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ORGANIZATIONAL AND ECONOMIC FOUNDATION OF IMPROVING THE QUALITY OF MOBILE COMMUNICATION SERVICES IN THE CONDITIONS OF DIGITALIZATION OF THE ECONOMY OF THE REPUBLIC OF TAJIKISTAN

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The article discusses the scientific organizational and economic processes of development and improvement of the quality of the mobile services market in the context of digitalization of the sectors of the economy of the Republic of Tajikistan. The peculiarity of the indicator of the quality of mobile services in the process of transition of the Republic of Tajikistan to the digital economy, which provides the prerequisites for the creation of new jobs and, in general, improving the quality of all sectors of the national economy, is revealed.

Mobile communication has become an integral part of our daily life. With the advancement of new technologies such as mobile devices, smartphones, tablets, laptops have become more affordable to the public and easy to use.

Mobile communication began its evolution in the early 1980s with the introduction of the first generation (1 G) cellular network.

The 1 G link was based on analog technology and had limited coverage and capabilities. In the 90s of the last century, the second generation of 2G communication was provided, which improved voice communications and allowed data transmission. The 2nd generation network was followed by the 3rd generation, which significantly improved the data transfer speed and made it possible to use the mobile Internet service.

In the mid-2000s, the 4th generation, which has higher bandwidth compared to 3G and 2G technologies, was provided through the 4G network to provide a higher speed network, which enabled video broadcasting and other data-intensive applications.

Over the past few years, a fifth generation network has been provided that provides high speed communication, lower latency, and better connectivity.

In the Republic of Tajikistan, T-Cell became the mobile operator that launched the fifth generation 5G communication, thereby becoming the country's leading innovative mobile operator of cellular communications. Thus, it will provide greater availability of broadband mobile communications and allow subscribers to take advantage of high-quality and shorter download times at a speed of 1-2 Gbit per second, which will contribute to the adopted concept of the development of our country.

However, to ensure the quality of mobile communications in the country, we do not consider the launch of one 5th generation communications company to be sufficient.

In this regard, the Founder of Peace and National Unity - the Leader of the Nation, the President of the Republic of Tajikistan Emomali Rahmon, in his message to the Government of the Republic of Tajikistan dated 12/23/2022, noted the importance of providing high-speed Internet to the population of the country. "The speed and cost of the Internet in our republic do not meet the requirements. In this regard, the Communications Service and other responsible structures need to take measures to provide high-speed Internet at affordable

prices", in this regard, the government of the republic, together with the responsible structures, was instructed to develop a new version of the law "On Communications" [1].

At the same time, the problem of improving the quality of mobile communication services is one of the most important for operators of mobile communication networks in the Republic of Tajikistan, especially in remote areas of the country in mountainous areas.

In this regard, within the framework of the Concept of the Digital Economy of Tajikistan, the difficulty with the low speed of the Internet can negatively affect the digital development of the country.

The problem of improving the quality of mobile communication services is one of the most important tasks for mobile network operators in the Republic of Tajikistan, especially with the rapid growth and expansion of networks. The urgency of the problem of improving the quality of mobile communication services in the Republic of Tatarstan is complex. Ensuring the required level of subscriber satisfaction in high-quality mobile services, given the geography of our country, provides for a whole system of organizational, technical and socioeconomic measures to achieve the required level of quality of mobile services and create new mobile services, bringing the achieved level of service quality together with existing ones, emerging or planned needs of subscribers.

The mobile communications market in Tajikistan faces some challenges. One of the main difficulties is the lack and weak infrastructure in remote and rural areas, thereby limiting the availability of mobile services in these areas. This is an important problem, since a large percentage of the country's population lives in mountainous areas.

Another problem is also considered to be low purchasing power, which limits people's ability to afford expensive mobile devices and services. This has contributed to the fact that people pay attention to devices and services with low cost.

Number of users of new communication services in the Republic of Tajikistan in 2021

	Number of mobile phone	Number of mobile phone
Companies _	users	users
ЗАО «ТТ- Мобайл»	87	1287010
	0892	
OOO "Tcell"	1187018	2632593
ООО "Интерком"	656	-
ООО "Вавилон - Т"	13109	
ООО « Вавилон- Мобайл»	821907	1168923
ООО "Истера",		
ООО «Технология	492	-
Транстематика»		
ООО "Таком"	426751	981049
AO« Телекомтехнолоджи»	4021	2551

ООО «Сайр Тур», ООО		
«Шабакаи Осмопи», ООО	74	-
«Ошногрупп»		
ООО "Тоджиктелеком"	20761	-
Ассотсиатсияи «Тарена»,	107	
ООО «Исател»	107	-
ООО "Тоджиклинк"	952	-
Total	3346720	6072126

Agency on Statistics under the President of the Republic of Tajikistan, 2021. - P. 506.

