The Digital Generation and Startups in Tajikistan

by Ilhom Aliyev

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Startup Weekend. Dushanbe, 2016.

In the age of the internet, technology startups are disrupting markets globally, growing faster than ever, and changing the world in which we live. Companies like Uber, Snapchat, and Instagram, which did not even exist ten years ago, are now valued at billions of U.S. dollars while operating globally and creating thousands of jobs. In Tajikistan, a small landlocked country in Central Asia, a fin-tech startup called Alif Sarmoya that started with only three co-founders six years ago is now introducing innovative solutions to the banking sector. It currently has over 250 employees and is already expanding regionally.

As a matter of fact, a sudden flourishing of the startup scene is occurring across Tajikistan. Young people's interest in innovation, digital technology, and entrepreneurship is growing faster than ever. Technology startup seminars, talks, and conferences are organized on regular basis. In the last seven years, three innovative accelerators have been set up— with another two currently under way; three co-working spaces have been launched; hundreds of startup events have been organized all over the country. The quick rise of local startups such as Alif Sarmoya (fin-tech), Shedevr (creative marketing), somon.tj (e-commerce) shows a major shift in young people's aspirations as they now hope to stay in Tajikistan to become role models and develop a new culture of entrepreneurship.

This paper seeks to analyze the dynamics of the growing startup culture in Tajikistan and the conditions that help this culture prosper. It concludes that the rapid startup scene in Tajikistan is due to the growth of a bottom-up, individualistic culture and the embrace of market liberalism among the younger population, despite the complex entrepreneurial environment in the country. This paper first introduces a short theoretical

framework. Second, it presents an overview of the development of the 'startup scene' globally and then specifically in Tajikistan. The paper concludes by drawing attention to the underlying discussion related to startup culture among youth in Tajikistan and presenting short policy recommendations based on academic literature, policy practices, and interviews.

It is important to note that by startups, I take the definition offered by Steve Blank: a startup is a temporary, for-profit organization that uses technology and looks for a business model that is repeatable and scalable. Startups have a mentality of becoming a large dominant business, but they are temporary and use different types of funding in comparison to small and medium enterprises. 1 Because the term startup became famous during the dotcom boom, the majority of people associate the term startup with technology. In my paper, I classify startups as early stage businesses that are in search of business model, scalable, and use innovation and technology in their business endeavors.

Startups in the Digital Age

The internet, youth, and entrepreneurship

According to the World Economic Forum, the biggest consumer of online social media globally is generation Z (those born in the mid-1990s to early 2000s), followed by millennials (those born in the early 1980s to mid-1990s).[2] As digital natives, they have been constantly wired from a young age and brought up in the information technology era.[3] Having access to education and resources through technology, young people start to feel empowered, which in turn brings changes to the societies that they are a part of. According to Welzel, human empowerment has begun to globalize as education, technology, and globalization advance.[4] This, in turn, as Fukuyama points out, creates a strong relationship between higher education levels and higher values ascribed to democracy, individual freedom, and tolerance of alternative lifestyles.[5]

Access to entrepreneurship via the internet is easy, and the trend of using informational technology for entrepreneurial activities is global.[6] Startups remain a big contributor to economic growth. In the US, for instance, high-growth startups account for 50 percent of job creations.[7] Interestingly, Frick has found that the majority of startups founders were 31 years old when they founded their companies.[8] Contrary to Frick, Azoulay has found that the median age of

successful technology startup founders is higher, at 40.8.[9] There is additional research which asserts that venture capital-backed startups focus on younger ages, leading to additional debate on the bias of venture capital firms towards younger startup founders; however, this particular issue is beyond the scope of this paper.

