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The Road Ahead: Uzbekistan's Journey to Technological Leadership in Central Asia

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Abstract

This study examines the importance of integrating technology-oriented goals and principles in Uzbekistan's foreign policy. Uzbekistan has traditionally focused on regional connectivity, trade relations and security considerations in its foreign policy. However, in this rapidly advancing technological era, the country should make a strategic shift toward technological integration to maintain regional competitiveness and ensure balance of power stability. Carlotta Perez's approach to find out ways to accelerate the growth of technology and its integration will be employed to achieve these goals. This approach includes five stages, which are Irruption, Frenzy, Turning Point, Synergy, and Maturity. The initial two stages, Irruption and Frenzy, are crucial in identifying the significance of artificial intelligence (AI), renewable energy, cybersecurity, and digital markets, and exploring potential partnerships such as South Korea, the United States, Japan, and Germany. In the remaining phases, the main focus will be on addressing challenges, policies as solutions to these challenges as well as long term goals to achieve technological growth.

Keywords

Uzbekistan Foreign Policy, Technological Integration, Digital Market, Artificial Intelligence, Renewable Energy, Central Asia Geopolitics, Strategic Partnerships, Carlotta Perez Framework, Sustainable Development.

Introduction

Uzbekistan under the President Mirziyoyev embraced a dynamic and forward looking energetic and modern foreign policy, placing it at the core of the regional infrastructural, economic, and security integration. In the reflection of these efforts, nation's aspirations for sustainable development and greater regional influence can be seen. However, the problem remains: lack of serious and precise technology-oriented goals. In today's environment, where technological superiority is the defining characteristic, this jeopardizes Uzbekistan's competitiveness and forge its identity in the world. Uzbekistan's foreign policy strategy is still in need of a clear policy on how to exploit technologies such as artificial intelligence, renewable energy and digital currency. This lack of vision may prevent the nation from realizing its regional dominance and its goals of sustainable development in the time of the new economy under the current government.

In this paper, we will discuss crucial gap by examining the question: To what extent Uzbekistan involves the technology-driven strategies in its foreign policies in order to ensure sustainable development and strengthen its position in the region? We use existing frameworks drawn from successful global models highlight the necessity for Uzbekistan to reposition its foreign policy to that of the 21st century.

Methods

In this paper the initial method used is comparative analysis which finds out the widening gap in technological development among countries in Central Asisa and how it will impact their regional influence. After identifying disparities in the adoption of key technologies such as artificial intelligence, renewable energy, and digital currencies, the analysis examines how these differences will reshape regional influence and power dynamics in the future. The following method is theoretical framework application. This is a theoretical framework on technological revolutions which provides organized lens to find out how nations progress through stages of technological integration—Irruption, Frenzy, Turning Point, Synergy, and Maturity—and the strategic measures required to maximize technological potential.

Results and Discussions

The foreign policy of Uzbekistan focuses on the strengthening regional ties and enhancing trade as well as security considerations as key enablers for sustainable growth and stability of the country . The country has vigorously sought to enhance economic integration through, for instance, pursuing trade liberalization measures and attempting to accede to the WTO, which is in line with this goal of becoming a regional center. Since ongoing negotiations in 2020 after a 15-year hiatus, the government has undertaken significant trade liberalization measures, such as reducing tariffs, improving customs efficiency, and eliminating non-tariff barriers, which shows that the government is achieving its goals in this respect.

Another clear priority is state security, demonstrated by Uzbekistan's active role in promoting peace and regional integration with Afghanistan. One clear example in this regard is that after the Taliban regained power in 2021, Uzbekistan has also been involved with their regime, which is viewed to be a means of ensuring regional stability and security by avoiding conflict.

Unlike many Western countries that closed their embassies as they often consider themselves as a liberal country, heavily focusing on human rights and democracy, Uzbekistan maintained its diplomatic presence in Kabul. This shows that under any condition, Uzbekistan managed to accomplish its foreign policy aspirations with its pragmatic approach.