It should be noted that the existing level of quality of services provided by mobile operators in the country still have significant differences across regions, which predisposes to differences in the socio-economic efficiency of all sectors of the national economy. Difficulties associated with improving the quality of mobile services in the Republic of Tajikistan. there is also uneven availability of mobile communications across regions, mountain ranges and other places, as well as uneven distribution of the population, for example, 15 times more people live in Khatlon region than in GBAO, while GBAO is 2.5 times larger in area.

Also, costs and large investments are required for the installation of base stations and subsequent maintenance, and this affects the growth in prices for telecom services. In this regard, not every operator seeks to expand the coverage area and maintain low tariffs. This investment by mobile service operators with the launch of base stations in some remote areas becomes a social project and does not bring significant economic benefits.

The above reasons primarily impede the improvement of the policy and regulatory framework in the digital economy, which are expected to have a significant negative socio-economic and financial impact, complicate the process of formation and development of the digitalization of social services and the adaptation of both producers and consumers of social services. services in Tajikistan.

- D. Bell in his works believed that "... new technologies are the fruit not of a "talented tinker", but of a "high-browed intellectual" [2], and systematizing his theory, he divides it into the following 5 components:
- the first component the main trend is the transition from the production of goods to the service sector;
- the second component the predominance of professional, scientific and technical potential;
- the third component is theoretical knowledge, this is the key to innovation;
- fourth component modern technologies for the future;
- the fifth component is the use of "intelligent technology" in making strategic decisions [3].

Thus, the service sector has significant opportunities that define current trends as a "departure from things" in favor of service activities [4].

When studying the quality of mobile communication services, it is also necessary to analyze their types, but for this it is necessary to determine the criteria and highlight their existing elements. However, having studied the domestic and Russian economic literature 1, we have identified another indicator that will allow us to characterize the client's decision to receive the necessary services (Table 1.1).

Table 1.1.

Mobile service quality indicators

№	Элемент	Indicator
1.	A	the key indicators of quality
2.	В	индикаторы, являющиеся составными частями
3.	С	components of the share of dropped calls on the control channel and the traffic channel
4.	D	additional indicators

Also, the quality of mobile communication can be assessed based on several indicators:

- 1. Network coverage area. The coverage area of a mobile network is a key factor in determining the quality of mobile communications. A high-quality network must provide coverage over a wide area, including both urban and rural areas.
- 2. Network speed. Mobile network speed is another important indicator that determines the quality of mobile communications. A fast network must provide high data transfer rates for both downloading and uploading data.
- 3. Call quality. The quality of voice calls is an important component of mobile communication. A high-quality network must provide clear, consistent, and reliable voice calls without any hiccups or interruptions.
- 4. Data quality. The quality of data transfer is also an important indicator for mobile telecommunications. A high-quality network should provide fast and reliable data transfer without any delays and failures.
- 5. Delay. Mobile network latency determines the time it takes to transfer data from a user's device to the network and vice versa. A low latency network is essential for applications that require real-time data transmission, such as video conferencing and online gaming.
- 6. Customer service. The quality of customer service provided by the mobile operator is another important indicator that determines the quality of mobile communications. The mobile operator must provide prompt and efficient support to subscribers to resolve any problems that users may encounter.

In general, the quality of a mobile connection can be assessed based on several factors, including network coverage, network speed, call quality, data quality, latency, and customer

service. By evaluating these indicators, users can determine the quality of mobile communications and choose the best network operator for their needs.

To improve the state of networks, multifaceted approaches are needed, which include technical, economic and regulatory solutions.

- 1. Infrastructure investment: One of the reasons for the poor quality of mobile communications is the lack of adequate infrastructure. In order to improve the situation, it is necessary to invest in infrastructure development. That is, the construction of signal towers, the improvement of existing towers, and the development of the overall network architecture.
- 2. Spectrum management: Efficiency of spectrum management is critical in order to provide high-speed mobile communications. Tajikistan should take into account implementation policies to encourage efficient use of spectrum shares such as division, dynamic spectrum, allocation spectrum and spectrum auction.
- 3. Regulatory environment: has a significant impact on the quality of mobile communications. The government should ensure that the regulatory system is designed to promote competition, encourage investment and develop consumer protection laws. These measures should include, reducing barriers to entry of new operators to market, establish clear and transparent procedures for obtaining licenses, and implement a bill to protect mobile consumers.
- 4. Development of human resources; it is important to make sure that there are highly qualified specialists for the design, implementation, and maintenance of infrastructures. The state should consider investing in education and training programs to create a skilled workforce.

Therefore, it can be concluded that operators providing mobile communication services should provide billing at the level of quality of services provided to subscribers, and the billing system will have to notify the level of provision of quality of communication services, and on the basis of this, the tariff should be reduced if the level of quality did not match those signed by the parties.

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