INVEST2INNOVATE

PAKISTAN **STARTUP ECOSYSTEM** REPORT

2019

WORLD BANK GROUP

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This report was authored by Ambareen Baig, Kalsoom Lakhani and Areej Mehdi (Invest2Innovate - i2i) The analysis in the report draws on both secondary and primary data collected by the i2i team including Kalsoom Lakhani, Ambareen Baig, Areej Mehdi, Ahsan Mukhtar, Rohma Labeeb, Muhammad Mubashir, Warda Malik, Aarti Lila Raam and Emaan Malik.

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AUTHOR'S NOTE

We realize the Pakistan startup ecosystem is ever-evolving, and while we have done our best to keep the report as up to date as possible, we will note that the study is reflective of the current state of the startup ecosystem as of October 29, 2019. As a result, the deal flow analysis and study does not include USD $12 million raised by Airlift in a significant Series A round led by First Round Capital, a U.S.-based venture capital fund, or the USD $1.6 million Seed round raised by TelloTalk, which were announced on November 1 and 3 respectively. The Airlift Series A round in particular is a significant development for the Pakistan startup ecosystem not just due to the size of the round but also because of the participation of a major U.S.-based venture capital fund (which has previously invested in startups like Uber and Square). This deal could be a positive signal for other U.S.-based funds to potentially invest in the Pakistan market in the future.

EXECUTIVE SUMMARY

Pakistan's digital entrepreneurship ecosystem has been growing since 2012 with an increasing number of events, activities, support players, funders, and of course, startups. Globally, startups are an important part of opportunity entrepreneurship, and they can contribute to job creation and economic growth. **The growing number of young, technology-savvy Pakistanis** matches well with this growth in the startup landscape. According to the United Nations Development Programme's (UNDP) National Human Development Report (NHDR), Pakistan needs to create 1.3 million additional jobs on average every year, as the number of working age people will grow from 4 million to 5 million by 2035. A strong innovation economy can help address this need. While Pakistan's digital startup landscape has grown significantly in the past seven years, the ecosystem has its share of challenges, particularly when it comes to regulations, access to early stage capital, and the gender gap in the entrepreneurship space. This study delves into the current entrepreneurial environment for digital start-ups, highlighting the trends, gaps and challenges facing entrepreneurs and investors, and includes recommendations on how to progress in the future.

In examining the evolution of the technology startup ecosystem in Pakistan, the sheer growth in the number of players and stakeholders is significant. In 2012, there were just two major business incubators and accelerators in the country, with almost no investors and funding sources.[1] In comparison, in 2019, there are now over **24 incubators and accelerators, 80 coworking spaces, and approximately 20 formal investors** who are players in Pakistan. Early on, the Pakistan government played a role in the startup ecosystem at the provincial level, namely in Punjab province, where the provincial government set up the Punjab Information Technology Board (PITB) and launched efforts like Plan9, a technology incubator, in Lahore. Since 2016, the federal government, via Ignite (formerly known as the National ICT R&D Fund), under the IT Ministry, initiated funding around National Incubation Centers (NICs) across the country, which are public-private partnerships that were formed after a competitive bidding process. The first NIC was established in Islamabad as a partnership between Teamup and Jazz in 2016, with NIC Lahore launching in 2017 as a partnership between Fatima Ventures and the Lahore University of Management Sciences (LUMS), one of Pakistan's top universities that previously launched and ran the LUMS Centre for Entrepreneurship (LCE)[2]. In 2018, three other NICs launched within the span of six months in the cities of Peshawar, Karachi, and Quetta[3]. Collectively, all five NICs have graduated over 200 startups.

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1 Pakistan Development Update, November 2017.
2 In winning the bid, LCE transitioned its work to the design and launch of the NIC Lahore.
3 NIC Karachi and Peshawar are run as a partnership between LMKT and TiE Islamabad; while NIC Quetta is run between LUMS and BUITEMS, a university based in Quetta.

Private sector players have also played a key role in supporting digital entrepreneurs in Pakistan. Corporates are involved as supporters and sponsors of initiatives like Habib Bank Limited (HBL) and Standard Chartered Bank, and even have launched their own standalone support programs like Telenor Velocity and Jazz xlr8. Players like the Nest i/o and Invest2Innovate have gone beyond their flagship incubation and acceleration programs to release research, run conferences, competitions and startup events, and launch venture funds. Coworking spaces like the Hive and Daftarkhwan have launched branches in other cities and locations, servicing the growing number of freelancers, founders, and companies. Business and industry trade associations like P@SHA and TiE bring together industry leaders, run awards and competitions, and also advocate and lobby for policy change.

On the funding side, there has been an overall increase in the number of deals and investment funds since 2015. While there were **101** deals this study recorded between 2015-19 in Pakistan-based companies, about **47** of those occurred in just the past two years (2018-19). Of those investments, about **22%** were funded by venture capital funds, while about **44%** were funded by angel investors (either syndicates or individuals). Most investments continue to occur at the pre-seed and seed-stage level, which highlights the need for more quality early-stage funders - donors, angel investors, and funds.

The launch of new local funds focused on Pakistan in the past two years like Sarmayacar, i2i Ventures, 47 Ventures, TPL e-Ventures, Fatima Ventures, and Lakson Investments, are all strong indicators of where the venture capital landscape is moving. These funds all invest at the early-stage, ranging from seed-stage to Series A. The growth of this landscape is significant as the startup ecosystem also grows, and there are two interesting trends worth noting: first, most funds are sector-agnostic and do not exclusively invest in one particular stage of a company's growth. While most funds do look at technology-enabled ventures, their desire to be more flexible is a reflection on the nascency of the market (with growing quality deal flow). Most funds also recognize the need to diversify their investment approach by investing in different funding rounds. Given that Pakistan is a market with scarce resources, investors may have to inject more money in a company's future and could participate in follow-on rounds of capital. This approach will ideally support the growth of startups in the long-term, and at least ensure more deals make it to Series A financing. This is important as we think about the life cycle of a startup and the financing and support that is needed as a company grows and scales its operations over time. As more international funds enter or look to enter the Pakistan market, getting early-stage deals ready for growth is vital, as is fostering collaborations between international investors and funds on the ground, who understand the local context and can help outside players navigate the landscape.

All in all, the buzz is very much alive in Pakistan, and it is ever increasing. However, many challenges do remain. Key findings from the study show that more **tech hubs and infrastructure support are needed to support** the innovation economy. Moreover, while support organizations are currently providing valuable services to startups, there is a great need for a customization of these services to cater to specific needs of businesses. Support organizations also need to improve their overall quality of support given to startups, such as business skills development, legal guidance, mentorship, access to investors, and overall investment readiness. The study found that few investors look to support programs for quality deal flow; therefore, support organizations need to improve the value given to startups to address this gap.

With respect to finance, this study's findings highlighted the **early stage capital gap** as a major challenge to startups. One of the most prevalent challenges in this regard pointed out by both investors and entrepreneurs in interviews is the issue of quality investors, particularly given that some early stage investors can take a disproportionately high amount of equity compared to the money given, thereby disempowering founders and not positioning them well for future investment.

Although Pakistan improved its position on the World Bank Doing Business Index 2020, moving up 28 spots to 108 out of 190 countries,[4] the stakeholders interviewed for this study unanimously highlighted the **unfriendliness of the current policy and regulatory environment** towards investors and entrepreneurs alike. While local venture capital funds are not incentivized to domicile their funds inside Pakistan, foreign investors also need to be provided with further incentives to enter and invest in startups in the country. This, in addition to the stringency and complexity of the regulatory processes, poses a serious challenge to all stakeholders in the ecosystem. Many respondents proposed the creation and proper implementation of a **one window solution** to not only make the processes simpler but to provide players with a better and less cumbersome user experience. While Pakistan officially has introduced a one window facility, it can be improved and more processes can be folded into the facility to make running a business less cumbersome.

This study also underlined the **gender gap** in the entrepreneurship ecosystem. Results from both interviews and survey data showed that businesses led by men generate more revenue at later stages than women-led businesses. Startups run by men also raise investment more often than their female counterparts, a statistic mirrored

[4] https://openknowledge.worldbank.org/bitstream/handle/10986/32436/9781464814402.pdf?sequence=2&isAllowed=y

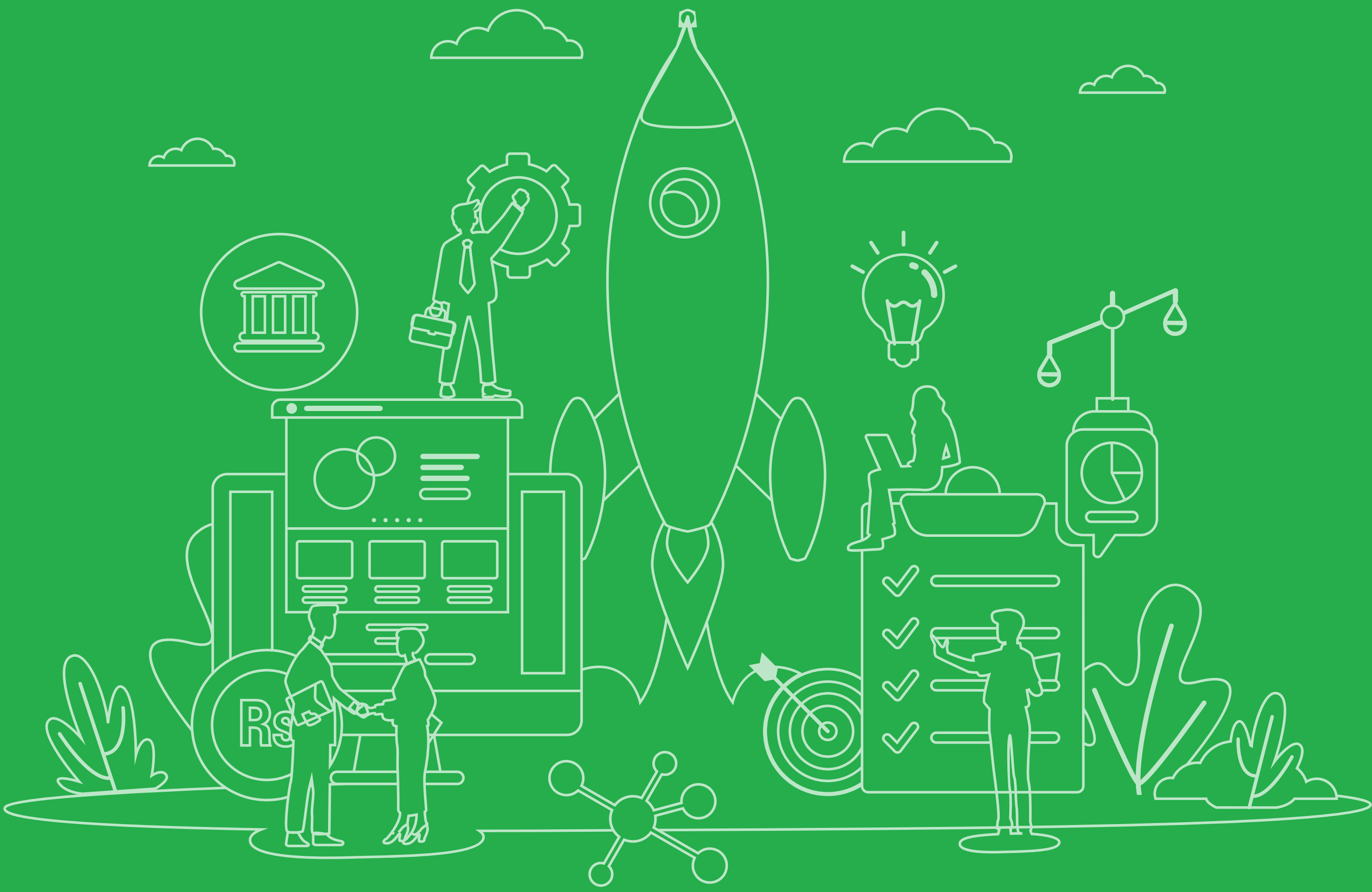
globally. Moreover, when female-led startups do raise funding, they predominantly raise angel and **grant money** (and little to no venture capital funding). According to 2018-19 deal flow figures, of the funding raised by female-led companies, 63% was via angel investment, and 25% was from development programs (donors/grants). At the same time, of the 17 investors interviewed for this study, 75% noted there was no difference in the quality of companies led by women versus those run by men. Many, however, did note that they would like to review more deals led by women. This gap is interesting and while there may be deeper conversations around implicit and gender bias in deal sourcing, there is also a need to **increase the overall funnel of women-led companies**, whether by encouraging incubators and accelerators to actively seek more female founders for their programs or providing more hands-on support to women-led companies at the early-stage and improving their access to investors operating post-seed stage.

The results of this study highlight the most pressing challenges currently facing the Pakistan entrepreneurship ecosystem, and provides detailed recommendations for a way forward. These recommendations include steps to improve the current regulatory environment for doing business to help startups and investors alike. The government can also do more to improve the environment for local venture capital funds. For example, it can iterate on the current Private Funds legislation to make it more flexible and cost-effective for venture capital funds to set up inside the country and run their operations more seamlessly. Moreover, incorporating additional features into the recently introduced one-window facility would help stakeholders benefit from an all-encompassing service and avoid red-tape. Aside from working on the right regulations for startups, the government can also look into developing co-investing opportunities with venture capital funds, and ensure that early stage capital is available for startups to access.

The government can play a strong role in providing high-risk no-return capital to startups (i.e., grants), similar to what was done by Ignite, which can help address the pre-seed and seed-stage gap and mitigate risk for investors. In order to improve the quality of angels, particularly first-time investors, angel investor education can help to professionalize this landscape and equip these players with the right tools to be better partners with the entrepreneurs they invest in. There is also a need to increase the overall funnel of women-led companies, whether by encouraging incubators and accelerators to actively seek more female founders for their programs or providing more hands-on support to women-led companies at the early-stage and improving their access to investors operating post-seed stage. Finally, it is imperative for intermediaries, specifically, incubators and accelerators to improve the overall quality of support provided to startups via more tailored curriculum, mentor matchmaking, and industry specific expertise.

1

INTRODUCTION



1 INTRODUCTION

The evolution of Pakistan's entrepreneurial ecosystem since 2012 can best be described as a complex amalgamation of regulatory challenges, uplifting trends, increasing institutional support, and ever-growing business opportunity. While activity has increased in the past seven years, with significantly more players, startups, investors, and transactions, there continue to be many pressing challenges.

According to the United Nations Development Programme's (UNDP) National Human Development Report (NHDR), Pakistan needs to create 1.3 million additional jobs on average every year, as the number of working age people will grow from 4 million to 5 million by 2035. The report noted, "Expanding the formal sector, supporting entrepreneurship, building the human capital of youth and active labour market policies are key instruments to ensure that the required growth is inclusive and sustainable."[5] This recommendation ties well into the current state of Pakistan's entrepreneurial ecosystem, which is already young and technology-enabled and will continue to be so as more young and technology-savvy people launch their own businesses. As this startup activity grows, it is increasingly important for the current ecosystem to improve and provide an environment that is enabling for young businesses.

Since 2012, the increased entrepreneurial activity in Pakistan is evidenced by the growing number of public and private stakeholders entering the ecosystem. The Pakistan government has signaled their support of entrepreneurship via intermediaries like the federal government's Ignite (formerly known as the National ICT R&D Fund), which is housed under the Ministry of Information Technology and Telecommunications and has launched National Incubation Centres in Islamabad, Karachi, Lahore, Quetta, and Peshawar since 2017. The provincial government in Punjab has been an even earlier supporter of technology entrepreneurship via the Punjab Information Technology Board and launched the country's largest technology incubator, Plan9, in 2012. Aside from government-backed intermediaries, privately-led incubators and accelerators such as Innovation District 92, The Nest i/o and i2i are running programs throughout the country, graduating entrepreneurs, and supporting the ecosystem. There are noteworthy university-level incubators like the Technology Innovation Center (TIC) at the National University of Science and Technology (NUST) in Islamabad, the Aman Center for Entrepreneurial Development at the Institute of Business Administration (IBA) in Karachi and the Takhleeq Incubator at the University of Central Punjab (UCP) in Lahore. There are also a growing number of startup competitions and conferences, such as Momentum, 021 Disrupt, and Startup Cup, coworking spaces like Daftarkhwan, CoLab and the Hive, and other supporting players and associations like Pakistan Software Houses Association for IT and ITES (P@SHA), Circle, The Indus Entrepreneurs (TiE), and Organisation of Pakistani Entrepreneurs (OPEN).

As activity in the entrepreneurial ecosystem has grown and proliferated, international donor agencies and actors have also aligned their agenda in favor of entrepreneurship. UNDP, for example, aims to train over 8000 youth in entrepreneurship skills in the provinces of Khyber Pakhtunkhwa and Sindh,[6] while programs

[5] Pakistan National Human Development Report, UNDP. 28 April 2018. http://www.pk.undp.org/content/pakistan/en/home/library/human-development-reports/PKNHDR.html (Accessed 7/2/19)

[6] http://www.pk.undp.org/content/pakistan/en/home/presscenter/pressreleases/2018/undp-pakistan-and-kashf-foundation-partner-to-train-and-mentor-8.html

such as United States Agency for International Development's (USAID) Small and Medium-sized Enterprise Activity (SMEA) and the UK government and Gates Foundation-backed entity Karandaaz provide business support, grants, and investment for small businesses, with a particular focus on women-led businesses. Corporations and large companies are also playing a role in the entrepreneurial ecosystem, either as partners in some of the NICs, such as Jazz and LMKT, or separately like Telenor and Shell, which support entrepreneurs via programs and small grants.

Despite all these efforts and activities, Pakistan continues to have a debilitating business-enabling environment, in large part due to the regulatory barriers for businesses and investors. Pakistan recently improved its position on the World Bank Doing Business Index 2020, moving up 28 spots to 108 out of 190 countries.[7] While this is a positive development, it is important to note that there are still many improvements to be made. Stakeholders point to a number of problems that create an artificial ceiling on the burgeoning activity in the entrepreneurial ecosystem - from the flow of money in and out of Pakistan, the overall issue of payments, taxation policies that can create obstacles for small and growing businesses, and investment fund regulations.

The macroeconomic risk is also high thanks to the devaluation of the Pakistani currency, which has lost a fifth of its value against the dollar since the beginning of this past fiscal year. The 2019 Pakistan Economic Survey, a report issued by the government that precedes the release of the annual budget, painted a poor picture of the domestic economy. The growth rate has fallen from 6.2% to 3.3%, (with a projection to drop to 2.4%, the lowest it's been in ten years), and inflation is on the rise. The current macroeconomic climate has potential repercussions for investment activity and overall risk perception of the market, particularly as business margins, consumer appetite, and investment returns are impacted. [8]

At present, Pakistan's economy can be categorized as factor-driven with low Gross Domestic Product (GDP), whereby there is a need to develop proper institutional infrastructure and move towards a more efficient economy. In comparison to peer countries, Pakistan's growth lags behind. On the entrepreneurship front, Pakistan currently ranks 120 on the Global Entrepreneurship Development Index (GEDI), a slight jump from 2017's rank of 122. In comparison, Sri Lanka ranks at 90, India at 68, China at 43, and only Bangladesh underperforms at 134.

Low economic participation from women also remains a key contributor to Pakistan's low GDP. According to Global Gender Report 2018, Pakistan ranks second-lowest (148 out of 149) in terms of gender disparities.[9] While managerial opportunities for women are uneven across the globe, in Pakistan gender disparity is up to 90 percent[10] with the country appearing in the worst performing five nations in the world with regard to women's economic participation and opportunity.

Aside from overall business policy reform, much work needs to be done to make strong policies to encourage more economic participation from women, who constitute 48.76% of the country's population, according to the most recent census estimate. Increasing female participation in the workforce through economic incentives and aggressively closing

[7] https://openknowledge.worldbank.org/bitstream/handle/10986/32436/9781464814402.pdf?sequence=2&isAllowed=y
[8] https://www.aljazeera.com/indepth/opinion/pakistan-economy-sinking-190628174320798.html
[9] http://www3.weforum.org/docs/WEF_GGGR_2018.pdf
[10] http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

the ever-widening gender parity gap can be catalysts for a better performing economy. This shift can be one means for Pakistan to transition from a low-middle income to a middle-income economy.

A deeper look into the growth patterns of countries such as India, South Korea, Malaysia, and China show that ICT (Information, Communication and Technology) and stable internet infrastructure have gone a long way in accelerating growth in these economies. Pakistan's internet connectivity has seen a steady growth with over 70 million users as of May 2019.[11] Although Pakistan falls short of its neighbors India and China who are in the top ten countries in the world for both fixed-broadband and mobile-cellular subscriptions, there is also tremendous opportunity for future growth in this market.

While Pakistan was classified as part of the MSCI Emerging Markets Index in 2017, many challenges, particularly in its macroeconomic and regulatory environment remain. However, given the proliferation of startups, intermediaries, investors and other players in the entrepreneurial ecosystem, there is considerable opportunity for change and growth. Pakistan has increasing internet and smartphone penetration, a growing crop of young and technology-enabled entrepreneurs, and the emergence of a number of sectors like agriculture and healthcare that are ripe for entrepreneurial disruption. This cognitive dissonance - the top-down realities versus the bottom-up potential and energy - makes the country an exciting place for a deeper study.

KEY TAKEAWAYS

- Young, tech-savvy people in the Pakistan startup ecosystem
- A significant increase in entrepreneurial activity evidenced by the growing number of public and private stakeholders since 2012
- Increased internet and smartphone penetration mean there is opportunity for future growth of technology startups
- Macroeconomic & regulatory environment is debilitating for startups and investors
- Factor-driven economy with low women's economic participation

1.1 METHODOLOGY AND SCOPE OF STUDY

This study provides a high-level overview of the Pakistani entrepreneurship ecosystem, with a focus on early stage finance, regulatory gaps, support provided to startups and a view of the landscape from a gender lens. While the study used approaches from the Aspen Network of Development Entrepreneurs (ANDE) Ecosystem Survey Instrument[12] for its survey with entrepreneurs, it adjusted the framework for the local context and the lens of this report. The ANDE framework covers six domains: finance, business support services, policy, markets, human capital, infrastructure, research & development/innovation, and entrepreneurial culture. These pillars were laid out in the Entrepreneurial Ecosystem Diagnostic Toolkit, using a comprehensive approach that reviewed related literature that was available for public use. The toolkit was created with the intention for users to modify and adjust it for their own purpose - therefore, this study will focus on mainly three of these pillars: **finance, support and policy.** The study also looks at the ecosystem with a gender lens, in order to understand the challenges facing female-led companies in the ecosystem, given

11 https://www.pta.gov.pk/en/telecom-indicators/1
12 https://assets.aspeninstitute.org/content/uploads/files/content/docs/pubs/FINAL%20Ecosystem%20Toolkit%20Draft_print%20version.pdf

Pakistan's particularly acute need to close gender gaps.

The analysis is based on secondary research and primary information collected from four groups of stakeholders: digital entrepreneurs, investors, intermediaries and individuals advocating for policy reforms. The data collection methods employed are surveys with entrepreneurs, structured face-to-face interviews with investors, intermediaries, and entrepreneurs, and case studies highlighting unique aspects of a select few enterprises. It should be noted that the population of entrepreneurs surveyed is not a random or representative sample of Pakistani entrepreneurs; it was assembled based on consultations with active members of the ecosystem in order to identify early-stage startups, with a major focus on including those who had raised capital, and explicitly included female founders and co-founders. This is in order for the study to go beyond previous diagnostic work in order to delve deeper into access to capital issues and the type of support offered by ecosystem players, and to understand if women face disproportionate gaps. The study also included detailed deal flow analysis of the past five years of investments in Pakistan - for 2015-19 deals, these were checked with investors, startup founders, and secondary sources to provide the most accurate depiction of the current funding environment.

1.1.1 Instruments

The instruments used for this study include a modified version of the ANDE Ecosystem Survey instrument[13] for entrepreneurs (tailored to focus more deeply on the capital raising experience and on the Pakistani local context), structured interviews with investors, intermediaries, entrepreneurs, and individuals who influence policy reforms. Some of the key questions (such as major challenges faced by entrepreneurs, suggestions on policy and regulatory reforms, etc.) were triangulated to get a more holistic perspective of the landscape.

1.1.2 Sampling

For the study's survey, key stakeholders in the Pakistani start-up entrepreneurial ecosystem were asked to recommend startups that fulfilled the following criteria: (1) startups that are currently operational and active in the space, (2) startups that have tried to raise capital in the past or who have successfully raised capital (as this was a specific focus of the study), (3) startups with female founders or co-founders in order to determine if their experiences as entrepreneurs differed from their male counterparts, (4) startups that had participated in an incubator or accelerator so they could speak to support services available.[14]

Out of the 160 respondents who started the survey, 105 completed the entire questionnaire.[15] Overall, the study gathered information from a total of 161 different individuals, which includes interviews with investors, intermediaries, entrepreneurs and individuals influencing policy reforms. Refer to Table 1 below for a further breakdown, and see Appendix C for the names and organizations of those interviewed for this study.

	Entrepreneurs	Investors	Intermediaries (Heads of the entities)	Individuals working on policy reforms	Total
Surveys	105				105
Interviews	10	17	18	6	51
Case Studies	5				5
Total	120	17	18	6	161

Table 1. Tabular representation of breakdown of sample

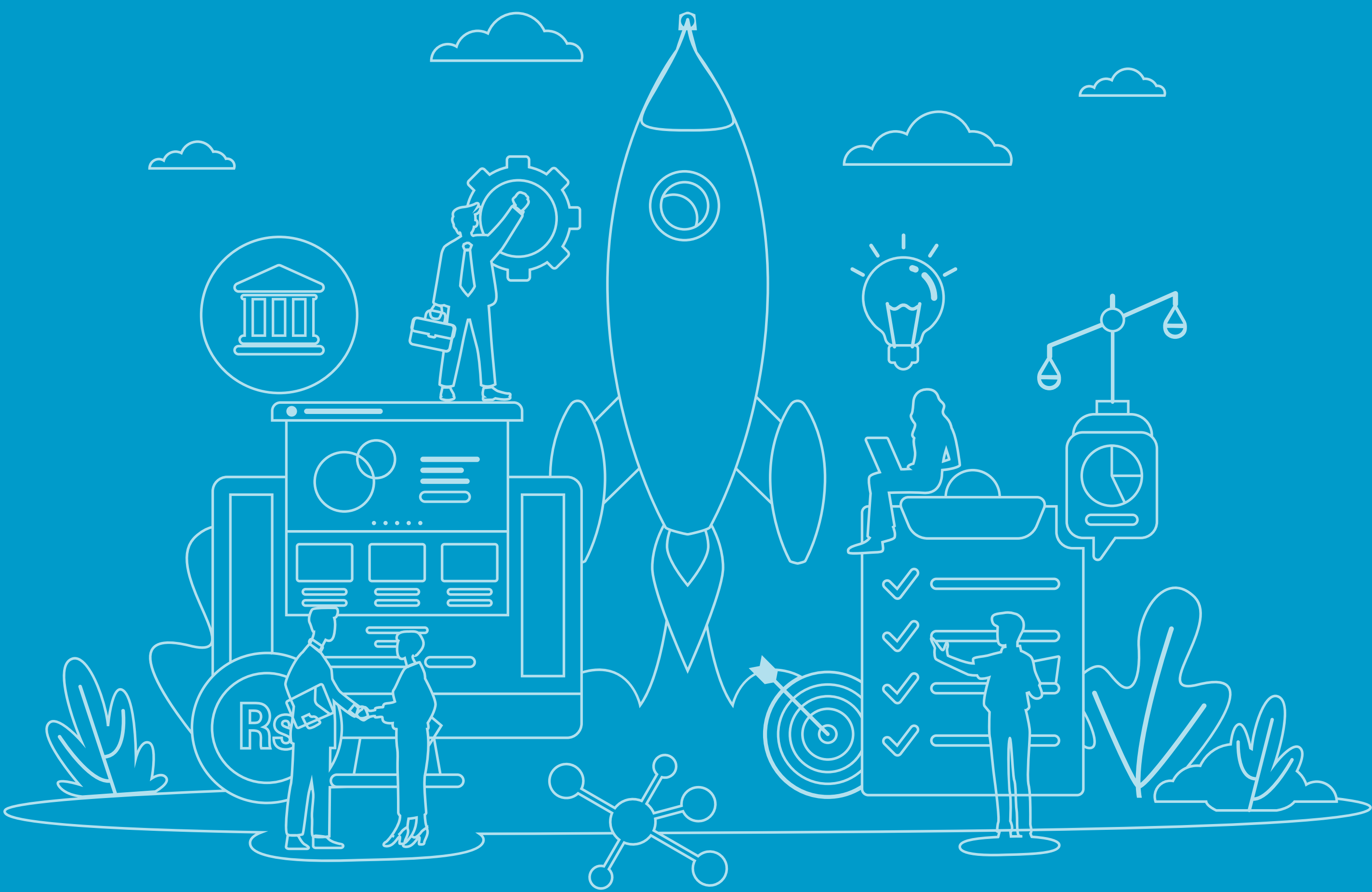
[13] ANDE Entrepreneurial Ecosystem Diagnostic Toolkit 2013: https://assets.aspeninstitute.org/content/uploads/files/content/docs/pubs/FINAL%20Ecosystem%20Toolkit%20Draft_print%20version.pdf

[14] Additionally, for the purpose of this study 'Pakistani Startups' was defined as startups that have at least one founder or cofounder who is of Pakistani origin and the business is operational in Pakistan, even if it is not registered here.

[15] Given that not everyone who started finished the survey, this study relies on survey data from the 105 respondents who answered most, if not all, questions.

2

ECOSYSTEM OVERVIEW



2

ECOSYSTEM OVERVIEW

Pakistan's entrepreneurship ecosystem has become increasingly active in the past seven years. In 2012, aside from a handful of university incubation spaces, there were just two major business incubators and accelerators in the country, with almost no investors and funding sources.[16] In comparison, in 2019, there are now over **24 incubators and accelerators** who are players in the ecosystem. (See figure 1) For a full description of all the ecosystem players, please see Appendix A.

