invest2innovate

PAKISTAN STARTUP ECOSYSTEM REPORT

2021

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CONTENTS

LIST OF ACRONYMS

A

ADGM	Abu Dhabi Global Markets
AI	Artificial Intelligence
AML	Anti-Money Laundering
ANDE	Aspen Network of Development Entrepreneurs
AWS	Amazon Web Services

B

B2B	Business to Business
B2C	Business to Customer
BIC	Business Incubation Center
BNPL	Buy-Now Pay-Later
BPO	Business Process Outsourcing

C

CEO	Chief Executive Officer
CFT	Combating the Financing of Terrorism
COO	Chief Operating Officer
CPF	Countering Proliferation Financing

D

D&I	Diversity and Inclusion
DFT	Deal Flow Tracker

E

EMI	Electronic Money Institutions
ESO	Entrepreneur Support Organization
ETO	Electronic Transactions Ordinance, 2002
EY	Ernst & Young

F

FBR	Federal Board of Revenue
FDI	Foreign Direct Investment
FE	Foreign Exchange
FMCG	Fast Moving Consumer Goods

G

GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GEDI	Global Entrepreneurship and Development Institute
GEI	Global Entrepreneurship Index
GEM	Global Entrepreneurship Monitor
GGPI	Global Gender Parity Index
GOE	Growth-Oriented Entrepreneurs
GP	General Partner
GSER	Global Startup Ecosystem Report

H

HCI	Human Capital Index
HEC	Higher Education Commission
HIES	Household Income and Expenditure Survey
HNWI	High Net Worth Individuals
HOVF	High Output Venture Fund

I	i2i	Invest2Innovate
	IBFT	Interbank Fund Transfers
	ICT	Information and Communication Technology
	ILO	International Labor Organization
	ILO-WED	International Labor Organization's Women Entrepreneurship Development
	IMF	International Monetary Fund
	INR	Indian Rupees
	IP	Intellectual Property
	IPO	Initial Public Offering
	IVC	Indus Valley Capital
J	JSIL	JS Investment Limited
K	KLI	Karachi-Lahore-Islamabad
	KLIP	Karachi-Lahore-Islamabad-Peshawar
	KPITB	Khyber Pakhtunkhwa Information Technology Board
	KYC	Know-Your-Customer
L	LDI	Labor Development Index
	LIVC	Lakson Investment Venture Capital
M	M&A	Mergers and Acquisitions
	MD	Managing Director
	MENA	Middle East and North Africa
	MENAP	Middle East, North Africa and Pakistan
	MENAPT	Middle East, North Africa, Pakistan, and Turkey
	MEVP	Middle East Venture Partners
	MIT	Massachusetts Institute of Technology
	MoITT	Ministry of Information Technology and Telecommunications
	MVP	Minimum Viable Product
N	NADRA	National Database Regulatory Authority
	NBER	National Bureau of Economic Research
	NBFC	Non-Banking Financial Company
	NC	Network Cluster
	NHDR	National Human Development Report
	NIC	National Incubation Centers
	NYU	New York University
	NYU-AD	New York University Abu Dhabi
O	OPEN	Organization of Pakistani Entrepreneurs
	ORIC	Offices of Research, Innovation and Commercialization
P	P@SHA	Pakistan Software Houses Association for IT and ITeS
	PE	Private Equity
	PECA	Pakistan Electronic Crimes Act, 2016
	PIAIC	Presidential Initiative for Artificial Intelligence and Computing
	PITB	Punjab Information Technology Board
	PKR	Pakistani Rupees
	PNIP	Pakistan National Investor Portal
	PSEFT	Payment Systems and Electronic Funds Transfers (PSEFT) Act, 2007
	PSO	Payment Service Operators
	PSP	Payment Service Providers
	PSW	Pakistan Single Window

PSX	Pakistan Stock Exchange
PTA	Pakistan Telecommunications Authority
PwC	PricewaterhouseCoopers'

R

RINU	Responsible Investment Network Universities
ROI	Return on Investment
ROSCA	Rotating Savings and Credit Associations

S

SAM	Serviceable Addressable Market
SBP	State Bank of Pakistan
SDG	Sustainable Development Goals
SEA	South East Asia
SECP	Securities and Exchange Commission of Pakistan
SEZ	Special Economic Zones
SGD	Singaporean Dollars
SHRM	Society of Human Resource Management
SME	Small Medium Enterprise
SMEA	Small and Medium Size Enterprise Activity
SMEDA	Small and Medium Enterprises Development Authority
SPAC	Special Purpose Acquisition Companies
STZA	Special Technology Zones Authority

T

TAM	Total Addressable Market
TPSP	Third Party Service Provider

U

UBO	Ultimate Beneficial Owners
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UHNWI	Ultra High Net Worth Individuals
UPI	Unified Payment Interface
USAID	United States Agency for International Development
USD	United States Dollars
UX	User Experience

V

VC	Venture Capital
VCX	Venture Capital Exchange
VFP	Venture for Pakistan

W

WB	World Bank
WBL	Women, Business and the Law Index
WeBOC	Web-based One Customs
WEF	World Economic Forum
WeFi	Women Entrepreneurs Finance Initiative
WHT	Withholding Tax
WLFP	Women Leaders Fellowship Program

Y

YC	Y-Combinator
YoY	Year-over-Year
YTD	Year to Date

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We would like to thank all ecosystem stakeholders who contributed to the report by providing their opinions and perspectives. This encompasses ecosystem stakeholders such as startup founders (and senior personnel within these startups), local and international investors, managerial staff from incubators and accelerators, and individuals working in a policy-advisory or policymaking capacity in Pakistan.

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NOTE FROM THE FOUNDER

KALSOOM LAKHANI

Founder at i2i &
GP at i2i Ventures

For those who only recently began following the Pakistan startup ecosystem, the growth in startup funding makes it seem like this was an overnight success. For those of us who have been working in the market for years, the foundation for the heights we reached in 2021 was laid down in the past decade, with a number of players working behind the scenes to make this a reality. Startups raising $350M in funding in 2021, over five times of what we did the year before, was the culmination of a number of factors that all converged at the same time: from policy level changes by the State Bank of Pakistan (SBP) and the Securities and Exchange Commission of Pakistan (SECP) that were pushed for by private sector players, to the pandemic that accelerated digitization, to macroeconomic considerations that caused international funds to look to newer emerging markets for outsized returns. While this growth is exciting, we need to also work to build the capacity of our local startup ecosystem and all its players if we want to see sustainable and long-lasting change. If the hype dies tomorrow, the Pakistan startup space needs to be able to support this growth on its own. As a Pakistan-focused venture capital fund, our role isn't to just invest in early-stage companies, it's to also help these founders build value over time. We always say that players in the Pakistan startup ecosystem are all building the road in front of us, and that holds true today – the future is exciting, but it requires everyone to play a role in its evolution.

A WORD FROM ONE OF OUR SPONSORS

INDUS VALLEY CAPITAL

AATIF AWAN

Founder & GP
Indus Valley Capital

Gold Sponsor

Pakistani startups arrived on the global stage in 2021 in a big way, raising more funding than all prior years combined. Tiger Global, Dragoneer, Addition, 20VC and Buckley Ventures joined the list of VCs investing in Pakistan, which already included top names like Kleiner Perkins, First Round and Prosus.

The rise of Pakistani startups has been exponential. VC funding in Pakistan as a percentage of GDP grew 10x faster than the MENA startup ecosystem over the last 3 years and is now at parity.

Indus Valley Capital has been fortunate to have a front-row seat to this rise. We led the first rounds for Airlift and Bazaar, the top two most valuable startups based out of Pakistan. Together, they have raised a third of all VC funding in Pakistan over the last couple of years.

Our mission is to help founders build the most transformational and impactful companies in Pakistan. We believe it's just the beginning and there will be many such startups this decade. We look forward to being the earliest and closest partner for many more of them and further growing the ecosystem.

A WORD FROM ONE OF OUR SPONSORS

ANUSHAE JAMAL JAN

Investment Analyst
(Venture Capital)

HBL

Silver Sponsor

With close to $350M in investments and a total of overall 83 deals, Pakistan saw 355% growth in investment value and a 63% increase in the number of deals since 2020.[1] It was for these reasons that the HBL VC Fund was established. The Fund's primary objective is to learn from its investee companies to facilitate both HBL's and Pakistan's digital transformation journey, and drive SME integration within the economy. Our pipeline comprises companies that are working to drive financial inclusion at every end of the spectrum for the large unbanked population in Pakistan, including women and children. The HBL VC Fund is particularly excited to invest in companies that are providing solutions for financial inclusion, demonstrating strong product market fit, and fundamentally changing user behavior. The Fund has completed two investments to date, the first one being in Finja, a new-age, financial organization leading the digital lending revolution in Pakistan by providing accessible financial services to MSMEs, Supply chain and Consumers. The second investment was in Healthwire, the largest digital healthcare platform of Pakistan with patient data of 4,000,000+ Pakistanis and 4000+ doctors using its software.

Being a strategic investor, the Fund's partnership with investee companies spans beyond equity investment to developing a working relationship categorized by multiple synergies and collaboration use-cases. In this regard, Finja and HBL have identified six collaboration opportunities spanning from On-us support across the HBL ATM network to Finja becoming the first partner for the PKR 1Bn fintech credit line launched by HBL. The VC Fund Team has also been working with HBL's Corporate Investment Banking Group to launch an innovation banking vertical catered to providing banking products and services to startups in the entrepreneurial ecosystem. The aim of this initiative is to cement HBL, as a "technology company with a banking license", as the preferred bank of other technology companies. Over the course of this one year, the HBL VC Fund introduced 7+ startups to various departments within HBL for collaboration and providing dedicated client services.

In terms of the focus areas for investment, the HBL VC Fund continues to remain fairly sector agnostic while looking at opportunities within the various fintech verticals like BNPL, Neobanks, Digital Trading. Agritech/Supply Chain Digitization Platforms, Edtech, Logistics, and E-Commerce. This has helped the fund in shaping it's investment criteria and allowing it to enter at pre-seed or seed stage of funding, in lieu of rising valuations within the space following investments from foreign VCs like Tiger Global. The Fund foresees that the Pakistani market, with a vast majority of heterogeneous groups within its 200M population, presents a huge opportunity for Neobanks concentrated on serving underserved segments, to thrive. Additionally, it was the objective of these tech-companies to provide embedded banking services that drove the Fund to invest into a non-financial digital platform like Healthwire.

1 https://magnitt.com/research/pakistan-2022-venture-investment-report-50801

EXECUTIVE SUMMARY

Despite the global COVID-19 pandemic, investments raised by startups in Pakistan hit an all-time high at **$350 million,** more than five times the $65 million raised in 2020. **With almost 64% of the country's population under the age of 30,**[2] Pakistan's and its present youth bulge can help to catalyze digital adoption and, subsequently, economic growth. However, the opportunity for growth comes with the challenge of creating sufficient jobs and providing sufficient infrastructure for the two million individuals entering the workforce every year.[3] This path of growth (and its associated challenges) puts the technology entrepreneurship ecosystem as the focus of systematic change required to sustain Pakistan's economic growth.

Several key factors have recently helped to accelerate the growth of local startups. For instance, the number of cellular connections have increased from **168 million** in **2019-20** to **184 million**[4] by the end of **2020-21** — a difference of **16 million (approximately 9.5%).** Additionally, **14 million** new broadband connections were logged during **2021**, underscoring the gradual shift among the population toward digitalization.[5] In the commercial space, the number of new businesses has risen to over **12,500** as of **June 2021** with the **IT/ITes** sectors now accounting for **16%** of all newly incorporated companies.[6]

Recent years have seen an increasing shift in how investors in developed economies have sought to broaden their holdings to emerging and frontier markets such as Pakistan.[7] The country has thus gained rapid traction among international investors, especially over the past two years: startups raised a total of **$350 million** via **83** deals in 2021 alone (accounting for over **60%** of all deals completed within the past seven years). Notable international investors, including Tiger Global and Kleiner Perkins, also made their first entry into the Pakistani startup landscape in 2021. Amid investor-side interest, newer startups have emerged with the value proposition of digitizing traditional brick-and-mortar-driven sectors including agriculture and B2B commerce.

In part, the strides made by the ecosystem can be attributed to a more facilitative administration, which has gradually rolled out new initiatives to cater to the evolving market requirements. For instance, the **State Bank of Pakistan (SBP)**, in setting forth the legal framework for **Electronic Money Institutions (EMIs),** has contributed to the proliferation of FinTech startups.[8] Similarly, the **Securities and Exchange Commission of Pakistan (SECP)** has established a separate legal definition for startups (in the same vein as Corporate Entities and Section 42 Non-Profits).[9] The federal government has also taken steps to ensure that IT & technology is considered as a nationally viable industry sector (at a similar level to textiles and agriculture) by establishing the **Special Technology Zone Authority (STZA**) to develop **Special Technology Zones** (serving a purpose similar to **Special Economic Zones** in promoting the investment prospects of a given sector and facilitating prospective investors to stimulate activity within said sector).

In light of the ever-changing needs of a growing ecosystem, support organizations continue to provide for the unique needs of stakeholders. Currently, there are a total of **98 entrepreneurship support organizations (ESOs)** operating in Pakistan, which range from **incubation centers (22)** and **accelerator programs (13)** to **coworking spaces (18). University-based Business Incubation Centers (24)** and other organizations including **foundations, business associations, and conferences/challenges (13)** also form part of the business support provider community for startups locally. The Pakistani government, through its continued support of the **National Incubation Centers (NICs),** has also contributed to the need for accessible support services by gradually expanding its network of incubators from 2020-21 and afterward. The **Higher Education Commission (HEC)** has taken similar steps in order to foster entrepreneurial talent among Pakistani universities through the **Business Incubation Center Policy 2021.** In addition to these public sector initiatives, both existing incumbents and newer parties within the private sector, including Invest2Innovate, Katalyst Labs, Telenor Velocity, and Jazz XLR8, have continued to provide key developmental support to startups via cohort-based accelerator programs. In the same vein, a larger number of coworking spaces including players such as Daftarkhwan, The Hive, COLABS, and Kickstart, are providing workspaces and by extension networking opportunities to startup founders and freelancers.

Although these recent developments portray a positive outlook for the Pakistani startup ecosystem, they carry their own set of challenges that must be addressed in order to allow key stakeholders to equitably benefit from this growth. According to the Invest2Innovate Deal Flow Tracker (DFT), angel investor participation has increased in recent years, but is still not sufficient given the volume of startups aiming to raise pre-seed and seed-stage funding rounds in Pakistan. Even though capital has become more abundant for startups, a greater number of early-stage investors (particularly local angel investors) must be ushered into the ecosystem. The vast majority of investors who responded to our survey **preferred to invest in early-stage startups.** From the same respondent pool, **70.5%** stated an investment preference for development and launch-

2 http://hdr.undp.org/en/content/unleashing-potential-young-pakistan
3 Pakistan Economic Survey 2020-21
4 https://www.pta.gov.pk/en/telecom-indicators/1
5 https://www.pta.gov.pk/en/telecom-indicators/1#broadband-subscribers
6 Securities and Exchange Commission of Pakistan
7 https://dai-global-developments.com/articles/new-research-offers-alternatives-for-frontier-markets
8 Regulations for Electronic Money Institutions (EMIs), State Bank of Pakistan, 2019.
9 Companies (Amendment) Act, 2021. National Assembly of Pakistan. 2021

stage startups. This implies that financial capital for later-stage rounds is scarce due to a lack of investors willing to invest at these stages, which is in line with present investment trends — most deals in 2021 took place at the pre-seed (**$32 million** raised across **14 deals**) and seed stage **($123 millio**n raised across **46 deals**) — confirming that a lack of funding for companies in later stages is an emergent issue when startups reach this phase of their growth cycles.

These bottlenecks, in conjunction with investor regulations that disincentivize local funds from being licensed in Pakistan (and international investors from investing in entities solely registered in Pakistan), pose a serious challenge to local startups. A significant majority of the investors participating in our study also pointed out **that the lack of laws allowing for the seamless inflow of foreign investment capital into the country, as well as the lack of appropriate VC-friendly legislation and processes, both pose considerable barriers to local and international investors alike.** Two further focal concerns revolve primarily around local tax administration regulations: **a lack of clarity on sector-specific taxation policies, and concerns regarding taxation on capital gains in the case of exits,** that, according to key stakeholders, create an unfriendly business environment.

Glaring gender disparities also prevent female-founded startups from achieving their full potential. This endemic issue is rooted in institutional inequities, as evidenced by Pakistan's dismal performance on the Global Gender Parity Index, **ranking 153rd out of 156 countries**.[10] This gap is further highlighted by the barriers that female-founded startups face in accessing capital; consequently, solely female-founded startups account for only **1.4% of all investments raised within the past seven years.** Bridging this funding gap as well as remedying key structural challenges are urgently necessary to increase women's participation in Pakistan's economic development.

With respect to the existing perception of support services within the ecosystem, both founders and investors emphasized the need to develop more bespoke service offerings, especially for founders in the later stages of their startups' lifecycle. A lack of investor readiness elements within existing curricula was also stated to be a deficiency hindering the prospects of newer, less experienced founders seeking to raise. Investors also tended to avoid support organizations as a source of deal flow due to perceived deficiencies in existing local support programs, especially when compared to their international counterparts. In line with their perceptions, a majority of investors **did not have a formal relationship with ESOs in the local ecosystem;** this can be attributed to a lack of alignment between what investors seek in startups and what elements local support organizations focus on developing.

Our report's findings also showed that university incubators do not adequately prepare young graduates for entrepreneurship and must provide more meaningful R&D support to the ecosystem more generally. In the context of Pakistan, this is likely a significant reason why **founders with higher education from an international institution are more likely to raise successfully, to raise bigger ticket sizes, and to raise from international investors compared to founders with local education.** While the onus of developing high-quality and skilled human capital rests not solely on higher education institutions, these entities do play a central role in the process. Key stakeholders highlighted that while technical talent in Pakistan is sufficient with respect to raw numbers, it currently lacks in key attributes including critical thinking abilities, product-oriented experience, and cross-functional flexibility in comparison to their counterparts in other regional ecosystems. Founders cited these skills as necessary for technical team members to eventually assume strategic managerial positions, thereby also forming an internal pipeline for management talent. In addition, due to this excess demand and relatively constrained supply of highly skilled human capital, technical talent is now finding it much easier to hop from one company to another for raises in salary. This has led human resources becoming more expensive than ever before as well as difficulty among startups in retaining valuable team members, which can pose a serious challenge as these startups scale.

As Pakistan's economy currently faces a recession on the other hand the startup ecosystem is booming, which is an indicator of an accelerated digital economy in the future. Fortunately, there are precedents around the globe that have proven the pivotal role that startups play in economic recovery after such recessions. Such startups, often termed as the "Davids" to the bigger and less nimble "Goliaths", have the potential to create jobs, attract foreign investment, and stay relevant in an ever-changing landscape through their continual, fast-paced and agile innovations.[11] Therefore, it is imperative that the government and all other key stakeholders understand that we are at a crossroads, where addressing the needs of these startups and their affiliates, and creating a favorable environment for them will determine the course of the entire digital economy over the years to come. In fact not just the government but the broader business ecosystem including corporates, big conglomerates, investors, support organizations and individuals working for policy reforms have a key role to play when it comes to industrial policy and facilitation of startups. The fate of the startup ecosystem and its role in the future economic recovery of Pakistan vastly rests on whether these players will continue to garner a better environment for startups where they not only survive but thrive.

10 Global Gender Gap Report - World Economic Forum

11 https://techcrunch.com/2012/03/18/startups-and-economic-recovery/

01 INTRODUCTION

Pakistan's startup ecosystem experienced significant growth in 2021. Despite the global COVID-19 pandemic, investments raised by startups in Pakistan hit an all-time high at **$350 million,** more than five times what was raised in 2020. According to notable experts in the ecosystem, the total market capitalization for all Pakistani startups currently lies between an estimated **$1.5 billion** and **$2 billion**, and is expected to increase to **$6 billion** over the next five years and to **$30 billion** by 2031.[12] Despite macroeconomic uncertainty going into 2022, this trend is still promising.

Although Pakistan's current ranking on the World Economic Forum's (WEF) ICT Adoption Index has improved by 17 places from 127 in 2018 to 110 (out of 141) in 2019 2019,[13] it still lags behind comparable countries such as Bangladesh (108th), Sri Lanka (107th), Egypt (106th), Philippines (88th), Indonesia (72nd), and Vietnam (41st). See figure 1 for details. With almost 64% of the country's population under the age of 30,[14] Pakistan is at a critical juncture as this youth bulge can help accelerate economic growth. However, this opportunity comes with the challenge of creating enough jobs for the two million people entering the workforce every year.[15] This puts the technology entrepreneurship ecosystem at the heart of the structural overhaul required to cater to a younger workforce who will become primary decision makers in the near future.

12 https://restofworld.org/2021/pakistans-startup-investment-boom/
13 Global Competitiveness Report 2019 - World Economic Forum
14 http://hdr.undp.org/en/content/unleashing-potential-young-pakistan
15 Pakistan Economic Survey 2020-21

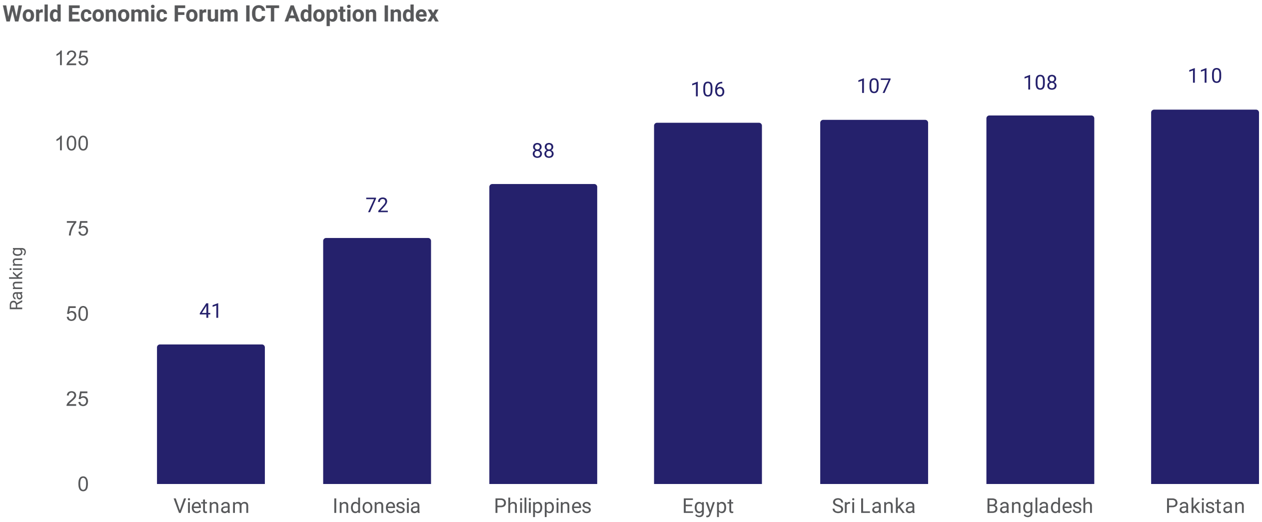


FIGURE 1 Pakistan's performance relative to comparable countries in WEF ICT Adoption Index (Source: World Economic Forum ICT Adoption Index)

Information and Communications Technology (ICT) has been widely acknowledged over the last decade as a major driver of economic growth in developing economies such as Pakistan, where digital adoption is growing rapidly.[16] Technological connectivity for remote areas and users allows for the transfer of knowledge, creation of new opportunities, and a digital leapfrogging. For example, in Kenya, mobile money solution M-PESA helped small businesses better manage their activities, lower transaction costs and brought previously excluded groups under the formal financial system.[17] Encouraging the digital economy in Pakistan, which has a GDP per capita of $1200[18] and a rural population of over 138 million,[19] can help the country realize its full potential.

Several key factors helped accelerate the growth of startups in the country more recently. For example, cell phone subscriptions increased from 168 million in 2019-20 to 184 million[20] at the end of 2020-21 - a difference of 16 million. An additional 14 million broadband connections also came online during 2021.[21] Information Technology (IT) exports continued on a steep upward trajectory and experienced 47% year-over-year (YOY) growth (i.e., $2.1 billion during 2020-2021).[22] Technology is quickly becoming the catalyst in the proliferation of new businesses, rising from slightly less than 4,000 registered companies in 2016 to over 12,500 as of June 2021 with the IT and e-commerce sectors now accounting for 16% of all newly incorporated companies in 2021.[23]

Recent years have seen an increasing appetite from commercial investors in developed economies in frontier and emerging markets, including Pakistan.[24] As a result, the country has gained more traction among international investors, especially over the last two years. While startups raised a total of $565 million across 174 deals from 2015 to 2021, more than 60% of these investments were raised in 2021 alone — $352 million via 83 deals, including record-breaking investment rounds such as Airlift's $85 million (Series B) and Bazaar's $30 million (Series A) deals. Notable international investors, such as Tiger Global, Kleiner Perkins, firstminute Capital, and Hustle Fund made their first investments in Pakistan this past year. Amidst this activity, a new breed of startups led by more seasoned founders has emerged, digitizing traditional sectors including agriculture, logistics, and financial services for the first time. Startups including Tazah, Jiye Technologies, and Easy Fresh, aim to digitize Pakistan's agriculture supply chain, while B2B e-commerce startups including Bazaar, Dastgyr, Jugnu, Retailo and Tajir, are working to streamline procurement processes for traditional mom-&-pop (kiryana) stores.

16 Majeed, M.T., & Ayub, T. (2018). Information and communication technology (ICT) and economic growth nexus: A comparative global analysis.

17 https://docs.gatesfoundation.org/documents/mobile-money.pdf

18 https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=PK

19 https://www.macrotrends.net/countries/PAK/pakistan/rural-population#:~:text=Pakistan%20rural%20population%20for%202020,a%201.72%25%20increase%20from%202017.

20 https://www.pta.gov.pk/en/telecom-indicators/1

21 https://www.pta.gov.pk/en/telecom-indicators/1#broadband-subscribers

22 www.pbs.gov.pk%2Fsites%2Fdefault%2Ffiles%2F%2Fexternal_trade%2Fmonthly_external_trade%2F2021%2FAugust-2021%2Fservices_detail_june_2021.pdf&clen=539214&chunk=true

23 Securities and Exchange Commission of Pakistan

24 https://dai-global-developments.com/articles/new-research-offers-alternatives-for-frontier-markets

To a certain extent, progress in the startup ecosystem can also be attributed to a more progressive regulatory regime, which is receptive to the key stakeholders' needs. For instance, the State Bank of Pakistan (SBP) played a proactive role in encouraging the development of financial technology startups by creating the legal framework for Electronic Money Institutions (EMIs).[25] In addition, the SBP introduced a Digital Banking Policy for 2022; this will, for the first time, allow digitally native players to offer a full range of financial services including payments, investments and lending. The SBP also launched a micropayment gateway, Raast, similar to India's United Payment Interface (UPI), which will lower the cost of transactions and provide the foundation for fintech companies to build stronger use cases for their products. Similarly, the Securities and Exchange Commission of Pakistan (SECP) has recognized startups as separate legal entities per amendments made to the Companies Act.[26] The SECP also introduced a regulatory sandbox that provided a closed environment for startups experimenting with novel business models, from a P2P lending app to Real Estate Tokenization platforms. The Federal Government has also championed the cause of technology and entrepreneurship as major pillars of its economic policy. To this end, it has introduced a Digital Pakistan Policy in 2018 which identifies key policy objectives including the development of human capital skills and digitization of sectors such as health, education and commerce. Finally, the Government has established the Special Technology Zone Authority (STZA) in order to increase Pakistan's attractiveness as a technology-driven investment destination for foreign investors by offering various incentives including tax breaks and regulatory facilitation in Special Technology Zones.

In terms of support services, a growing number of organizations have emerged to address various ecosystem gaps, especially with respect to human capital. Their methods range from training entrepreneurs on business skills, pitching, and storytelling, to providing networking opportunities. The government is also playing a vital role in this space through its ongoing support of the National Incubation Centers (NICs), which are now expanding beyond the Federal and Provincial capitals to second- and third-tier cities including Swat, Kohat, Muzaffarabad, and Faisalabad. The Punjab government, through the Punjab Information Technology Board (PITB), has proven to be an early proponent of the startup incubation model and has run the Plan9 and PlanX support programs for almost a decade now. Similarly, the Higher Education Commission (HEC) has advanced one step further with the launch of its Business Incubation Center Policy 2021, which aims to nurture entrepreneurial culture among Pakistani universities. Meanwhile, private sector players such as Katalyst Labs, Epiphany, DEMO, and Invest2Innovate, as well as corporate entities including Telenor and Jazz, continue to provide key support services in the ecosystem by training startups on the fundamentals of entrepreneurship and fundraising through cohort-based accelerator programs. International development organizations including the United States Agency for International Development (USAID) (via its venture growth-focused Challenge Fund), and the United Nations Development Programme (UNDP) through its Youth Empowerment Programme, have initiated support interventions for early-stage businesses. Karandaaz, a not-for-profit special purpose vehicle set up under Section 42 of the Companies Ordinance 1984, has deployed several programs such as the Women Ventures initiative and the Innovation Challenge Fund, which work to bridge gaps in access to finance for budding entrepreneurs.

While the first coworking space in Pakistan, Suite 401 (now defunct) was formed 14 years ago, the concept of coworking started to gain traction from 2016 onwards, during which the ecosystem has witnessed spaces including Kickstart (2016), Daftarkhwan (2016), the Hive (2016), and CoLabs (2019) emerge. Kickstart (eight locations across three cities), The Hive (five locations across three cities), Daftarkhwan (five locations across three cities) and COLABS (three locations across Lahore) are currently the most notable coworking spaces in the country. These spaces have grown popular among startups by offering subsidized office space to accommodate rapidly scaling teams, as well as additional value-added services like networking and knowledge sharing. Coworking spaces have also supported the startup ecosystem's recovery from the pandemic by providing teams, freelancers, and consultants places to work collaboratively while supporting the shift towards more flexible work structures. In this respect, their significance to the startup ecosystem will only increase as the business environment continues to mature.

In order to sustain the recent boom in investment activity, Pakistan is in urgent need of human capital,

25 Regulations for Electronic Money Institutions (EMIs), State Bank of Pakistan, 2019.
26 Companies (Amendment) Act, 2021. National Assembly of Pakistan. 2021

especially in technologically-oriented domains including data science and artificial intelligence. Pakistan currently scores 0.41 (out of a maximum of 1.00 when scored against 173 countries) on the World Bank's Human Capital Index for 2020,[27] underperforming compared to benchmark countries including Vietnam (0.69), Sri Lanka (0.60), Philippines (0.52), Indonesia (0.54), Egypt (0.49), and Bangladesh (0.46). See figure 2.

According to the Ministry of Information Technology and Telecommunications (MoITT), more than 500,000 individuals are associated with the Information and Technology Sector in both IT and Business Process Outsourcing (BPO) roles. The country also produces approximately 25,000 IT graduates annually.[28] While a growing proportion of Pakistani talent is concentrated in the technology sector, its quality remains a bottleneck as identified by stakeholders in this study.

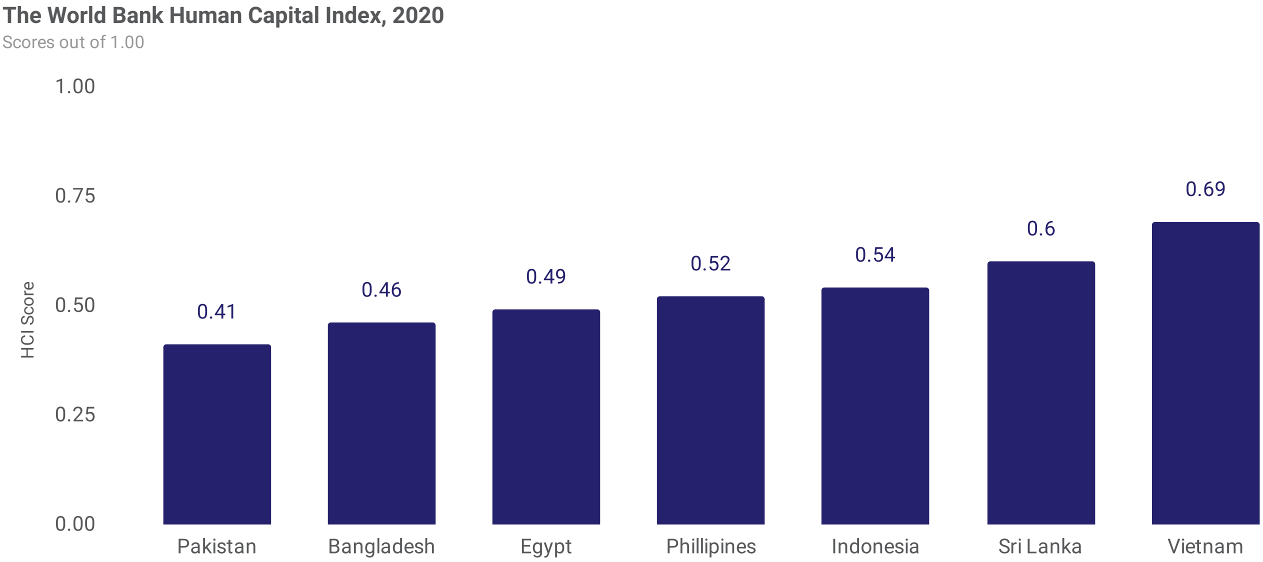


FIGURE 2 Pakistan's relative score on the World Bank's Human Capital Index (out of 173 countries) (Source: World Bank Human Capital Index (HCI) 2021).

A major gender gap persists with respect to entrepreneurship and economic opportunities for women. Pakistan is currently the fourth-worst performer on the Global Gender Parity Index, ranking 153 out of 156 countries,[29] and its female labor force participation rate has declined from 23.9% in 2015 to 21.7% in 2019.[30] This gap is exacerbated further by the barriers faced by female-founded startups in accessing growth capital, accounting for only 1.4% of the total investment amount raised by Pakistani startups from 2015 to 2021. In order to increase women's participation in Pakistan's economic development, it has become more necessary than ever to bridge this funding gap and remedy these key structural challenges. Such a process will also require legal and policy-based interventions that protect women's social and economic rights and widen the pipeline of investment-worthy female-founded startups.

Policymakers and regulatory officials have increasingly exhibited progressive tendencies toward the startup ecosystem. Sectors such as financial technology saw a considerable boom in activity and investment raised, partly due to policy reforms. In order to unlock the full potential of startups as a major driver of economic growth and employment, the serious need to improve the ease of doing business must be addressed by creating a more accommodating policy environment. To this end, the Pakistani government's levy of taxes on mobile phone devices and bans on global media platforms including TikTok serve as negative signals to both investors and entrepreneurs. Despite the record sums of investment in Pakistani startups in 2021, concerns regarding macroeconomic uncertainty persist, particularly with respect to the rupee's devaluation by over 70%[31] since 2017 as the country undergoes International Monetary Fund (IMF)-mandated policy

27 Human Capital Index, World Bank Group. 2021. [Accessed on 22nd February 2022]
28 Pakistan's IT Industry Overview, Pakistan Software Export Board, Ministry of Information Technology & Telecommunication (MoITT). (2020).
29 Global Gender Gap Report - World Economic Forum
30 https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=PK
31 State Bank of Pakistan

reforms. These pressures have prevented the economy from growing sufficiently to meet the needs of Pakistan's population despite an annual GDP growth rate of 4% in FY 2021. Pakistan thus performs worse than the Emerging Market and Developing Economies' average of 5.3% as well as below all besides Sri Lanka.[32] See figure 3 for details. As a result, local equities have lost almost 51% of their USD value since 2017,[33] resulting in the Pakistan Stock Exchange's downgrading by MSCI from the Emerging Markets index to the Frontier Markets index. This trend complements rising inflation, which presently hovers at approximately 10%[34], limiting the purchasing power of the general population. All of these factors pose significant risks to the entrepreneurial ecosystem as a worsening macroeconomic environment potentially raises the cost of operations for startups and fosters uncertainty.