Seeing the benefits of technology startups, policymakers globally are paying close attention to the development of their country's information and communication technology sectors and business environments in order to diversify their economies. As an example, Israel, synonymously called the "Startup-Nation," has heavily invested in innovation, research & development (R&D), and human capital. The country sparked the growth of the venture capital industry in the 1990s, helping to boost the modern tech scene. Today, Israel boasts over 65,000 startups, with notable examples including the Viber instant messaging application, the Gett taxi service platform, and the Waze mobile satellite navigation application—which was acquired by Google for US$ 1.15 billion.[10]

Startups and startup ecosystems globally

According to Blank's definition, a startup is a scalable, high growth business that is ready to innovate and disrupt. In contrast with small and medium enterprises (SMEs) that work according to a set business plan, startups use and test different business models.[11] Additionally, they usually rely on different sources of funding, such as venture capital. The mentality of startups is completely different from SMEs: startups focus on searching and failing over and over again until they find a model that works. The startup mentality can be attributed to the desire to *make history* in some way or to be part of something big. Most founders want to build businesses that will improve people's lives by changing the way products or services are created, distributed, or consumed.[12] In other words, the startup mentality embraces failure and change, encourages questions, and always stays creative.

Technology-based startups play an important role in innovation and are pivotal to transforming a country's production and earning models and diversifying the economy. In this open and global economy, founders of startups are looking for the best environment—or 'startup ecosystem'—to start and grow their business. Therefore, a country's startup ecosystem has to be

internationally competitive if it does not want to be vulnerable to brain drain.[13] According to Fiona Murray of MIT's Sloan School, there are two logics for how prosperous startup ecosystems develop: the first is the public sector's heavy involvement and investment into technology parks, innovation centers, etc. The second logic lies in the bottom-up approach, which is based on people and a founder-friendly mentality that slowly grows from within.[14]

If we consider the Top 20 Global Startup Ecosystem Ranking, it shows us some measurements of a successful environment and innovation hub in which technology startups will prosper. These include: availability of tech & entrepreneurial talent, availability of top-notch technology, access to capital, availability of incubators and accelerators, presence of corporates with open innovation, entrepreneurial culture (support via mentors, open networks and culture, policy, forward-looking regulation, tax, etc.), academia fostering innovative entrepreneurship, including intellectual property arrangements, and access to large markets, international scope and connectivity.[15]

It is important to note that the role of the policymakers in managing the strength of the startup ecosystem is crucial. As noted previously in the case of Israel, by investing in education, facilitating access to finance, providing infrastructure, and setting up a framework of startup-friendly conditions in academia, the country was able to position itself as a leading startup nation globally.[16]

We can also consider the example of Estonia, a Baltic country of 1.3 million people where taxes are completed online just under five minutes, 99 percent of public services are available online, and one third of people vote online.[17] Another interesting initiative is Estonia's e-Residency, a first-of-its-kind initiative that allows individuals to start businesses in Estonia without living there. More than 50,000 people from around the world have applied for it since it was launched in 2014.[18] The Startup visa allows non-residents and non-EU talents to come and work in Estonia.[19] The country has had the most competitive tax system in the developed world for the last three years in a row, according to the International Tax Competitiveness Index.[20] Estonia currently boasts multiple startup unicorns valued at over US$ 1 billion such as Skype, Uber competitor Taxify, and payments firm TransferWire.[21] Local startups raised a record of

nearly EUR 328 million in investments in 2018. Another key indicator is startup employment, which has also been on the rise, demonstrating Estonia's insatiable demand for tech workers. The total number of citizens working in startups passed 5,000 in 2018 and is projected to increase by 30 percent in 2019.[22] One of the Estonian government's unique policies is the introduction of a public-private partnership, a program called ProgeTiiger ("Programming Tiger"), which teaches five-year-old the basics of coding.[23]

These two examples show us that the public sector's involvement in the formation of a startup eco-system, combined with a bottom-up approach based on a founder-friendly mentality, shows the best results in startup eco-system development.

Business Environment in Tajikistan

According to the World Bank's 2020 Doing Business report, Tajikistan is ranked 106 out of 190 countries, gaining ten positions above last year's ranking.[24] Tajikistan's recent business-friendly policy reforms have also earned the country a top ten ranking among other reforming countries. The report highlights Tajikistan's progress in registering businesses, accessing credit, and trading across borders.[25] According to the International Trade Administration, the country has taken initiatives to simplify its business registration processes and customs clearances.[26]

Despite these developments, the business environment is still complex and difficult to navigate. The primary contributors to this complex business system include a lack of specialized skilled labor, a complicated taxation system, and weak access to finance.[27] As pointed out by Sobirzoda and Mirzoev, both access to finance and financial literacy remain low. Unless the country's business environment, entrepreneurial skills, and banking sector improve, the ability of small and medium enterprises to withstand future economic shocks will weaken.[28]

In the following chapter, I point out that despite Tajikistan's complex business environment, we can still see the grassroots growth of a startup culture and the formation of a startup ecosystem in the country, largely facilitated by Tajikistan's youth.