Nevertheless, despite these accomplishments, there is an important need with regards to the role of technology as part of the foreign policy strategy. Although the foreign policy of Uzbekistan does mention a focus on developing technology in its principles, it is not the central theme and there is no focal point of area in technology world like AI or Cybersecurity. It is also important to note that in domestic policy, there is a significant focus on technology-oriented projects and objectives, for example, IT Parks: establishing IT parks, such as the IT Park in Tashkent, aims to nurture a tech-savvy ecosystem by supporting startups and attracting foreign investment in the IT sector, Digital Uzbekistan 2030 Strategy , "One Million Coders" , Smart City Projects, developing smart city infrastructures in regions like Tashkent and Samarkand includes integrating IoT systems for traffic management, public safety, and energy efficiency. Although current domestic policies are in action and contributing to the development of the economy, the rate of development can accelerate when domestic and foreign policy principles support each other, For example, “Uzbekistan 2030: A Strategy for Innovative Development” vision aimed at positioning Uzbekistan in the global top 50 in the innovations index, but the wider foreign policy framework does not seem to support a similar level of technology orientation.

Technological Advancement and the Shifting Balance of Power in Central Asia

Principles of Defensive Realism has deeply influenced on the foreign policy and decision-making process of Uzbekistan. Because it is obvious that the main priority here is maintaining regional stability and balance of power. This perspective has led the government to adopt policies designed to maintain its focus in Central Asia, for instance developing economic ties and strengthening relations with other states. This approach has successfully served for the development of the country and for maintain better relations with its neighbors. But when technology is concerned, the emergence of a widening gap between Uzbekistan and its counterparts in the region, especially Kazakhstan, may bring a significant change in balance of power relations in the region in the future.

Kazakhstan has taken a proactive approach toward technological development, exemplified by its "Digital Kazakhstan" program, which integrates cutting-edge technologies like artificial intelligence (AI) and digital currencies into its economic infrastructure. With this program, Kazakhstan has been able to attract foreign investment from developed countries, rise its digital economy, and develop strategic partnerships in emerging technological sectors. In contrast, Uzbekistan, while advancing initiatives like IT parks and the "Digital Uzbekistan – 2030" strategy, has still no coherent plan of how to interact effectively with the global community regarding AI and digital currencies. Instead, While there is little or no attention on adaption to AI

era, digital currency market has faced significant restrictions and strict regulations in Uzbekistan.

It is likely that the diverging approaches of Kazakhstan and Uzbekistan towards technological innovations and developments will substantially influence the regional balance of power in the near future. Kazakhstan's vigorous adoption of these technologies will surely make it a regional power as quick and proactive adaption helps to modernize its economy and enhance its reputation and increases its international profile by investors while strict passive attention on AI and strict regulations on new digital market may cause a hesitation among foreign organizations to invest in Uzbekistan's technologies. This restrictiveness and absence of vision may not help Uzbekistan to keep up with technological developments and economic activity which might lead to a further change in the balance of power. If this is the case, then it is quite possible for Kazakhstan to take complete control of Central Asia and use technology to expand its influence, both politically and economically.

A framework for Technology Development: Carlotta Perez's Model

Though the collaboration of domestic initiatives and foreign policy efforts, with technology considered as a central focus, Uzbekistan can effectively compete with its regional counterparts and flourish. However, achieving this requires precise, well-structured, and strategic planning In order to achieve this, the foreign and the domestic policies of Uzbekistan should be enriched an effective and historically proven model. We could utilize Carlotta Perez's transformative approach. In her book called "Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages", she suggests practical steps to ensure the development of well-structured, strategic ways that trigger innovation, foster international collaboration, and secure the nation's competitive edge in in this alarmingly developing era.

Perez's model portrays five evolutionary phases within his model – these are: —Irruption, Frenzy, Turning Point, Synergy, and Maturity as she illustrates the course societies move in from the emergence of radical new innovations to its full incorporation into sectors and their economies. In fact, this framework has proved to be very useful in explaining the technological development of such nations as south Korea and Finland. South Korea, for instance, moved through the synergy stage and started the integration of high technologies in its industries and became a top exporter in electronics and digital industries. Similarly, it was with Finland using the Turning Point and Synergy stages to modernize its economy around technology, particularly in telecommunications. For Uzbekistan, adopting Perez's framework is not merely an academic exercise, it is a socio-economic and strategic necessity. The country is still in infancy in terms of the level it has attained in the technological development. So far, it has been characterized by isolated endeavors such as IT's parks and the "Digital Uzbekistan-2030" strategy. A clear vision on how to address the different stages is vital in order to avoid missing the opportunity of using technology as a catalyst to economic and geopolitical advances. Using Perez's model could assist Uzbekistan in dealing with the most pressing concerns in more strategic challenges, while easing the country into the

global technological economy and enhancing its role in Central Asia's new power dynamics.