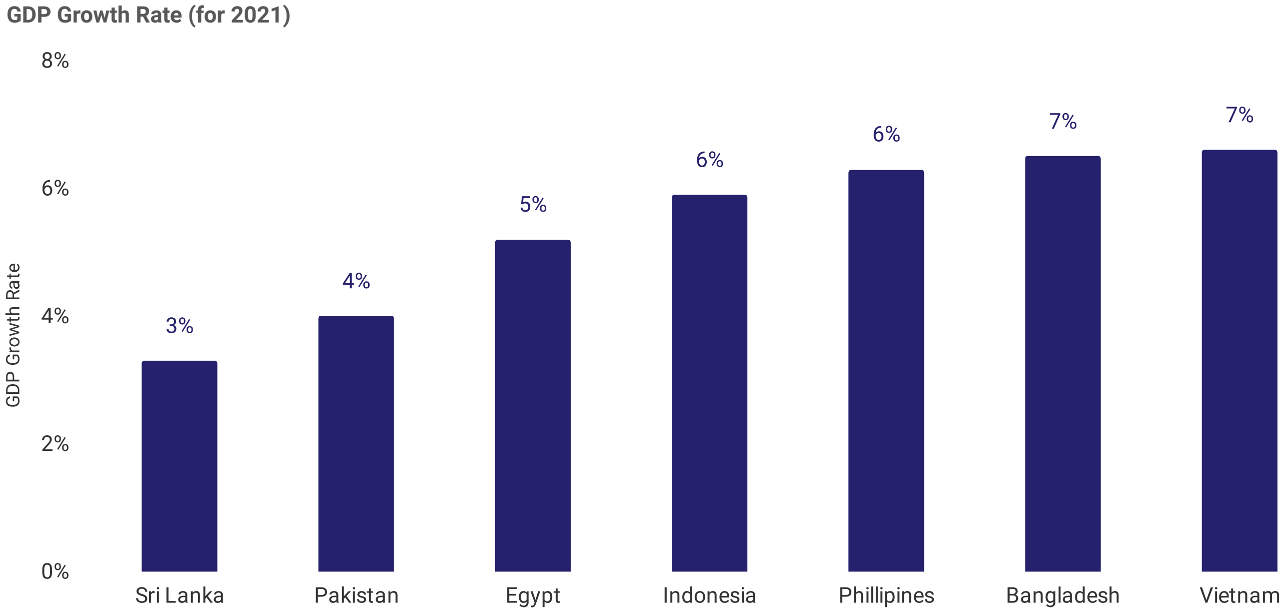


FIGURE 3 Pakistan's Real GDP Growth Rate in 2020-21 compared to Benchmark Countries[35]

THE IMPACTS OF COVID-19 IN SHAPING THE STARTUP AND INVESTMENT LANDSCAPE

Discussions on the evolution of the Pakistan startup ecosystem in 2021 would be incomplete without acknowledging the impacts of COVID-19 on startups, ranging from a shift in consumer habits to policy reforms allowing for the formation of new customer niches.[36]

Although a wide variety of sectors were gradually digitized before the pandemic, the recent surge in digital adoption occurred amidst constant lockdowns, social distancing, and the rise of remote operations and workspaces. As a result, the e-commerce and edtech sectors have grown exponentially (and, as a result, supporting sectors such as logistics and fintech). However, sectors such as travel and hospitality suffered due to travel restrictions and border closures.[37]

This stands in contrast to the global outlook in 2020 that predicted a bleak environment for startup ecosystems, in which consumer demand and commercial activities would drop considerably. Globally, venture capital financing dropped 17% in Q1 2020, with the number of investment rounds decreasing by 5%.[38] However, Pakistan's startup funding experienced substantial growth in 2020, with companies raising **$65 million**, an increase of 38% over the previous year. 2021 proveda record year for startups, with a 538% increase over 2020. Such an increased level of investor confidence also occurred outside of Pakistan, including other emerging markets (such as Southeast Asia and Africa) due to the decrease in communication barriers witnessed during the pandemic, as well as the maturation of other frontier market ecosystems since 2019.

32 https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/SRB/BGD

33 https://tellimer.com/article/pakistan-strategy-2022-dark-horse

34 https://www.pbs.gov.pk/sites/default/files//price_statistics/monthly_price_indices/nb/2022/cpi_monthly_review_january_2022.pdf

35 Real GDP Growth Rate, World Economic Outlook, International Monetary Fund. 2021 [Accessed on 22nd February 2022]

36 COVID-19 and Pakistan, Board of Investment, Pakistan. [Accessed on 28th February 2022]

37 Investors Round Table White Paper, 021Disrupt Wired. Nest I/O. 2021

38 Global Startup Ecosystem Report (GSER): State of the Global Startup Economy. Startup Genome. 2021

CONTENTS

02

METHODOLOGY

FRAMEWORK

This report provides an overview of the Pakistan startup ecosystem, gathering information from key stakeholders to identify the unique challenges and opportunities that they face. The study utilizes the Aspen Network of Development Entrepreneurs (ANDE) Ecosystem Survey Instrument,[39] a framework that encompasses key pillars of the entrepreneurship ecosystem, including finance, business support services, policy, human capital, & development/innovation, gender and entrepreneurial culture. The ANDE framework has been adjusted in order to account for local contexts. This report chooses to focus only on four of these pillars: finance, business support services, policy, human capital and applies a gender lens across the selected pillars.

The analysis below utilizes a mixture of primary and secondary data gathered using qualitative and quantitative methods from four groups of stakeholders: entrepreneurs, investors, entrepreneurship support organization (ESO) personnel, and individuals affiliated with policymaking and lobbying bodies. A detailed deal flow analysis of investments made in Pakistani startups from 2015-2021 has been added where applicable as an indicator of how the ecosystem has shifted during this seven-year span.

INSTRUMENTS

The instruments used in this report include an adjusted version of the ANDE Ecosystem Survey instrument for entrepreneurs, investors, ESO personnel, and policymakers & lobbyists. Additionally, researchers conducted 52 one-on-one interviews with individuals in all four stakeholder categories in order to help provide an in-depth and holistic perspective of the startup ecosystem.

SAMPLE SIZE

	ENTREPRENEURS	INVESTORS	ESOS	POLICYMAKERS/ REGULATORS	TOTAL
Surveys	150	17	20	3	190
Interviews	19	17	10	6	52
Case Studies	5				5
Total	**174**	**34**	**30**	**9**	**247**

39 ANDE Entrepreneurial Ecosystem Diagnostic Toolkit 2013: https://assets.aspeninstitukkte.org/content/uploads/files/content/docs/pubs/FINAL%20Ecosystem%20Toolkit%20Draft_print%20version.pdf

SAMPLING TECHNIQUE

Survey Sample Characteristics

Individuals were selected for the study through the use of a stratified random sample. In order to determine sample sizes, researchers first documented all of the startups featured in Invest2Innovate's own databases, as well as data from other support organizations and regulators. Repeating this for all other stakeholder groups to find an estimate of their respective population sizes in the country (which is often challenging in the absence of national scale comprehensive data), the team then calculated the representative sample size in proportion to the population estimates of each stakeholder group respectively. Refer to table 1.

As a dominant portion of our sample consists of startups, the prospective respondents were chosen according the following criteria:

1.1. Current operational status.

1.2. Track record of attempts to raise capital or having successfully done so.

1.3. Scale and nature of operations.

1.4. Presence of female founders and/or women as co-founders .

The investor sample emcompasses funds and individuals (regardless of where they are based) who have participated in investments in Pakistani startups. In order to ensure a diversified representation of investor experiences in dealing with portfolio affairs and regulatory matters, the sample includes angel investors, venture capital firms and other investor collectives (such as syndicates, technology-based conglomerates and institutional investors).

The ESO sample includes both public and private organizations, ranging from conventional incubation centers (both independent and university-based) to dedicated accelerator programs, coworking spaces and specialized business associations. Geographic representation is also taken into account as the resultant sample was derived from five jurisdictions across Pakistan (the four national provinces and the Islamabad Capital Territory) with organizations based out of the KLIP (Karachi-Lahore-Islamabad-Peshawar) cluster accounting for nearly half of the sample.

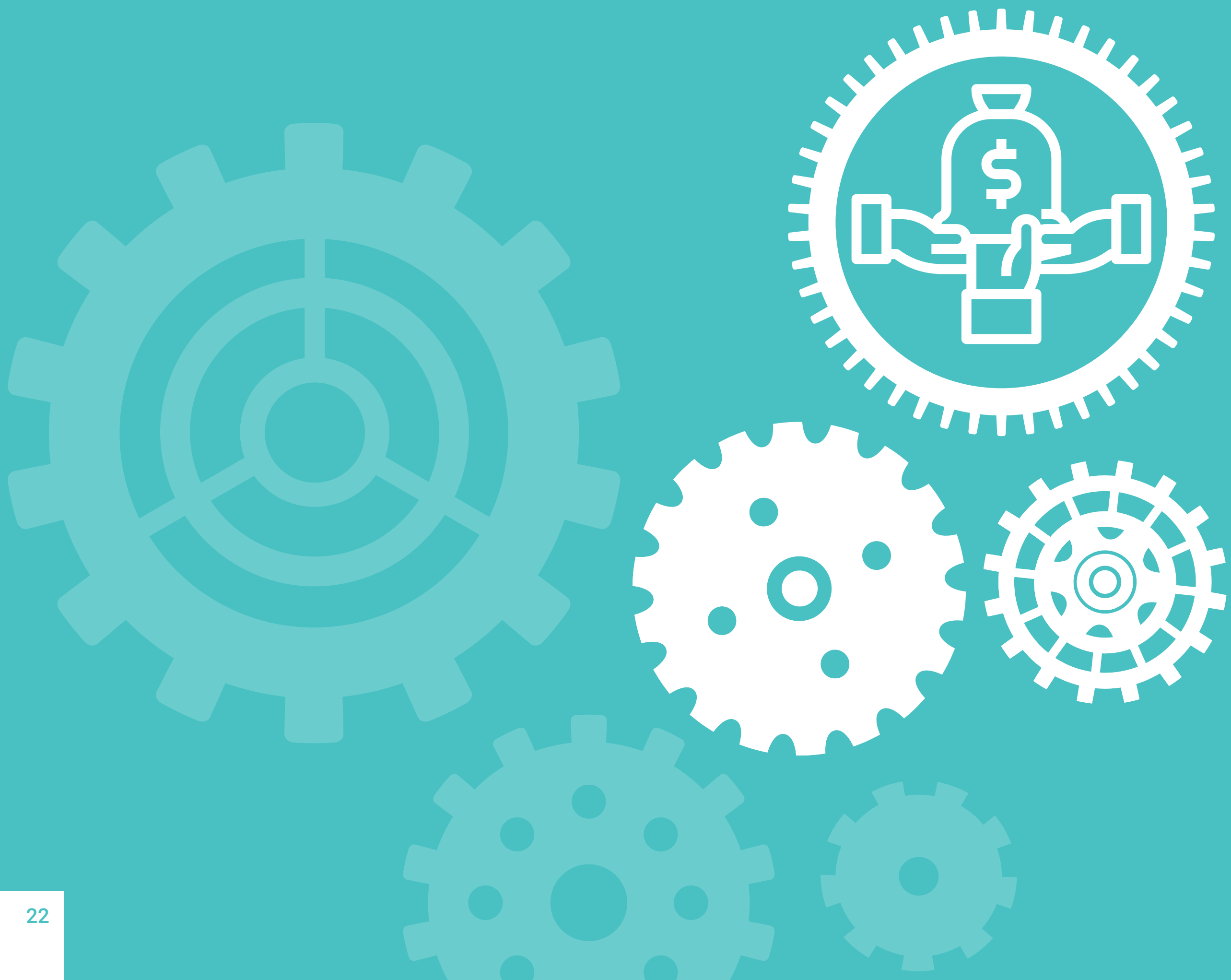
LIMITATIONS

Analyses conducted during the course of the study may be slightly skewed due to the uneven distribution of respondent categories (i.e. the universe of investors in the country consist of a higher number of VCs in comparison to other investors such as angel investors, family offices and such). The entrepreneur sample has also been weighted in order to balance the proportions of female and Male-founded startup

03

FINANCE

CONTENTS



3.1 STATE OF PLAY

For the last seven years, Pakistan's startup ecosystem has grown to become a notable engine of economic growth, generating employment and raising more than $563.5 million across 255 deals since 2015.[40] While the growth trajectory with respect to the amount raised in investment has grown consistently since 2018, 2021 served as an inflection point with a 438% increase in the amount of funding raised as compared to 2020. Pakistani startups raised a total of $352M (across 83 deals) in 2021, accounting for two-thirds of all investment raised from 2015-2021. See figure 4.

Not only was this a record-breaking year in terms of investment raised, it was also significant in terms of the number of international VCs to enter Pakistan. From Tiger Global Management to Kleiner Perkins, many of the world's most prominent VCs made their first investments in the country. While foreign investors have long viewed Pakistan with trepidation, the entry of these players is a strong positive signal for the entire market. The COVID-19 pandemic also played a role in this trend by encouraging the normalization of remote processes for networking, due diligence, and investment. The sudden boom in Pakistan's startup ecosystem serves not as an anomaly but rather as an indicator of a broader-scale trend as the growth of VC investments in startups has hit new global records, reaching $643 billion in 2021, compared to $334 billion in 2020.[41] Meanwhile, Pakistan's collective market cap for all startups is estimated between $1.5-$2 billion, with investors predicting the market cap to potentially surpass $6 billion in the next five years.[42]

In comparison to Indonesia, an ecosystem with a similar growth pattern, Pakistan exhibits significant similarities with respect to how investment capital is concentrated in a small number of sectors (16% of Indonesian investment capital existed in the domain of financial services and payments in 2020 while 27% of total Pakistani investments were concentrated in the fintech sector in 2021).[43] Indonesian tickets for Seed, Series A and Series B have increased by $300,000, $2 million and $8 million respectively,[44] while the respective ticket sizes in Pakistan have increased by $2.4 million, $1 million and $38.5 million. Both ecosystems have exhibited exponential growth in investments raised during the past two years with Pakistan having shown an increase from $65 million in 2020 to $350 million in 2021, while total investment in Indonesia's ecosystem has grown from $2.7 billion in 2020 to $4.7 billion in the first and second quarters of 2021.[45]

The recent worldwide growth in startup funding can be partially attributed to low interest rates available on fixed income and money market instruments, which have led investors to search for more lucrative opportunities in both alternative investments and untapped emerging markets such as Pakistan, which usually carries potential for higher returns. Another important factor in the recent growth of international VC investment in Pakistan is the number of startups with comparable versions in nearby emerging markets; Perceived risks attributed to Pakistani markets can be partially mitigated by comparisons with aforementioned counterparts. For instance, CreditBook, DigiKhata, and Udhaar Book can be assessed against Khatabook in India or BukuKas in Indonesia, the latter of which reportedly hit a valuation of over $30 million this year.[46] Zarya, which raised a $1.7 million pre-seed round in November 2021, can be compared to India's Meesho, which was valued at around $8 billion.[47] Comparisons such as these have helped international investors enter Pakistani markets.

Similarly, comparable countries such as Bangladesh[48], Egypt[49], and the Philippines[50] also witnessed over 200% growth in capital in 2021 as compared to 2020. In terms of the overall funding, Pakistan slightly surpasses the Philippines' investments in 2020 ($310 million),[51] and lags behind Egypt's in 2021 ($445 million)[52] by capital invested while ahead of Bangladesh in the ongoing year ($168 million).[53] Indonesia is also often used as a comparable owing to some of its macroeconomic and demographic indicators that are similar to Pakistan such as the size of the population (273 million), the youth bulge (half the population is under 30 years of age), GDP per capita ($12,000 PPP and $3,869 nominal), and internet penetration level (53.7%). In terms of capital raised by startups, however, Indonesia outperforms Pakistan, attracting more than a billion dollars in VC investments ($5.7 billion+ in 2020)[54] every year since 2016 due to its more mature startup ecosystem.

40 See Invest2Innovate's Deal Flow Tracker here to access the raw data:
41 https://news.crunchbase.com/news/global-vc-funding-unicorns-2021-monthly-recap/
42 Pakistan's tech ecosystem is booming. Here's why it will slow down in 2022 - Rest of World
43 Startup Ecosystem in Indonesia: Key Ingredients, Challenges, and Strategies. Greenhouse.co. 2020. [Accessed on 21st February 2022]
44 e-Conomy SEA 2019, Google. 2020. [Accessed on 21st February 2022]
45 Indonesia Poised to be the Next Great Startup Hub in Southeast Asia, Yahoo Finance. 2021. [Accessed on 21st February 2022]
46 BukuKas gets $50M from investors including DoorDash's Gokul Rajaram and TransferWise founder Taavet Hinrikus | TechCrunch
47 Meesho to raise $1bn at valuation of $8bn - Times of India.
48 https://www.lightcastlebd.com/startup-dashboard/
49 https://enterprise.press/whatsnexts/egypts-startup-scene-2021-part-startups-just-keep-breaking-investment-records/
50 https://www.techinasia.com/filipino-firms-raise-capital-21-3-years-combined
51 GobiCore Fund-Philippine Startup Ecosystem Report 2021
52 African Tech Startups Funding Report 2021 | Disrupt Africa
53 Bangladeshi startups have raised $125M in 2021 so far
54 Startup Report 2020 | Dailysocial

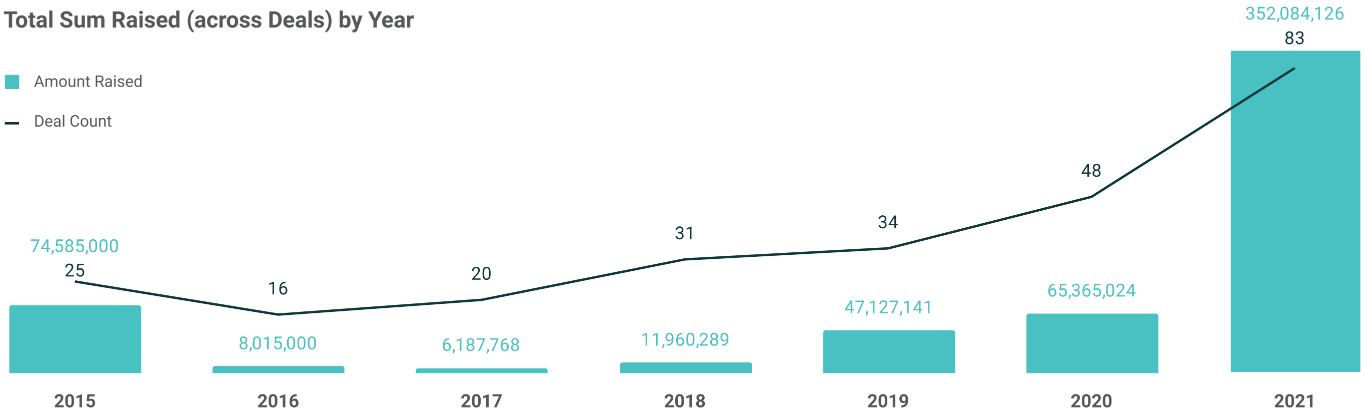
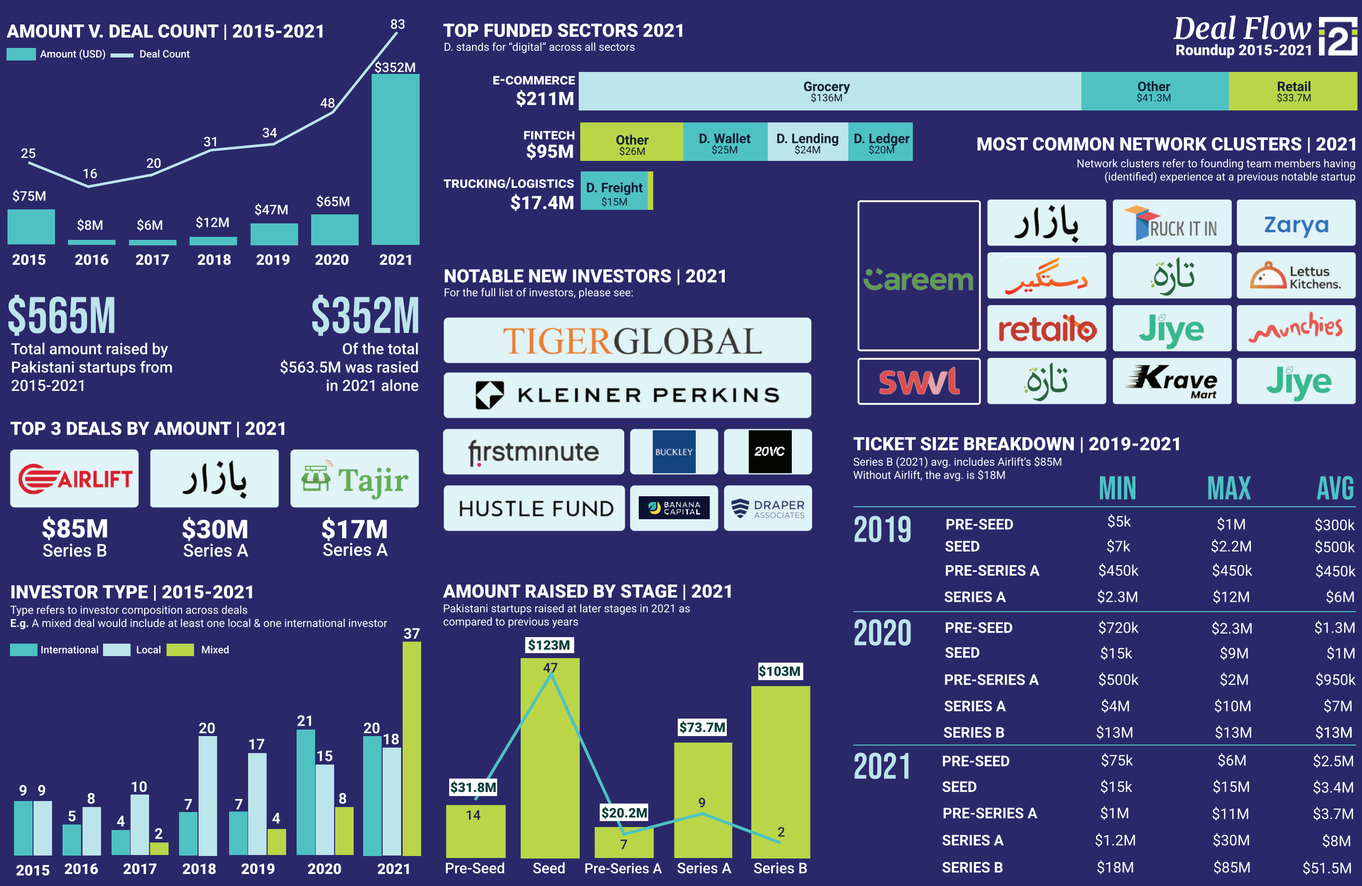


FIGURE 4 Overview of investments raised by startups in Pakistan from 2015 to 2021

E-commerce has been the largest sector both in terms of deal count (64) and amount ($315 million) from 2015-2021, with $211 million (26 deals) raised in 2021 alone. However, the sector's dominance has decreased as fintech startups continually raised bigger rounds in 2021, amounting to a total of $95 million across 25 deals, thus yielding a 2015-2021 aggregate of $113 million across 40 deals. Globally, fintech companies raised $95 billion, minting 43 unicorns in the process.[54] Digital trucking platforms notably raised sizable rounds, with Bridgelinx raising a seed round of $10 million, and Truck It In raising $4.5 million in pre-seed. Regional players are also entering the Pakistan market, with Egypt-headquartered Trella already having expanded to Pakistan while UAE-based Trukker acquired Karachi's TruckSher, which was founded in the beginning of 2021.



Year	Stage	MIN	MAX	AVG
2019	PRE-SEED	$5k	$1M	$300k
	SEED	$7k	$2.2M	$500k
	PRE-SERIES A	$450k	$450k	$450k
	SERIES A	$2.3M	$12M	$6M
2020	PRE-SEED	$720k	$2.3M	$1.3M
	SEED	$15k	$9M	$1M
	PRE-SERIES A	$500k	$2M	$950k
	SERIES A	$4M	$10M	$7M
	SERIES B	$13M	$13M	$13M
2021	PRE-SEED	$75k	$6M	$2.5M
	SEED	$15k	$15M	$3.4M
	PRE-SERIES A	$1M	$11M	$3.7M
	SERIES A	$1.2M	$30M	$8M
	SERIES B	$18M	$85M	$51.5M

FIGURE 5 Invest2Innovate's Deal Flow Overview from 2015-2021

[55] https://www.cbinsights.com/research/report/fintech-trends-q3-2021/

Of the $565 million raised in Pakistan since 2015, international investors were involved in 28.6% of deals (73), compared to local investors who participated in 38% of deals (97). However, in terms of deal value, investments by local investors can be attributed to only 9.8% of the total capital, while purely international investor-led rounds accounted for approximately 21%. Over half of the dollar value ($291 million) was driven by mixed rounds, with most of it ($238 million) coming during 2021.

More than $74 million was invested in Pakistani startups in 2015. Investment activity slowed down considerably from 2016 to 2018, only picking up in 2019, after virtually unprecedented growth by the likes of Careem, Daraz, and Foodpanda.[56] Specifically, 2019 was the only year in which local investments ($29 million) surpassed those of international VCs ($3.2 million). While Careem and Foodpanda did not originate in Pakistan, their success in the Pakistani market led to a new wave of technological growth, noted by showed investors and entrepreneurs alike.

The average ticket size of Pakistani investments also witnessed a 2.62x Year-over-Year (YoY) increase (from $1.6 million in 2020 to $5.8 million in 2021), on account of large rounds such as Airlift's $85 million Series B, Bazaar's $30 million Series A, Qisstpay's $15 million seed and more. Other notable deals exceeding $10 million in 2021 include startups such as TAG, Tajir, Jabberwock Ventures (Cheetay), CreditBook and Bridgelinx. Of the 96 investment deals exceeding $1 million, 51 were made in 2021. This falls in line with global trends: average ticket sizes for Series A in the United States have grown from $15.9 million in 2020 to $22.7 million in 2021. Bridgelinx raised a $10 million seed round only nine months after launching, whereas for transport and logistics startup Bykea, Series B funding amounted to $13 million. These early-stage rounds raised the average seed round ticket size in Pakistan from $500,000 in 2019 to $3.4 million in 2021.

As another indicator of the industry's nascency: of 255 deals with disclosed deal-stage details, 145 were seed funding deals (57%) during 2015-2021. Series B deals, despite having the lowest number of raw instances (four), accounted for the greatest monetary yield ($171 million) due to larger ticket sizes ($38.7 milion) with seed-funding following closely at $162 million with an average ticket size of $1.4 million. In 2021, 60 of the 81 deals were Early-Stage, with 46 deals consisting of seed funding ($123 million raised in total, a 6x increase from last year's total seed funding capital of $20 million across 25 deals). This does not necessarily indicate a sudden maturity of the overall ecosystem, but rather growth of ticket sizes and improvements in the deal funnel. However, over the last two years, a handful of startups have scaled and raised follow-on rounds, sometimes within a matter of months; these include Airlift, Bazaar, and Retailo, among others.

Despite the increase in both the number of deals and amounts raised, only two companies have raised past a Series B round:Rozee ($6.5 million in 2015) and Zameen ($20 million in 2016) are the only two Pakistani startups that have raised Series C rounds. Besides a lack of later stage funding rounds, Pakistani markets have seen very few significant exits, the most notable being AliBaba's acquisition of Daraz South Asia for an estimated $150-200 million in 2018.[57] While Pakistan may be poised to welcome its very first unicorn in 2022, Indonesia minted its very first unicorn, Traveloka, in 2017,[58] and is now home to six such companies, each valued between $1-20 billion. The Philippines also recorded its first unicorn in 2017, and a second in 2021.

Startup Investments (2020 vs 2021)
(in USD Million)

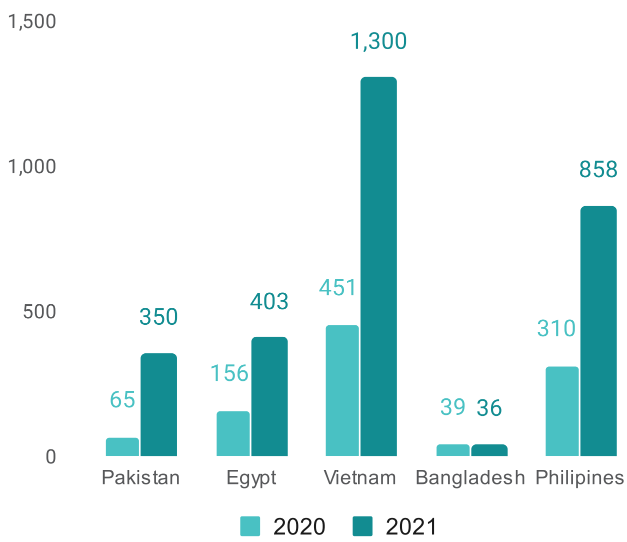


FIGURE 6 Total Investments Raised by Startups in 2020 and 2021

[56] Pakistan's tech ecosystem is booming. Here's why it will slow down in 2022 - Rest of World
[57] https://www.thenews.com.pk/print/314282-alibaba-acquires-daraz-in-estimated-200-million-deal
[58] The Complete List Of Unicorn Companies

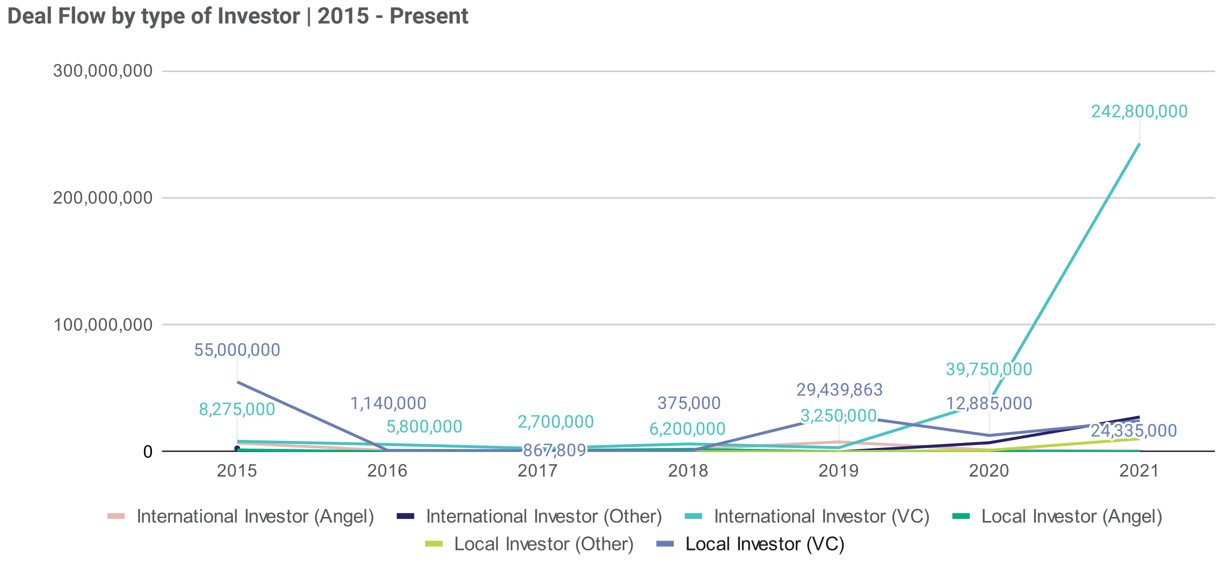


FIGURE 7 Investment amount raised by investor type (2015 - 2021)
(Source: Invest2Innovate Deal Flow Tracker)

2021 was also a productive year for female-led startups, which raised more capital ($4 million) than in all previous years combined ($3.9 million), while female founded companies secured $114 million, far exceeding the $30 million raised from 2015 to 2020. Despite the increase in deal values, the share of female-founded startups in overall capital raised remains under 2%, highlighting the gender-based disparity in capital allocation.

Similarly, despite the upsurge in capital deployed, the Pakistani startup ecosystem continues to face a significant bottleneck in the investment landscape: while international investors are proactively investing in the Pakistani ecosystem, a dearth of local (especially angel) investors has severely limited deal flow. Refer to the Finance Gaps and Challenges section.

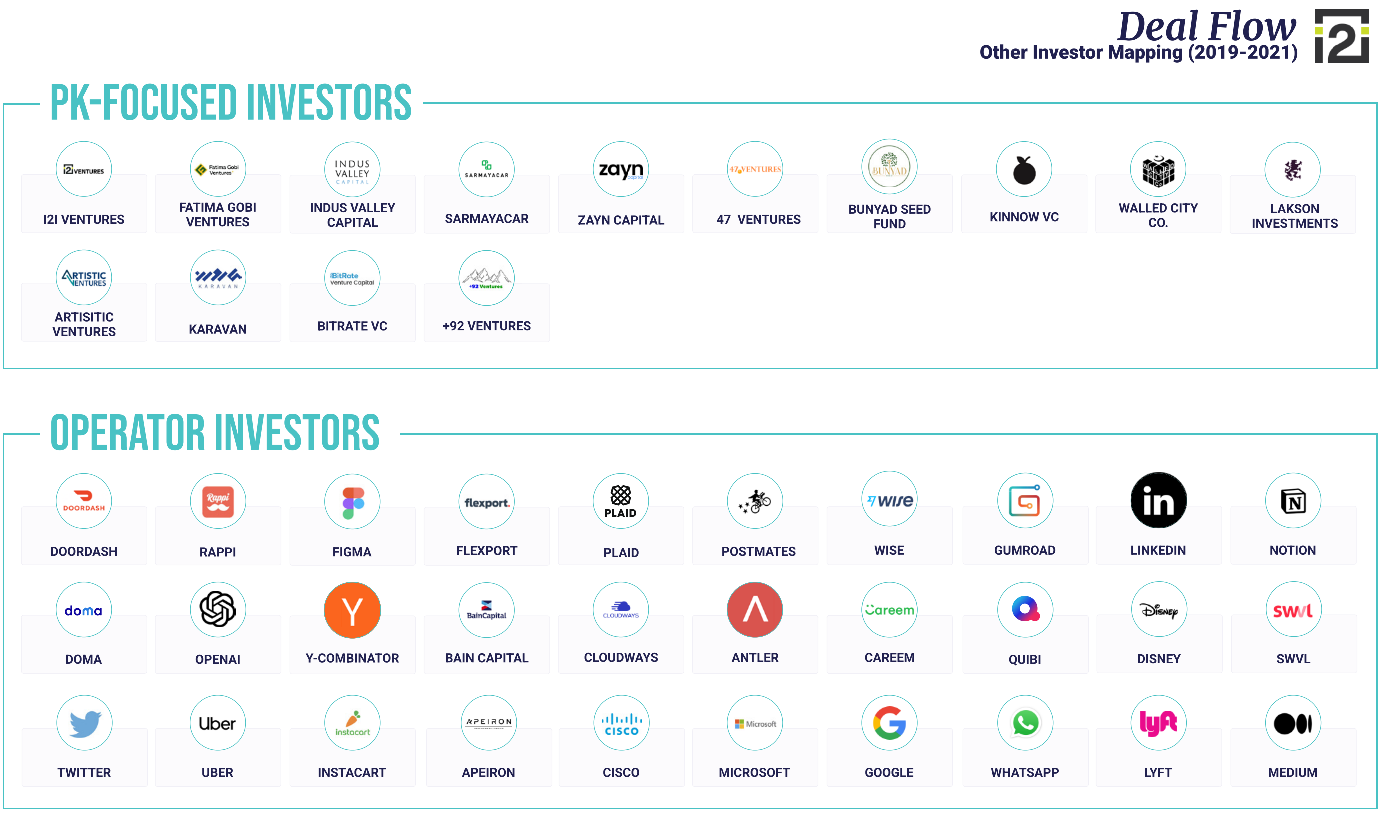


FIGURE 8 Mapping of PK-focused and Operator Investors active in Pakistan | 2019 - 2021

Deal Flow
InternationalInvestor Mapping (2019-2021)

INTERNATIONAL INVESTORS

KLEINER PERKINS	IOSG VENTURES	TIGER GLOBAL	20VC	GLOBAL FOUNDERS CAPITAL	DRAPER ASSOCIATES	TOY VENTURES	STRIPE	FLEXPORT	ARZAN VENTURE CAPITAL
SOSV	FIRST ROUND CAPITAL	ALTER GLOBAL	QUIET CAPITAL	500 STARTUPS	QUONA CAPITAL	MENTORS FUND	BY VENTURES	B&Y VENTURE PARTNERS	SEEDSTARS
JEDAR CAPITAL	NEXT BILLION VENTURES	PROSUS	SPARKLABS	BUCKLEY VENTURES	RTP GLOBAL	SOMA CAPITAL	RESOLUTION VENTURES	SUYA CAPITAL	NAMA VENTURES
DERAYAH VENTURES	10PEARLS VENTURES	BIXIN VENTURES	DEFY VC	SAISON CAPITAL	NUWA CAPITAL	ATLAS VENTURES	KINGSWAY CAPITAL	ADDITION LP	JAM FUND
COMMERCE VENTURES	2AM VC	RALLY CAP VENTURES	MIDDLE EAST VENTURE PARTNERS	MAGIC FUND	HUSTLE FUND	RATIO VENTURES	SUNU CAPITAL	CANAAN PARTNERS	MSA CAPITAL
ACCESS BRIDGE VENTURES	ACREW CAPITAL	VEF LTD.	VILLAGE GLOBAL	PICUS CAPITAL	BETTER TOMORROW VENTURES	S7 VENTURES	HYPERSPHERE VENTURES	AGFUNDER	RU-NET
BANANA CAPITAL	WAMDA CAPITAL	MANTIS VC	BEENEXT	BUALUANG VENTURES	GOLDEN GATE VENTURES	TRUESIGHT VENTURES	FJ LABS	INSITOR PARTNERS	VIBE CAPITAL
SHOROOQ PARTNERS	VENTURESOUQ	HIGH OUTPUT VENTURES	KRUNGSRI FINNOVATE	ACE CAPITAL	ICU VENTURES	MUSHA INVESTMENTS	FIRSTMINUTE CAPITAL	RECHARGE CAPITAL	RAED CAPITAL
HOF CAPITAL	FENBUSHI CAPITAL	WAVEMAKER PARTNERS	LIBERTY CITY VENTURES						

FIGURE 9 Mapping of International Investors Active in Pakistan | 2019 - 2021

3.2 GAPS & CHALLENGES

LACK OF LOCAL ANGEL INVESTOR PARTICIPATION

While startups at every stage are considered high-risk investments, early-stage startups experience more difficulties in raising capital as they have yet to validate their business model. This can cause a "pioneer gap" - the distance between the launch of a startup and its readiness for investment. This gap is often considered a critical stage for support and investor-side intervention.[59] Angel investment can play a key role in bridging this gap in Pakistan. Analysis from Invest2Innovate's Deal Flow Tracker (DFT) shows that 2021 saw substantial involvement from angel investors: 32% of all deals included at least one angel investor. However, the number of local angels has largely remained stagnant as 11 local angel investors participated in 2021 compared to 10 participating in 2018, revealing that local angels' participation in deals has not been proportionate to the overall increase in deals. In contrast, the number of international angel investors' participation has grown from just five in 2015 to 37 in 2021 – with a dip from 2017 to 2019, which can be attributed to a brief slowdown in the overall funding landscape. See figure 10. The 11 local angel investors in 2021 co-invested in six deals that total to $6.9 million, out of which 1.9% was invested at pre-seed and 21.8% at the seed stage. On the other hand, 37 international angel investors participated in 14 deals representing $147 million, with 6.8% at the pre-seed stage and 11.1% at the seed stage. Not only is the number of local angels limited; they are invested in much smaller deals compared to international angel investors.