Startup Culture in Tajikistan

Digital Generation

Tajikistan is one of the poorest countries in Central Asia. Of its population of 8.8 million people, over 1.2 million Tajiks work as labor migrants abroad—mainly in Russia—and their remittances constitute up to 35 percent of the GDP of the country.[29] In addition to a high unemployment rate, Tajikistan lacks the natural resources that its neighbors, Uzbekistan, Turkmenistan, and Kazakhstan, can use to bolster their economies. Given these obstacles, the development of Tajikistan's entrepreneurial potential and information technology startup ecosystem could offer a pathway towards economic growth and, moreover, could lead to the closer integration of Central Asia. Indeed, as put by Anatoliy Motkin: "Developing advanced technologies, attracting Western investment and Western experience, and creating an information technology market will serve a dual purpose in the Central Asian region: reducing the Central Asian countries' dependence on their neighbors and becoming the catalyst for unification processes in the region."[30]

Those aged under 30 constitutes about 70 percent of the general population of Tajikistan.[31] This young generation has been exposed to and influenced by globalization, bringing a new era of dynamism—especially in the capital city of Dushanbe.[32] According to Deputy Minister of Communications Tatyana Kholmurodova, in 2016 about 3 million people were active internet users in Tajikistan.[33] A survey conducted among respondents aged 15-32 by the Open Society Institute in Tajikistan and Markazi Subhi Donish found that about 77 percent of internet usage came from smartphones. According to the survey, the main focus for using smartphones was getting information and staying in touch.[34]

With increasing exposure to world news, trends, and social media, young people are becoming more aware of changing global trends. Indeed, the creation of such platforms on Facebook as *ent.tj - Economic News of Tajikistan*—which currently has 15,482 members — and *My - Tadzhikistantsi* (*We, the Tajiks*)—which has 114,706 members as of today—gives people the opportunity to express their opinion, engage in discussions, form partnerships, find talent for businesses, receive advice, and network. These interesting dynamics show us that young people are better exercising their critical abilities online as access to the internet increases.

Alif Bank. Dushanbe, 2019.

In their exposure to globalization and access to the internet, there has been a rapid growth of young people's interest in information technology startups. In the past 5-7 years, we have seen the sudden emergence of such locally prestigious startups as Alif Sarmoya (fin-tech), Somon.tj (e-commerce), Raksh Taxi (online taxi platform), tonight.tj (entertainment) and many others. The majority of these startup founders share a common vision of changing the society. As put by Zuhursho Rakhmatullaev, co-founder of Alif Sarmoya: "The important mission of Alif is to create an infrastructure where all financial transactions are available through technology; and by going cashless—an important element of building any society nowadays—Alif is making sure banking is working *for the people*."[35]

Startup Community Formation

The growing technology entrepreneurship movement in Tajikistan is causing the emergence of a startup community and strong networks, especially in Dushanbe. During the last five years, there has been a spike of startup seminars, conferences, talks and networking events. Notable examples include: Startup Weekend, Startup Choihona, Startup Eco-system Summit, Startupstan Cup, Startup Central Asia, Digital Camp, Upshift, Tech Central Asia Weekend, Global Entrepreneurship Week, and many others. The formation of these initiatives has laid the groundwork for the startup mentality, connecting ideas with mentors, investors, and policymakers.