Phase I - Irruption: Disruptive Technologies for Uzbekistan's Foreign Policy

Uzbekistan is at the edge of integrating the transformation technologies which may reshape the nature of its foreign policy. The experience of the use of AI in diverse fields suggests its great relevance in trade analytics, and enhancing regional diplomacy through data-driven decision-making. The country can benefit greatly with an increased features of AI within its governance structure as it will promote greater efficiency as well as faster decision-making in public services. In terms of Economy, AI can change the way trade data is processed analysis suggesting that better and very fast investments will be possible especially in international trade. This might be quite critical in improving the efficiency of supply chains, predicting demand, and finding profitable investment growth sectors. In addition, the use of AI in the agricultural sector, that accounts for a considerable share of the economy of Uzbekistan, can be vital in enhancing productivity through resource use optimization and use of precision farming. Another key area AI can be utilized is Education. Education can be promoted and boosted significantly by Artificial Intelligence as it has brought forth tailored learning, better accessibility as well as reduced manual work in the environment of Uzbekistan. AI tools are able to customize the content for each learner improving educational performances in turn. Also, with the help of AI, there can be faster feedback and assessment systems increasing the teacher's teaching time instead of classifying which class is more important for giving feedback. For example, the most prestigious universities are already trying to incorporate AI for having better education systems. For example, the Stanford University is looking into how AI could improve learning and assist teachers in performing their roles . The goal is to optimize the learning environment as much as possible. In the same way, Massachusetts Institute of Technology (MIT) is conducting AI education related projects and works on how to help the students to build AI literacy and apply it in education as well.

The second important area is Renewable energy technologies, particularly solar and wind. Despite Uzbekistan's abundance in natural resources, the country has several serious seasonal problems. Through energy technology diversification, the government can re-gain its status of energy exporter and also this diversification can provide a platform for regional collaboration and leadership in clean energy.

The next critical area that requires extra attention is Cybersecurity. A strong national cybersecurity framework is critical to protect the country's critical assets and to maintain the safe exchange of data. If Uzbekistan succeeds in ensuring security and in allowing open access to trustworthy information, this will not only boost confidence in its digital ecosystem, but will also be effective in attracting a lot of foreign investment. This is not an optional modernization method for Uzbekistan—it is essential demand for ensuring sustainable development, fostering innovation, and securing its position as a key regional player in the 21st century. This is because, according to a scholar, Vaidyanathan R. Iyer, from KL University, "Investors are more inclined to

work with countries where their intellectual property and financial transactions are protected and secured by advanced cybersecurity measures. A robust cybersecurity framework is crucial for building trust and confidence among investors, customers, and partners, which can help attract foreign direct investment (FDI) and foster business growth across critical infrastructures and sectors. Besides, it is one of the demands of the International Monetary Fund (IMF) to cooperate against cyber threats to protect the financial system.

Lastly, digital currency market is one of the most important areas that Uzbekistan should, or perhaps must, prioritize in its foreign policy due to its rapidly growing influence on the global stage. A major emphasize on digital currency market is crucial for Uzbekistan's foreign policy due to its growing global influence

Major international companies like Amazon, Apple and so forth are already implementing blockchain and cryptocurrencies to improve their operations, whereas Uzbekistan remains hesitant and is imposing restrictions. If Uzbekistan further continues this position, these will lead the country to lack of investment and competitiveness regionally. For the country to remain competitive, it needs to focus on the development of legislation relating to digital currencies and blockchain technology in the country. Acceptance of these trends will allow Uzbekistan to integrate into the changing world economy.

Phase II – Frenzy: Catalytic Partnerships and Strategic Investments.

Uzbekistan is in a unique position to further its technological growth and development. The country could look towards various nations with advanced technologies and investments. South Korea can be the best partner for Uzbekistan in the area of technology because both countries' relations have been strengthening due to migration flow. South Korea is recognized as a global leader in technological advancement , and its consumer electronics giants invest heavily in research and development. This would create a good opportunity for Uzbekistan to work with South Korean companies and develop integration of technologies.