Angel investors are typically high net worth individuals (HNWIs)[60] and/or experienced entrepreneurs who both invest their financial capital and provide their expertise to support early-stage businesses.[61] Angel investors are a crucial source of capital and mentorship at a company's earliest stages,[62] and often invest alongside other angel investors and funds through dedicated groups such as syndicates. In Pakistan, a large portion of pre-seed and seed stage investments are currently being led primarily by VCs while there is still a strong role that angel investors can play, whether for sectors or verticals that are not as attractive for venture funds, or as value-additive players in a deal. Over the past few years, there have been a growing number of pre-seed stage deals, from just $550,000 (across three deals) in 2017 to $31.82 million (across 14 deals) in 2021. See figure 11. At the same time, pre-seed deal values on average have increased from just $180,000 in 2017 to $2.27 million in 2021.

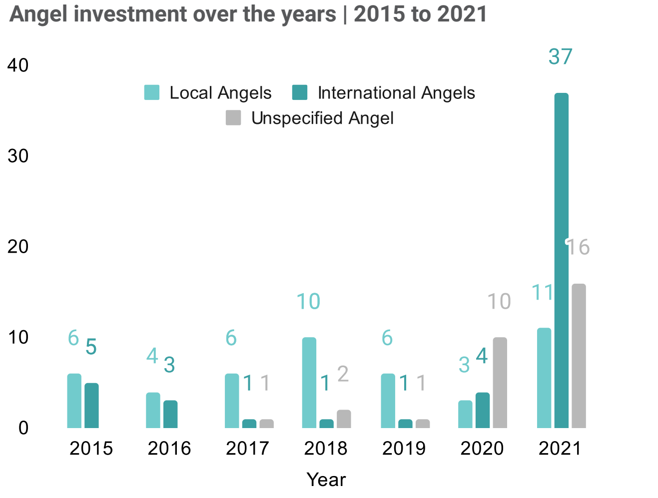


FIGURE 10 Angel investor participation in deals from 2015 to 2021

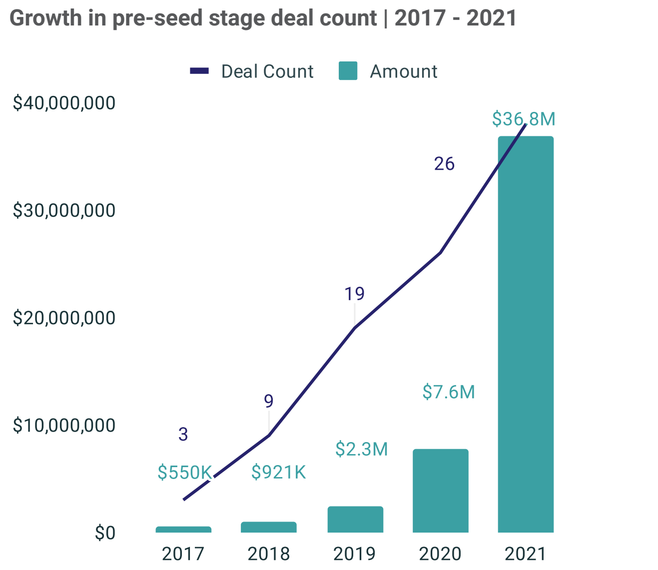


FIGURE 11 Growth in pre-seed stage deal count | 2017 - 2021

59 https://pdf.usaid.gov/pdf_docs/PA00X4NP.pdf
60 High net worth individuals (HNWIs) are defined as individuals who possess $1 million in financial assets.
61 https://www.jstor.org/stable/43503618
62 https://www.oecd.org/sti/ind/49310423.pdf

In the United States, angel investments amounted to $25 billion against total investments of $300 billion.[63] However, a lack of angel-specific rounds does not necessarily imply that angel investors are not participating in deals in Pakistan. In fact, over the past two years, there has been a growing interest, especially among the Pakistani diaspora, to invest in startups operating locally. Operators and executives of Pakistani descent have participated in a number of funding rounds and are actively investing via angel syndicates or community platforms. For example, British-Pakistani Immad Akhund, founder of Mercury, invested in Pakistani fintech startups TAG and Udhaar Book, while Asif Keshodia, a Pakistani entrepreneur based in Dubai, has invested in e-commerce startup GrocerApp. Paklaunch, an online community that connects Pakistanis around the world, hosts regular startup pitch sessions and webinars. Non-Pakistani operators also participate as angel investors in Pakistani startups. Y Combinator's former Vice President (and co-Founder of BloomTech) Austen Allred invested in e-commerce companies Airlift and Tajir while entrepreneurs and thought leaders Sahil Bloom and Julian Shapiro have invested in AgriTech startup Tazah.

According to the Invest2Innovate Deal Flow Tracker (DFT), deals with at least one angel investor publicly disclosed[64] increased from 25% (12 deals amounting to $7 million) in 2020 to 32% (26 deals amounting to $189 million) of deals in 2021. Evidently, angel investor participation is increasing, but is still not sufficient given the volume of startups looking to raise pre-seed and seed stage funding rounds in Pakistan.

In line with this trend, Invest2Innovate's entrepreneur survey showed that 60% of respondents identified their startups as pre-growth and a further 21% as pre-revenue. Only 8.7% (13/150) of companies reported generating a turnover of over $1 million since starting out their businesses whereas 38% (57/150) were within the $0-50,000 range. According to Kalsoom Lakhani, co-Founder and GP at i2i Ventures, "Angel investors can play a very important role in supporting very early-stage startups, especially ones that might be too small for VC funds." She further specifies that the next generation of larger family offices and companies in Pakistan are excited about the startup landscape, but require further awareness on the dynamics of the startup landscape to become angel investors. Refer to the Support section. Even though capital has become more abundant for startups, an increase in the number of early-stage investors is urgently needed.

Distribution of surveyed startups by revenue ranges

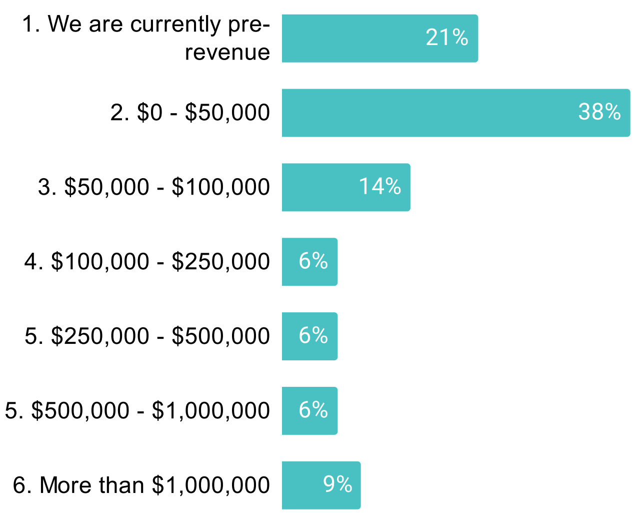


FIGURE 12 Survey startups' distribution by self-identified revenue

Distribution of surveyed startups by business lifecycle stage

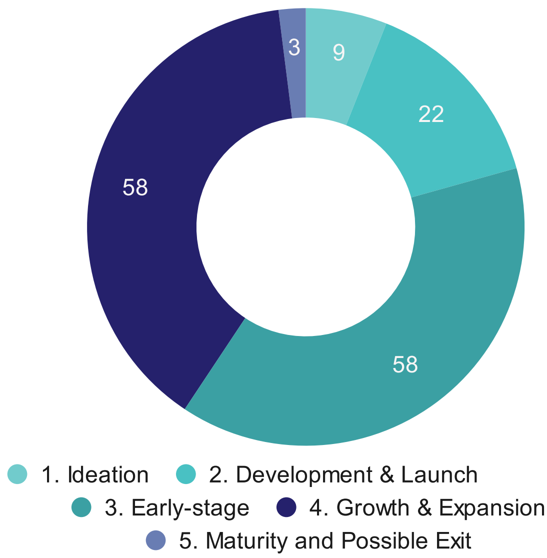


FIGURE 13 Survey startups' classified by self-identified stage

63 https://www.unh.edu/unhtoday/news/release/2021/05/19/unh-finds-angel-investor-market-rise-2020

64 Since deals with multiple investors often do not clearly disclose the portion contributed by each investor, it is not possible to disaggregate the total amount raised and how much of this total amount is attributable to each investor type, i.e. VCs, angel investors, angel syndicates, family offices, family and friends, and incubators/accelerators.

Despite there being a need for early-stage capital, relatively few rounds with solely angel investor participation have taken place in Pakistan. From 2015 to 2021, there have been 17 angel investor rounds (as a stage of investment and not type of investor participation), which totaled $940,000 and represented 0.17% of the aggregated deals. In an interview for this report, Aatif Awan, founder at Indus Valley Capital (IVC), shared the following, "the gap I see (in terms of angel investments) is at the pre-seed stage. We do have some angel investors in the market but there could be a lot more. However, the problem is that a lot of them are investing in seed rounds and are primarily co-investing with other VCs versus doing true pre-seed rounds, which is the first couple of hundred thousand dollars of capital. That is the foundation for a lot of startups and angel investors can help level the playing field there." He also shares how this dynamic disproportionately affects young startups that may not have sufficient runway for hiring their first employees, building their products and showing initial traction. Founders who already have personal or family funds, in comparison, have a network that they can tap, which makes it more difficult for founders from less privileged backgrounds to raise capital when they most need it, limiting the possibility for future growth.

LATER-STAGE CAPITAL CRUNCH

According to the survey conducted for this study, all investors (17) said that they prefer to invest in startups at the early stage. Of our investor sample, 70.5% said that they would invest in startups at the development and launch stages, while 50% of surveyed investors were open to investing in startups at either the ideation or growth & expansion phases, while none of the investors in our sample seemed interested in investing at the Maturity and Exit stage. See figure 14 below for context. This is important considering where the ecosystem is today — most deals in 2021 were at the pre-seed stage ($32 million raised across 14 deals) and seed stage ($123 million raised across 46 deals) – however, the data does point to a dearth of funding for companies in later stages of their funding cycle.

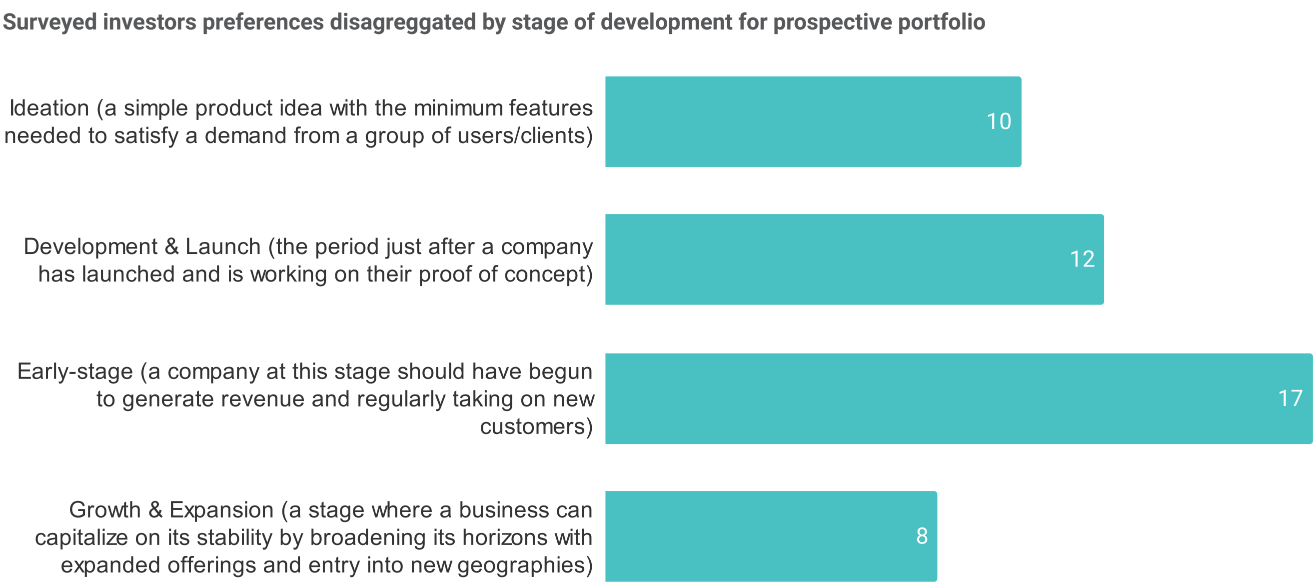


FIGURE 14 Investors' willingness to participate in a deal by stage of development

Aatif Awan (founder at IVC) recently speculated about a Series A crunch due to similar reasons.[65] Christopher Schroeder (co-Founder at Next Billion Ventures) echoes this sentiment, "What ends up happening is early money tends to come faster and once a company gets over $100 million there is this barbell effect where the real issue becomes: Where do I get my B round or C round? That has been the valley of death historically."

This presents a challenge for Pakistan-focused investors that are equipped with comparatively smaller fund vehicles and may not have sufficient capital to allocate large sums at later stages. While the median fund size of Pakistan-focused VCs (of those who have disclosed) is approximately $20 million, international funds such as Global Founders Capital, which was the most active international VC in Pakistan in 2021 (in terms of deal count), has raised $1.6 billion across two funds. As a result, most later funding rounds (Series A and beyond) have experienced international VC participation. This trend may shift as Pakistan-focused VCs go on to raise larger second and third funds, but for now, the later-stage funding gap is a challenge, particularly since of all the 17 investors surveyed for this study, none preferred to invest in a startup beyond the Series A round (including international investors such as Wavemaker Partners, Shorooq Partners and Next Billion Ventures). See figure 6 for further details.

Investors' preferences to participate in a deal by stage/ round of investment

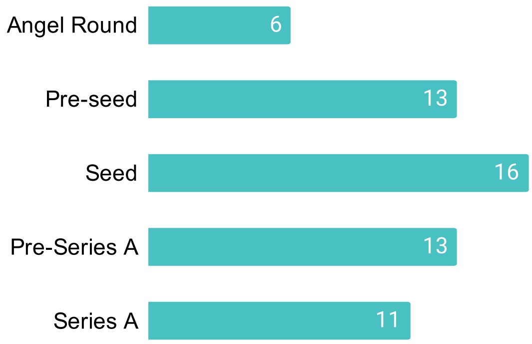


FIGURE 15 Investors' willingness to participate in a deal by round type

According to Invest2Innovate's DFT, only two Pakistani startups have raised Series C rounds – Rozee in 2015 ($6.5 million) and Zameen ($20 million) in 2016. Similarly, only four Series B deals have taken place so far, with two in 2021 alone: those of Jabberwock Ventures (reportedly close to $20 million)[66] and Airlift ($85 million). Globally, late-stage financing rounds attract interest from growth-focused Private Equity (PE) funds and other non-traditional investors, which has contributed to an uptick in deal sizes and count. However, Pakistan currently has only a handful of such investors, while the entry of investors such as Tiger Global (which co-invested with First Minute Capital in CreditBook's pre-Series A round in 2021) serves as a positive indicator for similar-scale investors to enter the investment landscape in the future.

WARINESS AMONG INVESTORS AND FOUNDERS ABOUT HIGH VALUATIONS AND A LACK OF EXIT OPPORTUNITIES

Amid the increases in funding rounds and deal sizes, there has also been a surge in startup valuations. There are now many instances of pre-product companies raising seven-figure rounds and announcing nine-figure valuations. In the U.S., what was considered a Series A round in 2011 is now routinely termed a seed round.[67] Median valuations for seed and early stage startups in the United States increased from approximately $16 million in 2020 to $26 million in 2021. Similarly, India saw a record number of unicorns (44) during 2021, more than in the past three years combined.[68] To a significant extent, the spike in valuations among more mature markets can be cited as what prompted investors to look towards Pakistan, which remains a largely untapped market and remains relatively cheaper as a viable destination for investment.[69]

65 https://www.linkedin.com/pulse/pakistani-startups-have-arrived-whats-ahead-aatif-awan

66 https://profit.pakistantoday.com.pk/2021/04/24/jabberwock-ventures-raises-close-to-20mn-in-series-b-round-for-startups-cheetay-swyft/

67 https://bothsidesofthetable.com/the-changing-venture-landscape-6b655c68e631

68 https://www.investindia.gov.in/indian-unicorn-landscape

69 Zuha Siddiqui (cited Zeeshan Gondal, Head of Strategy at Zayn Capital). Pakistan's tech ecosystem is booming. Here's why it will slow down in 2022. Rest of World (2021) [Accessed on 7th February 2022]

Although this may seem positive for the ecosystem as a whole, several entrepreneurs and investors interviewed for this report expressed a sense of wariness regarding this trend. Interviewed investors also raised questions on whether the existing valuations are aligned with the true opportunity size of the Pakistani market. These comments were made in conjunction with the fact that the purchasing power of an average local customer remains extremely low and that most of them do not utilize a smartphone for quick-commerce. This brings the existing valuations (based on the entire population of 220 million as a potential market) into question.

THE ISSUE OF IDENTIFYING THE ACTUAL ADDRESSABLE MARKET FOR PAKISTANI STARTUPS

Pakistani startups that raised the largest amounts of investment to date (Airlift, Retailo, Bazaar, Qisstpay, and TAG), all serve the consumer market directly (or indirectly via B2B offerings). Although the often publicized figure of Pakistan's population 220 million may have attracted investors to the market, there are several other factors that impact how we calculate Total Addressable Market (TAM), including, but not limited to, critical elements of a tech-driven ecosystem such as cellular connectivity and internet penetration.

Pakistan's TAM can potentially be deconstructed on the basis of cellular connectivity that currently stands at 189 million with 108 million subscribers using 3G/4G networks, while 110 million have access to a broadband connection.[70] This underlines that the entirety of Pakistan's 220 million people may not be addressable by startups due to gaps in cellular and internet connectivity. An additional variable affecting the number of addressable consumers is the average Pakistani household's expenditure on common staples, which impacts the demand for goods and services. The national Household Integrated Economic Survey (HIES) 2018-2019[71] summarizes that the average Pakistani household incurs total expenditures of PKR 37,159 monthly, out of which 36% is spent on household staples (such as food items and non-alcoholic beverages). In this vein, demographic factors and economic trends (such as inflation and smartphone adoption) which serve to define the Serviceable Addressable Market (SAM) complicate how TAM is measured.[72]

To compare the potential addressable market in Pakistan with the Southeast Asia (SEA) cluster of six countries (Vietnam, Thailand, Philippines, Malaysia, Singapore and Indonesia), Pakistan has an internet penetration rate of nearly 49% compared to the SEA rate of approximately 75%. Even though Pakistan has a larger population than that of Vietnam, Thailand, Malaysia and Singapore combined, the comparatively lower rate of internet penetration drags down the actual addressable number of customers in Pakistan to less in the SEA cluster.[73]

Ozair Ali (Cofounder and former COO of Alter Global) estimates the number of potential addressable customers within Pakistan as part of the middle class income bracket to be in the range of 20 - 40 million. This estimate was made keeping in consideration individual income, average spending patterns, and rates of asset ownership, which have been noted to lag behind frequent comparables Bangladesh and Indonesia.[74]

70 Telecom Indicators: December 2021, Pakistan Telecommunications Authority (PTA) [Accessed on 9th February 2022]

71 Distribution of Average Monthly Consumption Expenditure per Household by Commodity Groups and Quintiles, Household Integrated Economic Survey (HIES) 2018-2019. [Accessed on 9th February 2022]

72 The Hunt for Revenue: A Case for Further Granularity. McKinsey & Co. (2013) [Accessed on 9th February 2022]

73 e-Conomy SEA 2019, Google. 2020. [Accessed on 21st February 2022]

74 Ali, O., The Case for Pakistan. On The Verge. [Accessed on 28th February 2022]

High valuations have also brought into question the possible exit routes for Pakistani startups. Both initial public offerings (IPOs), and mergers and acquisitions are still largely conceptual for startups in Pakistan, barring a few examples (such as the acquisition of EdMatrix by Jordanian EdTech Abwaab and TruckSher by MENA-based logistics provider TruKKer respectively). The Pakistan Stock Exchange (PSX) has largely stayed stagnant since the 2008 global financial crisis and from 2017 to the present. The KSE-100 Index — which is down 51% in USD value from its 2017 peak — currently trades at a price-to-earnings ratio of just 4.8x, well below not only regional markets including India (23x), the Philippines (18.1x), Indonesia (15.1x), Bangladesh (20.2x) and Egypt (7x), and also its own long-term average of 8.5x.[75]

As a result, there is little incentive for founders, especially those with access to foreign VCs, to explore the local IPO route, as they can raise far larger amounts through private channels than via public equity markets. This is best reflected in the massive difference between the highest-ever round ($85 million) raised by Airlift (founded as a mass transit startup in 2019 and pivoted to a grocery delivery model in 2020) versus Airlink, a major mobile phones distributor growing at a CAGR of 66%, securing just $38.5 million through its IPO.[76] Suleman Maniya (Head of Advisory at Vector Securities) shares similar views, arguing that startups would find it difficult to exit via listing themselves on the Pakistan Stock Exchange (PSX) as their existing private valuations are higher relative to those available in the public markets.[77] The PSX is also not nearly as liquid as other markets with its market capitalization to nominal GDP ratio standing at 17.4% in 2021 with a total of 265,000 registered investors, well below comparable countries such as Indonesia (market capitalization-to-GDP ratio at 44% and 2.69 million registered investors) and the Philippines (75%[78] and 1.4 million[79]).

Similarly, merger and acquisition opportunities are limited in Pakistan, except for a few very early stage acqui-hire or share swap deals (in the case of TruckSher and Edmatrix). Other than Rocket Internet-backed venture Daraz, no other home-grown startup has announced a multi-million dollar exit to date. The Pakistani startup ecosystem thus faces a predicament. Despite a substantial increase in investment activity, there have been few exit events to prove the case for investment outcomes within the Pakistani market. This can potentially discourage VCs, which have an average investment cycle of around five years and a fund duration of usually 10 years, from writing bigger checks or investing strategically in Pakistan if they are unclear of long-term prospects locally.

75 https://tellimer.com/article/pakistan-strategy-2022-dark-horse
76 https://www.arabnews.pk/node/1920781/pakistan
77 https://www.bloomberg.com/news/features/2021-11-17/pakistan-startups-draw-record-money-helped-by-covid-and-china-s-tech-crackdown
78 https://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS?locations=PH
79 https://www.statista.com/statistics/1194840/philippines-number-of-stock-market-accounts-by-type/#:~:text=In%202020%2C%20the%20total%20number,amounted%20to%20roughly%2030%20thousand.

3.3 RECOMMENDATIONS

1 MOBILIZING LOCAL CAPITAL TO INCREASE ANGEL INVESTMENT AT EARLY STAGES

As noted in the section above, angel investment can enter earlier in a startup's life cycle, alleviating the risk for VC funds.[80] For angel investors - many of whom are currently participating in VC rounds and thus paying a higher price for a diluted share of equity - investing earlier would be cheaper and would also give them a more meaningful role in companies' growth.

A major barrier for existing and prospective angel investors is the asymmetry in access to deals. ESOs such as the National Incubation Centers and networking platforms like Paklaunch and OPEN (Organization of Pakistani Entrepreneurs) can play a key role in matching startups with investors and providing the initial support to angel investors in sourcing deals as well as learning about the ecosystem as they move forward. Daftarkhwan's VC Exchange (VCX) in collaboration with Amazon Web Services (AWS) is a notable example of an ESO acting as a conduit between angel investors and investment worthy startups. The program matches high-growth startups with angel investors and VCs in the ecosystem and was quoted as one of the most helpful programs for new investors who require access to startup deal flow. The most prominent investors in the country include i2i Ventures, Sarmayacar, Zayn Capital, 47 Ventures, and Walled City Ventures have participated in the program.[81] Similar angel investor training and networking programs organized by prominent support organizations can help by providing aspirational wealth holders exposure to the Pakistani startup space.

Existing VC funds can also help foster an angel investment community. Pakistan-focused VC fund Sarmayacar, for instance, recently introduced an Operator Angels program, that supports early-stage startups via angel-sized checks from the fund in addition to experience-sharing from seasoned Pakistani founder-operators in their portfolio. There is evidence in markets such as Sweden on the influence that relational proximity (built on the basis of prior professional/ entrepreneurial experience, educational history and social bonds) if fostered over a longer period of time can have a significant effect on positive investment decisions,[82] something investors interviewed for this report also highlighted. In other words, a lot of the investors active in Pakistan, both local and international, expressed that they are much more likely to join a deal if someone they know and trust gives a referral or participates in the deal with them.[83] Existing angel investors and VCs can use such networks and referral systems to encourage HNWIs, who are currently on the fence about startup investing, to eventually enter the market as angel investors and create a healthy angel investment ecosystem.[84 85]

Lastly, the government can also play a more proactive role in activating the local angel investment landscape.[86] Developed markets with a healthy angel ecosystem have often relied on tax credits to subsidize early-stage investors by providing personal income tax credits equal to a given percentage of their investment irrespective of the investment outcome.[87] A similar system of incentives would serve to promote angel investments on a wider scale as well as create more networks of angel investors who could serve as a viable alternative source for funding early-stage rounds.

80 How Angel Investors Help Startup Firms | NBER

81 VC Exchange (Powered by Amazon Web Services), Daftarkhwan. [Accessed on 7th February 2022]

82 https://www.researchgate.net/publication/305730433_The_influence_of_functional_and_relational_proximity_on_business_angel_investments

83 Primary Interviews: Hydri, S. (2021), Khawaja, A. (2021), Lakhani, K. (2021), Malik, S. (2021)

84 The globalization of angel investments: Evidence across countries - ScienceDirect

85 What are operator angels and why are they suddenly everywhere? | Tyler Willis

86 Accelerating Capital Markets Development in Emerging Economies Country Case Studies

87 Investor Tax Credits and Entrepreneurship: Evidence from US States*

2 ENCOURAGE LATER STAGE CAPITAL PROVIDERS TO INVEST IN PAKISTANI STARTUPS

Internationally, family offices and private equity funds usually serve as key providers of growth capital.[88] However, these bodies are largely absent in the Pakistani ecosystem due to a lack of incentives. Local business groups, for instance, have found it more attractive to invest in real estate, for which the government has consistently offered blanket amnesties to stimulate construction activities.[89] Similarly, banks and financial institutions prefer to invest in riskless treasury bills instead of seeking exposure to any other asset class (other than stock-based equities as part of their consumer-side investment banking offerings). In order to pull domestic liquidity toward more innovative businesses, the government can incentivise these family offices by streamlining the tariff structure for hardware imports for example.[90] There is also scope to encourage more growth-stage investors to enter Pakistan for supporting maturing startups. In this regard, i2i Ventures' partnership with NRD Capital can serve as a model for other local investors to create synergies with international growth funds.

Moreover, the number of funds registered with the SECP has stayed virtually unchanged at seven for a decade even as the investment activity has dramatically increased, which shows that the government needs to make more of an effort to encourage VC investments. In fact, the majority of the active Pakistan-based VCs have their vehicles registered in other jurisdictions, indicating regressive policies that eventually impact the amount of capital available at later stages. Given the evolution of VC as an asset class that has yielded ever-longer holding periods, the Private Equity and Venture Capital regulations must be updated to reflect the changing nature (and requirements) of the industry. For instance, the existing Private Fund Regulations (2015) do not allow foreign VCs to raise money from Pakistan unless licensed in the country,[91] which carries ramifications for the scale at which local capital from family businesses can be mobilized. Amending this clause would allow the local business families to first seek exposure to the industry as limited partners before eventually setting up their own vehicles.

Similarly, the government can identify a number of strategic industries and incentivise private players to actively look for opportunities in those areas. For example, India recently unveiled a $10 billion semiconductor policy to attract investors by offering incentives like concessional financing in order to build an indigenous semiconductor industry — which in turn is crucial for rapid growth of venture-backed verticals such as electric vehicles.[92] Transport and logistics, warehousing, and agritech are major areas in Pakistan where VCs have invested, yet there is still room for more existing businesses to enter the marketspace.

88 What's driving private equity's march on VC? | PitchBook
89 Pakistan's construction sector attracts Rs 1 trillion investment: Farrukh Habib - Pakistan - Business Recorder
90 The Public Sector's Role in the Promotion of Venture Capital Markets
91 Private Funds Regulations 2015 (updated as of July 08 2020) | SECP
92 India Unveils $10B Plan to Woo Semiconductor Makers | Design and Development Today

3 BETTER DUE DILIGENCE PRACTICES TO ENSURE VALUATIONS CAPTURE THE NUANCES OF THE LOCAL MARKET & CREATE THE RIGHT ENVIRONMENT FOR STARTUP EXITS

The recent rise in valuations in Pakistan can be attributed to the entry of a high number of international VCs and the exponential growth of tech startups. Competition for deals as well as investors who are less price-conscious results in valuations that do not always reflect the current market opportunity and/or size. Investors would benefit from adopting more thorough due diligence measures and considering likely scenarios and shifting market conditions when valuing a company.[93]

Andreas Kohn's Integrative Framework for Startup Valuations defines a valuation as the culmination of the relationship between the startup, investors, and external factors including the market size and regulatory framework.[94] Additionally for the Asian regional context, research shows that the participation of local VCs in the valuation process prevents potential issues resulting from information asymmetry.[95] Internal controls must therefore be adopted at this stage so that local investors can leverage their nuanced understanding of the market and ensure high quality due diligence to work in tandem with international investors in order to ensure more accurate valuations (and subsequent pricing) when investing.

To establish a conducive environment for startup exits, a variety of steps can be taken to increase efficiency. Most importantly, the PSX and the SECP should be more proactive in promoting new listings by lowering the compliance costs associated with being publicly listed and incentivizing successful brands to list themselves, which can encourage more startups to participate in this growth path - a trend seen among tech companies like Facebook, Zoom, Apple and the like in the US. Globally, and especially in emerging markets such as India, mutual funds have played a significant role in increasing the liquidity of capital markets. On the other hand, Pakistan's mutual fund space is still very small, which means there is a need to grow this asset class in order to further unlock capital markets. To this end, the regulators should incentivise the two distribution channels – banks and brokers – to play a more assertive role.

The government should also strive to reduce the regulatory hurdles in the rules governing mergers and acquisitions, especially those involving a foreign party. In addition to the Companies Act 2017, M&A transactions with a foreign party are also subject to the Foreign Exchange Regulation Act 1947 which enforces strict capital controls especially at the time of repatriation of profits.[96] Therefore, a more liberal policy regime should be put into effect, giving investors the confidence and certainty of a smooth exit. International VCs can also play an active role in encouraging cross-border M&As or share-swap transactions, particularly within their own portfolio companies.

93 GUIDE TO SOUND PRACTICES FOR THE VALUATION OF INVESTMENTS 2018 Edition

94 Köhn, A. The determinants of startup valuation in the venture capital context: a systematic review and avenues for future research. Management Review Quarterly, 68(1), 3-36. (2018)

95 Dai, N., Jo, H., & Kassicieh, S. Cross-border venture capital investments in Asia: Selection and exit performance. Journal of Business Venturing, 27(6), 666-684. (2012)

96 https://www.thenews.com.pk/print/305703-foreign-investors-slam-problems-in-profit-repatriation

3.4 CASE STUDY

BYKEA'S JOURNEY OF RAISING SMART AND PATIENT CAPITAL: FROM STEADY GROWTH, RAISING HEALTHY ROUNDS OF INVESTMENT TO SURVIVING THROUGH A PANDEMIC AND THRIVING AFTERWARDS

BYKEA

COUNTRY
Pakistan

FOUNDERS
Muneeb Maayr
Rafiq Malik
Abdul Mannan

FOUNDING YEAR
2016

Founded in 2016, Bykea was one of the earliest technology startups to emerge from Pakistan, with its key aim to solve the mobility problem in the country's massive urban centers. Initially backed by the Ithaca Capital, Bykea rolled out an Urdu app that offered bike-hailing services. By 2019, Bykea was fairly popular in Karachi, and to continue that growth momentum, raised a $5.7 million Series A round from investors including Tharros, Sarmayacar, and Middle East Venture Partners (MEVP).

The ride-hailing company entered Pakistan's startup scene at a time when the ecosystem was nascent and hardly any international investors paid attention to Pakistan. The total venture capital investment raised by local startups stood at just $8.2 million during 2016, which slid further to $6.2 million by 2017. For a mobility company that was operating in the same space as heavily-funded players like Careem and Uber, the lack of growth capital was a key barrier to its scaling. To bridge this gap, Muneeb Maayr, who formerly co-founded Daraz.pk helped raise a $5.7 million Series A round from a mix of VCs. This helped open up Bykea's capitalization table further to later attract larger investors, eventually leading to its $13 million Series B round with Prosus - the venture arm of Naspers - which was the second-largest Series B deal done by a Pakistani startup at the time and has been the only investment by Naspers in Pakistan to date.

While Bykea started with servicing the logistics and transportation sector, it moved into the payments sector and is now making strides towards becoming Pakistan's first homegrown "Super App". The international investors that assisted Bykea since its inception also brought functional expertise and years of industry experience in different regions that have been consequential to the startup's future growth trajectory. One of the early investors, Jonas Eichhorst from Tharros, with experience co-founding and advising other technology startups in Asia such as Timo (a leading digital bank in Vietnam) and BravoHR, later joined Bykea's board and today serves as its Executive Chairman. Jonas also previously worked on developing Minimum Viable Products (MVPs) for startups and undertaking digital transformation initiatives as part of corporate projects. Therefore, investors such as these with a deep understanding of the technology and startup space in comparable markets played a significant role in Bykea's continued survival and success.

Bykea's earlier investments opened doors to their subsequent round only a year after their Series A, despite Bykea's service completely shutting down at one point due to pandemic-related restrictions. Since then, the app, which started primarily with only ride-hailing, now boasts multiple offerings with over five million downloads and a driver base of around 60,000. CEO Muneeb Maayr attributes this success to a platform that allows the average person to leverage the two most common assets they own: a motorcycle and a smartphone. Its strong supply-side focus has enabled it to be the platform of choice not only for customers but also its riders, referred to as Partners. Both parties are happy that Bykea has kept itself afloat by not only providing exemplary services to its customers but also to its riders. The service itself has been compared, by the founder, to an ATM on wheels, who simply accept a request for either a ride or delivery any time they need some extra cash.

As one of the earliest believers in a hyperlocal super-app, the gradual inflow of capital and the right expertise allowed Bykea to move closer to its vision with the launch of Bykea Cash, its fintech offering. Other associated verticals include quick-commerce through local stores and deliveries in a bid to not only become a super app but also include more female users, who are largely untapped by the bike-hailing service. While the local ecosystem has changed considerably amid the influx of foreign investors and earlier stage rounds, Bykea entered the market when capital for high-growth companies was scarce and it had to bootstrap and survive the first few years with very few resources. It is an excellent example of a startup in Pakistan that has survived against unfavorable odds and raised long-term, well-researched, and patient capital. Bykea's account also highlights the significance of maintaining a peripheral view in which founders need to learn to value investors who bring smart money to the table.

3.5 KEY TAKEAWAYS

Local angel investor participation remains low due to the perceived high risk of early-stage startups. Such risks can be alleviated by encouraging angel investment as early as possible in a startup's life cycle, increasing their role in company development and decreasing potential costs.

Although international firms are increasingly expressing interest in Pakistani startups, early-stage investment is still strongly preferred. Simultaneous deregulation and encouragement of investment activity by the federal government may yield long-term improvements in this respect.

Recent increases in startup valuations have been met with skepticism on the part of investors as to whether they correspond appropriately to the size and potential of the Pakistani market as a whole. In order to assuage such fears, businesses must adopt more robust and transparent due diligence practices in order to provide a more representative picture of the Pakistani startup ecosystem and create an environment more conducive to startup exits.

04

SUPPORT

CONTENTS

4.1 STATE OF PLAY

As the Pakistani entrepreneurial ecosystem has grown significantly over the last decade, various players have also launched to facilitate startups in different capacities. This support can take many forms, including, but not limited to, providing office space, business model canvassing, networking, creating linkages with mentors, investment-readiness support, scaling and access to markets. Currently, there are approximately 98 entrepreneurship support organizations (ESOs) operating in Pakistan, these range from incubators (22) and accelerators (13) to coworking spaces (18). Additionally, University-based Business Incubation Centers (24) and other organizations including foundations, business associations, and conferences/challenges (13) form the local business support ecosystem. Early stage startups stand to benefit greatly from these organizations, such as in training on business development, which can contribute to the success of an early stage startup.

ESOs have existed since the early days of the startup ecosystem in Pakistan, yet the number of these support organizations has stagnated despite healthy growth from 2014 to 2018, which included the launch of the National Incubation Centers, as well as public-private partnerships also serving as entrepreneurship support spaces in Pakistan's major cities: Islamabad, Lahore, Karachi, Peshawar, and Quetta. Early-stage founders point to the utility and importance of the NICs and other such centers, whether used as a work space for enterprises in development or as a medium of networking with like-minded entrepreneurs. By bringing together startups and entrepreneurs, incubation centers can lower the individual cost of finding peer groups, mentorship, and other value-added services.[97]

Incubators and accelerators are the most common type of ESOs and account for almost half of the support organizations. This puts Pakistan ahead in terms of the number of incubators and accelerators as compared to benchmark countries. Refer to figure 18. While the earliest incubator was established in 2005, these support organizations gained popularity due to the patronage of the government starting with Punjab Information Technology Board's launch of Plan 9. Since establishment, the incubation program has run 14 cohorts to date with over 195 graduated startups, who in turn have gone on to raise $6.1 million in investment. The Ministry of Information Technology and Telecommunication (MoITT) and Ignite took this to a national level with the launch of National Incubation Centres across the federal and provincial capitals. In the five years since its launch, startups associated with the NIC program have managed to achieve investment commitments of $54 million.