Startup Weekend, a Techstars program that helps young people go from generating ideas and forming teams to testing products and pitching ideas to a panel of investors, has been conducted in Tajikistan since 2016. The program is organized through an impressive collaboration of several entities across the public and private sectors, including the Association of

Innovative and Technological Entrepreneurship of Tajikistan, the American Chamber of Commerce in Tajikistan, Ilmhona, OSCE, Tcell, Coca Cola, Spitamen Bank, and others. Thus far, about 500 young men and women have gone through the three-day program. One of the examples of success stories from Startup Weekend events includes a young farm owner from Hissar, a town outside of Dushanbe, who partnered with application builders and marketing professionals to form an online platform called *Mevamix* that deliveries fresh fruits to its customers all over Dushanbe. In 2018, Startup Weekend launched a special female-focused program called Startup Weekend Women. According to Zaytuna Saydullaeva, Ambassador of Women in STEM and one of the co-organizers of Startup Weekend program, the current trend is that lots of traditional services, such as local craft makers, are starting to actively use technology services in their business endeavors in order to scale up their businesses and grow faster. This leads to larger participation of the local entrepreneurs in Startup Weekend program.[36]

Global Entrepreneurship Week is an annual program sponsored by the Kauffman Foundation that takes place in 160 countries and promotes youth entrepreneurship and innovation.[37] In Tajikistan, it is organized by the American Chamber of Commerce. For the past four years events have been heavily focused on the development of a digital economy in the country. For example, in 2015, in honor of Global Entrepreneurship Week, the American Chamber of Commerce in Tajikistan organized an international forum with government participants and held a discussion on the importance of technology development, entrepreneurship, and related policy measures.[38]

Startup Choihona is a project initiative of the United Nations Volunteers Program, administered by the United Nations and supported by the government of Tajikistan, the Ministry of Foreign Affairs of Finland, Accelerate Prosperity, Caritas Germany, the Young Entrepreneurs Club, Tcell, and others. The Startup Choihona project is a quarterly arranged pitching competition that provides a platform for entrepreneurs to bring forward their start-up ideas, look for business partners and coaching, and see if their business idea has the potential to fly. It covers all regions in Tajikistan and has conducted four incubation programs involving youth.[39]

Startupstan is part of '55 Group' investment company and is a business hub that organizes community development events in the country. Examples of these events include the Startup Ecosystem Summit—a platform that brings together stakeholders from the Central Asian region to discuss the development of startup ecosystem; Startup Talk—a monthly discussion platform related to startups; and Startupstan Cup—a pitching platform for the best ideas to receive funding, etc.[40] Aside from the large community-forming programs mentioned above, the initiative formed by the Aga Khan Development Network (AKDN), 'Accelerate Prosperity,' that plays an active role in organizing programs for startups.[41] Additionally, UNICEF started a program focused on solving social problems using innovation called UPSHIFT.[42]

These startup community events have continued to become more popular. Local ideas such as Mevamix, a fruit delivery platform, or luhtak.tj, an online marketplace for local crafts, are just a few of the many examples of up and coming success stories in Tajikistan. Hundreds of young people currently have access to international trainers, national mentors, and local investors because of startup community events. Most importantly, the country is establishing a connection to the global startup ecosystem with the support of these initiatives. Indeed, access to networks has been one of the major components of attaining global investment in startups.[43] Additionally, large corporations such as Tcell, Coca Cola, Megaphon, Spitamen bank, Prospect Medical Clinic, and others are supporting open innovation by supporting the organization of major events, serving as mentors, and even providing initial funding for top ideas. Some even organize their own programs on innovation. For instance, Tcell, a major telecommunications company, has organized numerous summer programs and trainings to support digital entrepreneurship activities.

Accelerators and Incubators

Accelerators and incubators play a major role in supporting the startup ecosystem in the country. One of the leading notable examples includes Accelerate Prosperity that was founded in 2016 with accelerators in Dushanbe and Khorog. It has since incubated over 200 startups and created many jobs. It has also organized about seven large startup promotion events in 2018.[44]

55Startups was founded by '55 Group' in 2017 and provides business incubation, co-working space, and acceleration, making an average investment of US$ 10,000 per project. They also offer consulting services, legal support, accounting support, and intellectual property support. One of their more notable residents is fly.tj, an online ticketing platform.[45]

Several development organizations are also funding the foundation of incubators. The United Kingdom's Department of Foreign and International Development (DFID) is funding a project called the Enterprise Innovation Program. It is being implemented by Development Alternatives Inc., and the project's main goal is to start an incubator with a focus on innovation.