Ecosystem Mapping - Intermediaries

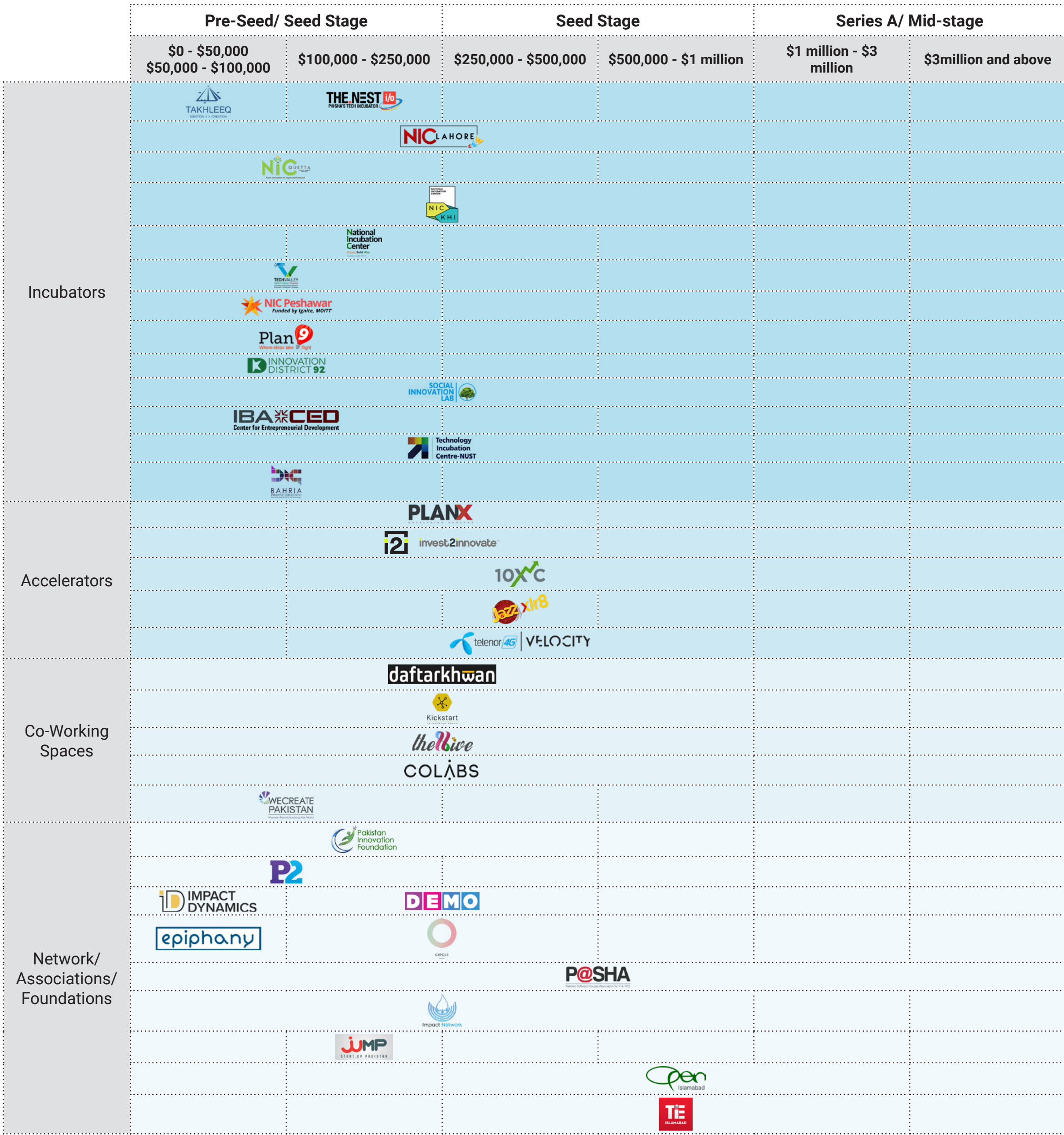


Figure 1. Representation of key intermediaries in the ecosystem as per support offered to different stages of businesses. " See Glossary in Appendix for definitions of the different funding stages" [17]

[16] Pakistan Development Update, November 2017.
[17] For a definition of the different stages of companies, please refer to the glossary.

The number of investors and funding sources has also increased significantly since 2012. Currently there are **approximately 20 formal investors** in the Pakistan ecosystem and many of these funders cater to startups ranging from pre-seed to pre-Series A stages. Fatima Ventures, in its recent partnership with China-based VC fund Gobi Ventures, Sarmayacar, Lakson, Ithaca Capital and 47 Ventures can all invest at the Series A round, which is a relatively new development in the ecosystem, given that local investors were investing at earlier stages in the pipeline in the past. See figure 2.

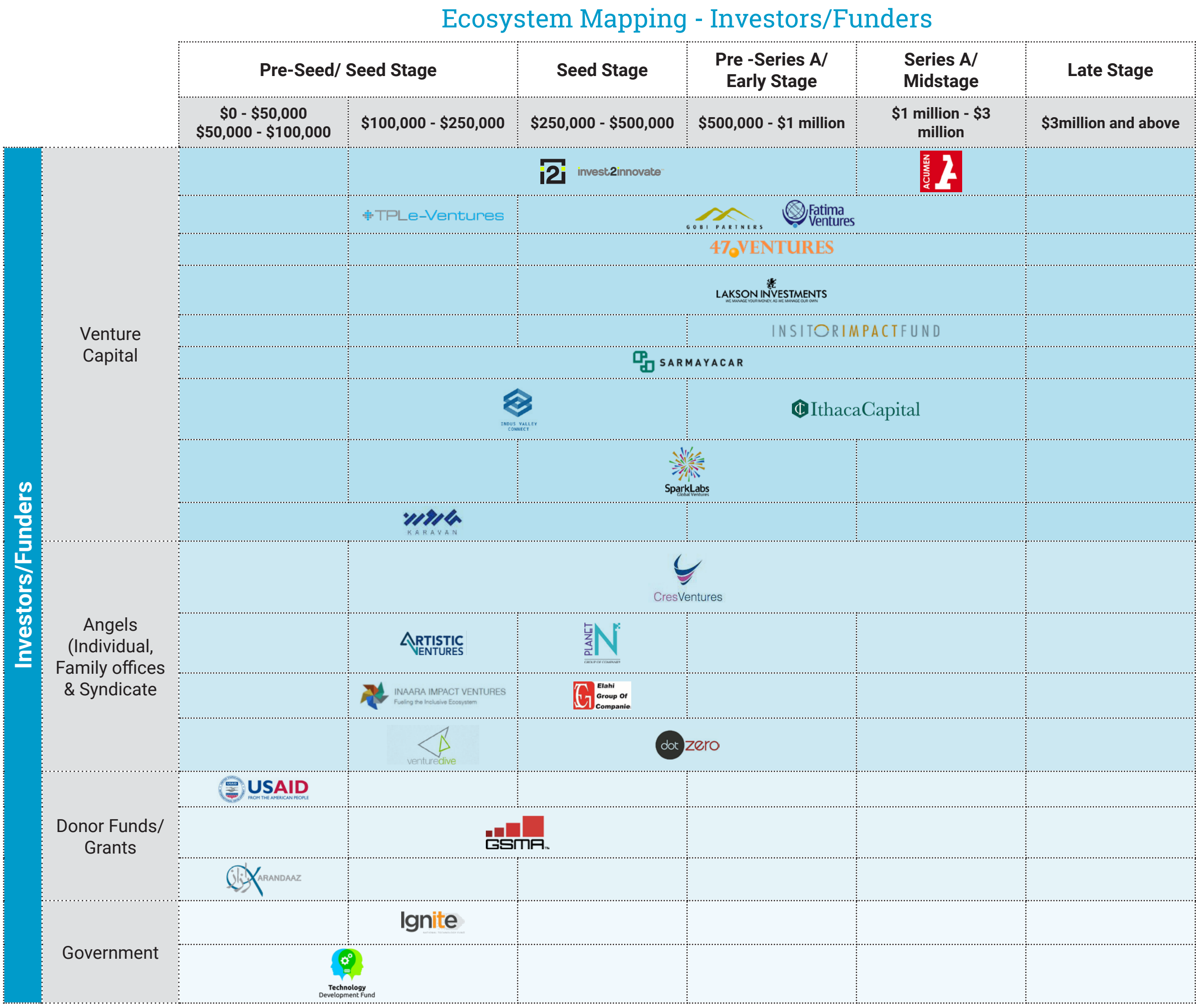


Figure 2. Representation of key investors/funders in the ecosystem as per stage of funding See Glossary in Appendix for definitions of the different funding stages.

Despite this notable increase in activity and players, there are still a number of challenges and gaps that make it difficult for early stage firms to grow and succeed in Pakistan. Pakistan has gone from being 115 (with a score of 18.7) on the Global Entrepreneurship Index in 2014 to 120 in 2018 with a score of 15.6.[18] See figure 3 for details. Higher scores on the index represent better entrepreneurial performance and therefore a better global ranking. Such a drop in Pakistan's global ranking can be attributed to poor performance on factors such as risk acceptance (2%), risk capital (5%), and startup skills (6%) while product innovation (49%) was scored as its strongest area. Moreover, Pakistan ranks higher than Bangladesh but falls behind India, Sri Lanka, Malaysia, and Nigeria on the index. Figure 3 provides a snapshot of where Pakistan stands on the Global Entrepreneurship Index in 2018 in comparison to other benchmark countries. The Global Competitiveness

[18] https://thegedi.org/wp-content/uploads/2017/11/2018-front-cover-01.png

Report 2018 ranked Pakistan at 28 on the availability of venture capital out of 140 countries, based on a survey of executives, which is better than most of the benchmark countries such as Bangladesh, Sri Lanka, and Nigeria. However, an average 3.8 rating of availability of venture capital in Pakistan signifies that the VC climate is actually not favorable enough for small businesses.[19] To see Pakistan's ranking with reference to benchmark countries refer to Figure 4.

Global Entrepreneurship Index Ranking of Pakistan and Benchmark Countries -2018

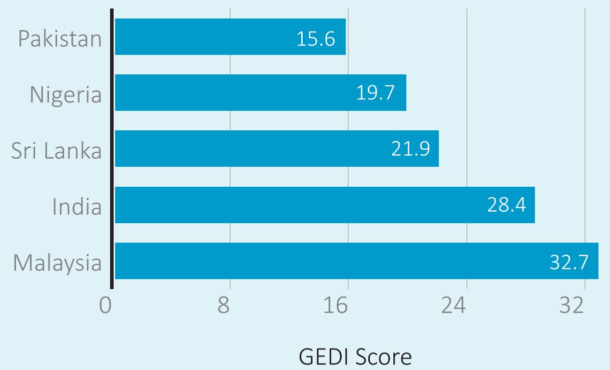


Figure 3. Pakistan's ranking on the Global Entrepreneurship Development Index in comparison with benchmark countries

Ranking of Pakistan & Benchmark Countries on Venture Capital Availability Indicator 1-7 (best) - 2018

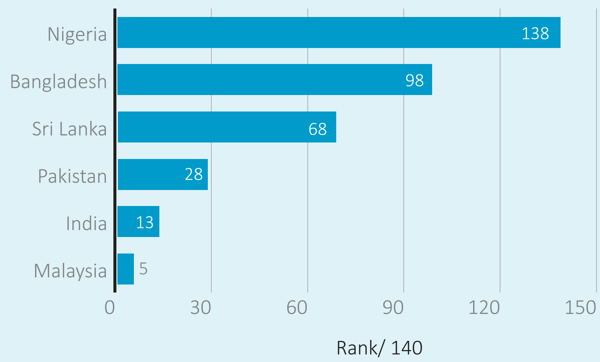


Figure 4. Ranking of Pakistan and other countries on availability of venture capital in 2018 [20]

This ranking underlines the need to understand the current gaps in the ecosystem and advocate for relevant solutions. The next section explores the current landscape of the ecosystem from the lens of support, finance and gender. (For a full list of the major players in Pakistan's startup ecosystem, please see Appendix A).

KEY TAKEAWAYS

- The analysis is based on secondary research and primary information collected from four groups of stakeholders (a total of 161 different individuals): digital entrepreneurs, investors, intermediaries and individuals advocating for policy reforms.
- In 2012, there were only 2 major business incubators. In 2019, there are now over 24 major incubators and accelerators.
- Despite increased activity, Pakistan ranks higher than Bangladesh but falls behind India, Sri Lanka, Malaysia, and Nigeria on the Global Entrepreneurship index.
- The Global Competitiveness Report 2018 ranked Pakistan at 28 on the availability of venture capital out of 140 countries, which is better than most of the benchmark countries such as Bangladesh, Sri Lanka, and Nigeria.

[19] Data in this report was collected in response to the question "In your country, how easy is it for start-up entrepreneurs with innovative but risky projects to obtain equity funding?" [1 = extremely difficult; 7 = extremely easy].

[20] World Economic Forum, Executive Opinion Survey, http://www3.weforum.org/docs/GCR2018/05FullReport/TheGlobalCompetitivenessReport2018.pdf

2.1 ENTREPRENEURSHIP SUPPORT ORGANIZATIONS

According to the ANDE Entrepreneurial Ecosystem Diagnostic methodology, 'support' is one of the six pillars that propels entrepreneurial growth. Economic research shifted from the neoclassical model of only accounting for inputs such as capital, land and labor, to one that increasingly underscores the importance of human capital and the cultural attitudes to entrepreneurship. Policy, finance, culture, support, human capital and markets pose interesting insights and questions for the study of a particular ecosystem, with variously linked stakeholders. In Pakistan, those linkages are most prominent in how support to an entrepreneur is offered, namely via infrastructure, support services, and government and non-government institutions. This section will delve into the types of support organizations currently operating in the startup space in Pakistan - from incubators, accelerators and coworking spaces, to conferences, competitions, and associations.

This study interviewed 18 key support organizations in Pakistan including prominent incubators, accelerators, coworking spaces and entrepreneur support networks. Out of the 18 organizations, 13 were key incubators/ accelerators, which have graduated around 1072 startups from their programs since their inception. Of this number, 42% of companies from these programs had at least one female founder, which is a promising statistic.[21] This next section will delve into the players of the support ecosystem, as well as overall trends.

2.1.1 THE ROLE OF GOVERNMENT IN ECOSYSTEM SUPPORT

In the past seven years, Pakistan's government has played a strong role in signaling its support for the development of the country's entrepreneurial ecosystem. In Punjab, the provincial government set up the Punjab Information Technology Board (PITB) to support the province's innovation economy. Of its many initiatives, PITB set up the technology incubator Plan9 in 2012, calling it the country's largest incubator supporting technology entrepreneurs. The launch of Plan9 engaged local industry leaders, provided an important breeding ground for startups and initially centered Pakistan's entrepreneurial ecosystem in Lahore. While the ecosystem has now expanded across Pakistan's major cities, the support of PITB showcased a positive role that government can play in the growth of a country's startup space. Similarly, the provincial government in Khyber Pakhtunkhwa (KPK) province launched the Khyber Pakhtunkhwa Information Technology Board (KPITB), which has supported a number of initiatives to foster the province's digital economy, including the Digital Youth Summit, a conference that has taken place in Peshawar since 2014, and the development of 'Durshals,' or innovation spaces that were set up in 2018 in various cities across the province and are meant to encourage youth entrepreneurship.[22]

Since 2016, the federal government's role in promoting entrepreneurship has mainly centered around funding National Incubation Centers (NICs) across the country, which are public-private partnerships that were formed after a competitive bidding process. The first NIC was established in Islamabad as a partnership between Teamup and Jazz in 2016, with NIC Lahore launching in 2017 as a partnership between Fatima Ventures and the Lahore University of Management Sciences (LUMS), one of Pakistan's top universities that previously launched and ran the LUMS Centre for Entrepreneurship (LCE)[23]. In 2018, three other NICs launched within the span of six months in the cities of Peshawar, Karachi, and Quetta[24]. Within these three years, an estimated **USD $4.2 million** has been raised in funding by 34 startups across these five NICs and generated thousands of jobs.[25] Since 2017, the NICs in all four cities, Karachi, Islamabad, Lahore, and Peshawar have incubated roughly **234 startups**, and while NIC Islamabad has inducted 5 cohorts, the rest have inducted 3 cohorts each.

[21] Circle is an exclusively women-centric network and therefore skews the results. Removing Circle brought the average considerably down to an average of 37%.
[22] These initiatives were launched with the support of the World Bank Group.
[23] In winning the bid, LCE transitioned its work to the design and launch of the NIC Lahore.
[24] NIC Karachi and Peshawar are run as a partnership between LMKT, PTCL & Sir Syed University; while NIC Quetta is run between LUMS and BUITEMS, a university based in Quetta.
[25] Although Ignite and sources like Techjuice report that the number raised is $23 million - around $18.8 million was reportedly raised by the startup Pakvitae, which, when the founder was contacted for clarification and confirmation of the amount, chose not to disclose the actual amount. Therefore, this report has taken that number out for the purpose of triangulating our data and making it as accurate as possible. Ignite also self-reports 12,000 jobs created based on its measurement methodology. https://www.techjuice.pk/nic-startups-have-raised-over-23-million-investments/

As noted earlier, the NICs are an initiative of Ignite, which is currently housed under the Ministry of Information Technology and Telecommunications and was formerly named the National ICT R&D Fund.

THE EVOLUTION OF **IGNITE**

The National ICT R&D Fund was rebranded as Ignite in 2017, and has been supporting innovation through the aforementioned National Incubation Centers (NICs), the SEED Fund, the **Final Year Project (FYP) Fund**, and a free online training program. Ignite's **SEED fund** provides financial support for the development of innovative products and technologies. The focus is on utilizing fourth industrial wave technologies to solve local challenges in health, education, energy, telecom, finance and other verticals. Seed stage grants are provided, after an assessment and selection process. In the past three years, Ignite has supported over 50 innovations with funding of about USD $7 Million.[26] Ignite's **FYP Fund** provides funding to undergraduate students of ICT-related disciplines for building prototypes and working models of their FYPs. Since 2012, 2,355 FYPs have received an aggregate of PKR 141.37 Million from Ignite[6][27]. At program-end, a national championship is held where top nominated FYPs compete for cash prizes. Finally, Ignite designed and funded a **free online training program** for aspiring and existing freelancers, DigiSkills.pk, in which, when completed, 1 million trainings will be provided in ten different topical areas.

Pakistan's Higher Education Commission has also signaled its commitment to innovation via the setup of Offices of Research, Innovation, and Commercialization (ORICs) at universities across the country that have R&D facilities and those with business schools to provide entrepreneurial support to incubated projects.[28] Under the ORIC umbrella[29], the Higher Education Commission (HEC) set up thirty different business incubation centers across Pakistan,[30] though many are mostly underutilized or empty spaces. Some active university-level incubators are the Technology Innovation Center at the National University of Sciences and Technology (NUST) in Islamabad and the Centre for Entrepreneurial Development (CED) at the Institute of Business Administration (IBA) in Karachi[31]. While NUST TIC has operated a university-based incubation program for a number of years, it launched a noteworthy startup program in 2018 with support from the U.S. Embassy Islamabad, which takes Pakistani startups to Silicon Valley. TIC's new program seeks to help founders gain significantly more sales traction with their businesses by exposing them to the U.S. market, and connecting them to mentors and experts in Silicon Valley, as well as to potential funding opportunities.

As discussed earlier, LUMS' incubator, LCE, which launched in 2014, evolved into the NIC Lahore in 2017, and represented an effort by a private top university to support entrepreneurship, both at the university and national level. LCE was an initiative independent of the ORICs, as is the Takhleeq incubator at the University of Central Punjab in Lahore, which recently launched in 2018, and is working to support entrepreneurs both at the university as well as across the city. The Karachi Institute of Technology & Entrepreneurship, or KITE, is another private university independent of the ORICs, dedicated to cultivate entrepreneurs and changemakers at the university level. Therefore, while the HEC's ORIC initiative represent a top-down effort by the government to promote innovation and entrepreneurship at the university level, some very notable programs at local universities are not affiliated with this effort.

2.1.2 THE ROLE OF CORPORATIONS IN ECOSYSTEM SUPPORT

Global technology companies like Google and Facebook have been actively engaging with the startup space in Pakistan for a number of years. Google launched Google Developer Groups (GDGs) and Google Business Groups (GBGs) in Pakistan's major cities, organized events, and Google for Entrepreneurs was one of the major funders behind the Nest i/o, a technology incubator based in Karachi. In collaboration with MoIT and Ignite,

26 These figures are self-reported by Ignite.
27 These figures are self-reported by Ignite.
28 https://www.hec.gov.pk/english/services/universities/EBIC/Pages/default.aspx
29 This HEC initiative began in 2010.
30 https://www.hec.gov.pk/english/services/universities/EBIC/Pages/Established-BICs.aspx
31 While NUST TIC falls under the ORIC, CED at IBA doesn't and has received funding from Aman Foundation.

Facebook launched its first Innovation Lab in Pakistan in April 2019. The Lab is essential to Facebook's vision of encouraging entrepreneurship in South Asia by giving entrepreneurs access to Facebook's global tools and resources such as the FbStart program and Developer Circles, a community-driven program for collaboration between developers.[32]

Facebook has also been an active proponent of women-led businesses within the region through its program #SheMeansBusiness - an initiative rolled out in 24 countries - to train women entrepreneurs online and offline. Leveraging women's entrepreneurialism through digital tools is a step in the right direction for Facebook, which seems to be taking a cue from its 2018 Future of Business Survey, conducted with the World Bank and the Organization for Economic Cooperation and Development (OECD), that highlights how women-led businesses are more likely to use online tools to achieve success than men in developing markets.[33]

Other corporations have also been involved in the Pakistan entrepreneurial ecosystem in the past five years, either as sponsors of various initiatives and competitions, such as Unilever, Ubank, Engro, and HBL, or as initiators of their own entrepreneurial programs, like telecommunications company Telenor's Velocity accelerator, which recently shifted its focus to a thematic program, aiming to support startups in the agriculture technology sector or the Jazz xlr8 program, housed at the NIC in Islamabad. In 2019, Standard Chartered Bank also launched #SCWomeninTech, a program that provided training, mentoring, and seed funding of up to USD $10,000 to female entrepreneurs, a program powered by Innoventures Global. Companies have also indicated that they plan to launch corporate venture capital funds in the near future. TPL Corp launched TPL E-Ventures, its venture capital arm, which began investing in 2017 and has made three investments thus far. There will be other corporate VC funds in the near future, and these types of funds can and will play a significant role in the finance landscape.

2.1.3 THE ROLE OF PRIVATE SECTOR SUPPORT PLAYERS

While the role of government, both provincial and federal, has been important in the support and scale-up of the startup ecosystem in Pakistan, private sector support players have also played a pivotal role in the growth of the country's innovation economy since the ecosystem's early days. Local chapters of global initiatives like Startup Grind, Startup Weekend, and TEDx take place across the country, along with a host of regular competitions, hackathons, maker spaces, trainings, and bootcamps.

Such initiatives not only add to the overall buzz in the ecosystem, but also raise the visibility of startups and entrepreneurs, transfer business and technical skills, and can result in award money that is especially supportive of idea stage entrepreneurs. For example, the Pakistan Innovation Foundation (PIF) conducts a range of initiatives, from national innovation awards, to STEM (Science, Technology, Engineering and Mathematics) trainings. A related organization called Innoventures Global also powers the aforementioned Standard Chartered Bank program, as well as VenturesLab, an ideas accelerator designed for professionals and university faculty. SEED Ventures run a number of programs and recently launched an incubation program for entrepreneurs from the creative industry, a partnership with the British Council. Other players like CIRCLE and Demo, similarly host and power a number of initiatives and programs, including the SDG Bootcamp, an initiative of United National Development Programme (UNDP) co-designed by Demo, and She Loves Tech, a global competition hosted and run locally by CIRCLE, an organization committed to women's empowerment and economic participation. Both Demo and CIRCLE, as well as WomeninTechPK, also run skills development and coding workshops geared towards youth and women.

In terms of incubators and accelerators, Invest2Innovate launched the country's first startup accelerator program in 2012. In 2014, the Pakistan Software Houses Association for IT and ITES (P@SHA), the country's trade association for the IT industry, announced the launch of the Nest i/o, a technology incubator in Karachi. Planet N, which has been funding startups for the past few years, has also run 10xc, a technology accelerator based in Karachi, and the Superior Group of Companies launched Innovation District 92 (ID92) in Lahore, which considers itself an innovation hub in the city. In looking at just i2i and the Nest i/o, these programs have graduated over

[32] https://lums.edu.pk/news/general-news/facebook-innovation-lab-lums-boost-tech-innovation-country
[33] https://dailytimes.com.pk/362894/after-soul-sisters-pakistan-shemeansbusiness-to-empower-women-entrepreneurs/

200 startups that have gone on to raise $10.9 million in funding (investment, grants and otherwise) in the last 7 years, underlining the importance of private sector players[34].

What is significant about all of these private sector support players is that most are not just standalone programs. P@SHA has been active and an advocate for Pakistan's IT industry since 1992, and annually runs the P@SHA ICT awards, which takes winners of different technology categories to compete regionally in Asia in the APICTA awards. The Nest i/o, aside from its own incubation and acceleration programs, runs other initiatives like Startup Weekend, as well as 021 Disrupt, a major annual conference for the technology entrepreneurship space that has brought international speakers and investors to Karachi since 2017. While Invest2Innovate continues to run its flagship acceleration program, it has expanded its work to support programs across Pakistan and the region, built a research vertical, and recently launched i2i Ventures, an early-stage venture capital fund. ID92, while it houses an incubator, also has a connection to the television show Idea Croron Ka (under the same Superior Group of Companies), which is a Pakistani equivalent of Shark Tank and Dragon's Den, and runs, among other initiatives, an international program called the ATX+Pak Advance Program, which provides Pakistani growth-stage startups access to American market via Austin, Texas through a four-week exchange with customized mentorship, resources and tools, which was made possible through a $500,000 grant by the US Embassy in Islamabad.[35] The program which was earlier implemented in partnership with Plan9 is now being administered as a partnership with Innovation District 92, though it is slated to come to an end by fall 2020.[36]

Another type of support player important to an entrepreneurial ecosystem are **coworking spaces**. Globally, there were just 436 coworking spaces in 2010, but nine years later that number has risen to 21,306.[37] According to Small Biz Labs, the organization that monitors it around the world, the global number of coworking spaces is estimated to reach 30,432 by 2022, with an average annual growth rate of 16.1% Coworking in the Asia Pacific region is forecast to grow rapidly in the next couple of years, with China set to become the world's largest coworking market. In 2016 in Pakistan, there were just a few coworking spaces in the country's major cities. To date, there are **more than 80 coworking spaces in Pakistan**, with established brands such as Daftarkhwan, CoLab, the Hive, and Kickstart opening up multiple branches across their operating cities.[38] Coworking in Pakistan is important given the high infrastructure costs around doing business in the country (particularly with issues like loadshedding) and the overall scarcity of commercial public space. A coworking space can take care of overhead issues like electricity, generators, and internet connectivity, giving startups a relatively cost effective option in an office where they can interact with other players in the industry.

The buzz around entrepreneurship continues to gain momentum with an ever-increasing number of business plan competitions, entrepreneurship conferences, startup events and industry meetups happening in not only the major cities across the country, but also in smaller cities like Abbottabad and Sukkur. Entrepreneur associations like TiE (The Indus Entrepreneurs) and OPEN (Organization of Pakistani Entrepreneurs), which was started to bring together entrepreneurial members of the Pakistani and South Asian Diaspora, now have chapters in Pakistan's major cities. The Impact Network, an initiative of the Promotion of Education in Pakistan (PEP) Foundation, was started to bring together entrepreneurship support organizations under one umbrella in order to solve Pakistan's largest social challenges. Ecosystem-related news is covered by local technology platforms like Techjuice, Pakwired and ProPakistani, which have garnered significant readership and further exemplifies the growing interest in startups in Pakistan. A large chunk of startup activity, however, is still very much centered in the major cities of Lahore, Karachi, Islamabad, with an ecosystem now growing in Peshawar.

[34] Figures acquired via interviews with intermediaries.
[35] https://pakwired.com/austin-texas-hosts-tech-entrepreneurs-pakistan/
[36] https://id92.pk/atxpak-advance-program/
[37] https://www.smallbizlabs.com/2017/12/coworkingforecast.html
[38] https://www.coworker.com/pakistan

KEY TAKEAWAYS

- Since 2016, the federal government has launched five National Incubation Centers (NICs) across the country, which are public-private partnerships, to foster entrepreneurship. They have collectively graduated 234 startups from their programs.
- The Higher Education Commission launched Offices of Research, Innovation, and Commercialization (ORICs) at universities across the country, though many are underutilized and empty spaces.
- Corporates have supported entrepreneurial initiatives, launched programs, and engaged entrepreneurs and local community members.
- Private sector incubators and accelerators like the Nest i/o, i2i, and ID92 have contributed positively to the ecosystem, and have expanded their work beyond incubation and acceleration programs.
- There are more than 80 coworking spaces and various competitions, conferences, startup events, and meetups occurring across Pakistan.
- While support activity has grown significantly in the past 7 years, much of this activity is still concentrated in Pakistan's major cities, versus expanding into Tier 2 or Tier 3 cities.

2.2 FINANCE

Overall, the number of formalized funding players and deals has increased over the past 7 years in Pakistan. This section will delve into this finance landscape for startups, with a particular focus on investors, and will also provide an overview of investments made from 2015-2019, with a spotlight on more recent deals in 2018 and 2019.[39] Much of this analysis highlights a focus on technology or technology-enabled startups, given their higher frequency of raising investment and their overall prominence in the Pakistan startup ecosystem.

2.2.1 DEAL FLOW ANALYSIS (2015 - 2019)

Over the past five years, (2015-19), there were a total of **101 deals**[40] in Pakistan-based companies, constituting over **USD $165 million**,[41] which was raised by **82 companies.**[42] While this is positive, Pakistan still has a long way to go compared to its neighbors in South Asia. Based on a score given to the number of venture capital deals per year in 2019, Pakistan ranked 72, which was below India, at 30, and Sri Lanka, at 45, but was higher than Bangladesh, at 73 [43]. A breakdown of the amounts raised each year over this time period can be found below in figure 5.

Amount (USD) of Investment Raised Each Year - 2015 to 2019

Total Deals = 101

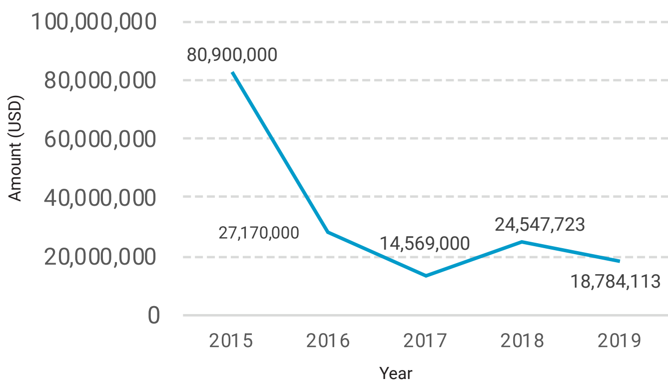


Figure 5. Year-wise distribution of amount (in USD) of investment raised through 101 early stage deals in Pakistan - 2015 to 2019

[39] Data for this deal flow analysis was collected through primary sources (investors, entrepreneurs, etc.) and via secondary sources, such as press releases and articles. In order to gather the most in-depth data and have sources disclose amounts, the authors will honor interviewees' requests to not disclose individual deal specifics. Therefore, this report will provide an aggregate analysis of the funding landscape versus divulging specific investment numbers. The study attempted to triangulate data as much as possible - if, for example, a source claimed a startup raised investment, this analysis attempted to cross-check this information with the investor and startup team in question.

