

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economic Theories**



**Master's Thesis**

**Improving the competitiveness of the organization in the  
field of telecommunications**

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## DIPLOMA THESIS ASSIGNMENT

Bc. Guram Turkiia

Economics and Management

Thesis title

**Improving the competitiveness of the organization in the field of telecommunications**

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### **Objectives of thesis**

The main objective of the thesis is to develop measures to improve the competitiveness of PJSC Rostelecom. Evaluate the competitive environment of the telecommunications market. Explore the internal and external environment of PJSC Rostelecom. Make a forecast and prove the effectiveness of the proposed measures.

### **Methodology**

The methodological basis of the research is general scientific methods of cognition and scientific approaches to the study of objects and phenomena. Methods and principles of subject-logical, structural and functional analysis, expert assessments, methodological approaches to the study of the effectiveness of the use of the potential of organizations were also used. Methods of work: descriptive, comparative, analytical, classification and generalization. Vertical and horizontal analysis of financial statements is used to analyze the organization's finances. The paper presents the coefficients of financial stability, the analysis of the liquidity of the balance sheet, the assessment of the probability of bankruptcy based on the two-factor Altman model. The paper presents the share of staff turnover among employees of different ages and genders. The assessment of the organization's activities is based on SNW, PEST and SWOT analysis. The compiled solutions for improving competitiveness are analyzed to assess financial efficiency.

## The proposed extent of the thesis

60- 80

## Keywords

competitiveness of the organization; competitive advantages; competitiveness analysis; efficiency of the company; telecommunications;

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## **Declaration**

I declare that I have worked on my master thesis titled "Improving the competitiveness of the organization in the field of telecommunications" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master thesis, I declare that the thesis does not break any copyrights.

In Prague on 15.03.2023

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# **Improving the competitiveness of the organization in the field of telecommunications**

## **Abstract**

The main objective of the thesis is to develop measures to improve the competitiveness of PJSC Rostelecom. Evaluate the competitive environment of the telecommunications market. Explore the internal and external environment of PJSC Rostelecom. Make a forecast and prove the effectiveness of the proposed measures.

The object of research in the final qualifying work is the Russian provider of digital services and services of PJSC Rostelecom.

The subject of the study is the assessment and improvement of the competitiveness of organizations in the field of telecommunications.

The paper presents the coefficients of financial stability, the analysis of the liquidity of the balance sheet, the assessment of the probability of bankruptcy based on the two-factor Altman model. The paper presents the share of staff turnover among employees of different ages and genders. The assessment of the organization's activities is based on SNW, PEST and SWOT analysis. The compiled solutions for improving competitiveness are analysed to assess financial efficiency. Results of the work: by studying the external and internal environment of PJSC «Rostelecom», its strengths and weaknesses, opportunities and looming threats, which made it possible to develop measures aimed at improving the competitiveness of the organization.

**Keywords:** competitiveness of the organization; competitive advantages; competitiveness analysis; efficiency of the company; telecommunications;

# Zlepšení konkurenceschopnosti organizace v oblasti telekomunikací

## Abstrakt

Hlavním cílem práce je vypracovat opatření ke zlepšení konkurenceschopnosti PJSC Rostelecom. Zhodnotit konkurenční prostředí telekomunikačního trhu. Prozkoumat vnitřní a vnější prostředí PJSC Rostelecom. Sestavit prognózu a prokázat účinnost navrhovaných opatření.

Předmětem výzkumu v závěrečné kvalifikační práci je ruský poskytovatel digitálních služeb a služeb PJSC Rostelecom.

Předmětem zkoumání je hodnocení a zlepšení konkurenceschopnosti organizace v oblasti telekomunikací.

V práci jsou uvedeny koeficienty finanční stability, analýza likvidity rozvahy, posouzení pravděpodobnosti bankrotu na základě dvoufaktorového Altmanova modelu. Práce uvádí podíl fluktuace zaměstnanců různého věku a pohlaví. Hodnocení činnosti organizace je založeno na analýze SNW, PEST a SWOT. Sestavená řešení pro zlepšení konkurenceschopnosti jsou analyzována za účelem posouzení finanční efektivity. Výsledky práce: na základě studia vnějšího a vnitřního prostředí PJSC "Rostelecom", jeho silných a slabých stránek, příležitostí a hrozících hrozeb, bylo možné vypracovat opatření zaměřená na zlepšení konkurenceschopnosti organizace.

**Klíčová slova:** konkurenceschopnost organizace; konkurenční výhody; analýza konkurenceschopnosti; efektivita společnosti; telekomunikace.

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## **List of abbreviations**

PJSC «Rostelecom» ... Rostelecom Public Open Joint Stock Company

RUB ... Russian ruble

## **1. Introduction**

An organization cannot function successfully in the market if it does not analyze and take into account the activities of its competitors. Competition allows you to identify leaders who produce high-quality goods and services that can meet the needs of customers. For this reason, it is necessary to evaluate competitors and, after conducting an analysis, competently develop measures aimed at improving the competitiveness of the organization.

Only after discovering the advantages and disadvantages of your organization, so you can correctly determine its goals, correctly assess the potential and develop a strategy for development. The analysis will help not only to evaluate the efficiency of the company, but also to compare it with competitors. Based on this assessment, it will be possible to accurately focus attention on the direction where others are weaker or even open new directions for development. Ultimately, the company will increase its competitiveness. This will be expressed through an increase in market share, profit growth, an increase in reputation and the level of trust among buyers. For the consumer, competitiveness is expressed through product characteristics. And for competing organizations, it is obvious that goods and services that are not able to attract consumers with their quality and price will not have demand, which will lead to a loss of profit.

In the field of telecommunications, there is an active growth of competition among the market leaders: PJSC Rostelecom, ER-Telecom Holding, PJSC Vimpelcom (Beeline) and PJSC Mobile TeleSystems (MTS). Increasing competitiveness in this area is an important and multifaceted process that requires constant improvement of both pricing policy and non-price factors of competition. IT technologies have become an integral part of every person's life and for this reason, the requirements for the services of providers and operators are growing. Timely development and implementation of innovations that affect the quality of the connection while maintaining a competitive price allows you to take a large market share by increasing the competitiveness of the organization, which makes it possible to attract customers of other providers, as well as retain existing ones.

The relevance of the research topic is due to the fact that maintaining the necessary level of competitiveness of an organization requires the full use of numerous internal and external factors for development. The development of solutions to these issues should be based on comprehensive research in order to maximize competitive advantages.

The purpose of the final qualification work is to assess the general and economic situation of the Rostelecom PJSC organization in the market and, based on the analysis, develop measures to improve its competitiveness.

The object of research in the final qualifying work is the Russian provider of digital services and services of PJSC Rostelecom.

The subject of the study is the assessment and improvement of the competitiveness of organizations in the field of telecommunications.

The methodological and theoretical basis of the research are general scientific methods of cognition and scientific approaches to the study of objects and phenomena. Methods and principles of subject-logical, structural and functional analysis, expert assessments, methodological approaches to the study of the effectiveness of the use of the potential of organizations were also used.

The information base of the work is scientific, special, educational and methodological literature of Russian and foreign authors, scientific and legal acts in the field of telecommunications services, accounting and static reporting of the object of research, materials of scientific and practical conferences, articles of periodicals, Internet resources.

In the literature review there is the theoretical basis for improving competitiveness is studied.

The practical part provides a general description of the object of research according to the specified parameters, an economic analysis of the results of its activities for 2019-2021, an analysis of the internal and external environment of this organization and the competitiveness of the organization is investigated.

Results and Discussion contains the development of competitiveness of PJSC Rostelecom presents the proposed measures to improve the competitiveness of PJSC Rostelecom, their effectiveness and evaluation.

The conclusion contains the main conclusions and results of the study.

## 2. Objectives and Methodology

### 2.1 Objectives

The main objective of the thesis is to develop measures to improve the competitiveness of PJSC Rostelecom. Evaluate the competitive environment of the telecommunications market. Explore the internal and external environment of PJSC Rostelecom. Make a forecast and prove the effectiveness of the proposed measures.

#### Hypothesis

To improve the competitiveness of an organization in the field of communication, it is necessary to analyse the external and internal environment in order to compile a list of activities and a method for evaluating their effectiveness.

#### Research questions

- How to analyse the competitiveness of Rostelecom?
- What recommendations are relevant for increasing the competitiveness of the organization?
- How to evaluate the effectiveness of the proposed activities?

In accordance with the goal, it is necessary to solve the following tasks:

- give the concept of competitiveness and its improvement;
- identify the role of analysis and competitiveness improvement for the development of the organization;
  - conduct a comprehensive analysis of Rostelecom's position on the market, identify advantages and disadvantages, as well as opportunities and threats;
  - disclose the reserves available to the organization, propose measures to develop its competitiveness and justify ways to improve the efficiency of the company.

The object of research in the final qualifying work is the Russian provider of digital services and services of PJSC Rostelecom.

The subject of the study is the assessment and improvement of the competitiveness of organizations in the field of telecommunications.

## 2.2 Methodology

The methodological basis of the research is general scientific methods of cognition and scientific approaches to the study of objects and phenomena. Methods and principles of subject-logical, structural and functional analysis, expert assessments, methodological approaches to the study of the effectiveness of the use of the potential of organizations were also used. Methods of work: descriptive, comparative, analytical, classification and generalization. Vertical and horizontal analysis of financial statements is used to analyze the organization's finances.

The paper presents the coefficients of financial stability the analysis of the liquidity of the balance sheet. The analysis of the liquidity of the balance sheet was carried out to assess the ability of the company to satisfy its short-term financial obligations. The assessment of the probability of bankruptcy is based on the two-factor Altman model. Altman's two-factor bankruptcy analysis model is used to predict the probability of a company's bankruptcy based on financial indicators. At the time of writing the practical part, the actual data on the official website of Rostelecom PJSC was available only for the period up to 2021, therefore, the work examines the period 2019-2021. Results of the work: by studying the external and internal environment of PJSC «Rostelecom», its strengths and weaknesses, opportunities and looming threats, which made it possible to develop measures aimed at improving the competitiveness of the organization.

The analysis of labor resources, staff stability, staff turnover rate by gender, age and category of work is carried out to identify patterns and trends in employee retention and turnover, as well as to identify any potential disparities in the workplace based on demographic factors. The assessment of the organization's activities is based on SNW, PEST and SWOT analysis. Assessing the organization's activities is a crucial step in evaluating its overall performance and potential for growth. One common approach to this assessment is through the use of various analytical frameworks, including SNW, PEST, and SWOT analysis. SNW analysis evaluates an organization's strengths, weaknesses, and the opportunities and threats it faces in the market, allowing for a comprehensive understanding of its internal and external environment. PEST analysis examines the political, economic, social, and technological factors that may impact the organization, providing insights into potential risks and opportunities. SWOT analysis considers an organization's strengths, weaknesses, opportunities, and threats to develop strategic plans that align with its goals and

mitigate risks. By using these analytical frameworks, organizations can gain a deeper understanding of their internal and external environments, make informed decisions, and improve their overall performance and competitiveness in the market. The financial efficiency and impact of the proposed measures on the company are evaluated in light of the analysis conducted.

### **3. Literature Review**

#### **3.1 Theoretical foundations of the organization's competitiveness in the field of telecommunications**

##### **3.1.1 The concept, essence, value of the competitiveness of the organization**

Wilson (2018) highlights the importance of competition. Competition is global in nature, so today organizations must enter the market with global strategies, and this applies not only to external, but also domestic markets. Constant changes are an integral part of success and competitiveness because those who do not adjust strategy and do not apply innovations become not only less competitive, but also usually disappear from the market. Timely response to changes is the basis for successful management and development of organizations for the successful functioning of the market.

In accordance with Prahalad (2016), managers have been learning for almost two decades how to behave in accordance with constantly changing conditions. Organizations must be flexible and respond quickly to competitive and market changes. Therefore, organizations should reconsider the postulates of their activities and management. To achieve the best position among competitors, they must constantly determine benchmarks.

Teece (2018) states that currently, it is believed that competitors can quickly copy any market position, so the competitive advantage is temporary at best. However, by applying appropriate strategies of competitive advantage, organizations are involved in the struggle for a better position and an increase in market share. To create and maintain competitiveness, organizations are forced to constantly improve the knowledge of employees and introduce modern methods and concepts of management and marketing. Some organizations are able to use their production factors better than others by eliminating unnecessary work, using modern technologies and better motivating employees.

As stated by Kotler (2019), competition appears as the highest stimulating force that allows organizations to improve the quality of products, goods, works or services, reduce the cost of production and increase labor productivity. And the means of competition are goods and services with which competing companies create an image for themselves and try to get the maximum possible profit.



In modern market conditions, in a broad sense, competitiveness as a driving force consists of a set of components of different orientation, presented in Table 1.

Table 1 – Components of competitiveness as a driving force

Component number	Characteristic
1	The first component is characterized by a feature of the company's products or services, a set of their characteristics, their quality, uniqueness and innovation.
2	The second component is determined by the volume of the market, the logistical capabilities of the organization of the product sales system and the maintenance of service for maintenance. It characterizes demand by evaluating the capabilities of buyers, as well as the offers of both the organization itself and its competitors.
3	The third component covers consumers of goods and services, it characterizes their characteristics as members of various social groups. This allows segmentation of buyers with differentiated financial capabilities and preferences. It is necessary to identify various factors and characteristics that can influence the choice of buyers.

Source: Christensen, C.M., Cook, S. and Hall, T. (2005). *Marketing Malpractice: The Cause and the Cure*. Harvard Business Review, 83(12), 74-83.

Solomon (2019) noted that studies of the competitiveness of companies are conducted from the point of view of the influence of the external and internal environment. Each of these factors has a significant impact on the competitiveness of the organization. The modern economic literature presents the point of view that intellectual property, intangible assets, image and reputation play a crucial role in increasing the competitiveness of an organization.

However, this explanation is not universal for all regions and countries. For this reason, adaptation to the current conditions of a particular market is required for more effective implementation of means to increase competitiveness. According to Palmatier (2019), only after identifying the features of the environment and the degree of its influence, it is possible to build a strategy for the development of the organization and the growth of its competitiveness. Features of the domestic market:

- 1) the increase in the degree of risk of entrepreneurial activity;
- 2) instability of market relations;
- 3) unequal conditions of competition;
- 4) high and steady inflation rate
- 5) limited traffic;

6) weakness of legal protection of business units.

Grant (2019) states that it is also necessary to study the views of various scientists on the definition of this concept in order to consider in more detail and more accurately describe the concept of the competitiveness of an organization.

According to Vaynerchuk (2011), the competitiveness of an organization is “a set of determinants that affect its productivity. The determinants include: prices, costs, quality of goods and services, technological and organizational improvements, performance, relations between companies, relations with the public sector and the educational community, human capital and the level of research and scientific activity. Such a definition can be considered complex, since it affects the most significant factors of the external and internal environment of the organization, which it can use to increase its competitiveness.

In the past, the concept of competitiveness concerned only organizations and their products and services. However, the growth of internationalization of organizations and business in general has led to the predominance of the concept of competitiveness of specific organizations or their products and services (Drucker, 1954). The research conducted by Kaplan (2017) indicates that it is necessary to determine the role of competitiveness at the macro, meso and micro levels:

1. Competitiveness at the macro level is the competitiveness of the whole country and is defined as a set of institutions, policies and factors that determine the level of productivity and prosperity that can create some economic activity in the medium or long term. Macro-competitiveness is based on the global efficiency of the national economy, the flexibility of production, the use of technology and investment, productivity, profitability of production.

2. competitiveness at the meso-level is the formation of prospects for the development of an industry or corporation, covering a group of enterprises;

3. Micro-level competitiveness is competitiveness at the level of various organizations. It is the ability of an organization to participate and win in the field of global offerings of specific products or services. Competitiveness at the organizational level is defined as the continuous ability of an organization to continuously deliver quality products and services, outperform competitors, acquire customers, increase its presence in the market and enter into contracts for profitable operations that ensure the strategic growth of the organization and increase the level of employees.

Internal competition unites the second and third types of competitiveness on the way to success. In foreign trade, this term is increasingly used when the race for the world market is led by successful organizations that are helped by their effectively organized countries with the help of a number of legal norms. The position that organizations take is in knowledge, management and technology, while the state plays a role in creating a favorable macroeconomic environment. It is necessary to allow the creation of organizations that produce the best products based on advanced technologies and satisfy even the most demanding customers.

Each of the levels of competitiveness is related to the others. Kozinets (2010) argues that: "Competitiveness at the micro level depends on the conditions prevailing at the previous two levels, as well as on the personnel composition of the organization, its ability to effectively allocate and use both its resources and comparative national general economic and sectoral advantages". This means that most of the competitive advantages are formed and investigated at the second level. For this reason, the most competitive goods and services are created in organizations that use innovations in technology, personnel management, production organization, advertising and other areas.

The international organization "European Management Forum" (European Management Forum or EMF) proposed to consider the competitiveness of the company "the real and potential ability of the company to design, manufacture and sell in the conditions in which they have to act, goods that are more attractive to the consumer in terms of "price" and "non-price" characteristics in the complex, than competitors' products." An analysis of this formulation of competitiveness shows that it is all-encompassing. The peculiarity of the definition is that it emphasizes the importance of market conditions. They are the foundation for building an organization's development strategy and increasing its competitiveness. On the basis of this, goods and services of the required quality and with certain characteristics that are attractive to various segments of consumers are created.

As stated by Machado (2019), organizations that use their advantages to meet the needs and desires of target groups of consumers, have access to innovations, incorporate new technologies and new methods of work, and achieve competitive advantages. Innovations may include a new product design or access to a new market. Some innovations create a competitive advantage in such a way that they open up completely new market opportunities, taking into account the needs of any market segment that is ignored by other organizations. When competitors react slowly, these innovations provide a competitive

advantage. When using some innovations to achieve competitive advantages, an organization can support itself only through continuous improvements, that is, to produce improved and more functional products. In modern conditions, any organization that wants to achieve a competitive advantage and maintain customer loyalty at a high level is obliged to use a systematic approach to management. This means that it is necessary to coordinate the functioning of the organization with the needs and desires of consumers of their intended products and services aimed at achieving their goals. According to this, there are three paths that lead to market leadership. Long-term planning and application of innovations in the development of new products in the organization should be correlated with operational and other functional strategies, on the one hand, and consumer demand on the other. In order to achieve and maintain a competitive advantage, it is important to predict in which direction consumers' desires will develop so that the organization is one step ahead of them. Managers should focus on innovation in all areas of activity in order to meet the needs of customers and win their preferences.

