

Snippets transformation and digitalization of business processes in telecommunication companies of Kazakhstan

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Abstract - The telecommunications industry is an integral part of the modern global economy. However, its role is significantly different from the influence of other sectors of the economy on the general pace of development of human civilization. The article discusses the state and prospects of the development of telecommunication services in Kazakhstan in the context of digitalization. Kazakhstan's telecommunications industry consists of a set of telecommunications networks and services that transmit information and implement telecommunications services to consumers. The aim of the article is to study the structure and trend analysis of the telecommunication market in Kazakhstan in terms of digitalization.

Key words – digitalization, progress, business processes, transformation, virtual reality, unitization, responsibility, entrepreneurship, digital culture, outstanding decisions.

I. INTRODUCTION

At the beginning of 2017, the Government of the Republic of Kazakhstan developed a program called "Digital Kazakhstan" for 2017–2021, which largely revises the previously adopted goals and sets the task of building a high-tech infrastructure for access to the Internet, ensuring digital transformation of the economy and open digital government. By 2021, in the framework of this program it is planned to invest more than 250 billion tenge in the digitalization and ICT development.

In the program for the development of the Internet sphere by 2020 it is planned: an increase in the share of Internet users up to 78%; increasing digital literacy of the population up to 80%; the growth of the information and communication technology sector in the country's GDP to 4.7%; labor productivity growth in this area by 34%; the level of public satisfaction with the quality of their own services received in electronic form - at least 80%. This program aims to achieve global leadership in the implementation of the e-government program, with half of the public services to be provided in electronic format, and the telecommunications sector of the economy will provide up to 4% of the country's GDP. Kazakhstan's

telecommunications market is about 710.0 billion tenge and is projected to grow at 3.1% per annum to 900.0 billion tenge in 2024. At the same time, the growth dynamics in different areas of the telecommunications industry will differ greatly - from a decrease of 6% per year for fixed telephony to a growth of 9% for pay-TV and 8% for information and communication technologies. Significant growth in the market for machine-to-machine communication and online stores is expected. This direction is currently experiencing a period of rapid growth and it is expected that by 2020, the proportion of machine-to-machine communication and online stores in the total revenue of the telecommunications industry should be increased to 7%. Global telecommunications companies are preparing to launch 5G. In networks 5G speed is ten times faster than current networks of the fourth generation - LTE. Such a jump in the speed of information transfer allows us to expect an industrial boom. This is a high point for devices designed for online stores (IoT) - from wireless mice, keyboards, smart kettles and refrigerators to meters and other systems connected to the Internet in households, offices and industries. Self-driving cars will become one of the main consumers of the 5G standard. Italian telecom operator Telecom Italia Mobile (TIM) intends to test its new technology in San Marino - the first test version of the 5G network. Among the country's global projects for the development of communication is, for example, replacement of KazSat-2 satellite by 2023.

The market of telecommunications services of the Republic of Kazakhstan, as part of the global telecommunications, is developing under the influence of the major dominant trends:

1. active development of mobile communications, satellite and cable television, converted solutions for the transfer of voice, video and data based on packet technologies;
2. the transition of development from traditional networks to development based on new generation network solutions;
3. the convergence of telecommunications and information technology.

The aim of the article is to study the structure and analysis of trends in the development of the telecommunications market in Kazakhstan in the context of digitalization.

II. MATERIALS AND METHODS

To achieve these goals, it is necessary to analyze the largest telecommunication companies in Kazakhstan: JSC «KazTransCom», JSC «Kazakhtelecom». The study analyzes the development strategies of the telecommunications market of Kazakhstan, as well as government programs for the development of this industry: Strategy «Kazakhstan-2050»: the new political course of the established state»; SPIID-2; the Program «Digital Kazakhstan». The article contains facts and materials taken from the scientific sources, such as articles in rating periodicals, scientific and practical conferences, official data of the Committee on Statistics of Kazakhstan.

III. RESULTS AND DISCUSSIONS

E-government is a necessary tool to promote any type of business. Nowadays, business processes require the efficiency of information processing as well as decision-making, as a result, mechanical and labor-intensive operations are transferred to electronic (digital) model of governance. Increasing labor productivity with the help the new technologies that replace human labor is becoming a new global trend. And, first of all, this concerns routine and repetitive operations; automatization is currently underway.

The largest American companies are now good examples for the world practice: in the 1990s, large companies in the United States with a capitalization of just over \$ 200 billion and a profit of about \$ 30 billion employed about one and a half million employees. Now the largest companies in Silicon Valley have a capitalization of about \$ 1 trillion with an average staff of only 150 thousand people [1-3]. In the coming years, jobs related to products sales and their further maintenance will be at risk. In addition, in a large geographic branching companies, it is necessary to reduce the distance through digital collaboration tools. And Kazakhstan, along with other countries, is influenced by these digitalization trends.

Digital transformation in terms of personnel management carries automatization of a business process of companies and ensures their effectiveness. [4]

As an example, we can consider the activities of KazTransCom JSC, which is a leading telecommunications operator in Kazakhstan, which provides a wide range of services in the field of telecommunications and information technologies. Communication for KazTransCom JSC is not only equipment and technologies, it is, first of all, people, ideas, cooperation, willingness to solve any problems and contribute to the success of customers [3].

The divisions of KazTransCom JSC, that exist in each region, are responsible for supporting functions: personnel administration, accounting, payroll, legal and administrative services. Currently, these functions are centralized due to the automatization of business processes using new software products and the purchase of appropriate equipment, which allowed to increase labor

productivity several times. The next step in the future might be robotic automatization.