As most of the tech entrepreneurial activity in the country centers in Karachi, Lahore and Islamabad, most support organizations are concentrated in these cities. However, due to COVID-19, many programs moved online, forming the opportunity for founders from smaller cities and peripheral areas to join these programs remotely. Moreover, the MoITT partnered with the PITB to expand the National Incubation Center model deeper into the country with the launch of nine additional cities, including Sukkur in Sindh, Lasbela in Balochistan and Kohat in Khyber Pakhtunkhwa. A similar initiative was undertaken by the KP Information Technology Board that introduced Durshal centers in order to foster a culture of entrepreneurship, imparting digital skills, and serving as the bridge between startups, investors and government.

Leading universities have adopted a similar approach, such as Takhleeq at The University of Central Punjab, and Aman CED at Institute of Business Administration, Karachi. In fact, the Higher Education Commission (HEC) is actively trying to promote this model with the aim of "fostering an entrepreneurial spirit at universities and encouraging students and faculty to create new enterprises." Under the HEC Policy on Business Incubation Centers, 29 Business Incubation Centers have been established so far while application results for the latest cycle are currently under review. The HEC has taken further steps to promote the commercialization of university research outputs and student projects by establishing dedicated Offices of Research, Innovation and Commercialization (ORIC) at accredited institutions, which are intended to bridge the gap between industry and academia.

97 Woodruff, C. Addressing constraints to small and growing businesses. International Growth Center, London. (2018)

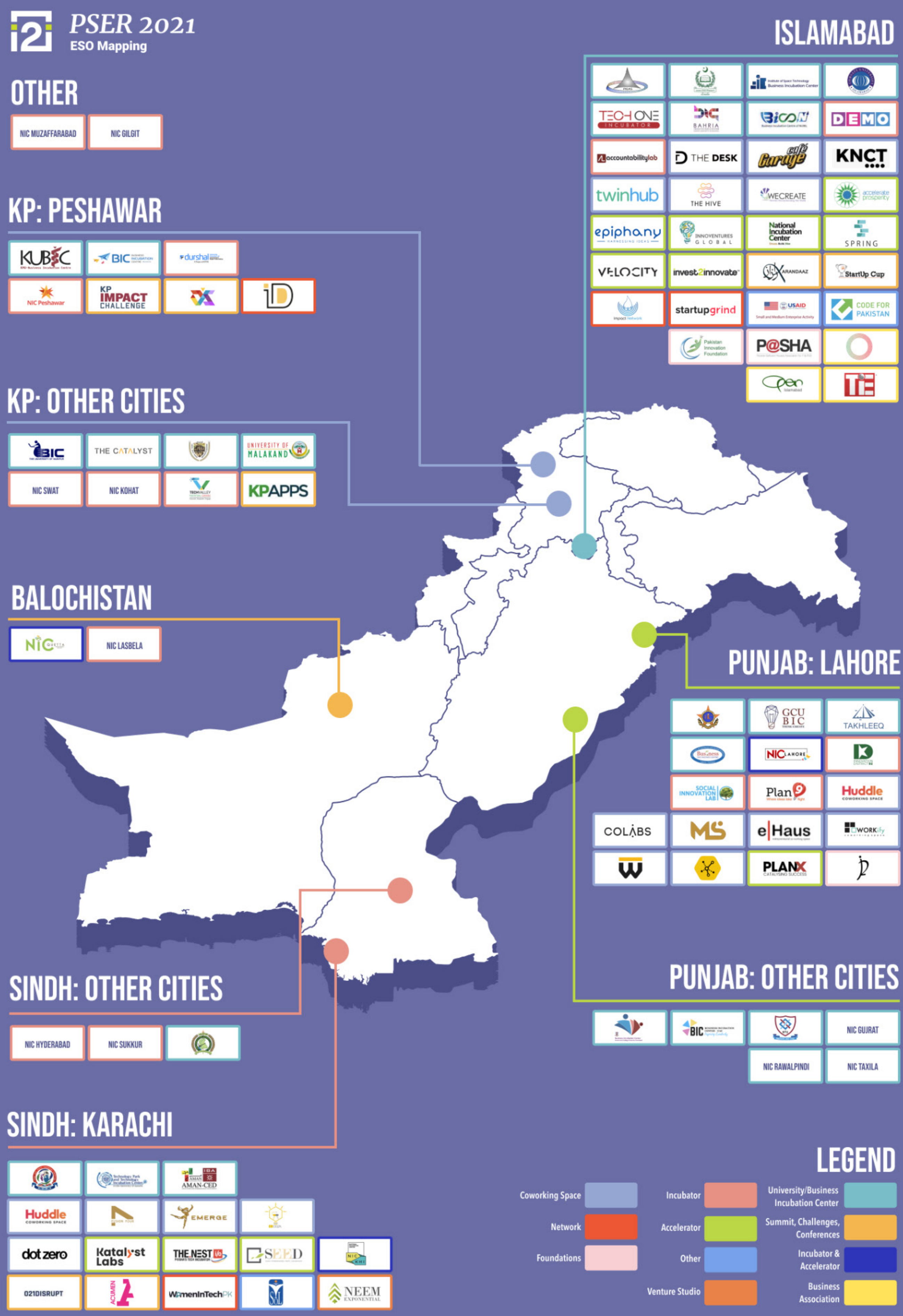


FIGURE 17 Mapping of Entrepreneurship Support Organizations (ESO) operating in Pakistan

Incubators/accelerators run on a cohort-based model and train the selected startups on essentials of business, from marketing to finance and management. Of the 63 respondents (42%) to our survey who had been part of an incubator/accelerator, 43 (68%) held positive opinions on the knowledge transfer of business skills development and 50 (79%) found the pitching/storytelling aspect to be particularly useful. Due to their unique positioning in the startup ecosystem, incubators and accelerators, particularly those backed by the government, often act as the first point of reference for many aspiring founders looking to start out their entrepreneurial journey or international organizations exploring their entry into the Pakistani market. This is similar to international models such as Startup SG in Singapore, where the government takes a proactive role by establishing a dedicated body that not only creates network effects but also helps unlock new avenues of capital.

Number of Incubators + Accelerators | 2020 - 2021

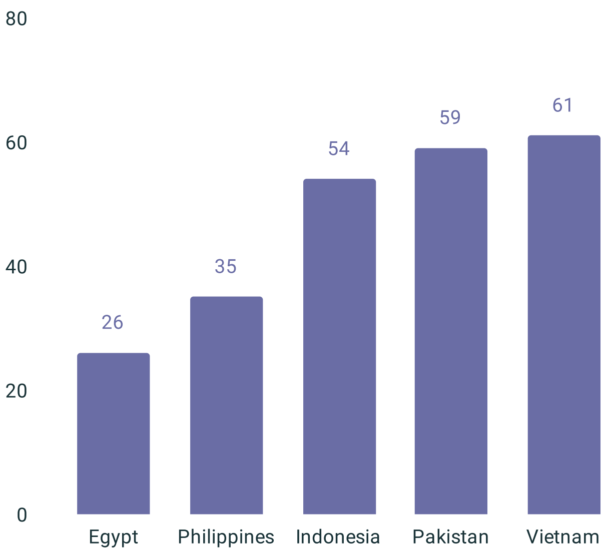


FIGURE 17 Number of incubators/accelerators in Pakistan compared to benchmark countries

However, the venture studio model[98] — where the organization operationally helps build the startup from ground up — is much less visible, although a number of players such as High Output Ventures Fund (HOVF) and Neem Exponential have tried to fill this gap recently. Globally, this model has grown rapidly with the number of venture studios increasing from 45 in 2009 to 334 by 2019.[99] Their structured approach has often been credited with better success rates for their portfolio companies compared to traditional startups.[100] There also exists a dearth of YC-style incubators/accelerators that not only train startups but also provides them with initial startup capital in the range of $100,000-200,000 cheques offered by many such programs, which help with development and initial product market fit.

Both the federal and Punjabi government, under the umbrellas of Ignite and PITB, respectively, have also played a role in the skills development function. For instance, Ignite's digiskills.pk, an online marketplace focused on in-demand skills, boasts over 1.8 million sign-ups while claiming IT exports of $20 million. On the other hand, PITB's e-rozgaar takes a somewhat more centralized approach by offering courses across four tracks – technical, content marketing and advertising, creative design, and e-commerce – with physical centers in 36 districts. It claims to have trained over 35,000 candidates who in turn have earned approximately $20 million since then. Similarly, the Small and Medium Enterprise Development Authority (SMEDA), an autonomous institution under the Government of Pakistan, helps foster a culture of entrepreneurship by providing young companies with legal and knowledge support in addition to financial assistance through grants. The government's flagship Kamyab Jawaan Program has also played a key role in supporting youth entrepreneurship and distributed close to 16,000 loans worth PKR 21B at subsidized interest rates.[101] Another notable government-backed initiative is the one-window facilitation center by the PTIB which helps business clients to lodge information at a single point of contact so their idea can be taken to the markets quickly and efficiently.

Beyond incubators and accelerators, a number of networks, associations, and competitions have also formed, mainly working within the domains of awareness, training, networking, investment and lobbying. For example, CIRCLE Pakistan runs an annual She Loves Tech competition in partnership with Habib Bank Limited, in which women founders enter a crash course/bootcamp and compete for a spot to pitch at the She Loves Tech Global Event for a $50,000 prize. Similarly, Standard Chartered sponsors a similar Women in Tech program, where the top 5 to 7 startups can win up to $10,000 reward each.

98 A venture studio is an organization that creates startups, typically by providing the initial team, strategic direction and capital for the startup to reach product-market fit.

99 Enhance's Startup Studio Whitepaper

100 https://www.gan.co/wp-content/uploads/GSSN_StudioCapitalEfficiency_whitepaper.pdf

101 https://kamyabjawan.gov.pk/PDF/KJ_Pages.pdf

In the last few years, a number of industry associations have also been established. These groups play an important role in policy advocacy in verticals that are largely uncovered by the existing legal framework. This includes the Pakistan Fintech Association and Pakistan Fintech Network, which are working to advocate on behalf of startups in the financial technology sector. Similarly, leading e-commerce players have joined hands to form the E-commerce Association of Pakistan, while edtech startups have founded the Ilm Association as a joint front.[102]

Meanwhile, co-working spaces have also grown significantly and emerged as a preferred option for startups by providing them with flexibility, convenience and a culture of innovation. Spaces including Daftarkhwan, Kickstart, The Hive, and COLABS host some of the fastest growing startups and organize events for the ecosystem such as Daftarkhwan's VC Exchange, which allows startups to pitch their businesses to leading investors. Unlike incubators and accelerators which are often reliant on external funds for their day-to-day operations and are primarily focused on filling the gap for a public good, coworking spaces are for-profit businesses. This self sufficiency has allowed leading players in the industry to expand to multiple cities in a quick time. Realizing the knowledge spillovers of such spaces and networking effects, Punjab Information Technology Board also launched e-Earn, a network of co-working platforms spread across 36 districts at subsidized rates, aiming to seat up to 10,000 freelancers. The emergence of such players underscores the importance of networking to a startup's success. Having a good network is one of the key pillars of entrepreneurship as described by The Global Entrepreneurship and Development Institute. Looking at the scoring, Pakistan's score on the GEI index on networking is currently 0.14 which is at the approximate median compared to other benchmark countries.

Collaborative programs between local organizations and international players also play a significant role, such as Meta's SheMeansBusiness program that provides training to women entrepreneurs on digital marketing. Similarly, the World Bank, in partnership with i2i and Village Global, launched the WeFi program in Pakistan in order to build the capacity of local ESOs and support legal reform. Under this initiative, 34 ESOs were provided training to support women entrepreneurs for fundraising. International donor agencies such as the United States Agency for International Development (USAID) also continue to serve as an important enabler of entrepreneurial activity in Pakistan through Small and Medium Enterprise Activity (SMEA). More than 722 small businesses have benefited from this program through skills development in areas like digital marketing training. It also awards grants to startups working in priority sectors with beneficiaries including the likes of Bykea and Sehat Kahani. Karandaaz also occupies an important role in the support ecosystem through competitive innovation challenges, organizing hackathons to incubate companies working to promote digital financial inclusion and providing grant and equity capital.

However, despite overall growth in ESOs, questions have been raised about their effectiveness, especially with respect to incubators and accelerators and their role in providing a strong deal pipeline to investors as a continuously declining share of investments are directed towards portfolio companies of ESOs. More experienced founders have also expressed reservations about the utility they could derive from these organizations in terms of scaling their businesses to the next level, but also getting the right mentorship. More on this in the Support Gaps and Challenges section.

102 http://www.ilmassociation.com/home/index#portfolio-section

4.2 GAPS & CHALLENGES

NEED TO MAKE SUPPORT SERVICES, ESPECIALLY RELATED TO INVESTMENT READINESS, MORE BESPOKE

In surveys and interviews for this study, both founders and ESO personnel noted that more standardized and generic curricula among most incubation centers are not as effective as customized programs and support for ventures. Survey results also show that entrepreneurs value particular services over others with respect to ESOs. Of the 63 startups (out of 150) in our survey that had been part of an incubator/accelerator, a majority of founders highlighted services such as pitching and storytelling (79%), access to like-minded entrepreneurs (79%), mentorship networks (75%), network development (75%), and business skills development (68%) as extremely useful. Refer to figure 19. Most of these services can be categorized as basic business development skills that apply more closely to early stage startups and founders who are looking to learn the basic ropes of entrepreneurship and are more likely first time founders without exposure to sophisticated business environments, educational experiences, or tacit knowledge of building products and companies.

Survey respondents ranked ESOs less favorably regarding the following: securing direct funding via incubator/accelerator (24%), investment negotiation and investor education (22%), access to advisory services (legal/IP/accounting) (17%), access to investors/funders (17%), access and linkages to markets (16%), and growth and scaling (16%). All of these services constitute more specialized outcome-driven services that need to be tailored to a company's unique needs. Invest2Innovate's interview data showed most dissatisfaction among entrepreneurs who are looking to scale and raise capital with the services currently offered by ESOs. For instance, both ESO personnel and founders shared that attempts on part of the ESOs to help startups raise investment have often not come to fruition either due to investors not following up after a few initial conversations or because they were matched with investors that were not a fit for the founders and vice versa.

Existing literature[103] classifies ESOs into three categories: "Ecosystem Builders", "Deal-Flow Makers" and "Welfare Stimulators". Most mainstream incubators and accelerators in Pakistan fall under the jurisdiction of the National Incubation Center (NIC) and/or provincial governments and are established with the mission to "build and influence an ecosystem by empowering individuals and institutions to generate a positive and social impact".[104] This can potentially provide an explanation of why the investment-side elements of Pakistani incubation/acceleration programs are underperforming. While some of the NICs may not be successful "Deal-Flow Makers" they are fulfilling their purpose as "Welfare Stimulators," meaning they focus mainly on "stimulating startup activity and economic development," focusing their energy on "very early stage new ventures." In order to still improve their offering though, as was indicated by qualitative interviews for this study, these ESOs should still include more mentoring by serial entrepreneurs and business operators.

Additional studies[105] [106] [107] also highlight that business incubators/accelerators set up explicitly for the purpose of stimulating economic activity and promoting wider welfare often do not consider investment raised as a metric of success (for the ESO) outside of the number of investors attending (their respective) Demo Days, which isn't an outcome-driven metric to begin with. Therefore, while public-sector incubators can be credited with fostering entrepreneurship as a whole and graduating a high volume of startups, they have not been as focused on driving investment to their incubated startups. Improvements can be made through strengthening their investment readiness offering for founders.

103 Pauwels, C., Clarysse, B., Wright, M., & Van Hove, J. Understanding a new generation incubation model: The accelerator. Technovation, 50, 13-24 (2016).

104 About: Our Mission, National Incubation Center Pakistan [Accessed on 18th January 2022].

105 Caley, E. Seeding Success: Canada's Startup Accelerators: MaRS Data Catalyst. (2013)

106 Deepcentre. Evaluating Business Acceleration and Incubation in Canada: Policy, Practice, and Impact. (2015)

107 Basco, D., Gutierrez, C. I., & Graf, M. The Role of Public Policy in Supporting Business Accelerators. RAND (2018)

Many entrepreneurs reported that advice on scaling and the fundraising process is most helpful when it comes from fellow founders with experience with the same processes. Founders consistently mentioned Muneeb Maayr (co-founder at Bykea)[108] as an example of a seasoned local founder with experiential knowledge and understanding of the fundraising process that was seen as extremely helpful by many. Respondents gave several explanations for the ineffectiveness of the current approach being used by ESOs to deliver support services on scaling and fundraising, including suboptimal training curricula[109] and insufficient networking opportunities for early stage startups,[110] as well as a lack of dedicated attention to the needs of startups operating in a specific niche.[111]

Jonas Eichhorst (Director at Tharros and investor in startups like Bykea and Oraan) further commented on the latent potential of incubated companies (by first time founders): “It is the second or third company of these founders which is going to be interesting, and that company is not going to go through an incubator or an accelerator. That’s when they become interesting from a financial perspective for an investor”. This perspective is important, as even if an investor may not see potential in a founder’s first startup, ESOs can still provide value at this stage, preparing young founders for their future journey.

In general, how useful do you find the following services/activities provided by incubators/accelerators in Pakistan?
n = 64 (Startups in our sample that participated in an incubation/acceleration program)

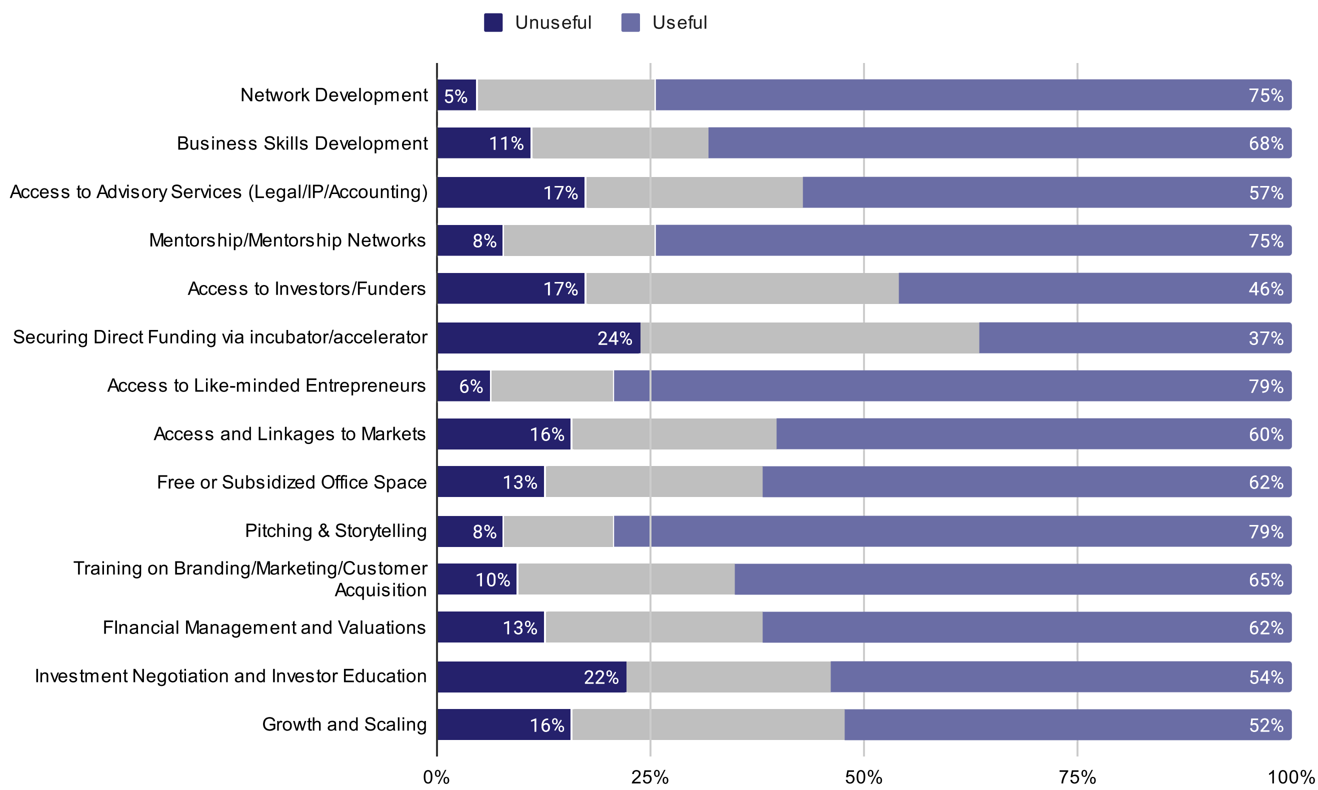


FIGURE 18 Perceived Usefulness of Services provided by Incubation/Accelerator Centers in Pakistan

108 Primary Interviews: Ahmed, L. (2021), Moeen, A. (2021), Shabbar, A. (20210
109 Primary Interviews: Kidwai, F. (2021), Tanveer, F. (2021), Shahid, S. (2021)
110 Primary Interviews: Hussain, A. (2021), Gul, S. (2021)
111 Primary Interviews: Hyat. N. (2021)

SUPPORT SERVICES CURRENTLY BEING PROVIDED ARE NOT NECESSARILY HELPFUL TO MORE MATURE FOUNDERS AND STARTUPS

According to Invest2Innovate's entrepreneur survey, out of the startups that had gone through a support program, about 58% (63/150) were at early stage and growth and expansion stages. See figure 20 for details. Further, 63% (40/63) of incubated startups had founders with prior work experience in the startup sector, which suggests that a number of mature founders still opt for support programs but believe certain aspects of the support can be improved. For startups at growth and expansion stages, 25% expressed that both securing direct funding via ESOs and investment negotiation aspects of these programs was a challenge. The same trend was observed to a marginally lower extent among founding teams with prior work experience in startups (23% and 20%) respectively.

Of the 63 survey respondents who had been part of an incubator, 43 (68%) found training on business development skills to be useful while 39 (62%) reported positive perceptions about the financial management services provided to them by ESOs. However, growing questions arise regarding the importance of ESOs in helping startups raise funds as only seven (11%) found training on investment instruments and the capital raising process to be helpful. Therefore, founders in general (including both growth-stage founders and founders with prior experience in startups) thought that investment readiness and financial access modules of the program curriculum needed improvement. Refer to figure 1.

Interviews provided more qualitative nuance to these findings. Fahad Tanveer (Founder at Edkasa) emphasized that ESOs should "not waste founders' time in a very long acceleration process. Facilitating access to established networks and capital are the two most important things that an ESO can assist startups with, along with getting them up to speed with regulatory and compliance procedures instead of offering purely theoretical training". Established and experienced founders[112] have very different needs with regards to business support services than novice founders. The former are typically less dependent on the tangible services (such as office space and procurement facilities) that incubators provide in Pakistan and lean more towards the 'intangible knowledge-intensive'[113] and high value-added support services usually provided by accelerators.

A significant number of founders that have raised successfully since 2015 were also equipped with either a strong existing network, having worked at high-growth companies like Careem and Swvl (that are hereby dubbed 'network cluster founders' for the purpose of this study) and/or had earned a college or graduate degree from an international university or institution. The resulting network and exposure affords these founders social and financial capital. Invest2Innovate's Deal Flow Tracker (DFT) shows that network cluster founders,[114] who raised $303 million (53.6% of the total amount) across 45 deals and founders with degrees from international universities or institutes, who raised $431 million (76.2% of total dollar value) across 133 deals, accounting for the largest portion of the total amount raised from 2015 to 2021. A significant degree of overlap is visible between these two founder groups with founders with both an international educational background and have worked at a network cluster employer raising $230 million across 31 deals. Refer to figure 21.

Have you ever participated in a business incubation or acceleration program?

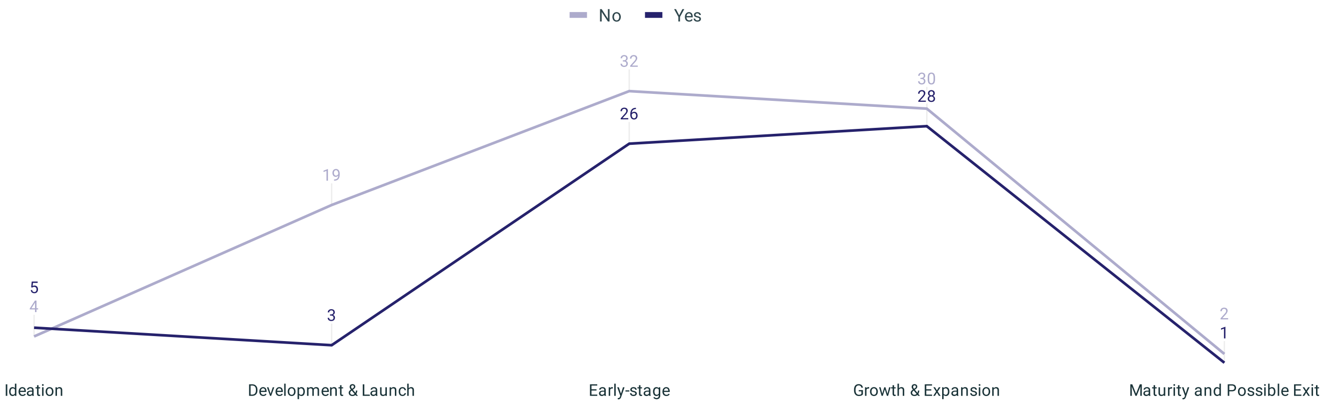


FIGURE 19 Distribution of incubated/accelerated startups by stage of business lifecycle

112 In this context, 'experienced founders' are those with either experience:
- Working in a prominent startup/company; or
- Founding their own startup in the past; or

113 Pauwels, C., Clarysse, B., Wright, M., & Van Hove, J. Understanding a new generation incubation model: The accelerator. Technovation, 50, 13-24 (2016).

114 Network Cluster Founders refer to startup founders who have worked at a previous employer of repute (which have a consistent track record of ex-employees founding new ventures after their stint with the employer). Notable employers recognized as forming part of this cluster include: Careem, Swvl, and McKinsey & Co. among others. In some cases, Network Cluster founders have had past experience working with one or more of these employers (For instance, a founder may have worked with both Swvl and Careem prior to founding their own venture).

Faisal Aftab (GP at Zayn Capital) commented on this phenomenon and the issue of overall investment readiness, noting, "Most people are fairly [investment] ready, especially if they are ex-Careem. There is an advantage if you are ex-Careem or have worked with any other big tech player because you know how to pitch and what to expect [on the journey as an entrepreneur]. Abrar Bajwa, co-Founder at Tazah Technologies (and who worked at both Careem and Swvl before launching his startup), concurs with the sentiment that individuals who have worked at rapid-scaling tech ventures (citing Careem, Swvl and Foodpanda) are better equipped for growing their ventures because their prior experience often led them to solve problems related to growth operations.

Given that the Pakistani startup ecosystem is still in its early stages, founders at later stages in their careers have noted an urgent need for advisors and mentorship centered scaling companies, and prefer to learn from others who have had experience scaling startups as founders or core team members. Ali Moeen (co-Founder of ezBike) emphasizes the importance of employing startup founders in an advisory capacity compared to a mentor from conventional organizations that often do not grow at the same scale as startups. Qualitative data supports this sentiment, with interviewees noting that founders must have a growth-oriented mindset in order to scale their companies.[115] Peer networks are also vital, as founders can learn from one another, especially as problems and operational bottlenecks arise. Such communities may be facilitated by ESOs, which can deepen their core offering and basic curriculum with this added layer.

On how ESOs and their networks can potentially serve experienced founders, Christopher Schroeder elaborates, "I do not think there is anywhere near enough resources for people to really understand scaling. At some point, what you need is going to be different from what you have needed in the past and it is great if an organization can offer that." Similar anecdotes also underscore the importance of ESOs constantly iterating their services to ensure they are aligned with the needs of founders at different stages of their business.

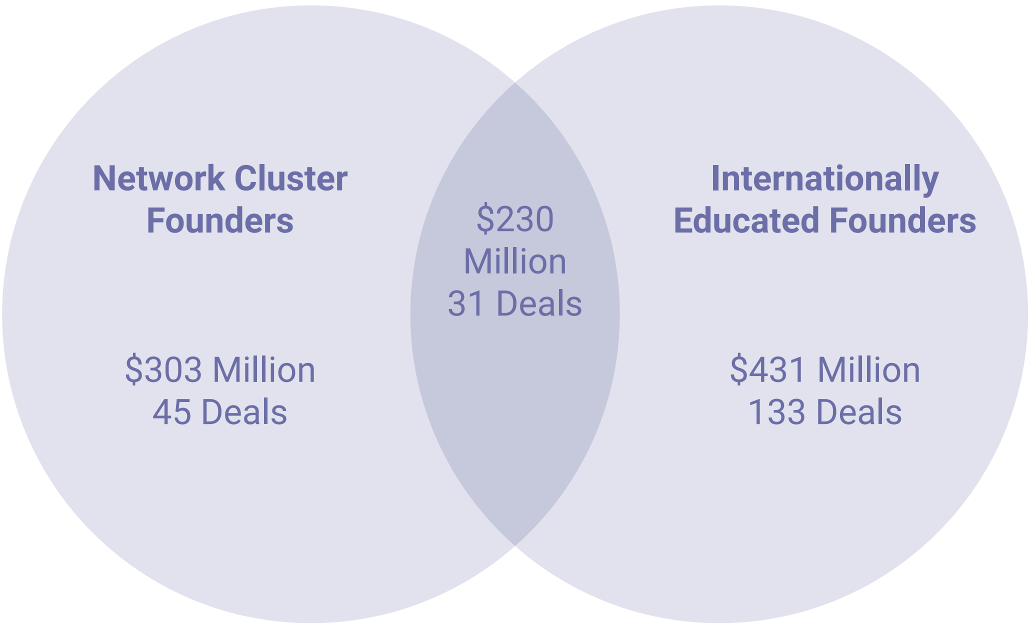


FIGURE 21 Investment amount and deal count by founders' experience (network cluster founders) and educational background (higher education from local versus international universities) | 2015 - 2021

115 Primary Interviews: Ali, S. (2021). Bajwa, A. (2021)

INVESTORS OFTEN DO NOT SOURCE DEALS FROM ESOS

According to research on the role of incubation centers in providing deal flow to investors, ESOs can play a strong role as mediators between founders and investors, provided that they are intentional in ensuring that their startup selection process is selective and aligned with investors' interests. Additionally, incubators allow startups to be "capital-efficient" (by providing cost-prohibitive assets such as office space as an inclusive part of the support program), so they are perceived as less of a financial liability by investors.[116] Incubators and accelerators should provide a strong network of investors, especially for founders who may lack access otherwise. For most investors (4 of 5) in our survey sample, exposure to pre-vetted/better prepared startups and building trust with the local ecosystem were important factors in how they viewed the strength of an ESO. See figure 22 for details.

Please rate how important each of the following factors is behind your current involvement with the acceleration/ incubation/other support program.

Total Respondent Investors = 5 (who have a formal relationship with an ESO)

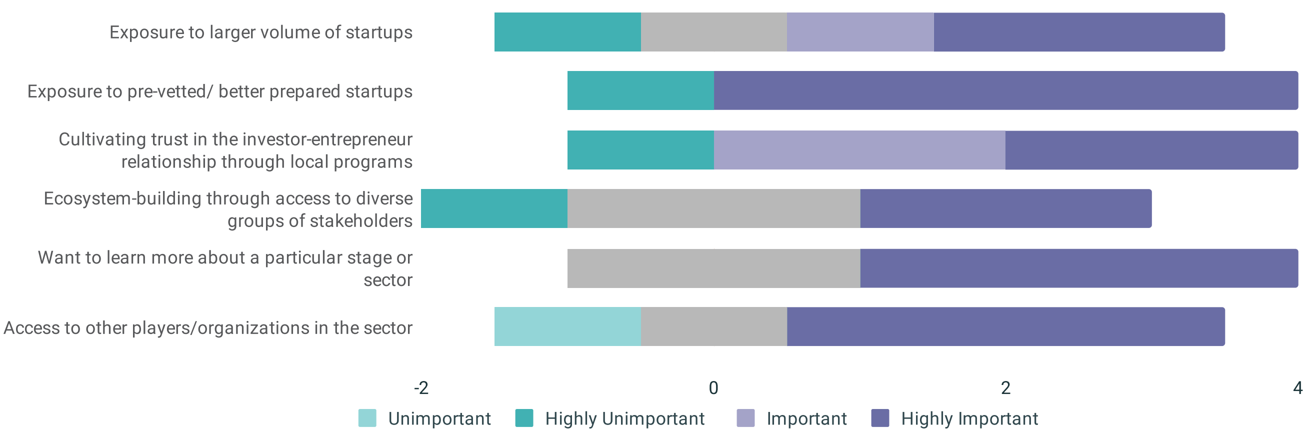


FIGURE 21 Importance of different factors behind investors' current involvement with ESOs

Additionally, 47% of surveyed investors reported making an investment in a startup that had participated in an incubation/acceleration program at most two years previously, out of which only 35% said that they made this investment as a result of an introduction by the ESO. When asked to rate these startups' performance during their initial vetting process, deep knowledge of the transaction process, key financial and legal terms (5 of 8)

How did startups who have gone through an incubation/acceleration program in Pakistan do on the following items, in comparison to those who did not go through any entrepreneurship support programs?

Total Investors = 8 (who have invested in incubate/accelerated startups within 2 years of the program)

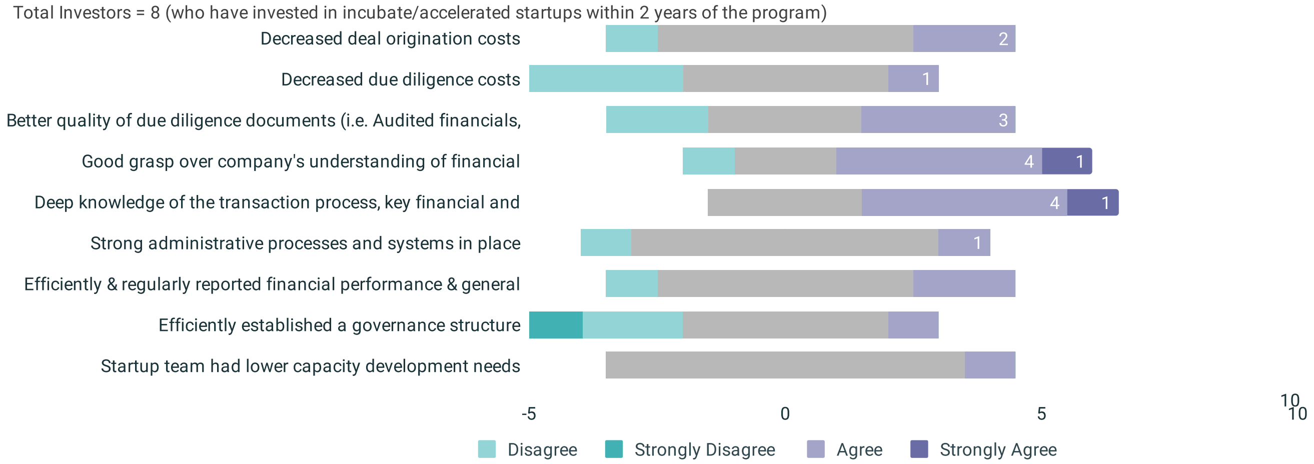


FIGURE 22 Investors' rating of incubated/accelerated startups' performance.performance.

116 Van Weele, M., Van Rijnsoever, F. J., Eveleens, C. P., Steinz, H., van Stijn, N., & Groen, M. Start-EU-up! Lessons from international incubation practices to address the challenges faced by Western European start-ups. The Journal of Technology Transfer, 43(5), 1161-1189. (2018)

and good grasp over their company's understanding of financial statements & financial forecasts (5 of 8) were the two aspects investors felt incubated startups performed well on. They did not, however, believe that it helped them decrease deal origination and due diligence costs or efficiently establish a governance structure. Instead, investors expressed mostly neutral sentiments as to how startups (who had undergone a formal incubation program) did on these particular metrics, including lowered startup capacity development costs (7 of 8). See figure 23. Some investors[117] expressed that they had to opt for neutral responses to account for the variation in quality of support services provided by different ESOs.

A majority of surveyed investors (12/17) reported that they do not have a formal relationship with ESOs in the local ecosystem and a similarly large proportion stated during interviews that they do not look to such support organizations for sourcing deals. Out of the five investors with a relationship with a Pakistani ESO, two were of foreign origin.[118] Therefore, since the last edition of this study(when investors had expressed apprehension in relying on support organizations as a pipeline for investment-ready startups), sentiments have changed relatively little. Several players have been working specifically on bridging the investment readiness gap in the ecosystem - including Invest2Innovate (via its WeRaise program funded by the World Bank), the Pakistan National Investor Portal's (PNIP) Sector-specific Accelerators, and Accelerate Prosperity's Fast Track Incubation Program for Regional Businesses. Despite these efforts, it seems as though there is often a disconnect between the ESOs' and investors' perceptions of what high value and investment worthy businesses are, which is evident from the lack of investor interest following pitching events reported by multiple ESO personnel.[119]

Do you have/have you ever had a formal relationship with an acceleration/incubation program in Pakistan (i.e. involved in program funding, pre-commitment to invest in a certain ESOs cohort companies, member of the BOD, Selection Committee, etc.)?