[40] As noted in the Author's Note, this report covers deals up to 29 October 2019 - it therefore does not include the $12 million Series A Round announced by Airlift (led by First Round Capital), or the $1.6 million Seed round by Tello Talk, which was announced on November 3, 2019.

[41] The exact amount raised by 82 companies from 2015 - 2019 was $ 165,970,836. Please note that this only covers data collected until September 2019.

[42] While this data set was fairly extensive, it is not exhaustive and primarily covers financing for digital startups. The data is not extensive enough to include grants from 2015-17.

[43] https://www.globalinnovationindex.org/analysis-indicator

There is seemingly a larger amount of investment raised by companies in 2015 compared to other years, despite the fact that the amount of deals were less (22 compared to 33 deals that occurred in 2018). See figure 6 for year-wise distribution of total deals. This discrepancy is because several companies raised large amounts of financing in 2015 like Daraz.pk (USD $33 million), Zameen ($9 million) and Rozee.pk ($6.5 million). Outside of these investments, the average deal size was smaller.

Number of Deals Made Each Year (Excluding Grants) - 2015 to 2019

Total Deals = 101

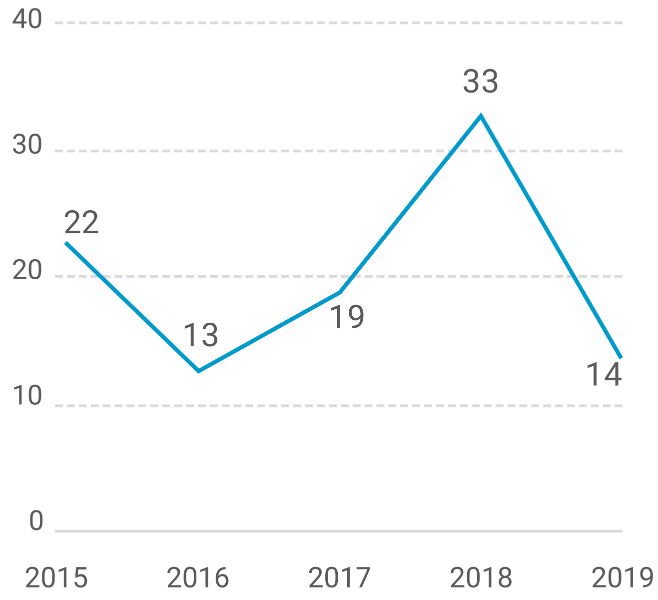


Figure 6. Year-wise Breakdown of 101 deals made by 82 companies in Pakistan - 2015 to 2019

A sector-wise breakdown of total deals made from 2015 to 2019 shows that **21 (i.e. 25%) of the 82 startups that raised funding fell under the e-commerce sector,** which signifies a trend or at least an inclination to invest in companies within this very wide sector (for example, a startup that touches on logistics or last-mile fulfilment is addressing a gap in the e-commerce sector, versus just an e-commerce platform). Other notable sectors in which startups raised funding include those in finance, health, education, and on-demand.

Sector-wise Breakdown of Total Deals Made - 2015 to 2019

Total Companies = 82

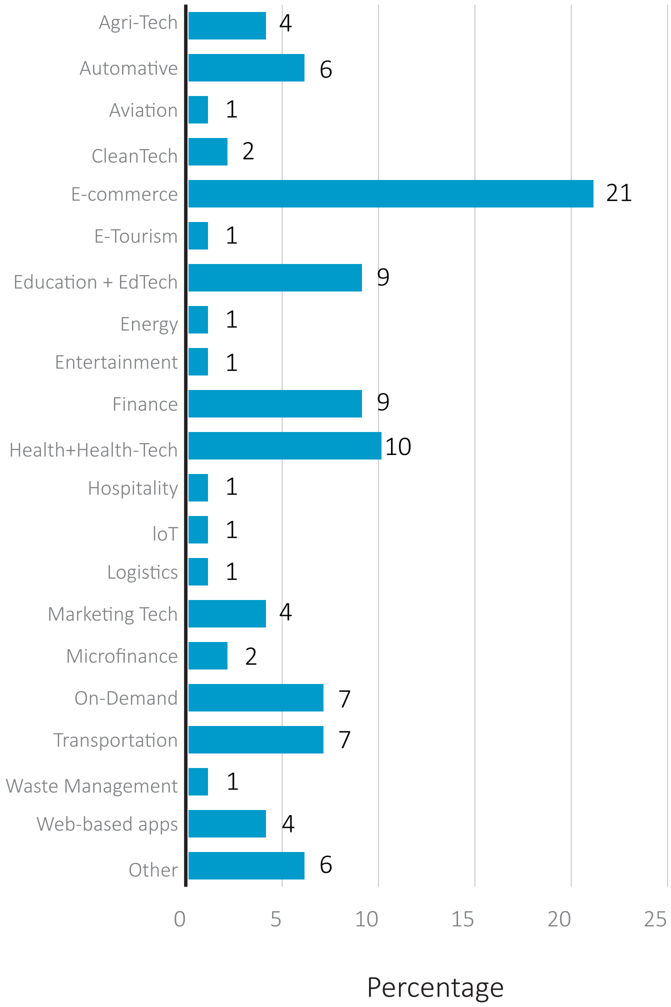


Figure 7. Sector-wise breakdown of total early stage deals made in Pakistan from 2015 to 2019

Moreover, data collected on the type of funding for startups between 2015-19 shows that the most prevalent source have been angel investors (both individuals and syndicates, local and international), which amounted to **60%** in five years and venture capital funds (both local and international), which were responsible for **25%** from 2015-2019. See figure 8. If we were to just look at the **47 deals** that occurred in the past two years, in 2018 and 2019,[44] about **22%** were funded by venture capital funds, while about **44%** were funded by angel investors (either syndicates or individuals). About **29%** (about 17 deals) raised funding via grants or donors, which points to the important role grant and donor funding plays in supporting early-stage companies in the Pakistan ecosystem. See figure 9.[45]

[44] Deal flow data for 82 companies that raised investment (in 2018/2019) was collected through surveys, interviews with investors, and secondary sources such as press articles. As information such as name of investor, type of funding, amount of funding remained undisclosed in case of some countries, complete data presented for each variable might show slight variation. 82 companies raised investment in total, and there was complete data on 52 companies, which was factored into this analysis.

[45] Figure 9 below shows the distribution of different types of funding raised in 2018 and 2019 excluding grants and donor funding. Overall, this study excluded grant and donor funding from deal flow analysis as it can inflate the total investment amount.

Types of Funding Recieved by Startups from 2015-2019

Total Deals (n) = 101

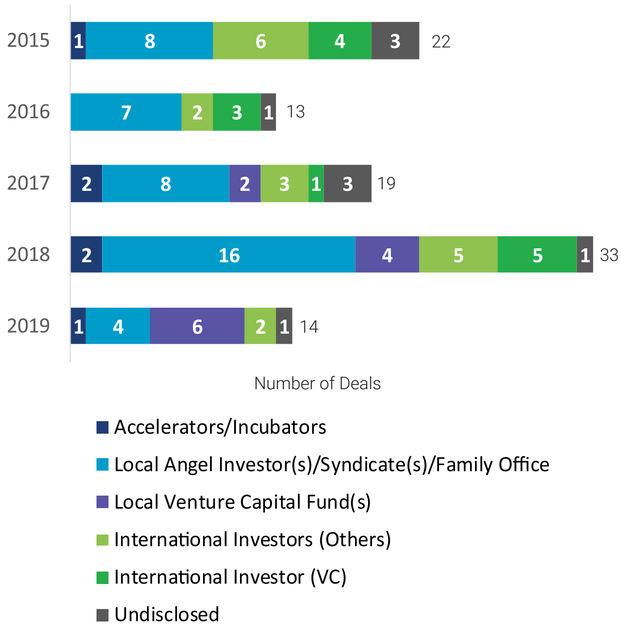


Figure 8. Type of funding received by startups in Pakistan from 2015-2019

Types of Funding Raised by Startups - 2018/2019

Total Companies = 40

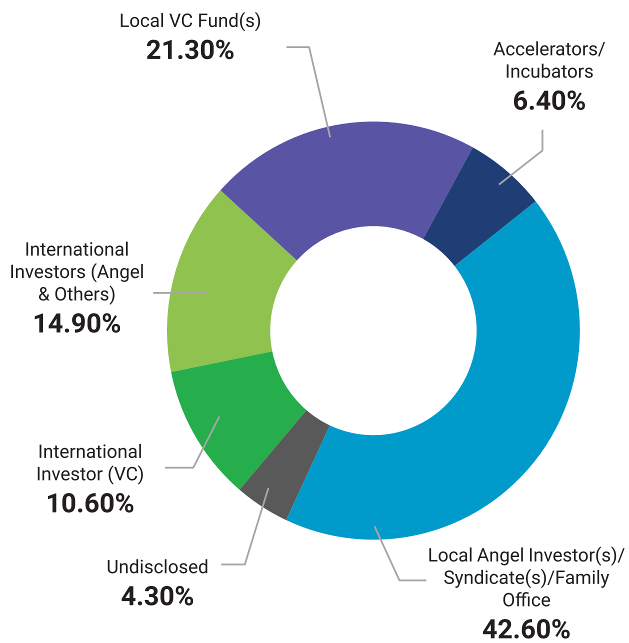


Figure 9. Categorization of type of investment raised by startups in Pakistan in 2018 and2019

Of the 101 deals that occurred between 2015-19, **54%** were seed-stage investments, while **6%** were pre-seed and **11%** were Series A stage. Again, if we were to look only at deals in 2018 and 2019, this trend persists,[46] a further reflection on the current nascency of the Pakistan ecosystem and the volume of startups seeking very early stage capital. Many young founders, especially those with limited financial resources and networks, often can't rely on raising early financing from friends and family, and instead must either bootstrap their startup or seek grants or donor funds. **As a result, the availability of quality angel investors is important, often because they're the first to inject money into a company and act as advisors and mentors to startup founders to help grow their companies and ideally position them for future rounds of financing.** As shown in figure 10, many transactions occurred at seed or pre-seed, and very few startups surveyed raised Series A. See figure 10 & 11.

Stage-wise Breakdown of Funding/ Investment Raised from 2015 - 2019

Total Deals = 101

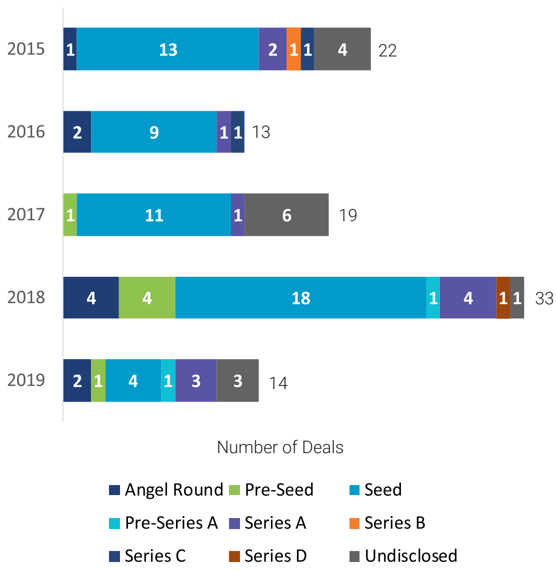


Figure 10. Stage-wise breakdown of 101 deals made in Pakistan from 2015-2019

According to the data collected for this study on 2018 and 2019 investments, **a high number of startups are pre-revenue stage (26%) and early stage with limited revenue (34%).** On the funding side, the 17 investors interviewed for this study showed a greater preference for working with pre-series A startups than any other stage, which is a reflection on deal flow and where

[46] For definitions on terms like seed-stage or angel, please see the **Glossary.**

investors currently see opportunity in the market (there are currently more seed-stage companies than Series A-ready startups). Aside from pre-series A, investors seemed inclined to invest in seed-stage companies. (See figure 12.)

Investors/ Investment Fund's Criteria for Level of Maturity while Investing

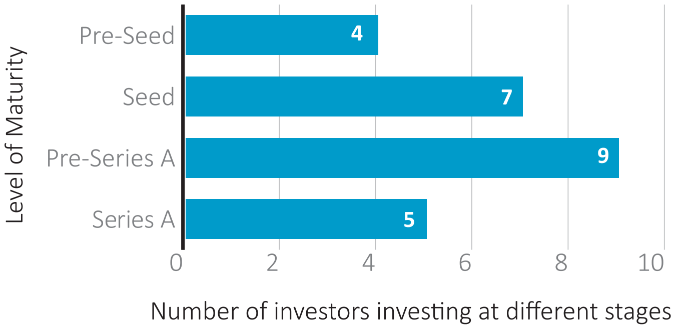


Figure 11. Investors' preferences for level of maturity when investing in business

This does not mean there are not funders who can provide Series A financing (the next subsections will delve further into the actors in the growing angel and VC space), but does reflect on the type of funding startups need at this time.

It is important to note that while many startups may seek or are positioned for very early-stage financing now, those that succeed will go on to require follow-on funding, and the availability of Series A, and eventually Series B financing, will become vital for the future growth of startups in the ecosystem. The need for an increasing number of players investing at later stages is also important when it comes to positioning companies for potential future exits from the Pakistan market.

Stage-wise Distribution of Total Investments Raised in 2018/2019

Total Deals = 47

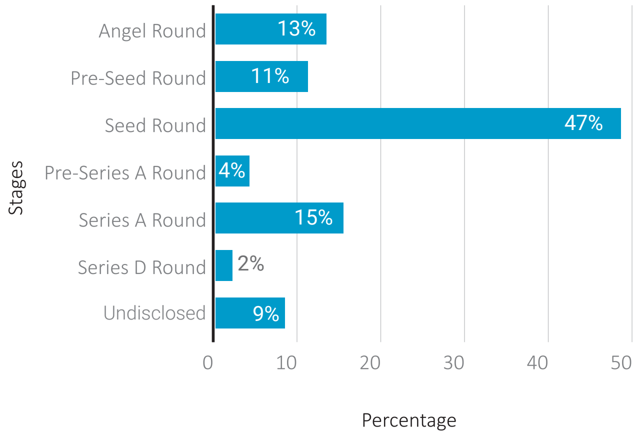


Figure 12. Stage-wise Distribution of Total Investments Raised in 2018/2019

There have been very few exits (either via initial public offering, or mergers and acquisitions), from Pakistan thus far. In 2018, Daraz South Asia, an e-commerce portal, was acquired by Chinese giant Alibaba, and FoodPanda, a food delivery platform, acquired Eatoye in 2015. Aside from these two success stories in the past five years, there has yet to be a major recent exit from the Pakistan market. As a result, it's important to analyze the current capital gaps and deal flow, in order to understand what needs to happen in order for exits to occur in the future.

KEY TAKEAWAYS

- Of the 101 deals that occurred between 2015-19, 54% were seed-stage investments, while 6% were pre-seed and 11% were Series A stage, which is a reflection on the early-stage of the startup ecosystem.
- Startups in the landscape are still mainly raising pre-seed and seed investment - this showcases a need for more quality angel investors and funders at this stage; however, the growing investors at the Series A stage bodes well for the pipeline, especially given that seed-stage companies will ideally raise later rounds and need options.
- There have been only two notable exits, Daraz and EatOye, in the last few years in Pakistan.

2.2.2 THE ROLE OF GRANT CAPITAL

Donor agencies, foundations and grants have played a strong role in the Pakistan startup ecosystem over the past seven years, particularly given that grants are given without an exchange of ownership in a company. **As a result, they are high risk, no-return capital, which can provide support to a company in its early days, allowing founders to grow their idea which can better position them for future investment.** Given that the promotion of entrepreneurship and job creation have been high-priority issues for foreign embassies and many government agencies like USAID and UK AID, there have been a number of efforts and funding pools dedicated to supporting startups in Pakistan, particularly those led by women and youth. As noted earlier, of the 46 deals that occurred between 2018-19, about 29% raised funding via grants or donors, which highlights the importance of grant and donor funding in the Pakistan ecosystem.

Some of these grant efforts include USAID's Small and Medium Enterprise Activity (SMEA), which has launched two and a half years ago, and allocated 30 grants in 2018 alone. Karandaaz, which was set up with support from UK AID and the Gates Foundation to promote access to finance for SMEs, has funded women-led businesses via the Women Entrepreneurship Challenge (WEC) and enterprises working in digital finance inclusion. As discussed earlier, Ignite, under the Pakistan government's IT Ministry, has allocated funding for the launch of NICs across Pakistan, but they also directly fund and support startups and projects that are aligned with the fourth industrial revolution. The Higher Education Commission (HEC), which was highlighted earlier for the launch of ORICs at local universities also recently announced a USD $29 million fund called the Technology Development Fund (TDF), set up to support mostly early-stage high-risk ventures, with a mandatory collaborator from an HEC-recognized university. These efforts and initiatives play an important role in the value chain of a startup, particularly in a challenging funding landscape like Pakistan (which will be discussed later in this report).

2.2.3 THE ROLE OF ANGEL INVESTORS

Angel investors play a significant role in the growth of any startup ecosystem. These investors are typically high-net-worth individuals who invest their own capital and time in startups, often at the pre-seed or seed-stage. Their goal is to make a financial return but also to contribute to the overall development of the ecosystem. Angels understand the higher risk associated with investing in early-stage, and are often the first money in. They not only possess a higher risk tolerance, but also play a strong role in mentoring and guiding their investees. When examining the funding value chain of a startup, angel investors can play a pivotal role early on in a company's life cycle, which can help ready them for funding from institutional investors in the future.

The first notable wave of local angel investors in Pakistan dates back to 2012 and 2013 (though high networth individuals were investing before this time, they were doing it in a less visible and perhaps more ad-hoc way). These individuals began to invest formally and publicly in startups and began to co-invest via clusters and syndicates like DotZero Ventures and with family offices like CresVentures. These two angel groups, based in Karachi and Lahore respectively, made early investments in startups like Travly, Sukoon, and Popinjay, which graduated from local incubators and accelerators like Plan9, the Nest i/o, and i2i. Although investments were a positive signal in the ecosystem, many of these early deals stagnated for various reasons, and there has been a relative slowdown in the collective activity of these early players. This could be a concerning trend, but this first wave of angels still showcase an evolution of the landscape, and many of those associated with the DZV syndicate and similar groups like CresVentures continue to invest on their own and on a deal by deal basis. While profiles of these angels vary across the board, many are self-made entrepreneurs, mainly from the IT sector, mainly with some exposure to more established ecosystems like Silicon Valley or New York City, and some have raised capital themselves before. **These "first wave angels" were ultimately early adopters of Pakistan's nascent startup space, and reflect the type**

of risk profile needed to invest early-stage, when they are often the first money in.

There are also a growing number of local investors who are next generation members of large family businesses, who are excited about engaging in the startup space. An early example of this in the ecosystem is Fatima Ventures, the venture arm of Fatima Group, which has been investing in the startup landscape since 2015 at the angel stage. After making five investments in startups, Fatima Ventures announced a partnership with Gobi Partners in April 2019, a regional venture capital fund based out of China and Southeast Asia with USD $1.2 billion assets under management (AUM). Fatima and Gobi have launched a $20 million fund for early-stage startups in Pakistan and announced their first investment in Airlift with their new fund (a round with co-investors who will be highlighted later). This is a positive signal for the market as a whole, and this development indicates a shift by Fatima away from just angel/seed stage investments to relatively larger rounds in early-stage ventures.

Not all family offices are as formalized as Fatima Ventures, though many new investors could learn from their example and story. Many, like the Elahi Group of Companies and Artistic Ventures, are newer entrants to the market but are operating as seed-stage investors and can play an important role in the early stage capital gap in the market. **In this "second" wave of angels, there continue to be individual investors who fit the previous profile of the first wave, but also include these next generation members of family offices.** These investors mostly indicate a preference for technology or technology-enabled ventures, and this focus on high-growth companies is not unlike the first wave of angel investment in Pakistan, nor is it different from preferences of angel investors globally. There are exceptions, such as Inaara Impact Ventures, a female-led family office which has provided both grants and made investments since launching in 2016, but with a dedicated vision to supporting social enterprises working on ideas addressing the Sustainable Development Goals (SDGs).

CASE STUDY:

ARBISOFT

Arbisoft is a technology services firm that launched 12 years ago in Lahore, Pakistan. Founded by Yasser Bashir, a veteran of the local software industry in Lahore and with previous experience in Silicon Valley, Arbisoft has been listed as one of the fastest growing companies in Pakistan, with clients like Kayak, Stanford University and Edx. It began as an IT services company, which was largely a function of the ecosystem in Pakistan a decade ago, or the lack thereof. Arbisoft didn't seek venture financing because there were no quality investors in the market at the time; instead, the company bootstrapped and built on their success. As Arbisoft grew in revenue and size, the company began to develop its own products in-house, such as education technology apps and a product called Intellistats, which analysed your phone usage, deduced patterns and told you what mobile carrier and plan suited you the most. Over time, Arbisoft also began to invest in other startups like Sastaticket and Cheetay as well as in business ideas built by their own employees. Bashir noted, "Arbisoft is not only an investor, but also an incubator for the people that it houses." The company's focus on cultivating talent and a strong work culture is noteworthy in a market like Pakistan, and the Arbisoft journey is reflective of the evolution of the ecosystem as a whole, an example of an IT services company that started to invest in its own product-building and eventually in other startups as well.

2.2.4 THE EMERGENCE OF THE VENTURE CAPITAL LANDSCAPE

The past two years have seen the emergence of formal venture capital in the Pakistan startup landscape. These players invest between seed-stage to Series A, and, as noted earlier, account for around **30% of the overall funding raised by startups in 2018 and 2019.** At the end of 2018, Sarmayacar, a $30 million venture capital fund, announced their launch, with plans to invest between $100,000 to $2 million in Pakistan technology-enabled startups. In just 2019, they have already announced a seed-stage investment in Dot & Line, an education technology company, and a Series A round in Bykea, a motorbike-hailing company.

CASE STUDY:

BYKEA

Launched in 2016, Bykea is a motorbike-hailing app that has been called the "GO-JEK of Pakistan." Founder Muneeb Mayr was previously a co-founder of Daraz.pk, a Rocket Internet company that was recently acquired by Alibaba. Similar to GO-JEK in Indonesia, Bykea leverages an active network of motorbike owners to transport "people and parcels." The company caters to a lower and middle income segment of the population and incentivizes riders to use their spare seats to give a ride to someone, which should, at the very least, offset their fuel costs. They are the largest driver-based service in the country.

As of April 2019, the company claims to have over 200,000 motorbike riders on its supply side with over 2 million customers across Karachi, Islamabad, and Lahore. Customers can use Bykea's smartphone app in Urdu and voice notes are also leveraged to further facilitate the reach of the company across audiences in the country. In April 2019, Bykea raised $5.7 million in their Series A in a round led by Sarmayacar and investors in Southeast Asia - marking one of the few significant investment raises from institutional funds in Pakistan, a strong signal for the future of the local investment landscape. In August 2019, Middle East Venture Partners (MEVP) also announced a $2 million investment into the startup, its first investment in Pakistan. Bykea's growth, which prepared them for this Series A round, can be attributed to their strong founding team and experience, as well as their focus on product. According to Mayr, "The more money you have, the more aggressively you can go to reach out to more customers." Moreover, he noted, "If you focus on the product, there is no reason you can't raise capital."

2.2.5 GROWTH OF LOCAL FUNDS

The launch of new local funds focused on Pakistan in the past two years like Sarmayacar, i2i Ventures, 47 Ventures, TPL e-Ventures, Fatima Ventures, and Lakson Investments, are all strong indicators of where the VC landscape is moving. These funds all invest at the early-stage, ranging from seed-stage to Series A. The proliferation of the VC landscape is significant as the startup ecosystem also grows, and there are two interesting trends worth noting: first, most funds are sector-agnostic and do not exclusively invest in one particular stage of a company's growth. While most funds do look at technology-enabled ventures, their desire to be more flexible is a reflection on the nascency of the market (with growing quality deal flow). Most funds also recognize the need to diversify their investment approach by investing in different funding rounds - i2i Ventures, for example, invests from seed-stage to growth/Series A. Given that Pakistan is a market with scarce resources, investors may have to inject more money in a company's future and could participate in follow-on rounds of capital. This approach will ideally support the growth of startups in the long-term, and at least ensure more deals make it to Series A financing.

Second, many local VC funds are signaling collaboration in the market by co-investing in deals and sharing due diligence. This will not only allow for startups to diversify their funding pool, it will also mitigate risk for investors at this early stage, particularly since the pie is shared. For a detailed and categorical mapping of key stakeholders in the ecosystem refer to Appendix A.

2.2.6 RISING INTEREST FROM INTERNATIONAL FUNDS

As more international funds look to enter the market, collaborating with local funds who understand the ground realities will be key. International institutional funds Omidyar Network, along with Accion Venture Lab, made an investment in Pakistan in October 2018, a $1.1 million investment in Tez Financial Services, the first fully digital Non-Bank Microfinance Company (NBMFC) in Pakistan. While this was the international funds' first investment in Pakistan, they have signaled their interest in the market with potentially more deals in the future. In November 2018, Chinese VC fund Gobi Partners led a Series A $1.5 million round in Sastaticket.pk, their first investment in a Pakistani startup. As noted earlier, Gobi announced in 2019 a joint $20 million fund with local player Fatima Ventures, and this international-local collaboration will allow startups in the market to grow and scale thanks to Gobi's regional presence. In August 2019, one of the leading regional funds in the Middle East, Dubai-based VC fund Middle East Venture Partners (MEVP), made a $2 million investment in Bykea, as part of their aforementioned Series A round (the largest raised by a Pakistan-based startup). Other international funds, like Sparklabs in Hong Kong, have signaled their interest in the market and plan to make investments in the future, and many plan to do so as co-investments with the growing number of local VC players in the market, or even by leveraging local funds as their venture partners in Pakistan (as opposed to an international fund opening a local office on the ground).

This fact is significant - given the perceived risk associated with Pakistan and the information asymmetry in the market, international-local collaborations will mitigate risk for global players, and ideally reduce cost of due diligence and investment management. As more international funds enter the market and provide founders with more options, this will also continue to push and professionalize the VC landscape in the country.

CASE STUDY:

ZAMEEN

Zameen.com is one of the biggest success stories from the Pakistan market. The company, Pakistan's largest online property portal, was founded in 2006 by brothers Zeeshan and Imran Ali Khan and currently has 15 offices across Pakistan, with headquarters in Lahore, Pakistan. Zameen most recently raised a Series D round of financing of $100 million (which was raised by their parent company, EMPG). The total investment raised by EMPG is $160 million, making it the highest-funded real estate technology company in the region. Although EMPG is based in the Middle East, Zameen is considered a Pakistan-based success. According to Zameen co-founder Imran Ali, one of Zameen's secrets to scaling their business lay in investing in their tele-sales teams and developing systems and tools for better Customer Relationship Management (CRM) as the company grew across Pakistan. According to him, Pakistan has one of the best talent pools across the nine countries their parent company EPMG operates in, though hiring for sales has been tricky. Also, when it comes to developing your own product and systems (Zameen even invested in technology to make the company's use of Salesforce more scalable), finding good software engineers that can handle and solve for complexity was a challenge. The story of Zameen is an important testament to the use of technology in helping companies scale, but also shows the equally important need to invest and foster talent as you grow.

2.2.7 ROLE OF THE PAKISTANI DIASPORA IN FINANCING

There is a large opportunity for the Pakistani Diaspora to play a role in the country's burgeoning startup ecosystem, and a few new entrants have signaled a growing interest in investing in early-stage technology-based companies. Prior to 2018, the Pakistani Diaspora, especially communities in the United States, was mainly engaged in the entrepreneurial ecosystem as mentors and advisors and less as investors. Associations like the Organization of Pakistani Entrepreneurs (OPEN) and The Indus Entrepreneurs (TiE) launched in the United States with active chapters in Silicon Valley and engaged in the local ecosystem via channels like these, supporting business plan competitions like the MIT Enterprise Forum. In 2019, though, Karavan Ventures launched, led by Pakistani investors based in Dubai, and Indus Valley Capital announced an effort to raise a $10 million Pakistan-focused venture capital fund that leveraged the network and expertise of Pakistanis in Silicon Valley.

The new initiative is also dedicated to highlighting the ground realities of the startup space to those outside Pakistan. **They conducted a survey in June 2019 that collected responses from 300 members of the Pakistani Diaspora, in which 22% of respondents indicated an interest in investing in startups in the country,[47] with over 60% noting they visit Pakistan 1-4 times a year.**

This initial interest in the Pakistan startup ecosystem is promising, especially coupled with the fact that, according to the data collected, the Diaspora is very engaged in the country and goes back regularly. Karavan has already invested in 3 startups in Pakistan, announcing a follow-on round in Mauqa Online, an on-demand platform for temporary household help, in August 2019, while Indus Valley Capital led and participated in the $2.2 million seed financing round in Airlift, an app-based pick and drop service based in Lahore, an investment that was also announced in August 2019.