Importance of Co-Working spaces

Berlin, the capital of Germany, owes much of its success as a top startup city to the affordable rent and the availability of co-working spaces in the city. According to Daniel Zaretsky, founder of Global Entrepreneurship Week in Tajikistan, even developments as small as coffee shops where young people can sit with their laptops and access the internet contributes to the growth of startup culture.[46] Indeed, co-working spaces provide an opportunity for aspiring entrepreneurs to access cheap office space, cheap internet access, and connect with like-minded entrepreneurs. Three co-working spaces have opened in Dushanbe in the last five years: Puzzle, Parking, and Regus. These co-working spaces offer young people with a working space, internet access, and an environment that promotes startup culture. For example, the Puzzle co-working space also actively organizes weekly meetings that promote keynote speeches, seminars, and other talks related to startups.

Access to finance

Funding remains a major issue for startups in Tajikistan. According to Zaytuna Saydullaeva, there are four possibilities for startups to raise funding: through accelerators, startup events, corporate funding, or traditional bank financing.[47] Taking a loan tends to be seen as the last option for startups, as interest rates are high—ranging from 18 percent in foreign currency to about 35 percent in local currency— and collateral requirements are difficult to meet. The availability of finance is limited to debt only. Limited venture capital and the low number of

angel investors and privately managed investment funds further complicate an already challenging business environment.[48] According to Zaytuna Saydullaeva, if large corporations could form a special fund and support startups by investing in them, it would solve many issues. However, large corporations are unlikely to do this as they already face high expenditures.[49]

Startup events can help to overcome these obstacles by connecting young entrepreneurs with serial entrepreneurs and networks, often leading to early funding. Additionally, startup events, accelerators, and similar platforms have the potential to transform the business environment in Tajikistan and facilitate the establishment of angel investor and venture capital institutions in the country.

Human Capital and Education

According to the World Bank, one of the major constraints in the information technology industry in Tajikistan is the poor quality of graduates in information technology fields. One estimate suggests that only 10 percent of graduates were employable upon graduation, and another 30 percent were considered 'trainable.'[50] According to Iskandar Ikrami, a young entrepreneur who started an innovative chain of coffee shops, the major issue is the lack of human capital in the country.[51] Daniel Zaretsky notes that it is important to bring the Western and South Asian brands of universities to Tajikistan in order to help boost the growth of technology-related programs of study.[52]

Alif Bank. Dushanbe, 2019.

Nevertheless, there has been a grassroots development of private schools to teach students the basics of information technology. Aside from them, companies such as Tcell also heavily invest in bringing educational programs related to digital education to the population. Alif Sarmoya launched its own Alif

Academy to train digital skills to Tajik youth. Tajrupt, an organization based in Khujand, offers youth courses in machine learning. Unfortunately, Tajik universities generally do not partner with companies for innovation development, which hinders industry-led training options.[53]

Human capital is a key component of startup ecosystem formation; however, it is important to look at the broader picture, as put by Rakhmatullaev, co-founder of Alif Sarmoya: "Issues such as taxation, regulation, access to funding, and human capital are important; however, most of the issues sit in the mentality of people. Where people are used to relying on something external, they lack the enthusiasm to start something of their own."[54]

Conclusion

In *Startup Rising: The Entrepreneurial Revolution Remaking the Middle East*, Christopher Schroeder offers an interesting analysis of how startups in the Arab world are changing the social landscape of the region.[55] Lehdonvirta Vili of Oxford University questions whether the growth of startups in Finland is changing the mentality of people towards Anglo-American liberalism.[56] Although these are rather philosophical questions, we can see that the Silicon Valley style startup movement is taking place globally. In Tajikistan, different factors are influencing the rise of the country's startup culture, and, most importantly, there is a growing motivation to be engaged in entrepreneurship, to bring development to the country, and to re-invent Tajikistan as an intellectual center. Indeed, as put by

Iskandar Ikrami, founder of Mazza, the only way for Tajikistan to leave the deadlock of labor migration is to develop its technology and entrepreneurship potential.