Another country with growing interest in Central Asian countries, United States is the optimal option to work with. The TPO (Technology Partnerships Office) at the National Institute of Standards and Technology is one such initiative through which the US formalizes technology transfer and joint efforts between researchers and outside world . Organizing fruitful negotiations with such programs could enable Uzbekistan to build up its technological and innovative potential.

Other developed countries like Japan with its companies, including Canon and Hitachi, participate in WIPO GREEN, an international platform promoting the sharing of environmentally friendly technologies and Germany, a top contributor of digital Globalization with its experience in digital economy can offer valuable lessons and partnership for Uzbekistan's technological adoption strategies as well.

Phase III - Turning Point: Addressing Challenges to Stabilize Growth

To overcome the structural and policy challenges regarding the integration of disruptive technologies necessary for achieving sustainable development in Uzbekistan, the country has to tackle many issues on the agenda. Topping the list are the opposition posed by deep-rooted members of the ruling elites and the tightness of foreign investors' regulatory policies. Additionally, there are barriers to Uzbekistan's technological transformation, such as skill deficiencies among the labor force and low levels of infrastructure development.

Resistance from the Old Elite. In the case of Uzbekistan adopting new technologies, resistance from older government elites emerges as the most powerful barrier. Tightly seated in their offices, these leaders are, in psychology, conservative, and that is, so it seems, very seldom are they willing to support the undertaking of radical change initiatives that disrupt the established order. This reality is the reason for the all-too-common phenomenon of older power structures to minimize risk. As Niccolò Machiavelli wrote in The Prince: "It ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things." . Not only the advancement and deployment of key technologies such as Artificial Intelligence and Digital Currencies were reduced by such elites' resistance, but also policy initiatives that could catalyze the progressive transformation of the economy of Uzbekistan were disrupted as well.

Strict Policies and Investor Fear. Uzbekistan's restrictive policies and unfriendly welcome on information flow and modern technologies, such as digital currencies, create an environment of uncertainty that discourage foreign investors. Investors prefer to have certainty in the rules of engagement in the market, unstable regulations and sudden changes in rules in the market can make the future of any investment unpredictable which is the main barrier for investors. As mentioned in Why Nations Fail by Daron Acemoglu and James A. Robinson, unstable institutions and extractive policies deter foreign direct investment by eroding investor confidence . In the absence of transparency and consistency of rules, Uzbekistan will lose competitive advantage to countries in the vicinity region of Kazakhstan, which is more welcoming to foreign investors.

Skill Gaps in the Workforce and Infrastructure Deficiencies. Any economy that's technologically sophisticated expects that there is a workforce capable of adopting, managing, and innovating with new tools. Gaps in technical education and digital literacy, individuals in Uzbekistan hardly would be able to assist in using the all potential applications that AI or renewable energy may provide. Besides, lack of modern infrastructure that support AI, renewable energy or digital market may be another challenge for the country.

Phase IV - Synergy: Policies to Integrate Technology with Economic Sectors and Foreign Policy Objectives

In order to effectively integrate technology with the economy and foreign policy of

Uzbekistan, it is essential to adopt a comprehensive focus. This means, making the best out of opportunities while countering challenges by formulating and implementing specific forward-looking policies.

One of the steps that the government should consider is the appointment of more young, technology competent people in offices responsible for the implementation of policy measures. This new generation of peoples is more dynamic and better equipped to comprehend emerging technologies such as AI, renewable energy, digital currencies, and their applications. In order to develop such future leaders, Uzbekistan has to design sustainable systems for sending the best students abroad for technology-related studies – with a special emphasis on leading universities located in the Republic of Korea, Germany, and the United States. While there are some state programs, such as "El-Yurt Umidi " Foundation for training specialists abroad, they do not supply high number of demands by young specialist who want to study abroad. Having more programs like this mean more well-trained professionals. When they return, they can engage in initiating and implementing processes that aim at changing the way industries operate in the country.

