ROYAL THAI EMBASSY
IN ASTANA

IT Sector in Kazakhstan

By the Royal Thai Embassy in Astana
April 2025

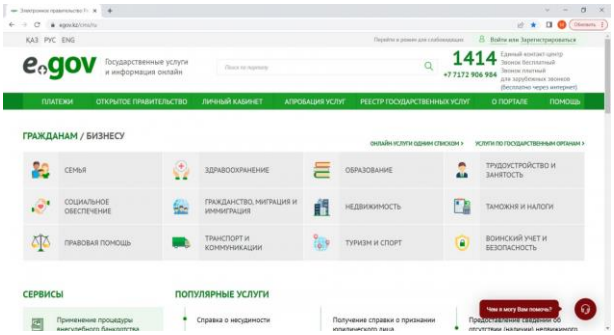
One crucial aspect of modern economies is a strong and fast-paced approach to digital transformation. This is especially seen in emerging economies such as Kazakhstan, which put a strong emphasis on the development of IT infrastructure and investments.

Overview of the IT Sector in Kazakhstan

Kazakhstan's IT sector is one of the fastest-developing sectors of the economy. According to the national statistics, the IT exports of 2023 were USD 529 million, while for the first half of 2024, it was over USD 305 million. According to the UN reports, Kazakhstan is placed 24th among 193 countries for digitization level and within the top 10 for the provision of online services (Abuova, 2024). The IT services of Kazakhstan have been exported to over 86 countries which confirms the high competitiveness (Prime Minister of the Republic of Kazakhstan, 2024).

In 2017, the government implemented a strategy named Digital Kazakhstan, which became the pillar for the transformation of the various sectors of the economy via IT solutions as well as reducing bureaucracy in the public administration.

eGov.kz (electronic government system)



The government's initiative to reduce bureaucracy and expanded availability of services independent of the geographical location resulted in the development of the eGov.kz website. This portal provides public services for locals and foreigners without necessity to visit state offices.

Figure 1. eGov.kz portal Source: egov.kz

This single window initiative contains 4 stages: informative stage (2005-2006), interactive stage, transactional stage and currently transformative stage. The current stage enables users to get up to 92% of services online and has AI components to facilitate the efficiency (Amanbek et al., 2020).

The huge investment for eGov.kz from 2006 has given the results as it was recognized as the leader among Central Asian countries and ahead of countries such as Switzerland, France and China. Such e-government solutions of Kazakhstan were already exported to some Central Asian countries such as Tajikistan and some African countries Sierra Leone (Abuova, 2024).

Astana Hub

Figure 1. Astana Hub Source: Google Images.

One of the biggest projects of Digital Kazakhstan strategy was the creation of Astana Hub in the capital as the hub for IT startups with favourable conditions. The hub has over 15 000 participants, to be specific, 1102 local and 437 foreign companies that generate over 1.2 trillion tenge (Prime Minister of the Republic of Kazakhstan, 2024).

The tax exemption, and various administrative policies, including visa support became attractive for lots of international startups and companies. The Expat centre within Astana International Financial Centre (also located in Astana Hub) provides services for foreign participants. In addition, the State's initiation of the visa types such as Digital Nomad Visa and Residency expected to attract qualified IT staff to Kazakhstan (Prime Minister of the Republic of Kazakhstan, 2024).

The expansion of Astana Hub to other regions was an additional method to facilitate the startup ecosystem and entrepreneurship skills of local professionals. Every year, Astana Hub in collaboration with Google for Startups provides a 12-week accelerator programme Silkway Accelerator which attracts not only local startups but also from Central Asia. Also, the partnership with the leading university for startup ecosystems Draper University was marked as a new stage for the development of an IT hub (Prime Minister of the Republic of Kazakhstan, 2024). Some startups nurtured within Astana Hub were valued to over USD 100 million (Abuova, 2024).

AI development and integration

It is estimated that AI and introduction of digital technologies is expected to contribute up to 2-3% growth of Kazakhstan's GDP (TAdviser, 2025). In this regard, the Ministry of Digital Development, Innovation, and Aerospace Industry actively

promotes the usage of AI and adopts the concept of developing AI for 2024-2029 (Prime Minister of the Republic of Kazakhstan, 2024). The integration of them was already seen in the educational sector through the opening of AI schools and training centres for students. In addition, the government is actively supporting the development of a language model with an AI component named KazLLM which is expected to substitute foreign technologies and provide qualified assistance in Kazakh too (Abuova, 2024).

According to the Prime Minister's office, there are a number of joint projects planned with the partners from EAEU on the development of Artificial Intelligence within the AI center of Kazakhstan named Alem.ai. Also, training of 100 thousand participants within the framework of the AI-SANA program were provided by the partners from the Stanford University's staff (TAdviser, 2025).

Challenges

While the growth of the IT Sector is intense, some challenges need to be addressed to facilitate sustainable growth.

The strong push for digitalization leads to high demand for skilled labour. In this regard, the increase of the flow of migrant workers increased competition among workers and demand for high salaries transformed the IT market. It could be a positive trend at first glance, but given the mismatch between university programs and industry requirements such changes are a big issue. Taking into account that yearly 20, 000 students graduate from IT majors, university curriculums need to conform to the trends of the times (Nurbayev, 2023).

Another big concern is about cybersecurity as the number of data leakages, frauds and various fishing websites are extremely increasing. In Kazakhstan, various hackers use leaked personal data to get loans, mortgages and commit illegal actions (KazTAG, 2024).

Lastly, there is a significant disparity between users of urban and rural areas. People in villages are usually left behind when it comes to the speedy internet and digitalization. Such a digital divide affects the education sector too which especially became notable during covid-19 pandemic.

References

Abuova, N. (2024, December 19). *IT sector results: How digital transformation enhances lives in Kazakhstan*. The Astana Times. https://astanatimes.com/2024/12/it-sector-results-how-digital-transformation-enhances-lives-in-kazakhstan/

Amanbek, Y., Balgayev, I., Batyrkhanov, K., & Tan, M. (2020). Adoption of e-Government in the Republic of Kazakhstan. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(3), 46. https://doi.org/10.3390/joitmc6030046

Nurbaev, Z. (2023, May 26). *Can Kazakhstan become a key regional exporter of IT products?*.CABAR.asia. https://cabar.asia/en/can-kazakhstan-become-a-key-regional-exporter-of-it-products

KazTAG. (2024, July 30). *Messages report about new large-scale leak of personal data in Kazakhstan*. https://kaztag.kz/en/news/messages-report-about-new-large-scale-leak-of-personal-data-in-kazakhstan

Prime Minister of the Republic of Kazakhstan. (2024, November 26). *Training of IT specialists, export of information technologies, AI training: Government considers IT industry development issues*. https://primeminister.kz/en/news/training-of-it-specialists-export-of-information-technologies-ai-training-government-considers-it-industry-development-issues-29386

Prime Minister of the Republic of Kazakhstan. (2024, July 16). *Concept for artificial intelligence development for 2024–2029 adopted by government*. https://primeminister.kz/en/news/concept-for-artificial-intelligence-development-for-2024-2029-adopted-by-government-28786

Telecom Review Asia. (2024, June 15). *Thailand's digital economy: Utilizing AI strategies and transformation initiatives*. https://www.telecomreviewasia.com/news/featured-articles/4276-thailand-s-digital-economy-utilizing-ai-strategies-and-transformation-initiatives/

TAdviser. (2025, February). *Digital Kazakhstan*. https://tadviser.com/index.php/Article:Digital_Kazakhstan