Platforms such as Startup Weekend or Startup Choihona, co-working spaces like Parking or Puzzle, accelerators like Accelerate Prosperity or 55Startups, and academies like Alif Academy or Tajrupt all share one common point: they are established by young people for young people. Successful examples like Alif Sarmoya give youth the hope and belief that it is possible to start a successful startup in Tajikistan. Most importantly, these role-models are speaking at startup forums, acting as mentors during the events, and standing ready to help startups to develop.

Tajikistan's business environment remains complex, with multiple barriers for entrepreneurship; however, we are seeing the grassroots movements of a startup ecosystem foundation in the country. Alif is for instance changing the traditional banking sector and standards of customer service; somon.tj is changing the way people are engaged in retail business; and 55 group is eagerly starting to invest in early stage businesses. Aside from private companies, we can also see the active participation of the newly founded "Dushanbe Smart City" state unitary enterprise, which is eagerly incorporating digital technologies in public services and involves digital companies for the development of its smart city project. These companies are already starting to expand regionally by forming partnerships, collaborations, and joint projects.

The Case of Alif-Sarmoya

Alif Sarmoya is a fin-tech organization and a financial entity that has become a bank in Tajikistan as of January 3, 2020. The company brings financial, retail, corporate, and private banking services to people using informational technologies.

Alif Sarmoya started about six years ago with only three co-founders: Abdullo Kurbanov, Firdavs Mirzoyev and Zuhursho Rahmatulloev. The company now has over 250 people and is growing almost on a weekly basis. Aside from its operations in Tajikistan, the company is expanding regionally in Central Asia. Alif's mission is to create an infrastructure, where all financial transactions are cashless and available by using gadgets, smartphones, and computers, as cashless transactions are becoming an increasingly important element to build any society.

Alif Sarmoya is setting new standards for customer service, and based on these innovations, other financial organizations are following as well. According to Zuhursho Rahmatulloev, consumers are becoming more

picky and the standards of choosing a bank are growing and improving, largely due to Alif's hard work to deliver high-quality customer service. He notes: "It is not just the financial industry that is being affected by certain standards of customer service; it is also the more people you serve, the more it becomes really contagious and other companies want to emulate you. They want to have better standards, and this is what is being expected from other players, such as telecom providers and even grocery shops."

One of Alif Sarmoya's most interesting projects is Alif Academy, an offshoot of Alif Capital that was formed to prepare new talents for the company and the broader fin-tech industry. The company states that Alif has felt the scarcity of information technology specialists, and by forming Alif Academy, the company is giving the people the ability to start coding and programming.

Alif strives to hire the most talented people and promotes them within the organization and beyond that, if possible. Rahmatulloev notes: "Alif bases its selection criteria on meritocratic principles where one can hire the best talent. In order to retain them, you have to give them an environment where they can grow and prosper and where they can feel they are actually doing something worthwhile—they are doing it for the growth of the system and the improvement of people, society, and the world in general." Indeed, Abdullo Kurbanov, Alif's co-founder and CEO, actively promotes the idea of meritocratic hiring at major startup events in Dushanbe.

Policy Recommendations

The bottom up movement of the growing startup culture is happening fast; however, state policies remain important. The government has the role of acting as a facilitator during the formation of the startup eco-system in the country. Given that, I would like to offer the following three policy recommendations for the growth of the startup ecosystem in Tajikistan:

To the State Committee for Investments and State Property Management:

1. *Establish a center under the Committee that will connect startups with investors, relevant government agencies, and international development organizations in order to collect and share data on, monitor, and evaluate the startup climate, and promote startups' participation in government procurement projects.*

2. *Form a National Business Angels Federation under the Committee to certify and support a joint startup investment program.*

3. *Pilot a digital education curriculum at three secondary schools in Dushanbe that would include courses in coding, digital design, and digital entrepreneurship.*

[1] S. Blank and B. Dorf, *The startup owner's manual, the step-by-step guide for building a great company*, Pescadero, CA: K&S Ranch, 2012.