According to Keegan (2017), each company should have its own competitive strategy in order to respond to the environment itself and strive to shape it in its favor. This is the way an organization can achieve a competitive advantage if it is able to produce an excellent product and or provide a quality service that it will bring to market at a lower price than most or all competitors. Organizations compete in terms of market coverage, which can be local or global. Organizations that can offer superior products at the lowest price in the global market have the greatest advantage.

Based on the research conducted by The ESOP Association (2017), competitive advantage is achieved in such a way that organizations somehow practice a differentiated approach to production factors, unlike competing organizations that are not very good at this practice. Such organizations have special favorable conditions from suppliers, carriers or have access to cheap labor. Similarly, they may be represented by factors of a completely different nature, such as greater experience and knowledge or a more loyal workforce. Competitive advantage can be achieved by owning patent rights that are important for a particular activity or provide better access to financial resources.

Even if one market participant has a large number of resources, such as knowledge, experience, information, capital, etc. In comparison with other participants, then there is an asymmetry. Asymmetry provides a competitive advantage over others, which leads to faster placement of better products on the market at lower prices.

It is especially important to single out one specific source of competitive advantage – the advantage of the first step, which is achieved when an organization is the first to bring a certain product or service to the market. If loyal followers appear on the market after the first step or a new product is difficult to replicate, the first organization can maintain a competitive advantage for longer. If the organization that has taken the first step does not have the additional resources and means necessary to maintain a competitive advantage, then, as a rule, organizations that are direct competitors can achieve greater success with it.

Wilson (2018) stated that every organization, in order to be increasingly competitive in the market, should use continuous analysis of effects, regardless of whether they are positive or negative. The analysis determines the current efficiency and effectiveness, while the organization can more accurately determine the direction of achieving its goals and provide higher quality, which provides higher competitive advantages in the market.

From this it follows that the competitiveness of a business entity is a multidimensional economic category, which is the main criterion for evaluating the effectiveness of an organization in terms of production, performance of work or provision of services, as well as the final indicator of the effectiveness of the management system of this business entity.

According to Lehmann (2018), the competitiveness of a business entity is influenced by a combination of factors of internal and external environments. Therefore, in order to successfully develop measures to improve competitiveness, it is necessary to conduct an analysis that includes identifying factors of both the internal and external environment, as well as their impact and the possibilities of their use.

Examples of environmental factors are presented in Table 2.

Table 2 – External factors affecting the business entity

External factors of direct impact	External factors of indirect impact
Shareholders Competitors Suppliers Consumers Local and federal authorities	Politics Technology Right Economy Socio-cultural factors

Source: Lehmann, O., 2018, Project Business Management, Auerbach Publishers, Incorporated, Milton. Available from: ProQuest Ebook Central. 19-33.

Competitiveness is the main prerequisite for the development of organizations in Russia. To increase competitiveness, organizations in the country should constantly encourage activities focused on the processes of modernization and the introduction of certain technologies and high technological standards. This is necessary because organizations in Russia still have an insufficient level of quality of goods and services, which is a limiting factor for foreign markets and achieving competitive advantages.

Competitiveness should be aimed at creating the necessary conditions for its functioning. In this direction, despite the macroeconomic conditions, organizations should restructure the industry in terms of quality, standard and prices in accordance with the requirements of domestic and especially foreign buyers. Faced with strong competition, organizations in Russia should be focused on acquiring the necessary elements to gain competitive advantages. Overcoming the main obstacles faced by organizations, as well as achieving high quality in accordance with international standards is a prerequisite for obtaining competitive advantages.

It should be noted that increasing the competitiveness of organizations depends on the stability and consistency of macroeconomic policy in combination with the necessary changes in their economic activities and management at the micro-level of organizations. In addition, the formation of a long-term active national policy is of particular importance for supporting small businesses. Only thanks to the long-term national policy of supporting entrepreneurship and competitiveness organizations in Russia will be able to become competitive and, thus, occupy international markets.

According to the findings of Porter (1980), the factors that are important determinants for the acquisition, maintenance and improvement of competitiveness are dynamic, changeable and have different meanings and influence on the functional, territorial and temporal context. There are five competitiveness factors in each market segment. They were commonly known as Porter's Five Forces:

- competitors in business segments - rivalry between existing organizations;
- potential new entrants and their competitive pressure on the market;
- substitute manufacturers and their competitive pressure to overtake customers;
- negotiating powers of suppliers;
- customer bargaining power and cooperation between sellers and buyers.

The strongest competitive element has always been the rivalry between existing participants.

The research conducted by Malhotra (2017) indicates that competitors use all the tools and "weapons" in order to improve their position in the market. The task of management is to develop a competitive strategy that will allow the organization to survive in the fight against competitors, and at best improve its competitive position and gain a competitive advantage. When managers define competition, they do not take into account all the factors of competition. However, competitors respond with offensive and defensive countermeasures, adjust their production, quality, marketing and strategy. The distinctive elements are knowledge, ability and innovation. This creates a space for constant and intense competition. Competition intensifies when products are standardized, offers are similar and poorly differentiated, or when prices decline due to the size of the economy. A similar effect of increased competitiveness occurs when larger organizations overtake smaller ones in order to position themselves more aggressively. The threat of new competitors entering the market is higher when the barriers to entry are low, when there are many candidates willing to enter the market, when industrial growth is great, the potential for profit is high, and when existing organizations cannot and do not want to vigorously oppose. Regulatory policy also plays an important role. Government agencies may restrict or prohibit the entry of licenses and permits. States, as a rule, use customs policy instruments to restrict trade as a form of protection for domestic producers. Every government creates a certain competitive environment.

As stated by Kotler (2016), the appearance of substitute products can increase competitive pressure, if the quality is comparable or better, or if they are available and have a tempting price, then the buyer is interested in choosing such a product. It is for this reason that competitive market participants are forced to add new properties and improve the characteristics of goods in order to convince customers that their products are better than substitutes. When switching to substitute products, buyers may face loss of time, possible inconveniences, costs for additional equipment, reliability and quality checks, psychological breakdown of relations with previous suppliers, and so on. But since the price is lower, and the quality and success are higher, the costs of switching to substitute products are less. The competitive advantages of substitute products are high sales and profit growth rates, sharp market penetration and plans to expand production capacities.

According to Porter (1996), cooperation with suppliers plays a very important role in increasing the competitiveness of the organization. The company faces a choice whether to continue to purchase goods from an existing supplier, or to turn to its competitor offering more attractive terms of purchase, where the quality and conditions of purchase may differ. Products provided by suppliers may be scarce, but they can also be widely available. Economies of scale play an important role here, as well as the fact whether the product gets to the supplier on time and at a price lower than what it would have had if the organization itself produced it. Suppliers have greater bargaining power if there is a need for products that are not represented in sufficient quantity, the number of suppliers of a particular product is small, or if the supplier has a differentiated contribution. Strategic partnerships between suppliers and organizations are common because they reduce certain costs, improve quality, save money and strengthen relationships and mutual trust.

The research conducted by Solomon (2019) indicates that customers who are well informed about product quality, costs and expenses can put pressure. Today, products and services can be compared online. The pressure of buyers becomes higher if, in the process of purchasing a certain product, the customer does not experience inconveniences, such as loss of time or payment of additional expenses. In such situations, organizations must adapt and look for new ways to improve products and reduce prices. Five competitive forces provide excellent diagnostics of competition in a particular market. It is necessary to study each force separately, and then consider them together to determine the value of their combined strength and how it affects competitiveness and profitability. An organization's strategy is more effective if it withstands competitive pressures and if the organization uses constant changes and creates new models of competitive advantages.

Thus, it can be concluded that the competitiveness of an organization is an integral indicator reflecting the effectiveness of the financial and economic functioning of the industry, the specifics, organizational and legal form, status, image, position in time and space depend on a number of factors of the external and internal environment. To conduct a qualitative and quantitative assessment of competitiveness, a wide range of tools has been developed that allow implementing a system-criteria approach to determining the level of competitiveness of an organization



### **3.1.2 Characteristics of the telecommunications sector**

The globalization of economic life and the growing role of technological innovations have significantly strengthened the role of information as one of the key factors of competitiveness in the modern economy. According to Rostelecom's Sustainable Development Report (2021), telecommunications have already become an integral part of business, therefore, they allow using both national and international information flows to achieve goals. The volume of information transmitted through the information and telecommunications infrastructure doubles worldwide every 2-3 years, which increases the importance of telecommunications both at the organizational level and in the global economy, thereby strengthening the processes of globalization.

The research conducted by Prahalad (2016) indicates that competition is becoming an increasingly important topic in telecommunications policy. It is credited with expanding services, lowering prices and stimulating innovation, but competition can pose difficult challenges for telecom policy makers and regulators. One of such problems is to determine the optimal combination of market and regulatory participation in determining prices, services and investment decisions. An assessment of market power and competition is also required, focusing on methods of analyzing market competition in order to determine the most appropriate form of regulation, as well as merger policy. Of paramount importance is the ability of the government and the regulatory body to pinpoint the market before they can consider market power. Markets are defined by both commodity and geographical boundaries. In terms of products, a market is a set of all products that customers are willing to replace if prices change and excludes all products that customers do not consider reasonable substitutes for products on the market. The definition of a market includes all suppliers who could create substitutes for these products and excludes all suppliers who could not.

As stated by Verhoef (2010), in most cases people use the term "competition" in relation to markets in which firms must compete strongly for sales. Each firm tries to attract customers at the expense of other firms, and due to their competition, the market price and quality affect the benefit of these customers. Perfect competition is a market condition in which no single supplier in the market can individually influence the market price, and each supplier can sell as much as he wants at the prevailing market price. While the

telecommunications industry almost never fits into this perfectly competitive market paradigm, it has the following characteristics:

- Customers can find other sellers offering the products they want, or comparable substitutes, at prices they are willing to pay.
- Sellers can reach potential buyers for their products without facing unreasonable barriers or limitations from other companies, interest groups, government agencies, or prevailing laws and regulations.
- The market price of a product is established through the interplay between consumers and businesses.
- No single consumer or business, or group of consumers or businesses, can dictate or unduly impact the price level.

Differences in prices charged by different firms (and paid by different consumers) reflect only differences in the cost or quality of products/attributes.

According to Keller (2016), the purpose of this form of competition is to increase economic efficiency. Economic efficiency includes three concepts of efficiency: distribution efficiency, technical efficiency and dynamic efficiency. Distribution efficiency is a situation where limited resources are used to the greatest advantage. This is important because it helps maximize the value that customers receive from the services provided. Economists call this maximizing the net consumer surplus, which is the difference between the prices paid and the cost that customers expect when buying a service. When a firm exercises market power, the economy loses efficiency as a result of improper allocation of resources. Improper distribution occurs due to the fact that the firm exercises market power by limiting its output to increase profits. When the volume of production is limited in this way, the resources that should be used for this market are used in other parts of the economy where the economic value is lower.

According to the findings of Eisenhardt (2001), assuming that the country has allowed the monopoly to provide its mobile communication services. A monopolist, if he wanted to maximize his profits, would limit the size of his customer base so that he would sell services only to those customers who are willing to pay high prices. As a result of this supply restriction, marketers, engineers, managers and other workers whose activities are related to this industry are not required in the proper quantity. Instead, they have to work in another field where they provide less value to the economy. This is a loss of distribution efficiency because the economy would be better if these marketers, engineers, managers,

etc. worked in the telecommunications sector. To measure the irrational distribution, data on production costs are used, in particular, how quickly the average cost increases or decreases with an increase in production volume; the degree of mark-up in price over marginal costs; and the elasticity of demand for a product.

According to the analysis provided by Ghemawat (2017), economic efficiency also includes internal efficiency, also called productive efficiency or x-efficiency, in which costs are minimized for all levels of production and quality of services. X-efficiency eliminates the tendency for managers of firms with market power to become less vigilant about keeping costs as low as possible. In large dominant companies, positive profits hide inefficiency better than is possible in a truly competitive firm. X-inefficiency occurs when employees do not work at the maximum level and when costs are wasted (for example, when a firm buys more resources than if managers cared more about cost containment). As a result, the actual costs exceed the minimum possible costs. This difference is the value of x-inefficiency in the market.

Melewar (2018) states that economic efficiency includes dynamic efficiency, which occurs when innovations in products and production occur at the most appropriate pace. Product innovation occurs at an appropriate rate when the additional costs of developing and implementing innovations are equal to the additional cost created by new products. Production innovations occur at an appropriate rate when the additional costs of innovation are equal to the savings in production costs that they create. Such competition leads to a competitive balance in which no one firm remains dominant, and the industry demonstrates the effectiveness of all types.

The postal and telecommunication services market in Russia is undergoing significant changes along with the trend of consolidation. The innovative development of the organization also places higher demands on the industry. In order to work effectively in the new conditions, telecommunications companies must evaluate and, if necessary, change their strategies, offer solutions to customers, the market, communication channels, technology platforms and take into account new management models caused by changes in the organizational structure, business processes, even in the existing corporate culture. Companies increase their competitiveness due to their ability to adapt to changes and create new opportunities.

As noted by Wilson (2018), competitive advantage is "a system with exceptional values that ensures its superiority over competitors in the economic, technical and

organizational fields and makes it possible to manage the available resources of the organization more effectively." Competitive advantages make the organization recognizable in the market and protect it from the influence of competitors. Only by identifying and evaluating the weaknesses and strengths of competing organizations in a timely manner will you be able to correctly assess their potential, goals and strategies. After conducting this analysis, it will be possible to focus on areas where competitors are weaker. In this way, the organization can increase its own profit.

Osterwalder (2010) wrote that: "A competitive advantage is those characteristics, properties of a product or brand that create a certain superiority for an organization over its direct competitors." It follows from the definition that there are many characteristics for assessing competitiveness. They can relate to both the product or service, and to the organization itself. Only not all of them can carry specific and useful information without comparison with competitors in market conditions.

Based on the research conducted by Prahalad (2016), it is also necessary to consider the term "sustainable competitive advantage", which is inherently associated with increasing the competitiveness of the organization. According to modern domestic sources, a sustainable competitive advantage is "a long-term benefit from the implementation of a unique strategy that is aimed at creating value, and which at the same time is not used by either existing or potential competitors and the benefits of using which cannot be copied". Investing and timely focusing on developing a sustainable competitive advantage is an important part of an organization's development strategy, without which its success in the market will be short-term. Its development is aimed at increasing the level of competitiveness of the organization not only at the moment but also in the long term for a long time.

According to Vargo (2014), the goals of the organization and the related tasks that it can perform, taking into account the current environmental conditions and maintaining the necessary level of quality of its activities, serve as the basis for assessing its competitive advantages. Therefore, the organization needs regular structural and functional changes in order to create and maintain conditions for effective work in the right direction, to direct the core competencies of the organization in accordance with the new environmental conditions. Such changes and their management are usually called the creation of competitive advantages, which serve as the basis for improving the competitiveness of the organization.

Tushman (2017) states that the process of developing the competitiveness of the organization is constantly focused on capacity building. Potential should be understood as "a set of resources used to solve tasks that an organization can perform with the result of a normal target entity". The use of the created competitive advantages and their potential is aimed at achieving the desired results in accordance with the established goals and objectives throughout life.

It is possible to use the available potential in 2 directions, presented in Table 3:

Table 3 – Direction of potential utilization

The direction of using the potential	Characteristic
Development of the number of competitive advantages	Development, which consists in increasing the number of competitive advantages of the organization in order to significantly improve the overall level of competitiveness in the future.
Targeted activities focused on the use of competitive advantages	It focuses on using competitive advantages at the moment to get a positive effect in the fastest way.

Source: Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2017). *Strategic management: Concepts and cases: Competitiveness and globalization* (12th ed.). Cengage Learning. 32-94.

As stated by Brownlie (1998), when determining how to use a competitive advantage, the most important thing is to determine the option with a certain time and degree of fulfillment of the goals and objectives for which it was developed and used. Otherwise, it will be useless in the long run and its use will be impractical and counterproductive. The factors determining the competitive advantages of a company as a complex, universal, open, hierarchical socio-economic system are very numerous and diverse in their source and nature of manifestations. They should contain both uniqueness and the ability to meet the need.

One of the classifications of these factors by division into groups is shown in Figure 1:

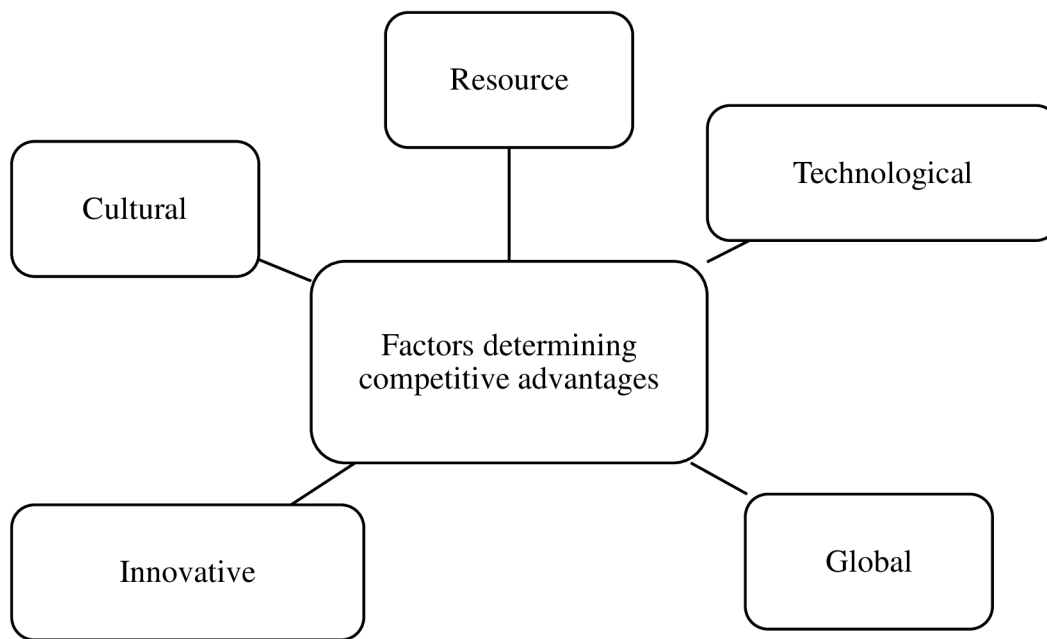


Figure 1 – Classification of factors determining competitive advantages  
 Source: Brownlie, D, Saren, M, Wensley, R, & Whittington, R (eds) 1998, Rethinking Marketing: Towards Critical Marketing Accountings, SAGE Publications, London.  
 Available from: ProQuest Ebook Central. 77-90.

