th century) is a cycle of electricity and steel (electric motors, thermal steel treatment). It is based on technologies related to the production and use of electricity, chemical industry.

At this stage there are engineering laboratories in corporations, technological stages are being developed.

Infrastructure: railways, telephone.

Universal cheap resource: steel.

Fourth way (the middle of 20th century). Development of refining technologies, automotive industry, production of synthetic materials. The main source of energy is oil.

There has been rapid growth in corporations, mass access to higher education.

Motorways, airlines, radio and television are widely used.

Universal cheap resource: oil and plastics.

Fifth way (The end of 20th century - the beginning 21st century). Information technology, computer technology, biotechnology. Computer revolution (development of electronics industry, robotics, fiber optic technology, software).

Global engineering networks and the Internet are developing.

Universal cheap resource: microelectronics.

The Sixth Way (21st century) is biocompatible. Space exploration, geoengineering, nanotechnology.

The development of biocompatible processes: closed physical cycles are created, environmental protection technology, biotechnology and nanotechnology are developing.

The main source of energy is natural gas, the energy of light, sun and water begins to be used. Alternative energy sources are becoming a Universal Cheap Resource.

10.4 The company's innovation. Enterprise Innovation Management

In an industrial society, innovation emerges as a natural result of the classical chain: **scientific development, experimental production, testing, mass production, introduction, distribution (selling).**

In innovative management, there are two approaches to innovation management - closed and open innovation.

I. «Closed Innovations» - all the company's developments are carried out on their own.

The logic of "closed" innovations is that the profits earned by the business are invested in scientific developments. These works, in turn, should lead to new fundamental technological breakthroughs. New technologies, being well protected by legal mechanisms (intellectual property), will create new products with unique characteristics, which will lead to increased sales and new profits. The management of scientific developments within the framework of "closed" innovations is characterized by the fact that the entire process of research and development takes place inside the firm. New ideas are analyzed and selected during the research phase. after that, "survivors" ideas are developed and based on products that enter the market.

In the past decade, however, a number of trends - economic, institutional, social - have been more clear, undermining the effectiveness of "closed" innovations and making it relevant to seek an alternative.

Trends that undermine the sustainable functioning of companies within the paradigm of "closed" innovation are:

1) The mobility of the most experienced people has increased significantly. When people who have worked in the company for many years leave, they carry with them valuable knowledge to the new employer. The new employer pays nothing for the multi-year investment in the employee;

2) Venture capital has increased and strengthened significantly over the past decade. Venture capital owners specialize in financing new companies that

commercialize external research and turn these companies into serious, growing firms that can compete with large established companies;

3) There are other negative factors: pressure from consumers and suppliers, leading to lower profits, as well as a further increase in international competition, etc.

II. «Open Innovation» **-** constant exchange of information at all stages of development.

Businesses are beginning to dominate the principles of **open innovation theory,** which describes the development and commercialization of technologies, where participating organizations use knowledge from other organizations:

1) Not all leading specialists work for the company. You should work with leading professionals inside and outside the company;

2) There are many innovative ideas on the market that can make a profit. The Research Department needs to ensure that some of this profit goes to the company;

3) You don't have to be pioneers to profit from discoveries;

4) Build the most optimal business model is much more efficient than first to enter the market;

5) If the company can make the best use of internal and external innovations, it will become a leader;

6) The company should profit from the fact that other market participants will use its intellectual property, and acquire someone else's intellectual property, if this will contribute to the development of the company's business model.

10.5 Institutional conditions for innovations

Social institutions are organizations, rules and principles, a structure of society that determines people's motivation and behavior.

The most important institutions that define human behaviour can be *identified:*

- The economic system
- Legislative and legal framework;
- Religion;

- Public relations.

From the perspective of innovation marketing, the impact of social institutions on human behaviour is viewed in terms of their susceptibility to innovation. Here are *the following types of behavior*:

1) *Innovators* are the main source of foreign ideas, actively using and promoting innovative products to markets;

2) *Supporters of innovators* are people who do not innovate themselves, but are active followers and advocates of innovators;

3) *Moderate consumers* - do not resist innovation, but use them only when they have a well established market;

4) *Conservatives* are supporters of well-tested ideas and products;

5) *Retrogrades are* ardent opponents of everything new.

Modern society is shaped by the behavior of the most active proponents of innovation, for whom consumption of everything new is the main motive of economic behavior (consumer society).

Increased risk is the main deterrent to innovation, so in order to increase the interest of enterprises in innovation and stimulate innovation activity at the level of the state, regions, large corporations, special *organizational structures* are created that can reduce the risk of innovation and increase its efficiency.

Organizational structures:

1) *incubators* are special production and office centres with several innovative enterprises that provide access to market innovation, exchange of experience, cooperation, etc.;

2) *Science and Technology Parks* are associations that include research, manufacturing, commercial organizations (often created at universities);

3) *The Technology Transfer Centre* is a technology information centre that concentrates information on new technologies and ensures that they are transferred to interested enterprises;

4) *venture capital divisions of large industrial corporations* are

small (subsidiaries) firms that provide the implementation of specific innovative projects and, if luck, are transferred to the parent corporation.

Effective innovation requires the organization of appropriate innovation infrastructure, including a system of financing innovation, market research of the innovation market, legal support, etc.

Public innovation policy includes the *following tools*:

1) funding for science and innovation;

2) providing tax breaks for scientific and innovative activities;

3) providing concessional loans for innovative projects;

4) Providing legal protection for innovation;

5) Providing information and technology support for innovation;

6) Promoting international cooperation in the transfer and introduction of new technologies in the country.

The innovative economy is characterized by a wide use of information technologies that significantly improve business efficiency. Their application, first of all, ensured the creation of new knowledge, which allowed to increase sales. Innovative development prospects are now being given to the telecommunications, aerospace, chemical, electronics, computer and biotechnology industries.

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