Furthermore, Uzbekistan should encourage interaction of the state and private sectors for the financing and implementation of technological projects to tackle these barriers between both sides. In particular, developing innovation clusters, technoparks and research institutes where both local and international companies operate to create and market advanced technologies. These types of partnerships can speed up the process of introducing AI into various industries such as agriculture, renewable energy, and logistics, as well as encouraging foreign direct investments into the country.

Another problem that need to be dealt is lack of Information available for investors. The Uzbek economy has become known for a lack of confidence among potential investors primarily due to investors' inability to reasonably estimate investment risks. Therefore, the government should create transparent and predictable regulations. It is necessary to create stable political conditions, develop adequate legal systems for the protection of intellectual property rights, and create an environment conducive to encouraging innovation in the economy of Uzbekistan. Integrating global standards in this regard will earn the country credibility in the global technology market and subsequently attract more investments into high-tech industries.

Uzbekistan, in addition, should make efforts as the country that has the potential to lead in the region by using technology in its foreign relations. This includes leading endeavors such as the Central-Asian Collaboration in AI and Renewable Energy Forum to foster collaboration with neighboring countries. Being at the forefront of a number of developments in the region, Uzbekistan can gain even more influence in regional and global geopolitics.

Phase V - Maturity: Long-Term Plans for International Relations

In Maturity phase, even though it seems unattainable for Uzbekistan for now, when it

successfully accomplishes its technology oriented goals and overcome current challenges, Uzbekistan has to first move from investing on technological development to focusing on long-term sustainability and integration into its foreign relations framework. After reaching its peak of technological development, the government should focus on establishing strong institutional frameworks, fostering a culture of innovation, and leveraging its technological assets to strengthen its regional and global standing. According to Daron Acemoglu and James A. Robinson and their book "Why Nations Fail", it is quite clear that inclusive institutions and policies are pivotal for sustained growth and development . Acemoglu and Robinson also suggest that nations are successful when they create a systems that stimulates innovation, protect property rights and ensure broad participation in economic and political processes. In this context for Uzbekistan to succeed in this the phase must have such supporting institutions so that the future of the country is powered by ecosystem for innovation and cross global cooperation. Such structures have to be aimed at enhancing transparency, being dynamic, and being ethical so as to be consistent with global standards. This would allow Uzbekistan to gain international investment and cooperation in an appealing way while upgrading its reputation in the international arena.

Moreover, Uzbekistan has to develop a mindset of constant change by increasing its share of expenditure on research and development (R&D). Uzbekistan can make innovation centers and best practices draws lessons from countries such as South Korea, which used R&D to position itself as an international technological superpower. These centers should deal with not only regional but also international problems such as energy and climate change, while also encouraging cross-border partnership and collaboration. As Joseph Nye mentions it in his book, Soft Power: The Means to Success in World Politics, "A nation's ability to attract and co-opt rather than coerce will increasingly determine its success on the global stage in the 21st century ". Uzbekistan could gain soft power by demonstrating its significant achievements in technology and innovations, indicating its ambitions for a regional more powerful position, and a reliable participant in international technological efforts. Developing different projects like a Central Asian Renewable Energy Alliance or a Digital Economy Collaboration Pact would greatly strengthen the regional integration and, at the same time, prove Uzbekistan's readiness for collaborative growth and sustainability. This collaboration can accelerate the integration of Central Asian countries which is a vital in this changing World Order.

Conclusion

Uzbekistan, under the administration of President Shavkat Mirziyoyev, has made commendable progress in pursuing formal structuring and regional integration, trade liberalization, and security cooperation, yet there is a need for the mention of technology as a

central topic in its foreign policy. Even though all initiatives including IT parks and the Digital Uzbekistan 2030 strategy are promising, they are not effective if there is no coherence with the country's foreign policy. There is a growing gap in the attention to technology between Uzbekistan and its regional competitors. Delaying urgent actions to accelerate adaptation to technological changes may shift the balance of power in Central Asia. However, based on models such as the one developed by Carlotta Perez, Uzbekistan can position itself to seize opportunities presented by disruptive technologies such as artificial intelligence, renewable energy, and digital market in international relations, strengthen regional influence, and attract foreign investment. In addition, by leveraging strategic partnerships across countries such as South Korea and the United States while addressing internal constraints such as Resistance from the Old Elite, restrictive regulations that causes hesitation among investors and infrastructure, Uzbekistan can be positioned as a hub for Central Asia's new technological order. For Uzbekistan to continue its development and remain influential in the world geopolitics, it has to integrate technology in every aspect of its economy and foreign policy, develop inclusive institutions and make innovation a priority. It is also important to note that for now, instead of a direct implementation, we should focus on prioritizing phases most relevant to Uzbekistan's stage such as Irruption and Frenzy. This kind of strategy will allow expanding its role as a significant player in the regional geopolitics and a technological partner on the global stage.