According to the theory of competitive advantages developed by Porter (1996), there are two types of competitive advantages of an organization:

1) low costs, allowing you to create a product or service with a lower price than competitors;

2) differentiation of goods, expressed in the ability to offer customers a unique product that is more able to meet the needs due to a higher quality of after-sales service, etc.

Porter (1996) states that the competitive advantage of these types allows to achieve greater efficiency than competing organizations. Organizations with lower costs but similar prices for similar products receive much higher profits. A company that focuses on differentiation will get more profit because it offers the opportunity to set higher prices, which makes it possible to get more profit than the competition with the same costs. There are often two groups of factors that provide competitive advantages:

- 1) superiority in resources;
- 2) the best skill, skill, ability.

Based on the research conducted by Aaker (2015), The most important role in achieving a high level of competitiveness is played by factors that belong to the latter group. They require innovations in the field of personnel management, a high level of creativity in the development and adoption of managerial decisions, which is difficult to simulate. Together, these factors have a unique impact on various characteristics of the production of goods, the provision of services, customer service, etc. If the developed strategy of increasing competitiveness was not used to create a competitive advantage in a timely manner, then this will not bring a useful effect.

According to the analysis provided by Barney (2017), there are many types of competitive advantages, but which ones to focus on depends on the industry of the organization. The requirements for competitive advantages are presented in Table 4.

Table 4 – Requirements for competitive advantages

Requirements	Characteristic
Significant	They stand out noticeably against the background of competitors
Visible	Distinguishable for consumers
Significant for the consumer	Bring tangible benefits
Sustainable	Remain significant when the external or internal environment changes
Unique	They have a special characteristic that is not represented on the market by competitors
Profitable for the company	Advantages that bring significant and stable profit

Source: Barney, J. B. (2017). Gaining and sustaining competitive advantage (5th ed.). Pearson. 363-369.

Each competitive advantage can be characterized and classified depending on the factor or source of its formation by factors and sources of their formation. The factor is the elements of the production and economic system, as well as the elements of the business system, and the source is considered to be the consequence of their implementation in competition. Table 5 presents the factors of competitive advantages and the sources of their formation.

Table 5 – Competitive advantages and their sources

Source of the factor	The value of competitive advantage
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People	Employees are the driving force behind most competitive advantages. Who are better able to innovate, create, produce and establish relationships, make it possible to achieve competitive advantages. Competitors can copy products, but they will never be able to replicate the staff.
Organizational structure and culture	Organizational culture is the general habits, behavior, beliefs, mission, norms and symbols of the organization. It plays an important role as it encourages staff to work efficiently. High culture focuses the energy and abilities of employees to achieve meaningful results.
Products and intellectual property	Product design can become a competitive advantage. However, this is typically easy to repeat to competitors. Intellectual property laws will help protect the rights to products, technologies and technological developments.
Capital and natural resources	Capital and access to natural resources have traditionally been the source of most competitive advantages. The value of capital has decreased over time. New industries, such as information technology, are less capital intensive.
Technologies	Technology acts as a significant factor of competitive advantage, because it can improve the work of personnel, reduce costs and increase production speed, increase logistics efficiency, etc.

Source: Barney, J. B., & Hesterly, W. S. (2016). Strategic management and competitive advantage: Concepts and cases (5th ed.). Pearson. 125-152.

With the increase in the number of unique competitive advantages that are difficult to reproduce with a long life cycle, the strategic positions of the enterprise are strengthened.

### 3.1.3 Methods of assessing competitiveness in telecommunications

According to D'Aveni (2015), with the help of competitiveness assessment, it is possible to draw conclusions about the degree of competitiveness of the organization. After assessing competitiveness, a set of measures to improve competitiveness is being developed. Assessment of the competitiveness of an economic entity is necessary for:

- development of measures to improve competitiveness;
- selection of partners for joint activities;
- development of a program for the company's entry into new markets;
- implementation of investment activities;
- implementation of state regulation of the economy.

The following methods of assessing the competitiveness of an enterprise are distinguished in the economic literature:



1) comparative advantage assessment, which focuses on cost reduction. The lower cost of goods or services allows you to compete with other market participants in terms of price factor, which can be easily monitored and regularly adjust the pricing policy in the organization.

2) evaluation based on the theory of the effectiveness of competition.

There are two approaches when using this method:

A. A structural approach. Its peculiarity is that it focuses on large-scale production;

B. Functional approach. Its peculiarity is that when using it, various financial indicators are clearly calculated when making management decisions for the development of competitiveness in order to focus on the greatest profit for the company.

3) evaluation based on product quality. The use of this method implies a broad study of the quality and properties of products presented on the market. Such a study allows you to get more complete information about what is important for consumers. Taking into account their wishes, the organization increases its competitiveness due to the fact that it gives customers the opportunity to choose the product or service that is most preferred and in demand.

4) requirements profile. The essence of this method is to evaluate existing competitors and compare their capabilities with market leaders. This method is quite visual and allows you to identify many criteria and areas for evaluation;

5) for a comprehensive analysis of the internal and external environment, it is more effective to use SWOT analysis, PEST analysis and SNW analysis.

Figure 2 shows the tools for analyzing the internal and external environment.

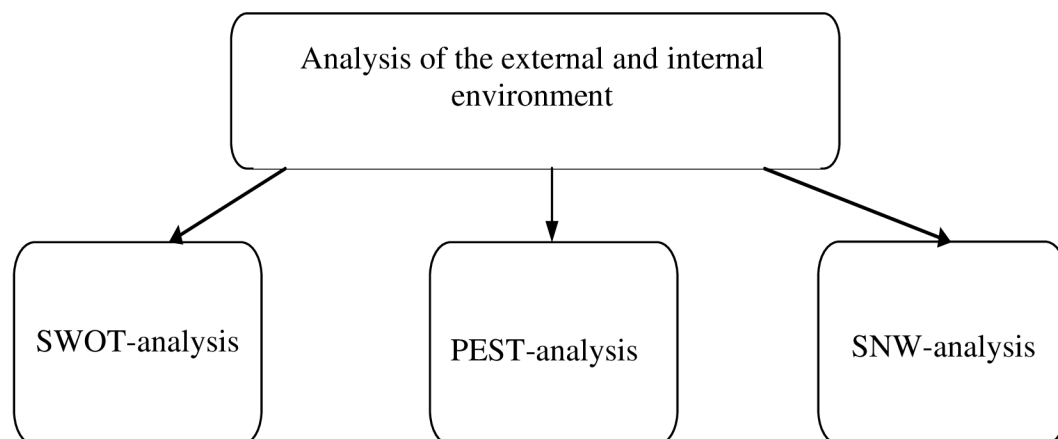


Figure 2 – Analysis of the external and internal environment

Source: Teece, D. J. (2018). Dynamic capabilities and strategic management: Organizing for innovation and growth. Oxford University Press. 15-37.

Teece (2018) states that "PEST-analysis" was developed to identify both internal and external factors. They need to be investigated in order to develop a strategy to increase the competitiveness of the organization, since each factor has an impact on its vital activity and general conditions in the market. PEST-analysis separates environmental factors depending on their scale. Thus, in the structure of the external environment, he identifies a macro-environment, which includes:

- the political situation;
- socio-demographic features;
- the level of scientific and technological progress;
- features of the economy of the market in question;
- environmental factors;
- microenvironment.

According to the findings of Kim (2017), to analyze the object of research, which is the organization and the level of its competitiveness, and to develop measures to improve it, it is useful to use SWOT-analysis, which examines strengths and weaknesses, as well as identifies opportunities and threats. Increasing the competitiveness of an organization is due to the fact that SWOT-analysis allows you to compare strengths and weaknesses with opportunities and threats. Thanks to the effective use of strengths and elimination of shortcomings, the company can protect itself or minimize the negative effect of impending threats and fully realize the available opportunities. This approach makes it possible to develop an effective strategy to increase competitiveness and develop directions for development. The explanation of the abbreviation of SWOT-analysis and its elements is shown in Figure 3.

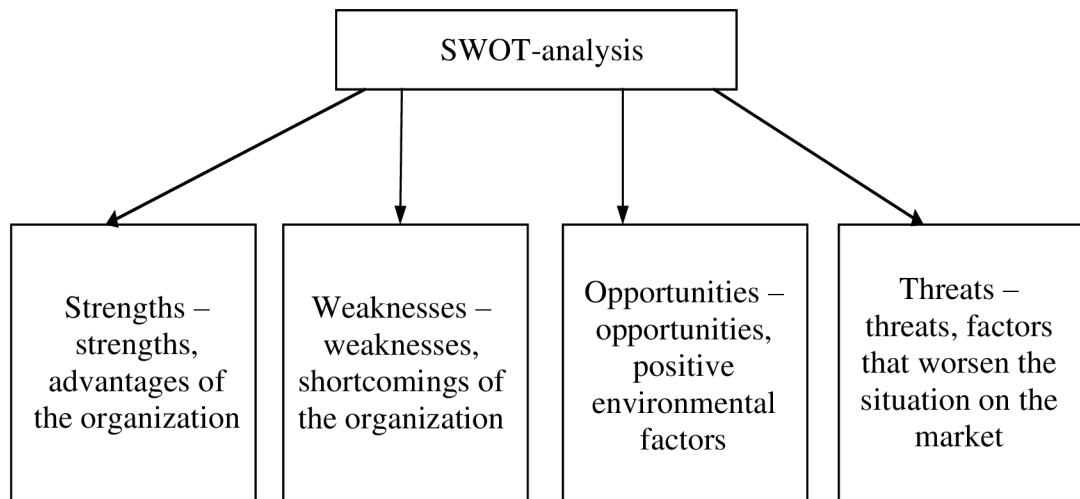


Figure 3 – SWOT-analysis

Source: Kim, W. C., & Mauborgne, R. (2017). *Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant*. Harvard Business Review Press. 37-99.

Currently, SWOT-analysis is the basis and foundation for the assessment and business analysis of the organization's activities. The interpretation of the abbreviation SWOT can also be represented as an intersection of fields, as shown in Table 6:

Table 6 – Abbreviation of-SWOT

	Positive impact	Negative impact
Internal environment	Strengths (properties that provide an advantage over competitors)	Weaknesses (characteristics that reduce competitiveness against competitors)
External environment	Opportunities (environmental factors that provide opportunities to achieve the goal)	Threats (environmental factors that hinder the achievement of the goal)

Source: Kim, W. C., & Mauborgne, R. (2017). *Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant*. Harvard Business Review Press. 37-99.

According to Boone (2017), the main task of SWOT-analysis is to give a structured description of the situation in which it is necessary to find the optimal solution. The conclusions obtained after it are descriptive, so there are no clear and orderly recommendations in them. It is also necessary to highlight the advantages and disadvantages of using this method, because SWOT-analysis shows effectiveness to a greater extent when forming an initial assessment of the current market situation.

For clarity and convenience of evaluating the usefulness of SWOT-analysis in assessing the competitiveness of an organization, its advantages and disadvantages are presented in Table 7.

Table 7 – Advantages and disadvantages of SWOT-analysis

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• it is a universal tool used in various fields of economics and management. It adapts to object analysis at every level;</li> <li>• it is a very flexible tool that has a free choice of elements for analysis depending on the goals set;</li> <li>• can be used both for operational assessment of the current situation and for long-term strategic planning;</li> <li>• in most cases, this can be done without special knowledge and highly qualified training.</li> </ul>	<ul style="list-style-type: none"> <li>• SWOT-analysis shows only general factors.</li> <li>• activities to achieve these goals should be selected and implemented separately;</li> <li>• it cannot be used as a dynamic analysis tool.</li> </ul>

Source: Compiled by the author using the material Boone, L.E. and Kurtz, D.L., 2017. Contemporary marketing. Cengage Learning. 30-56.

This leads to the conclusion that it cannot be used as the only and main tool for strategy development and for qualitative analysis of dynamics for the purpose of company development, since it has a limited scope of application.

According to the analysis provided by Kim (2017), the resulting SWOT-analysis table is used later to create a table in which the fields intersect. To do this, all possible paired combinations are studied and those that should be used and taken into account when developing a strategy to increase the competitiveness of the organization are highlighted.

The field of combination of factors and decoding are presented in Table 8.

Table 8 – Fields of combination of factors

	Features (O)	Threats (T)
Strengths (S)	The S-O field contains information about which strengths you need to use to realize the opportunities provided by the external environment.	The S-T field shows which strengths need to be used to eliminate external threats.
Weaknesses (W)	The W-O field shows how the organization will be able to correct existing shortcomings thanks to the capabilities of the external environment.	The W-T field shows which weaknesses you need to get rid of in order to minimize or even prevent an impending external threat.

Source: Kim, W. C., & Mauborgne, R. (2017). Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant. Harvard Business Review Press. 37-99.

To conduct a more complete analysis of the object, it is advisable to use not only SWOT analysis, but also to supplement it with SNW-analysis, developed for a more detailed assessment of the significance of strengths and weaknesses. This will allow you to create an SNW-analysis matrix to expand the data for the study. The explanation of its abbreviation is shown in Figure 4.

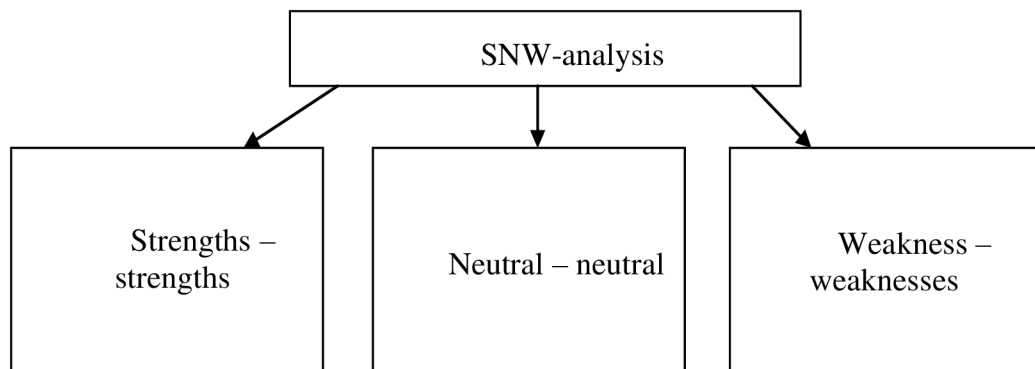


Figure 4 – SNW-analysis

Source: Chesbrough, H. (2010). Business Model Innovation: Opportunities and Barriers. Long Range Planning, 43(2-3), 354-363.

A distinctive feature of SNW-analysis is the appearance of a neutral side. In order to achieve an increase in competitiveness using this analysis, it is required that the object of research is in state N in the main positions and that at least one position is in state S. This will allow you to take a significant position and be in the lead or get closer to them (depending on the number of positions in state S).

Thus, as a result of the research conducted in this chapter, the following tasks were solved:

- definition of the concept of competitiveness of the organization, its essence and the importance of its improvement;
- the methodology of the analysis of the activity of the enterprise and the factors of its external environment to increase competitiveness has been studied.

The analysis of the information base consisting of domestic and foreign sources allowed us to conclude that to date none of the existing approaches to assessing the competitiveness of organizations has found wide application in the practice of economic analysis and cannot be considered completely universal. It follows from this that there is currently no single methodology for the global assessment of the competitiveness of the enterprise. This is due to the fact that the proposed approaches have a number of disadvantages.

The methodology for constructing most of the existing methods is based on the same type of algorithm, which begins with determining all possible factors that affect the activities of the organization. These factors are considered in more detail, modeled and investigated the possibility of their influence or use using various methods. But the system of factors of competitiveness of companies is open, and many elements of this system are fuzzy.

The chapter also presents the characteristics of the telecommunications sector, the factors determining the level of competitiveness of an organization in this industry are noted. The leading providers in Russia with significant market shares were identified, which is required to conduct a comprehensive analysis of PJSC Rostelecom in a competitive dynamic environment.

At the present stage of development of the telecommunications sector, consumers need a constant high-quality connection, timely service and the ability to choose tariffs at an affordable price. Today, large providers have a large number of tools with which they find new customers, attract existing consumers of services and retain subscribers who have decided to abandon their services. From this it follows that there is active competition and the adoption of an incorrect or untimely management decision can lead to a decrease in the competitiveness of the organization and, as a consequence, an outflow of subscribers and a decrease in profits.

The number of competitiveness factors is inexhaustible, and therefore, no matter how comprehensive its list is, it will not be complete and universal. Analyzing each organization according to one template set of factors, then the study will be ineffective or may even lead to incorrect management decisions. As a result, all existing lists of competitive factors are very conditional, so they cannot be used to assess the competitiveness of all organizations. The main competitive strategy of the enterprise is based on deep and accurate quantitative and qualitative characteristics of resources, market sales, increased competition, as well as economic prerequisites and possible limitations. It should also be borne in mind that for a

qualitative analysis of the competitiveness of an organization, it is necessary to take into account not only the most common factors, but also only those that are currently operating in the market

## **4 Practical Part**

### **4.1 General characteristics of the research object**

Rostelecom Public Open Joint Stock Company (abbreviated as Rostelecom PJSC) is Russia's largest integrated provider of digital solutions and services, which is present in all market segments and covers millions of households, public and private organizations, and also occupies a leading position in the market of high-speed Internet access and pay television services (Rostelecom: Official website).

Rostelecom is a leader in the telecommunications services market for government authorities and corporate users of all levels. The company is a recognized technology leader in the field of innovative solutions in the field of e-government, cybersecurity, data centers and cloud computing, biometrics, healthcare, education, housing and communal services (About PJSC Rostelecom. Official corporate information website).

Date and place of registration: September 23, 1993 at the Moscow Registration Chamber.

Legal address: 15 Dostoevsky Street, Saint Petersburg, 191002.

Mission: “Our mission is to provide people with high – quality and convenient digital services for a comfortable life and efficient business” (Rostelecom's Corporate Governance Code.).