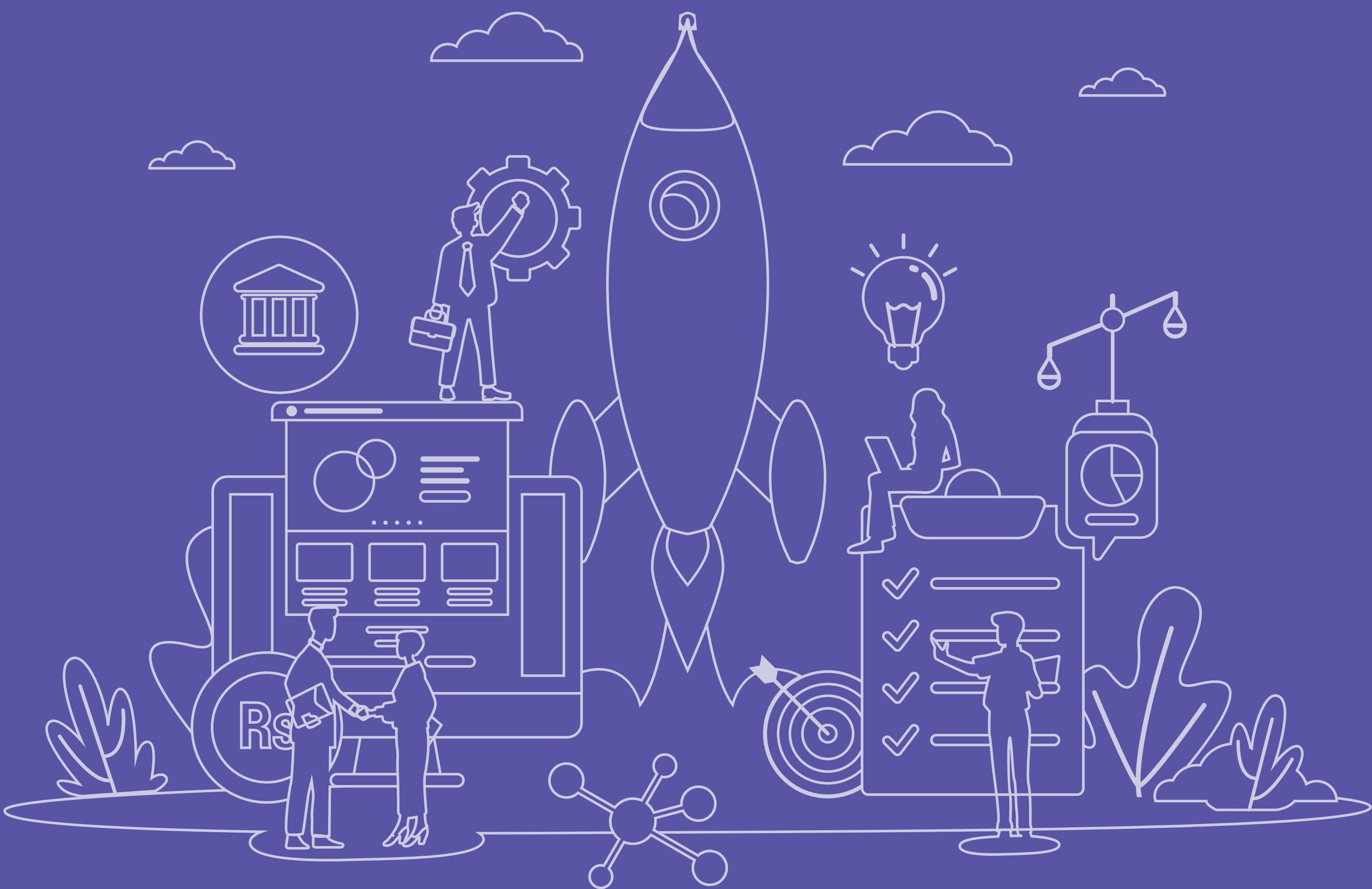
KEY TAKEAWAYS

- Out of the 47 deals that occurred between 2018-19, about 29% raised funding via grants or donors, which highlights their importance in the ecosystem.
- The first wave of local angel investors in Pakistan dates back to 2012 and 2013 when they began to invest formally via clusters, syndicates, and family offices, while the current "second" wave of angels continue to be similar profiles of first wave investors, but also include next generation members of family offices.
- The emergence of formal venture capital in the startup landscape occurred in the past two years. These funds invest between seed-stage to Series A, and account for 30% of the overall funding raised by startups in 2018 and 2019
- Growing number of local VC funds are signalling collaboration in the market by co-investing in deals and sharing due diligence
- Pakistani diaspora has been engaged in the startup ecosystem prior to 2018, but the launch of Karavan Ventures and Indus Valley Capital shows a shift towards also investing into startups

[47] https://www.linkedin.com/pulse/connecting-pakistani-startups-diaspora-aatif-awan/

3

GAPS & CHALLENGES



3

GAPS & CHALLENGES

As outlined in the previous section, the current landscape for startups is growing at a very exciting rate. However, while this activity is significant, a number of gaps and challenges remain. This section will detail these challenges, based on survey responses and interviews conducted with entrepreneurs, investors, and key stakeholders in the Pakistani ecosystem.

3.1 SUPPORT ORGANIZATIONS

While there are a growing number of support players, there can also be more technology hubs and infrastructure to support the innovation economy. Although the number of support players in Pakistan has grown the past seven years, compared to benchmark countries like Nigeria, Malaysia, and India, there is still a much smaller number of technology hubs and labs. (See figure 13) The presence of hubs and labs are vital in supporting innovation and providing the type of infrastructure support and facilities needed to encourage ideation and creativity. **While support programs like incubators and accelerators are significant, the role of tech hubs and labs can play a role earlier in the pipeline; i.e., inculcating young people with the resources and tools to eventually become founders or entrepreneurs.** As noted earlier in this research, KPITB launched Durshals across Khyber Pakhtunkhwa province, which are innovation spaces dedicated for youth. Other notable technology hubs in the country include TechValley in Abbottabad, TechHub Connect by Punjab Information Technology Board (PITB) and the recently launched Facebook Innovation Lab in Lahore (in collaboration with Ignite)[48]. There are also efforts to launch more science and technology parks (STPs) across the country, which would further advance the IT industry. PITB's TechHub Connect, for instance, is focused on offering freelancers a coworking space that connect "a community of teleworkers" versus supporting technology startups. This is important and a reflection of the current demand, given that Pakistan is the fourth fastest growing market for freelancers,[49] according to Payoneer's Global Gig Economy Index. These hubs can not only provide infrastructure and space to young freelancers, it can also offer digital skills and soft skills trainings that could allow some of these freelancers to become entrepreneurs in the future. As these hubs grow, it's important that they expand into Pakistan's tier 2 and tier 3 cities, where infrastructure is lacking and the need is great.

Number of Tech Hubs, Accelerators & Funds in Pakistan and Benchmark Countries

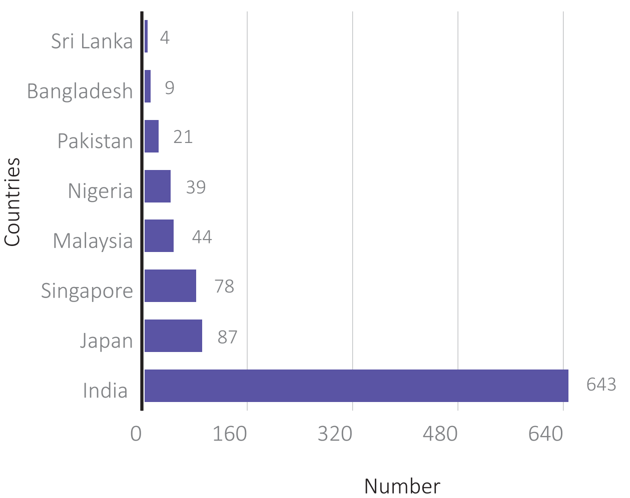


Figure 13. Total number of tech hubs, accelerators, and funds in Pakistan and benchmark countries in 2016
Source: F6S, Afrilabs, Seed DB, GAN

[48] https://www.dawn.com/news/1473655
[49] https://www.forbes.com/sites/elainepofeldt/2019/08/18/the-top-10-fastest-growing-freelance-markets-in-the-world/#7f430ab9733b

Although support organizations in Pakistan provide some essential tools and services (such as business skills development, legal guidance, mentorship, access to investors, etc.) to new businesses, there are gaps in this support. While these services are important elements of starting up a business, there is a need for more tailored and rigorous guidance. In interviews conducted for this study, there was a gap between expectations from entrepreneurs about these programs, who expected more customized support (versus generic sessions or guidance), and what the support organizations felt they provided. Literature also suggests that customized and tailored support for startups can positively impact their growth and survival.[50] **Out of the 10 entrepreneurs interviewed, 9 expressed their dissatisfaction with the services and tools provided by support organizations in dealing with regulatory challenges, and 50% said they received limited or no support or guidance on dealing with regulatory or legal processes.** Entrepreneurs also provided examples of significant setbacks that came from the lack of guidance on matters such as business registration, tax compliance, etc. early on in their journey, which led to unavoidable costs for the startup when they were forced to later fix these issues. Investors interviewed for this study also noted that support organizations were not fully preparing their startups for investment, particularly as it relates to robust financial models and projections and overall investment readiness.

Overall, support organizations need to increase the value they provide startups. The success of support organizations should be measured not on output; i.e., how many startups they have graduated, but on outcome; i.e., how much value they provide to their graduates. While there are a number of private and government-backed entrepreneurship support programs in Pakistan, there are few initiatives that provide tailored support to selected businesses. Only a few incubators and accelerators were named in their efforts to provide deep and tailored services to startups. **According to most stakeholders, especially investors who were interviewed for this study, many incubators are focused too much on the number of startups they graduate versus the increased quality of their companies.** While the NICs, for example, have provided an important breeding ground for startups and have become central to their respective city's startup ecosystems, they are also pushed to graduate a certain number of startups each year (30-40). This exacerbates the aforementioned issue of output over outcome, and ultimately can impact the quality of companies that graduate from programs. Most investors, in the interviews conducted for this study, noted they do not typically rely on sourcing quality deal flow from most programs in Pakistan for this reason. Interestingly, though, entrepreneurs' responses in the survey highlight a slightly different perspective. **Services most frequently rated as "highly useful" consist of free or subsidized office space (39%), access to like-minded entrepreneurs (30%), events and network development (24%), and mentorship (23%).** At the same time, 32% of entrepreneurs (out of 103 respondents) rated mentorship services provided by intermediaries as either moderately useful or not useful at all, which further emphasizes this challenge. Overall, there needs to be more accountability around the value creation of support players, not only for the sake of entrepreneurs receiving those services, but also for investors looking for potential investments and pipeline.

Mentorship services offered and the quality/nature of mentor matchmaking by support organizations has been categorized as suboptimal by different stakeholders in the ecosystem, including investors. This narrative was further reinforced by founders of high-growth startups who expressed their discontent with the mentor matchmaking done by most support organizations. One investor particularly termed this a "shotgun approach," where different approaches are randomly tested out, "hoping that something will stick". There is an overall need for more relevant, high-quality, and industry-specific mentors in Pakistan and globally to be paired with entrepreneurs. At the same time, the findings from this study show that support organizations have also underestimated the significance of investing time and resources in the matchmaking process. To triangulate this data with entrepreneur responses, programs were asked to rate these services as well. The majority of support organizations including incubators, accelerators, coworking spaces and support networks rated most of the aforementioned services as highly useful to entrepreneurs' growth. **This disconnect shows that intermediaries may feel they are doing enough in providing these support services to entrepreneurs, even if investors and entrepreneurs don't agree.** See Figure 14.

[50] https://www.sciencedirect.com/science/article/pii/S0923474816300364

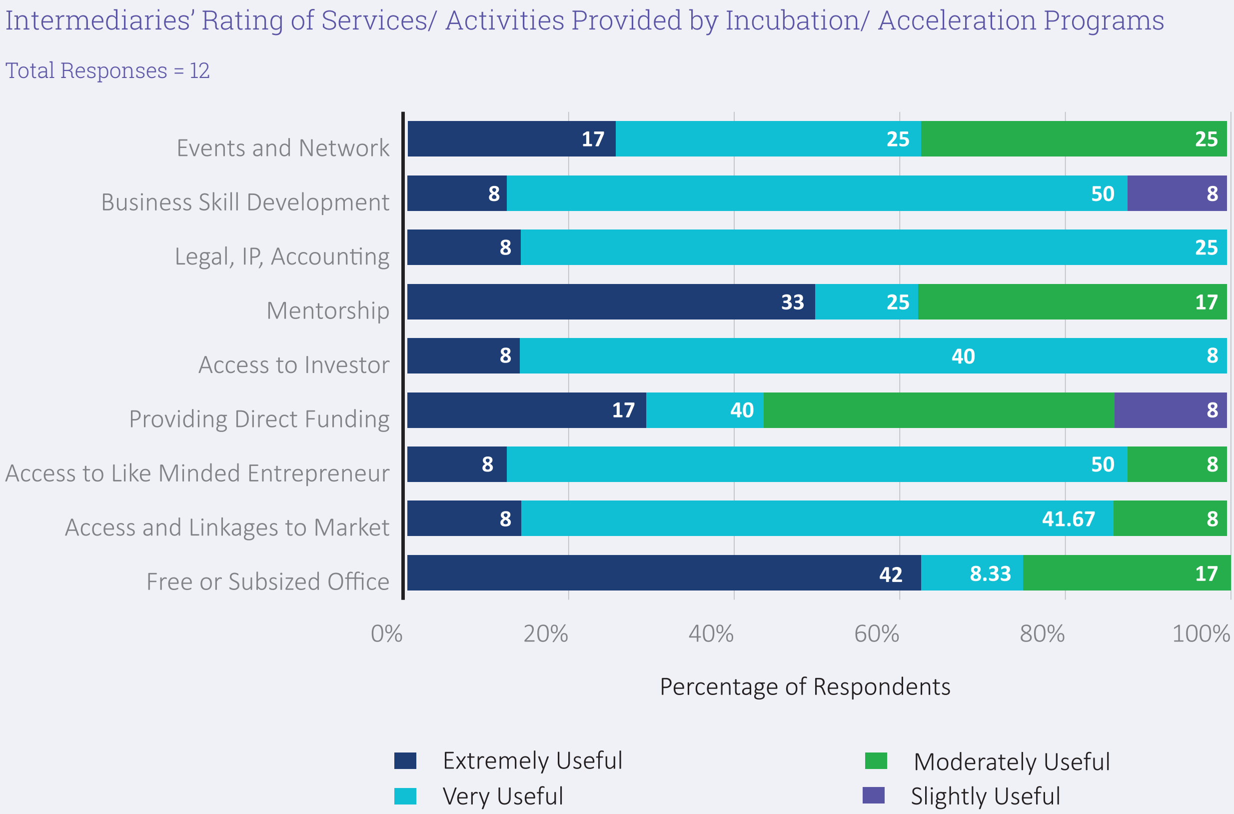


Figure 14. Intermediaries' rating of services/activities provided by incubation and acceleration programs

Most intermediaries in the entrepreneurial ecosystem sustain themselves through grants (local/government and otherwise). Only a few have defined revenue streams to sustain their operations with little or no external support. Out of a sample of 12 intermediaries[51] interviewed for the present study, 59% identified local/ government or international grants as the primary source when it comes to sustaining their operations. For those that do not just rely on grants, they generate revenue from consulting, which in case of this study was 20% of the sample. 13% of the respondents reported that they used participation fee or equity from startups as a method to sustain their operations.[52] **This overall finding shows that there is a scarcity of resources for support organizations and a reliance on grants, which could become an issue in the long-term when it comes to the future sustainability and survival of these initiatives,** particularly if grant and donor funding run out. Although this is a global challenge for incubators and accelerators, it's important to note it is very much a reality in Pakistan. See Figure 15.

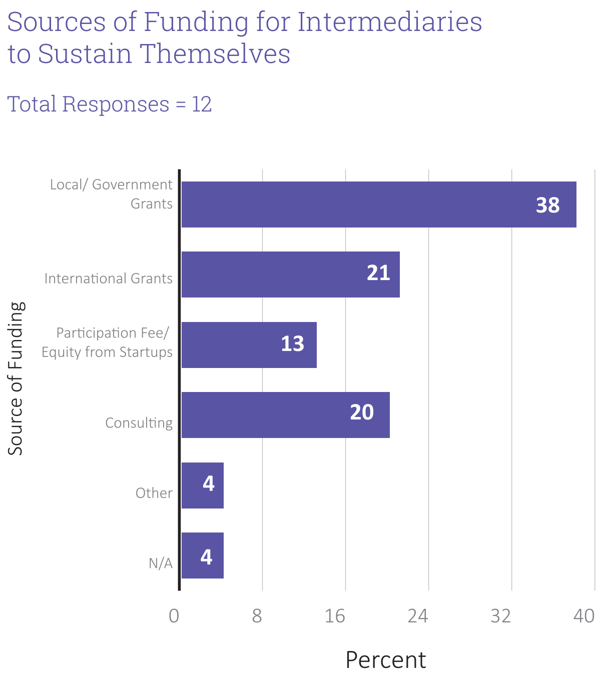


Figure 15. Shows financial resources that help intermediaries sustain themselves

[51] Total sample size for intermediaries was 15, out of which 2 were coworking spaces who responded to a different more customized set of questions. Therefore, responses from only 12 intermediaries that were either incubators or accelerators are included here.
[52] Note: It is important to note here that respondents were allowed to choose more than one answer, which implies that intermediaries who reported sustaining themselves using grants might also be doing consultancy work on the side but overall majority of incubators/accelerators that participated in this study predominantly used grants to sustain their operations.

KEY TAKEAWAYS

- There are a growing number of tech hubs and labs, but there is a need for more infrastructure, as well as expansion of the innovation economy into tier 2 and tier 3 cities
- Support organizations need to provide more tailored and rigorous guidance on business skills development, mentorship, access to investors, tax compliance etc
- These organizations should be evaluated based on outcomes; i.e., the value created for startups, versus outputs; i.e., the number of startups graduated
- There is a scarcity of resources for support organizations and a reliance on grants, which is challenging for their long-term sustainability

3.2 FINANCE

The early-stage capital gap for startups continues to persist in Pakistan. Analyses of the Pakistan entrepreneurial ecosystem in past years highlight an early stage capital gap for startups particularly at the pre-seed and seed-stage level of funding. Despite the increase in deals and finance players over the past five years, this gap continues to persist. The data collected for this study shows there is also a significant gap in follow-on financing for startups; namely, Series A and onwards. This speaks to why new investment funds are investing at different stages and are committed to follow-on financing. At the same time, the number of startups positioned to absorb Series A and beyond is low, which is both a function and a symptom of the current ecosystem; i.e., there has been a scarcity of quality funding sources in the past that has not allowed many startups to scale their companies to a Series A stage, and current deals are still very early-stage. **About 26% of the startups that responded to the survey conducted for this study stated that they are still in a pre-revenue phase, while 34% generated only $0 - $50,000 in aggregate revenue since inception, which highlights the need for angel and pre-seed funding to help these startups at this early stage.** See Figure 16. While the rise of VC funds operating at the Series A level is a positive development, particularly given that startups surveyed may seek that level of investment in 1-2 years time, there is still room for more quality investors at the angel and pre-seed level in order for there to be a smooth capital curve for startups in the future.

The early stage capital gap is one of the most common challenges named by enterprises in Pakistan, particularly given the nascent nature of the ecosystem, where most stakeholders have reported such early stage funding comes as a result of personal connections, i.e. friends and family with enough means to invest in ideation stage businesses without collateral. In the context of this study, the implication is that entrepreneurs who do not come from privileged backgrounds are already at a disadvantage due to limited or no access to capital or networks.

Moreover, when it comes to employing different sources and methods of financing, the ecosystem does not offer small businesses a lot of options. Startups do not have easy access to loans, for instance. The precondition of collateral makes it difficult for such startups to benefit from loans due to limited resources. In cases like these, while other economies rely on solutions such as invoice discounting[53] by finance companies, only a handful of Pakistani banks are using this approach. Even financial institutions that offer invoice discounting need to simplify their processes so startups do not have to wait

[53] Invoice discounting is when a finance company uses a company's unpaid accounts receivable as collateral for giving out a loan. The amount of debt issued by the finance company is less than the total amount of outstanding receivables (typically 80% of all invoices less than 90 days old).

an inordinate amount of time to get access to money when they need it.[54]

Just because there are more funders, doesn't mean they're all effective. Although there seems to be a growing number of angel investors with a higher likelihood of investing in seed stage businesses, the number of businesses at an early stage far exceeds the amount of financial support available. While this is to be expected, given that investors will only invest in high-quality deals (and not every startup will raise funding), there is also a need for higher quality investors. The term 'quality' is key, given that in Pakistan, like other emerging markets at similar stages of development, there have been issues with angel investors wanting to take a disproportionate amount of equity compared to the amount of capital invested. Such an approach may hinder a startup's future growth and chances for follow-on financing (if a startup gives up too much equity at an early-stage of its business, for example, it makes it unattractive for future investors and can also hamper a founder's motivation to grow the company). **Therefore, a higher number of investors in an environment does not always equate to a higher number of quality investors, which is important to address.** Investor education can play a role in mitigating this behavior, but more professionalized investors - like some of the VC funds and more experienced angels in the market - can also lead through example and provide better options for startup founders.

Entrepreneurs, unsurprisingly, perceive the investment raising process as difficult. Of the 101 respondents surveyed (after accounting for missing data), a majority (64%) rated the process of raising investment as difficult and about 20% reported that it was somewhat difficult. This data is interesting given that not every respondent has raised investment, so it also underlines perceptions around the difficulty of the process and the landscape. See figure 16. The difficulty in raising funding can be attributed to many factors, ranging from a shortage of capital at different stages to an unfriendly regulatory environment that heightens risk for investors and acts as a barrier to the growth of startups. The present study also shows that entrepreneurs (27%) believe finding a suitable investor is one of the primary challenges in the investment raising process, a reference to the investor behavior point noted earlier. **Other challenges faced by entrepreneurs in raising investment include developing a scalable business model that would attract investors (16%), and few or no investment options to match the stage the business wanted to raise funding at (14%).** Respondents also named a lack of knowledge around investment raising opportunities (12%) and general regulatory issues (12%) as other major issues when it came to raising investment. For further details refer to Figure 17.

Entrepreneurs' Rating of Investment Raising Process in Pakistan

Total Responses = 96

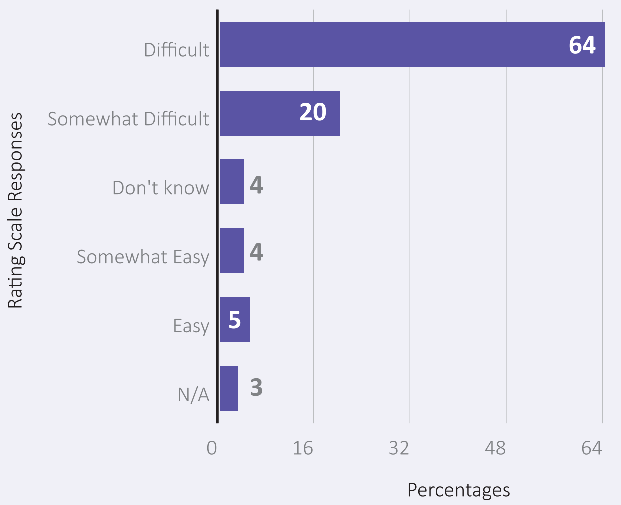


Figure 16. Founders' rating of process of raising investment in Pakistan

Founders' Views on Challenges Faced by Entrepreneurs while Investing in Pakistan

Total Responses = 105

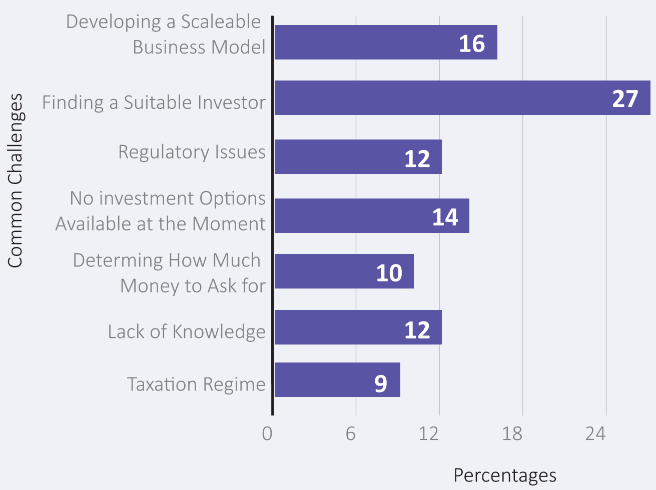


Figure 17. Challenges faced by entrepreneurs while raising investment in Pakistan

[54] https://www.paragonfinancial.net/how-factoring-works/articles-resources/factoring-articles/factoring-invoices-an-excellent-financing-option-for-small-businesses/

KEY TAKEAWAYS

- There is room for more quality angel investors at the pre-seed and seed-level in order to address increasing demand from startups and for there to be a smooth capital curve
- Of the 101 respondents surveyed (after accounting for missing data), a majority (64%) rated the process of raising investment as difficult.
- Other challenges faced by entrepreneurs in raising investment include developing a scalable business model and few or no investment options at the stage the business is raising.

3.3 POLICY & REGULATORY ENVIRONMENT

As much as startup activity has proliferated in the past 7 years in Pakistan, the continuing challenge is the current regulatory environment for startups and investors, which acts as a hindrance to the growth and potential of the space. For perceptions on the policy and regulatory environment, this study analyzed survey results, as well as qualitative interviews with entrepreneurs, investors, and five individuals working in different capacities to influence policy reforms (from lawyers to individuals from entities like the Islamabad Chamber of Commerce to USAID SMEA).

The current policy environment is not favorable for investors. Investors point to unfavorable policies and regulations as a major obstacle for their activities in the Pakistan startup ecosystem (See figure 20). Pakistan's government has created a few initiatives over the years to facilitate investors (particularly foreign) in the country. One of these initiatives includes establishing the Board of Investment (BOI), which is responsible for facilitating contracts between investors and all relevant government agencies. There are incentives available under the Investment Policy 2013 for the ease of entry and other agreements that were introduced to avoid double taxation.[55] Initially, investors had reservations about BOI's effectiveness but have also noted that though it's still far from being an optimal solution, the 2013 policy has been a substantial improvement.

Previously, foreign investors had to at least invest USD $150,000 in Pakistan, a minimum requirement which has now been eliminated. This was a major issue for foreign investors looking to enter the Pakistan market because it required them to commit large sums of money upfront. Without a minimum capital requirement, foreign companies are now faced with potentially one less barrier to entry, though the process to invest and repatriate profits from Pakistan is still opaque and hard to navigate. Many foreign investors, for example, don't necessarily realize that they must apply for a Proceeds Realization Certificate (PRC) before they invest in order to repatriate their profits. Moreover, if an investor is not a Pakistani national, they must obtain approval from the Ministry of Interior, a process that can take several months and requires providing an excessive amount of information. Although this does not delay an investment, (an investor can still become a director or shareholder while this is being processed), if for some reason the approval is rejected, the investor will have to resign as a director or transfer their shares. Investors interviewed for this study perceived this process to be opaque and particularly unfriendly. Overall, the flow of money in and out of Pakistan is cumbersome and opaque, and this is also a reflection on the current macroeconomic environment and declining economy.[56] Locally based VC funds whose funds are domiciled outside of Pakistan have also reported issues and delays with their money not being able to flow easily into Pakistan.

Pakistan's signing of Double Taxation Treaties with 52 countries has helped foreign investors in Pakistan claim tax credits in their own country owing to the fact that they already pay corporate taxes in Pakistan.[57] Similarly, Pakistan was ranked 26 on the 'Protecting Minority Investors' topic of the World Bank's Doing Business Index in 2018.[58] This is a high score and it represents the

[55] https://www.riaabarkergillette.com/pk/wp-content/uploads/2018/01/Pakistan-Country-Focus-RIAA-Barker-Gillette-2017.pdf
[56] https://www.riaabarkergillette.com/pk/wp-content/uploads/2018/01/Pakistan-Country-Focus-RIAA-Barker-Gillette-2017.pdf
[57] https://www.fbr.gov.pk
[58] The release of this report was directly preceded by the Doing Business 2020 report. While this report takes into account Pakistan's overall performance on the 2020 Doing Business scale, it does not do a detailed analysis around the disaggregated scores from 2020 as they were not published during the timeline of this report. Hence, the detailed analysis mostly refers to either 2018 or 2019 Doing Business scores.

strength of minority shareholder protections against any misuse such as corporate assets, shareholder rights, etc. for personal gains. A higher ranking shows better governance safeguards and higher transparency that minimizes the chances of abuse of power. Measures such as these are small steps in encouraging foreign investment into Pakistan.

Local based venture capital funds are not incentivized to domicile their funds inside Pakistan. There is a lot of liquidity in the Pakistani market, a positive for venture capital funds looking to raise money locally. However, the processes to set up and manage a private fund in Pakistan can be costly and arduous.[59] Although the current policy is an improvement on past legislation, which only related to mutual funds, it still falls under Non-Banking Financial Company (NBFC) licensing and trust-based structures and still includes rules similar to those for mutual funds. For instance, getting an NBFC license can take upwards of 8-12 months, which is long and arduous for a VC fund. Also, the rules currently call for the formation of a trust and the appointment of trustees - a requirement that is unnecessary for a structure like a venture capital fund.

Because it is neither efficient nor cost effective for a fund to set up in Pakistan, many new venture capital funds investing in Pakistan opt to domicile their entities outside of the country, where the rules and processes are more friendly. One notable exception is Lakson Investments, which as a large family office and asset management firm had the preexisting influence and money to obtain the local fund license for Pakistan for both their venture capital and private equity funds. It is one of only two funds to do so. Given the current regulatory and macroeconomic environment, it is very difficult for Pakistanis inside the country to transfer money to business bank accounts outside. Therefore, local VC funds domiciled outside of Pakistan are unable to leverage the liquidity inside the country when it comes to fundraising. These funds are then limited to raising from investors outside of Pakistan, which means they are then competing for the same resources. This is not conducive for the overall future growth of the venture capital space in Pakistan, nor is it positive for building a collaborative ecosystem of investors.