Gradually, the sales functions in the corporate and retail segments are centralized, respectively, business processes are unified and automated, digital sales channels are expanding [5]. All this demands new requirements for staff competencies and its professional training.

As for the internal processes for personnel management, technological solutions have an impact on almost all areas of HR, starting with recruitment and hiring, where new IT platforms can significantly reduce the search time for candidates using various sources of selection [6-7]. The same system provides an opportunity for employees to see available vacancies and apply for open positions, using the career opportunities of employees within the Company.

Kazakhtelecom JSC was the first in the telecommunications market in Kazakhstan to launch the unification process successfully on a very large-scale.

Kazakhtelecom JSC is a leading communications operator of the Republic of Kazakhstan. Kazakhtelecom JSC was established in 1994, has 21 branches, as well as representative offices in the Russian Federation and China.

Kazakhtelecom JSC improves HR areas using the best practices in the field of training. In addition to using remote and online training formats, they introduce VR (Virtual Reality) in the process of staff development, where various technical operations are simulated in a virtual space. This learning format gives a great potential to reach a huge number of employees of companies from various sectors.

The company also continues to adapt new employees through the gamification process. The involvement of new workers through the game is widely used and allows them to immerse in the activities of the Company in the shortest period of time [8-9]. The digital transformation actions described above open up great opportunities for IT and telecom companies, both for management and for employees at different management levels.

Lets consider the components of market.

Revenues from long-distance and international telephone services in January-July 2019 amounted to 15.34 billion tenge, which is almost 7% less than the volume of January-July 2018:

- from local telephone services, operators received 22.3 billion tenge (4.6% less);
- from data transmission services over telecommunication wire and wireless networks - 21.7 billion tenge (14.7% more);
- from services for the distribution of programs on cable infrastructure, wireless and satellite networks - about 20.4 billion tenge (0.8% less);
- from mobile services - a little more than 129.2 billion tenge (1.8% more);
- from the Internet - 152.6 billion tenge (9.4% more);
- from other telecommunication services - 79 billion tenge (7.8% more).

The largest share in the total volume of communication services in January-July 2019 accounted for the Internet, mobile communications, as well as other telecommunications services.

The Big Three has 81.9% of the republic's entire telecommunications market. (Fig. 1)

The structure of income from communication services in Kazakhstan (January-July 2019)

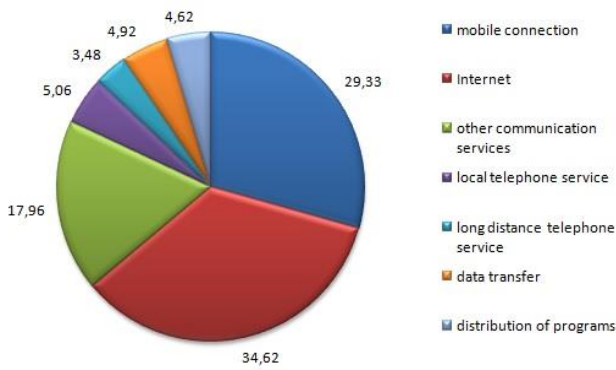


Fig. 1. The structure of income from communication services in Kazakhstan (January-July 2019)

In July 2019, telecommunication services of Kazakhstan provided telecommunication services in the amount of 68 billion tenge against 60.3 billion tenge that the industry generated in the same period of 2018 - the growth was almost 12.8% (the growth was 9% by the first half of the year). This is a very good indicator. As previously noted, if these rates continue, then the results of the year for market players will be full of pleasant surprises. However, there remains a risk that the situation could be repeated in 2018 - while the market grew at a good (albeit smaller) pace, but the second half was losing momentum sharply.

Digitalization directly affects the corporate culture of companies. In this regard, many large players in the telecommunications market are revising their corporate culture and making certain adjustments in order to have more motivated, efficient, productive employees [10-11].

So, Kazakhtelecom JSC implements the project “CREDO: the path to a culture of success” (Fig. 2).



Fig. 2. Project “CREDO: the path to a culture of success”

The essence of which is to change the performing corporate culture of the entrepreneurial and customer-oriented “Culture of Success”. In order to switch to this type of culture, we needed to determine what is important and valuable for the employees of the Company, what the Company believes in and what behavior is welcomed in it. There are five core values - customer focus, responsibility, entrepreneurial spirit, digital culture and outstanding solutions, which make the acronym CREDO (Client,

Responsibility, Entrepreneurship, Digital Culture, Outstanding decisions). For making CREDO it was used the methodology of D. Logan and D. King "Leader and Tribe."

IV. CONCLUSION

Summarizing the analysis of the existing structure of the entire telecommunications market system in Kazakhstan, we can conclude that CEOs should possess the qualities and skills that generally assure the progress of the company. But at the same time, in addition to personal involvement and strategic vision, the leader should be open to any changes and be flexible, think out of the box as well as engage and motivate the team within the conditions of constant changes. Basic knowledge about information technologies is required, otherwise one will not be able to contribute to their implementation. These competencies must be developed by each leader by default.

For the growth of the digital economy, it is necessary to develop the national IT sector, stimulate the creation of innovative technologies, and collaborate for their development at the international level.

For the further development of this industry, Kazakhstan needs to continue improving its infrastructure. The key points are the emergence of broadband Internet access in all cities of the country and an increase in 4G penetration. It is expected that the new trend in the development of the information and communication sector of the Republic of Kazakhstan will be given by the state program "Digital Kazakhstan".

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