[2] World Economic Forum, "This graph tells us who uses social media the most," Oct 2, 2019. Available at: https://www.weforum.org/agenda/2019/10/social-media-use-by-generation/.

[3] M. Prensky, "Digital Natives, Digital Immigrants," On the Horizon, MCB University Press, Vol. 9 No. 5, October, 2001.

[4] C. Welzel, "Freedom Rising: Human Empowerment and the Quest for Emancipation," Cambridge University Press, 2013.

[5] F. Fukuyama, "The Middle - Class Revolution," Wall Street Journal, June 28, 2013.

[6] J. Postlethwaite, "No business without new tech, say young entrepreneurs," The Guardian, Feb 12, 2014, Available at: https://www.theguardian.com/small-business-network/2014/feb/12/technology-young-entrepreneurs-business.

[7] R. Decker et al. *The Role of Entrepreneurship in US Job Creation and Economic Dynamism*, Journal of Economic Perspectives, Volume 28, Number 3, Summer 2014.

[8] W. Frick, "How old are Silicon Valley's top Founders," Harvard Business Review, April 3, 2014. Available at: https://hbr.org/2014/04/how-old-are-silicon-valleys-top-founders-heres-the-data.

[9] P. Azoulay et al. "Research: The Average Age of a Successful Startup Founder Is 45," Harvard Business Review, July 18, 2018. Available at: https://hbr.org/2018/07/research-the-average-age-of-a-successful-startup-founder-is-45.

[10] J. Yerman, "A Startup Nation: Why Israel Has Become The New Silicon Valley," Airline Passenger Experience Association, May 22, 2019. Available at: https://apex.aero/2019/05/22/startup-nation-israel-become-silicon-valley.

[11] S. Blank and B. Dorf, *The startup owner's manual, the step-by-step guide for building a great company,* 2012.

[12] R. Gulati, *"The Soul of the Start-up,"* Harvard Business Review, July - August 2019 Issue, Available at: https://hbr.org/2019/07/the-soul-of-a-start-up.

[13] P. Andrez et al. *"Specific Support to Slovakia. Boosting the Slovak Startup Ecosystem,"* Horizon 2020 Policy Support Facility, European Commission, 2017.

[14] A. Regalado, "Innovation Quest, Regions Seek Critical Mass," MIT Technology Review, September/October 2013, Vol. 116, No. 5. P. 84-86.

[15] P. Andrez, et al. "Specific Support to Slovakia. Boosting the Slovak Startup Ecosystem".

[16] J. Yerman, "A Startup Nation: Why Israel Has Become The New Silicon Valley".

[17] E. Schulze, "How a tiny country bordering Russia became one of the most tech-savvy societies in the world," CNBC, Feb 8, 2019. Available at: https://www.cnbc.com/2019/02/08/how-estonia-became-a-digital-society.html.

[18] Ibid.

[19] Fintech News Switzerland, "How Estonia is secretly rising to be Europe's Startup Nation," Feb 8, 2019. Available at: https://fintechnews.ch/baltic/estonia-startup-nation/26600/.

[20] K. Vabamae et al. "It's no coincidence that Estonia has one of the highest rates of startups per capita in Europe. So… how has Estonia become a startup paradise? Let's see what's behind these figures," E-Estonia, August, 2017. Available at: https://e-estonia.com/why-is-estonia-a-startup-paradise/.

[21] E. Schulze, "How a tiny country bordering Russia became one of the most tech-savvy societies in the world".

[22] Fintech News Switzerland, "How Estonia is secretly rising to be Europe's Startup Nation".

[23] The Economist, "How did Estonia become a leader in technology," July 31, 2013. Available at: https://www.economist.com/the-economist-explains/2013/07/30/how-did-estonia-become-a-leader-in-technology.

[24] Doing Business 2020, "Economy Profile – Tajikistan," World Bank Group, 2019. p.4.

[25] Ibid.

[26] International Trade Administration, "Tajikistan Country Commercial Guide," 2019. Available at https://www.export.gov/article?id=Tajikistan-Market-Opportunities.