It is not easy for entrepreneurs to do business in Pakistan due to the current regulatory environment, but there is general discontent when it comes to taxation. The country is ranked 108 out of 190 countries in the World Bank's Doing Business rankings. This is a 28 point improvement from the past year's ranking, and represents aspects of doing business such as starting a business, dealing with construction permits, registering property, getting electricity, paying taxes and trading across borders that have been reformed substantially. In 2019, the time required to start a business was reduced by three days while time required to register a property was reduced by 13 days.[60] However, issues such as opening a bank account, receiving credit, paying taxes, enforcing contracts, etc. are still identified as areas that need to be refined. (See figure 18)

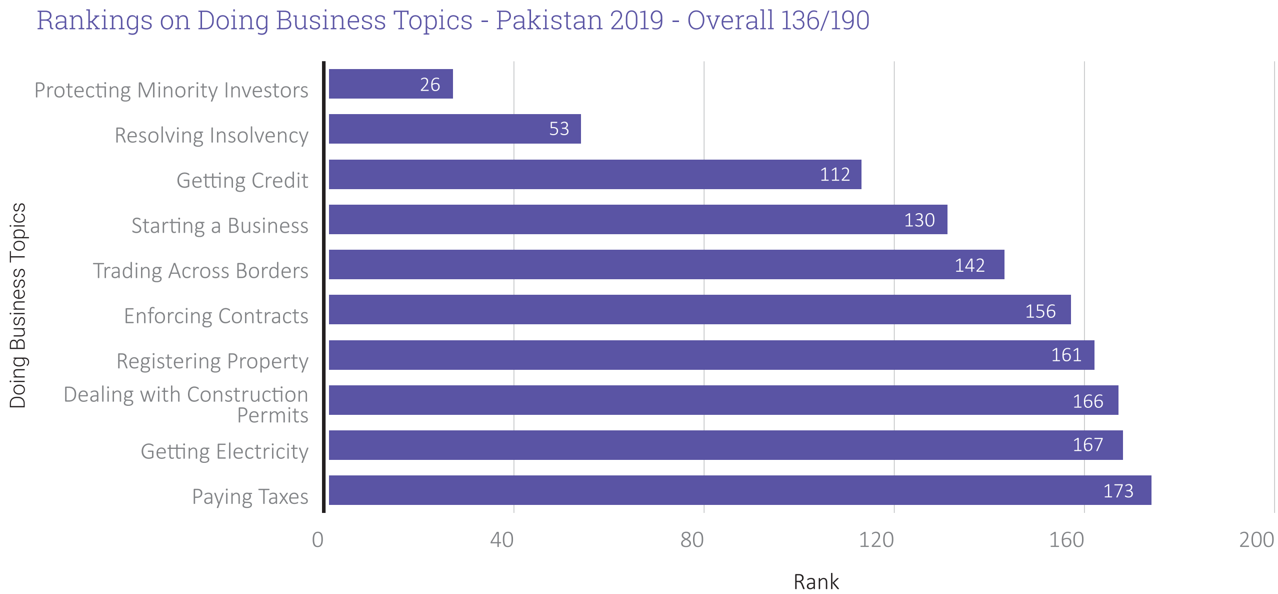


Figure 18. Rankings on Doing Business topics - Pakistan 2019 - Overall 136/190

[59] As per the most updated version of the Private Funds Regulations 2015 document, establishing a Private Fund Management Company (PFMC) in Pakistan incurs the following costs: (1) Application to form a Private Fund Management Company (PKR 500,000), (2) Application for a license to carry out Private Equity & Venture Capital Management Services (USD 750,000), (3) Application for registration of a fund (PKR 1,000,000), (4) Annual fee for Private Fund (PKR 250,000). Moreover, the Private Fund Management Company is required to have a minimum equity of PKR 30 million.

[60] The release of this report was directly preceded by the Doing Business 2020 report. While this report takes into account Pakistan's overall performance on the 2020 Doing Business scale, it does not do a detailed analysis around the disaggregated scores from 2020 as they were not published during the timeline of this report. Hence, the detailed analysis mostly refers to 2019 Doing Business scores.

Before 2017, the government did not have a specific definition for a startup in the Income Tax Ordinance 2001. A startup, according to the Income Tax Ordinance 2001 (amended up until November 3, 2019), is now defined as,

> “(i) a business of a resident individual, Association of Persons (AOP) or a company that commenced on or after the first day of July 2012 and the person is engaged in or intends to offer technology driven products or services to any sector of the economy provided that the person is registered with and duly certified by the Pakistan Software Export Board (PSEB) and has a turnover of less than one hundred million in each of the last five tax years; or (ii) any business of a person or class of persons, subject to the conditions as the Federal Government may, by notification in the official Gazette, specify.” [61]

After recognition of a startup as an entity that offers technology-driven services or products to any sector of the economy in 2017, it was announced that IT startups will be exempt from corporate income taxes after they register with FBR (Federal Board of Revenue) and file their annual tax returns for the first three years of their operation[62]. The government further clarified that this exemption is in relation to the profit made by these startups during the tax year they became certified by the Pakistan Software Export Board (PSEB) and will apply to the following two tax years of their operations.[63] Moreover, the 2019 budget declared that the income tax exemption is applicable until June 30, 2025 for startups. PSEB encourages IT and IT-enabled Services (ITeS) companies that are operating in Pakistan to register with them, which helps determine whether the companies qualify for this exemption.[64] Startups that do not fall within IT or ITeS must still pay an income tax rate of 23% tax on their net profit.[65]

In the past few years, the Pakistan Software Houses Association for IT and ITES (P@SHA), a trade association for the IT sector, has pushed and advocated successfully for measures to support technology-related startups in Pakistan. Based on their advocacy with the government, P@SHA was able to bring the general sales tax (GST) on IT services from 13% to 5% federally, and used this measure to lobby the provincial governments to do the same - KPK brought taxes to 2%, though Sindh and Punjab have kept their rate at 13%. In May 2018, the federal government also announced a six-year extension in the tax holiday for exports of information technology to 2025, a major move to encourage exports.[66] While there is still much to do to address the regulations around taxation, the efforts by P@SHA are still notable, and represent efforts to advocate and lobby on behalf of the entire industry.

For the purpose of this study, which gauged perceptions of the ecosystem, most of the stakeholders (intermediaries, investors, and individuals influencing policy reforms) rated taxes overall as either a major obstacle or a very severe obstacle. 30% of the entrepreneurs surveyed perceived tax rates as a moderate obstacle to running their enterprises. Individuals influencing policy reforms rated tax rates particularly high on the scale, implying that they are either a very severe or major obstacle. Similarly, support players, who work closely with startups and can comment on these regulatory barriers, also consider tax rates to be an impediment for small businesses, with 50% saying it was a major obstacle, and 17% calling it a very severe obstacle. The cumulative rating by all stakeholders shows a general discontent regarding taxes levied on businesses. This perception is important in light of the aforementioned developments to improve the overall tax regime, mainly because this data was collected before the recent tax related amendments took hold. For future research, it would be important to see if and how recent developments have impacted stakeholders' perceptions over time, which could help differentiate if players are generally unhappy about taxes or if it is connected to the previous rates. See Figure 19.

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[61] http://download1.fbr.gov.pk/Docs/2019430124658611IncometaxOrdinanceAmendedupto11-03-2019.pdf
[62] https://www.startup.pk/uncategorized/special-tax-exemptions-announced-for-pakistani-startups/
[63] https://www.startup.pk/2017/11/24/special-tax-exemptions-announced-for-pakistani-startups/
[64] https://www.pseb.org.pk/pseb-programs-3/counselling-center
[65] http://taxsummaries.pwc.com/ID/Pakistan-Corporate-Tax-credits-and-incentives
[66] https://tribune.com.pk/story/1707988/2-prime-minister-extends-tax-break-pakistans-exports-six-years/

Stakeholders' Rating of Taxes as a Possible Obstacle for Enterprises in Pakistan

Total Responses = 122

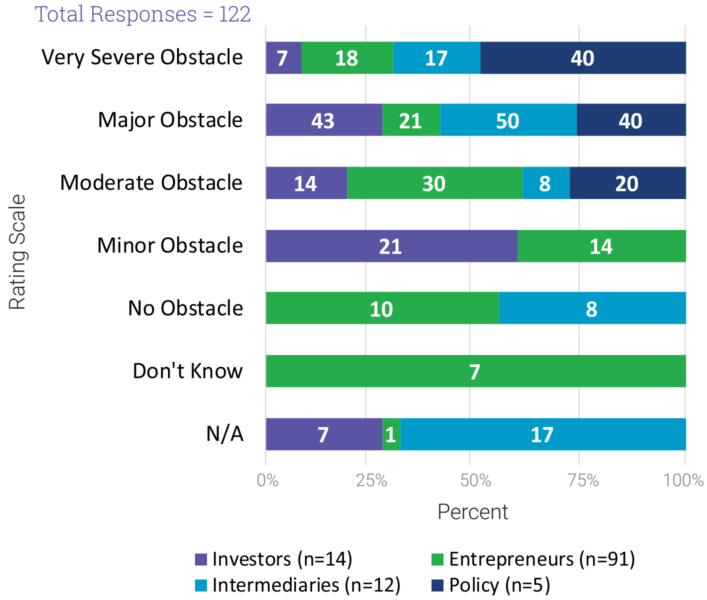


Figure 19. Stakeholders' rating of tax rates as a possible obstacle for enterprises in Pakistan

Pakistan also still does not allow for an efficient taxation process to save time and resources of entrepreneurs and investors involved in the process. Since 2015, the average time to prepare and pay taxes[67] by businesses has gone down from 307 hours to 293 hours per year in 2018[68]. While this reform is an accomplishment, there is still room to further reduce the hours when compared to other benchmark countries. The amount of time dedicated to prepare and pay taxes in Pakistan is less than Bangladesh and Nigeria, while India, Malaysia, and Sri Lanka take a considerably shorter time to complete such processes. In Sri Lanka, it only takes 129 hours to prepare and pay taxes on an annual basis. Refer to figure 20.

Time to Prepare and Pay Taxes (Hours) in 2018 for Pakistan & Benchmark Countries

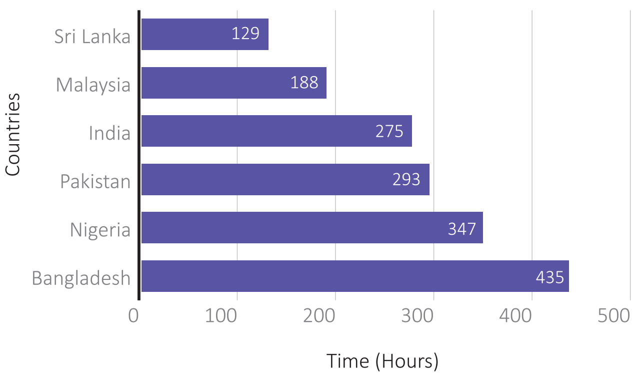


Figure 20. Time to prepare and pay taxes (hours) in Pakistan and other countries in the region [69]

Another important aspect of taxation is the difference among provinces owing to federal taxes and provincial taxes. Each province has its own revenue authority that administers sales tax on services and other provincial duties.[70] Where in reality the recent federal tax exemption for tech startups only meant exemption from taxes at the federal level, many perceived it as an all-encompassing exemption. This exemption (from paying Corporate Income Tax) still meant that startups in different provinces were paying other types of taxes such as (GST, property taxes, Provincial Sales Tax, etc.) and that also at different rates.

Additionally, startups are currently taxed on revenue rather than profits, which creates a common misconception that startups do not qualify for corporate income tax because they are not profitable up until a certain point in their lifecycle. Moreover, filing for GST implies that you have to create monthly tax return reports, which in turn requires hiring a professional - i.e., an added cost for various small businesses that already do not make enough.

There is a major need for the government to not only make the regulatory processes simpler but to also focus on creating a better user experience for entrepreneurs; i.e., a one window solution. Respondents to this study called the current regulatory processes such as paying taxes, compliance in terms of registering with all relevant authorities other than SECP, clarity on changes in regulations, etc. as onerous, time consuming and often unclear. According to studies, governments that efficiently and effectively communicate changes of their legislative system to stakeholders are correlated with better business regulation.[71] This is rarely the case in Pakistan. The regulatory burden is often imposed on young businesses and the compliance costs of such regulations can be expensive. Sometimes, this cost is incurred due to the information gap that exists among entrepreneurs. Founders have expressed their reservations about the opaque nature of the current regulatory environment in Pakistan. Although, the government has introduced a one-window facility for registering a business and getting a National Tax Number (NTN) online,[72] there is still a need for a one window service responsible for providing basic information about the regulatory requirements and processes (such as steps involved in and documentation required for registering a business, taxation system, etc.) as well as for administering these regulatory services. An optimal solution (as suggested by many stakeholders) would be one where all the key regulatory bodies/constituent parts are interconnected and allow for a continuous flow and streamlining of information in real-time.

[67] The World Bank Doing Business report was not specific on what kind of taxes were referenced here.
[68] https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf
[69] https://data.worldbank.org/indicator/IC.TAX.DURS?contextual=region&end=2018&locations=PK&start=2018&view=bar
[70] https://home.kpmg/content/dam/kpmg/xx/pdf/2016/09/country-tax-profile-pakistan.pdf
[71] https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf
[72] https://propakistani.pk/2018/03/15/secp-fbr-launch-one-window-solution-for-company-ntn-registration/

The current government is working to improve on a National Single Window (NSW) strategy that will connect stakeholders in the ecosystem such as businesses, banks, etc. to regulatory bodies using a single information sharing portal.[73] The compliance issues resulting from the absence of a single window system are not just consequential to entrepreneurs but also to investors. A significant number of investors (47%) interviewed for this study pointed to regulations as one of the biggest challenges in the ecosystem.

Additionally, other aspects of starting and running a business such as trademarking are also fairly time-consuming in Pakistan. Trademarking in Pakistan takes roughly a year according to stakeholders, which can be mitigated with the increased digitization of the ecosystem. The reported one window system operational in Pakistan could also include services such as trademarking to ensure faster processing. Other bodies and services that should ideally be incorporated into the one-window system in Pakistan include PSEB, SBP, IPO-Pakistan, and land records authorities such as Registration of Deeds (ROD), just to name a few. The current one-window system, while a step in the right direction, is not sufficient in the longer term in providing an optimal level of support to startups.

CASE STUDY:

CONATURAL

CoNatural International is a fast-growing and highly successful natural beauty company based in Lahore, Pakistan. Co-founded by Myra Qureshi Jahangir and Reema Taseer, CoNatural was launched to create a new standard in the Pakistan beauty industry, developing haircare, skincare and baby products that are vegetarian, non-toxic, gentle, safe and never tested on animals. Conatural products are manufactured and mainly sold in Pakistan, but the company has fast-grown into an export company, selling to customers around the world. Their products are sold online (direct to consumer) but can be increasingly found in kiosks around the country, boasting a strong brand and customer experience. Conatural also launched an unprecedented collaboration with major clothing brand Khaadi in July 2019, a line of beauty products called Khaadi Beauty, which, given the number of Khaadi stores both in Pakistan and internationally, would take the company to the next level.

CoNatural's success points to rising demand from Pakistan's growing and aspirational consumer class. While the company houses its own manufacturing, though, it has faced challenges thanks to the country's current regulatory environment, particularly as it relates to customs duties regulations and State Bank regulations around advanced payments. According to Jahangir, Conatural imports glass jars for one of their products from China, and customs duties were arbitrarily increased from rates like 15% to 25%. Such moves drastically impact a company's margins, and given the current market and price sensitivity, entrepreneurs like Jahangir are hesitant to increase prices, which ultimately impacts their bottom line. As she noted, "It wasn't this [and other] regulation[s] as much as it wasn't properly communicated." The opaque nature of the regulatory environment can debilitate growing businesses.

KEY TAKEAWAYS

- The removal of minimum capital requirement for outside investors is a positive development, but the process to invest in and repatriate profits from Pakistan is still opaque and hard to navigate.
- Many new "local" venture capital funds investing in Pakistan opt to domicile their entities outside of the country due to regulations around private fund licenses. This limits the pool of investors they can fundraise from.
- There is a lack of an efficient taxation process to save time and resources of entrepreneurs and investors.
- The government's work on NSW strategy that will connect stakeholders in the ecosystem in a single information sharing portal could be a positive development, if executed well.

[73] http://finance.gov.pk/A_Roadmap_for_Stability_and_Growth_April_8.pdf

3.4 THE GENDER LENS

The Global Entrepreneurship Monitor (2012) data ranked Pakistan very low on women's entrepreneurship whereby only 1% of women engaged in entrepreneurial activities as opposed to 21% of men (Pakistan was not included in the 2014 Women's Report).[74] Similarly, Pakistan is ranked 148th globally (out of 149 countries) in terms of gender gap in general where sub-indexes include factors such as economic participation and opportunity, educational attainment, health and survival, and political empowerment. See figure 21 for details on Pakistan's ranking in comparison with benchmark countries.[75]

Global Gender Gap Index - Global Rankings (2018)

Source: http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

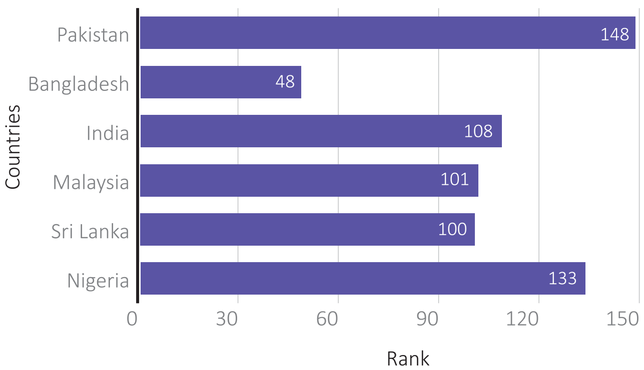


Figure 21. Pakistan's ranking on the Global Gender Gap Index 2018 in comparison with benchmark countries

A closer look at Pakistan's performance on the subindex 'Economic Participation and opportunity shows an equally low ranking of 146 compared to benchmark countries Bangladesh, India, Malaysia, Sri Lanka, and Nigeria. Both qualitative and quantitative data gathered for this study has been congruent with this (See figure 22) . Out of the 105 respondents that participated in the study for this report, 30% were female and 70% were male. Companies that had female co-founders showed a greater tendency to have women in leadership positions (as top managers). See figure 23.

Pakistan's Ranking on Subindex Economic Participation & Opportunity Compared to Benchmark Countries - Global Gender Index (2018)

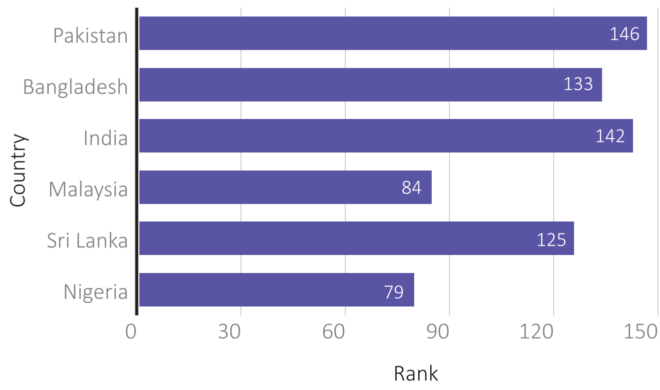


Figure 22. Pakistan's ranking on economic participation and opportunity as it relates to gender gap and its comparison with benchmark countries

Percentage of Female Top Managers in Companies with a Male Founder

Answered:76 Skipped:32

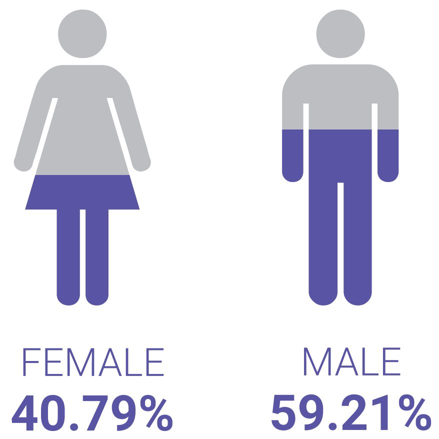


Figure 23. Percentage of female top managers in companies with a male founder or cofounder in Pakistan
Source: Survey conducted for this study

[74] https://www.gemconsortium.org/economy-profiles/pakistan
[75] http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

The Global Gender Gap Index 2018 ranked Pakistan as one of the worst-performing countries where less than 7% of managerial positions are held by women. Yemen, Egypt, and Saudi Arabia were the other 3 countries ranked the same as Pakistan in this respect. Pakistan is also one of the six countries (among Syria, Lebanon, Alegria, Egypt, Saudi Arabia, and Yemen) where the disparity is 90% when it comes to women's likelihood to get managerial positions.[76]

This study explicitly included a large number of start-ups with female founders, so the incidence rates of female managers from the survey is likely not revealing. However, one can look deeper at the gender breakdown of employees; on average each of the firms have 30% female employees and roughly 70% male employees. See figure 25.

Categorization of Respondent Companies by Number of Employees

Total Responses = 96

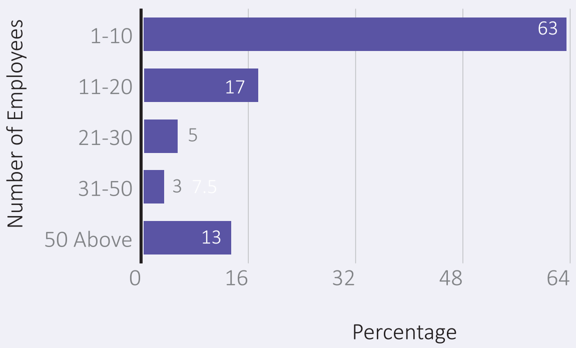


Figure 24. Categorization of Respondent Companies by Number of Employees

Average number of female & male employees in each startup among respondent companies

Total Companies = 99

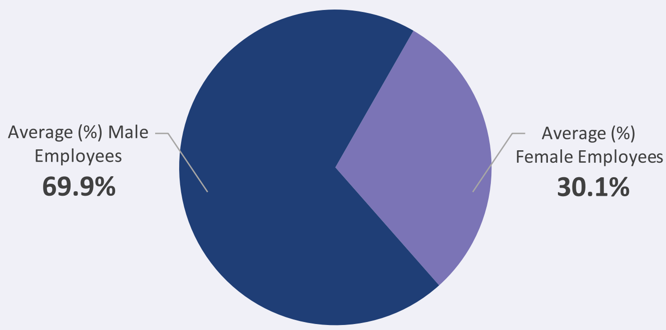


Figure 25. Average number of female and male employees in each startup among respondent companies

3.4.1 GENDER & INVESTMENT

According to the Global Entrepreneurship Monitor, in 2018, 17% of total VC investments globally ($188 billion) were in women-led (at least one female founder) startups. **Out of the total amount raised during these 5 years, which amounts to USD $165 million, only about USD $6 million (3.26%) is attributed to women-led businesses.** An encouraging trend however is women's share in the deals made each year, which seems to be slowly increasing annually based on this study's five year calculation. Similarly, a gender-wise breakdown of startups that raised investment also shows that the gender disparity in this aspect is decreasing slowly. A sector-wise analysis of female-led companies that raised investment in the past two years primarily fell under 9 major sectors. **26% of these businesses were e-commerce-related, while 22% of companies fell under health and health-tech, 16% were education and ed-tech, while 11% were on-demand.** See figure 26.

Number of Female-led Startups that Raised Investment in 2018 & 2019 in Each Sector

Total Companies = 19

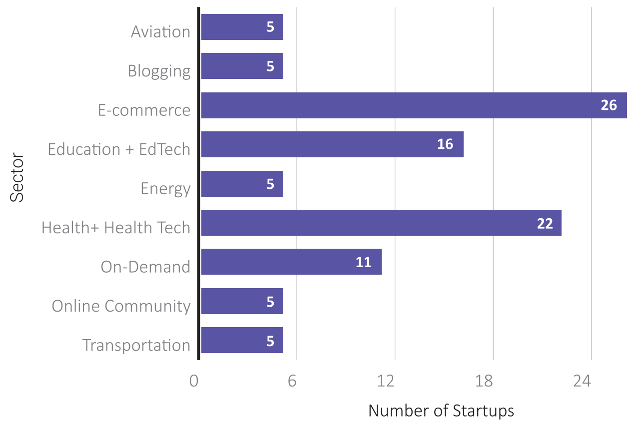


Figure 26. Sector-wise Categorization of female-led startups that raised investment in 2018 & 2019
(Source: Entrepreneurship ecosystem survey used for this study, secondary sources and individual interviews with startups)

[76] http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

Women-led Businesses that had Raised Investment

Respondents = 32

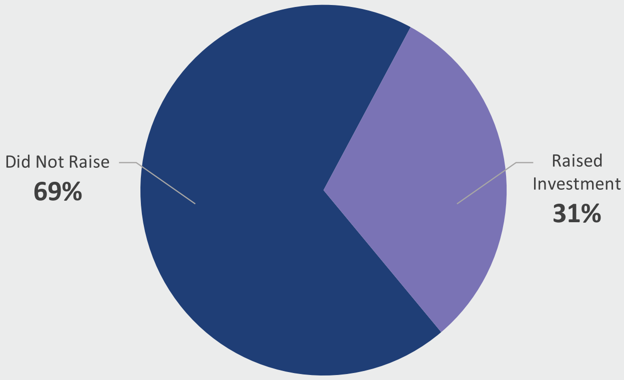


Figure 27. Percentage of women-led businesses that raised funding

Male-led Businesses that had Raised Investment

Respondents = 73

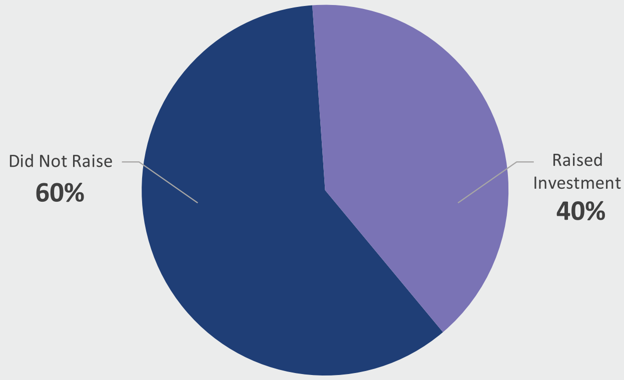


Figure 28. Percentage of male-led businesses that raised funding

Of the 17 investors that were interviewed for this study (many of whom were men), 75% said there was no difference in the quality of companies led by women versus men, though many did emphasize that they would like to review more potential deals led by women. Although investors seem quite unbiased and inclusive when they were asked gender-related questions, it is unclear why this gap still exists, and is worth further discussion and research. **Out of 101 deals that occurred between 2015-19, only 24 were deals into companies led by women; i.e., 24%. 3.26% ($6 million) of the total amount raised from 2015-2019 (which was around $165 million) went to women-led businesses.**[77] See figure 27 for percentage of total investment raised from 2015 to 2019 that is accounted for by women-led businesses. Female entrepreneurs, in interviews for this study, noted examples of gender-related bias in their fundraising processes.

CASE STUDY:

SEHAT KAHANI

Sehat Kahani is a telehealth company co-founded by Sara Khurram and Iffat Zafar (first-time founders and doctors) that leverages two market failures - first, that many qualified female doctors do not practice medicine and second, that more than 50% of Pakistanis don't have access to basic primary healthcare and about 42% don't receive health coverage. The startup uses technology to democratic healthcare, connecting female doctors, who can practice from the comfort of their home, to brick and mortar clinics in underserved communities across Pakistan. Sehat Kahani, meaning "health story," currently has 25 clinics in the country, 1500 doctors and has served over 90,000 patients. Their mobile app, launched in May 2019, allows patients to record their health history, chat or conduct consultations with their network of doctors, and obtain prescriptions for home delivery. The app will allow this startup to further scale their efforts across the country.

Sehat Kahani has raised $583,000 in funding, but just $100,000 of that amount was in investment. This points to the barriers that exist for early-stage companies in Pakistan, which often need to raise award or grant money to plug the early-stage capital gap and allow for them to raise investment later. In her interview, Khurram pointed to the barriers that exist for women raising investment in the Pakistan landscape, emphasizing the genuine mistrust her and her cofounder faced from investors, who doubted their ability to run a technology business or handle money. The team aims to raise their next funding round and scale their app to users across Pakistan.

[77] As pointed out earlier the data on deal flow from 2015 to 2019 did not include grant funding unless pointed out otherwise.

In 2019, there were two notable investments by funds in female founded or co-founded companies in 2019 - Dot & Line (Sarmayacar), and Mauqa.Online (i2i Ventures and Karavan). As noted earlier, investors do like the quality of deals led by women, but overall see less volume of deals by women. In order to improve this number it's also important to improve the overall pipeline of female-led companies, both from the support and funding side. In Pakistan, donor funds and organizations like USAID SMEA and Karandaaz in Pakistan, as well as global organizations are specifically supporting women-led companies through grants and early-stage investment - this type of risk capital is important in helping a female-led company become ready for an institutional round of investment and helps to plug the early stage capital gap indicated by the data collected for this study. **In examining deal flow data from just 2018 and 2019, many female-led companies did raise funding from donor funds and grants (43%), and angel investors both local and international (43%), which amounted to about 86% of the total 21 deals made by women during these 2 years.** See figure 30.

Percentage of Total Investment Raised from 2015 to 2019 Attributed to Women-led Businesses

Total Deals= 101

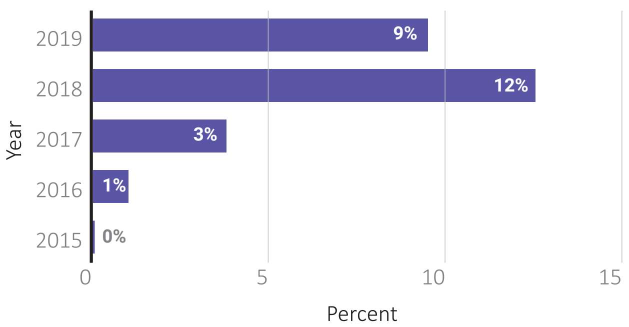


Figure 29. Percentage of total investment raised from 2015 to 2019 attributed to women-led businesses

Type of Funding Recieved by Women-led Businesses

Total Deals by Women-led Companies (2018/19) = 29

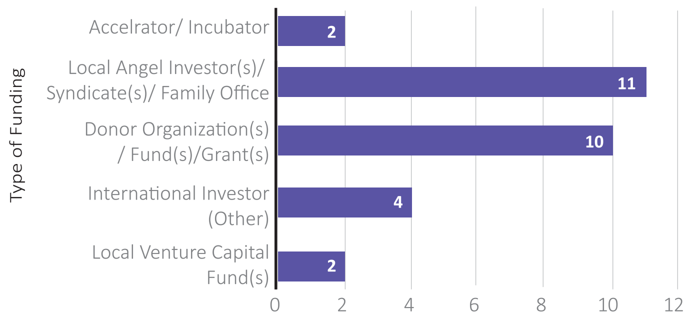


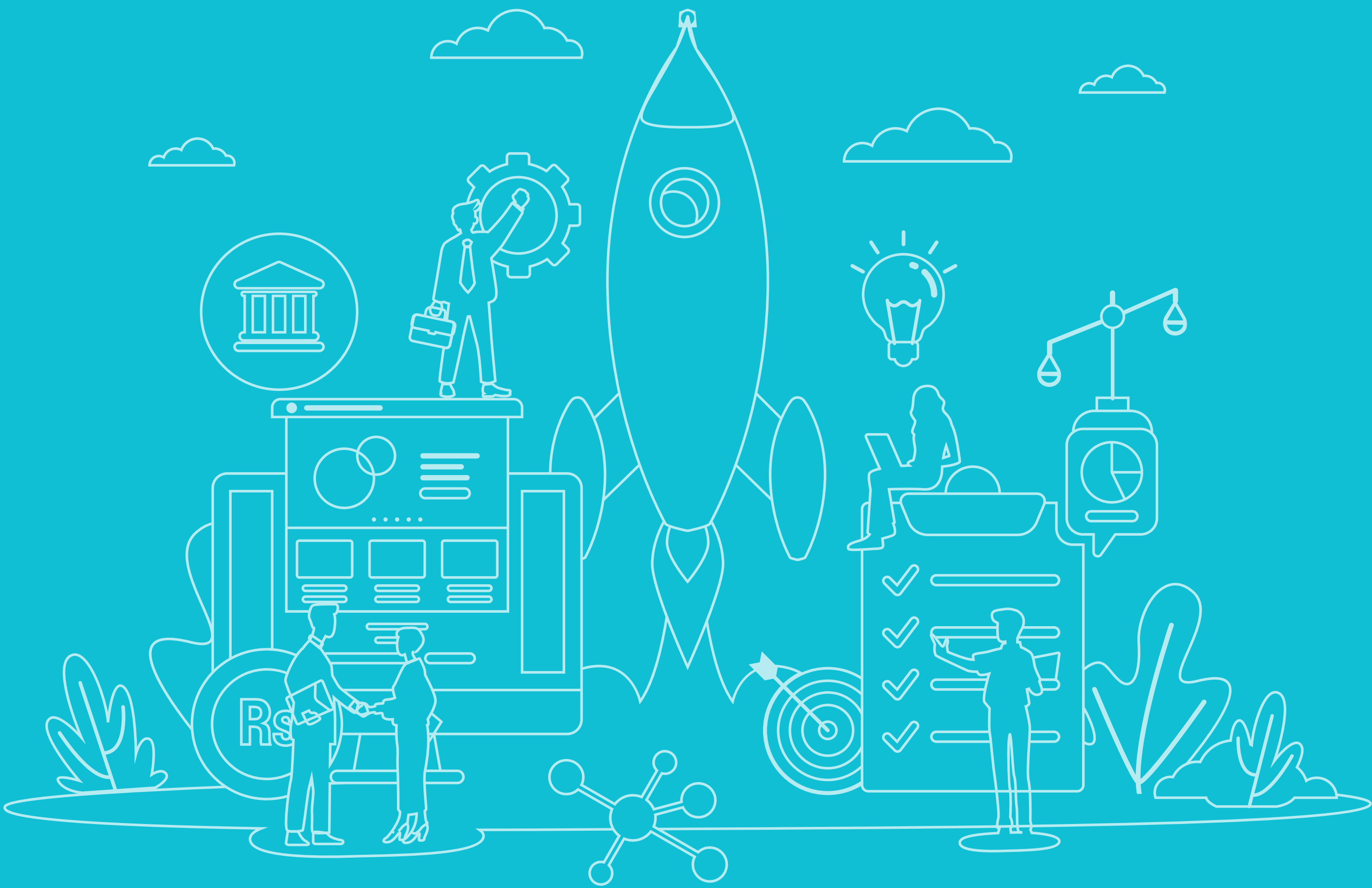
Figure 30. Types of funding raised by female-led Pakistani businesses in 2018 and 2019

KEY TAKEAWAYS

- Pakistan ranks very low on women's entrepreneurship whereby only 1% of women are engaged in entrepreneurial activities as opposed to 21% of men
- The analysis shows that Pakistani startups led by men raise investment more often than their female counterparts, a statistic mirrored globally.
- The type of funding female-led businesses most predominantly raised was angel investment (43%) and grants from development programs and donor organizations that offered funding (43%) (2018-19 figures).

