

THE ROLE OF IT IN ECONOMIC DEVELOPMENT OF KAZAKHSTAN

Over the past few decades, information technology (IT) has grown in importance as a component in Kazakhstan's economic development. The nation has made large investments in its IT infrastructure and industry, and as a result, its economic growth and competitiveness have increased. According to information from the Kazakhstan Ministry of Digital Development, Innovation, and Aerospace Industry, annual investment in Kazakhstan's IT sector currently exceeds KZT 50 billion (\$127 million). This growth has been seen in recent years. From only a few years ago, when industry investment was just KZT 20 billion (\$51 million) annually in 2016, there is a tremendous growth. The increase in IT investment has aided in the sector's growth and development as well as in luring foreign talent and capital to the nation [1]. This article will review the expansion of the IT industry and its effects on other sectors as it looks at the numerous ways that IT has contributed to Kazakhstan's economic development.

IT has been rapidly growing in Kazakhstan from 2015 to 2019 which is supported by the statistical data provided below.

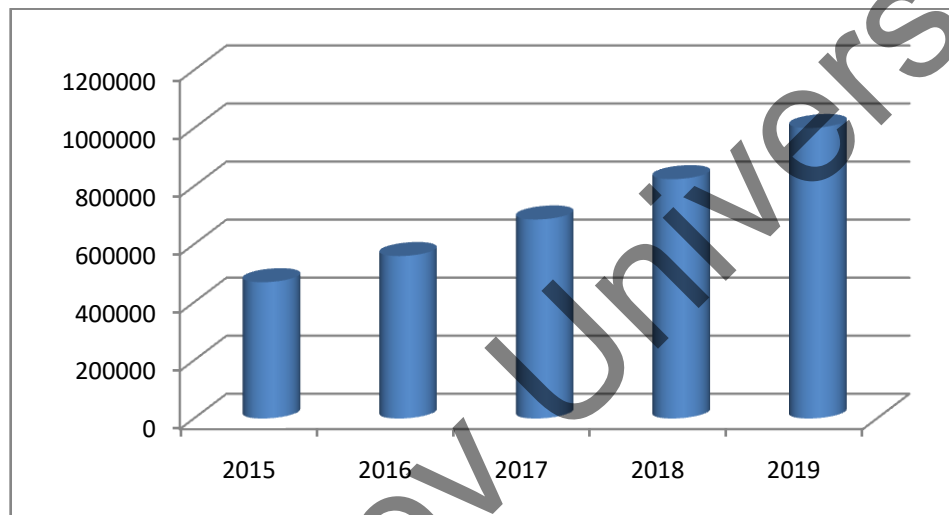


Figure 1. Dynamics of growth of the IT sector in Kazakhstan, in million KZT

As it is illustrated, the IT sector has grown from 469 billion KZT up to over a trillion KZT which indicates the growth of over 200% [2]. Given this incredible growth, the IT sector has its impact on other sectors that have been considered in this article: e-government, e-commerce, education, and telecommunication.

E-government: The Kazakh government has been attempting to enhance its online offerings and make it simpler for residents to access government data and services. A variety of e-government services, including online tax filing, e-voting, and e-procurement, have been introduced by the nation, which has made large expenditures in its e-government infrastructure. These initiatives have improved the government's efficiency and openness while also facilitating corporate interactions with the government. Saving time and money for both residents and companies is one of the main advantages of e-government services. In order to increase the effectiveness and openness of government operations, the government of Kazakhstan has made considerable expenditures in the creation of e-government services. Over 85% of government services are now available online, according to Kazakhstan's Ministry of Digital Development, Innovation, and Aerospace Industry, which has aided in lowering corruption and enhancing access to government services for citizens and companies nationwide.