[27] M. Erman et al. "Issledovanie Infrastruktury Razvitiia Predprinimatelstva Respubliki Tadzhikistan," HSE, UNDP, October 16-20, 2017.

[28] R. Sobirzoda and Sh. Mirzoev, "Leveraging SME Finance through Value Chains in Tajikistan," ADBI Working Paper Series, No 1020, Asian Development Bank Institute, Tokyo, October, 2019. Available at: https://www.adb.org/sites/default/files/publication/534291/adbi-wp1020.pdf.

[29] Ria Novosti, "Igor Liakin Frolov: Perevody migrantov sostavlaiut 35 protsentov VVP," Jan 25, 2019. Available at: https://ria.ru/20190125/1549868756.html.

[30] A. Motkin, "Developing the IT sector will make Central Asia more united and independent," Modern Diplomacy, Nov 22, 2018. Available at: https://moderndiplomacy.eu/2018/11/22/developing-the-it-sector-will-make-central-asia-more-united-and-independent/.

[31] UN Volunteers, "Increasing youth employment in Tajikistan through the promotion of entrepreneurship," Aug 10, 2017. Available at: https://www.unv.org/our-stories/increasing-youth-employment-tajikistan-through-promotion-entrepreneurship.

[32] C. Cartier, "After civil war and economic chaos, Tajikistan's young innovators are rebuilding their cultural legacy," The Calvert Journal. May 21, 2019. Available at: https://www.calvertjournal.com/features/show/11179/tajik-culture-profile-dushanbe-film-photography-youtube-poetry-business-entrepreneurs.

[33] Radio Ozodi, "Chislo pol'zovatelei Interneta v Tadzhikistane sokratilos' na 800,000," Radio Ozodi Tajikistan Feb 7, 2016. Available at: https://rus.ozodi.org/a/27536631.html.

[34] Kosimov et al. "Research on usage of mobile technologies in Tajikistan," OSIAF and Markazi Subhi Donish, Dushanbe 2015.

[35] Z. Rakhmatullaev, Personal Communication, 2019.

[36] Z. Saydullaeva, Personal Communication, 2019.

[37] Global Entrepreneurship Week Tajikistan, "Tajikistan", 2019. Available at: https://www.genglobal.org/find-events/681.

[38] D. Zaretsky, Personal Communication, 2019.

[39] UN Volunteers, "Increasing youth employment in Tajikistan".

[40] Startupstan, "Official Website", 2019. Available at http://www.startupstan.team.

[41] Accelerate Prosperity, "Official Website", 2019. Available at: http://tj.accelerateprosperity.org/?page_id=14

[42] Upshift, *"Official Website"*, 2019. Available at: http://navovar.tj/en/

[43] Center for Global Development, *Technology and Development Conference*, Washington DC. October 16, 2019.

[44] Accelerate Prosperity, "Official Website".

[45] M. Erman et al. "Issledovanie infrastruktury razvitiia predprinimatel'stva Respubliki Tadjikistan".

[46] D. Zaretsky, Personal Communication, 2019.

[47] Z. Saydullaeva, Personal Communication, 2019.

[48] R. Sobirzoda and Sh. Mirzoev, "Leveraging SME Finance through Value Chains in Tajikistan".

[49] Z. Saydullaeva, Personal Communication, 2019.

[50] World Bank, "ICT in Central Asia: Broadband Challenge, mobile opportunity," ICT Sector Unit, Report No: ACS6876, Dec 2013, p. 25.

[51] I. Ikrami, Personal Communication, 2019.

[52] D. Zaretsky, Personal Communication, 2019.

[53] Z. Saydullaeva, Personal Communication, 2019.

[54] Z. Rakhmatullaev, Personal Communication, 2019.

[55] C. Schroeder, *Startup Rising: The Entrepreneurial Revolution Remaking the Middle East*. St. Martin's Press; 1 edition, August 13, 2013.

[56] V. Lehdonvirta, "Discussions: The Helsinki Spring: an essay on entrepreneurship and cultural change," *Research on Finnish Society* Vol. 6, 2013, pp. 25–28.