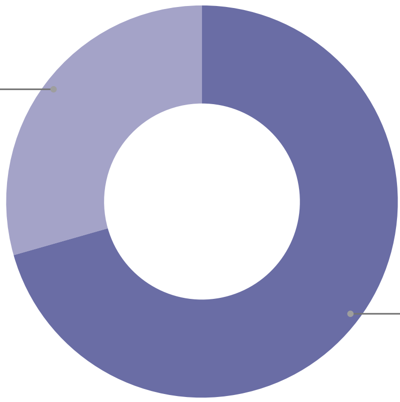


FIGURE 23 Distribution of investor sample existing formal relationships with an ESO

The issue may be rooted in the difference in approach between investors and support organizations when it comes to selecting high value startups. Existing literature shows that advertising specific accelerator programs leads to complacency among startups to focus on building high-value businesses, dissuading investors from funding companies graduating from such programs.[120] As Jehan Ara (CEO at Katalyst Labs) also shared in an interview, sometimes it is difficult to appease potential investors because they may have been approached by ESOs with startups that were not the most impressive. In elaborating what this particular deficiency entails, Rabeel Warraich (Principal at Sarmayacar) noted, "Sometimes the models (we are approached with) are very basic. We understand that at initial stages, there are a lot of assumptions but building a degree of sophistication proactively before the founders reach out to institutional investors would be nice to see."

In interviews for this report, several ESO personnel shared that their attempts to link startups with potential investors to build deep–rooted relations in early phases have been unsuccessful. One staff member pointed out that, "Frankly we have not seen much interest after a first meeting [with an investor], which is a challenge. We often find that the initial meeting does not result in a second or third meeting for some of the startups." Although the present state of investor-ESO relationships shows potential for how ESOs can position themselves as a better source of deal flow for investors (in terms of showcasing more investment-ready startups), several factors still lie outside their control, including investor concerns over startup viability.

117 Primary Interviews: Schroeder, C. (2021)

118 The respondent base of investors who had established formal ties with a support program consists of only five, which may be a skewing effect in terms of how investors perceive ESOs' role in Pakistan.

119 Primary Interviews: Amin, S. (2021)., Tariq, S. (2021)

120 Miller, P., & Bound, K. The Startup Factories: The Rise of Accelerator Programmes to Support New Technology Ventures. London: Nesta. (2011)

UNIVERSITY INCUBATORS DO NOT PREPARE YOUNG GRADUATES FOR ENTREPRENEURSHIP AND SHOULD PROVIDE MORE MEANINGFUL R&D SUPPORT TO THE ECOSYSTEM IN GENERAL

Although the government and the Higher Education Commission (HEC) have played a central role in working with universities to establish business incubators and Offices of Research, Innovation and Commercialization (ORICs), opinions on the effectiveness of these institutions in serving their intended purpose remain ambivalent. Of the survey respondents, 64% of startups, 60% or ESOs, and 35% of investors expressed that there was a lack of collaborative initiatives between industry R&D and universities, which creates a major challenge for startups. (see figure 25).

Lack of research & development initiatives & university collaboration are a major obstacle

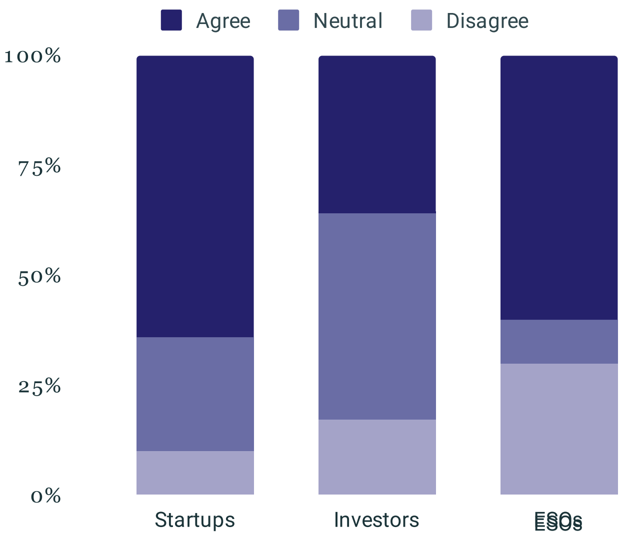


FIGURE 24 Opinions of Respondents on lack of Research and Development initiatives and University-Industry Collaborations as a potential barrier to startup operations

Moreover, 87% of respondents agreed that universities in Pakistan do not adequately prepare their students for launching their own businesses. Interviewees including entrepreneurs and local investors also expressed that universities in Pakistan should play a stronger role in developing quality founder talent who could compete in the international markets.

Secondary data[121] highlights that the entrepreneurial profile of a university and proactiveness of an incubator manager are critical in allowing startups to build up important linkages with external parties (such as service providers and potential investors). This underscores the importance of certain founder characteristics (such as prior educational background and degree of risk-aversion) which can be shaped through university incubator programs. Additionally, universities that are "bridging social capital"[122] have a much more significant impact on founders' businesses compared to those that are only "bonding social capital".[123] In the context of Pakistan, this constitutes a likely reason why founders with higher education from an international institution are more likely to raise successfully, to raise bigger ticket sizes, and to raise from international investors compared to founders with local education.

Other prominent domestic investors stated that existing entrepreneurship curricula are not really in touch with market realities and are still using antiquated paradigms of building a business. They particularly noted the lack of awareness of interdisciplinary topics, such as building and maintaining data rooms, and core financial fundamentals such as unit economics, which are considered to be indispensable when building both technical products and viable business models for pitching to potential investors.[124] These gaps are exacerbated when in the context of tier 2 cities where there is dearth of ESO and adjacent facilities as elaborated by Anees Khawaja (Partner at GroundUp), "I see the desperate need to provide the youth of for instance, South Punjab, with the right environment and with places to work out of, because the right environment really brings the best out of a founder and even an investor. So once we are able to do that, I think that is when we will start to see the real difference."

[121] Redondo, M., & Camarero, C. Social Capital in University Business Incubators: dimensions, antecedents and outcomes. International Entrepreneurship and Management Journal, 15(2), 599-624. (2019)

[122] Bridging social capital refers to linkages enabling access to new ideas, opportunities, or information outside an individual's immediate network

[123] Bonding social capital refers to linkages enabling social interactions, characterizing relationships, and drives exchange and collective action within an individual's immediate network

[124] Primary Interview: Aftab, F. (2021), Mian. A. (2021)., Azim, A. (2021).

3.3 RECOMMENDATIONS

SUPPORT

1 DESIGN AND DIVERSIFY PROGRAMS FOR MORE SPECIALIZED STARTUPS

COVID-19 pushed the majority of ESOs in Pakistan to deliver their programs online, which helped increase access to such support services for entrepreneurs who either lived in cities without strong ESO programs or were not willing to take a break from running their businesses to attend programs in different cities. Nonetheless, room for improvement remains in how these programs are delivered. Recent literature suggests that online support yields better results when it is interactive and executed with smaller groups of founders (and preferably one-on-one).[125]

Modules around investment readiness and scaling also require improvement. Some of the key issues that stakeholders highlighted in interviews included suboptimal training curricula, insufficient networking opportunities for early stage startups, and a lack of dedicated attention to the needs of startups operating in a specific niche. As far as training curricula are concerned, a cascading model may be used by prominent support programs where they license their content to other ESOs in the country, something currently being implemented in countries like Indonesia.[126] The World Bank's Women Entrepreneurs Finance Initiative (WeFi) Investment Readiness Training program in Pakistan has used this approach by partnering with Invest2Innovate to train 34 ESOs in the country, who in turn will deliver an investment readiness curriculum to startups in their cohorts.

These programs can also create stronger peer networks where founders can access other entrepreneurs for problem solving and also mentor networks of investors and industry experts for advice and guidance even after program completion. As Shazia Khan (founder at EcoEnergy) emphasized, "In the future, I would like to see people who dig into our business models with us and match us up with people, whether they are angel investors or investment groups, with people who have the skill sets that the ESOs are missing." Such networks include communities and platforms such as OPEN (the Organization of Pakistani Entrepreneurs) and Paklaunch[127] that focus on connecting investors and founders, and building peer groups. Similarly, founders also stressed how important and effective it was for them to learn about scaling and growing their businesses directly from seasoned founders who have been through the process. Innovate UK EDGE is a great example of using peer networks to provide support on growth and scaling. In 2021, the program selected 200 founders, MDs and CEOs from businesses that were scaling from its portfolio of clients to participate in 14 scaleup peer networks across the UK. These peer groups provide a structured and confidential forum in which scaling businesses can address their most important business growth challenges.[128] Similar peer networks can be created specifically by ESOs for startups in order to make such services more structured and accessible to a larger pool of startups.

ESOs can also contribute to ecosystem diversification by creating sector specific programs for startups. Global examples including Imagine K12 (for edtech startups in the United States) or the SURGE accelerator (for cleantech ventures in Southeast Asia and India) underscore the value ESOs can provide.[129] In such cases, sector-wide specialization of support has many advantages such as high quality advisory services, curated mentors, and provision of dedicated premises and equipment. Exclusive concentration on a given sector has also shown to raise both the expertise of the incubator personnel and the value of participation in the incubator to founders.[130] Building similarly sector-focused incubation programs in Pakistan with curriculum tailored to the cohort companies' unique needs can potentially catalyze the growth of startups within

125 https://www.spf.org/en/global-data/SAO-Performance-Challenges-Solutions.pdf
126 https://www.spf.org/en/global-data/SAO-Performance-Challenges-Solutions.pdf
127 Network: Investors, Paklaunch.com. [Accessed on 15th February 2022]
128 https://www.ukri.org/news/innovate-uk-launches-new-peer-networks-for-scaling-businesses/
129 https://www.entrepreneur.com/article/288275
130 http://aei.pitt.edu/81435/1/2002.2.pdf

different verticals of the same sector.[131] Such programs could also help form linkages with key investors actively looking at these spaces as part of their mandate.

Recent years have also seen a global increase in the number of venture studios. Besides providing financial capital and mentoring, venture studios also help with staffing of startups. In early-stage ecosystems like Pakistan where stakeholders across the board have expressed concerns regarding the availability of top managers, venture studios can potentially alleviate these problems as they often have a long-list of potential CEOs or executives that they work with in multiple companies, who either help the VBs put together management teams or join these teams themselves[132] Pakistan's Neem Exponential, the only venture studio in the country, has focused on creating social impact through enabling financial

2 BRINGING A MARKET FOCUS TO UNIVERSITY INCUBATORS

Even as a growing number of universities have launched dedicated incubation centers, few startups graduating from these programs have achieved significant milestones. A majority of university business incubation centers rely on an educational institution in question for a budget allocation which varies from PKR 100,000-16.65 million.[133] Consequently, those receiving lower budgets offer mostly suboptimal support services. There is a need to establish a standardized level of service deliverables among these BICs, both in terms of training quality and mentorship services provided. The HEC's own revised BIC Policy effective from 2021 lays down the minimum criteria required for startups to graduate as well as the performance metrics against which BICs need to evaluate themselves such as the total number of startups created as well as events for awareness of entrepreneurs and connect events with investors.

Moreover, as often the first point of reference for graduating students working on their final year projects, university incubators should focus on creating a conducive environment to commercialize these inventions (wherever feasible). A study on 900 companies and 150 university-based incubators globally found that startups that were incubated at universities generated more sales and created more jobs than their private and non-sector counterparts, which exemplifies the role university incubators can play in preparing young graduates for a future in entrepreneurship.[134] Pakistan fares rather poorly in this area even though viable commercialization of research projects is a part of the HEC's Policy on Offices of Research, Innovation, and Commercialization (ORICs).[135] University BICs also lag in terms of providing the right kind of mentorship, a problem that could be solved by tapping into preexisting alumni networks to serve as experienced mentors, or by recruiting visiting faculty from industry or technology-intensive sectors.

Pakistani university incubators generally lag behind both private incubators and basic research incubators in regards to innovation in products, technological advancement, and organizational development.[136] One reason cited for this is the low level of technical specialization among managers. To improve the quality of existing university incubators, the HEC can devise a more refined criteria for senior management roles at BICs and mandate entrepreneurial experience for directorial positions, for instance.[137] University incubators can also use incentives to encourage more students to come up with their business ideas, akin to the President's Innovation Challenge (hosted by Harvard University) which offers students upto $75,000 for their ideas.[138] Moreover, along with training, these centers can offer students access to fundamental services like lawyers and corporate advisors that are essential to registration and compliance matters.

131 M. Schwartz, C. Hornych, Specialization as strategy for business incubators: an assessment of the Central German Multimedia Center, Technovation 28 (7) (2008) 436–449.

132 https://www.insead.edu/sites/default/files/assets/dept/centres/gpei/docs/insead-student-emerging-role-of-venture-builders-oct-2018.pdf

133 https://hec.gov.pk/english/services/universities/ORICs/Documents/ORICs%20%20BICs%20Mapping%20Study.pdf https://hatchery.emory.edu/articles/university-incubators.html

134 https://hatchery.emory.edu/articles/university-incubators.html

135 Hu, Bei & Liu, Rongzhi & Qiu, Zhiqiang. (2009). How to Enhance the Efficiency of University Student Incubator: The Application of Total Service Quality Management Model. ICCIT 2009 - 4th International Conference on Computer Sciences and Convergence Information Technology. 10.1109/ICCIT.2009.50.

136 Barbero, J.L., Casillas, J.C., Wright, M. et al. Do different types of incubators produce different types of innovations?. J Technol Transf 39, 151–168 (2014).

137 https://www.hec.gov.pk/english/services/universities/EBIC/Documents/BICs%20Policy%202021_Final.pdf

138 https://www.forbes.com/sites/avivalegatt/2019/01/07/launch-your-startup-at-these-five-college-incubators/?sh=5b7204bd4a77

3 ALIGN ESOS AND INVESTORS MORE ON DEAL FLOW

As many interviewees stated, startup graduates of many ESO programs are rarely investment-ready and/or do not meet the standards of investors that are able to fund them. Therefore, programs can adopt more rigorous selection criteria and processes, engaging investors as judges to ensure that they choose more investment-ready cohorts. Once these companies enter these programs, the focus should turn to reworking these investment-worthy companies into investment-ready startups, and ensuring there is a solid supply of investors that can meet this demand. The growing number of Pakistani startups accepted into well-reputed international ESO programs like YCombinator, SOSV and Seedstars, mean that local ESOs should learn from and adapt their programs accordingly.

ESOs can also experiment with investor engagement, including how this relates to Demo Days, when the rapid pace of founder-investor interactions increases the probability of receiving funding from VC investors.[139] Local ESOs can potentially experiment with a similar approach by organizing speed pitching events that can create a sense of urgency and even what some would call 'fear of missing out' (FOMO) among investors. To ensure wider interest among potential investors, they should expand their scope beyond VCs and encourage participation of other types of investors as well, including local angel investors, who can be engaged to form collective investment syndicates down the line, especially since co-investing with other peers lowers risk and encourages more investment activity overall.

4 CURATE SUPPORT SERVICES FOR THE NEEDS OF MORE EXPERIENCED FOUNDERS

32% of the surveyed entrepreneurs in our study reported that they had previously founded a startup and there is a serious need for more ESOs to design programs that cater to the needs of more experienced founders. Recent literature shows that founders without prior startup experience seek support in developing functional skills such as marketing, IT, legal and government regulations in addition to market and opportunity identification. On the other hand, founders with prior startup experience require strategic guidance in terms of identifying target market opportunities, customers, and managing public relations as well as support in research and development activities.[140]

This problem can potentially be alleviated by tapping into the Pakistani Diaspora working in more developed ecosystems who are operators and possess specialist subject matter knowledge.

Some ESOs have attempted to bridge this gap, such as COLABS through its CoGrow program[141] that connects founders with international accelerators, investors and corporations. Daftarkhwan, in partnership with Amazon Web Services, runs a VC Exchange (VCX) which has arranged 412 meetings between startups and investors to date and has been lauded by many in the ecosystem.[142] In a similar vein, Venture for Pakistan (VFP) plays a positive role in placing young professionals among fast growing startups and mentorship entrepreneurs via hands-on deep dives and masterclasses, one on one mentorship, and keynotes.[143] Similarly, PakLaunch, an online forum and community, has been instrumental in bridging the gap between international and local investors via fireside panels, thereby giving international investors and Pakistani Diaspora inroads to the local startup ecosystem.

139 Smith, S.W. (2015). Swinging for the fences: How do top accelerators impact the trajectories of new ventures?

140 Dee, Nicola & Gill, D. & Lacher, R. & Livesey, Finbarr & Minshall, Tim. (2012). A review of the role and effectiveness of business incubation for high-growth start-ups. University of Cambridge Center for Technology Management Working Paper Series.

141 https://colabs.pk/co-grow/

142 https://daftarkhwan.com/dk-vcx/

143 https://bizhtech.github.io/WebFlow-Code/

SPONSORING PARTNER

DAFTARKHWAN

CO-WORKING SPACES: **WHERE IDEAS COLLIDE!**

COUNTRY
Pakistan

FOUNDERS
Saad Idrees
Ahmed Habib

FOUNDING YEAR
2016

2021 was the year that everyone in the region woke up and took notice of the startup ecosystem in Pakistan. This inevitable “breakout” has been building up gradually for the last many years and the pieces are now all in play to exponentially add value to this virtuous cycle with every passing year.

The ecosystem now is a stark contrast from the indie, underground vibe associated with the startup scene back when we started Daftarkhwan in 2016. We envisioned and designed Daftarkhwan to enable entrepreneurs and support them in their exciting, turbulent & invaluable journey of building their business. The path to realizing that vision was to build a solid community around entrepreneurship and to house it in an infrastructure that these rebels of our time could call home. As the industry grew, so did the platforms to support it.

The value-focused approach that helped guide our growth through the years drove us to develop learning and investment solutions that would help bolster the personal & professional growth of the founders & their businesses. Our most significant contribution, however, has been to identify and stand by partners that have generated authentic value for startups coming up. i2i has always been a landmark in value-generation for the startup ecosystem in Pakistan at any number of different levels - whether that is through their accelerator program, research, advocacy or venture capital.

As we evolve, there is a compounding gain in knowledge associated with high-quality platforms and repeat-entrepreneurs that is having a virtuous flywheel effect on how quickly the ecosystem is churning out high-quality startups and attracting more interests.

If you were happy about Pakistani startups raising $300 million+ in 2021, I’m sure the next few years is going to beat that by miles!

4.4 CASE STUDY

DEAFTAWK: INSIGHT INTO HOW LOCAL (AND INTERNATIONAL) SUPPORT ORGANIZATIONS CAN CATALYZE THE GROWTH OF STARTUPS

DEAFTAWK

COUNTRY
Pakistan

FOUNDERS
Abdul Qadeer
Ali Shabbar
Wamiq Hasan

FOUNDING YEAR
2018

DeafTawk, with its sign language translation app for the hearing-impaired, was one of the first Pakistani startups that went beyond the mass market to cater to the needs of a niche and underrepresented audience, which required sign language interpretation support on a daily basis. Founded in 2018 by Abdul Qadeer, Ali Shabbar, Wamiq Hasan, DeafTawk was part of the National Incubation Centre (NIC) Islamabad cohort the same year. DeafTawk's journey after incubation at NIC Islamabad involved their induction in other support programs such as GoogleForStartups, BeyondBeta and AcceleratingAsia from 2019 to 2021. AcceleratingAsia, in particular, provided DeafTalk with a grant of S$100,000 and the opportunity to scale their operations to Singapore. After this program, DeafTawk recorded approximately 94,000 hours of interpretation amongst users in Pakistan and Singapore. The platform also maintains over 1,100 interpreters across six languages and employs more than 500 hearing-impaired individuals.

Achieving these milestones can be attributed to a combination of a persistent founding team that is sensitive to a latent market need and the international linkages established independently as well as through support programs. Ali Shabbar (cofounder at DeafTawk) also emphasized that the role of being incubated under the NIC in their early days was helpful in gaining initial traction when the market was fairly nascent. He especially credited the effects of peer networking with other high-growth startups such as Roamer Technologies and MauqaOnline that offered knowledge sharing opportunities. Additionally, the networks and linkages created through the program was vital in the subsequent scaling up of the startup. By leveraging the connections made through their participation in these ESO programs, Deaftawk was able to participate in several startup competitions, and were thus introduced to AcceleratingAsia.

Shabbar also noted that many areas within support programs in Pakistan still need improvement in order to ensure that the services being provided are actually creating value for their founders. For instance, after scaling to Singapore, DeafTawk was exposed to investment readiness components that focused on aspects such as raising via different funding instruments including SAFEs and convertible notes. They noted that such elements were missing from investment readiness modules taught by ESOs in Pakistan. It is therefore imperative that we recognize the role of entrepreneurship support organizations in Pakistan in laying down the groundwork and infrastructure for early stage startups. It is equally important that these ESOs recognize that the ecosystem has matured significantly and with it the needs of the founders and startups have evolved as well. This warrants fluidity and agility on the part of ESOs to listen carefully to founders and understand their ever changing needs so as to offer services that are truly valuable to their growth in the longer run.

4.5 KEY TAKEAWAYS

According to founders and ESO personnel, business development curricula are disproportionately oriented toward first-time founders and/or those with minimal experience more generally, while there exists a lack of resources for founders looking to scale their companies. The relevant programs must be further diversified to cater to the wide variety of needs of different startups in the burgeoning Pakistani entrepreneurship ecosystem.

Startups presently at the growth and expansion stages experience lack of available support services, necessitating a reliance on networks (if accessible). Support services must increase their emphasis on strategic guidance so as to better serve investors with prior startup experience.

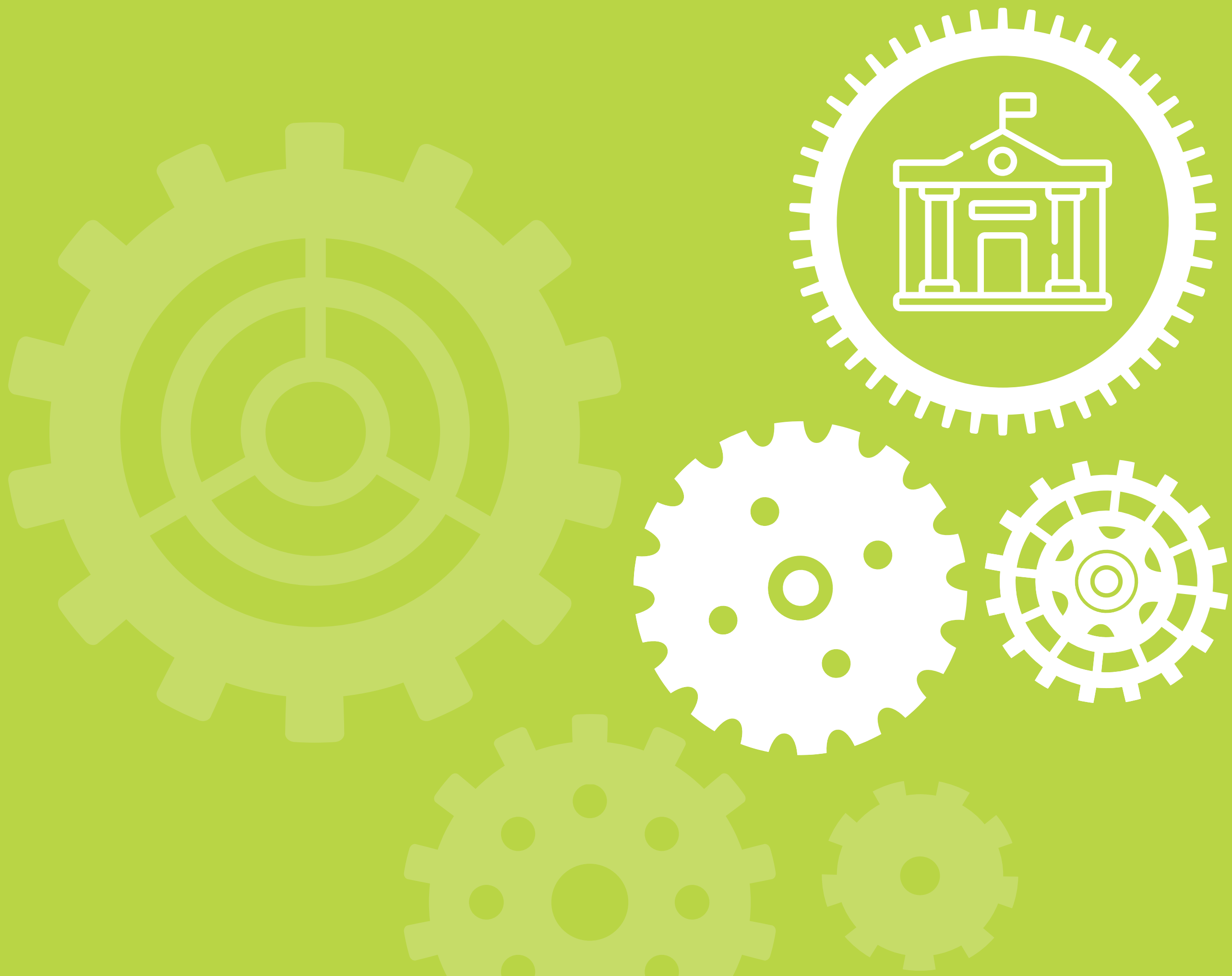
Investors consistently report a lack of infrastructure through which to source deals from ESOs. The collaborative interface between ESOs and investors can be further streamlined by involving investors directly in ESO selection criteria and processes and increasing investor engagement more generally, assisting in the development of common goals between these two groups.

Participants in university incubators believe that such programs do not provide adequate preparation to start businesses and are out of touch with the modern startup ecosystem. In order to increase the efficacy of such incubators compared to those in the private sector, the Pakistani Higher Education Commission (HEC) must promote managers with technical specializations and greater experience in entrepreneurship and investment.

05

POLICY

CONTENTS



5.1 STATE OF PLAY

Pakistan's startup ecosystem saw a significant shift around 2019 with the introduction of a series of progressive policy measures tailored to the needs of the technology sector. Compared to previous years when Pakistan's regulatory environment created barriers for startups in the ecosystem,[144] Recent reforms have played a pivotal role in catalyzing growth in this new era. The impact of this shift is evidenced[145] by the amount that Pakistani startups raised in 2021 — $350 million via 81 deals — more than 2015 to 2020 combined ($213.5 million via 174 deals). While several factors outside of just the policy regime contributed to this growth in funding, changes, especially those instituted by the State Bank of Pakistan (SBP) and the Securities and Exchange Commission (SECP), including the ability for Pakistani tax residents to now be able to set up holding companies abroad and the launch of the Regulatory Sandbox, are considered game changers by industry experts and stakeholders.

Holistically, Pakistan's general business policy regime performance — as measured by the World Economic Forum Global Competitiveness[146] index — constituted three dimensions; Public Sector Performance, Property Rights and Corporate Governance. In comparison to benchmark countries, Pakistan ranked relatively at par with Bangladesh and Egypt in regards to its performance as to how the constituent governance elements of its Public Sector performed (see figure 26):

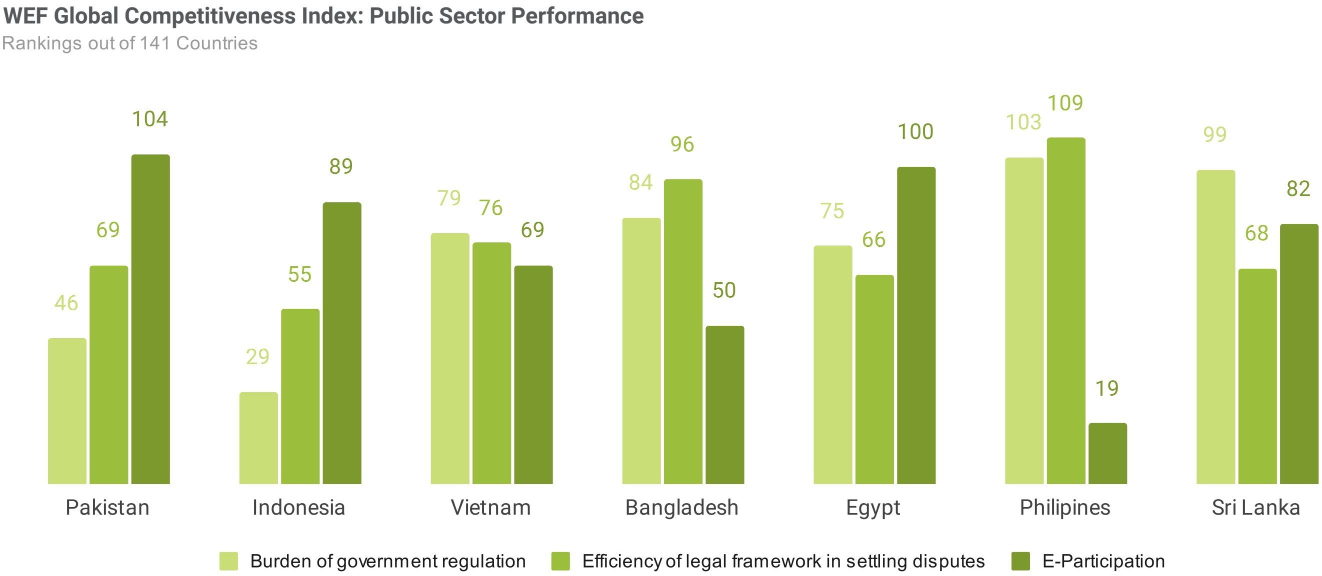


FIGURE 25 World Economic Forum Global Competitiveness Index: Public Sector Performance Indices rankings among benchmark countries

With regard to how Pakistan fares in terms of Property Rights (See figure 27), its performance relative to preserving intellectual property and the quality of land administration has relatively been in line with its peers based in the MENA region while lagging behind the comparison group sample from South East Asia.

[144] Pakistan Startup Ecosystem Report 2019, Invest2Innovate. (2019)
[145] Alesina, A., Ardagna, S., Nicoletti, G., & Schiantarelli, F. . Regulation and investment. Journal of the European Economic Association, 3(4), 791-825. (2005)
[146] Global Competitiveness Report, World Economic Forum. (2019)

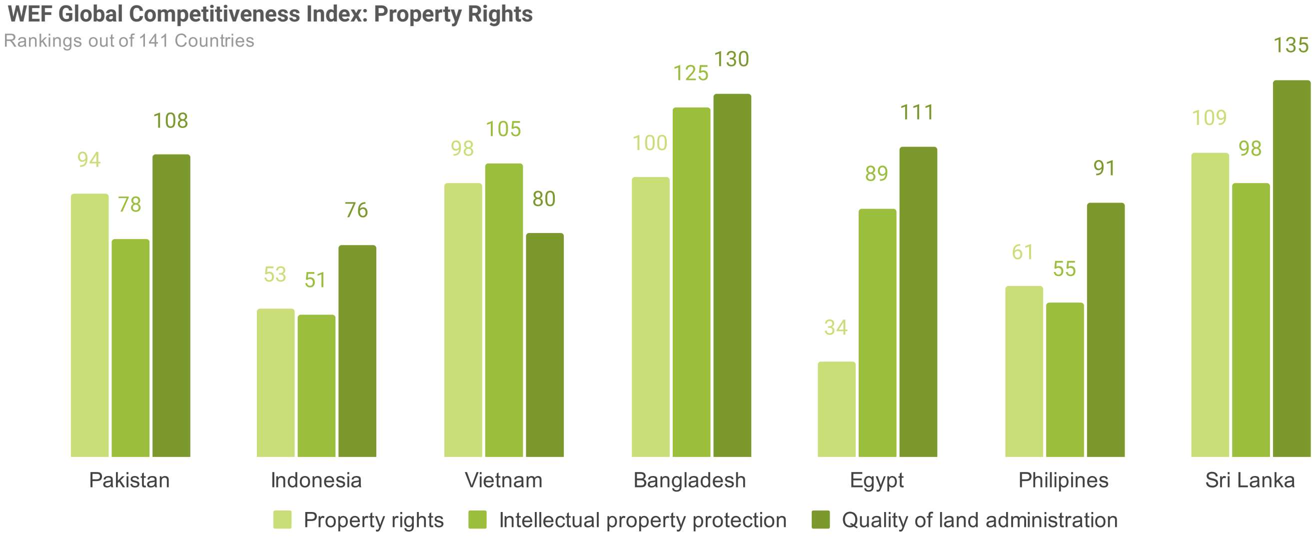


FIGURE 26 World Economic Forum Global Competitiveness Index: Property Rights Indices rankings among benchmark countries

In terms of effective corporate governance, Pakistan has performed exceptionally well in the domain of shareholder governance while doing relatively better than the South East Asian group in regards to regulating conflicts of interests (as exhibited by figure 28).

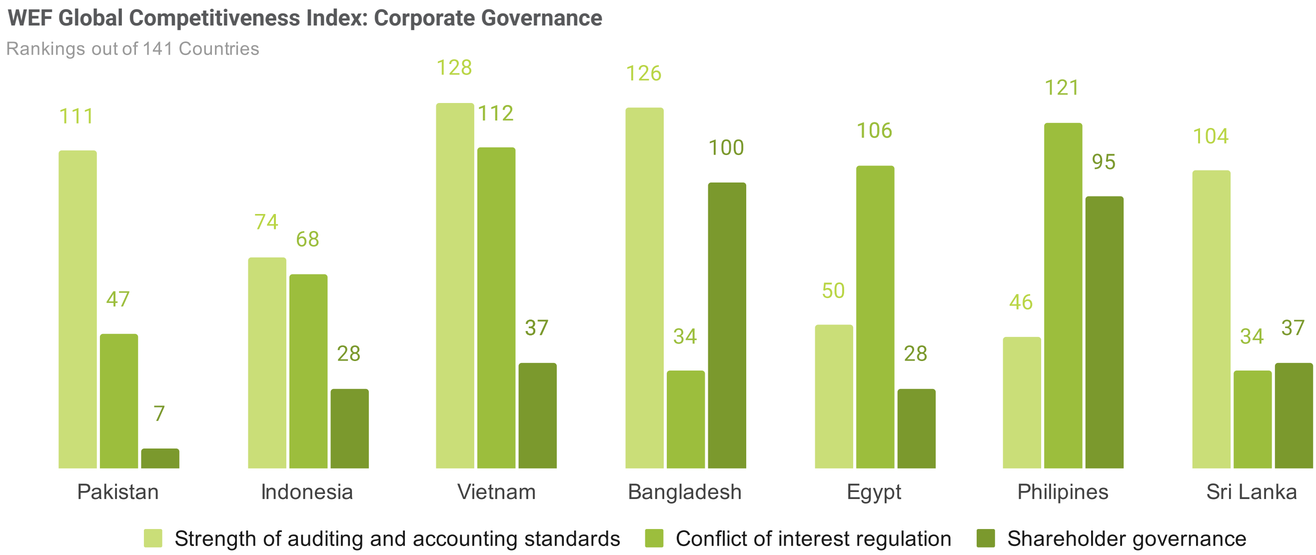


FIGURE 27 World Economic Forum Global Competitiveness Index: Corporate Governance Indices rankings among benchmark countries

Pakistan's current administration has made digital transformation a primary part of their agenda. In 2018, the Ministry of Information Technology and Telecommunication (MoITT) launched the Digital Pakistan Policy[147] with the vision to become a strategic enabler for an accelerated digitization ecosystem to expand the knowledge based economy and spur socio-economic growth. The policy laid down the framework for a number of pillars of the digital economy, ranging from legislation to hardware to e-governance.

Due to this framework, the E-commerce Policy[148] launched later in 2019, intending to strengthen the payments infrastructure and streamline the legal framework to keep up with the changing dynamics of the industry. The creation of the National E-commerce Council, composed of public and private sector representatives followed shortly after. The SECP, as a result, soon formally added a separate category for E-commerce in company incorporation, and 1,131 new entities have since registered in the last two

139 Digital Pakistan Policy, Ministry of Information Technology and Telecommunication.(2018).
140 E-Commerce Policy of Pakistan, Commerce Division, Government of Pakistan. (2019).

years. The National Freelancing Facilitation Policy, which launched in May 2021,[149] announced measures that would include reducing bureaucratic red tape for small exporters selling online and growing the number of active freelancers in Pakistan to one million. This effort aims to benefit smaller independent individuals/ businesses in the IT Sector. As per the most recent iteration of the United Nations Conference on Trade and Development (UNCTAD) and the findings compiled within the Business-to-Consumer E-commerce Index[150]. Pakistan has marginally improved its ranking from 117 in 2018 to 114 in 2019 before falling to 116 in 2020 (ranking out of a total of 152 reporting nations). Although Pakistan has maintained a similar level of performance as Bangladesh, it still lags behind other peer nations as shown below in figure 29.