E-commerce: The development of e-commerce has been a significant contributor to Kazakhstan's economic expansion since it has given companies new avenues for client engagement and market expansion. Additionally, the expansion of e-commerce has encouraged investment in the IT industry and the creation of new employment. As more and more people have access to the internet and mobile devices, e-commerce has grown in popularity in Kazakhstan recently. The middle class in the nation is expanding, and members of this group are particularly interested in internet shopping since it offers a simple and affordable option to buy products and services. As a result of business investments in the creation of e-commerce platforms and related technologies, the expansion of e-commerce has also aided

in the creation of new jobs in the IT industry. For instance, a lot of companies today employ IT specialists to create and operate mobile apps and e-commerce websites as well as customer support services. The World Bank estimates that Kazakhstan's IT industry will contribute around 2.6% of GDP in 2020. Compared to only a few years ago, when the industry only contributed 1.5% of the nation's GDP in 2016, this shows a notable improvement [3]. The country's economic development and progress have been significantly influenced by the IT sector's expansion, which has also contributed to expand job possibilities and encourage investment in the industry.

Education: The adoption of technology-enhanced learning and teaching techniques by more schools and colleges has been crucial to the modernization of Kazakhstan's educational system. As a result, people in rural places now have more access to higher-quality education. Since the government began making considerable investments in this field, technology usage in education has increased in Kazakhstan. For instance, the government has funded the creation of online learning environments, digital libraries, and other educational innovations. This has improved students' and instructors' access to information and resources, as well as the efficacy and efficiency of the educational system.

Telecommunication: The expansion of Kazakhstan's telecommunications sector has been crucial to the nation's economic progress since it has facilitated better access to information and communication services for citizens and enterprises across. As a result, the nation's production, efficiency, and competitiveness have all increased, and new job possibilities have been created. Since the government began making considerable expenditures in the expansion of the nation's telecommunications infrastructure, Kazakhstan's telecoms sector has seen rapid growth. The government has made investments in the creation of mobile networks, satellite communication systems, and high-speed broadband networks. This has improved distant residents' and companies' access to information and communication services while also bridging the digital divide between urban and rural locations. Kazakhstan currently has a mobile penetration rate of over 120% of the population, which is a tremendous rise from only a few years ago, when mobile penetration was only 90% in 2016. This information comes from the World Bank. The increase in mobile penetration has been a major factor in the nation's economic development since it has made it easier for individuals and companies to access information and communication services nationwide and has helped close the digital gap between urban and rural areas [4].

Over the past few decades, Kazakhstan's economic development has benefited greatly from information technology. The nation has made large investments in its IT infrastructure and industry, and as a result, its economic growth and competitiveness have increased. The nation's initiatives in e-government, e-commerce, education, and telecommunications have all aided in the growth of its economy and presented new chances and difficulties for its IT industry. The country has a rising talent pool and a supportive government that is dedicated to fostering innovation and growth in the sector, therefore Kazakhstan's IT industry has a promising future. However, the country still confronts a number of difficulties, including the need to increase distant residents' access to information and communication services and the need to draw talent and investment to the IT industry [5]. However, Kazakhstan is in a solid position to maintain its position as a market leader in the information technology sector and a significant player in the global economy because of its strong commitment to economic growth and its supportive regulatory environment.

References

1. Kazakhstan Ministry of Digital Development, Innovation, and Aerospace Industry, <https://www.gov.kz/memleket/entities/mdai?lang=en>
2. Статистика ИТ сектора Казахстана. 2019. <https://www.itk.kz/ru/статистика>
3. The World Bank in Kazakhstan, <https://www.worldbank.org/en/country/kazakhstan>
4. М.О.Рыспекова, А.Б.Учкампирова, А.А.Дуйсенбекова. Современные аспекты занятости населения сельской местности в Казахстане. 2020. <https://p.ayu.edu.kz/>
5. Притворова Т.П., Абзалбек Е.Ж., Кизимбаева А. ИТ-услуги в казахстане: динамика и возможности цифровизации промышленности. 2020. <https://cyberleninka.ru>