Rostelecom opens up new opportunities for all spheres of life of Russian citizens. Telecommunications are capable of changing and improving people's lives, and this is what Rostelecom strives for in its relations with everyone who comes into contact with company's activities. Telecommunications services, technological projects and strategic initiatives of the company touch on all topics important to society. All this is carried out by a highly professional Rostelecom team.

Responsible approach to business for Rostelecom is openness and honesty to customers, partners and investors, active charity and volunteer activities, building positive and mutually beneficial relationships between the company and its employees. Rostelecom cares about the future of society — in this the company sees its main social role.

The main principles of PJSC Rostelecom are presented in Table 9.



Table 9 – Principles of PJSC Rostelecom

Principle	Importance
Geographical coverage	The organization is expanding the territory of its presence. Despite the large coverage of the regions and the remoteness of branches from the head office, the company maintains high standards of quality of services provided. This makes it possible to implement projects of national significance, as well as initiate events in various regions of Russia.
Manufacturability	For a large company, the main priority is the development, implementation and use of unified high-quality technologies in the telecommunications sector. This provides assistance to society in conditions when stable and high-quality communication is an integral part of the life of both the whole world and an individual.
Complexity	The company's projects have a broad focus. They are involved in solving social problems. The organization also participates in the implementation of projects aimed at protecting the environment
Transparency	Rostelecom is an open joint stock company, has a long history in the market, a good business reputation and image. For these reasons, the company strives for openness and transparency. A large amount of information is available for viewing for current and prospective clients and partners of the company.
Long-term	At PJSC Rostelecom, considerable attention is paid to the prospect of improving operations and development strategy. Therefore, the company's programs are designed for a long-term period.
Partnership	The company works closely with the authorities, major partners and non-profit organizations. Also, many employees participate in volunteer programs, and the organization itself is active in implementing charitable programs.
Improvement	The organization conducts regular work in the field of social policy and participates in the economic development of Russia.
International standards	The company's work is regulated not only by state regulations, but also by standards developed by the international community. This creates comprehensive high standards in the implementation of its activities and the implementation of its mission and strategic goals.

Source: Compiled by the author using the material Rostelecom's Corporate Governance Code. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: [https:// www.company.rt.ru/en/about/identity/](https://www.company.rt.ru/en/about/identity/) (accessed: 08/20/2021).

The founder of the company is the State Committee of the Russian Federation for State Property Management.

The main activities in accordance with the charter and the licenses obtained are the provision of telecommunication services:

- provision of communication services in accordance with the received licenses;
- transmission of information via trunk and intra-zone communication networks;

- leasing of transmission lines, linear, group and network paths, tone frequency channels, channels and means of audio and television broadcasting, data transmission channels.

Rostelecom changed its organizational and legal form from "open" to a public joint stock company on June 24, 2015.

It necessary consider the organizational structure of PJSC Rostelecom in Figure 5.

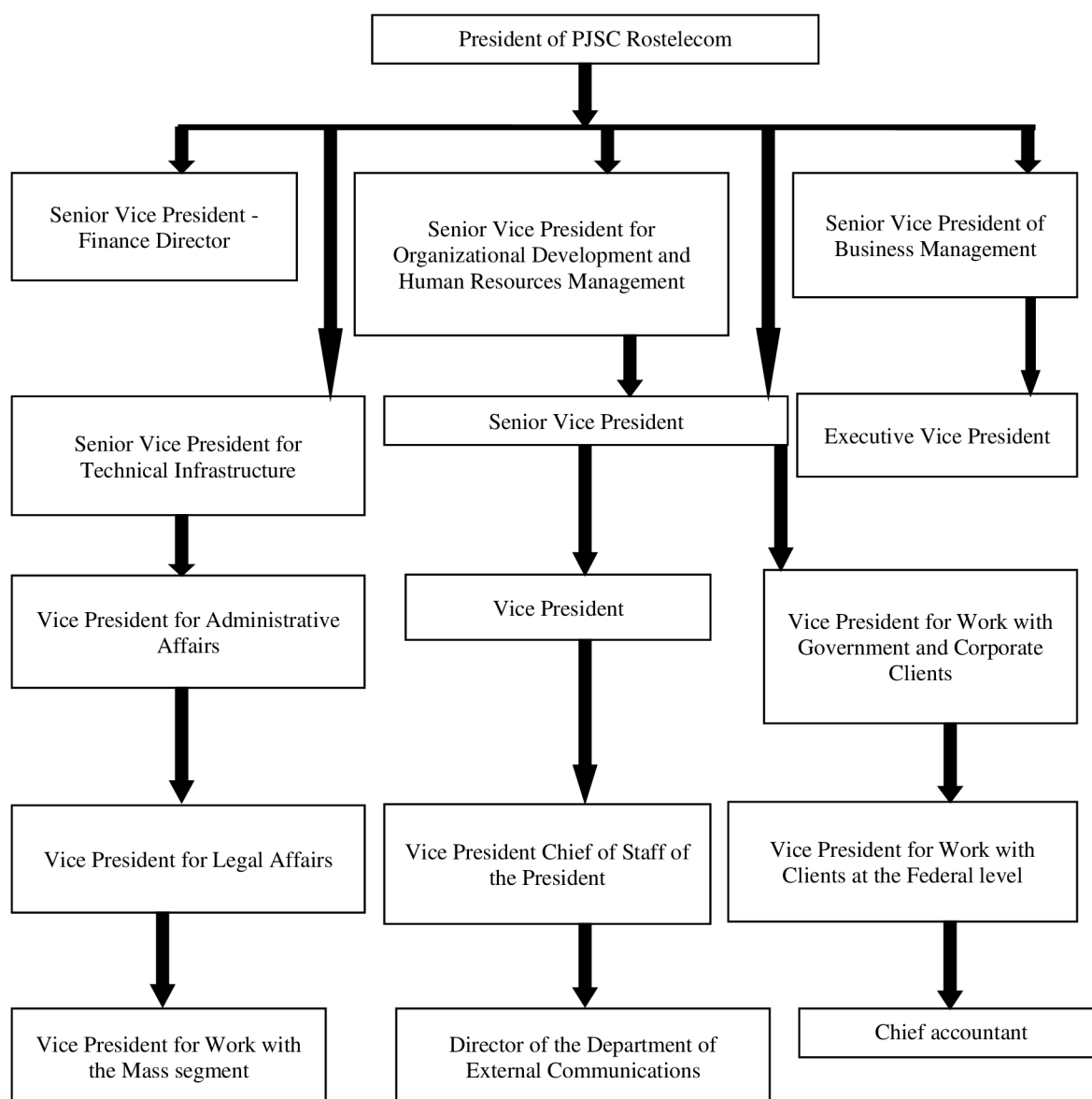


Figure 5 – Organizational structure of PJSC Rostelecom

Source: Compiled by the author using the Company details material. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: <https://www.company.rt.ru/en/about/details/> (accessed: 08/04/2022).

The presented organizational structure shows that the President of Rostelecom PJSC coordinates the work of the company and is responsible for its activities.

Since there are many areas of responsibility in the company, a staff of other functional senior managers who coordinate the work of the controlled departments helps in the development of management decisions and programs for their implementation.

The organizational structure of PJSC Rostelecom meets the requirements of the company:

- a clear balance that establishes and enshrines the rights and obligations of employees;
- concreteness and correctness of the formulation of tasks and goals that the company's employees face;
- a small number of links in the management structure that have a strict order and hierarchy for management;
- maintaining and consolidating the responsibility of coordinating areas of responsibility at the highest management level of PJSC Rostelecom;
- the possibility of flexibility and rapid adaptation in the face of changing market conditions and strategy processing.

It is also required to consider the organizational structure of the Rostelecom PJSC branch, which is shown in Figure 6.

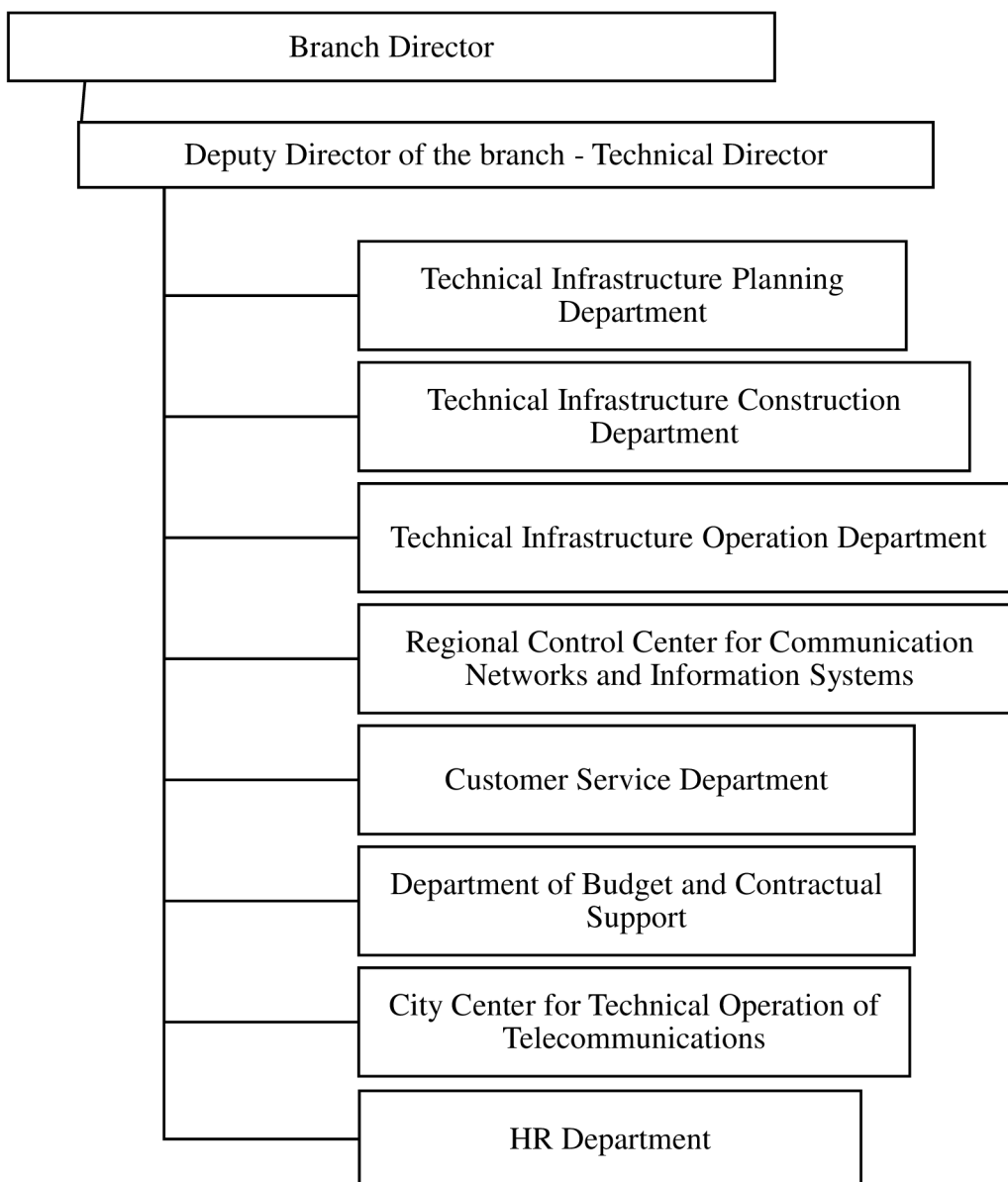


Figure 6 – Typical organizational structure of a branch of PJSC Rostelecom  
 Source: Compiled by the author using the Company details material. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: <https://www.company.rt.ru/en/about/details/> (accessed: 08/04/2022).

According to the presented organizational structure of the branch, the Director of the branch coordinates the work and reports to the top management. His duties also include:

- coordinates the work of all departments of the branch;

- acting as a representative of Rostelecom PJSC in the process of interaction with local government authorities and partners;
- coordination of staff work: he can hire and dismiss employees of the organization, as well as take part in this process when delegating authority to HR specialists;
- is responsible for the property of the branch and manages the resources provided;
- promotes the implementation of a program to stimulate the work of employees and imposes penalties.

Also subordinate to the Director are: Technical Director, Technical Infrastructure Planning Department, Technical Infrastructure Construction Department, Technical Infrastructure Operation Department, Regional Communications Network and Information Systems Management Center, Customer Service Department, Budget and Contractual Support Department, City Telecommunications Technical Operation Center.

This organizational structure is universal for the branches of PJSC Rostelecom. It allows you to effectively distribute responsibilities between specialized departments, whose actions are coordinated by the branch director and his deputy (technical director). Also, the presence of a deputy allows the director to make timely and qualitative changes and transformations that are dictated by the top management of PJSC Rostelecom in the person of the President of the company and his deputies.

## **4.2 Analysis of the financial and economic condition of the organization for 2019-2021.**

The form of organization of Rostelecom is a public joint stock company. A feature of this form of organization is the obligation to widely disclose information and transparency. These conditions are correctly fulfilled by the management of PJSC Rostelecom, because their website contains a large amount of information over the past years, which is regularly updated and updated. This applies not only to corporate culture data, but also to personnel reports, financial statements, etc. This openness attracts both customers, partners and investors.

The taxation system of PJSC Rostelecom: the general taxation system is a type of taxation in which organizations keep full accounting records and pay all general taxes VAT,

corporate income tax, corporate property tax. These data are freely available on the official website of the company.

To analyze the financial and economic condition of the organization, it is required to conduct horizontal and vertical analyses of the balance sheet.

The horizontal analysis of the balance sheet of PJSC Rostelecom is presented in Table 10:

Table 10 – Horizontal analysis of the balance sheet

The name of the indicator	Horizontal analysis					
	Absolute change, thousand rubles.			Relative change, %		
	2021–2020	2021–2019	2020–2019	2021 / 2020	2021 / 2019	2020 / 2019
<b>Assets</b>						
<b>I. NON-CURRENT ASSETS</b>						
Intangible assets	573,528	167,382	-406,146	124.7%	106.1%	85.1%
Research and development results	-24,521	-129,944	-105,423	54.0%	18.1%	33.6%
Tangible search assets						
Fixed assets						
Profitable investments in tangible assets	23,894,657	64,649,071	40,754,414	105.9%	117.8%	111.2%
Financial investments	892,017	-132,541	-1,024,558	310.6%	90.8%	29.2%
Deferred tax assets	967,957	93,190,540	92,222,583	100.4%	165.1%	164.5%
Other non-current assets						
<b>TOTAL FOR SECTION I</b>	<b>2,217,623</b>	<b>11,258,386</b>	<b>9,040,763</b>	<b>104.1%</b>	<b>125.3%</b>	<b>120.3%</b>
<b>II. CURRENT ASSETS</b>						
Inventory	532,699	1,354,904	822,205	106.2%	117.3%	110.5%
VAT on purchased valuables	1,582,697	4,517,563	2,934,866	122.0%	205.7%	168.7%
Accounts receivable	11,907,175	11,350,982	-556,193	123.3%	122.0%	98.9%
Financial investments (excluding cash equivalents)	4,577,188	-13,913,766	-18,490,954	239.3%	36.1%	15.1%
Cash and cash equivalents	22,558,175	31,763,975	9,205,800	174.5%	250.8%	143.7%
Other current assets	1,479,366	1,169,591	-309,775	219.3%	175.5%	80.0%

TOTAL FOR SECTION II	42,637,300	36,243,249	-6,394,051	141.9%	133.5%	94.1%
TOTAL ASSETS	71,158,561	205,246,143	134,087,582	95.3%	123.4%	129.5%
<b>LIABILITIES</b>						
<b>III. CAPITAL AND RESERVES</b>						
Authorized capital (share capital, authorized capital, contributions of partners)		1,770	1,770	100.0%	125.4%	125.4%
Own shares repurchased from shareholders						
Revaluation of non-current assets	-107,807	-191,248	-83,441	95.6%	92.5%	96.7%
Additional capital (without revaluation)		65,998,644	65,998,644	100.0%	148.4%	148.4%
Reserve capital		266	266	100.0%	125.5%	125.5%
Retained earnings (uncovered loss)	369,540	-26,202,413	-26,571,953	100.5%	73.7%	73.4%
TOTAL FOR SECTION III	261,733	39,607,019	39,345,286	100.1%	116.6%	116.5%
<b>IV. LONG-TERM LIABILITIES</b>						
Borrowed funds	-19,968,564	38,120,423	58,088,987	92.8%	117.3%	126.3%
Deferred tax liabilities	1,666,950	3,736,430	2,069,480	105.0%	111.9%	106.6%
Estimated liabilities						
Other liabilities	15,040,559	47,646,383	32,605,824	126.8%	302.3%	238.4%
Total for section IV	-3,261,055	89,503,236	92,764,291	99.1%	132.5%	133.7%
<b>V. SHORT-TERM LIABILITIES</b>						
Borrowed funds	65,111,515	72,400,225	7,288,710	230.7%	270.2%	117.1%
Accounts payable	4,363,094	-5,158,660	-9,521,754	106.0%	93.7%	88.4%
Deferred income	6,513,447	6,483,102	-30,345	5830.9%	4602.2%	78.9%
Estimated liabilities	-629,224	3,232,799	3,862,023	97.7%	113.9%	116.6%
Other liabilities	-1,200,949	-821,578	379,371	0.0%	0.0%	146.2%
TOTAL FOR SECTION V	74,157,883	76,135,888	1,978,005	149.2%	151.2%	101.3%
TOTAL LIABILITIES	71,158,561	205,246,143	134,087,582	108.9%	131.0%	120.2%

Source: Compiled by the author using the material Annual reports. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: [https://www.company.rt.ru/en/ir/results\\_and\\_presentations/financials/IFRS/2021/](https://www.company.rt.ru/en/ir/results_and_presentations/financials/IFRS/2021/) (accessed: 10.08.2022).

The value of non-current assets increases by columns (from previous to future periods for 2019-2021), this indicates the favorable development of PJSC Rostelecom and its chances and prospects for further growth, as these include communication towers, highways, networks and other facilities necessary to increase coverage and the number of connections.

It is also necessary to consider the dynamics of indicators of current assets: there is an increase and a decrease from period to period. This means a positive trend. The next thing to check for analysis is the solvency of PJSC Rostelecom, whether the company has free money in circulation and whether they are used for investments in order to extract additional profit. All this can be judged by studying the changes in the values of various articles that are directly related to money. Consideration of accounts receivable of PJSC Rostelecom for 2019-2021 it showed that it is shrinking, and cash and financial investments have decreased. Financial investments decreased by which it can be concluded that financial investments brought results and in 2021 were aimed at implementation, not further investment.