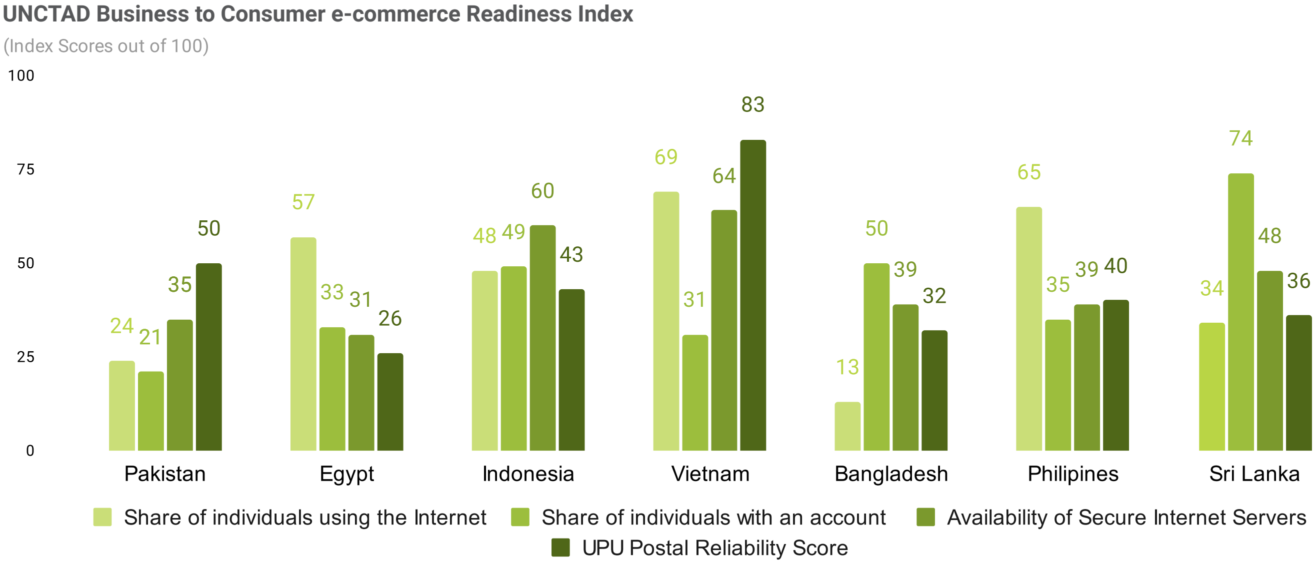


FIGURE 28 Pakistan's ranking on the UNCTAD Business to Consumer e-commerce Readiness Index compared to benchmark countries

Another recent important development was the recognition of startups as formal enterprises (for the purpose of regulatory compliance and facilitation) under the more recently introduced Companies (Amendment) Ordinance, 2020,[151] an iteration of the existing Companies Act 2017.[152] In particular, under Clause 67(A), the Ordinance specified a startup company as a formally defined legal entity structure with chronological age and financial turnover requirements. Additionally, Clause 458(A) further enacted measures to facilitate the ease of doing business for such ventures including specific entry and exit points into the market, providing technological provisions such as the deployment of secure servers/data transmission protocols, and allowing employee stock options to form legally viable remuneration packages. All of these are measures sought to bring Pakistan's regulatory framework for startups in line with similar practices being observed in more mature entrepreneurial ecosystems globally.

According to the majority of survey and interview respondents for this study, the State Bank of Pakistan (SBP) has played a particularly positive role in pushing for the promotion of digital payments in the country. The PSO/PSP Rules[153] in 2014 was an important initial step in setting a precedent for seamless interoperability among financial institutions and digital payment platforms. Later in 2019, Electronic Money Institution (EMI) Regulations[154] were introduced that allowed non-banking entities to collect deposits directly from customers, reducing their dependence on banks. While the pace at which this regulation was rolled out could have been faster, it is worth noting that currently eight companies have been granted in-principle approval, of which two (Finja and Nayapay) have already been approved to launch their services commercially as of December 2021. The SBP also finalized the Digital Banking Policy[155] in January 2022, paving the way for truly digital banks, capable of offering not only mobile wallets but also credit, investments and other products.

149 National Freelancing Facilitation Policy, Ministry of Information Technology and Telecommunications (MoITT). (2021)
150 Business-to-Consumer e-Commerce Index 2020, United Nations Conference on Trade and Development (UNCTAD). (2021)
151 Companies Amendment Act, Securities and Exchange Commission of Pakistan (SECP). (2020)
152 Companies Act, Securities and Exchange Commission of Pakistan (SECP). (2017)
153 Rules for Payment Systems Operators and Payment Services Providers. Payment Systems Department. State Bank of Pakistan (SBP). (2014)
154 PSD Circular No. 1, Regulations for Electronic Money Institutions, State Bank of Pakistan. (2019)
155 Digital Bank Regulatory Framework, State Bank of Pakistan. (2021)

Other key measures include the launch of a micro payment gateway — Raast — similar to that of United Payments Interface in India, with the objective of making digital payments more affordable and instant, thereby leading to more mainstream adoption in the future. All the financial institutions — banks, microfinance banks and PSO/PSPs — as well as government entities such as the Auditor General of Pakistan, are connected to the system. As evidenced by the amount raised by fintech startups in 2021 ($95 million via 25 deals), which was the highest so far for the sector both in terms of volume and amount, these regulatory reforms have helped lower barriers to entry in the sector, unlocking the country's fintech potential. The SBP also amended the Foreign Exchange Manual to allow Pakistani tax residents to have ownership in a foreign holding company, making it easier for local founders to raise foreign investment via offshore entities.

In addition to providing a more robust policy regime for technology-based enterprises (including startups) to flourish, the Government of Pakistan also passed the Special Technology Zones Authority (STZA) Act[156] in 2021 to allow for the proliferation of dedicated zones (inclusive of, but not exclusive to dedicated technology zones and science parks) to provide infrastructural and administrative support as well as additional policy-based incentives to companies in a manner not dissimilar to the existing Special Economic Zones (SEZ). The establishment of said zones also serves to promote the growth of commercial prospects for tech-based enterprises beyond KLI (Karachi-Lahore-Islamabad) cluster as two of the approved locations are in Quetta and Haripur.

The Securities and Exchange Commission of Pakistan (SECP) — entrusted with overseeing non-banking companies — has also introduced a number of progressive measures to solve some of the legal bottlenecks facing startups. For instance, the SECP issued Regulatory Sandbox Guidelines.[157] in 2019 with the objective of reducing barriers for fintech startups and providing them a closed environment to test new and more innovative business models. The Sandbox is significant because it gives startups the space to test solutions where regulations don't currently exist. After a testing period, the SECP will determine if there's a genuine need for a company's solution, and will look to develop required regulations or change legislation as needed.[158] Two cohorts have been selected for this program so far, with startups ranging from Peer-to-Peer (P2P) lending apps to Real Estate Tokenization platforms.

Further, the Growth and Enterprise Market (GEM) Board was launched in October 2021 with the aim to bring more liquidity to the capital markets and provide exit opportunities for the startup ecosystem. The GEM board is a counter on the Pakistan Stock Exchange (PSX) designed for "growth companies" with higher investment and liquidity risks than more mature companies that are listed on the main board of the exchange. While the GEM Board is a new initiative that will require time to develop, the fact that 3rd Party Logistics player BlueEx listed in November 2021 is still an important early signal. The SECP also updated its public offering regulations to allow the creation of Special Purpose Acquisition Companies (SPACs), which provides an expedited path for startups to go public. The Dubai-headquartered Swvl listing on NASDAQ, by merging with Queen's Gambit Growth Capital at a valuation of $1.5 billion, has been one of the most high-profile examples of such a deal by a regional company. While these efforts are in the early stages, they are still significant first steps to encourage exit opportunities. Other important policy developments include issuing the first-ever Buy Now Pay Later (BNPL) license, introducing the regulatory guidelines for digital insurers and a framework on digital assets tokenization (currently underway) that could potentially lay the foundations for the recognition of cryptocurrencies as an investment instrument. See figure 30.

156 Special Technology Zones Authority (STZA) Act, Government of Pakistan. (2021)
157 SECP Regulatory Framework Guidelines, State Bank of Pakistan. (2021)
158 SECP's Sandbox – A Game Changer? https://www.dawn.com/news/1595504

2002
Electronic Transactions Ordinance (ETO)

2007
Payment Systems and Electronic Fund Transfers (PSEFT) Act

2008
Branchless Banking Regulations (SBP)

2014
Rules for Payment System Operators (PSOs) and Payment Service Providers (PSPs)

2016
Pakistan Electronic Crimes Act (PECA)
Third Party Service Provider (TPSP) issued (PTA)
Regulations for Mobile Banking Interoperability (SBP)
Regulations for Technical Implementation of Mobile Making (PTA)

2017
The Companies Act (SECP)

2018
Digital Pakistan Policy (MoITT)

2019
E-Commerce Policy
Electronic Money Institution (EMI) Regulations (SBP)
Regulatory Sandbox Guidelines (SECP)

2020
Companies (Amendment) Ordinance (SECP)
Waived charges on Interbank Fund Transfeers (IBFTs) (SBP)
Digital Onboarding of Merchants Revised (SBP)
Non-Banking Finance Companies (NBFCs) & Collective Investment Vehicles Bill drafted (SECP)

2021
Digital Banking Policy (SBP)
Special Technology Zones Authority Act
RAAST (micropayment gateway) launched (SBP)
National Freelancing Facilitation Policy (MoITT)

PSER
Regulatory Overview

FIGURE 30 Summary of key policy reforms in Pakistan

While many of these recent policy reforms are significant and have unlocked a lot of growth in the Pakistan startup space, regulatory bottlenecks persist. Stakeholders interviewed for this study identified a number of challenges that continue to limit startups from reaching their full potential, from taxation issues to restriction on expansion into newer market segments to the actual implementation of some of the aforementioned policy changes. The gaps and challenges in these policy efforts will be covered in the next section.

5.2 GAPS & CHALLENGES

INVESTOR REGULATIONS ARE DISINCENTIVIZING LOCAL FUNDS FROM GETTING LICENSED IN PAKISTAN AND INTERNATIONAL INVESTORS FROM INVESTING IN ENTITIES SOLELY REGISTERED IN PAKISTAN

The current regulatory environment makes it difficult for any local[159] or international funds[160] to solicit funds from within Pakistan unless they are registered as a private fund in the country, which is rare considering only three investors (Lakson Investment Venture Capital (LIVC), JS Investments Limited (JSIL), and PNO Capital Limited[161]) who participated in a round during 2021 are the only funds that have the SECP's PE & VC license. All the remaining funds actively investing in Pakistan are registered abroad and thus have difficulties raising money from Pakistani HNWIs, family offices or institutions. This is especially of concern in the longer run as it limits the sources of capital that Pakistan focused investors can potentially raise from, not to mention it makes it difficult for local family offices, traditional business groups, and HNWIs (through legally incorporated companies) to participate in startup investments in companies registered abroad.

A major concern voiced by a number of international investors is if and how they can repatriate their funds from Pakistan in the event of an exit. As a developing country with external account imbalances and a perpetual shortage of forex reserves, Pakistan has traditionally put controls on the outflow of funds from the country.[162] Foreign investors investing in an entity in Pakistan might face barriers while repatriating funds and lack of preservation of legal rights, which are risks commonly associated with emerging and frontier markets and makes them gravitate towards investing in other jurisdictions perceived to be safer. As a result, most international venture capital funds prefer to invest in a holding company in an international jurisdiction such as Singapore, Delaware, or the UAE, instead of investing directly into an entity in Pakistan. The five largest disclosed startup funding rounds in 2021 were: Airlift ($85 million), Bazaar ($30 million), Tajir ($17 million), Qisstpay ($15 million), and TAG ($12 million), where the investment raised was likely channeled via their holding companies abroad. The recent SBP legislation allowing for Pakistani tax residents to set up these holding companies is a positive development that helped reduce barriers for international players investing in startups in Pakistan. Nevertheless, the long-term ramifications of investing via a holding company are still opaque in terms of how exits and subsequent repatriation of profits will be dealt with, for both founders and investors.

Investors responding to a survey for this report echoed the same sentiment, with 65% of respondents agreeing that a lack of laws allowing for the seamless inflow of foreign investment capital into the country is an obstacle. Additionally, 59% of those surveyed thought that the lack of appropriate VC friendly legislation and processes poses a barrier for both local and international investors. See figure 31. Given that most of the funding flowing to startups in Pakistan is coming from international VCs who are also investing in and exploring other possibly more viable markets, it is the regulators' role to ensure their money is treated with a level of care similar to that in nations with more favorable policy regimes.[163]

159 For the purpose of this study the qualifying criteria for 'local investor' is not based on their jurisdiction (being registered in Pakistan), but rather entails 'Pakistan focused funds' (i.e. majorly focused on investing in companies started by founders in Pakistan and/or have a focus on the Pakistani market) AND at least one of the GPs sits in Pakistan

160 For the purpose of this study, international VCs are investment funds where all GPs and LPs are of non-Pakistani origin and have geographically diverse portfolios

161 License Status of Non-Banking Financial Companies (NBFCs), Securities and Exchange Commission of Pakistan. Accessed on 11th January 2022.

162 Chapter 7: Domestic and External Debt, Annual Report FY21, State Bank of Pakistan. 2021

163 Business Friendly Environment: Tax Regime, Singapore Economic Development Board (EDB). [Accessed on 24th February 2022]

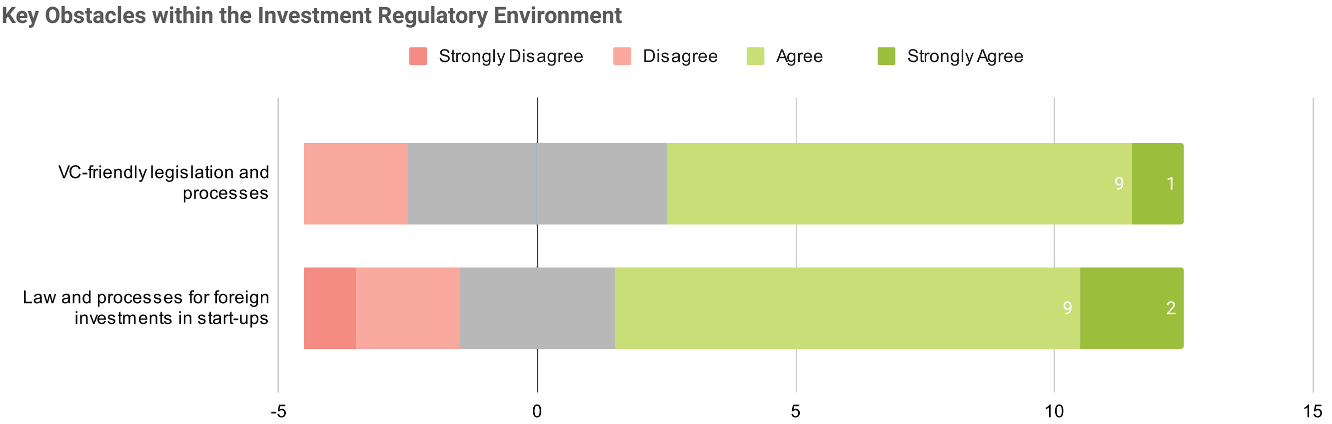


FIGURE 30 Investor Perceptions on Elements of Pakistan's Investment Regulatory Environment

If a startup is registered only in Pakistan (versus in a holding company abroad), the holding company's legal representatives would need formal approval from the Ministry of Interior in Pakistan to become a director or shareholder in a startup registered in Pakistan, which can also be done after the money has been deployed.[164] Another hurdle is that of Section 452 of the Companies Act, which stipulates that foreign investors of Pakistani origin (or the wider diaspora as such) would need to declare all of their assets if they own more than 10% of a Pakistani entity and subsequently serve as a director within that company, which serves as deterrent for overseas Pakistanis wishing to invest locally. While these regulations are present on paper and are relatively more streamlined now than they were before, there is still red tape around these processes that can be reduced to encourage even more international investors to invest in Pakistani startups. As Shehryar Hydri (Managing Partner at Deosai Ventures) shared, these processes are "still a bit tedious. Not just in terms of repatriation, but actually taking ownership in a private limited company in Pakistan and transferring that into an ownership structure in a holding company or an operating company. These are the mechanics that need to be smoothed over and continuous work needs to happen in this area, because the easier you make that side of the equation, more investors will be comfortable piling into Pakistan without thinking that their money will be stuck."

As one of the founders in our sample who had registered their startup in Pakistan recalls, navigating the regulations governing their ability to issue shares to prospective investors was very challenging. They noted that, "it was a painful journey issuing shares to investors. As a result, most of the startups are going on to create companies offshore where they can then just mimic the capitalization tables abroad and then bring in the funding, making it more conducive and easier for investors to invest in Pakistan". This experience serves as one example of how Pakistan's existing regulations, despite reforms in recent years, have served to dissuade early-stage founders from registering their investment holding entities domestically and has pushed them to instead opt for establishing off-shore holding companies due to the more facilitative policy environment in destinations such as Dubai and Singapore.[165]

Further elaborating on the difficulties faced by domestic investors, Amad Mian (Partner at Karavan) noted that, "While the government is making headways in being more receptive to the needs of the key ecosystem players, the SBP still holds a great level of regulatory control (and enforces stringent reporting requirements) on how domestic investors can direct their capital flows to holding companies established abroad. This limits their contribution to the overall growth of the ecosystem and pushes Pakistani startups to rely more on international investors for growth capital. Therefore, the need to ease regulations pertaining to international VCs is more important now than ever, not only to make processes friendlier but also to channel more local liquidity into venture funds.

Compared to sentiments expressed in the 2019 edition of this study, interviewed investors cited progress in areas such as setting up a new business and the facilitation of large transaction values domestically[166] and attributed these changes mainly to efforts by the SBP and the SECP. However, there is still room for improvement in the functioning of other government bodies, especially the Federal Board of Revenue (FBR).

164 The Early Stage Investor's Guide to Pakistan, i2i Ventures and Sarmayacar, 2020.
165 Primary Interviews: Hyat, N. (2021), Azam, A. (2021).
166 Pakistan Startup Ecosystem Report (PSER) 2019, Invest2Innovate

TAXATION IS STILL AN OBSTACLE FOR STARTUPS AND INVESTORS ALIKE

Despite the efforts by the SBP and SECP to improve the business environment for startups in Pakistan, the Federal Board of Revenue (FBR) remains onerous for the startup ecosystem. The survey data gathered for this study shows that over half of the founders in our sample (150) feel the current tax rates (55%) and tax administration (52%) constitute major obstacles for their businesses. Support organizations (ESOs) echoed this sentiment as the majority of respondents agreed that tax administration (70%), tax rates (75%) and customs and trade (75%) are obstacles for startups. On the other hand, only 35% of investors agreed that this was a challenge, with a significant proportion of them opting for 'neutral' when asked if tax administration (59%) and tax rates (65%) were hurdles to businesses. This does not mean the issue doesn't exist as some of the investors surveyed later expanded on their views in the interviews and felt that a closed-ended question did not capture their perspectives.[167] See figure 32.

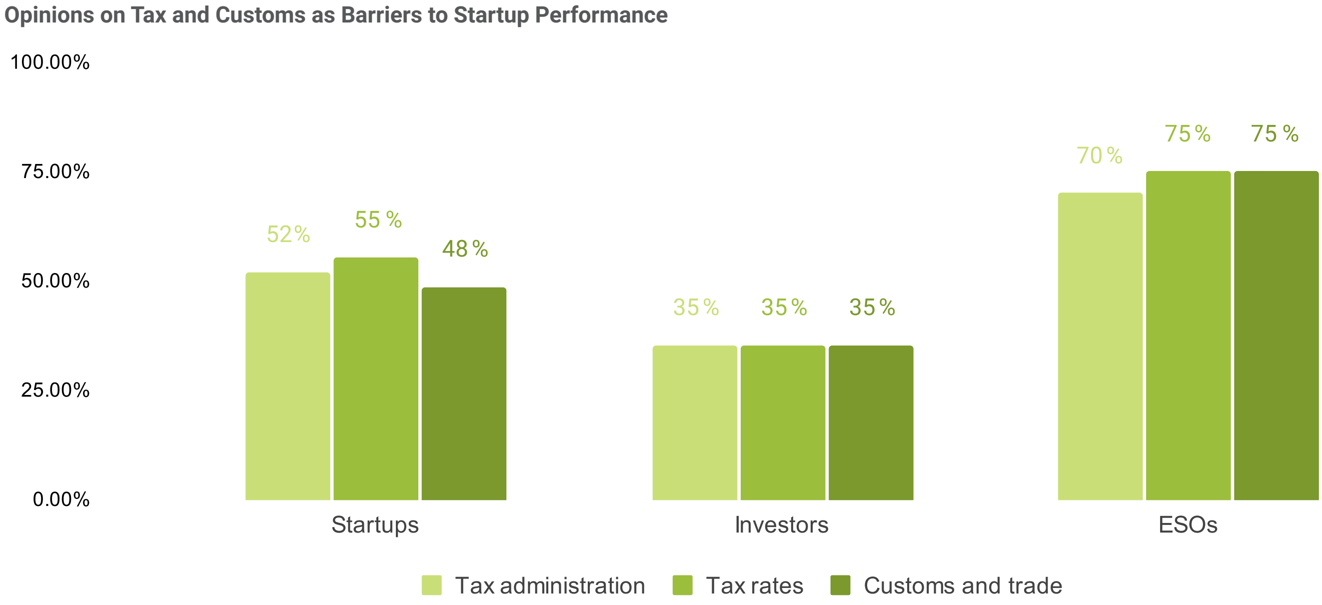


FIGURE 31 Opinions on Tax and Customs as Barriers to Startup Performance

Although tax administration practices have improved significantly since 2019 due to increasingly digitized e-governance systems and expedited compliance measures, the qualitative data gathered during interviews for this report suggest that most stakeholders still perceive it as a major challenge.[168] For instance, the current sales tax ranges from 13% to 16% (depending on provincial jurisdiction), irrespective of the total value of services provided.[169] In addition to the variance in sales tax, the applicable income tax on an entrepreneur can also vary due to the Withholding Tax (WHT) rates which differ on an item-to-item basis (ranging from 1% to 5.5%).[170] In delving further into interview responses, concerns can primarily be categorized into two areas: a lack of clarity in terms of sector specific taxation policies, and concerns around taxation on capital gains in the case of exits.

Interviewees also noted a lack of clarity in navigating sector-specific taxation requirements. More developed sectors like fintech, which has been given space to test novel ideas with initiatives like the Regulatory Sandbox, and e-commerce have sophisticated policies than other sectors which have not yet been provided a similar level of regulatory ease and attention. This often results in a disconnect between the regulator's point of view and

167 Typically, the neutral option helps people who are either uninformed on, indifferent to, or in disagreement with the response choices or a certain variable, to choose neutral rather than responding with an answer that does not represent their actual beliefs.

168 A vast majority of entrepreneur respondents (76%) rated tax administration as a considerable obstacle to their operations in PSER 2019.

169 The Finance Act of 2020, National Assembly of Pakistan. 2020

170 Withholding Tax Regime (Income Tax) Under the Income Tax Ordinance, 2001. Federal Board of Revenue, 2021. [Accessed on 21st February 2022]

what the sectors actually require in terms of policy reforms. Therefore, there is a need for "more sector specific consistency of tax policy, whether including new and emerging business models and verticals, which have not been looked at from a tax perspective," pointed out Ali Mukhtar (General Partner at Fatima Gobi Ventures).[171]

With regard to taxes on capital gains, 2020's Amendment to the Company's Act, 2017 established a precedent for employee share-based remuneration, though there is still no clear indication with respect to its taxability, i.e. whether the issued shares would be taxed under the conventional Income Tax Ordinance or as per the respective Capital Gains regulations. Regardless, what is certain is that share granting startups will be subject to double taxation; initially on gross revenue and then on factoring the equity cost of the shares (as part of their employees' income).[172]

Some interviewees speculated that the taxation treatment of startup exits (through mergers and/or acquisitions) would involve the repatriation of funds from Pakistan, which has no relevant formal precedent established by the government.[173] Therefore, the existing capital gains tax regime is considered a hurdle as it pushes international investors to consolidate their investments abroad instead, which is another factor in why Pakistani startups open holding companies abroad in places such as Delaware, Singapore, and Dubai to improve their chances of raising foreign capital.[174]

EXISTING NON-CENTRALIZED AND CUMBERSOME KYC PROCESSES POSE A CHALLENGE TO STARTUPS

Despite initiatives to improve service delivery through e-governance, including the Pakistan Single Window (PSW) and the Pakistan Citizens Portal, startups continue to face major obstacles due to bureaucratic red tape and resultant organizational silos. Many interviewees shared this view, particularly in facing cumbersome Know-Your-Customer (KYC) processes. These requirements were further tightened after Pakistan was placed on the Financial Action Task Force's (FATF) Grey List. For example, the SBP's Anti-Money Laundering, Combating the Financing of Terrorism and Countering Proliferation Financing (AML/CFT/CPF) Regulations require a comprehensive list of documents from registered entities as part of customer due diligence, which adds to the cost and time of routine business process such as account opening.

Setting up and transacting through bank accounts is considered to be critical pain points for both startups and investors who are expecting foreign inflows/outflows during the course of their operations. Respondents from these groups have cited the SBP as being particularly overly vigilant to the cross-border nature of transactions taking place between a startup and investor that each transaction has to be cleared and verified (which takes a large amount of administrative overhead and time). They question what they view as an excessive level of oversight when both parties have presented proof that they are legally compliant with the rules of transacting. According to Khurram Zafar of 47 Ventures, there has been little progress in facilitation of bringing funds into Pakistan, getting clearances for appointing directors and ensuring KYC compliance. Aisha Moriani (Joint Secretary at the Ministry of Commerce) further added that there is a need to do a lot of work on standardizing KYC. Sometimes it's not just an entrepreneur for which KYC is required but also for the entity remitting money to Pakistan in order to verify the money trail.

The KYC requirements are especially challenging for fintech startups that do not have access to the National Database Regulatory Authority's (NADRA) portal and have to rely on banking and telecom partners. Halima Iqbal (co-Founder at Oraan) noted how the lack of access to NADRA's database for regulated financial services entities is an operational hurdle. Similarly, Naureen Hyat (co-Founder at Tez Financial Services) further added that, "one of the primary challenges for fintech is fraud and that most defaults that occurred in Tez' early account portfolio were fraud-related. Specifically, identity theft is a big concern. So I think strengthening the KYC process is very important. It's not only time consuming but also very costly."

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171 This quote was paraphrased for clarity.

172 Tax Summaries: Pakistan (Individual Income: Equity Compensation), PwC Worldwide Tax Summaries. 2021

173 Primary Interviews: Lakhani, K. and Naqvi, M. (2021), Kanoi, Y.V. (2021), Saeed, A. (2021).

174 Primary Interviews: Awan, A. (2021)

5.3 RECOMMENDATIONS

1 INCENTIVIZING LOCAL FUNDS TO SETUP PAKISTANI ENTITIES AND FACILITATE INTERNATIONAL INVESTORS IN INVESTING FURTHER IN STARTUPS

The existing policy framework in Pakistan discourages international investors from investing in entities solely registered in Pakistan due to the extensive oversight requirements and cumbersome regulations involved while the present Private Fund Regulations make it difficult for local investors to license fund vehicles. A clear policy direction must be set with respect to outflow of capital when exits start to happen as uncertainty about capital controls often discourages international investors from vesting further.

Although the Private Equity and Venture Capital Rules (of 2008) were revised in 2015, they apply Non-Banking Finance Company (NBFC) standards to VC funds. Keeping in view the evolution of venture capital as a long-duration asset class, there is a need to revise regulations to reflect the changing nature of the startup investment landscape in Pakistan. Progressive fund structures have been adopted by notable funds around the world and could be used as inspiration for any future reforms in these areas. As a case in point, the Sequoia Fund LPs will exclusively invest into an open-ended liquid portfolio made up of a selection of "enduring companies" moving forward.[175] This fund will in turn allocate capital to a series of close-ended sub-funds for investments at various stages.[176]

In order to channel local capital into the VC asset class, Khurram Zafar (47 Ventures) recommends a review of the Private Fund Regulations and amending them to facilitate investment into local funds, offering them tax breaks and ensuring a clear policy of dividends. He added that "There is a need to simplify structuring and reporting requirements for these funds as they are only dealing with accredited HNWIs instead of public money. Rather than the current trust structure, a simple LP/GP structure should be allowed".

The government can also facilitate investors by creating a one-window operation for them, akin to the FBR's Web-based One Customs (WeBOC) platform, where they deal with all legal filings such as structuring, approvals, exemptions, tax filing, registration of foreign directors, repatriation of dividends, interests and capital gains, etc. Until recently, it was impossible for local investors with their fund vehicles domiciled in Pakistan to easily invest in foreign holding companies set up by Pakistani startups. While recent amendments by the SBP (as part of revisions to the Foreign Exchange manual) have allowed local investors to set up foreign investment holding companies (for the purposes of raising capital) and to invest abroad in equity-based holdings,[177] some obstacles persist. For example, a local investor is required to register each holding company they fund with the SBP, which is often vague and onerous for investors seeking to fund multiple startups registered abroad. Streamlining this process would help reduce the transaction costs and time for a Pakistan-domiciled fund and bring it on par with other international investors.

175 Enduring Companies are defined by Sequoia Capital as having the following characteristics, among others: Being able to tap into a potential Market of more than $1B, emphasis on Team-building and market-oriented product development. [Accessed on February 23rd, 2022]

176 Sequoia dramatically revamps its fund structure as it looks to rethink the venture capital model. TechCrunch. [Accessed on February 23rd, 2022]

177 Foreign Exchange (FE) Circular No. 01: Annexure A, State Bank of Pakistan. 2021.

2 CREATE MORE TAX INCENTIVES FOR STARTUPS AND INVESTORS

Both the tax rate and tax administration pose continued challenges for startups and investors. All interviewees shared that there is a serious need for a long-term taxation framework that can stay abreast of changes in the macroeconomic and geopolitical environment. While the SBP initiative allowing startups to set up holding companies in foreign jurisdictions with a stronger tax regime is a positive move, the need to strengthen the local tax regime to better facilitate local startups' needs still remains.[178]

Khurram Zafar (of 47 Ventures) emphasized in an interview for this report that, "There is a need to introduce a long term policy about capital gains and have aligned tax breaks, because at the end of the day, we have to realize a lot of the capital coming into Pakistan is from outside. That means anybody investing from abroad is weighing the pros and cons of investment in Pakistan along with maybe 150 other countries. Therefore, we need to level the playing field for investors and show them that their money is treated the same way as if they were making an investment in Vietnam, for example."

Introducing tax relief policies similar to those offered to investors in mutual fund schemes in Pakistan would entice prospective investors to fund local startups. Offering tax holidays on investment-sourced capital gains - based on the standardized income and age definitions of startups) would serve to incentivize existing investors to participate in follow-on rounds. Similar tax-based incentives would also aid in activating local angel investors, who are not entirely active at the moment. More developed markets with a healthy early-stage angel investor ecosystem have provided personal income tax credits equal to a certain percentage of each deal's value irrespective of the Return on Investment (ROI) outcome.[179]

Although a number of Pakistani startups have indicated a preference for Singapore over other jurisdictions in setting up a holding company abroad, there are still some challenges that exist. Jonas Eichhorst, founder at Tharros and an investor in Bykea and Oraan, noted that Singaporean holding companies set up by Pakistani startups are actually not covered by the existing double taxation treaty between the two countries, which may become an issue for founders and investors when they look to withdraw any gains from their investments (i.e. in the event of exits).[180] Moreover, policies from India could possibly serve as a model for future reforms where the government offered tax exemptions on investments in eligible startups, i.e. startups with valuations above INR 100 million.[181] A similar example from Australia could also be helpful wherein a 10-year exemption on capital gains tax is granted for investments that are held as shares in any Early Stage Innovation company.

178 Revision of Selected Chapters of the Foreign Exchange Manual: Chapter 20, Foreign Exchange Circular No. 1, Exchange Policy Department, State Bank of Pakistan. 2021.

179 Denes, M. R., Howell, S. T., Mezzanotti, F., Wang, X., & Xu, T. . Investor tax credits and entrepreneurship: Evidence from US states. National Bureau of Economic Research. 2020.

180 Paraphrased for clarity

181 Startup India: Tax Exemptions, Eligibility and Incentives. Cleartax.in [Accessed on 24 February 2022].

3 STREAMLINING KYC PROCESSES THROUGH A CENTRALIZED DATA PROTOCOL

Although recent policy measures such as simplifying the company incorporation process do constitute improvements, there also exists an urgent need to streamline the requirements for AML/CFT/CPF due diligence that add to the time and cost of doing business. The extended process of conducting due diligence (including the necessary KYC and AML processes) needs to be expedited for companies by harmonizing the respective background check processes involved. Implementing a unified verification platform used by both SECP and SBP for Ultimate Beneficial Owners (UBOs) would speed up these processes considerably, allowing businesses to do KYC just once with a validity of six to 12 months, similar to other countries globally, as suggested by Khurram Zafar of 47 Ventures.

Startups within data-intensive sectors (such as fintech and communications) also expressed that a lack of national protocol — similar to systems in China and India— for ensuring data integrity was a latent issue that would eventually escalate to operational risks. The establishment of state-regulated data pools (to complement the existing non-commercial Personal Data Protection Bill [182] would aid in easing such concerns. This would especially be helpful when such ventures expand their consumer base to other countries with stricter data protection and control regulations in place.

Startups would more generally benefit from a centralized data repository to help optimize processes such as building credit profiles for consumers seeking loans and other financial products, and would also help streamline regulatory and KYC processes. Formal data repositories should be created (with the respective access and interoperability conditions) to allow for a seamless and transparent transition to an entirely end-to-end digitized system.[183] Similarly, NADRA should allow startups access to its database for reliable and convenient verification of potential customers, which will provide the basic infrastructure to accelerate the ecosystem's development. For instance, India (via the implementation of Adhar and the Unified Payment Interface) was able to solve two large infrastructural issues. Through Adhar, the Indian government was able to ensure the sanctity of digital identities and the UPI served as an instant real-time payments network which aided in catalyzing the digitization of their economy.[184] While Raast is an important step in addressing the latter purpose by connecting all State Bank-regulated financial entities and major government bodies, there is still the need of verifying digital identities in a convenient manner through a convenient solution.

182 Personal Data Protection Bill, Ministry of Information Technology and Telecommunications (MoITT), 2020.

183 Primary Interviews: Hyat, N (2021)

184 Primary Interview: Iqbal, H. (2021)

5.4 CASE STUDY

SAFEPAY: THE MAKE-OR-BREAK ROLE OF REGULATIONS IN FINTECH STARTUP SPACE

Safepay

SAFEPAY

COUNTRY
Pakistan

FOUNDERS
Ziyad Parekh

Raza Naqvi

FOUNDING YEAR
2018

Safepay, a fintech startup in Pakistan, was founded to address the bottlenecks people faced in the country with respect to making and receiving digital payments, especially given the unavailability of platforms such as PayPal. Founded in 2018 by Ziyad Parekh and Raza Naqvi, Safepay entered the market with an offering similar to Venmo - a peer-to-peer mobile payments solution - but because card-based transactions that underpinned the business model were priced at between 3%-5%, at a peer-to-peer level this naturally limited adoption as well as the business model. Despite receptiveness (and willingness to pay transaction charges) from small and medium-sized businesses through this model, to target this particular segment required a re-build of the solution and systems in place at Safepay to be more merchant-focused. The team ended up rebuilding a new digital payments product from scratch in 2019 for merchants to receive payments faster, which served as the basis for the current iteration and business model of Safepay.

Their beta product, a seamless plugin that could integrate with online storefronts to accept digital payments from their domestic and international customers, was operating in Pakistan with 300 merchants on board throughout 2020, including FindMyAdventure and SmartChoice among other technology startups. As a tech company that offered only the software backend to facilitate digital transactions (processed through a bank's payment gateway instance), the Safepay founding team did not feel the need to get prior approval from the State Bank of Pakistan (SBP) on the processing services they offered – despite having consultation meetings and exchanges. As a result, a year later after raising their seed round with investors such as Global Founders Capital and Stripe, when Safepay was looking to grow their merchant base –their existing reliance on a local bank's payment gateway instance became unviable as both entities were competing with each other. As a result, the Safepay team made the difficult decision to wind down their payment service for existing merchants and deploy investment towards creating the right payment institution from the ground up. This would involve: (i) engaging with the State Bank of Pakistan formally and becoming regulated (under the 2014 PSO/PSP Rules which would apply) (ii) creating a relationship with a new bank for fundamental requirements of payment gateways and (iii) having their payment gateway instance without the restraints of a bank placed on them.

The Safepay team's experience serves as part of an emerging trend in Pakistan where technology companies interact with traditional financial institutions such as banks that are regulated by the SBP. Regulated financial institutions directly under the watch of the SBP are required to make sure any arrangements with third parties are compliant with their overall obligations. This includes ensuring that third parties using their infrastructure are meeting the objectives of any central bank to minimize overall risk, particularly in the e-commerce payment space, ensuring that paying customers are not at risk. What this means is that certain financial institutions are willing to act as the payment rails for fintechs (or quasi fintechs like last-mile delivery service providers) but not others. Ultimately this boils down to risk management and the regulated financial institution's comfort level – which the SBP cannot dictate. Since Safepay was not processing payments directly and was only funneling all transactions through an alternative channel, (i.e., the respective banking networks with all the necessary clearances), the majority of the regulations set forth by the SBP did not apply to them. A very basic reason for this gray area is how the PSO/PSP Rules are described (conflating a payment service operator with a payment service provider) and a description of Safepay's services as "acting as an intermediary for multilateral routing, switching and processing of payment transactions" – which in Safepay's initial version was being achieved through a gateway working together with its partner bank. While this was possible to do, it depended on the blessing of a regulated entity to allow Safepay to operate in the way it wanted to.

In order to free itself from this restriction and the constant friction that would emerge with a bank that already used the same gateway and was actively selling this in the market, Safepay needed a PSO/PSP license to continue its operations as a payment processor for its onboarded merchants. To obtain the PSO/PSP license, Safepay needed to meet the minimum paid-up capital requirements of PKR 200M (~ USD 2 million at the time) for which funding had to be raised. Safepay managed to raise a seven-figure seed funding round from key strategic investors including global payment processing solution, Stripe as well as other investors with a diverse history of backing payment-focused startups in emerging markets. Up until this point, Ziyad and Raza were a lean team of only two people managing Safepay and had been accepted into Y-Combinator's illustrious incubator (S20 batch). Stripe, a YC-alumni themselves, came across Safepay, which branded itself as Stripe for Pakistan, at YC's demo day. Since then, the startup has applied for the PSO/PSP license and received In-principle approval from the SBP on June 4th, 2021, and is graduating towards its pilot. As a point to highlight the gray areas in the current PSO/PSP Rules, Safepay is still working with merchants to accept non-card payments (account-based payments and mobile wallet payments) through two regulated payment service providers.