4

RECOMMENDATIONS & WAY FORWARD



4 RECOMMENDATIONS & WAY FORWARD

As has been detailed by this study, the Pakistani digital entrepreneurship ecosystem has experienced significant growth in the past seven years. There are now startup ecosystems growing in every major city - Peshawar, Islamabad, Karachi, and Lahore - and a flurry of events, conferences, meetups and competitions happening on a weekly basis. Beyond just the buzz and the activity, there are significantly more support and finance players, which has also led to an increased number of deals by both local and international funds. This proliferation is exciting, but it is not happening in a vacuum. The current macroeconomic climate and regulatory environment can impose challenges, as has been detailed throughout this report, and will act as a ceiling on this otherwise burgeoning activity. In this next section, this study will lay out potential recommendations on how to improve the startup digital ecosystem in order to further propel Pakistan's innovation economy forward.

Improve the regulatory environment to help startups and investors alike. Pakistan's current ease of doing business ranking (while a significant improvement on 2019's EoDB ranking) showcases the level of difficulty in running a business. Regulatory processes continue to be burdensome, especially for young businesses, which act as a deterrent to startups trying to register their businesses through proper channels. This study highlighted how the current taxation regime is a pressing issue for startups, despite efforts by players like P@SHA to improve tax rates and create breaks for IT startups and technology exports. This could mean that there is still room for improvement, or a future study could gauge if perceptions around taxes have shifted once these changes take hold.

The Pakistan government can also do more to improve the environment for local venture capital funds. For example, it can iterate on the current Private Funds legislation to make it more flexible and cost-effective for venture capital funds to set up inside the country and run their operations more seamlessly. The government can take their cue from other countries like the United States, where venture capital funds are set up as limited liability partnerships (LLPs) and the general partner serves as the entity's fund manager, which makes decisions related to investments and business affairs on behalf of its limited partners. The government can incentivize funds to set up locally by also making the setup process less cumbersome and reduce requirements like having to attain an NBFC license, for example. This will allow for local funds to raise capital from inside Pakistan. Improving overall processes and ease of investing can ideally encourage more funds - local and foreign - to invest in the future, which will in turn introduce more professionalized investors to the market.

Incorporate additional features into the recently introduced one-window facility so that stakeholders can benefit from an all-encompassing service. For startups to avoid red tape and additional costs while running their businesses, an all-encompassing one-window solution would be an essential step in easing this currently cumbersome process. Around 115 economies in the world currently have one-window operations set up, and while these have been successful to varying degrees, on the whole the one-window setup has facilitated business registration in most economies by making the process twice as fast as before. According to the World Bank, 90% of high-income economies have made this transition to paperless systems, in contrast to only 40% of low-income economies.[78] Countries such as New Zealand, Singapore, Canada and Portugal – which have some of the fastest business startup processes – offer electronic registration to their businesses.

While Pakistan's newly introduced one-window facility is designed for registering a business and attaining a national tax number (NTN) more seamlessly than before,

[78] https://www.doingbusiness.org/en/data/exploretopics/starting-a-business/good-practices

there is much more that can be done with a single-window system. Malaysia, for instance, had begun the process for a National Single Window system by the late 1990s, which involved onboarding a homegrown network called 'Dagang Net' and subsequently incorporating it with the Customs Information system. By 1997, the initiative was nationally launched under the name 'SMK-Dagang*Net'.[79] Two of the key features identified as contributing factors to its success were the government championing the intervention and the role of public-private partnership in implementing such a progressive solution. In Pakistan, a one window solution could also fold and simplify some other issues for doing businesses, such as paying taxes, which is also an arduous and opaque process for startups.

Establish funding vehicles that serve to de-risk investment in early-stage startups. In the past two years, Pakistani startups' access to capital has increased significantly, mainly as a result of increased international and local interest via VC funds and angel investors. If the proliferation of deals in the past two years is any indication, the number of deals and players could grow in the future. Nonetheless, despite this momentum, and an increase in funding activity and entrepreneurship support activity in the past five years, **the aggregate amount of early stage funding is still quite low for a country with the population of Pakistan, with 59 deals in 2018-2019 at mostly the pre-seed and seed stage.**

Aside from working on the right regulations for startups, the government could also look into program that could de-risk private sector investment in early stage start-ups, such as developing co-investment funds that invest alongside private investors in start-ups and earl-ystage firms. Such co-investment funds can play an important role in limiting exposure by private investors in deals, allowing them to utilize their capital along a larger set of start-ups. Additionally, for companies at the seed/pre-seed levels (where funding requirements are typically less than USD $100K), co-investment can be in the form of grants that further enable de-risking for investors, whereas co-investment funding for larger sized deals could be alongside investors.

The guiding principle for government participation would be to crowd in more private sector investors to kick start investments into Pakistani start-ups. The government can also play a role at the fund of funds level, similar to what is done internationally. In particular, governments in OECD countries have established funds of funds that serve as anchor investors in new VC funds established by fund managers. For emerging and frontier markets, there have been international and bilateral efforts such as by the International Finance Corporation (IFC), Inter-American Development Bank (IDB) - the Dutch Good Growth Fund (DGGF), that have established fund of funds programs to strengthen the VC eco-systems. More recent examples in the emerging markets come from the Middle East and North Africa where governments have established VC funds of funds. Learning from these experiences, the Pakistan government could establish a fund of funds for local venture capital funds in the market, which could not only help mitigate fundraising issues for fund managers, but could also create incentives for funds to domicile their entities in Pakistan.

Develop education and resources to support first-time angel investors. While there are a growing number of angel investors in the landscape, the increased quantity of players doesn't always correlate to quality investors. As noted in this report, there is a need for more players to continue plugging the pre-seed and seed-stage gap, a stage that is ideal for angels, who take on risk earlier in a company's life cycle and provide needed mentorship and guidance to prepare a founder for later rounds of financing. In order to improve the quality of

[79] https://www.unescap.org/sites/default/files/brief4.pdf

angels, particularly first-time investors, angel investor education can help to professionalize this landscape and equip these players with the right tools to be better partners with the entrepreneurs they invest in. Pakistan can leverage angel investor education efforts in other nascent entrepreneurial ecosystems, like the Caribbean and in countries in the Middle East, and adapt such resources to fit the local context. Respected angel investors in Pakistan as well as the Pakistan Diaspora can also be invited to co-create such resources, in order to foster buy-in from the local ecosystem.

Foster future international-local collaborations among venture funds. As noted in this report, the Fatima-Gobi $20 million fund is a positive example of international funds partnering with local players - not only because local funds can provide much needed local knowledge and networks for international partners, thereby encouraging more global entrants into the Pakistan market, but also because international funds can provide access to global networks and a path for future financing and even potential exits for local startups. Not all collaborations have to be joint funds like Fatima-Gobi - Wamda Capital, based in Dubai, works with local “venture partners” in markets where they don’t have a deep local presence. These types of partnerships can also serve to further professionalize the investment landscape in the market, and provide founders with more access to capital.

Improve the overall quality of support players via more tailored curriculum, mentor matching, and expertise. In interviews with stakeholders, the need to customize and tailor curriculum to support startups was raised repeatedly. Most entrepreneurs who underwent incubation at either public or private incubators felt the focus was on providing similar advice and mentorship across the same cohort, a sort of ‘cookie-cutter approach,’ which didn’t provide as much value as they expected. There is also a need to connect more industry-specific mentors with incubated startups.

While it is important to take into account international practices and strategies for startup development, Pakistani incubators and accelerators need to customize their curriculum, keeping local realities in mind. At present most intermediaries are general purpose and industry-agnostic, though most intermediaries do look for startups with a technology component. Industry-specific incubators and accelerators – perhaps from the fastest growing industries in Pakistan, such as agriculture, energy, education – as well as corporate accelerators (independent of universities and governments) could not only pave the way for the inclusion of more diverse startups, but also provide relevant resources and mentorship for newer businesses.

Vertical incubators and accelerators have found some success in other parts of the world. SOSV - a global venture capital firm - invests in about 150 companies every year through its vertical accelerator program. Accelerators narrowly focus on a particular domain, such as foodtech, agtec, energy, and hardware, among others. For instance, foodtech accelerators are spread across the world, from China’s Bits x Bites to Italy’s FoodHatch, USA’s Food-X to Germany’s METRO Techstars. The case for vertical accelerators has tended to heavily focus on the availability of industry-specific investors and mentors. An accelerator’s depth of knowledge with regards to its specific industry allows startups the possibility to explore the space from various perspectives[80].

Continue to close the gender gap in finance. As noted in this report, there is a gender gap when it comes to female-led companies raising venture funding, a trend that is echoed globally. According to 2018-19 deal flow figures, of the funding raised by female-led companies, 63% was via angel investment, and 25% was from development programs (donors/grants). At the same time, of the 17 investors interviewed for this study, 75% noted there was no difference in the quality of companies led by women versus those run by men. Many did note that they would like to review more deals led by women, though. This gap is interesting and while there may be deeper conversations around implicit and gender bias in deal sourcing, there is also a need to increase the overall funnel of women-led companies, whether by encouraging incubators and accelerators to actively seek more female founders for their programs or providing more hands-on support to women-led companies at the early-stage and improving their access to investors operating post-seed stage.

[80] https://www.inc.com/rhett-power/the-case-for-joining-an-industry-specific-accelerator.html

KEY TAKEAWAYS

- The government needs to continue to improve the business environment, such as those areas covered by Doing Business, to make doing business less cumbersome for investors and startups. Improving fund legislation and compliance, as well as registration and compliance for start-ups is key.
- Pakistan's government can play a strong role in providing high-risk no-return capital to startups to reduce the pre-seed and early-stage gap and mitigate risk for investors, to help crowd in private sector investors
- Support players need to customize their curriculum keeping local realities in mind and focus on industry-specific mentor matching
- A one-window operation for startups to register their businesses and consolidate compliance requirements could avoid delays and additional costs

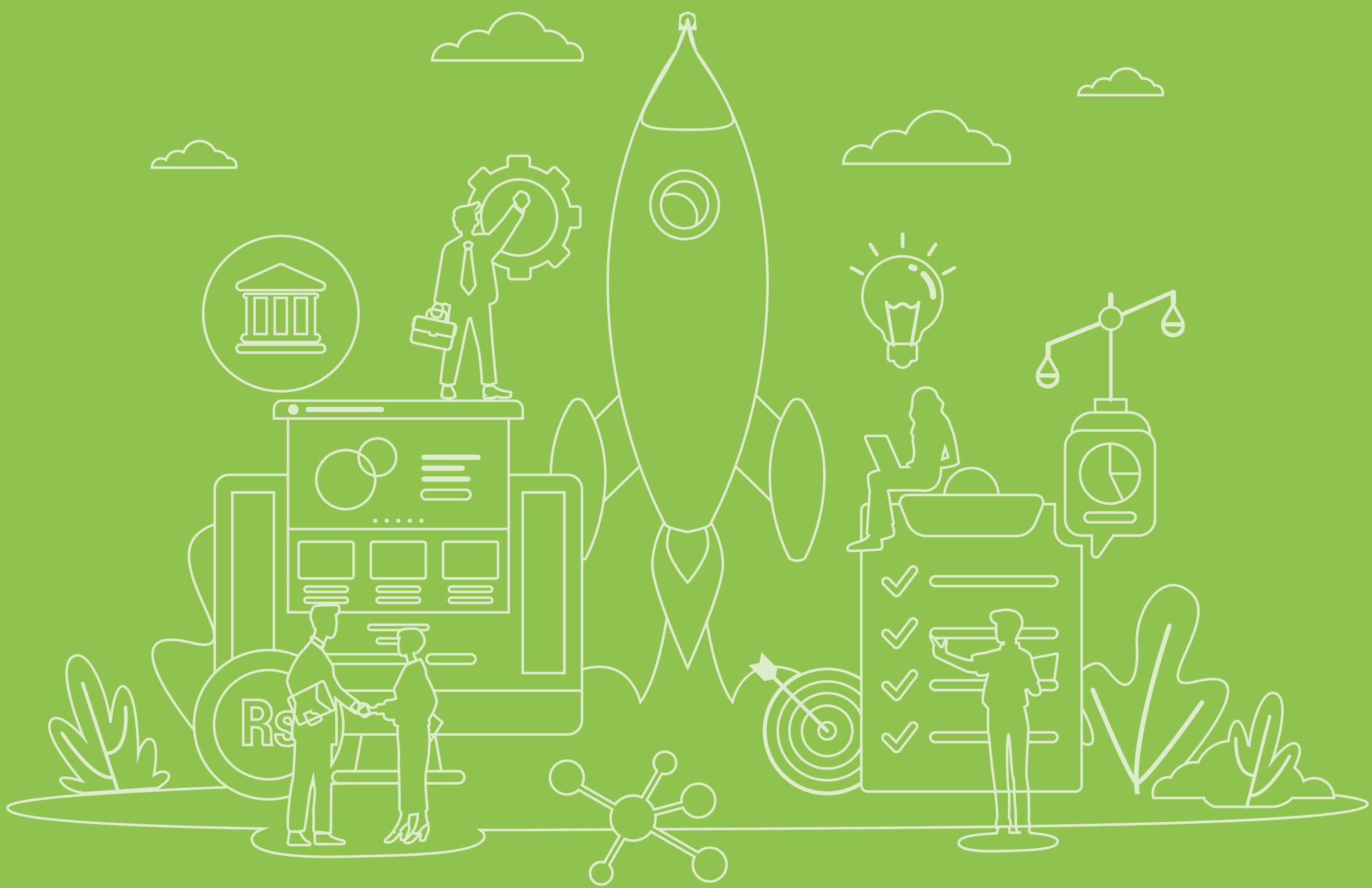
CONCLUSION

Despite the challenges and gaps identified above, Pakistan has made considerable progress in providing opportunities to support the growth of digital entrepreneurship in the country. This type of support has resulted in a clear rise in the number of people (specifically the younger technology-enabled Pakistanis) engaging in digital entrepreneurial activities and in the proliferation of players in the funding and support space in the country. In order to sustain this momentum, targeted efforts that address the specific challenges identified throughout this report are needed. Designing solutions to and addressing regulatory challenges faced by local and foreign investors is key; and the government can play a role in mitigating risk associated with investing in early-stage startups. The government must also continue to improve the overall environment for doing business in Pakistan - whether that involves making changes in the current tax regime, iterating the current legislation around local fund registration and licensing, or addressing the issue of payments and the flow of money in and out of Pakistan.

The growth of the Pakistan digital startup ecosystem in the past seven years has been truly exciting. But it's also important to look at this ecosystem with a critical eye in order to progress in the future. If the Pakistan government and key stakeholders work to address these overarching gaps and challenges, it will not only allow for startups and businesses to truly succeed in the country; it will also result in job creation and future economic growth, and raise the visibility of Pakistan in a positive way globally.

5

GLOSSARY



5

GLOSSARY

Angel Investor: An angel investor is usually a high net worth individual who provides financial backing for small startups or entrepreneurs.

Angel Round: Angel round is usually part of the seed round funding. In the context of Pakistan, it is particularly smaller amounts of funding that comes from high net worth individuals.

Angel Syndicate: Angels who share a vision or a common goal may sometimes come together to pool their financial resources into a fund and co-invest based on a shared philosophy.

Benchmarking: a way of determining how well a business unit or organisation is performing compared with other units elsewhere.

Branchless Banking: It is the mode of rendering financial services through distribution network without having conventional branch brick and mortar set up.

Cluster: Refers to a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field.

Co-working Space: Coworking is a business services provision model that involves individuals working independently or collaboratively in a shared office space.

Corporate Venture Capital: Corporate venture capital is when corporate funding is directly invested in external startups in return for equity. The major difference between the typical venture capital funds and corporate VCs is that the former is more focused on financial returns while the latter may also involve strategic gains from such deals.

Credit Loss Subsidy: (Credit Subsidy) The estimated long-term cost to the federal government of a direct loan or loan guarantee.

Development & Launch: The period just after a company has launched and is working on their proof of concept.

Disinvestment Returns: Disinvestment is the action of an organization or government selling or liquidating an asset or subsidiary.

Dividends: Refers to the sum of money paid regularly (typically annually) by a company to its shareholders out of its profits (or reserves).

Donor Fund: Capital that's provided to startups by donor agencies. It allows donors to make a charitable contribution, receive an immediate tax deduction and then recommend grants from the fund over time (NP Trust).

Donor Organization: Organizations that provide grants to other organizations or individuals for work that aligns with the donor organizations mandate. Examples of some donor organizations in Pakistan are American Red Crescent, United States Agency for International Development (USAID), Aga Khan Development Network (AKDN), World Health Organization (WHO), etc.

Pre-Seed Capital: Capital that comes in at the earliest stage of funding a company. Also known as "pre-seed", the capital ensures that the company is able to gets its operations off the ground.

Early-Stage: A company at this stage should have begun to generate revenue and regularly taking on new customers.

Entrepreneurial Ecosystem: is a product of the surrounding environment, in particular business environment, key actors, investment climate, and the evolving culture and attitudes.

Factor-driven Economy: is the least developed. It is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on (unskilled) labour and natural resources.

Family Investment Office: Family investment offices are private wealth management firms for high net worth families who are interested in investing. In other ecosystems, it's been seen that such firms can be completely outsourced but in case of Pakistan most family investment offices are managed by the investing family itself.

Fifth Generation Technologies: Advanced and innovative technology that usually includes artificial intelligence. 5G technology including camera, MP3 recording, video player, large phone memory, dialing speed, audio player and much more.

Financial Inclusion Services: Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way. (World Bank)

Frontier Market: Capital markets located in developing countries that are less advanced. In countries where investable stock markets are not as established as those located in emerging markets.

Gender Parity: is a statistical measure that provides a numerical value of female-to-male or girl-to-boy ratio for indicators such as income or education.

Grant: It refers to a sum of money offered to a startup or company to assist them with their growth and work without any expectation of return of the principal amount funded

Growth & Expansion: A stage where a business can capitalize on its stability by broadening its horizons with expanded offerings and entry into new geographies.

High-growth Company: Although growth cannot be quantified with accuracy, companies that perform better (i.e. has higher revenue, customer acquisition, greater sales, etc.) or those who foreseeably will perform better than their respective industry/market in general are categorized as high growth companies.

Ideation: A simple product idea with the minimum features needed to satisfy a demand from a group of users/clients.

Innovation: The economic application of a new idea. Product innovation involves a new or modified product; process innovation involves a new or modified way of making a product. Innovation sometimes consists of a new or modified method of business organization (Oxford Reference).

Investment Funds: A pool of capital sourced from multiple investors used to collectively purchase securities while each investor retains ownership and control of their own shares.[81]

Islamic Finance: Islamic finance refers to the means by which corporations in the Muslim world, including banks and other lending institutions, raise capital in accordance with Sharia, or Islamic law. (Investopedia)

[81] https://www.investopedia.com/terms/i/investment-fund.asp

Mark-up: The excess of the selling price of a product over the cost of making or buying it. The mark-up on any product has to cover the overhead costs of the firm, as well as provide a profit margin. (Oxford Reference)

Maturity and Possible Exit: After successfully navigating the expansion stage a business is now making stable profits and/or may opt for an exit through acquisition

Mutual Fund: It is a type of financial vehicle made up of a pool of money collected from many investors to invest in securities such as stocks, bonds, money market instruments, and other assets.

Pre-revenue Phase (of a business): Pre-revenue phase business is a business that has not generated sales/ revenue as yet.

Pre-Seed Round: Funding at this stage/round is to maximize the future funding opportunities for a startup by financing early stage product development. It is an opportunity for the recipients of such funding to test their idea by developing beyond just a prototype. Pre-seed funding usually comes from friends and family.

Pre-series A Round: Funding that is typically categorized as mid-round and falls between seed round and series A round is often called Pre-Series A. In case of some countries where the series A bar is set too high pre-series A round is a good way of bridging that gap.

Private Equity: Refers to capital or shares of ownership that are not publicly traded or listed. For this reason, private equity is established through private equity firms or funds.

Return on Investment (or investment returns): Return on investment (RoI) is a measure of the efficiency of a single investment or multiple investments against each other. Return on investment is calculated by measuring the investment's cost against its benefit.

Scalable Business Model: A model that sees increasing returns as it invests more in capital, labor and services. Revenues in a scalable business rapidly outpace expenses.

Seed Round Funding: Refers to the period just after a company has launched and is working on proof of concept of their product or service for early adopters.

Series A: Companies with a consistent track record of high revenues are usually the ones who opt for and meet the criteria for this kind of funding. Series A round funding is often used by startups to optimize their user base and product offerings.

Series B: Companies that have received series A funding have already established a considerable user base and are now ready to operate on a larger scale. Series B funding helps companies move past the development stage by expanding their market reach. Hence, startups that receive series B funding tend to use the money to grow the company to meet the respective demands.

Series C: Series C funding is used by startups to expand their product line, reach into new markets, etc. Since, companies at this stage of funding are quite successful, investors are looking to double their returns by investing in such high growth companies.

Series D: Series D funding is raised when a startup sees a new opportunity to expand in the market before making an Initial Public Offering (IPO) and they require a final boost to get there. It often helps the startup increase their value.

Social Entrepreneurship: Social entrepreneurship is an approach by start-up companies and entrepreneurs, in which they develop, fund and implement solutions to social, cultural, or environmental issues. All social enterprises share three characteristics: innovation, openness to learning and value driven.

Special Economic Zones: A special economic zone (SEZ) is an area in which the business and trade laws are different from the rest of the country.

Stage of the Business Lifecycle: For the purpose of this study, stages of a business lifecycle have been divided into the following 5 categories: ideation, development & launch, early stage, growth & expansion, and maturity & possible exit.

Stages of Business: Refers to the progression of a business and its phases over time, and is most commonly divided into five stages: launch, growth, shake-out, maturity, and decline.

Stages of Investment: Startups go through the following stages as they raise capital: angel round, pre-seed round, seed round, pre-series A round, series A, series B, series C, and Series D.

Startup: Although, there is no single accurate definition of what constitutes a startup or what the defining characteristics are but for this study we have operationally defined startup keeping in view Pakistan's context. A startup is a company that solves a problem (common or uncommon) by filling a gap in the market using an innovative approach where the business is often high risk and success is not guaranteed. An important characteristic of a startup is its potential to grow at a rate much higher than traditional businesses. Moreover, where a startup is usually thought of as a business established fairly recently (note: not every newly established business is a startup, i.e. a PizzaHut franchise, Starbucks, etc.), it is not always the case. Some fairly old enterprises that have raised say Series C funding, such as Careem, have still been termed startups. However, for this study we have settled on a 5 to 7 years of formal operations as a timeline for startups to become 'startup graduates.

Sustainable Development Goals: For its 2030 agenda, the United Nations has set Sustainable Development Goals (SDGs), otherwise known as the Global Goals, which are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

Tax Holiday: Tax holidays are often used to reduce sales taxes by local governments, but they are also commonly used by governments in developing countries to help stimulate foreign investment. These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another.

Valuation: Refers to the analytical process of determining the current (or projected) worth of an asset or a company.

Venture Capital Fund: A fund that provides venture capital financing using investors' money who often seek private equity in high growth startups.

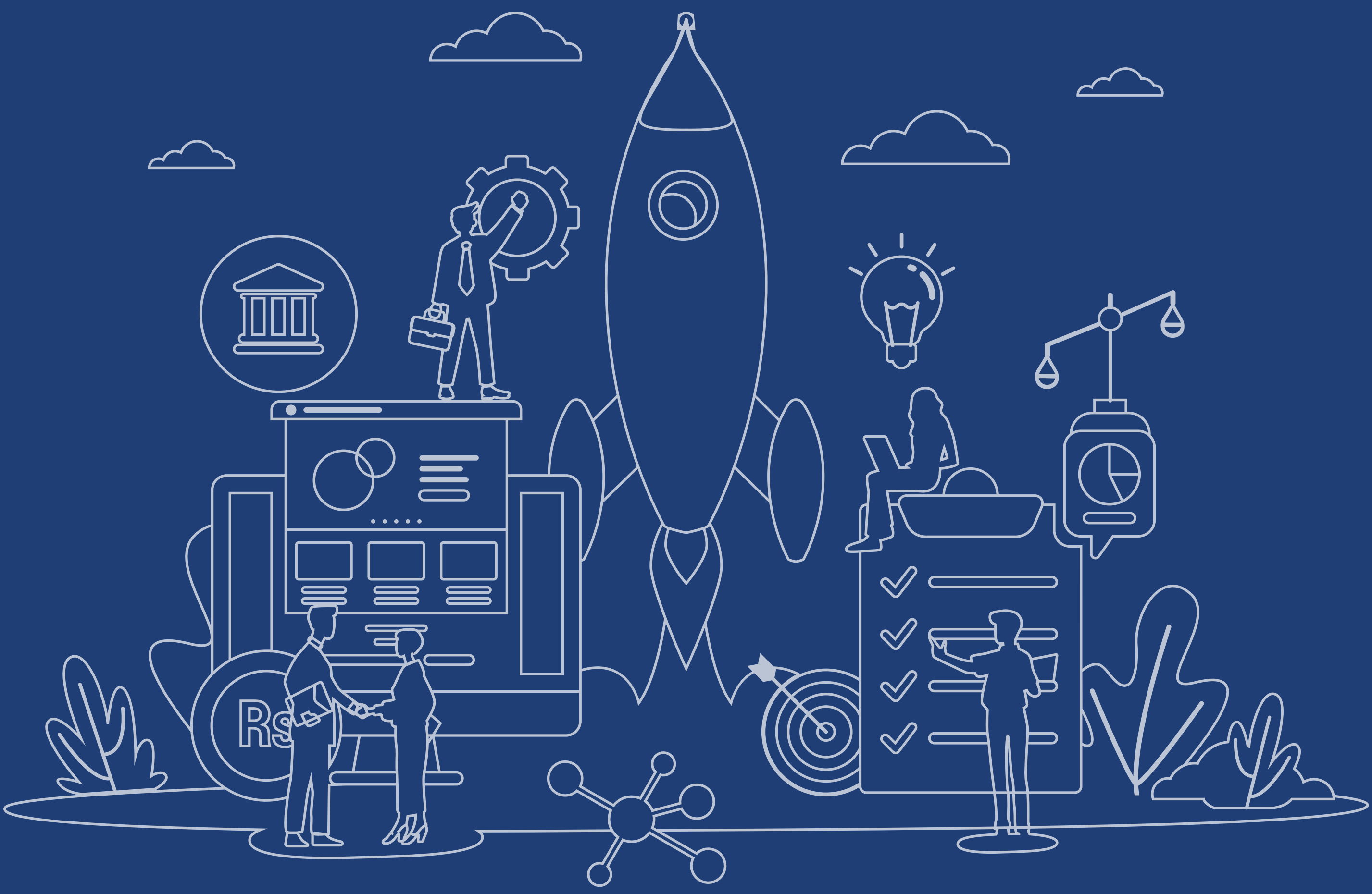
Venture Capital: Venture capital is financing that investors provide to startup companies and small businesses that are believed to have long-term growth potential. Venture capital generally comes from well-off investors, investment banks, and other financial institutions.

Venture Capitalist: A venture capitalist (VC) is an investor that provides capital to firms exhibiting high growth potential in exchange for an equity stake.

A

APPENDIX A

LIST OF KEY PLAYERS IN PAKISTAN'S ENTREPRENEURIAL ECOSYSTEM - 2019



INTERMEDIARIES

10XC

TYPE: Accelerator

LOCATION: Karachi

is a tech startup seed fund that provides seed funding to entrepreneurs working on ideas or concepts towards validation of product/market fit. 10xC is a part of the PlanetN Group of Companies and makes tech investments regardless of industry or vertical. Nadeem Hussain and Saif Akhtar are the co-founders of 10XC and are acting as Chairman and CEO respectively

Accountability Lab

TYPE: Incubator/Competition

LOCATION: Islamabad

is a global organisation that runs programs to support young leaders in developing and implementing their ideas for accountability and governance in their respective communities. The organization has an office in Pakistan, and runs several programs, including an incubator for accountability entrepreneurs, as well as Integrity Idol, a nationwide competition that rewards civil servants for integrity.