In the structure of liabilities, there is a noticeable increase in capital and reserves by and long-term liabilities has a change of less than 1 percent. The organization uses and builds up capital for development not only its own, but also borrowed funds.

Also, the vertical analysis of the balance sheet of PJSC Rostelecom for 2019-2021 is presented in Table 11.

Table 11 – Vertical analysis of the balance sheet

The name of the indicator	Vertical analysis		
	Share in the balance sheet structure, %		
	2021	2020	2019
<b>ASSETS</b>			
<b>I. NON-CURRENT ASSETS</b>			
Intangible assets	0.3%	0.3%	0.4%
Research and development results	0.0%	0.0%	0.0%
Intangible search assets	0.0%	0.0%	0.0%
Tangible search assets	0.0%	0.0%	0.0%
Fixed assets	49.2%	50.6%	54.7%
Profitable investments in tangible assets	0.2%	0.1%	0.2%
Financial investments	27.2%	29.5%	21.6%
Deferred tax assets	0.0%	0.0%	0.0%
Other non-current assets	6.4%	6.7%	6.7%



Total for section I	83.4%	87.2%	83.7%
<b>II. CURRENT ASSETS</b>			
Inventory	1.1%	1.1%	1.2%
Value added tax on acquired valuables	1.0%	0.9%	0.6%
Accounts receivable	7.3%	6.4%	7.8%
Financial investments (excluding cash equivalents)	0.9%	0.4%	3.3%
Cash and cash equivalents	6.1%	3.8%	3.2%
Other current assets	0.3%	0.2%	0.2%
<b>TOTAL FOR SECTION II</b>	<b>16.6%</b>	<b>12.8%</b>	<b>16.3%</b>
<b>TOTAL ASSETS</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>LIABILITIES</b>			
<b>III. CAPITAL AND RESERVES</b>			
Authorized capital (share capital, authorized capital, contributions of partners)	0.0%	0.0%	0.0%
Own shares repurchased from shareholders	0.0%	0.0%	0.0%
Revaluation of non-current assets	0.3%	0.3%	0.4%
Additional capital (without revaluation)	23.3%	25.4%	20.6%
Reserve capital	0.0%	0.0%	0.0%
Retained earnings (uncovered loss)	8.5%	9.2%	15.1%
<b>TOTAL FOR SECTION III</b>	<b>32.1%</b>	<b>34.9%</b>	<b>36.0%</b>
<b>IV. LONG-TERM LIABILITIES</b>			
Borrowed funds	29.8%	35.0%	33.3%
Deferred tax liabilities	4.0%	4.2%	4.7%
Estimated liabilities	0.0%	0.0%	0.0%
Other liabilities	8.2%	7.0%	3.6%
<b>TOTAL FOR SECTION IV</b>	<b>42.0%</b>	<b>46.2%</b>	<b>41.5%</b>
<b>V. SHORT-TERM LIABILITIES</b>			
Borrowed funds	13.2%	6.3%	6.4%
Accounts payable	8.9%	9.1%	12.4%
Deferred income	0.8%	0.0%	0.0%
Estimated liabilities	3.1%	3.4%	3.5%
Other liabilities	0.0%	0.2%	0.1%
<b>TOTAL FOR SECTION V</b>	<b>25.9%</b>	<b>18.9%</b>	<b>22.4%</b>
<b>TOTAL LIABILITIES</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Compiled by the author using the material Annual reports. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: [https://www.company.rt.ru/en/ir/results\\_and\\_presentations/financials/IFRS/2021/](https://www.company.rt.ru/en/ir/results_and_presentations/financials/IFRS/2021/) (accessed: 10.08.2022).

The vertical analysis showed that:

- the firm has attracted a fairly large amount of borrowed funds, >30% of accounts payable are listed in the Liability, and the negative side is the increase in the level of loans in dynamics;

- the company competently selects counterparties for cooperation, since most likely the current partners are solvent, as there is a decrease in the level of accounts receivable;

- the company does not have a high level of solvency, because despite the previously noted increase in cash, their share is small;

- since the company's accounts receivable and inventories are low, there are more non-current assets than current assets. Thanks to this, there will be no extra logistics costs.

An analysis of the financial stability of PJSC Rostelecom should also be carried out. To this end, it is necessary to evaluate the financial stability coefficients of the organization. The coefficients for 2019-2021, their normative value, changes and growth rate are presented in Table 12.

Table 12 – Estimation of financial stability coefficients

№	Indicator	Standard value	Period			Changing the value		Growth rate, %	
			2021	2020	2019	2021–2020	2021–2019	2021/2020	2021/2019
1.1	Equity concentration ratio	More than 0,5	0.32	0.35	0.36	-0.03	-0.04	91.9	89.0
1.2	Concentration ratio of borrowed funds (borrowed capital)	Less or equal to 0,5	0.68	0.65	0.64	0.03	0.04	104.3	106.2
1.3	Financial dependency ratio of capitalized sources	Less than 0,4	0.57	0.57	0.54	-0.00	0.03	99.6	105.9
1.4	Financial independence ratio of capitalized sources	More than 0,6	0.43	0.43	0.46	0.00	-0.03	100.6	93.2
1.5	Level of financial leverage	1	1.31	1.32	1.15	-0.01	0.16	99.0	113.6

1.6	Interest payable coverage ratio	More than 1	1.94	0.68	0.80	1.27	1.15	287.4	244.1
1.7	Fixed financial cost coverage ratio	More than 1	1.94	0.68	0.80	1.27	1.15	287.4	244.1

Source: Compiled by the author using the material Annual reports. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: [https://www.company.rt.ru/en/ir/results\\_and\\_presentations/financials/IFRS/2021/](https://www.company.rt.ru/en/ir/results_and_presentations/financials/IFRS/2021/) (accessed: 10.08.2022).

The assessment of financial stability coefficients showed that most of the indicators are close to the normative value, but some of them changed in the negative direction. From this it follows that financial stability is close to reaching a normal level, but it is necessary to develop a set of measures to improve it.

Also, to analyze the financial and economic condition of PJSC Rostelecom, it is required to calculate the probability of its bankruptcy. The calculation based on the two-factor model of the American economist E. Altman is presented in Table 13.

Table 13 – Two-factor Altman model (Z-score)

Index	2021	2020	2019
Current liquidity ratio	0.75	0.82	0.86
Borrowed capital	589,929,231	519,032,403	424,290,107
Liabilities	868,294,954	797,136,393	663,048,811
Z-score	<b>-115.6%</b>	<b>-123.4%</b>	<b>-127.6%</b>
The probability of bankruptcy of the company:			
• if $Z=0$ - approximately equal to 50%			
• if $Z<0$ - less than 50%, and decreases along with a decrease in Z			
• if $Z>0$ - more than 50%, and increases along with the increase in Z			

The probability of bankruptcy of the company	<50%	<50%	<50%
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Source: Compiled by the author using the material Meyer, K. E., & Estrin, S. (2018). The Oxford handbook of international business (2nd ed.). Oxford University Press. 351-375.

After conducting a study of the probability of bankruptcy of PJSC Rostelecom using Altman's two-factor model, it can be concluded that the probability of bankruptcy is not only less than 50% but stays at a low level over the past 3 years.

To analyze the liquidity of Rostelecom's balance sheet, it will be necessary to study the liquidity of assets and liabilities. This is necessary to verify compliance with the balance sheet liquidity rules.

The analysis of the liquidity of the assets of the balance sheet of PJSC Rostelecom is reflected in Table 14.

Table 14 – Balance sheet liquidity analysis (assets) PJSC Rostelecom for 2019-2021

Assets	Absolute values, thousand rubles			Specific weight (%)		
	2021	2020	2019	2021	2020	2019
Most liquid assets (A1)	60,695,472	33,560,109	42,845,263	7.0%	4.2%	6.5%
Marketable assets (A2)	62,983,710	51,076,279	51,632,190	7.3%	6.4%	7.8%
Slow selling assets (A3)	20,692,120	17,097,203	13,649,867	2.4%	2.1%	2.1%
Difficult-to-sell assets (A4)	723,923,547	695,402,542	554,921,191	83.4%	87.2%	83.7%
<b>Total assets</b>	<b>868,294,849</b>	<b>797,136,133</b>	<b>663,048,511</b>	100.0%	100.0%	100.0%

Source: Compiled by the author using the material Meyer, K. E., & Estrin, S. (2018). The Oxford handbook of international business (2nd ed.). Oxford University Press. 351-375.

The analysis of the liquidity of the liabilities of the balance sheet of PJSC Rostelecom is shown in Table 15.

Table 15 – Balance sheet liquidity analysis (liabilities) PJSC Rostelecom for 2019-2021

Liabilities	Absolute values, thousand rubles			Specific weight (%)		
	2021	2020	2019	2021	2020	2019
Most urgent liabilities (L1)	76,908,458	72,545,364	82,067,118	8.9%	9.1%	12.4%
Short-term liabilities (L2)	141,430,758	78,149,416	66,619,312	16.3%	9.8%	10.0%

Long-term liabilities (L3)	364,962,913	368,223,968	275,459,677	42.0%	46.2%	41.5%
Permanent liabilities (L4)	284,992,720	278,217,385	238,902,404	32.8%	34.9%	36.0%
Total liabilities	<b>868,294,849</b>	<b>797,136,133</b>	<b>663,048,511</b>	100.0%	100.0%	100.0%

Source: Compiled by the author using the material Meyer, K. E., & Estrin, S. (2018). The Oxford handbook of international business (2nd ed.). Oxford University Press. 351-375.

Next, it is necessary to correlate the values obtained to verify compliance with the balance sheet liquidity rules. The check for 2019–2021 is presented in Table 16.

Table 16 – Checking compliance with the balance sheet liquidity rules

Condition	2021	2020	2019
Condition A1 => L1	-	-	-
Condition A2 => L2	-	-	-
Condition A3 => L3	-	-	-
Condition A4 < L4	-	-	-

Source: Compiled by the author using the material Meyer, K. E., & Estrin, S. (2018). The Oxford handbook of international business (2nd ed.). Oxford University Press. 351-375.

To assess the liquidity of the balance sheet, taking into account the time factor, it is necessary to compare each asset group with the corresponding liability group.

1) Inequality  $A1 > L1$  is not fulfilled, which indicates the insolvency of the organization.

2) The inequality  $A2 > L2$  has not been fulfilled, which means that quickly realized assets do not exceed short-term liabilities and the organization is not able to be solvent in the near future.

3) The inequality  $A3 > L3$  has not been fulfilled, which indicates that in the future, even with timely receipt of funds from sales and payments, the organization will not be able to be solvent for a period equal to the average duration of one turnover of working capital after the balance sheet date.

4) Since three conditions are not met, it follows that the fourth inequality  $A4 \leq L4$  is not satisfied.

Checking compliance with the balance sheet liquidity rules showed that none of the 4 conditions are met in 2019-2021. It follows from this that the balance sheet of the organization has low liquidity.

The conducted analysis of the balance sheet liquidity is not accurate enough. For a more complete study, it is necessary to conduct an analysis of solvency with the calculation of financial liquidity ratios.

The liquidity ratios for a detailed analysis of PJSC Rostelecom are presented in Table 17.

Table 17 – Liquidity ratios

Name of indicator	Standard value	2021	2020	2019
Current liquidity ratio	1,5-2,5	0.66	0.68	0.73
Quick liquidity ratio	0,7-1,5	0.57	0.56	0.64
Absolute liquidity ratio	>0,2	0.28	0.22	0.29
General indicator of liquidity of the company's balance sheet	$\geq 1,0$	0.38	0.29	0.37
Equity ratio	$\geq 0,1$	-3.04	-4.10	-2.92
Functional capital mobility ratio	$\geq 0,1$	-0.28	-0.35	-0.34

Source: Compiled by the author using the material Palmatier, R.W., 2018. Marketing strategy: Based on first principles and data analytics. American Marketing Association. 139-171.

A more detailed analysis allows us to conclude that all coefficients, with the exception of the absolute liquidity ratio, do not correspond to the normative value and their change has a negative direction.

For a more detailed assessment of the main results of the company's activities for 2019-2021, a horizontal analysis of the financial results report presented in Table 18 is required.

Table 18 – Horizontal analysis of the financial results report

Indicator	Horizontal analysis					
	Absolute change, thousand rubles.			Relative change, %		
	2021-2020	2021-2019	2020–2019	2021/2020	2021 / 2019	2021/ 2019

Revenue	2,331,033	30,863,045	28,532,012	100.7%	109.7%	108.9%
Cost of sales	-8,251,921	-38,312,492	-30,060,571	102.5%	112.7%	110.0%
Gross profit (loss)	-5,920,888	-7,449,447	-1,528,559	63.4%	57.9%	91.4%
Commercial expenses	0	0	0			
Management expenses	0	0	0			
Profit (loss) from sales	-5,920,888	-7,449,447	-1,528,559	63.4%	57.9%	91.4%
Income from participation in other organizations	8,438,266	12,566,426	4,128,160	232.1%	656.6%	282.8%
Interest receivable	-916,994	294,151	1,211,145	77.8%	110.1%	141.5%
Interest payable	-1,805,416	-5,119,261	-3,313,845	109.1%	131.0%	120.1%
Other income	8,471,539	7,450,246	-1,021,293	131.9%	127.0%	96.3%
Other expenses	18,566,488	16,037,567	-2,528,921	53.4%	57.1%	106.8%
Profit (loss) before taxation	26,832,995	23,779,682	-3,053,313	-318.7%	-608.6%	191.0%
Current income tax	-71,730	-2,056,522	-1,984,792	101.2%	153.7%	151.9%
including permanent tax liabilities (assets)	0	-769,020	-769,020		0.0%	0.0%
Change in deferred tax liabilities	0	-752,912	-752,912		0.0%	0.0%
Change in deferred tax assets	0	0	0			
Other	166,270	22,725	-143,545	105.7%	100.7%	95.3%
<b>Net profit (loss)</b>	<b>26,927,997</b>	<b>20,993,435</b>	<b>-5,934,562</b>	<b>-189.6%</b>	<b>-524.3%</b>	<b>276.5%</b>

Source: Compiled by the author using the material Annual reports. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: [https://www.company.rt.ru/en/ir/results\\_and\\_presentations/financials/IFRS/2021/](https://www.company.rt.ru/en/ir/results_and_presentations/financials/IFRS/2021/) (accessed: 10.08.2022).

Despite the revenue growth for the period 2019-2021, net profit since 2019 had shifted to a loss, but it increased in 2021. Revenue grew by 1% annually, but the cost of sales increased by 2% faster.

The increase in borrowed funds and expenses of PJSC Rostelecom at the moment is aimed at expanding the capital to build a foundation for the development of the organization.

To assess the effectiveness of the use of labor resources, an analysis is required, presented in Table 19.

Table 19 – Analysis of the use of Rostelecom's labor resources

Indicator / Period	2019	2020	2021	2020/2019, %	2021/2020, %
1.Revenue	319 725 684	348 257 696	350 588 729	109%	101%
2.Cost of sales	-302 016 888	-332 077 459	-340 329 380	110%	102%
3. Net profit (loss)	-3 362 969	-9 927 531	17 620 446	295%	-177%
4. Number of employees at the beginning of the period, people	138 230	149 065	146 801	108%	98%
5. Number of employees at the end of the period, people	149 065	146 801	129 773	98%	88%
6. The number of dismissed employees, people	20 850	20 940	25 789	100%	123%
8. Total staff costs, thousand rubles	119 822 142	136 389 113	137 209 168	114%	101%
9. Labor costs, thousand rubles	85 019 145	98 555 159	99 523 633	116%	101%
10. The average number of employees, people	143 648	147 933	138 287	103%	93%
11. The share of staff maintenance costs in revenue, %	37%	39%	39%	105%	100%
12. The share of personnel maintenance costs in the cost of sales, %	40%	41%	40%	103%	98%
13. Staff turnover rate, %	15,7	16,4	20,8	104%	127%



14. Staff stability coefficient, %	82%	87%	88%	106%	101%
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Source: Compiled by the author using the material Sustainable Development Report. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: <https://www.company.rt.ru/en/social/report/> (accessed: 07.08.2022).

In 2021, Rostelecom PJSC worked to improve the personnel management system, including through the introduction of changes to the organizational structure of the group of companies, implemented project management, created cross-functional and digital teams, used remote work practices and productivity improvement programs. To control a large number of innovations and projects in the company, it was decided to create an additional office in the personnel department.

In 2021, a project office for the management of strategic programs in the field of personnel was established at Rostelecom. The main functions of this project office:

- defining employee loyalty management policy;
- management of positioning and perception of the employer's brand;
- formation of professional communities in the field of digital economy.

To analyze changes in the structure of personnel, it is necessary to consider their percentage ratio in Table 20.

Table 20 – Rostelecom PJSC personnel structure by category

	2019	2020	2021	Growth rate for 2019–2020, %	Growth rate for 2020–2021., %
Specialists	63,0	63,6	67,3	1	6
Workers	25,9	24,8	21,6	-4	-13
Heads of functional divisions	11,0	11,5	10,8	5	-6
Senior managers	0,1	0,1	0,2	-6	119
Other employees	0,1	0,1	0,1	7	-17

Source: Compiled by the author using the material Sustainable Development Report. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: <https://www.company.rt.ru/en/social/report/> (accessed: 07.08.2022).

In 2021, the predominant number of employees in Rostelecom PJSC (> 65%) were specialists and about 22% were workers. The heads of functional divisions were 11% of the total number of employees. It should also be noted the growth in the number of senior managers, the number of which has more than doubled. The expansion of the staff of senior managers is due to the fact that the company needed to increase the level of control over the implementation of goals and objectives and the efficiency of the use of labor resources. This decision was one of the reasons for the 7% increase in labor productivity.

To analyze the personnel of Rostelecom PJSC, it is required to consider the turnover of personnel by gender and age structure, presented in Table 21.