Of the 12 entities that applied for a PSO/PSP license, only five including 1Link, Virtual Remittance Gateway, Webdnaworks, Avanza Premier, and NIFT Private Limited received approval to launch commercial operations. Others have remained either at the Pilot or In-Principle stages. Prolonged approval time for fintech startups that need to be licensed can often translate to high cash burn without any revenue, not to mention building and retaining teams can be a challenge. To avoid this, Safepay continued its lean approach to operations and employs only 20 full-time people, including the two co-founders. This is a number that will likely double as Safepay moves to full commercial operations.

In Safepay's case, it was a combination of easing regulations, facilitation from regulatory bodies, and onboarding strategic partners that made the team cognizant of the risks involved in operating as an intermediary between conventional financial institutions and businesses. Although recent initiatives such as RAAST and the Digital Banking Policy have made the regulatory boundaries more clear for fintech operators, Safepay's situation highlights the ambiguity involved in operating in a still-evolving regulatory environment and serving an increasingly digitized customer base.

5.5 KEY TAKEAWAYS

The current degree of investment regulation in Pakistan creates a difficult environment for companies to solicit domestic funds. Such regulations must be amended in order to facilitate investment into local funds, thus assisting in startup development.

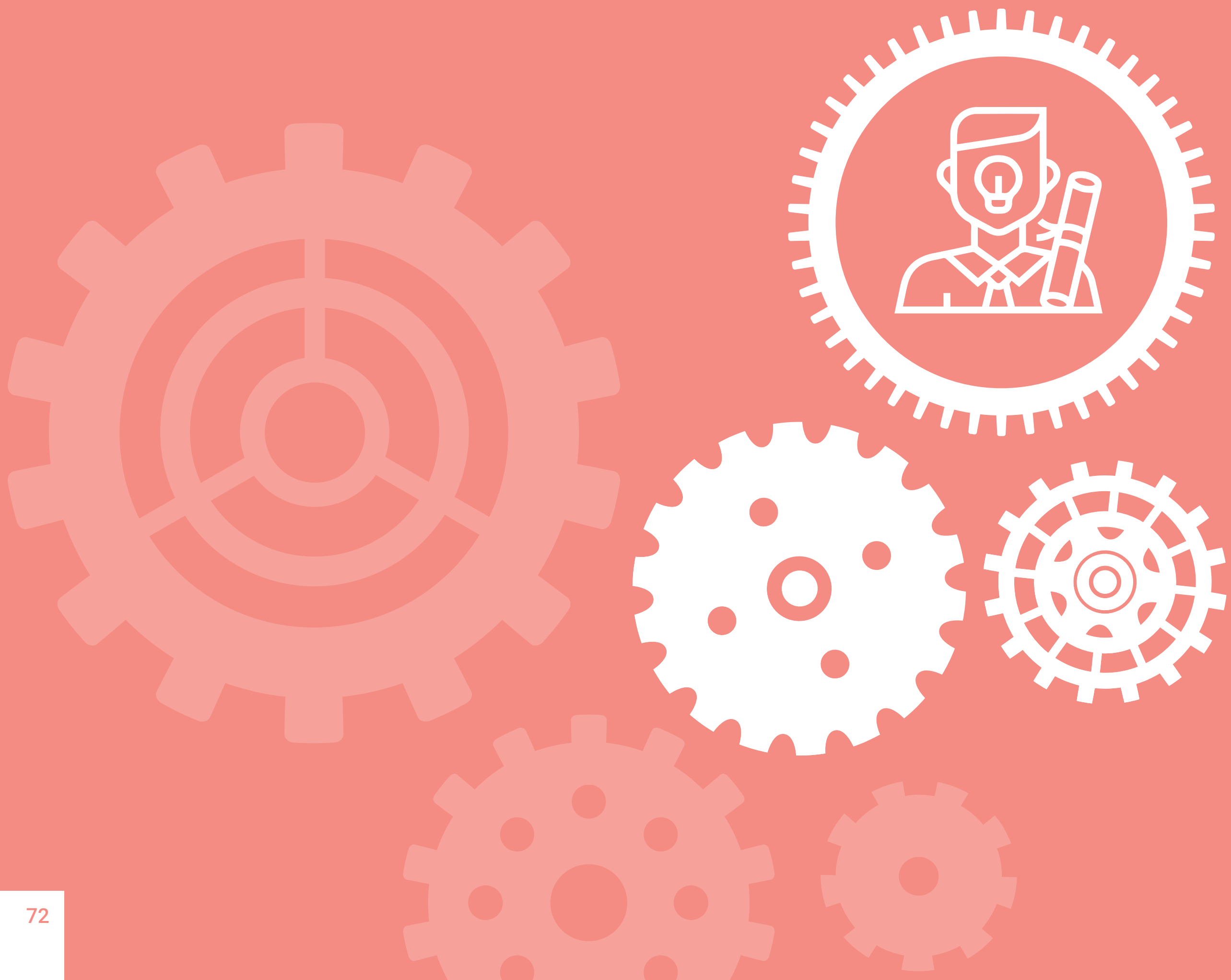
Founders and, to a lesser extent, investors, report that current tax rates discourage the scaling of startups in the Pakistani ecosystem and serve as a large obstacle to individual companies. Increases in the number and magnitude of tax incentives may not only assist in domestic deal flow, but also render the market more attractive to international investors.

Stringent oversight requirements and red tape reduce the efficacy of startup operations, especially for those that also rely on banking and/or telecommunication partners. Streamlining oversight through the use of centralized databases for verification may help speed up this process.

06

HUMAN CAPITAL

CONTENTS



6.1 STATE OF PLAY

Substantial speculation persists in the startup ecosystem about the quality of human capital and shortage of talent in Pakistan. 63% of Pakistan's population represents the 'youth bulge', falling between 15 to 33 years of age.[185] The Labor Development Index (LDI) in the Pakistan National Human Development Report (NHDR) 2020 shows that approximately 19% (27 million) of the young people in the country are unemployed (or 'idle').[186 187] This includes one-quarter of males and three-quarters of females. However, Pakistan's position (0.39/1) on the Human Capital Index (HCI) 2018 surpassed countries like Vietnam, Indonesia, Egypt, and Bangladesh.[188] See figure 34 for details. The Human Capital Index that quantifies the contribution of health and education to the productivity of workers found that at a provincial level, Sindh takes the lead position, followed by KP, Balochistan, and Punjab.[189 190] A high score on this dimension (i.e. human capital), which comprises mean years of schooling, measuring the stock of knowledge, social capital, and an individual's personality - reflects an increase in labor development as well. See figure 33.

Although Pakistan possesses a relatively higher HCI than its peer regional countries, indicating greater latent potential among Pakistani citizens to succeed more often in attaining economic and professional mobility-driven, the metric is primarily based on educational outcomes. This varies widely in Pakistan - due to the disparity in public and private education systems and curriculum differences between provinces - and therefore, can not be fully indicative of what other factors may shape socio-economic mobility within a country. The LDI, on the other hand, is a multidimensional metric which focuses on professional outcomes and their resultant measures (indicated by the employed-to-total population ratio, average income levels, the quantized value of skill premiums, decent working conditions, and available of skilled human capital) which provides a more present-time view of how the existing workforce in Pakistani (both active and non-participating) fares.

Pakistan presently stands at the threshold of a Medium-Low LDI (scoring at the borderline 'below 0.550' level out of '1.000', similar to Afghanistan) and below peer benchmark nations (who lie between the middle to the upper end of the '0.550' Medium point).

Labor Development Index | Human Capital Indicator Values at the National & Provincial Levels

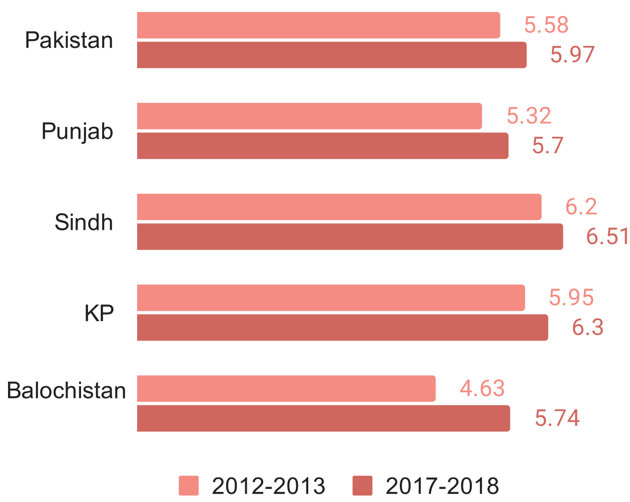


FIGURE 32 Pakistan's performance on the Labor Development Index at national and provincial level

The World Bank Human Capital Index, 2020
Scores out of 1.00

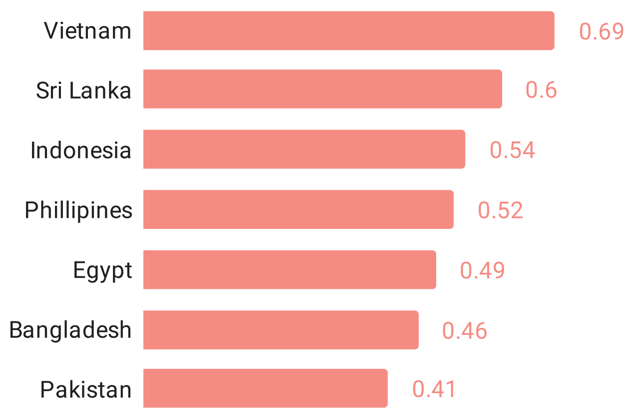


FIGURE 33 Pakistan's performance on the HCI compared to benchmark countries

185 https://tribune.com.pk/story/2310476/youth-bulge-in-pakistan-bane-or-boon

186 To assess labor development and the gravity of the situation in the country, the NHDR 2020 constructs Pakistan's first ever Labour Development Index in normal conditions (LDIN) and a Labour Development Index with decent work inclusion (LDIDW). The Labor Development Index ranges from 1 to 0, where the value of 1 reflects the highest level of labor development, and 0 the lowest. The LDIN has four dimensions: the employment-to-population ratio, the share of labor income, the skill premium, and human capital. The LDIDW includes these four dimensions with the addition of one more: the incidence of decent work, comprising three sub-indicators.

187 https://www.pk.undp.org/content/pakistan/en/home/library/human-development-reports/PKNHDR-inequality.html

188 Human Capital Index (HCI) (scale 0-1) - Pakistan

189 Human capital is measured by multiplying years of schooling with the percentage distribution of the civilian labor force aged 10 and over, by their level of education.

190 This dimension reflects how much more likely educated, skilled persons are to earn an income, compared to those who are uneducated and unskilled. The skill premium can have a negative connotation as well; an increase in the difference in wages between the highly-educated and those who are uneducated implies an increasing disparity in income distribution. However, when constructing the Labor Development Index, the NHDR 2020 used a positive interpretation for the skill premium, treating it as a 'measure of returns on education'.

The World Economic Forum's Global Competitiveness Index (GCI) 2019, which gauges the competitiveness of countries based on different indicators like innovation, macroeconomic environment, and technological readiness, ranked Pakistan at 110 of 141, three positions below where the country stood (107/140) in 2018.[191 192] According to GCI, Pakistan's talent is severely lacking in skills, ranking 125th out of 141, below both the lower middle income group average and the South Asia average. This Skills pillar is further disaggregated into current workforce (mean years of schooling) and skills of current workforce (consisting of five further sub-indicators),[193] which eventually determines the quality of human capital in any country. Another pillar, which looks at education, shows that when it comes to mean years of schooling (123 of 141), Pakistan performs the worst out of the benchmark countries used in this study. meaning the country lags behind in terms of average number of completed years of education of its population aged 25 years and older. See figure 35. In addition, the tertiary education enrolment rate (2018) in Pakistan (9%) is also quite dismal in contrast to comparable economies such as Egypt (39%), Indonesia (36%), Vietnam (29%), and Bangladesh (21%). Refer to figure 36

Skills: Mean Years of Schooling in the Benchmark Countries (Out of 141 Countries)

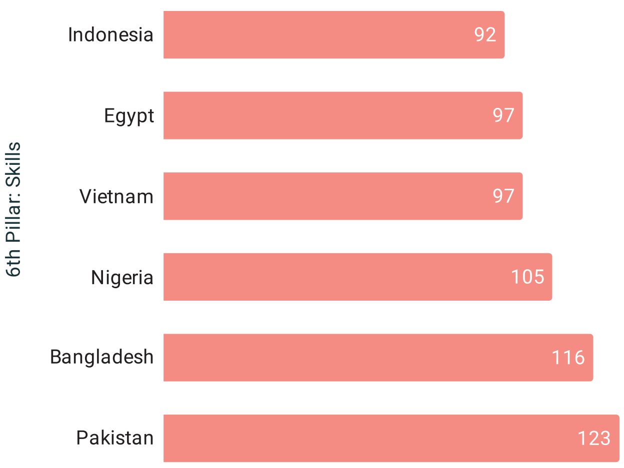


FIGURE 34 Mean years of schooling in benchmark countries

Tertiary Education Enrolment Rate (in %) in Benchmark Countries

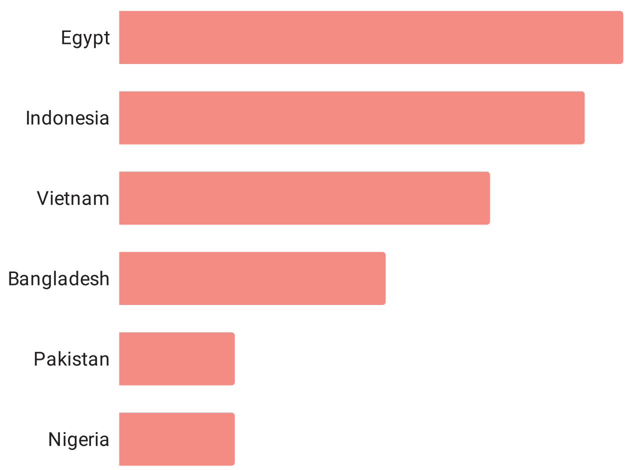


FIGURE 35 Tertiary Education Enrolment Rate in Pakistan compared to benchmark countries

Despite low literacy rates, Pakistan performs considerably better than comparable countries on the skills of current workforce sub-indicators with higher rankings on skillsets of graduates (49), ease of finding skilled employees (58), extent of staff training (67), digital skills among active population (73), and quality of vocation training (85).[194] See figure 37. Among the benchmark countries used in this study, Pakistan is only surpassed in these sub-pillars by Indonesia, which has a very vibrant business culture, a higher rate of technology adoption, and a stable financial system, which works in its favor in terms of performance on different pillars of entrepreneurship, especially the quality of human capital.

Similarly, recent data on the availability of scientists and engineers also shows that Pakistan (4/7) scores decently in comparison to benchmark countries such as Bangladesh (3.8/7), Nigeria (3.8/7), and Vietnam (3.8/7), with more room for improvement. However, it is surpassed by countries such as Indonesia (4.5/7) and Egypt (4.1/7).[195] Despite this, Chinese firms in Pakistan have brought a significant number of Chinese workers in the recent past. While this is not uncommon in other Belt and Road (BRI) countries, it's partly due to the shortage of high-skilled engineers in the Pakistani market.[196]

191 https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf
192 https://www.dawn.com/news/1509900
193 According to the Global Competitive Index, these sub-indexes concern employers' perception of the 'Extent of Staff Training Provided', 'Quality of Vocational Training', 'Skillset of New Graduates', 'Availability of Digital Skills among the Active Population', and 'Ease of Finding Skilled Staff' respectively.
194 https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf
195 https://govdata360.worldbank.org/indicators/hc5c34020?country=PAK&indicator=607&countries=VNM,NGA,BGD,EGY,IDN,LKA&viz=bar_chart&years=2017
196 https://www.sbp.org.pk/reports/quarterly/fy19/Second/Special-Section-1.pdf

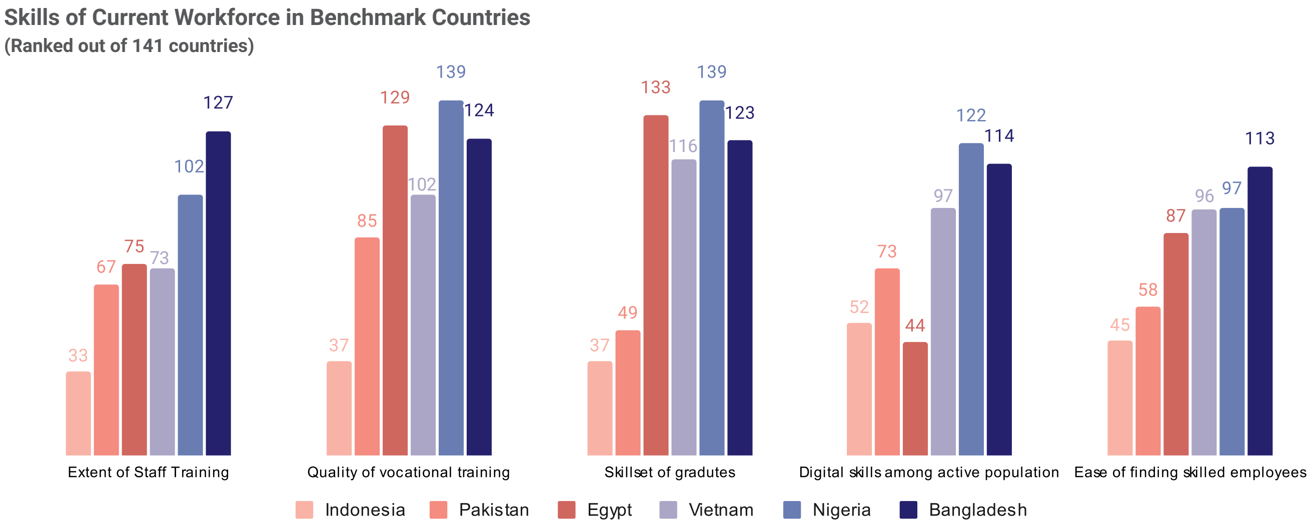


FIGURE 36 Skills of current workforce in benchmark countries

In frontier markets such as Pakistan where resources are already scarce, startups have to sustain themselves by bootstrapping. For an early stage company with a lean team, human capital - including their early employees, the skills and knowledge they bring to the table, and the quality of the founding teams - is a key determinant of their success. Skilled and knowledgeable teams are not only key to making a venture successful but also for helping the entire ecosystem grow over time. Startups that grow into bigger firms typically spend more time and money on training their workforce, which improves the quality of human capital within these companies. This in turn increases the overall population of experts within an area. This can have positive implications for startups in terms of cost and time while hiring as a stronger pipeline of talented human capital increases the chances of knowledge spillovers, when these workers move from one startup to another.

With the broader technology sector ballooning and digitalization proliferating into other spheres of the corporate world, the parallel human capital demand surge must be managed. The pandemic has acted as a catalyst in pushing frontier economies to make more intentional efforts in embracing digitalization, adopting technology-enabled business models, investing in ICT development, and enhancing digital skills. For example, after the closure of schools because of the pandemic, the Government of Pakistan launched its TeleSchool initiative in partnership with edtech startups such as Taleemabad and Knowledge Platform, opening up a massive market to these players.

An enabling environment for such a digital transformation would also require further investment in human capital. Pakistan's economy and its productivity gains in the future will primarily rest upon the capacity of companies, including startups, to capitalize on opportunities afforded to them through modern technologies.[199] Unfortunately, the dearth of quality human capital increases further as the focus shifts to more knowledge-intensive areas such as the digitization/mechanization of agricultural processes, burgeoning fintech startups, freight companies, from lower-value chain roles such as customer service, data entry etc.[200] Over 57% of the entrepreneur respondents to our survey found the availability of top managers to be a major challenge. According to P@SHA, the top 20 most in-demand technologies in the country, such as React Native and Javascript, generally face a dearth of skilled resources[201] which has only been exacerbated by the growing demand for digital services across the globe and the rising level of IT exports[202] especially after the onset of COVID-19.

The emergence of a growing number of venture-backed startups has led to companies competing for a limited talent pool by offering salaries way above market rate along with other perks.[203] The technology sector witnessed one of the steepest pay increases in 2021, as companies gave higher-than-usual increments in order to retain their resources.[204] Furthermore, the rising popularity of freelancing as a career choice — as evidenced by Pakistan becoming the fourth biggest market for freelancers — and global opportunities made accessible through remote work, put additional pressures

197 https://repositories.lib.utexas.edu/bitstream/handle/2152/84482/lidanny_thesis_human%20capital%20investments%20and%20decision-making%20in%20entrepreneurship_2020_Redacted.pdf?sequence=2&isAllowed=y

198 https://blogs.worldbank.org/endpovertyinsouthasia/covid-19-spurs-big-changes-pakistans-education

199 https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2020.pdf [Page 18]

200 https://www.sbp.org.pk/reports/quarterly/fy19/Second/Special-Section-1.pdf

201 https://www.pasha.org.pk/pashapk/IT-Skills-Requirement-Analysis-Report-2021.pdf

202 https://www.thenews.com.pk/print/913332-november-exports-jump-33-percent-to-2-9-billion

203 https://profit.pakistantoday.com.pk/2021/08/29/as-pakistans-it-sector-booms-software-companies-and-startups-lock-horns-over-tech-talent/

204 P@SHA 2021 Salary Survey

on the local job market. As a result, annual turnover rate in the sector shot up to 30% during the year, from 18% in 2020. The increase in demand for such resources is fast outpacing the available supply,[205] which the existing pipeline is unable to meet. Pakistan currently has 232 universities[206] and degree awarding institutions, which produce over 20,000 Information Technology graduates every year. To alleviate this gap, the Presidential Initiative for Artificial Intelligence Cloud Computing (PIAIC) was established, which runs one-year training programs in four key areas of blockchain, AI, internet of things and cloud computing. Similarly, the Ministry of Information Technology and Telecommunication in partnership with Virtual University launched Digiskills.pk, an online marketplace for educational and vocational courses such as on digital marketing, programming etc, and claims over 2.4 million enrollments.[207]

However, tertiary and course-based education can only go so far in plugging this gap, as the availability of right managers is also a large challenge, according to all surveyed respondents. As the startup ecosystem in Pakistan continues to grow, there is an emerging trend in which experienced founders are coaches to more novice founders by providing mentorship and disseminating information.[208] Similarly, many of the senior executives in different industries are taking a growing interest in entrepreneurship as 60% of the entrepreneur respondents to our survey reported having a co-founder with prior experience in their startup's sector. Refer to figure 38. This trend has only amplified with founders from certain tech companies starting their own ventures. As Invest2Innovate Deal Flow Tracker shows, these network cluster[209] startups have accounted for 44% ($251 million) of the $565 million raised since 2015. The pipeline of such ventures has especially grown over the last two years with 29 of the 41 NC deals raised by startups that were founded in 2020 or 2021. See figure 39

Do you or any of your co-founders have prior work experience in your startup sector?

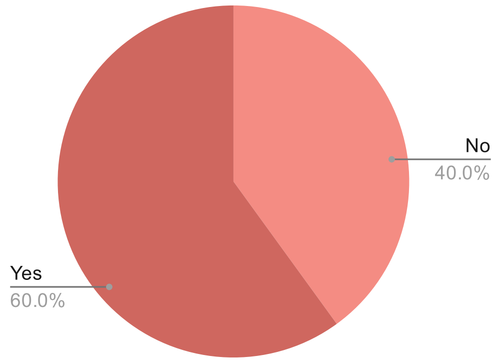


FIGURE 37 Startups with co-founders having prior experience in the startup sector

However, despite improvement in the quality of new founders and a digitally native workforce entering the market, the Pakistani startup ecosystem continues to face a number of challenges, especially with respect to finding the right talent in emerging technology stacks as well as retaining that talent amid poaching from not only better funded startups but also freelancing market and international companies offering remote opportunities, which has led to a soaring churn rates and job hopping. Read more in the Human Capital Gaps and Challenges section.

205 https://restofworld.org/2021/newsletter-south-asia-pakistan-talent-crunch/
206 https://hec.gov.pk/english/universities/pages/recognised.aspx
207 https://digiskills.pk/default.aspx#Home
208 The Effect of Human Capital, Support Systems and Cultural Support on the Performance of an Entrepreneurial Ecosystem
209 Network Cluster Founders refer to startup founders who have worked at a previous employer of repute (which have a consistent track record of ex-employees founding new ventures after their stint with the employer). Notable employers recognized as forming part of this cluster include: Careem, SWVL, and McKinsey & Co. among others. This is a novel term Invest2Innovate uses to map the network effects in Pakistani startup ecosystem and might not exist in literature

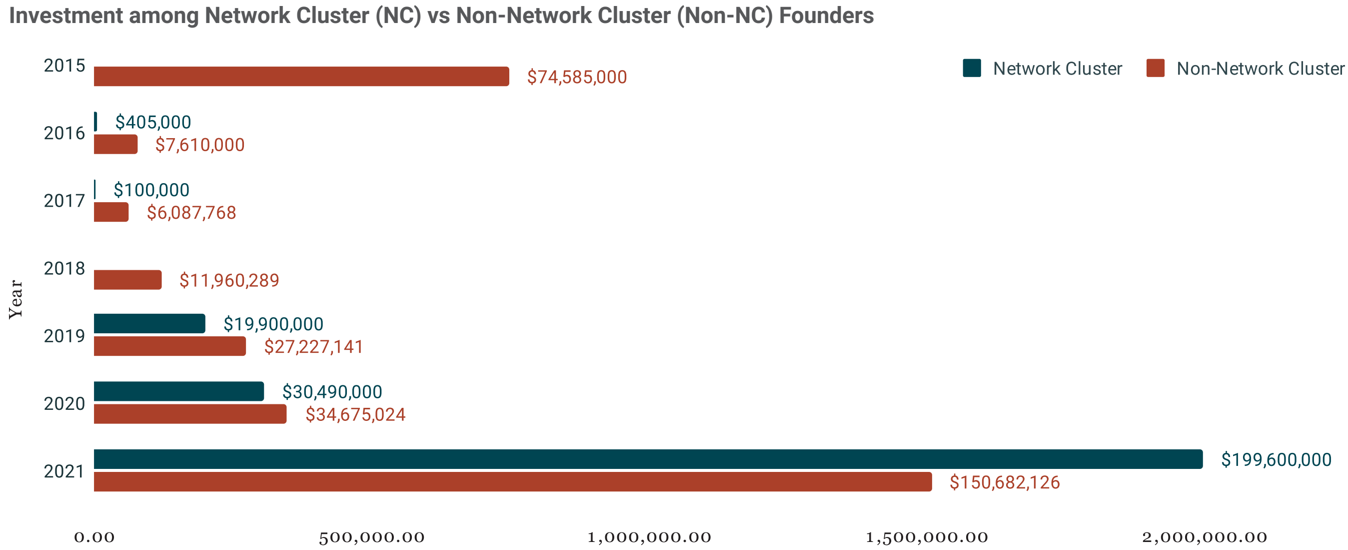


FIGURE 38 Investment raised by Network Cluster and non-Network Cluster Startups | 2015 - 2021

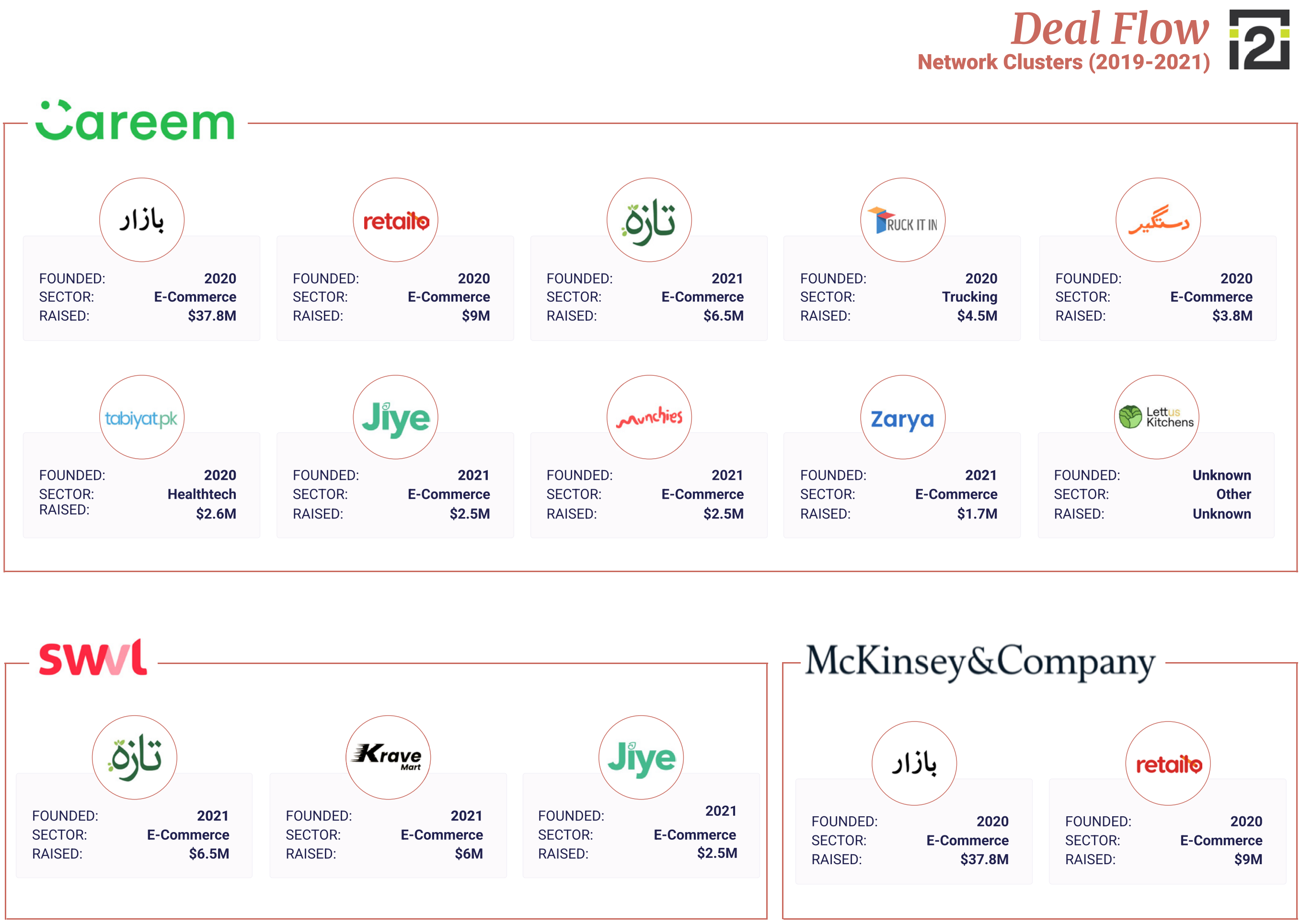


FIGURE 40 Mapping of Startups with Network Cluster founders (as per Network Cluster employer) for 2019 to 2021

6.2 GAPS & CHALLENGES

ATTRACTING AND DEVELOPING SKILLED HUMAN RESOURCES FOR STARTUPS

The surge in the number of local startups over the past two years increased demand for talent suited for the needs of technology companies. The majority of our respondents, including a 57% share of entrepreneurs, cited the lack of both suitable top managers and an adequately trained/educated workforce as a major obstacle for their businesses. See figure 41. These apprehensions were even more pronounced among ESOs and investors as 90% and 94% of them respectively viewed the availability of top managers as a major obstacle for startups. Similarly, the availability of qualified technical talent (such as Software Engineers and Data Scientists) also constitutes prominent issue expressed by both ESOs and investors. Pakistan has an estimated 350,000 people associated with the IT sector with 20,000-25,000 people graduating every year, creating a pipeline to meet the needs of the fast-growing startup space. However, concerns about the quality of this talent poses a challenge for startups.

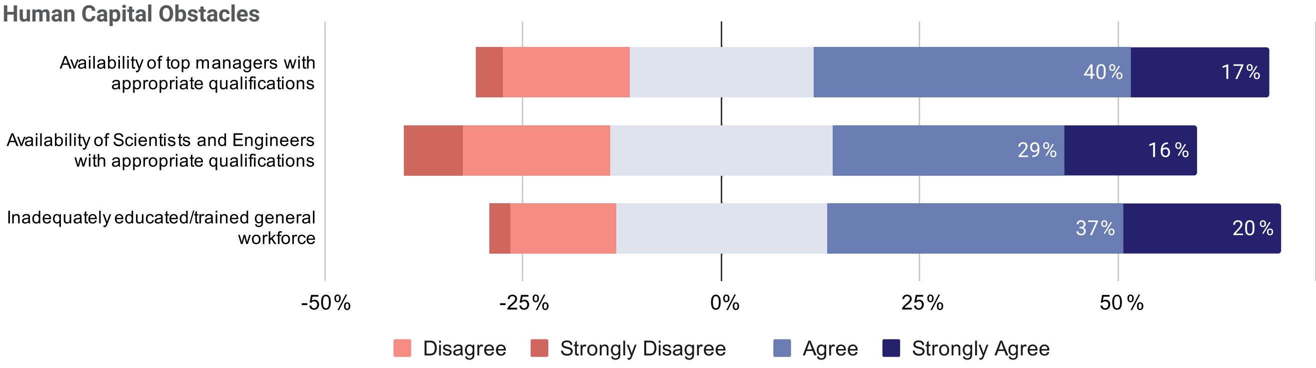


FIGURE 40 Elements of human capital and how they pose an obstacle to the operations of startups in Pakistan

According to the United Nations Conference on Trade and Development's (UNCTAD) Technology and Innovation Report,[210] Pakistan ranks 146th out of 158 countries for Digital Skills, thus lagging in terms of the average years of schooling completed and the extent of high-skill employment that would impact the pace of digital upskilling nationally. Similarly, Coursera's Global Skills report[211] put the country's readiness score at 50% in technology and just 29% in data science (out of 108 reporting countries), suggesting that there is a lot of room for improvement with respect to developing specialist skills in the domain of technology (i.e. creating and scaling computational systems) and data sciences (deriving analyses and utilizing data in a value-additive manner) respectively.

Entrepreneurs, investors and ESOs interviewed for this study also agreed that while the supply of technical talent in Pakistan is sufficient, it currently lacks several key attributes such as critical thinking abilities, product-oriented experience, and cross-functional flexibility compared to their counterparts in other regional ecosystems. Founders, in particular, cited that these skills were necessary for technical team members to eventually assume strategic managerial positions, thereby forming an internal pipeline for management talent as well.[212] A lack of product managers, for instance, was consistently highlighted by several founders as a bottleneck in the growth of their startups and added that this issue was compounded by a misalignment in the respective roles of Project Managers and Product Managers.

210 Skills Rankings, Readiness for Frontier Technologies Index, Technology and Innovation Report, United Nations Conference on Trade and Development, 2021.

211 Global Skills Report: Technology Skills Taxonomy, Coursera. 2021.

212 Primary Interviews: Azim, A. (2021), Briestenska, V.M. (2021), Gul, S. (2021), Hyat, N. (2021). Iqbal, H. (2021), Khan, A.I. (2021), Khushnood, B. (2021), Moeen, A. (2021), .

These skill gaps are partly due to local universities' traditional approach to curriculum development and instruction, which many expressed as not contributing positively to preparing graduates for initiating their own entrepreneurial ventures. Pakistan must foster entrepreneurship and innovation at different levels of its education and training systems to ensure the use of human capital is optimized in line with key industries. Programs in innovation-oriented specialties including science, math, technology, business and managerial skills can be tailored to focus on the key skills startups require. Although the youth in Pakistan entering the job market have demonstrated improvements in cognitive ability as a result of increased access to high-quality education, (i.e. adaptability, problem solving and logical reasoning) than their older counterparts, they lack technical and entrepreneurial skills as well as on-the-job training, which poses a considerable challenge.[213] In fact, 87% of founder respondents to our survey believed that local universities do not prepare students to launch their own businesses. See figure 42

Opinions on universities in Pakistan adequately preparing students in building startups.

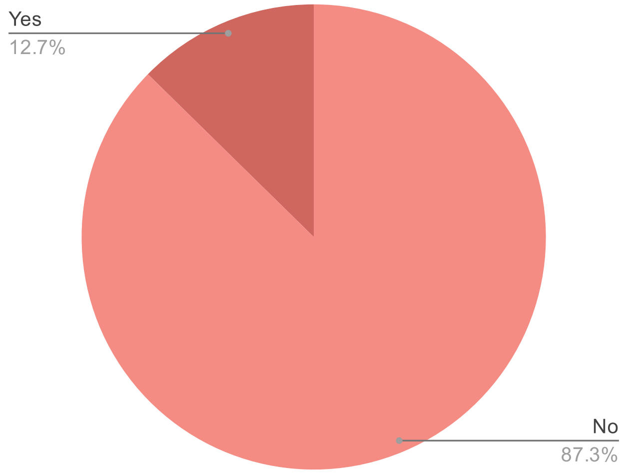


FIGURE 41 Founder perceptions of local universities' capacity to prepare students to launch their own businesses

TALENT RETENTION AND POACHING

The Pakistani startup ecosystem's perceived talent crunch has fuelled a fight for resources among startups and tech companies. This holds especially true for technical and managerial staff with high-demand skills, which high-growth and venture-backed players are increasingly poaching to keep up with their scaling needs. As a result, salaries within the industry have risen considerably, as 73% of the companies (out of a respondent pool of 175) in Pakistan Software House Association's (P@SHA) Salary Survey reported giving increments higher than the previous years. Out of the responding companies, 50% cited the lack of experienced resources in the market as the primary reason for this increase in salaries. According to the report, "Increments were quite regular in July 2020. However, they have been significantly higher in July 2021 to make up for unstable market conditions leading to higher average salaries to ensure retention and to enhance employee satisfaction."