Bahria Incubator

TYPE: Incubator

LOCATION: Islamabad/Karachi

provides support and a platform for young entrepreneurs from Bahria University to turn their ideas into reality. The incubator aims to build sustainable products and companies.

Circle

TYPE: Network/Association

LOCATION: Karachi

is an organisation with a mission to promote leadership and

entrepreneurship campaign for the youth and women. Their 'Elevate'campaign focuses on gender balance on panels, events or any event that promotes decision making and opinion sharing on whatever topic is at hand while their campaign, 'Elevate The Youth' fellowship is focused towards empowering the Youth and was started in 2016 with their first batch having graduated already. Circle also runs coding camps called TechKaro and the local competition for SheLovesTech, in which the finalists compete in China.

Demo

TYPE: Startup Consultants

LOCATION: Islamabad

is a startup consultant that provides a range of different services while also organizing hackathons, competitions, etc. Some of the services they provide are as follows: consultancy, trainings, services, and research in impact-driven verticals such as innovation, entrepreneurship, skills development, technology and communications.

Epiphany

TYPE: Startup Consultants

LOCATION: Islamabad

Offers capacity building services to universities, government and private incubators/accelerators to encourage entrepreneurship particularly among youth and women. Their work entails managing business incubation, organizing business plan competitions, etc.

Fintech Factory

TYPE: Accelerator

LOCATION: Karachi

is an immersive accelerator with an aim to empower and accelerate technological innovation within financial services in partnership with investors.

Founder Institute

TYPE: Incubator

LOCATION: Isb/lahore

is a pre-seed startup accelerator, with chapters across 180+ cities and Alumni that have built companies exceeding $20B in estimated value globally. FI launched in Pakistan in 2015.

IBA Center for Entrepreneurial Development

TYPE: Incubator

LOCATION: Karachi

is a center based at the Institute of Business Administration in Karachi working towards promoting entrepreneurship and fostering a new culture of enterprise in Pakistan which is not limited to just IBA students.

Impact Dynamics

TYPE: Startup Consultants

LOCATION: Peshawar

is a startup consultancy that provides customized solutions to challenges faced by individuals and teams in the entrepreneurial ecosystem and the business industry in general. Some of the services they provide are: Entrepreneurial Curriculum Development, soft skills, tech skills, and CSR.

Innovation District 92

TYPE: Incubator

LOCATION: Lahore

is a startup incubation space for enterprises that require guidance in converting their business ideas into profitable businesses. Innovation District 92 provides selected startups with free office space for 6 months, where they can network with a large network of mentors, investors and facilitators, who in turn provide them with support in growing, branding and marketing their businesses.

Invest2Innovate

TYPE: Accelerator

LOCATION: Islamabad

is an accelerator designed to grow businesses and position them for investment. i2i finds, vets and selects young entrepreneurs for a four-month long program that provides business support, mentorship and access to their angel investor community. They also support entrepreneurs, engage mentors & investors, partner with local stakeholders, and conduct comprehensive research to build a better environment to encourage investment & entrepreneurship in the country.

Jazz xLR8

TYPE: Accelerator

LOCATION: Islamabad

is laying the foundation for a sustainable technology ecosystem, and provide resources and expertise to help young entrepreneurs fulfill their potential, and grow their communities. Jazz xLr8 is a corporate accelerator associated with Jazz, a telecommunications company.

JumpStart

TYPE: Network

LOCATION: Islamabad

is an entrepreneurial movement that aims to create a sustainable ecosystem of enterprises through training young entrepreneurs and connecting startups to resources. They are operational in 15 cities of Pakistan, and have 4 chapters in Chicago, Bradford, New York, and Toronto.

National Incubation Centers

TYPE: Incubator

LOCATION: Islamabad, Karachi, Lahore, Peshawar, Quetta

is an active and well-connected community of change-makers and impact creators who connects Pakistani entrepreneurs with industry experts and investors. NIC offers startups with free work space, access to mentors and seed funding. It is a public-private partnership between the Ministry of Information Technology and Telecommunication, Ignite and partners that run the programs throughout the country. Currently, NICs are operating in Karachi, Islamabad, Lahore, Peshawar and Quetta.

Nest I/O

TYPE: Incubator

LOCATION: Karachi

is a technology incubator and community hub launched by P@SHA with global partners Google for Entrepreneurs and Samsung and through a supporting grant from the US State Department. It provides budding entrepreneurs with space, infrastructure and facilities as well as access to a network of mentors and potential investors. The Nest i/o also holds regular events and competitions, and hosts 021 Disrupts, the annual technology conference in Karachi.

NSpire

TYPE: Incubator

LOCATION: Lahore

is a tech incubator founded by Salim Ghauri and launched by NETSOL Technologies. Nspire provides relevant accessibility to its startups with a large pool of industry leaders to guide them best along their way. It offers state of the art infrastructure; training and mentorship; networking opportunities; high-end technologies; investment opportunities and other professional assistance.

NUST Technology Incubation Center

TYPE: Incubator

LOCATION: Islamabad

is a tech incubator established in 2005 by NUST University, which also provides office space to startups. Many mid stage tech companies are housed at TIC, and the center has also launched an exchange that brings startups to Silicon Valley to receive mentorship and business support.

Pakistan Innovation Foundation

TYPE: Incubator/Network

LOCATION: Islamabad

is a private sector-driven and donor supported nonprofit organization created with the intention of promoting innovation, particularly in the corporate sector, in Pakistan. PIF supports entities and events that comply with its mission, which include “INNOVentures”, a venture platform that enables investors to fund commercially viable innovations and entrepreneurial ventures, “National Innovation Grand Challenge (NIGC)”, an innovation challenge for Pakistani students, entrepreneurs, companies and citizen innovators, and “PIF Innovation Fellows”, a community of innovators promoting the cause of innovation in Pakistan. PIF hosts open panel discussions regarding innovative developments in the economic, STEM and educational sectors of Pakistan, as well.

Peshawar 2.0

TYPE: Network/Co-working

LOCATION: Peshawar

is a social enterprise geared towards building a startup community in Peshawar, Pakistan. Peshawar 2.0 maintains a co-working space, or “basecamp”for potential founders with inspired startup ideas, so that social interactions and idea exchanges can occur between founders from different sectors.

Plan9

TYPE: Incubator

LOCATION: Lahore

is an incubator for technological ventures in Pakistan established by the Punjab Information Technology Board. Plan9 has graduated 130+ startups with a gross value of $70 Million so far including “Markhor” and “Patari”.

PlanX

TYPE: Accelerator

LOCATION: Lahore

is an accelerator being supported by the Punjab Information Technology Board which seeks to promote the sustainability of technology startups in Pakistan. PlanX was founded in 2014, aims to empower commercially viable mid-stage technology startups by providing access to multiple funding channels, specialized network of mentors and global exposure to establish high impact businesses.

SEED Ventures

Incubator

LOCATION: Karachi

is an enterprise development organization which provides solutions to social challenges and issues across multiple regional, national and international markets for a sustained impact. Faraz Khan and Khusro Ansari are the co-founders of Seed Ventures and also the CEO and Director respectively. SEED runs youth trainings and is launching a creative arts incubator in partnership with the British Council.

Spring

TYPE: Accelerator

LOCATION: Islamabad

is an accelerator working with high-growth potential businesses that use innovations to improve the lives of adolescent girls aged 10-19 living across East Africa and South Asia. They work with experts to support these businesses to create innovations with purpose and commercial potential. One of the prominent Pakistani startups that Spring has worked with is Sehat Kahani - a telehealth app that connects patients to doctors.

Takhleeq

TYPE: Incubator

LOCATION: Lahore

is the startup incubation center of the University of Central Punjab. Takhleeq offers enterprises training that comprises of an in-house curriculum, along with mentorship opportunities with industry experts and experienced entrepreneurs, access to an angel investment network, and access to its exclusive workspace.

TechValley

TYPE: Incubator

LOCATION: Abbottabad

is a platform which brings entrepreneurs from all domains so that youth can leverage the power of technology for socio-economic uplift of their community. It is mostly involved in technical/non-technical trainings, capacity building, open space and community engagement. TechValley has held annual conferences bringing together the ecosystem in Abbottabad.

Telenor Velocity

TYPE: Accelerator

LOCATION: Islamabad

is a corporate startup accelerator which focuses on helping startups go to market, over a period of 4 months, by accessing Telenor Pakistan's scale and assets. It overall tries to create an impact on various societies and communities. The program has had a recent focus on agriculture innovation.

WeCreate Center

TYPE: Incubator/Coworking

LOCATION: Islamabad

is a community center for women interested in entrepreneurial ventures, both in terms of starting businesses and expanding existing businesses. The center provides mentoring, training, a networking platform, access to media, markets and capital along with the technological tools and resources needed for developing businesses.

WomenX

TYPE: Incubator

LOCATION: Islamabad

is a global initiative funded by the World Bank, geared towards supporting female-owned businesses by providing them with educational, networking and mentorship opportunities. Enclude has partnered with the Center for Entrepreneurship Development (CED) and the Institute of Business Administration (IBA) to establish a program in Pakistan. The program came to an end in 2018.

INVESTORS/DONORS/FUNDERS

47 Ventures

LOCATION: TYPE: VC

LOCATION: Lahore

is a Venture Capital fund with an exclusive focus on Pakistan's technology industry making investments in seed stage through series A companies that leverage technology for scale.

Acumen

TYPE: VC

LOCATION: Karachi

is a global impact investment fund that has been operatng in Pakistan since 2002. Acumen's investment sectors include agriculture, education, energy, water, health, and housing, with $14.6 million invested in companies in Pakistan thus far. Acumen Pakistan's head offices are in Karachi, with a smaller office in Lahore (global headquarters are in NYC). While Acumen is primarily a venture capital fund, they are well-known in Pakistan for their local fellows program.

Artistic Ventures

TYPE: Angel

LOCATION: Karachi

is a family office/fund that provides seed funding to tech startups. Artistic Ventures believes in long-term partnerships: they work closely with their startups, providing mentorship, facilitating introductions with other investors, and helping develop sustainable, scalable business strategies.

Baltoro Capital

TYPE: Private Equity

LOCATION: Islamabad

is a private equity fund based in Islamabad that is also implementing USAID's PPII in Pakistan. Baltoro is led by the partners of Indus Basin Holdings, a venture capital firm that was launched in 2012 that invests in high-growth companies.

CresVentures

TYPE: Angel

LOCATION: Lahore

is an angel capital firm based in Lahore, and is an initiative of the Crescent Group. CresVentures was established by Humayun Mazhar, and includes partnerships with The Indus Entrepreneurs (TiE) Lahore and Islamabad. Their portfolio includes Perkup and Sukoon (a co-investment with DotZero), and Travly. The fund is interested in four major areas – travel & logistics, home & office, financial technology, and artificial intelligence.

DotZero Ventures

TYPE: Angel

LOCATION: Karachi

is a seed and angel investment syndicate based in Karachi. The establishment of DotZero was led by Yusuf Jan, a well-known angel investor in Pakistan, and has included other investors like Farzal Dojki, Imran Moinuddin, Atif Azim, Nadeem Elahi, and Omer Ehtisham. The fund's portfolio included Popinjay, Inaaya, WhisperO, Cleanry, Artsy, as well as PerkUp and Sukoon (a co-investment with CresVentures).

Fatima Ventures

TYPE: VC

LOCATION: Lahore

is the venture arm of the Fatima Group in Lahore. Led by Ali Mukhtar, Fatima Ventures began first as an angel investor, and recently launched a $20 million venture fund in partnership with Gobi, a regional VC fund based out of China and Southeast Asia with AUM of USD $1.2 billion.

Gobi Partners

TYPE: VC

LOCATION: International

is a venture capital firm with headquarters in Shanghai and Kuala Lumpur, supporting entrepreneurs from early to growth stages with a focus on emerging market economies. Fatima and Gobi recently launched a $20 million fund called Fatima Gobi Ventures.

Golden Gate

TYPE: VC

LOCATION: Singapore

is an early stage VC fund for Southeast Asia with over 30 investments to date. Though GGV hasn't invested yet in Pakistan, they have indicated interest in the market.

Higher Education Commision (HEC) Technology Development Fund

TYPE: Government

LOCATION: Islamabad

was established by HEC in 2017 and it aims to support researchers to materialize their ideas and research into products and services in an attempt to make Pakistan become a knowledge economy. The idea is to provide support to innovative ideas for prototype development, patent filing, marketing, licensing etc. of new products to improve Pakistan's economy through new technologies.

i2i Ventures

TYPE: VC

LOCATION: Karachi

is a $15 Million Venture Capital fund established by Invest2Innovate in 2019 making seed through Series A investments in local startups.

Ignite Fund

TYPE: Donor

LOCATION: Islamabad

is a fund created to develop Pakistan's economy by supporting sustainable and effective ICT ventures with a focus on fourth industrial wave technology. Their Seed Fund provides funding to tech projects and startups.

Insitor Impact Asia Fund

TYPE: VC

LOCATION: South Asia

is a fund that invests or intends to invest in early-stage companies in Myanmar, Cambodia, India and Pakistan that "improve access to basic goods and services for low-income communities". The fund has not made any investments in Pakistan as of yet (mid 2019), but plans on doing so.

JS Private Equity

TYPE: Private Equity

LOCATION: Karachi

is a private equity fund under the JS Group of Companies. JS is reportedly running a VC fund as well.

Karavan

TYPE: VC

LOCATION: International

is fundled by Pakistani investors based in Dubai, that is investing in startups in Pakistan. The fund has made 3 investments thus far.

Kingsway Capital

TYPE: VC

LOCATION: London

is an investment management firm based out of London.

Lakson Investments

TYPE: VC

LOCATION: Karachi

is an institutional fund investing in startups and companies. Lakson Venture Capital is their newest fund created to invest in Pakistan based opportunities where technology can be leveraged to expand or develop existing business models or create new ones with potential to disrupt the market. Their investment focus is on companies that are about a year away from a successful Series A round or a potential exit, but they also invest at Seed Stage for select companies through their Incubator and Accelerator ecosystem relationships.

Middle East Venture Partners

TYPE: VC

LOCATION: International

is a Middle East-focused venture capital firm that invests in companies at early and growth stages.

Planet N

TYPE: Angel

LOCATION: Karachi

is an angel fund launched by Nadeem Hussain, the founder of Tameer Bank. Since 2015, Planet N has invested in 14 start-ups across e-commerce, fintech, edutech, superfood agriculture, retail and renewables sectors.

Sarmayacar

TYPE: VC

LOCATION: Lahore

is an early stage venture capital firm investing in Pakistani startups since 2017. Sarmayacar prefers to be the initial venture investor with follow-on investments, "investing as little as $100K at the Seed stage and up to $2M at the Series A stage."

SparkLabs

TYPE: VC

LOCATION: International

is a fund investing in seed stage businesses operating on a worldwide basis.

TPL E-ventures

TYPE: VC

LOCATION: Karachi

is the Venture Capital arm of TPL Corp, Pakistan's tech giant, which aims to invest in startups at the pre-seed and seed level.

USAID SMEA

TYPE: Donor

LOCATION: Islamabad

is a project of USAID established with the intention of reforming policies and creating a stronger financial and operational framework for Pakistani small-medium enterprises to achieve growth in. USAID SMEA works with SMEs in the information and communications technology, light engineering, textile, hospitality, minerals, logistics and packaging, and leather sectors.

VentureDive

TYPE: VC

LOCATION: Lahore

is a technology company, founded in 2012, investing in "products and solutions that simplify and improve the lives of people worldwide." VentureDive is looking to invest in companies with a tech focus.

COWORKING SPACES

Cafe Garage

TYPE: Co-working

LOCATION: Islamabad

is an automobile themed established cafe that offers a unique experience where one feels to be at an auto park cafe. It is more of a relaxed cafe and makerspace where many people like to share space for their work.

Campus Coworking

TYPE: Co-working

LOCATION: Lahore

is a hassle-free and affordable workplace which keeps comfort, aesthetics and co-working collaboration as their priority.

Codesk

TYPE: Co-working

LOCATION: Karachi

is a community who connects creative's, artists, designers, freelancers and entrepreneurs. Their focus is on providing modern office environment that increase productivity, innovation, and collaboration.

Colabs

TYPE: Co-working

LOCATION: Lahore

is a collaborative workspace which is thoughtfully designed to enable people and businesses to grow. They aim to inspire collaboration, productivity and innovation through their platform and network.

Daftarkhwan

TYPE: Co-working

LOCATION: Lahore

is a meeting point based in Lahore for entrepreneurs, a resource palette for start-ups, and an open call for collective action. Daftarkhwan aims to deliver an agile workplace that can adapt to the evolving needs of the modern-day. They offer a high-performance & vibrant work-space that attracts and retains talent and fosters a community of professionals & entrepreneurs.

G47

TYPE: Co-working

LOCATION: Lahore

is a premium co-working space with a match made for startups, freelancers or independent individuals, innovators and entrepreneurs. Apart from the shared office space, they also aim to mentor and guide their clients so they can grow their businesses and professional acumen.

Ground Zero

TYPE: Co-working

LOCATION: Lahore

is a co-working space that aims to bring together entrepreneurs from across Lahore to share their experiences and skills.

Hangout

TYPE: Co-working

LOCATION: Islamabad

is a community space in Islamabad created to promote “dialogue, expression and innovation” amongst individuals with shared innovative desires.

Kickstart

TYPE: Co-working

LOCATION: Lahore

is a workspace for entrepreneurs, freelancers and small businesses with a communal work environment.

KNCT Hub

TYPE: Co-working

LOCATION: Islamabad

is a co-innovation space launched to bring innovators and creators to communicate, connect and share their ideas. It is a platform that provides opportunities, mentor ship and resources to transform dreams into reality.

Launchpad7

TYPE: Co-working

LOCATION: Islamabad

is a dynamic workspace in Islamabad whose aims is to build an entrepreneurial community for like minded people around their vicinity. They also provide various learning resources alongside other activities that are available with them.

Popcorn Studio

TYPE: Co-working

LOCATION: Islamabad

is an affordable and high quality work space environment to work, collaborate and innovate. Initially started in 2016, it has now expanded and branched out in Lahore, Islamabad and Faisalabad, making it one of the most rapidly growing coworking networks in Pakistan.

Regus

TYPE: Co-working

LOCATION: Islamabad/Lahore/Karachi

is a co-working space which allows to rent a desk space in a shared office environment. Located in three main cities; Karachi, Lahore and Islamabad. They also set-up all kinds of necessary facilities like utilities and other office equipment which is necessary including providing with a personal phone.

SandBox

TYPE: Co-working

LOCATION: Karachi

is a shared workspace created specifically for freelancers, startups, small business owners, telecommuters and other independent professionals. It also offers several levels of memberships that include month-to-month, virtual, part-time, full-time, as well as daily drop-ins and on-demand meeting rooms.

Seeds

TYPE: Co-working

LOCATION: Karachi

is a designed co-working space that includes both shared workspace and private offices with all the amenities.

TechHub Connect

TYPE: Co-working

LOCATION: Lahore

is a project of Punjab Information Technology Board. It is a coworking space for freelancers who are building a community for teleworkers to share resources and grow together. They also act as a bridge between industry, academia and the government by assisting the formation of fruitful partnerships and collaborations among and within various organisations.

The Bullpen

TYPE: Co-working

LOCATION: Karachi

is a co working space and a business center, created to conduct business and nurture connections. They offer services on a spectrum; from various space divisions to internet, printing and other key facilities.

The Hive

TYPE: Co-working

LOCATION: Karachi, Islamabad

is a shared workspace furnished with various lounges, well-equipped meeting rooms and event halls to make a one-stop solution for all members of the community. In addition, the Hive maintains itself as a hub of communal activity, offering a creative workspace & a recreation space to all people.

Venture Drive

TYPE: Co-working

LOCATION: Lahore

is a fully furnished co working space in central Lahore with complete access to basic amenities such as wifi, computers, printing services, kitchen facilities etc.

WeCreate

TYPE: Co-working

LOCATION: Islamabad

is an entrepreneurial community center for women who are interested in starting or expanding an existing business. The Center provides mentoring, business connections, specialized training, connections to the community, access to markets and capital along with the technical tools and resources necessary for taking any business to the next level. One of their facilities include; a co-working space that provides a flexible option for those women business owners or workforce looking for a community of like minded entrepreneurs and a place to focus on what is most important to growing their business.

Worker's Hive

TYPE: Co-working

LOCATION: Lahore

is a community of entrepreneurs, startups and professionals where people and companies grow together. They provide an inspiring environment designed for innovators and influencers and is also a strong home base for a variety of start-ups, freelancers, and entrepreneurs.

CONFERENCES/COMPETITIONS

021Disrupt

TYPE: Conference

LOCATION: Karachi

is a conference by Nest I/O designed to showcase the Pakistani startup ecosystem. The event attracts speakers, venture capitalists, and corporates, both at a local and international level. Founders of startups or potential startups may apply for a chance to network, gain insight, and scout for investment at the event.

Circle: She Loves Tech

TYPE: Competition

LOCATION: Nation-wide

strives for women's economic empowerment through workshops, fellowship programs, dialogues and mentoring. Circle has introduced "She Loves Tech", an acclaimed, international women's technology and start-up competition to Pakistan, providing female tech entrepreneurs with a chance to showcase their talents, and gain mentorship, skills, and a networking platform with the countries key incubators and stakeholders.

Code for Pakistan Civic Hackathons

TYPE: Competition

LOCATION: Islamabad

is a non-profit focused on creating a "non-partisan civic innovation ecosystem" in Pakistan due to its belief that collaboration between citizen technology developers and governmental domain experts can result in the opening of government data, increasing civic engagement and innovation in the public domain. The Civic Hackathon brings together software designers, developers, and community organizers in order to confront societal and communal issues by use of technological solutions.

Digital Youth Summit

TYPE: Conference

LOCATION: Peshawar

is a startup expo and technology conference that is held annually, since 2014, in Peshawar, Pakistan. The summit, on its quest to discover the "next generation of digital innovators in Pakistan', attracts leaders from the technology industry, potential startup founders, government and civil workers, members of academia and investors, resulting in a hub of opportunity and networking for the Pakistani youth. The summit is a joint initiative of the Government of Khyber Pakhtunkhwa and the World Bank.

Global Innovation Through Science & Technology (GIST)

TYPE: Competition

LOCATION: International

is an initiative of the U.S. Department of State established with the goal of empowering technology innovators and potential entrepreneurs by providing them with networking and mentoring opportunities. Previously, Pakistani startups have found success in GIST's Tech-I competition for entrepreneurial talent in the fields of science and technology, allowing them to present their venture, receive valuable training, and gain access to funding opportunities

Hult Prize

TYPE: Competition

LOCATION: International

is an annual competition spanning an entire year geared towards MBA and college students, inviting them to create solutions for a pressing social issue such as water shortage, food security, or education. The winning team is awarded $1M in seed money to develop their social enterprise.

Karandaaz Women Entrepreneurship Challenge

TYPE: Competition

LOCATION: Nation-wide

is a yearly challenge, funded by the United Kingdom Department for International Development (DFID), and has been established as a business support and investment program for the development of an entrepreneurial culture amongst women. Karandaaz provides personalized support to each business qualifying for the program, and may invest up to PKR 20 Million in startups that showcase growth prospects after performing well pitching rounds with judges.

KP Apps Challenge

TYPE: Competition

LOCATION: Khyber Pakhtunkhwa

is an online hackathon that allows participants to create mobile and web applications under three categories, and mobile-only applications under an additional three categories: winning teams are given access to career and product development opportunities, while every participant is given the chance to receive mentorship and participate in in-person workshops in Islamabad, Peshawar and Abbottabad. The KPApps Challenge is run by the Khyber-Pakhtunkhwa IT Board, Code for Pakistan, Tech Valley Abbottabad, Pakistan Telecommunication Authority, the World Bank, and doctHers.

Momentum Tech Conference

TYPE: Conference

LOCATION: Karachi

is an ecosystem conference and exhibition held by Momentum, a global startup community designed to boister and support the Pakistani entrepreneurial community.

P@SHA ICT Awards

TYPE: Competition

LOCATION: Islamabad

aims to acknowledge creativity and innovation in Pakistan's Information and Communications Technologies sector by examining the software and service applications that are being developed in Pakistan, and singling out the ones that display excellence. The ICT awards provide local and international exposure to companies through promotional activities, and through participation at the Asia Pacific ICT Awards (APICTA).

Startup Cup

TYPE: Competition

LOCATION: Islamabad

is a "grassroots-driven entrepreneurship empowerment program" by TiE Islamabad, in collaboration with U.S. Embassy in Pakistan, and powered by GriffinWorx, open to aspiring entrepreneurs in Islamabad, Karachi, Lahore and Peshawar.

Startup Grind

TYPE: Conference

LOCATION: Islamabad/Karachi/Lahore

is a global startup community designed to educate, inspire, and connect entrepreneurs. The community has local chapters around the world, and the Pakistan chapters regularly hold events, and will be hosting the first Startup Grind Conference in Asia in November 2019.

Startup Lahore

TYPE: Competition

LOCATION: Lahore

is a two day event powered by PlanX which creates a networking platform for entrepreneurs, startups, investors, speakers, tech companies, incubators and accelerators and the media in order to bolster the business ecosystem of Pakistan.

Startup Weekend

TYPE: Competition

LOCATION: Nation-wide

is a 3-day event powered by Techstars with a presence in 135 countries. A selection of aspiring entrepreneurs immersed in a simulative experience where they pitch ideas for startup companies, form teams around those ideas, and then work to produce a prototype or presentation of their idea by the end of the competition.

NETWORKS/ASSOCIATIONS

Entrepreneurs' Organization (EO)

TYPE: Network

LOCATION: Nationwide

The Entrepreneurs' Organization (EO) is a global, peer-to-peer network of more than 14,000+ influential business owners with 193 chapters in 60 countries. Founded in 1987, EO is the catalyst that enables leading entrepreneurs to learn and grow, leading to greater success in business and beyond. EO has chapters and members throughout Pakistan.

Impact Network

TYPE: Network

LOCATION: Islamabad

is a formal collaboration between Incubation Centers, Social Entrepreneurship Support Organizations, Universities, Public Sector, International Donors and Investors to accelerate the identification and scaling of critical social innovations. The Network was established on March 1, 2018 and is supported by the PEP Foundation. The Network has been designed with the specific objective of promoting and guiding social innovations that have the potential to solve large national problems. Their impact focuses on Education, Health, Water, Agriculture and Energy as priority sectors.

MIT Enterprise Forum Pakistan

TYPE: Association

LOCATION: Lahore

is an international chapter of the MIT Enterprise Forum, a global organization affiliated with MIT through MIT Technology Review. They are trying to shape the technology entrepreneurial landscape of Pakistan by organizing activities that will stimulate entrepreneurship in youth, startups and corporations at the same time. Their programs include; Startup School, Summer Entrepreneurship Bootcamp, and the annual Startup Lahore conference.

Organization of Pakistani Entrepreneurs (OPEN)

TYPE: Network

LOCATION: Islamabad/Karachi/Lahore

is a not-for-profit organization, whose sole focus is the promotion of entrepreneurship and professional growth. The organization started for the Pakistani Diaspora in the United States but has local chapters in Pakistan's major cities, which hold regular events.

P@SHA

TYPE: Association

LOCATION: Islamabad

is a trade association for software and IT companies in Pakistan. It holds a number of competitions and initiatives and serves to strengthen the entrepreneurship environment, particularly fortechnology companies.

Pakistan Women Entrepreneurs Network for Trade

TYPE: Network

Nationwide

is a representative platform for women entrepreneurs in trade of goods and services being established with the support of World Bank Group Pakistan. They promote women economic empowerment in Pakistan by focusing on women entrepreneurship development in the small and medium enterprise (SME).

The Indus Entrepreneurs (TiE)

TYPE: Network

LOCATION: Islamabad/Karachi/Lahore

is among the largest entrepreneurs organizations in the world. Their goal is to foster entrepreneurship, create wealth for entrepreneur & local communities. It's a global association with local chapters in Pakistan's major cities.

Women in TechPk

TYPE: Network

Karachi

is a women-only community offering a platform where members can talk freely about professional and career-related issues, seek advice as well as opportunities, find mentors and, forge organizational alliances and individual collaborations. It also arranges offline networking events and meet-ups with focused agenda to benefit the entire community. They also host coding and bootcamps geared towards women.

MEDIA

Ananke

TYPE: Media

is a non-profit, online interactive platform engaging women across the MENA region and beyond. It is a platform showcasing women trailblazers, visionaries, women in leadership positions as role models for young women, seeking inspiration, guidance and mentoring in the MENA region.

Menabytes

TYPE: Media

is an online media publication that covers technology and startups from the Middle East & North Africa that launched in 2017.

MIT Technology Review Pakistan

TYPE: Media

LOCATION: Lahore

MIT Technology Review Pakistan showcases and promotes the rapidly expanding science, technology and entrepreneurship landscape of Pakistan.

Pakwired

TYPE: Media

LOCATION: Lahore

is an online news source covering Pakistan's technological developments, its entrepreneurial activity and industry research. Pakwired carries advice and resources for startups as well, informing and connecting potential startup founders and innovators.

ProPakistani

TYPE: Media

LOCATION: Islamabad

is an independent news publisher dealing in news regarding Pakistan's technology and telecom sectors; covering business, auto, startup, and sports activity along with other topics.

Startupguide.pk

TYPE: Media

LOCATION: Islamabad

is a monthly magazine focused on capturing the future of business.

TechInAsia

TYPE: Media

LOCATION: International

is a tech media company that focuses on economic trends from startups to corporate giants in Asia. Tech in Asia's self-proclaimed goal is "to build and serve Asia's tech and startup community."

Techjuice

TYPE: Media

LOCATION: Lahore

is an online media platform focused on promoting and documenting Pakistan's economic ecosystem in terms of Pakistan's startup activity, entrepreneurial movements, and cryptocurrency. TechJuice provides reviews of emerging gadgets, tracks mobile phone prices, and provides breaking technology news to its viewers.

VCast

TYPE: Media

LOCATION: Karachi

is an independent digital media platform dedicated to giving visibility to the players and subjects that shapePakistan'sbusiness and economic landscape.

FEDERAL GOVERNMENT

Centre for Social Entrepreneurship

TYPE: Government

LOCATION: Islamabad

aims to develop an entire value chain to promote social entrepreneurship. It seeks to serve as an accelerator which would play the role of a Special Purpose Vehicle for instilling innovation and jump starting social entrepreneurship in the country.