Table 21 – Staff turnover of Rostelecom PJSC by age and gender

Age	Staff turnover rate, %					
	2019		2020		2021	
	M	F	M	F	M	F
Up to 30 years old	21	29	24	35	28	35
31–49 years old	7	9	8	10	10	11
Over 50 years old	3	2	3	2	4	2
Overall level for the year	15,7		16,4		20,8	

Source: Compiled by the author using the material Sustainable Development Report. Official corporate information website // Rostelecom: Official website [Electronic resource] – Access mode: <https://www.company.rt.ru/en/social/report/> (accessed: 07.08.2022).

The data from Table 21 allows to conclude that the turnover of personnel in PJSC Rostelecom in 2021 increased by less than 4.4% compared to 2020. The highest percentage of staff turnover of PJSC Rostelecom is observed among young people under 30 years of age (>50%), while the maximum turnover occurs among women under 30 years of age. But staff turnover among staff over 50 is minimal – on average 3% among men and 2% among women.

In order to reduce staff turnover, Rostelecom implements projects aimed at improving the quality of recruitment, pays great attention to the adaptation of new employees, and regularly monitors the level of wages to maintain wages not lower than the average in the labor market.

The comprehensive labor productivity improvement program implemented at Rostelecom includes transformation of the company's operating model, optimization of business processes, digitalization and automation, goal setting and motivation, as well as

initiatives of subsidiaries and dependent companies. Increased productivity and automation have led to the fact that over the past 3 years, the number of staff has decreased by 3-5%.

The number of dismissed employees in 2021 grew by 23% and was significantly higher than the number of employees hired. However it led to a decrease in the average number of employees by only 7%. Despite the decrease in the number of employees, the costs of their maintenance remained virtually unchanged, but at the same time revenue and cost increased by 2%. This indicates the effectiveness of the company's HR policy.

In order to achieve the ambitious goals that the company has set for itself, it will require the presence of highly qualified professionals in the team. Therefore, the management of PJSC Rostelecom invests millions of rubles in personnel education from year to year. In order to create even greater opportunities for the development and training of employees, Rostelecom has developed a comprehensive training system in 2021 that ensures the comprehensive development of employees. The system provides training in various integrated formats: face-to-face training, blended learning and online format.

Also, in order to improve the efficiency of the remuneration system in 2021, Rostelecom PJSC launched the project "Increase in payment". During the implementation of the project, the company analyzed the level of salaries of employees in relation to the market level of remuneration for similar positions in a particular region. For this reason, in 2021, the salaries of Rostelecom PJSC employees were increased by 1-4 grades. The salary of 45,000 employees increased by an average of 7%, which is reflected in the growth of labor costs by 7%.

The personnel stability coefficient is close to 1, which means that the organization is slowly updating its personnel, perhaps it makes sense to think about reserves for expanding the staff so that new employees can offer new ideas and excellent points of view on various issues.

### **4.3 The study of the competitiveness of PJSC ROSTELECOM**

To assess the competitiveness of PJSC Rostelecom, a SWOT-analysis, a PEST-analysis, and a SNW-analysis should be carried out. They will allow to study in detail the internal and external environment of the organization, as well as to identify factors affecting its competitiveness.

To analyze the external environment of PJSC Rostelecom, a PEST-analysis is required. It is necessary to start by identifying a number of factors that affect the level of competitiveness of the organization.

It is important not only to group and structure these factors correctly, but also to objectively assess their degree of influence on the company's activities and competitiveness.

For clarity and convenience of PEST-analysis, a three-point scale is used, where:

3 – even a slight change in the factor has a strong impact;

2 – a significant change in the factor can have an impact on the organization's activities;

1 – factor has a weak effect, even with significant changes;

If environmental factors are incorrectly determined and the degree of their influence is incorrectly assessed, then the analysis carried out may not only be useless from the point of view of research but may also lead to incorrect management decisions. To conduct a PEST-analysis, it will be necessary to include political, economic, social and technological environmental factors that affect the activities of PJSC Rostelecom in Table 22.

Table 22 – PEST-analysis of Rostelecom PJSC

Factors	Influence of the factor	Evaluation	Weight-adjusted score
1. Political	10		
1.1 Tax policy	2	2	0,11
1.2 Domestic political stability	2	1	0,06
1.3 Antimonopoly Policy	2	1	0,06
1.4 Bureaucratization	1	3	0,09
1.5 Close relationship with State institutions	3	1	0,09
2. Economic	10		
2.1 General economic situation in the country	2	2	0,11
2.2 Growth of the inflation rate	2	3	0,17
2.3 Lack of clear prospects for the development of the Russian economy	2	1	0,06
2.4 Income level of the population	3	3	0,26
2.5 The degree of globalization and openness of the economy	1	1	0,03
3. Social	8		
3.1 Shortage of qualified personnel	3	3	0,26
3.2 Population growth	2	1	0,06
3.3 Changing consumer behavior	3	4	0,34

4. Technological	7		
4.1 Level of innovation in telecommunications	3	4	0,34
4.2 Degree of technology implementation	2	2	0,11
4.3 Changes in the amount of research expenses	2	3	0,17
Total	35		

Source: Compiled by the author

For a more accurate analysis, it is necessary to identify the factors that have the greatest impact. They are structured in Table 23.

Table 23 – The degree of influence of factors

<b>Political</b>		<b>Economic</b>	
Factor	Weight	Factor	Weight
1.1 Tax policy	0,11	2.4 Income level of the population	0,26
1.4 Bureaucratization	0,09	2.2 Increasing inflation rate	0,17
1.5 Close relationship with government institutions	0,09	2.1 General economic situation in the country	0,11
1.2 Domestic political stability	0,06	2.3 Lack of clear prospects for the development of the Russian economy	0,06
1.3 Antitrust policy	0,06	2.5 Degree of globalization and openness of the economy	0,03
Sum	0,40	Sum	0,63
<b>Social</b>		<b>Technological</b>	
Factor	Weight	Factor	Weight
3.3 Change in consumer behavior	0,34	4.1 Level of innovation in telecommunications	0,34
3.1 Shortage of qualified personnel	0,26	4.3 Change in research spending	0,17
3.2 Population growth	0,06	4.2 Degree of technology adoption	0,11
Sum	0,66	Sum	0,63

Source: Compiled by the author

It is necessary to calculate the totality of the influence of each group of factors according to formula 2.1.

$$\begin{aligned} \text{Degree of influence} &= \text{Cumulative influence of a group of factors} \times \\ &\times \text{Sum of the weight of a group of factors} \end{aligned} \quad (2.1)$$

Calculations and measurements of the specific gravity are shown in Table 24.

Table 24 – Tables with calculations of the degree of influence of a group of factors

Group of factors	Calculation	Value	Specific gravity, %
------------------	-------------	-------	---------------------

P	10*0,40	4	20
E	10*0,63	6,3	32
S	8*0,66	5,3	27
T	7*0,63	4,4	22
Sum	-	20	100

Source: Compiled by the author

The PEST-analysis leads to the conclusion that a group of economic factors has the greatest impact on Rostelecom PJSC.

After considering the factors taken separately, then the change in consumer demand, the level of income of the population, the shortage of qualified personnel and the level of innovation in telecommunications have the greatest impact.

The level of income of the population and changes in consumer demand are closely related and directly affect the level of sales. In order to retain existing customers and attract new ones, Rostelecom PJSC needs to regularly investigate changes in these factors and adjust its pricing policy.

Technological factors are important for the development of PJSC Rostelecom. For this reason, the company should regularly monitor innovations appearing on the market, projects being prepared and investigate any other information in this direction. The level of innovation in telecommunications has a significant impact on the organization's activities. This factor needs to be considered, since large companies often have difficulties with the rapid implementation of innovative solutions due to the remoteness of branches. PJSC Rostelecom minimizes the negative effect of this environmental factor due to a clear and effective management system. The tasks of implementing innovations are delegated in such a way that branches begin active activities in the shortest possible time.

To reduce the negative effect of the shortage of qualified personnel, PJSC Rostelecom is developing a personnel policy in many areas. The company offers competitive salaries for its employees in order to interest them, and also conducts regular training, seminars and refresher courses that improve the skills of employees and allow them to use their workforce more efficiently.

Political factors, due to their stability, have the least impact on the activities of PJSC Rostelecom.

All the factors considered in the PEST-analysis should be taken into account when developing a strategy to increase the competitiveness of Rostelecom PJSC.

SNW-analysis is considered a strategic analysis covering both the external and internal environment. In order to properly conduct the SNW-analysis, Rostelecom PJSC needs to determine its strategic position and make a qualitative assessment for each position. The data obtained are shown in Table 25.

Table 25 – SNW-analysis of Rostelecom PJSC

№	Name of the parameter	Evaluation		
		Strengths (S)	Neutral (N)	Weaknesses (W)
1	Organization strategy	+		
2	Organizational structure	+		
3	Financial condition			
3.1	Solvency			+
3.2	Financial stability		+	
3.3	Low probability of bankruptcy	+		
3.4	Balance sheet liquidity			+
4	Information technology			
4.1	The level of informatization	+		
4.2	The ability to conduct remote work	+		
4.3	Availability of an effective CRM system	+		
4.4	The level of technical equipment of workplaces	+		
5	Staff			
5.1	Availability of personnel	+		
5.2	Staff turnover		+	
5.3	Availability of highly qualified employees	+		
5.4	Commitment of the company's employees	+		
5.5	Effective incentive system for employees	+		
5.6	Reputation as an employer	+		
6	Goods and services			
6.1	The Internet	+		
6.2	Related equipment	+		
6.3	Television	+		
6.4	Telephony	+		
6.5	GSM (Tele2) cellular communication services			+
6.6	Video surveillance		+	
6.7	Additional services		+	
6.8	The use of innovative technologies in the work	+		
7	Marketing			
7.1	Advertisement	+		

7.2	Product quality	+		
7.3	Pricing policy			+
7.4	Coverage of the territory to connect	+		
7.5	Market share	+		
	Total	21	4	4

Source: Compiled by the author

The SNW-analysis showed that most of the parameters have a strong estimate, 4 parameters are neutral and 4 are weak. In order to improve the financial condition, it is necessary to make changes based on the recommendations given in the analysis of the financial condition of PJSC Rostelecom. It is also necessary to develop a strategy for the development of GSM cellular communications, because additional cell towers are required to expand the coverage area. The Tele2 brand positions itself as an operator providing services at a low price, but at the moment it requires, on the contrary, to invest money, which will negatively affect profitability while maintaining prices, and in the event of an increase in the cost of tariffs, the brand will lose its main competitive advantage.

The strengths of the company are its strategy, implemented information technologies, personnel policy and the quality of goods and services provided. The study of marketing parameters showed that the company conducts an effective marketing policy, but it is necessary to revise the pricing policy, since competitors offer lower-quality services at below-market prices. The revision of the cost of the assortment of PJSC Rostelecom will attract new subscribers and reduce the outflow of existing ones.

The next tool used to analyze the competitiveness of PJSC Rostelecom is SWOT analysis. It is presented in Table 26.

Table 26 – SWOT-analysis of Rostelecom PJSC

S	W
<ul style="list-style-type: none"> <li>• High quality of services and related equipment</li> <li>• Market leading position</li> <li>• A large number of branches that promptly interact with the head office</li> <li>• Highly qualified staff and regular training</li> <li>• Implementation of innovative technologies</li> </ul>	<ul style="list-style-type: none"> <li>• The level of company loyalty is lower than that of competitors</li> <li>• Inflexible pricing policy</li> <li>• Minor monitoring of public opinion</li> <li>• Relatively unfavorable conditions for connecting individual services (outside the package)</li> </ul>



<ul style="list-style-type: none"> <li>• The longest network of highways and the largest coverage of the territory for connection</li> <li>• 24/7 Support</li> <li>• Implementation of a demo version of the IVR voice service to support subscribers</li> </ul>	<ul style="list-style-type: none"> <li>• Poor customer retention system</li> </ul>
O	T
<ul style="list-style-type: none"> <li>• Leveraging mutually beneficial relationships with the public sector</li> <li>• Increase in the subscriber base by expanding the number of employees working under a civil law contract on a piece-bonus wage</li> </ul>	<ul style="list-style-type: none"> <li>• Possibility of faster response to changes in the regional markets of local providers.</li> <li>• Decrease in income of the population.</li> <li>• Changing consumer behavior.</li> <li>• The emergence of a shortage of qualified personnel in the market</li> </ul>

Source: Compiled by the author

The analysis showed the strengths and weaknesses of PJSC Rostelecom, as well as the opportunities and threats affecting its activities.

The company has a large subscriber base and occupies a leading position in the telecommunications market due to the high quality of services provided and good service. Numerous branches that promptly interact with the head office, but at the same time have the necessary level of autonomy when making management decisions in regional markets, are able to serve many customers even in remote areas. An IVR voice service has also been developed to improve the speed of customer service that needs help. It allows not only to solve the subscriber's problem more quickly, but also reduces the burden on hotline operators by answering common and typical questions. At this stage, it requires modernization.

The identified shortcomings showed that Rostelecom PJSC has a unified approach that makes it impossible to exercise a flexible policy in the field of pricing and providing specific offers to subscribers. In the eyes of service users, this shows a low level of loyalty to the company. In comparison with competitors, it can also be noted that the connection of individual services is not more expensive in the package than that of competitors. It should also be noted that the customer retention system is not debugged.

The most promising opportunities in the market that Rostelecom can take advantage of are the expansion of the number of employees with whom contracts of a civil nature are concluded with a piecework-premium form of payment, and the use of mutually beneficial relations with the public sector. Since the company is increasing the coverage of territories where subscribers can be connected, it is advisable to increase the number of direct and telephone sales managers who are motivated to fulfill their plans in order to receive a higher salary. Rostelecom also serves many areas of government activity where telecommunications services are required. The coverage of this fact will improve the image and business reputation of the company.

The factors of the external environment that pose the greatest threat are changes in consumer behavior, a decrease in household incomes and a shortage of qualified personnel.

In this chapter, general information about PJSC Rostelecom was studied, including the history of creation, mission, principles and organizational structure of the company and a typical branch. Advantages were noted in the organizational structure and management features were considered. PJSC Rostelecom has been operating in the telecommunications market since 1992, now the company has 13.5 million subscribers, of which more than 100 thousand are in the Tver region, and its main activities are providing telecommunication services:

- provision of communication services in accordance with the received licenses;
- transmission of information via trunk and intra-zone communication networks;
- leasing of transmission lines, linear, group and network paths, tonal frequency channels, channels and means of audio and television broadcasting, data transmission channels.

In the Practical Part a detailed analysis of the financial and economic condition of the organization and its changes in the period for 2019-2021 is carried out. Conclusions were drawn and recommendations were made on the basis of the considered balance sheet changes, the study of the liquidity of the balance sheet, the solvency of the company, the probability of its bankruptcy, financial stability coefficients were calculated and vertical and horizontal analyses of the balance sheet and the report on financial results of PJSC Rostelecom were carried out:

- the value of non-current assets increases by columns (from previous to future periods for 2019-2021), this indicates the favorable development of PJSC Rostelecom and its chances and prospects for further growth, as these include communication towers, highways, networks and other facilities necessary to increase coverage and the number of connections;
- the firm has attracted a fairly large amount of borrowed funds, >30% of accounts payable are listed in the Liability, and the negative side is the increase in the level of loans in dynamics;
- the assessment of financial stability coefficients showed that most of the indicators are close to the normative value;
- a study of the probability of bankruptcy of PJSC Rostelecom using Altman's two-factor model showed that the probability of bankruptcy is not only less than 50%, but continues to remain at a low level for the past 3 years.
- the analysis of the liquidity of the balance sheet showed that all coefficients, with the exception of the absolute liquidity coefficient, do not correspond to the normative value and their change has a negative direction.

The data on the personnel of the organization were studied, staff turnover and decisions aimed at reducing it were considered, as well as an analysis of the use of labor resources was carried out:

- the number of dismissed employees in 2019-2021 grew by 23% and was significantly higher than the number of employees hired which led to a decrease in the average number of employees by 7%;

In the third paragraph of the chapter, PEST-, SNW- and SWOT-analyses were carried out. The strengths and weaknesses of Rostelecom PJSC were studied, as well as environmental factors that form opportunities and threats for the development of measures to improve the competitiveness of the organization presented in the chapter were analyzed.

## **5. Results and Discussion**

### **5.1 Proposals for the development of competitiveness of PJSC Rostelecom**

#### **5.1.1 The main directions of improving competitive advantages**

The results of the analysis of external and internal factors of the organization's activities revealed market threats that can negatively affect the company's activities.

In particular, the inflexible pricing policy of Rostelecom PJSC may lead to the fact that subscribers using the services of this company will switch to competitors who develop their product policy and stimulate demand with favorable offers, which often focus on lower cost.

The unstable economic situation, which can lead to a decrease in household incomes and a change in consumer behavior, also weakens the effect that could be obtained by the enterprise, since some offers are beyond the limits of the monetary possibilities of consumers.

The PEST, SNW and SWOT analyses conducted, including the study of the external and internal environment, revealed the main factors of competitiveness, as well as problems that, having solved, the business will be able to make more profit and increase its share in the communications market.

The strengths of PJSC Rostelecom, and hence the factors that directly affect the current level of competitiveness of the company, are:

1. RT company strategy – the company's current strategy takes into account all the important areas of development of each product group, which is important for increasing the company's market share: home telephony, broadband Internet access, cellular communications and interactive television;
2. connecting individual localities;
3. high level of information technologies of PJSC Rostelecom;
4. reputation in the market, which allows you to compete with other leading mobile operators, interactive television and broadband Internet access, which positively affects the strengthening of the company's market position;
5. long-term relations with the authorities, which are not only environmental factors, but also owners of 38.2% of the shares of PJSC Rostelecom;
6. providing after-sales customer service with a 24-hour hotline;

7. high quality of materials of the network line, which ensures the most uninterrupted connection and smooth operation of services for customers of PJSC Rostelecom;

8. a large subscriber base of potential telephony customers both in the whole country and in each region of presence, which is regularly updated;

9. differentiated line of product groups (cellular communication, home telephony, satellite TV: triple play, multiroom, VoD, HD, broadband Internet access, etc. services);

10. Unique IP-TV service offer together with equipment on the market;

11. staff of highly qualified specialists.