References

Acemoglu, Daron, and James A. Robinson. Why Nations Fail: The Origins of Power, Prosperity, and Poverty. – New York: Crown Publishers, 2012. – 529 p.

Congressional Research Service. Uzbekistan: Background and Issues for Congress. – R47798. October 18, 2023. https://crsreports.congress.gov/product/pdf/R/R47798/2.

Digital Kazakhstan State Program. https://egov.kz/cms/en/digital-kazakhstan.

Director of the National Agency of Perspective Projects of the Republic of Uzbekistan. On the Approval of the Regulations for Trading of Crypto Assets on Crypto Exchange. Registered by the Ministry of Justice of the Republic of Uzbekistan on August 15, 2022. – Registration No. 3379. https://lex.uz/docs/6190822.

Gazeta.uz. Gas, Oil, Electricity, and Gasoline Production Decreases in Uzbekistan in February // Gazeta.uz. https://gazeta.uz/en/2024/03/26/energy-resources/.

Getzoff, Marc. The World's Most Technologically Advanced Countries // Global Finance. https://gfmag.com/data/non-economic-data/most-advanced-countries-in-the-world/.

Government Publications and Legal Documents

Granting Procedure. El-Yurt Umidi Foundation. https://eyuf.uz/site/view-page?id=15.

Iyer, Vaidyanathan R., Kishore Babu, and Vignesh Ram Guruswamy. Cyber Security Frameworks through the Lens of Foreign Direct Investment (FDI): A Systematic Literature Review // KL University and Manipal Academy of Higher Education (MAHE).

Law of the Republic of Uzbekistan on Education. Adopted September 23, 2020. https://lex.uz/ru/docs/-5030957?ONDATE=06.10.2020.

Machiavelli, Niccolò. The Prince / Trans. by Harvey C. Mansfield. – Chicago: University of Chicago Press, 1998. – 125 p.

Maurer, Tim. A Global Cyber Threat to Financial Systems // IMF Finance & Development. – March 2021. – P. 15–22. https://www.imf.org/external/pubs/ft/fandd/2021/03/global-cyber-threat-to-financial-systems-maurer.htm.

Mazzucato, Mariana. The Entrepreneurial State: Debunking Public vs. Private Sector Myths. – New York: PublicAffairs, 2015. – 289 p.

Ministry of Foreign Affairs of the Republic of Uzbekistan. Foreign Policy Concept of the Republic of Uzbekistan. https://gov.uz/en/mfa/sections/view/14455.

Nye, Joseph S. Jr. Soft Power: The Means to Success in World Politics. – New York: PublicAffairs, 2004. – 191 p.

Perez, Carlota. Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages. – London: Edward Elgar Publishing, 2002. – 222 p.

Shyngyssov, Aset, Asem B. Bakenova, and Karina Mazhidenova. Concept of Investment Policy of the Republic of Kazakhstan Approved Until 2029 // LawFlash, Morgan Lewis. https://www.morganlewis.com/pubs/2024/12/concept-of-investment-policy-of-the-republic-of-kazakhstan-approved-until-2029.

Stanford University. AI and Education // Accelerate Learning: Digital Learning Initiative. https://acceleratelearning.stanford.edu/initiative/digital-learning/ai-and-education/.

U.S. Air Force AI Accelerator. Education // AI Accelerator Research. https://www.aiaccelerator.af.mil/Research/Education/.

UNESCO. Mapping Research and Innovation in the Republic of Uzbekistan. – Paris: UNESCO, 2020. – 118 p.

Uzbekistan-Turkmenistan Summit Results in Adoption of Roadmap for Deepening Economic Cooperation // Agency for Strategic Reforms. https://asr.gov.uz/en/news/5722.