Ignite

TYPE: Government/SEED Fund

LOCATION: Islamabad

or the National Technology Fund, is an organization under the Ministry of Information Technology and Telecommunication, Government of Pakistan created to develop Pakistan's economy by supporting sustainable and effective ICT ventures with a focus on fourth industrial wave technology. Their Seed Fund provides funding to startups for innovative product development and also to Universities for research & development.. Ignite has also established Pakistan largest network of NICs all across Pakistan.

Prime Minister's Kamyab Jawan SME Lending Program

TYPE: Government

LOCATION: Islamabad

is an initiative by the Government of Pakistan to provide self-employment opportunities to unemployed youth in Pakistan. The government will provide mark-up and credit loss subsidy on small business loans in the range of Rs. 100,000 to Rs. 5,000,000 disbursed by banks under the program.

Small and Medium Enterprises Authority (SMEA)

TYPE: Government

LOCATION: Islamabad

is an autonomous body under the Federal Government of Pakistan that was established to encourage and facilitate the development and growth of SMEs in Pakistan. SMEDA coordinates and builds a number of partnerships to facilitate investment through various channels.

APPENDIX B

INSTRUMENTS

1.Entrepreneurs Questionnaire

Demographic Information

1. Name of business: ______________________
2. Name of respondent(s): __________________
3. Please complete the following information for each founder:

	Age	Gender	of Own- % ership	Highest Level of Education	Location of Education	Years of Work Experience	Industry/ professional background	Previous experience of founding & running a business? (Yes/ (No
Founder 1								
Founder 2								
Founder 3								

4. Year founded: ____________
5. Is one of the top managers females, including founders? (Y/N)
6. City/region where the business is headquartered: _______
7. Cities & Countries where the business has clients/customers:

	Cities	Countries
1		
2		

Basic Business/Enterprise Information

8. What is your firm's main offering? (select one):
   - Products
   - Services
9. Number of Employees, including founders and cofounders: __________
10. Breakdown of employees by gender: Male _____ Female ________
11. Which sector does your startup fall under?
   - Advertising/Marketing
   - Agtech & Food
   - Artificial Intelligence/ Robotics
   - Automotive
   - AutoTech
   - Aviation
   - Blogging
   - Blockchain
   - Cleantech
   - Consumer Electronics
   - Cybersecurity
   - E-Commerce
   - Education
   - Energy

- Tourism
- Fashion
- Finance
- Food
- Gaming
- Health
- Hospitality
- IoT
- Logistics
- Microfinance
- On-Demand
- Online Community
- Retail
- Social Networking Platform
- Transportation
- Waste Management
- Water
- Web-based Apps
- Web Development
- Other. Please Specify ____________

12. Select the legal Status of your business while registering in Pakistan:
    - Partnerships
    - Sole Proprietorship
    - Single Member Company
    - Private Limited Company
    - Limited Liability Partnership
    - Section 42 Non-Profit
    - Trust
    - Societies
    - Our business is not yet registered
    - Our business is not registered in Pakistan

13. If you business is not registered in Pakistan, In which country is your business registered?
14. Tell us what your business does in 2-3 sentences.

15. In your opinion, which stage of the business lifecycle does your startup fall under?
    a. Ideation (a simple product idea with the minimum features needed to satisfy a demand from a group of users/clients)
    b. Development & Launch (the period just after a company has launched and is working on their proof of concept)
    c. Early-stage (a company at this stage should have begun to generate revenue and regularly taking on new customers)
    d. Growth & Expansion (a stage where a business can capitalize on its stability by broadening its horizons with expanded offerings and entry into new geographies)
    e. Maturity and Possible Exit (after successfully navigating the expansion stage a business is now making stable profits and/or may opt for an exit through acquisition)

16. How much revenue have you made so far? (ever since your business has been operational)

   a. We are currently pre-revenue
   b. $0 - $50,000
   c. $50,000 - $100,000
   d. $100,000 - $250,000
   e. $250,000 - $500,000
   f. $500,000 - $1,000,000
   g. More than $1,000,000

Motive

17. What was your motivation for starting this business?* (select top 3 that apply)

   - Creating something of my own
   - The opportunity to be financially independent
   - Improving my quality of life
   - Creating jobs
   - Managing people
   - Building personal wealth
   - Saw a market opportunity that I wanted to capitalize on
   - Having more free time
   - Difficulty in finding the right job
   - Dissatisfaction in a professional occupation

* Source: Giacomin, O., Janssen, F., Pruett, M., Shinnar, R. S., Llopis, F., & Toney, B. (2011). Entrepreneurial intentions, motivations and barriers: Differences among American, Asian and European students. International Entrepreneurship and Management Journal, 7(2), 219-238.

Finance

18. Have you attempted to raise investment before? Yes No (If yes - they answer 21- 2

19. Total amount of funding raised till date: ______________

20. Please, list any funding you have raised till date:

	Name of Investor	Type of Funding	Stage of Investment/ Funding	Amount (Raised (USD	Date of Investment
1		These options will appear in a drop down- • Angel investors (individual) • Angel syndicates/groups • Venture Capital funds (or equivalents) • Family investment office • Corporate venture capital • Development programs with an investment/funding window • Donor Organization • International Investors • Bank loan • Family & Friends	These options will appear in a drop down. • Angel Round • Pre-seed • Seed • Pre-series A • Series A • Series B • Series C • Series D		
2					
3					

21. How do you rate the process of raising startup investment in Pakistan:
    a. Easy
    b. Somewhat Easy
    c. Somewhat Difficult
    d. Difficult
    e. Don't know
    f. N/A

22. Which of the following challenges have you faced while raising investment in Pakistan? Select all that apply.
    a. Developing a scalable business model that attracts investors
    b. Finding a suitable investor
    c. Regulatory Issues
    d. No investment options available at the stage I was raising
    e. Determining how much money to ask for
    f. Lack of knowledge about how and when to raise
    g. Others. Please explain ______________

23. Have you raised follow-on investment (Series A, Series B) for your company? Yes No (If yes, 25-27; if no, skip directly to Q27)
24. How do you rate the process of raising follow-on investment (Series A, Series B, etc.) in Pakistan:
    a. Easy
    b. Somewhat Easy
    c. Somewhat Difficult
    d. Difficult
    e. Don't know
    f. N/A

25. Which of the following challenges have you faced while raising follow-on financing in Pakistan?
    a. No financing options available at the stage I was raising
    b. Regulatory Issues
    c. The terms that were offered to me were not friendly to my business
    d. Lack of knowledge about how and when to raise
    e. Doesn't apply
    f. Other. Please explain ______________

26. Are you planning to raise in the future? If so, when?
    a. Next 12 months
    b. After a year
    c. I'm not planning to raise funding

27. If you are looking to raise funding in the future, how much are you seeking to raise? (Add ranges)
28. If you are looking to raise funding in the future, what kind of capital are you raising?
    a. Equity
    b. Quasi-equity
    c. Debt
    d. Other Instrument

29. Please, rate your understanding of the following terms.

Equity

a. Completely understand

b. Somewhat understand

c. I have heard this term but have very little understanding

d. I don't understand this at all

Quasi Equity

a. Completely understand

b. Somewhat understand

c. I have heard this term but have very little understanding

d. I don't understand this at all

Revenue Share

a. Completely understand

b. Somewhat understand

c. I have heard this term but have very little understanding

d. I don't understand this at all

Debt/Loan

a. Completely understand

b. Somewhat understand

c. I have heard this term but have very little understanding

d. I don't understand this at all

Convertible Notes (debt)

a. Completely understand

b. Somewhat understand

c. I have heard this term but have very little understanding

d. I don't understand this at all

30. When investors are considering your business, what are the top 3 things that they consider?

a. Sector the business falls under

b. Stage of business

c. Size of investment needed

d. Good management team (e.g. balance, experience, discipline, teamwork)

e. A business generating enough cash flow or ability to access forms of financing such as debt or equity

f. Strong business plan and pitch

Source: Mason, C.M. and Kwok, Jennifer (2010) Investment readiness programmes and access to finance: a critical review of design issues. Local Economy, 25 (4). pp. 269-292.

Business Support Services

31. Have you ever participated in a business incubation or acceleration program? Yes ________ No _______

32. If yes, list all the entrepreneurship support programs that you have participated in?

Entrepreneurship Support Program	Year

33. Please state how useful you find the following service/activities provided by incubation and acceleration programs:

	Not useful	Slightly useful	Moderately useful	Very useful	Extremely useful	Don’t Know	N/A
Events & Network Development							
Business Skills Development							
Access to Advisory Services (Legal, IP, (Accounting							
Mentorship							
Access to investors/ Funders							
Providing Direct Funding							
Access to like-minded entrepreneurs							
Access & Linkages to Markets							
Free or subsidized office space							

34. Did any ecosystem organizations support you in accessing finance? Yes or No

35. If yes, in what ways did the ecosystem organizations support you in accessing to finance? Choose all that apply.
    - Helped build connections/matches to investors
    - Organized pitch events for entrepreneurs
    - General training in preparation of investor materials
    - Training on investment instruments and the capital raising process
    - More hands-on support in capital raising
    - Other

Entrepreneurial Perceptions of the Ecosystem

36. To what degree are the following elements of Finance an obstacle to current operations of your firm?

	No Obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle	Very Severe Obstacle	Don't Know	N/A
Access to Debt Finance							
Access to Equity Finance							
Access to Grants							

37. To what degree are the following elements of the Policy & Business Environment an obstacle to the current operations of your firm:

	No Obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle	Very Severe Obstacle	Don't Know	N/A
Legal processes and costs for setting up a business							
Legal processes and costs for running a business							
a) Labour Regulations)							
b) Tax Administration)							
c) Tax rates)							
d) Transport and[KM2]) logistics within Pakistan							
e) Customs and trade)							
VC friendly legislation and processes							
IP rights and enforcement							
Research and development initiatives and university collaboration							
Laws and processes for foreign investments in start-ups							
Practices of informal sector competitors							
Corruption							
Digital payment mechanisms							
Availability of Market Information							

Human Capital

38. In your opinion, do universities in Pakistan prepare their students to launch their own businesses?

    a. Yes b. No

39. Please describe the human talents (attracting employees and staff to your enterprise) picture for you as a start-up entrepreneur in Pakistan:

	Very Favorable/ Easy	Somewhat Favorable/ Easy	Neutral	Somewhat Unfavorable/ Difficult	Very Unfavorable/ Difficult
Finding/attracting technical staff-software development					
Finding/attracting technical staff-software engineering/architecture					
Finding/attracting managerial staff					
Finding/attracting creative and design staff					
Finding/attracting low-skill staff					
Retaining talent					
Training employees					
Paying competitive salaries					
Building team spirit/chemistry					
Team Management					
Work environment and professional ethics					
Labor-management regulations					
Hiring skilled foreign staff					

40. How do you rate your skill level as a founder or co-founder of a start-up?

	Very Skilled	Somewhat skilled	Neutral	Somewhat unskilled	Very unskilled
Product/service vision & design					
Customer & market orientation					
Business modeling					
General Business (business planning, financials, etc.)					
Management & leadership (execution, motivating staff, etc.)					
Technical skills (software development, architecture, etc.)					
Fundraising & financing (investment negotiations, etc.)					
Communication & outreach (branding, PR, etc.)					
Soft skills (confidence, "people skills", etc.)					
Team Management					
Work environment and professional ethics					
Labor-management regulations					
Hiring skilled foreign staff					

2. Entrepreneurs Interview Questions

Capital Raising

1. Tell us your perspective on the investors and their role in the ecosystem?
1. What are some common funding gaps in Pakistan's entrepreneurial ecosystem?
2. How did you find your first investor?
   - Follow-up can include also how they found investors in general? Was it through an accelerator/incubator program or otherwise?
3. Tell us about an investment you did not get and why?
4. Tell us about your plans for raising capital, more specifically.
5. What purpose do you intend to raise this capital for?
6. How much capital do you plan on raising? (in the questionnaire)
7. What are the potential instruments you plan on using to raise this capital?

Incubation

8. What is your perspective on the overall entrepreneurship culture in Pakistan?
9. What is your perspective on the incubators/accelerators and their role in the ecosystem?
10. What are the different types of services that incubators/accelerators can provide to entrepreneurs?

Gender

11. Do you think there is a significant gender disparity in terms of access to finance? (Are women at a disadvantage?)
12. Can any of the challenges you just discussed be attributed to your gender? If yes, explain how?
13. Are there any challenges or hurdles that impact female entrepreneurs more than their male counterparts?
14. On a scale of 1 to 10 how gender inclusive do you think the ecosystem is in general?

Not inclusive at all 1	2	3	4	5	6	7	8	9	**Extremely inclusive** 10

Policy

15. What kind of policy/regulatory challenges you have faced doing business?
16. What suggestions do you have for improving the overall policy environment in aiding the process of starting a business and scaling it?

3. Investors Interview Questions

A. Fund/investor information

1. When was the fund/vehicle set-up? mm/dd/yyyy
2. Since when have you been investing? Year ________
3. What is the size of the fund/capital pool? (applicable to non-fund investors)
4. How much have you raised so far? ________________
5. How many investments have you made so far? ________
    - How many of these startups have female co-founders? _________

    What is the source of capital for your fund? (N/A to Angel Investors)
6. One source (self, family, corporate etc.)
7. LPs/ investors (if so, who?) (N/A to International Funds)
8. What is the percentage mix of your LPs/investors? (for local funds)
9. How is your fund/vehicle structured? (Only applicable to funds)
10. How does the fund governance work?
11. How does your investment model work?
    a. Pre-investment Sourcing companies, screening/diligence/structuring,
    b. Post-investment – governance, monitoring, value-add/support
12. How do you manage post-investment? (For International Funds)
13. Do you provide any value add post-investment? (For International Funds)
14. Do you have any third parties in pre or post-investment?
    a. Who are they?
    b. What is their role ?
15. Total amount invested = ____________________

B. Type of target business

16. What is typically the level of maturity you want to see in the opportunity? Business, entrepreneur/founders, market?
    a. Pre-Seed
    b. Seed
    c. Pre-Series A
    d. Series A
    e. Series B
17. What are your expectations on growth?
18. Which of the following statements best describes your primary investment goal
    a. I require steady income
    b. I want to protect the money I am investing with some growth potential
    c. I expect my money to grow over the long term
19. Do you invest in sector/industry specific startups? Yes ______ No ______. Which industry?

- Advertising/Marketing
- Agtech & Food
- Artificial Intelligence/ Robotics
- Automotive
- AutoTech
- Aviation
- Blogging
- Blockchain
- Cleantech
- Consumer Electronics
- Cybersecurity
- E-Commerce
- Education
- Energy
- Tourism
- Fashion
- Finance
- Food
- Gaming
- Health
- Hospitality
- IoT
- Logistics
- Microfinance
- On-Demand
- Online Community
- Retail
- Social Networking Platform
- Transportation
- Waste Management
- Water
- Web-based Apps
- Web Development
- Other. Please Specify ____________

20. What type of business models do you invest in?
    a. Business to Consumer
    b. Business to Business
    c. Business to Government

C. Investments

21. What is your Ticket size?
    - $0 - $50,000
    - $50,000 - $100,000
    - $100,000 - $250,000
    - $250,000 - $500,000
    - $500,000 - $1 million
    - $1 million - $3 million
    - $3million and above

    b. What is the sweet spot for you when investing?

    c. How low have you gone or are willing to go?
    - $0 - $50,000
    - $50,000 - $100,000
    - $100,000 - $250,000
    - $250,000 - $500,000
    - $500,000 - $1 million
    - $1 million - $3 million
    - $3million and above

    d. Do you do follow-on rounds? Yes ____ No _____

22. Investment instruments – equity, quasi/hybrid?
    a. Equity
    b. Quasi Equity
    c. Revenue Share
    d. Debt/Loan
    e. Convertible Notes (debt)
23. How do you realize returns?
24. What is your exit thesis?
25. When do you expect to withdraw a significant portion, 1/3 or more, of the money in your investment portfolio?

a. More than 20 years
b. More than 10 years
c. Five to 10 years
d. Three to five years
e. Less than two years

26. Do you syndicate? Yes ______ No _______
   a. If yes, how do you do it?
      - case-by-case
      - iproactively
   b. What are some examples of deals on which you have done syndications?
27. Actual investment experience
   a. Trends YoY?

	2015	2016	2017	2018	2019
Total number of investments					
Amount of Investments					

   b. Are you expecting more deals in 2020 (an upward trend)?
   Yes _______No________
   c. If yes, how many?

D. Perspectives on ecosystem

28. Quality of entrepreneurs/deal-flow.
   a. Do you see a difference in the quality/deal-flow from start-ups run by women?
      - Yes ________
      - No ________
   b. Please, explain. ____
29. Intermediaries and upstream /deal-flow activity
   a. How do you source deals? Do you source deals from ecosystem actors (e.g. accelerators)?
   b. Who are the ones you think are the best?
   c. In general, are intermediaries useful in helping on the pre-investment /deal flow front?
   d. What gaps do you see in them?
30. Are there any legal, regulatory or policy areas where improvements could lead to more start-ups and investment in Pakistan?
31. Where do you see the biggest capital gap for start-up to growth stage firms?
32. **Principal challenges**
   a. What are your top 2-3 challenges and what types? e.g.
      - Quality of deal-flow
      - Post-investment issues
      - Investment HR
      - Exits

- Fund economics
- Raising capital
- Regulation
- Other ___________

b. What kind of support interventions could address these issues/challenges?

c. What are the biggest challenges faced by entrepreneurs? Select top 2-3.

- Developing a scalable business model
- Finding a suitable investor
- Regulatory issues
- Determining how much money to ask for
- Lack of knowledge about how and when to raise
- Other ______________________________

d. How can these challenges be addressed?

e. Do you think women face different or greater challenges in this respect?

- No
- Yes | Explain: ____________________________

E. Entrepreneurial Perceptions of the Ecosystem

33. To what degree are the following elements an obstacle to current operations of enterprises in Pakistan?

	No Obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle	Very Severe Obstacle	Don't Know	N/A
Finance							
Access to Debt Finance							
Access to Equity Finance							
Access to Grants							
Policy & Business Environment							
Legal processes and costs for setting up a business							
Legal processes and costs for running a business							
(a) Labour Regulations							
(b) Tax Administration							
(c) Tax rates							
(d) Transport and[KM2] logistics within Pakistan							
(e) Customs and trade							
VC friendly legislation and processes							
IP rights and enforcement							

Research and development initiatives and university collaboration							
Laws and processes for foreign investments in start-ups							
Practices of informal sector competitors							
Corruption							
Digital payment mechanisms							
Availability of Market Information							

4. Intermediaries Interview Questions

A. Organization information

1. When was your organization set-up?
2. Which year have you been operating since?
3. How useful do you find the following services provided to the entrepreneur by the intermediaries in the ecosystem?

	Not useful	Slightly useful	Moderately useful	Very useful	Extremely useful	Don't Know	N/A
Events & Network Development							
Business Skills Development							
Access to Advisory Services (Legal, IP, Accounting)							
Mentorship							
Access to investors/ Funders							
Providing Direct Funding							
Access to like-minded entrepreneurs							
Access & Linkages to Markets							
Free or subsidized office space							

4. What are the objectives behind the support you offer to enterprises?
5. How do you define success for enterprises?
   - Customer acquisition
   - Revenue growth

- Scalable business model
- Product-market fit
- Raising Investment

6. How does your organization sustain itself?
    - Local/government grants
    - International grants
    - Participation fee/equity from startups
    - Consulting
    - Other ________
7. What is the team composition and their background?
8. What percentage of your team is women?

B. Intermediary's Business Model

9. How are your operations funded?
10. Do you charge for any of the services you offer? (Yes/No)
11. Do you have plans to expand in the future?
12. Do you track any data on your beneficiary entrepreneurs (sales, profits, exports, employees, investment, etc.)? (Yes/No)
13. Do you track and measure satisfaction of your beneficiaries? (Yes/No)
14. Are you willing to share these data with us? (Yes/No)

C. Type of target business

15. What is typically the level of maturity of enterprises that you support?
    - Ideation (a simple product idea with the minimum features needed to satisfy a demand from a group of users/clients)
    - Development & Launch (the period just after a company has launched and is working on their proof of concept)
    - Establishment (a startup at this stage should now be generating a consistent source of income and regularly taking on new customers)
    - Pilot (a startup at this stage will test and validate some of its assumptions, so that the final go-to-market business plan can be adjusted on the basis of validated assumptions)
    - Growth & Expansion (a stage where a business can capitalize on its stability by broadening its horizons with expanded offerings and entry into new geographies)
    - Maturity and Possible Exit (after successfully navigating the expansion stage a business is now making stable profits and may opt for an exit)
16. Do you focus on a specific industry/sector while selecting enterprises to work with? (Yes/No)
17. What is your criteria for selecting entrepreneurs to work with?
    - Startup registered with SECP
    - Product/service/prototype has already been launched
    - Startup has traction in the market
    - Technology component
    - Founder should be above 18
    - Founder(s) should be full-time on their business
    - Startup founder is physically present on-site for the duration of the program
    - Other ______________________

D. Activities to date

18. How many startups has your organization supported so far?
19. What is the time period over which you supported these startups?
20. What percentage of your start-ups have a female founder or a co-founder?
21. What are some challenges your organisation is facing?
    - Developing network/partnerships
    - Business model sustainability
    - Sector expertise
    - Recruiting employees
    - Recruiting mentors
    - Access to investors
    - Securing suitable applications
    - Other: ___________________

E. Raising capital

22. Does your organization engage with investors in any way?
    a. Yes b. No
23. If yes, in what way?
    - We have an investor panel
    - We host investor meet and greets
    - We allow investors access to our portfolio companies\
    - We host investor trainings
    - Other ______________________
24. Does your organization support your entrepreneurs in raising capital?
    a. Yes b. No
25. If yes, in what way?
26. In your opinion, which of the following funding stages are faced with the biggest capital gap in the market?
    - Angel round
    - Pre-seed
    - Seed
    - Series A
    - Series B
    - Series C
    - Don't know
27. What is your perspective on the challenges faced by entrepreneurs in raising capital?
28. What are the biggest challenges faced by entrepreneurs? Select top 2-3.
    - Developing a scalable business model
    - Finding a suitable investor
    - Regulatory issues
    - Outdated laws
    - Determining how much money to ask for
    - Lack of knowledge about how and when to raise
    - Other _____________________________

29. Do you think women face different or greater challenges in this respect?
    a. No
    b. Yes | Explain: ____________________

F. Policy/regulation

30. What regulatory challenges do your supported enterprises face – either in raising capital or generally? (Select top 3)
    - Expensive licensing
    - Weak IPO laws
    - Taxations
    - Payments & flow of money
    - Inadequate public sector funding for research and development
    - Other ________________________

31. Are there any policy interventions that would improve the entrepreneurial ecosystem (what are the top 3)?
    - One-window solution for startup regulatory issues
    - Tax breaks
    - Bankruptcy laws
    - Crowdfunding
    - Tax incentives for Angel and Corporate Investors
    - Financial regulations for making/receiving international payments
    - Other ______________________

G. Entrepreneurial Perceptions of the Ecosystem

32. To what degree are the following elements an obstacle to current operations of enterprises in Pakistan

	No Obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle	Very Severe Obstacle	Don't Know	N/A
Finance							
Access to Debt Finance							
Access to Equity Finance							
Access to Grants							
Policy & Business Environment							
Legal processes and costs for setting up a business							
Legal processes and costs for running a business							
(a) Labour Regulations							
(b) Tax Administration							

(c) Tax rates							
(d) Transport and logistics within Pakistan							
(e) Customs and trade							
VC friendly legislation and processes							
IP rights and enforcement							
Research and development initiatives and university collaboration							
Laws and processes for foreign investments in start-ups							
Practices of informal sector competitors							
Corruption							
Digital payment mechanisms							
Availability of Market Information							

5. Co-working Spaces Interview Questions

About the Space

1. How many startups work out of your co-working space?
2. What facilities do you provide startups?
3. What are your operating hours?
4. What percentage of female-led startups are currently housed here?
5. How important is the location of a co-working space?
6. When was it established?
7. How many spaces do you currently have?
8. Business model for your space? (do users pay per desk or for office)

Programming

9. What kind of events do you host?
10. What percentage of entrepreneurs attend your events?
11. Do you provide professional networking opportunities to your members?
12. List down 3 most important types of support you offer to your enterprises?

Challenges

13. What are the biggest challenges faced by entrepreneurs? Select top 2-3.
    - Developing a scalable business model
    - Finding a suitable investor
    - Regulatory issues
    - Determining how much money to ask for
    - Lack of knowledge about how and when to raise
    - Other ______________________________

14. Do you think women face different or greater challenges in this respect?
    a. No
    b. Yes | Explain: ___________________________

Entrepreneurial Perceptions of the Ecosystem

15. To what degree are the following elements an obstacle to current operations of enterprises in Pakistan?

	No Obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle	Very Severe Obstacle	Don't Know	N/A
Finance							
Access to Debt Finance							
Access to Equity Finance							
Access to Grants							
Policy & Business Environment							
Legal processes and costs for setting up a business							
Legal processes and costs for running a business							
(a) Labour Regulations							
(b) Tax Administration							
(c) Tax rates							
(d) Transport and logistics within Pakistan							
(e) Customs and trade							
VC friendly legislation and processes							
IP rights and enforcement							

Research and development initiatives and university collaboration							
Laws and processes for foreign investments in startups							
Practices of informal sector competitors							
Corruption							
Digital payment mechanisms							
Availability of Market Information							

6. Policy Reforms Interview Questions

1. Tell us a little bit about your work as it relates to entrepreneurship in Pakistan?
2. What are the most common regulatory gaps in the entrepreneurial ecosystem in Pakistan?
3. What kind of policy changes are required to attract foreign investment for the growth of Pakistan's startup ecosystem?
4. Early stage capital gap is a major challenge faced by entrepreneurs in Pakistan. What policy level reforms can help improve access to formal finance including equity financing, while addressing issues such as 'lacking documentation' and collateral?
5. Are the current investment policies and financial procedures friendly towards the investors?
6. Has there been an increase in access to finance over the last decade?
   a. Yes   b. No
7. Women entrepreneurs (as compared to their male counterparts) are at a disadvantage when it comes to their access to finance?
   a. Agree   b. Disagree
8. What initiatives have been taken to increase access to finance for women entrepreneurs?
9. What actions can be taken at policy level to reduce gender bias ? (especially with regard to access to finance , business operations).
10. What are the biggest challenges faced by entrepreneurs? Select top 2-3.
    - Developing a scalable business model
    - Finding a suitable investor
    - Regulatory issues
    - Determining how much money to ask for
    - Lack of knowledge about how and when to raise
    - Other ______________________________
11. Do you think women face different or greater challenges in this respect?
    a. No
    a. Yes | Explain: ___________________________

Entrepreneurial Perceptions of the Ecosystem

12. To what degree are the following elements an obstacle to current operations of enterprises in Pakistan?

	No Obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle	Very Severe Obstacle	Don't Know	N/A
Finance							
Access to Debt Finance							
Access to Equity Finance							
Access to Grants							
Policy & Business Environment							
Legal processes and costs for setting up a business							
Legal processes and costs for running a business							
(a) Labour Regulations							
(b) Tax Administration							
(c) Tax rates							
(d) Transport and logistics within Pakistan							
(e) Customs and trade							
VC friendly legislation and processes							
IP rights and enforcement							
Research and development initiatives and university collaboration							
Laws and processes for foreign investments in startups							
Practices of informal sector competitors							
Corruption							
Digital payment mechanisms							
Availability of Market Information							

APPENDIX C

APPENDIX C

LIST OF INTERVIEWEES

Investors/Funders

S.No.	Name	Organization
1.	Aban Haq	DFID - Karandaaz
2.	Hasan & Ahmed Javed	Artistic Ventures
3.	Ali Mukhtar	Fatima Ventures
4.	Ali Samir Oosman	TPL E-ventures
5.	Ashraf Kalim	Angel Investor
6.	Atif Azim	VentureDive
7.	Atif Khan*	LMKT
8.	Ayesha Khan	Acumen
9.	Danish Elahi	Elahi Group of Companies
10.	Faisal Aftab	Lakson Investments
11.	Hammad Umer Mamee	Insitor Impact Asia Fund
12.	Helen Kamal	Ilm 2
13.	Humayun Mazhar	CresVentures
14.	Kaiyan Yousef	USAID SMEA
15.	Khurram Zafar	47 Ventures
16.	Misbah Naqvi/Asad Jafri	i2i Ventures
17.	Rabeel Warraich	Sarmayacar

Intermediaries

S.No.	Name	Organization
1.	Adnan Faisal*	NUST TIC
2.	Akash Shaikh	Nest i/o
3.	Atif Mumtaz	Plan 9

4.	Ayesha Jamal	Hangout
5.	Bilal Zafar	Takhleeq
6.	Fasieh Mehta	NIC Islamabad
7.	Madiha Parvez	Telenor Velocity
8.	Maryam Mohiuddin Ahmed	Social Innovation Lab
9.	Mehrul Hassan	Bahria Incubator
10.	Mughees Tahir	Plan X
11.	Nabeel Qadeer	Innovation District 92
12.	Osama Jawad	NIC Lahore
13.	Rohma Labeeb	Invest2Innovate
14.	Saad Idrees	Daftarkhwan
15.	Saad Riaz	Kickstart
16.	Sadaffe Abid	Circle
17.	Shahjahan Chaudhary	NIC Karachi
18.	Shehryar Hydri	P@SHA

Individuals Influencing Policy Reforms

S.No.	Name	Organization
1.	Mubariz Siddiqui	Lawyer
2.	Rizwana Asif	Islamabad Chamber of Commerce
3.	Saram Bukhari	Center for Social Entrepreneurship
4.	Sonia Jahangir Seth	SMEA
5.	Vaqar Ahmed	SECP
6.	Yusra Nabil	British Council

Entrepreneurs

S.No.	Name	Organization
1.	Usman Javaid	Ricult
2.	Owais Zaidi	CreditFix
3.	Suniya Sadullah Khan & Muhammad Mustafa	Mauqa Online
4.	Amneh Shaikh-Farooqui	Polly and Other Stories
5.	Danielle Sharaf	Switch
6.	Jeremy Higgs	Ecoenergy
7.	Ali Ladhubhai	Karlo Compare
8.	Yassir Pasha	TapMad
9.	Nabeel Siddiqui	Modulus Tech
10.	Imran Ali Khan	Zameen
11.	Sara Khurram	Sehat Kahani
12.	Muneeb Maayr	Bykea
13.	Yasser Bashir	Arbisoft
14.	Myra Qureshi Jahangir	CoNatural

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