On the other hand, PJSC Rostelecom has shortcomings that require the attention of managers in order to weaken their influence on the competitiveness of the company:

1. GSM (cellular communication is Tele2) the recent acquisition of Rostelecom PJSC, a brand well known for its adaptability and cheapness, however, to expand the coverage areas of the connection and provide services to more customers, more costs are required;

2. The customer retention system is not debugged, which leads to an outflow of subscribers and, as a result, to a reduction in the financial results of PJSC Rostelecom;

3. the high cost of the services provided is a negative factor, since in order to cover such large costs, it is necessary to receive high incomes, which directly affects the pricing level of the company against the background of competitors;

4. irregular and low-quality monitoring of public opinion (real and potential consumers) about the services of PJSC Rostelecom, which does not allow tracking the dynamics of changing attitudes towards the company and competitors;

5. the unfavorable conditions of the policy for connecting services separately for customers and the inflexible tariff make the services uncompetitive in the market of both cellular communications and satellite television or broadband Internet connection;

6. the level of loyalty to the company is lower than that of competitors, because not all of the company's services are unique, and some are not offered on the most favorable terms.

Thus, in order to strengthen the position of PJSC Rostelecom in the telecommunications market and to develop the competitiveness of the company, it is recommended to carry out the following measures developed on the basis of the analysis and shown in Table 27.

Table 27 – Measures to develop the competitiveness of PJSC Rostelecom

Recommendations	Goals
1. Implementation and modernization of a user-friendly IVR (voice) service	This service will help to establish work with customers, which, as a result, will increase the loyalty of subscribers due to the quick resolution of the issue that has arisen.
2. Carrying out marketing research among potential customers	A mass survey of the population of the regions where PJSC Rostelecom provides its services will help determine what residents prefer, what services they use, what requirements for cellular communications, home Internet and television are put forward, what pricing policy would be most suitable for obtaining a larger market share.
3. Carrying out marketing research among subscribers of PJSC Rostelecom	These studies will help determine how well the services are provided, what types of services are more popular, what needs to be changed, would recommend the services of PJSC Rostelecom to their environment, which spoils the impression of the company's work.
4. Conducting marketing research among departed customers of PJSC Rostelecom	Analysis of the results of the study will help to find out the reason for the refusal of the company's services, determine the weaknesses of PJSC Rostelecom in front of competitors, and form measures to return customers to the company's services.
5. Formation of a flexible tariff system	The organization needs to develop and implement a new pricing policy in the company, which will help eliminate the unpopularity of certain services of PJSC Rostelecom and introduce tariffs that are convenient for customers.
6. Increase in the number of Tele2 communication towers	To reduce the current high load and expand the coverage area in the regions, it is necessary to increase the number of existing communication towers.

Source: Compiled by the author

Thus, the proposed activities will help to achieve the following goals:

1. improving the quality of services based on the results of the analysis of consumer requirements as the main competitive advantage in the market of Internet service providers, cellular communications, satellite television;
2. systematic collection and analysis of information on the dynamics of the needs of potential, actual and departed customers of the enterprise;
3. reducing the cost of services provided and improving financial results;
4. formation and implementation of a new flexible tariff system and new product packages;
5. Increasing the number of operating towers to improve the quality of Tele2 services.

### 5.1.2 Evaluation of the effectiveness of measures to improve competitiveness

The proposed measures should be evaluated from the point of view of the possibility of their implementation, identify criteria for measuring the success of implementation, describe the effectiveness and provide an economic justification for the effectiveness. It is necessary to correlate the resources available to the organization with the possibility of their implementation and give a comment. The possibility of implementation is presented in Table 28.

Table 28 – The possibility of implementing the proposed measures

Recommendation	Required resources		Comment
	Available	Missing	
1. Implementation and modernization of a user-friendly IVR (voice) service	✓		The organization has an IT department with highly qualified specialists capable of implementing, regularly improving and increasing the efficiency of this service.
2. Carrying out marketing research among potential customers		✓	Due to the large number of participants in the survey, this study should be conducted with the help of another organization. A significant increase in the number of existing employees would be inappropriate.
3. Carrying out marketing research among subscribers of PJSC Rostelecom	✓		The organization has a large client base and this study may need to hire temporary operators and offer additional hours for existing ones.
4. Conducting marketing research among departed customers of PJSC Rostelecom	✓		This study will require the involvement of experienced company specialists who have sufficient experience in working with negative clients and may be able to do so.
5. Formation of a flexible tariff system	✓		The presence of a large marketing department with a large number of competent specialists has the opportunity to review the current tariffs, assess the demand for all types of services provided and develop new proposals.
6. Increase in the number of Tele2 communication towers	✓		The organization has the opportunity to use the available funds to increase the number of operating towers.

Source: Compiled by the author

Conducting marketing research will help to assess in detail the level of competitiveness of the organization's services for customers and, as a result, will help to increase the level of competitiveness of PJSC Rostelecom.

Among the proposed activities, Rostelecom PJSC requires the service of another organization only for conducting marketing research among potential customers due to the large number of respondents. Conducting such a study on your own will require a heavy load on the staff and a temporary expansion of the staff. For this reason, this study should be ordered from another organization. Before ordering a study, you will need to select certain items that include an in-depth analysis of the current situation and an assessment of the prospects for the development of the telecommunications industry. Conducting a large-scale survey will be useful for improving the competitiveness of an organization only when it has a clear plan and goals.

The purpose of the study is to determine the key characteristics of the telecommunications systems market in Russia. As part of this work, specialists will need to analyze information about the current state of the market, consumption dynamics, factors affecting the situation, the competitive environment, current trends and other processes. For the clarity of the presentation of information, it will also require a large number of graphic elements such as charts, graphs, tables, etc. The structure of the telecommunications systems market research is presented in Table 29.

Table 29 – Characteristics of the Research

<b>Required Research Item</b>	<b>Characteristic</b>
<b>1. General overview of the state of affairs in the telecommunications sector</b>	It should contain data on the dynamics of the market volume for the period 2017-2021, an assessment of existing trends and a list of factors that determine the direction of changes in the market situation.
<b>2. Competitive Analysis</b>	This section should contain a competitive analysis listing the biggest players in the industry and their profiles.
<b>3. Market dynamics</b>	This paragraph requires information on the volume and dynamics of the production of telecommunications services in Russia, segmentation by type of service and region.
<b>4. Basic consumption parameters</b>	The item demonstrates the dynamics, volume, market structure by assortment and industries, pricing policy, characteristics of the main customers and their requests.



<b>5. Perspectives</b>	The fifth part of the research should contain information on the prospects for the development of the telecommunications systems market until 2026.
<b>6. Forecast</b>	The forecast should contain the dynamics of consumption of services for a period similar to the fifth paragraph.
<b>7. Conclusions and recommendations</b>	The study should end with formed conclusions and specific recommendations from experts.

Source: Compiled by the author

Such a study can be ordered from large information and analytical companies. These include "VVS", "GidMarket", "KSK GROUP" and other organizations. The price for such a study starts from 200,000 rubles within one subject of the Russian Federation and varies depending on the agreement.

Based on the conducted analyses, it can be concluded that Rostelecom is a developing company that is increasing its presence throughout Russia.

However, the weak side of the company is the product policy, which has several main directions, but undifferentiated. So, broadband Internet access has only 4 package tariffs. This tariff schedule does not suit consumers, so they switch to competitors.

To eliminate the current problem, it is necessary to develop and bring to market new packages of services for different categories of citizens, presented in Table 30.

Table 30 – New tariff plans of PJSC Rostelecom

<b>Plan</b>	<b>Characteristic</b>
<b>1. Economy plan</b>	A stand-alone internet service that will be priced competitively against competitors.
<b>2. Gamer</b>	A high-speed Internet package, supplemented by a regular opportunity to receive various bonuses in online gaming stores, codes and gifts.
<b>3. Internet for giving</b>	The ability to manage in your personal account: you can connect the Internet only on certain days, and not for a whole month.
<b>4. Speed+</b>	A 200 Mbps rate plan that already includes a dual-band router for a more stable and faster connection.
<b>5. Social</b>	The ability to connect the package only from television and home telephony at a bargain price.
<b>6. Family</b>	The package includes antivirus and ad blocking, history tracking and site restriction, developing channels, access to educational portals.
<b>7. All at once 1, 2, 3, 4, 5</b>	The plan which includes a favorable package with Tele2 mobile communications, which varies depending on the desired number of mobile subscribers.

Source: Compiled by the author

The introduction of new tariffs will attract new subscribers, increase the loyalty of old ones and return some of the lost customers.

To attract subscribers to Tele2 communication services, as well as to encourage them to purchase the "All at Once" package 1, 2 or 3, it will be required that subscribers receive high-quality services. One of the reasons that Tele2 subscribers go to other mobile operators is poor quality, which is a consequence of the workload or remoteness of communication towers from the user. The coverage area is shown in Figure 7.

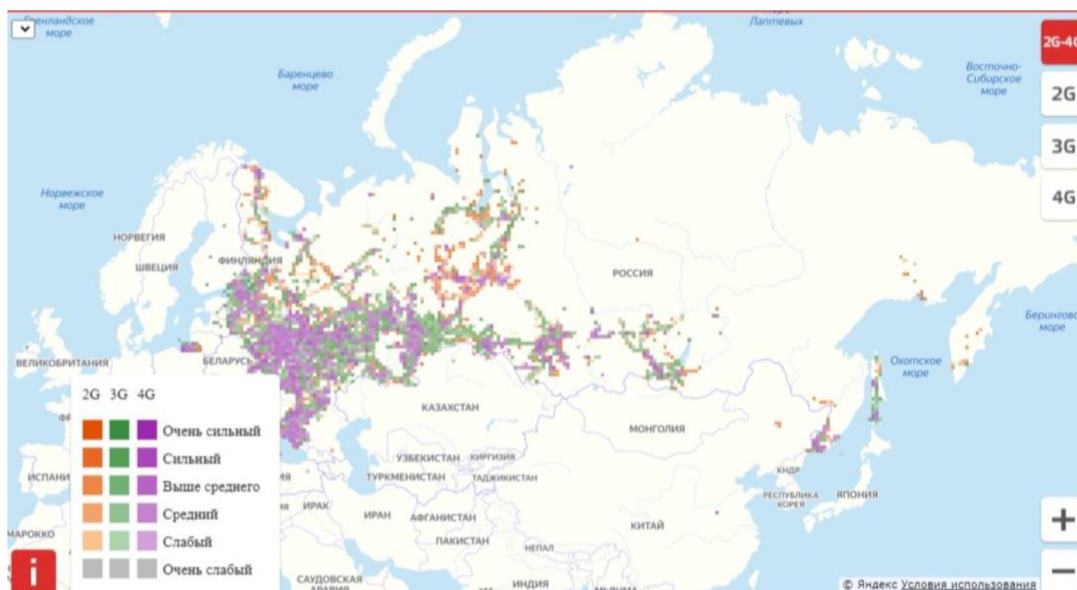


Figure 7 – Tele2 coverage area

Source: Tele2 coverage area – [Electronic resource]. – Access mode:

<https://msk.tele2.ru/coverage> (accessed: 08/20/2022).

The construction of new communication towers and their rental from other companies will reduce the workload on individual towers, which will allow subscribers to access fast Internet. It should be borne in mind that renting towers, especially private ones, can lead to an increase in the cost of rent. For this reason, the choice should be inclined either to the construction or to the purchase of the site on which the tower is located. Also, the problem of loss and decrease in the quality of communication among subscribers living in small settlements that are remote from the regional capital will be solved thanks to this. This will not only preserve existing subscribers from the regions, but also attract new customers for whom Tele2 operator services will have an advantage not only in pricing policy, but also in the quality of services provided.

The introduction and modernization of an IVR (voice) service convenient for subscribers will also help to increase the competitiveness of Rostelecom PJSC. A lot of subscribers regularly contact support specialists by phone, even for small questions (to find out the balance of funds on the account, the date of payment, how to restart the router, how to restore the password from the personal account, etc.), and to maintain a high level of service and quality support, they have to transmit information in full. This often leads to the fact that customers who have a more complicated situation and require a more prompt solution need to wait longer for a connection with the operator. The voice assistant of the IVR service is able to quickly help customers with frequently asked questions, thanks to an effective algorithm of work that specialists of the IT department of Rostelecom PJSC are able to create. Such a voice assistant will reduce the burden on hotline operators and may be able to reduce the costs of its maintenance. This will lead to the fact that small issues will be resolved quickly by the IVR voice assistant, and those that require an urgent solution will begin to receive advice faster.

Also, for all the proposed measures, it is necessary to identify criteria for evaluating their effectiveness, which must be taken into account. They are presented in Table 31.

Table 31 – Criteria for evaluating the effectiveness of measures

Recommendation	Criteria for evaluating effectiveness
1. Implementation and modernization of a user-friendly IVR (voice) service	<ul style="list-style-type: none"> <li>• Percentage of calls that were answered using the voice service</li> <li>• The time for which the issue was resolved without communication with the operator</li> </ul>
2. Carrying out marketing research among potential customers	<ul style="list-style-type: none"> <li>• Availability of required items</li> <li>• Availability of information that positively influences the development of a marketing strategy</li> </ul>
3. Carrying out marketing research among subscribers of PJSC Rostelecom	<ul style="list-style-type: none"> <li>• Timely detection of problems that can lead to the loss of subscribers in the future</li> </ul>
4. Conducting marketing research among departed customers of PJSC Rostelecom	<ul style="list-style-type: none"> <li>• Getting information about the reason for changing the operator</li> <li>• Positive impact on subscriber retention statistics</li> </ul>
5. Formation of a flexible tariff system	<ul style="list-style-type: none"> <li>• Growing popularity of certain types of additional services</li> <li>• Customer transitions to new packages</li> </ul>

	<ul style="list-style-type: none"> <li>• New subscribers who were attracted by the new offer</li> </ul>
6. Increase in the number of Tele2 communication towers	<ul style="list-style-type: none"> <li>• Improving the quality of communication</li> <li>• The emergence of new subscribers</li> <li>• Increasing subscriber loyalty</li> </ul>

Source: Compiled by the author

The listed criteria will help in planning events, monitoring their implementation and analyzing their effectiveness.

It is also required to provide an economic justification for the measures.

The introduction and modernization of an IVR (voice) service convenient for subscribers for clarity needs to be considered in comparison with the activities of the operator of the incoming support line.

The operator of the incoming line, in accordance with the data provided by the personnel department, receives a fixed salary of 30,000 rubles per month, and the organization also deducts insurance premiums in the amount of 9,000 rubles. The employee works 5 days a week for 8 hours. With such a work schedule, he receives 1,363 rubles a day or 170 rubles an hour. On average, an employee receives 10 calls per hour and fills out 10 cases, of which 3 are sent to another department to further solve the problem. For answering the call and filling out the mandatory form, he receives 17 rubles. But taking into account insurance premiums, 1 call costs the organization 22 rubles 16 kopecks.

IVR service using speech recognition program SpeechKit from Yandex allows you to determine the type of subscriber's problem. Recognition of a short voice message, in accordance with the SpeechKit pricing, costs 20 kopecks. On average, it takes 4 short voice messages to be recognized in order to provide a solution to the most frequently asked questions or for further connection with the operator. If the problem can be solved without contacting the operator, the voice service provides data or a template instruction to answer the question. According to the data provided by the company, out of 10 calls, only 5 require a connection with the operator. For this reason, the voice assistant can significantly reduce the number of requests, the solution of which requires the involvement of an operator. The cost of one call with the participation of the operator will consist of his usual payment and preliminary communication with the voice assistant before the connection. Accordingly, it includes 22 rubles, 16 kopecks and another 80 kopecks.

Let's consider the hourly rate of the operator's work with and without IVR service. The data is given in Table 32.

Table 32 – Estimate of the cost of 10 calls

Type of call	Call service cost, rub.		Change	
	without IVR	with IVR	absolute, rub.	relative, %
1. Requiring communication with the operator	22,16	22,96	0,8	4%
2. Requiring communication with the operator	22,16	22,96	0,8	4%
3. Requiring communication with the operator	22,16	22,96	0,8	4%
4. Requiring communication with the operator	22,16	22,96	0,8	4%
5. Requiring communication with the operator	22,16	22,96	0,8	4%
6. Does not require a conversation with the operator	22,16	0,8	-21,36	-96%
7. Does not require a conversation with the operator	22,16	0,8	-21,36	-96%
8. Does not require a conversation with the operator	22,16	0,8	-21,36	-96%
9. Does not require a conversation with the operator	22,16	0,8	-21,36	-96%
10. Does not require a conversation with the operator	22,16	0,8	-21,36	-96%
Total costs	221,6	118,8	-102,8	-46%
Average call cost	22,16	11,88	-10,28	-46%

Source: Compiled by the author

Based on the table, it can be concluded that the use of the IVR voice service will reduce the load on the operators of the incoming support line by almost two times. Reducing

the amount of work will reduce the number of operators by reducing or transferring an employee to another position.

Next, it is required to consider the following event, which involves conducting a marketing research among potential customers of PJSC Rostelecom. Since the research within one subject of large information and analytical companies engaged in activities in the marketing field ("VVS", "GidMarket", "KSK GROUP") has an approximate cost of 200,000 rubles within one subject, it should be carried out within the regions separately. The different socio-economic level of development of each subject of the Russian Federation does not allow for a general study and situational management decisions are required in different conditions. It will cost 17 million rubles to conduct a study in each of the 85 constituent entities of the Russian Federation. Information and analytical companies offering to conduct research in the telecommunications field assume an increase in sales revenue of up to 11% (taking into account the adjustment of the forecasts of the marketing department of the Tver branch of PJSC Rostelecom). Revenue from sales in 2021 amounted to 350 588 729 thousand rubles, and in 2020, 348,257,696 thousand rubles. An increase in sales revenue will allow this indicator to reach 389,153,489 thousand rubles. The change in sales revenue is shown in Table 33.

Table 33 – Change in sales revenue

Periods for comparison	Change in sales revenue	
	Absolute, thousand rubles.	Relative, %
2020 and 2019	2 331 033	1%
2021 and 2020	38 564 760	10%

Source: Compiled by the author

The data from the table shows that the increase for 2020-2021 was 1% during the activity of the event. Information and analytical companies can provide data that will increase the percentage of sales revenue growth to 10, which will amount to 385 647 601 thousand rubles, at costs that will approximately amount to 30 000 thousand rubles, which will not be significant compared to sales growth. The change is more clearly demonstrated in Figure 8.

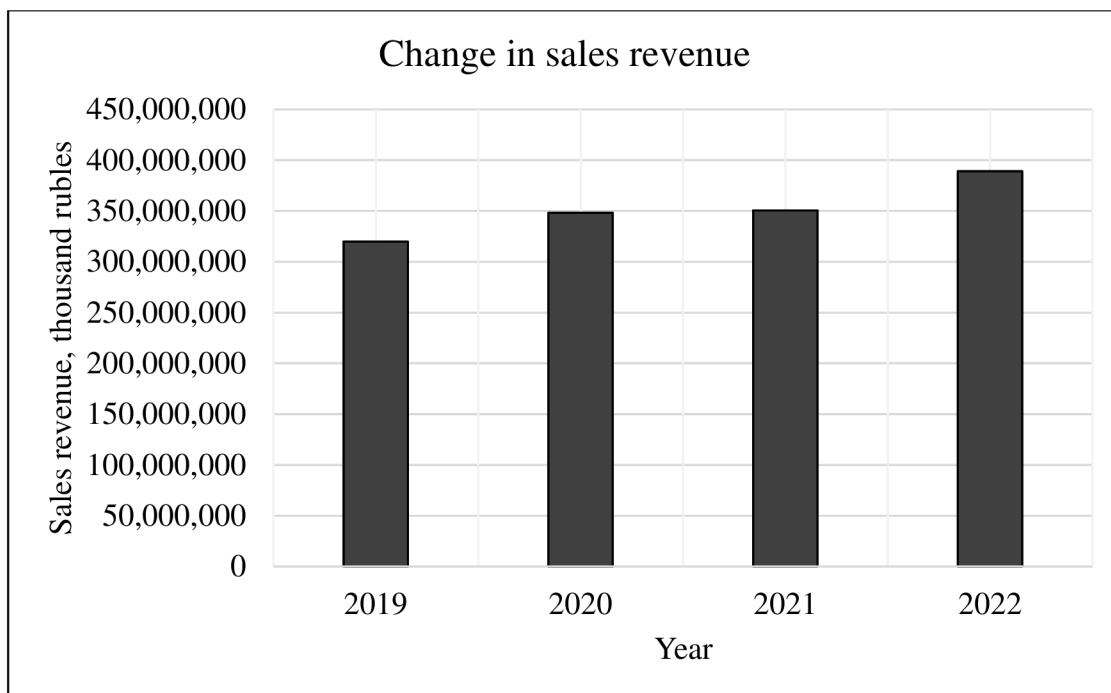


Figure 8 – Change in sales revenue

Source: Compiled by the author

Thus, it should be concluded that this event has high efficiency at low costs and it is advisable to carry out it to increase sales.

Conducting marketing research among Rostelecom's subscribers is necessary in order to reduce the number of subscribers who switch to other providers in the future. According to the statistics provided by the marketing department, the percentage of subscribers changing providers is approximately 5% and has not changed over the past 3 years. In order to prevent subscribers from leaving, it is necessary to conduct a quality assessment survey, since the problem that causes dissatisfaction with the client and is not detected for correction accumulates his dissatisfaction, which leads to the fact that competitors will be able to interest him with their offer.

A quality survey among existing subscribers can be conducted with the involvement of temporary workers who would work on the outgoing customer support line on the basis of a civil contract. However, in order not to attract a significant number of new temporary workers, it is possible to attract to this work those who already work on the incoming line. The introduction of the IVR voice service for customer support will reduce the number of

requests and, as a result, the employment of existing operators. It is these employees who have experience in digging that should be involved in the implementation of this project.

Using the example of the Tver branch, where 10 incoming line operators work, it is possible to calculate that due to a 46% reduction in load, it is possible to attract 4 people to conduct the study. The Tver branch serves approximately 100 thousand subscribers in the Tver region. On the recommendation of the marketing department, a quality survey should be conducted, which takes from 1 minute (if there are no complaints) to 6 minutes (if there are a large number of complaints). Also, the operator may need about 1-2 minutes to fill in the data in the CRM system qualitatively. This time interval is based on the fact that in case of detection of problems that the client has informed about, it will be necessary to make an additional request to the appropriate department to solve the problem. The employees who worked on the incoming hotline will be able to quickly and efficiently complete the tasks assigned to them, thanks to the existing experience.

According to the recommendations of the marketing service, the opinion of 5,000 customers should be investigated in a month, for which each of the 4 employees will need to make 60 calls for each working day during the month. Based on the data provided by the personnel service, the work costs of 4 operators will amount to 39,000 rubles or 156,000 rubles for all. Since current employees will be involved in the study, this will not affect the general wage fund. Based on the data provided by the marketing department of the Tver branch of PJSC Rostelecom, this will reduce the outflow of subscribers by approximately 2 percent out of 5. Conclusions from the arguments about the effectiveness of this event should be demonstrated on the scale of PJSC Rostelecom. For this purpose, calculations are presented in Table 34.

Table 34 – Estimation of changes in sales revenue in 2021 during marketing research of Rostelecom PJSC subscribers

Index	Actual value	Estimated value
Sales revenue 2020, thousand rubles	348 257 696	348 257 696
Customer loss percentage	5	3
Lost sales revenue, thousand rubles	17 426 384	10 447 731
Revenue from attracting new customers, thousand rubles	19 487 417	19 487 417
Sales revenue 2021, thousand rubles	350 588 729	357 297 382



The difference between the absolute indicators of sales revenue in 2021 and 2020, thousand rubles	2 331 033	9 039 686
Growth in sales revenue in 2021 compared to 2020, %	0,7	2,6
The difference between the estimated and actual sales revenue, thousand rubles.	6 708 653	
Relative deviation in increase in sales revenue in 2021, %	287	
Relative deviation of estimated sales revenue from actual, %	1,9	

Source: Compiled by the author

According to the data from the table, a decrease in the loss of sales revenue with unchanged revenue from new subscribers led to the fact that the difference between the estimated and actual sales revenue amounted to 6,394,514 thousand rubles, or 2%. Calculations show that the event has a significant positive effect, and its implementation is expedient.

The essence of conducting marketing research among the departed clients of Rostelecom PJSC is that subscribers who have terminated the contract with the company can provide valuable data about what prompted them to change their provider. This is useful for reducing the number of subscribers who may later refuse the services of PJSC Rostelecom.

Statistics in the company show that about 5% of customers change their provider per year for various reasons. On the scale of the Tver branch, this is 5,000 subscribers out of 100,000. Conducting marketing research among the branch's departed customers is possible with the involvement of an incoming support line operator, which was reduced due to reduced workload after the introduction of the IVR voice service. To collect data within the Tver branch of PJSC Rostelecom, one person will be needed, since the number of subscribers terminating the contract is 420 people per month. This number of calls can be made by 1 operator. According to experts from the marketing department, this will allow to return about one in five customers, since during the survey process they can make a unique offer to encourage them to use the company's services again. This will reduce the percentage of customer churn from 5 to 4.

To assess the significance of the event, it should be considered as part of the introduction at the level of the entire organization in 2021. An estimate of the estimated sales revenue and its comparison with the actual one are presented in Table 35.

Table 35 – Estimation of the change in sales revenue in 2021 during marketing research of former subscribers of PJSC Rostelecom

Index	Actual value	Estimated value
Sales revenue 2020, thousand rubles	348 257 696	348 257 696
Customer loss percentage	5	4
Lost sales revenue, thousand rubles	17 412 885	14 023 549
Revenue from attracting new customers, thousand rubles	19 743 918	19 743 918
Sales revenue 2021, thousand rubles	350 588 729	356 309 098
The difference between the absolute indicators of sales revenue in 2021 and 2020, thousand rubles	2 331 033	8 051 402
Growth in sales revenue in 2021 compared to 2020, %	0,7	2,3
The difference between the estimated and actual sales revenue, thousand rubles.	5 720 369	
Relative deviation in increase in sales revenue in 2021, %	345	
Relative deviation of estimated sales revenue from actual, %	1,6	

Source: Compiled by the author

The table data show that the decrease in the loss of sales revenue with unchanged revenue from new subscribers led to the fact that the difference between the estimated and actual sales revenue amounted to 3,197,256 thousand rubles, or 1%. Calculations show that the event has a significant positive effect, and its implementation is expedient.

Formation of a flexible tariff system changing the pricing policy is an important measure to increase competitiveness, which will attract new customers and retain existing ones. Since the tariffs differ in different cities for all providers, the paper presents the current packages of services of large providers on the example of Tver, and also calculates the average cost for comparable offers. The data for comparison are presented in Table 36.

Table 36 – Comparison of tariffs of large providers represented in Tver

Plan	Leading providers in the Tver region
------	--------------------------------------

	Rostelecom	R-telecom	Skynet	Beeline	MTC	Average cost
Internet 75 Mbps, rub.	-	400	420	350	-	390
Internet 100 Mbps, rub.	500	440	480	400	400	440
Internet + TV, rub.	1 140 - 1 490	1 000 - 1 190	420 - 500	600 - 900	650	870
Internet + TV + mobile communication, rub.	780 - 1 550	-	-	600 - 1 500	820	1 050

Source: Compiled by the author

A comparison of tariffs shows that now Rostelecom PJSC has the most expensive services. Also, you should pay attention to the fact that the company does not have tariffs with an Internet speed of less than 100 Mbit/s. This is an important omission, since in residential premises where 1-2 service users live, the speed of 50-75 Mbit/s is sufficient, which meet the needs of subscribers without the need to pay extra for unused speed. Such tariffs are presented by competitors, which may incline the client to another provider. All package offers are more expensive than existing competitors. From this it follows that it is necessary to bring them closer to the average market. The table shows prices without stock accounting, where competitors offer a discount for the first month or six months to new subscribers, as well as discounts when paying for a year. Such shares for new or existing customers are also not represented at Rostelecom PJSC at the moment.

Table 37 provides recommendations for reducing the cost of existing tariffs.

Table 37 – Recommended prices for current tariffs

<b>Plan</b>	<b>Price, rub. / month</b>
Internet 100 Mbps	450
Internet + TV	700 - 1 290
Internet + TV + cellular communication	780 - 1 390

Source: Compiled by the author

In order for subscribers to choose a tariff that is able to more fully meet their specific needs, new tariffs have also been developed, the cost of which is shown by the example of Tver. Their description is presented in Table 38.

Table 38 – Developed tariffs and package offers with prices for Tver

<b>Plan</b>	<b>Price offer, rub. / month</b>
1. Economy (Internet 50 Mbps)	350
2. Gamer (Internet 100 Mbps with bonuses from affiliate programs)	500
3. Internet for summer cottages (Internet 50/100 Mbps with payment by the day and the ability to stop charging from your personal account)	50 Mbps - 15 rubles. / day 100 Mbps - 21 rubles. / day
4. Speed+ (Internet 200Mbps)	1150 or + 500 to the package tariff including internet
5. Social (TV + telephony)	350
6. Family (Internet + TV + additional software)	1 300
7. All at once 1, 2, 3, 4, 5	for 1 client Tele2 - 780 for 2 Tele2 clients - 980 for 3 Tele2 clients - 1,170 for 4 Tele2 clients - 1,290 for 5 Tele2 clients - 1 390

Source: Compiled by the author

These packages with price categories are aimed at attracting new and retaining existing customers who will find the most suitable tariff at the best price, which has no analogues among competitors. These proposals may be of interest to various social groups so that they are inclined to choose a provider of PJSC Rostelecom, despite the fact that its prices are higher than average on the market. This is compensated by a wide choice of tariffs and high quality of services provided. The estimated increase in the number of new subscribers with the change in prices for existing tariffs and with the introduction of new ones in 2021 in the city of Tver, in accordance with the advice of the marketing department of the Tver branch of PJSC Rostelecom, may grow by approximately 17% of the volume that was planned to be connected before the proposal for the implementation of this event.

An increase in the number of communication (cellular towers or base stations) is required by Tele2 to improve the quality of services, as well as expand the service area. The cost of construction, the average number of subscribers served and the average cost of the Tele2 tariff are presented in Table 39.

Table 39 – Characteristics of the average base station

<b>Indicator</b>	<b>Value</b>
The cost of erecting a tower	5 000 000
Number of subscribers served	4 000
Average price for Tele2 tariffs	350

Revenue from subscribers served by one tower	1 400 000
Cost of annual maintenance	250 000
Approximate period of compensation of expenses due to an increase in the number of subscribers	<b>5 years</b>

Source: Compiled by the author

Based on the data given in Table 39, it can be concluded that an increase in the number of communication towers can attract a large number of new subscribers who will receive high-quality communication and high-quality connections. Also, new towers are installed on the territory where their insufficient number significantly worsens the quality of the operator's services.

At this stage of development of the telecommunications market in Russia, not all localities have base stations on their territory. Many small or remote settlements are forced to use low-quality communication services. As an example for the Tver region, it is possible to consider the urban-type settlement Krasnomaysky, located in the Vyshnevolotsky urban district. It is located at a remote distance from the nearest large communication tower, and there is not a single operator's tower on its territory. The installation of the base station will provide high-quality services to the entire urban-type settlement, whose population is 4,511 people. It will also allow you to become a monopolist, since the prices for Tele2 tariffs are lower than those of competitors, and the lack of a communication tower in this area does not allow other market participants to compete in quality.

From this it follows that a large number of base stations is an undoubted advantage, however, for maximum efficiency of increasing their number, it is advisable to analyze the workload of communication towers operating in the region and look for areas where the quality of communication is low due to their absence.

In this chapter, a table was compiled with measures to improve the competitiveness of PJSC Rostelecom, developed on the basis of the analysis conducted in the Practical Part. The measures were proposed after the correlation of the various strengths and weaknesses of the organization with the threats and opportunities operating in the market, and the search for their relationship. A table was compiled with the content of the effectiveness and possible positive effect that can have a significant impact on the organization's activities. The possibilities of their implementation were evaluated with the company's available capabilities and resources. One of the events was considered from the point of view of Rostelecom PJSC as a client ordering a service from an information and analytical center

with the definition of the characteristics of the study. The expediency of introducing and modernizing the IVR voice service was considered.

The work revealed a lack of towers to maintain the quality of Tele2 communication services, which were recommended for bundling with home Internet, television and telephony services. New packages have been proposed for consideration, as it is necessary to increase their attractiveness for both existing and potential subscribers. Also, bundling serves as a good opportunity to promote services that were not previously in demand, but may appeal to customers after the start of use. A table was compiled with criteria for evaluating the effectiveness of the proposed measures. At the end of the chapter, the economic justification for each event is given. It showed that the measures have high efficiency and their implementation is appropriate to increase the competitiveness of PJSC Rostelecom.

It follows from this that the measures proposed on the basis of the analysis and the assessment of their effectiveness are a complex multilateral process. If you approach this with negligence, the quality of the analysis results and the solutions developed will not only not increase the competitiveness of the organization, but can also lead to a negative effect: deterioration of reputation, a decrease in market share and financial losses.

## **6. Conclusion**

At the conclusion of the master's thesis, it can be concluded that the goals set in the final qualifying work have been achieved, and the tasks have been completed.. In the final thesis all the acquired knowledge on marketing in industries and fields of activity was used and demonstrated on the example of PJSC Rostelecom.

Currently, Russian companies are experiencing a new stage of development in the telecommunications market, where resources are limited and competition is growing every day. The improvement of long-term competitive management is certainly the basis for its survival in a harsh competitive environment and should be based on the final results of production, taking into account the needs of the market, the specified features of the production process, management style and methods, the level of organizational culture.

The basis of the company's development is strategic planning, which, in turn, is based on the analysis of factors of the internal and external environment. The high competitiveness of the company is a guarantee of high profits in market conditions. From this it follows that every organization faces the need for regular introspection and assessment of environmental factors to build a successful strategy for the development of the competitiveness of the organization, which can show flexibility in the process of implementation in the market with changing conditions.

In the Literature Review the theory of increasing the competitiveness of an organization was studied and its peculiarity in the field of telecommunications was considered. The study concluded that the competitive strategy of the enterprise is based on deep and accurate quantitative and qualitative characteristics of resources, market sales, increased competition, as well as economic prerequisites and possible limitations. The paper notes the importance of the fact that there is no universal methodology for assessing and improving competitiveness. For this reason, it is necessary to take into account that for a qualitative analysis of the competitiveness of an organization, it is necessary to assess and consider the degree of influence of not only the most common factors, but those that currently operate on the market.

In the Practical Part chapter general information about PJSC Rostelecom was studied, including the history of creation, mission, principles and organizational structure of the company and a typical branch.

Further, a detailed analysis of the financial and economic condition of the organization and its changes in the period for 2019-2021 was carried out in the following areas:

- vertical and horizontal analyses of the balance sheet and the report on financial results of PJSC Rostelecom were carried out;

- balance sheet liquidity research;
- financial stability coefficients are calculated;
- solvency of the company;
- probability of bankruptcy of PJSC Rostelecom;
- financial stability coefficients were calculated.

The data on the organization's personnel were analyzed:

- staff turnover, its changes and solutions aimed at reducing it are considered;
- the professional and age and gender composition was investigated;
- an analysis of the use of labor resources was carried out.

After studying the financial and economic condition of PJSC Rostelecom, PEST-, SNW- and SWOT-analyses were conducted. They were used to identify the strengths and weaknesses of PJSC Rostelecom, as well as environmental factors that form opportunities and threats for the development of measures to improve the competitiveness of the organization.

The Results and Discussion chapter presented the measures developed to improve the competitiveness of PJSC Rostelecom with an assessment of the positive effect, the possibility of implementation and economic justification.

Thus, in this paper, the improvement of the competitiveness of PJSC Rostelecom is considered:

- the general information of the organization was studied;
- financial indicators are analyzed and relevant conclusions are made;
- an analysis of the internal and external environment of the organization was carried out, on the basis of which tables with factors were compiled with a preliminary assessment of their degree of influence and orientation;

- the factors of strengths and weaknesses were correlated with opportunities and threats, thanks to which a table of proposed activities was compiled with further consideration of the possibility of their implementation;



- criteria for evaluating the effectiveness of measures were developed and the positive effect of their implementation was considered;
- the economic justification of each event is given with an assessment of the validity of its implementation.

The conducted research leads to the conclusion that increasing the competitiveness of an organization is a multi-level economic category that serves as the main foundation for evaluating the effectiveness of an organization's activities in terms of production, work or services, as well as a general indicator of the effectiveness of the management system of this economic entity, including the adoption of a number of measures to systematically improve goods or services, the constant search for new sales channels, new consumer groups, improvement of services, image and advertising.

Thus, the goal of the master's graduation work has been achieved.

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