The influx of foreign funding for startups was mentioned in the study as one of the elements resulting in notably higher salary increments.[214] A reputed local investor commented on the role of freelancing in compounding the talent and remuneration gap that is seemingly widening within the ecosystem. He noted, "Within the past two years, there was a rising trend in freelancing among professionals as a result of the increase in remote work during the pandemic. This, along with the level of funding startups have started to raise, put an upward pressure on salary floors for roles across the board.[215]

Due to this excess demand and relatively constrained supply, technical talent now finds it much easier to hop from one company to another for a raise in salary. As a result, the annual turnover rate in the technology sector rose to 30% during 2021, compared to just 18% in 2020, as per P@SHA's data. Alternative workplaces offering remote jobs or flexible timings including work from home provisions were reportedly one the key reasons behind this. Approximately 21% of companies responding to this survey found the situation to be critical in regards to employee retention, reporting that more than 50% of their staff were leaving their jobs to pursue remote employment opportunities.[216] This pattern is indicative of a global trend of resignations among young professionals. For example, in the US, 77% of Generation Z (age 18-24) and 63% of Millenial (age 25-40) employees planned to quit or switch their existing jobs.[217]

213 https://openknowledge.worldbank.org/bitstream/handle/10986/31414/135324.pdf?sequence=4&isAllowed=y

214 Overall Increment Trend, Salary Survey 2021, Pakistan Software Houses Association, 2021.

215 Primary Interviews: Hydri, S. (2021)

216 Employee Turnover: Employee Turnover & Remote Jobs, Salary Survey 2021, Pakistan Software Houses Association, 2021.

217 https://www.cnbc.com/2021/09/03/gen-z-and-millennial-workers-are-leading-the-latest-quitting-spree-.html

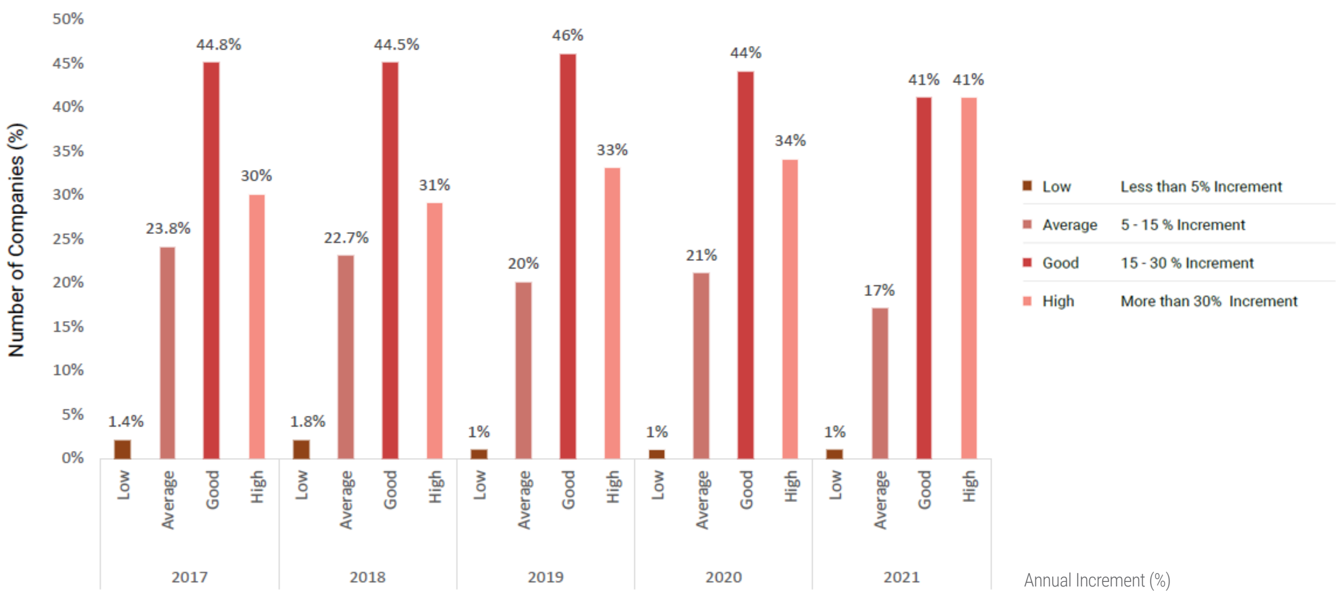


FIGURE 42 Trends in annual salary increments | 2017 - 2021 (Source: P@SHA Annual Salary Survey 2021)

FOUNDERS GRADUATING FROM LOCAL INSTITUTIONS RAISED SIGNIFICANTLY LESS INVESTMENT COMPARED TO FOUNDERS GRADUATING FROM INTERNATIONAL UNIVERSITIES

The majority of our survey respondents have expressed concerns about the availability of top managers suited for the current nature of startups in Pakistan. This sentiment is the most prominent among investors with 94% agreeing that the lack of skilled top managers is a major challenge for startups in Pakistan. In fact, to investors, a good team is one of the most important factors when evaluating a startup for investment with 100% of the respondents strongly subscribing to this view. While what constitutes a good team is a rather subjective question, it seems as though there are certain founder traits and characteristics that have a positive impact on their fundraising outcomes.

Invest2Innovate's Deal Flow Tracker data shows that founding teams in which at least one founder had an international degree[218] accounted for 53% ($300 million across 80 deals) of the total amount raised from 2015 to 2021. Founding teams with all international degrees [219] accounted for 22.7% ($128 million across 50 deals) of the total amount raised while only 15.7% (i.e. $89 million across 89 deals) of the total amount raised from 2015 to 2021 was attributed to teams with all locally educated founders. See figure 44. Additionally, an international degree significantly increased the likelihood of raising a larger round as evidenced by respective average ticket sizes. Refer to figure 45 According to Invest2Innovate's data, founding teams with one or all internationally educated members are also more likely to have a foreign investor lead the round compared to teams with all founders educated from local institutions.

Founding Team Education (Local vs. International) disaggregated by investment amount amount raised | 2021.

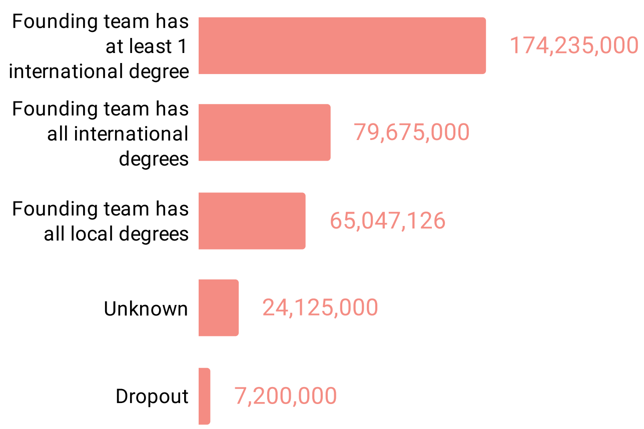


FIGURE 43 Founding Team Education (Local vs. International) disaggregated by investment amount amount raised | 2021

218 Classification of founding teams composed of all international degree holders includes solo founders with international degrees.

219 Classification of founding teams composed of at least one international degree holder includes founding teams with at least one local degree holder.

Founding Team Education (Local vs. International) disaggregated by average investment amount raised | 2015-2021.

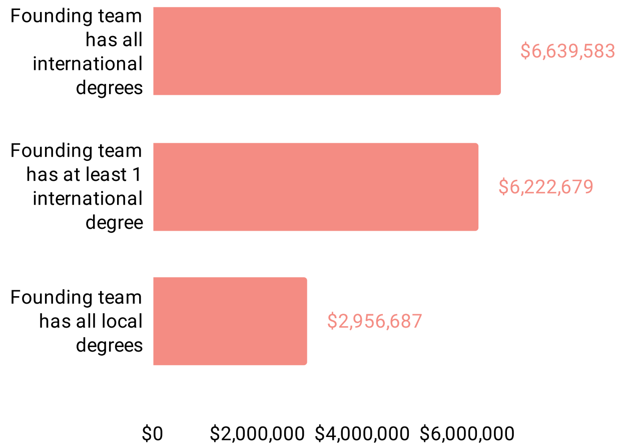


FIGURE 44 Founding Team Education (Local vs. International) disaggregated by average investment amount raised | 2015-2021

Globally, alumni of elite universities maintain higher representation in investment activity. For example, founders (originating from the US) with an undergraduate degree from Stanford University raised $76.7 billion during 2021 and had more deals attributed to them than any other educational institution.[220] Similarly in India, graduates from the Indian Institute of Technology are most represented as unicorn founders.[221] In Pakistan, founders with international degrees account for a disproportionately large number of startup investments compared to founders with higher education from local institutions. This is particularly significant considering that founders with international degrees make up a significantly smaller portion of the universe of founders in the country, which is troubling for other founders who may not have had the same access or privilege to attend universities abroad.

In essence, our data suggests that startups in Pakistan with at least one founder with an international degree successfully raise investment more often than founders with local degrees do. They also raise larger ticket sizes and are much more likely to raise from international investors than founders with a degree from a local institution. See figures 4 and 5. While this establishes that founders' educational background (i.e. international versus local) correlates with their raising investment (i.e. a positive investment outcome), their deal sizes, and who they raise from, it does not necessarily establish causality. Other potential confounding variables are present, such as the efficacy of social capital developed during the course of this education, soft and hard skills gained during international educational programs (compared to local universities), and overall exposure to more sophisticated entrepreneurial ecosystems afforded by international institutions among other factors. If a founder maintains a circle of similarly accomplished peers (in terms of educational backgrounds), this network effect would have a positive impact on fundraising outcomes.[222] This accounts for the disproportionate presence of founders with international degrees among startups raising high-value investments in Pakistan. While this phenomenon goes beyond the scope of this report, it is an important trend that should be explored further in the future.

Another perspective is that founders with exposure to international networks are already familiar with the necessary skills for startup fundraising. Networking is a strong part of Western higher education, particularly in business schools, and learning how to build such connections would prepare people well for fundraising in the future,[223] in which warm introductions and referrals can be vital.[224]

220 https://pitchbook.com/news/articles/2021-pitchbook-university-rankings-top-50-colleges-founders

221 https://economictimes.indiatimes.com/tech/startups/most-unicorn-founders-this-year-are-iitians/articleshow/86184812.cms?from=mdr

222 Nanda, R., & Sørensen, J. B.. Workplace peers and entrepreneurship. Management science, 56(7). (2010)

223 Lerner, J., & Malmendier, U. With a little help from my (random) friends: Success and failure in post-business school entrepreneurship. The Review of Financial Studies, 26(10), 2411-2452. (2013)

224 Hochberg, Y. V., Ljungqvist, A., & Lu, Y. Whom you know matters: Venture capital networks and investment performance. The Journal of Finance, 62(1), 251-301. (2007)

6.3 RECOMMENDATIONS

1 UPSKILL EXISTING HUMAN CAPITAL EARLY VIA EDUCATIONAL INSTITUTIONS AND LATER VIA TECHNOLOGY COMPANIES IN ORDER TO INCREASE THE PIPELINE OF TECH TALENT

Bridging the existing skills gaps in human capital and addressing them more aggressively will define the competitiveness of the Pakistani startup ecosystem in the future. Complex socio economic elements continue to drive such a shortage of highly skilled human capital where multi-stakeholders contribute to the problem, but who can also be part of the solution as well. Building a strong talent pipeline for emerging careers requires an investment, both in time and in training. There are measures that the government, education institutions, technology corporations, and existing startups can take to support this growth.

Key players (including bigger technology companies and existing startups) can address the talent gap present in the ecosystem by proactively identifying skill requirements. For instance, local software development company Arbisoft designed a benchmarking exercise on how graduates from different institutions perform on standardized Computer Science concepts and skills as part of their recruitment process.[225] The common skill gaps identified among the tested groups can then be covered via internal upskilling initiatives. Allocating a dedicated learning and development budget within companies for their workforce will help train existing employees on new skillsets and allow them to specialize cross-functionally as per the needs of the organization. According to the Society of Human Resource Management (SHRM), there exist long-term benefits to implementing internal upskilling/reskilling initiatives compared to hiring from competing firms or establishing recruitment pipelines with academic institutions, which is relatively unfeasible from both a financial and operational point of view for smaller businesses.[226]

In light of increasingly complex client needs and the gradual automation of manual processes, industry incumbents are gradually realizing the need to upskill traditional process-driven staff members (such as those in Audit/Tax-related service lines) in digital skill sets. Two particular organization-wide initiatives taken in this regard are PricewaterhouseCoopers' (PwC) Digital Accelerator[227] and Ernst & Young's Virtual Academy,[228] which focus on reskilling staff members in the domains of data analysis and information visualization and exposing them to emerging trends such as Digital Transformation and Industry of Things (IoT) 4.0. The PwC Digital Accelerator, in particular, aims to address internal talent needs through a structured process of classroom training and on-job practicums to develop a sustainable and flexible talent pool. Implementing a similar model of training and work-based learning may aid startups in tailoring their own internal talent pipeline as per their requirements instead of relying on external recruitment.

Although the talent needs of private-sector organizations are driven by the need to stay competitive relative to other market participants, governments and public sector organizations have also started to introduce incentivization schemes for citizens to undergo vocational training in order to fulfill their economy's emergent

225 Fresh Grad Hiring Test, Arbisoft. [Accessed on 17th February 2022]

226 Upskilling Benefits Companies and Employees, HR Magazine. Society of Human Resource Management (SHRM). 2020.

227 Capacity Briefs: Our Digital Transformation Journey, PwC Global. [Accessed on 17th February 2022]

228 EY Virtual Academy [Accessed on 17th February 2022]

talent needs (and develop a sustainable talent pipeline). Initiatives like the Abu Dhabi Global Markets (ADGM) Academy[229] aim to fill local talent gaps by upskilling citizens to eventually take up roles of strategic importance (such as within the National Exchequer and public financial institutions). Training via the ADGM program is focused on financial literacy and technological aptitude, which are similar to the current Pakistani Kamyab Jawan training scheme.[230] While the Emirati programs of training are focused on staffing national governance organizations, the Kamyab Jawan youth trainings are being carried out to empower youth to pursue a freelancing career path. A portion of this curriculum could be adapted to upskill existing team members (with skills like UX Design, which would require an otherwise external team member/retainer to be onboarded).

Another key challenge that startups in the ecosystem face is the dearth of skilled senior level managers, especially product managers with experience in growth and scale. Typically most product managers gain their initial experience in complementary fields — business, design, engineering, marketing, research, etc. and then move into product management roles within startups or bigger enterprises. The most valuable product management experience certainly is gained through experience, which is something the Pakistani startup ecosystem will achieve as it matures. However, more recently structured programs have been introduced around the world to offer a more charted path - especially for fresh graduates - to product management roles. These include Facebook's Rotational Product Manager Program[231] and Google Associate Product Manager Program,[232] among others. There are also some degree programs offered around the world in this field that bridge this gap through graduate coursework.[233] As a short term solution, startups in need of product management talent can allocate learning and development budgets that go towards upskilling their existing managers through these formal certifications. Similar 'education for execution' strategies can also prove helpful in retaining other senior level personnel in the longer run, as equipping managers with concrete knowledge to problem solve and address real issues in their daily work can go a long way in retaining them.

Most of the challenges pertaining to human capital are rooted in subpar and outdated university curricula that are out of touch with industry needs. Several Pakistani universities are including experiential elements as part of their core curriculum in response to this. For example, the Institute for Business Administration's dedicated undergraduate program in Entrepreneurship[234] which includes mandatory internships and entrepreneur shadowing modules along with a direct pathway to being incubated as part of the IBA-Aman Center for Entrepreneurial Development (CED). Fellowship programs such as Venture for Pakistan[235] were established to expose undergraduate students and recent graduates to working with emerging Pakistani startups as Fellows while also receiving mentorship from established technology leaders. One international investor cited Venture for Pakistan (VFP) as a valuable means of bridging the talent and cultural gap that exists between university graduates and the growing startup ecosystem. Some larger technology companies and software houses have established ways of gauging proficiency in key job role skills among university graduates, such as Arbisoft's standardized GRE-style test on software engineering concepts and skills as part of their entry-level recruitment process.[236] Similar initiatives would help both industry and academia in identifying deficiencies in the existing curriculum and remedying these (which would serve to help both large scale technology businesses as well as startups in need of technical talent with in-demand skill sets).

229 ADGM Academy, Abu Dhabi Global Markets. [Accessed on 17th February 2022]

230 National Youth Development Program: Kamyab Jawan. [Accessed on 17th February 2022]

231 https://www.fbrpms.com

232 https://careers.google.com/programs/apm/

233 https://medium.com/swlh/path-to-product-management-14833dfc40c4

234 Undergraduate Programs: BBA Entrepreneurship. Institute of Business Administration, Karachi. [Accessed on 17th February 2022]

235 Official Homepage: Venture for Pakistan [Accessed on 17th February 2022]

236 Fresh Grad Hiring Test, Arbisoft. [Accessed on 17th February 2022]

2 ALLOW MORE AUTONOMY & FLEXIBILITY TO RETAIN EMPLOYEES FOR LONG TERM GROWTH

Although monetary compensation is a key driver for employees to choose an employer there exist several other advisable techniques to retain talent in the longer run, especially for early stage startups with a limited amount of capital.[237] These range from leveraging profit gain-sharing schemes to employee buy-in as a performance based incentive, to indirect approaches such as ensuring a certain level of flexibility in work arrangements, such as limiting working hours during a certain period of the work week.

Startup founders in Pakistan have shared accounts of genuine camaraderie among team members by catering to their employees' unique needs, such as childcare provisions and time flexibility for working mothers.[238] This in turn helped them attract and retain valuable team members who would have otherwise chosen a higher paying employer. In addition, an inclusive workplace culture often creates a positive impact on employee performance, loyalty, and retention, which then cuts costs associated with employee turnover.[239] For instance, in the case of Location Labs,[240] a startup acquired by cybersecurity concern AVG, this meant developing a communal culture in the workplace and enabling autonomy among teams to perform tasks as they collectively saw fit. By enabling a culture of both competition and collaboration, Location Labs managed to achieve a 95% retention rate among existing employees. Autonomy and flexibility in how tasks are performed has become more important than ever in a post-COVID world. According to P@SHA's Salary Survey 2021, 17% of employees left an employer in favor of more flexible working timings in 2021.[241] As a result, a hybrid approach of both working from home and onsite is worthwhile for startups to consider while determining workplace structures and time commitments among team members.

Additionally, developing a shared path of growth for both managers and employees can help in the long-term retention of staff. Allowing managers an effective feedback loop via communications training while keeping employees' long-term aspirations in consideration in terms of offering a tailored path of training and maintaining their engagement levels would allow for a synchronous course of retention and continued growth for both managers and subordinates.[242]

A continual pattern of learning and professional development helps to ensure long-term employee engagement and retention. According to a survey conducted by the SHRM, 71% of respondents cited that a continued process of job training and progression had increased their satisfaction at work while 61% cited the same opportunities as being the primary reason for why they chose to remain with their present employers.[243] Similarly, Infosys, an IT startup in India, allocated 6.5% of its revenue to employee training and it offered its employees leadership programs through Infosys University to better prepare them for potential managerial roles within the company early on in their careers.[244] Structured management trainee programs such as these have been a staple of large scale organizations that selectively choose entry-level managerial staff for an expedited course of training, assessment and progression to senior management positions. We can safely assume that if startups were to structure their succession processes (leading to senior roles) similar to how formal graduate trainee programs in FMCGs prepare entry-level staff for senior positions, this would ensure long-term commitment and retention among new employees.

237 7 Compensation Strategies for Cash Strapped Startups, Harvard Business Review. 2018

238 Primary Interviews: Bajwa, A. (2021), Omer, A. (2021). Saeed, S. (2021).

239 https://fount.aucegypt.edu/cgi/viewcontent.cgi?article=1097&context=studenttxt

240 People & Culture: This Company Retains 95% of Its Employees - Here's Its Secret, First Round Review. 2019.

241 Biggest Reasons for Employee Turnover, Salary Survey 2021, P@SHA. 2021.

242 Startups: Startup Life Can Be Tough. Here's How to Stop Employee Turnover From Making it Worse, Inc.com. 2018

243 How Learning and Development Can Attract—and Retain—Talent, Society of Human Resource Management (SHRM). 2022 [Accessed on 17th February 2022]

244 https://fount.aucegypt.edu/cgi/viewcontent.cgi?article=1097&context=studenttxt

3 CONNECT LOCALLY EDUCATED FOUNDERS MORE INTENTIONALLY WITH POTENTIAL INVESTORS

One potential reason as to why internationally educated founders are predisposed to raise higher investment amounts compared to locally educated students is the prevalence of dedicated investment networks abroad. These networks are tailored to fulfill the funding requirements of startups within a specific sector. For instance, The three-university investment consortium of Responsible Investment Network Universities (RINU)[245] focuses on investments in the social impact domain, which means members and alumni of the affiliated institutions within the consortium benefit from access to the investors. In the case of Pakistan, creating such dedicated investment consortiums that locally educated investors can tap into, would prove helpful.

There is also an increasing need to layer experiential learning into any entrepreneurial development program versus focusing only on academic or existing paradigms alone. Tina Daher referred to the New York University Abu Dhabi (NYU-AD) as a forward thinking institution that is enabling its students to "create their own investment vehicle to fund startups within the university, which can prove valuable because this process is teaching the students how to create a fund and raise capital".[246] In the context of Pakistan, establishing even a small-scale student-run investment fund within higher educational institutions would be ambitious, but initiatives like these would help support organizations within business schools to simulate elements of the entrepreneurship journey and the investment raising process early on to improve founder readiness among young graduates.

Dedicated graduate-level degree programs focusing on product design and commercialization have been launched by Cornell[247] and NYU,[248] which require students to work in cross-functional teams to conceptualize, prototype, assess viability and eventually pitch their developed products to investors. Shorter courses and programs by other leading universities in the U.S., such as MIT's and Stanford's online bootcamps on innovation leadership and product management, allow remote founders to get up to speed on key aspects of building their ventures. Aside from the long term need for Pakistan's Higher Education Commission to periodically update their curriculum to incorporate newer learning elements and outcomes, introducing similar short term courses, certifications, and boot camps among local universities could help bridge this gap.

245 Responsible Investment Network Universities (RINU), ShareAction UK, [Accessed on 18th February 2022]

246 Primary Interview: Daher, T. (2021)

247 Product Studio: Curriculum, Cornell Tech. [Accessed on 18th February 2022]

248 Tech MBA; Experiential Learning, New York University [Accessed on 18th February 2022]

6.4 CASE STUDY

KAMAYI'S APPROACH TO RECRUITMENT: BRIDGING THE TALENT GAP

KAMAYI

COUNTRY
Pakistan

FOUNDERS
Muhammad Sherjeel Usmani

Salman Shahid

Amna Javed

Muhammad Hamza

FOUNDING YEAR
2021

The availability of quality human capital is one of the key pillars of any entrepreneurship ecosystems' prosperity in the longer run. Whether it is the need for technical staff such as highly-skilled engineers, business personnel such as growth executives, or resources like product managers and data scientists, a strong talent pool is crucial to the growth of a startup ecosystem. It is not surprising that well-funded startups, in order to attract competitive talent, offer competitive salaries, stock options and other fringe benefits.

Understanding this market need, a recruitment-focused startup, Kamayi, founded by Salman Shahid, Sherjeel Usmani, Amna Javed and Muhammad Hamza in 2021, aims to bridge the existing talent acquisition and retention gap with their end-to-end solution. Since its inception, the startup has accumulated a total client base of over 400 employers, has placed over 700 candidates in roles ranging from the early career to C-Level positions, and maintained a 91% retention rate for talent placed in roles.

Service-based ventures like Kamayi aid startups and bigger corporate clients with their talent acquisition needs. By using a dedicated in-house Talent Acquisition team to proactively reach out to talent, a multi-channel sourcing approach to cast the widest possible net, and an AI algorithmic feedback loop, Kamayi matches potential candidates against roles put forth by client enterprises. They mitigate the risk of employees leaving prematurely to a certain extent by offering incentives to the employers as well as employees and maintaining a long-term relationship with the contracting employer. This relationship consists of continued engagement and monitoring of the organization's talent needs, and providing incentives to reduce the risk of turnover among employees.[249]

Salman identifies two main issues in how the local ecosystem is coping with talent requirements. First, there is a gap in the skillsets local universities are focusing on versus what employers need and are looking for. Second, there are rising salary floors as a result of increased investment raised by larger startups, making it difficult for startups with less capital to attract the talent they require, especially in specialized sectors such as SaaS. The lack of financial capacity to match the candidates' expectations leads startups to lose out on valuable talent, and has also precipitated talent poaching practices, which have become increasingly common in the Pakistan startup ecosystem as competition for good human capital has increased.

249 * Frequently Asked Questions: Post-Hiring Benefits, Kamayi.pk [Accessed on 4th February 2022]

Kamayi's services come in handy especially with lean teams where outsourcing support functions (such as recruitment related tasks) often aid productivity as team members have more time to focus on operations and strategic elements. The presence of organizations such as Kamayi is a positive indicator and represents the maturity of the ecosystem where new startups are not only solving unique local challenges but also cognizant and adapting to solve challenges for other startups within the same ecosystem.

6.5 KEY TAKEAWAYS

Entrepreneurs report a lack of sufficiently trained and/or qualified prospective employees and managers as a significant challenge to the startup space. In order to better tailor educational programs toward the needs of Pakistani markets, key players in said markets must proactively identify and publicize the skills most urgently needed, and work to upskill already-qualified human capital

The aforementioned lack of sufficient talent dramatically increases competition for employee retention, resulting in the increased prevalence of talent poaching. This unfavorable environment can be combated by establishing greater employment flexibility, especially with regard to childcare provisions and maternity benefits, and by fostering a more collaborative company culture.

Startups involving founders with international qualifications tend to secure more lucrative investments, largely due to the higher level of trust garnered by such qualifications. In order to improve investment opportunities for those with Pakistani qualifications, educational institutions must incorporate experiential learning into their curricula in order to facilitate networking and simulate business operations.

07

GENDER

CONTENTS

7.1 STATE OF PLAY

Of the currently active growth-oriented Entrepreneurs (GOEs), about 33% are women as opposed to only 1% in Pakistan.[250 251] Existing literature identifies a number of factors to explain this gap, including but not limited to cultural barriers, affective aspects influencing female entrepreneurs, gaps in educational opportunities and access to finance – all areas where Pakistan does not fare too well. For example, our female labor force participation rate (21%) not only falls substantially short of that of males (79%) but is also lower than all of the benchmark countries used in this study except Egypt (15%). See figure 46. Similarly, tertiary school enrolment rates for women (12%) in Pakistan are lower compared to other benchmark countries such as Bangladesh (20%), Indonesia (39%), Philippines (40%), and Egypt (40%). See figure 47.

Female Representation in Work Force Participation

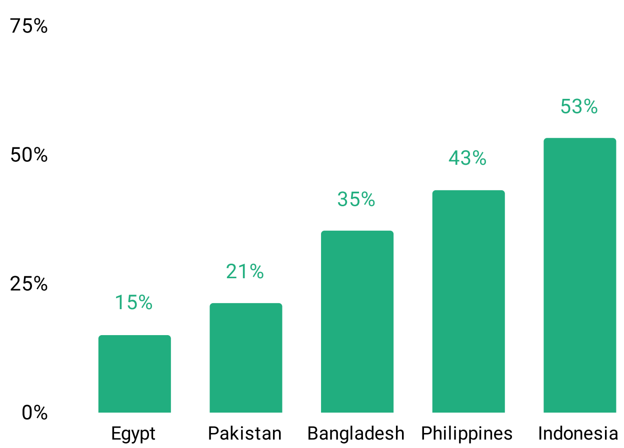


FIGURE 45 Female participation rates in the labor force against benchmark countries

Female Representation in Tertiary Education

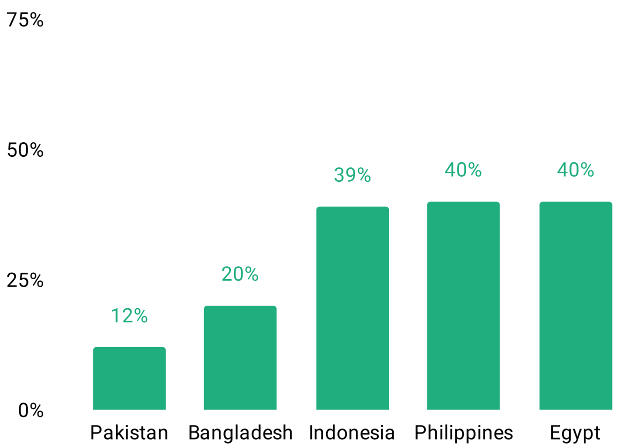


FIGURE 46 Female participation rates in tertiary education for benchmark countries

Despite the challenges facing women in business, more women[252] have started to pursue entrepreneurship. More than 50% of women in developing countries, such as Egypt and Indonesia, see entrepreneurship as a path to a better future for themselves and their families. With 17% of working-age women (constituting ages 18-64) in developing countries already engaged in entrepreneurship and another 35% aspiring to become entrepreneurs at some point in their lives, women-led businesses will foreseeably make a sizable contribution to the GDP of such economies.[253] In spite of all the evidence highlighting the true potential of women-led ventures, they continue to be impeded by challenges that are often more pronounced to them than their male counterparts.

According to the Global Gender Gap Report 2021, Pakistan ranks 153rd out of 156 countries in terms of gender parity, faring worse than all but Iraq, Yemen and Afghanistan[254] as shown in figure 48. Pakistan's low ranking is a result of its dismal performance in economic participation, political empowerment, educational attainment and health and survival of women. Despite strides made globally, the gender parity ratio is so dire all over that the World Economic Forum estimates it will take over 250 years to close the economic gender gap.[255] Additionally, Pakistan hasn't made any noticeable progress on Sustainable Development Goal (SDG) 5 - Gender Equality - and ranks 106th on the overall SDG Gender Index behind Indonesia (75) and Philippines (66). See figure 49.

250 Enabling Women Entrepreneurs in Pakistan through training and reform by WeFi.
251 Global Entrepreneurship Monitor Research Highlights Significant Increase in Growth-oriented Women Entrepreneurs Worldwide
252 World Bank Gender Statistics: Number of Female Business Owners in Pakistan
253 Advancing High-Growth Women's Entrepreneurship in Emerging Economies | Women Entrepreneurs Finance Initiative
254 Global Gender Gap Report 2021
255 Closing the Gender Gap Accelerators

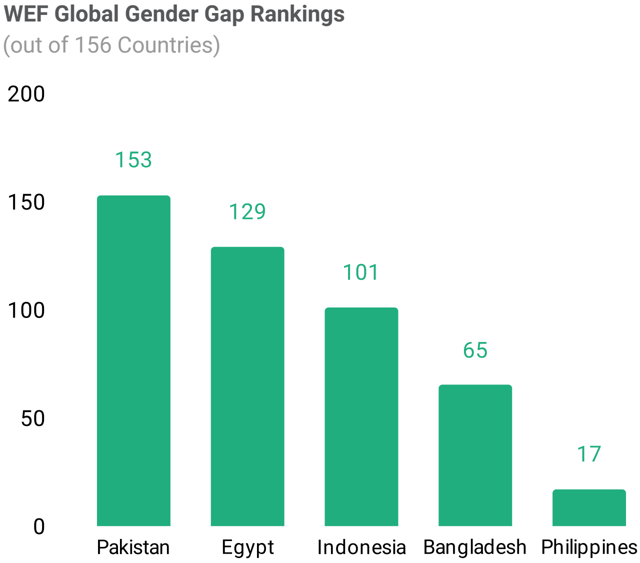


FIGURE 47 Pakistan's ranking on World Economic Forum's Gender Parity Gap in comparison to benchmark countries

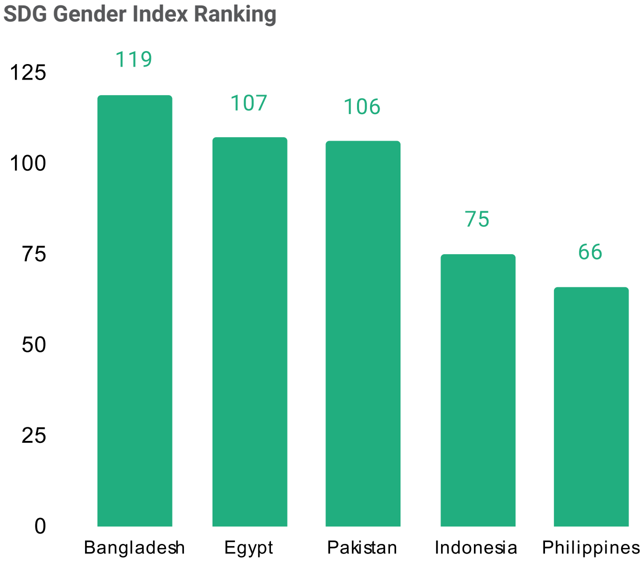


FIGURE 48 United Nations SDG 5 (Gender Parity) Ranking

The imbalance in the legal framework that supports gender discrimination exacerbates these problems. On this front, Pakistan has made relative progress as our score on the Women, Business and the Law (WBL) Index — measuring gender based differences in legal rights when it comes to accessibility of economic opportunities in eight areas: mobility, workplace, pay, marriage, parenthood, entrepreneurship, assets and pension — has improved from 46.9 in 2017 to 55.6 in 2021. This progress came largely on the back of recent reforms across three sub-indicators: entrepreneurship where women were allowed to register a business in the same way as men in 2021; parenthood as duration of paid paternity leave increased to 112 days; and workplace as gender-based discrimination in employment was prohibited in 2018.[256] However, little has changed in terms of pay and assets which have sub-index[257] scores of 25 and 40 respectively (out of 100),[258] highlighting the legal impediments women continue to face barriers that women continue to face in these areas.. Comparable countries such as the Philippines (78.8) and Indonesia (64.4) outperform Pakistan while Bangladesh (49.4) and Egypt (45) lag behind in this case. See figure 50.

Pakistan - Scores for *Women, Business and the Law* 2022

Mobility	Workplace	Pay	Marriage	Parenthood	Entrepreneurship	Assets	Pension	WBL 2022 Index Score
75	100	50	60	20	50	40	50	55.6

FIGURE 49 Pakistan's Scores in Each sub-indicator of the World Bank's Women, Business and the Law (WBL) Index 2021 (Source: The World Bank Women, Business and the Law (WBL) Index, 2021)

On the other hand, as Pakistan's teledensity (ratio of cellular subscriptions to population) has increased, more women are now connected to the digital world. The percentage of adult women owning a mobile phone grew from 44% in 2017 to 50% in 2019, while female internet users increased from 10% to 19%.[259] Pakistan thus lags behind Bangladesh where female mobile phone ownership stands at around 64% while women's access to mobile internet is similar at 19%.[260] Despite the increase in women's access to mobile phones, internet, and other digital services, financial inclusion is still a significant challenge as the percentage of women in

256 https://wbl.worldbank.org/en/reforms

257 Indicator-level scores are obtained by calculating the percentage of questions in that area where there are no legal differences between men and women

258 Sub-indicators forming the WBL index are scored out of 100 (the existing Global average is at 76.1 and the average for South Asia is at 63.7)

259 https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2021/04/Addressing-the-Mobile-Gender-Gap-in-Pakistan.pdf

260 https://www.gsma.com/r/wp-content/uploads/2021/06/The-Mobile-Gender-Gap-Report-2021.pdf

Pakistan holding an account at a financial institution or a mobile money provider (7%) is lower than that of men (34.6%), where it also underperforms all of the benchmark countries used in this study. See figure 51. The picture is even more dismal in terms of credit as just 1.7% of the females in Pakistan borrow from a financial institution or use a credit card compared to 3.5% males, putting the country behind comparable economies such as Indonesia, Philippines, Bangladesh, and Egypt. See figure 52.

This presents founders in the ecosystem with an interesting opportunity to create financial products and services centered on women's needs. Oraan is one such startup founded in 2018, working on women's financial inclusion through formalizing ROSCAs (rotating savings and credit associations), or "committees", where people pool money and aportion the total sum to one member each month. Oraan has raised a total of over $4 million in investment so far, making it the most-funded female founded startup. Other than that, only two female-founded startups – AimFit and Sehat Kahani – have managed to secure rounds of $1 million or more.

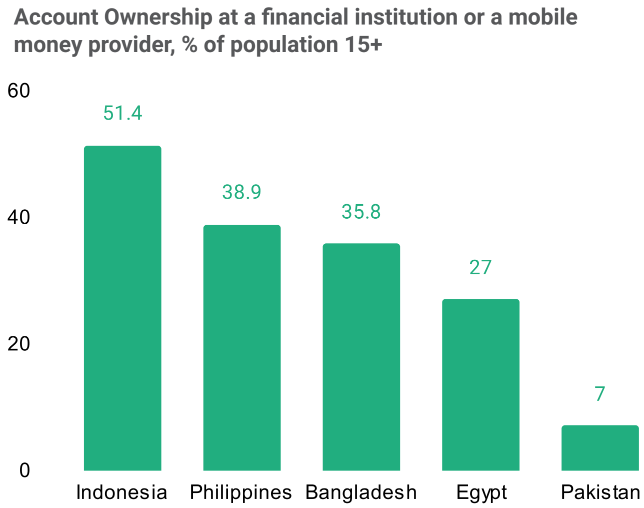


FIGURE 50 Share of Population (age 15+) possessing either a bank account or a mobile wallet

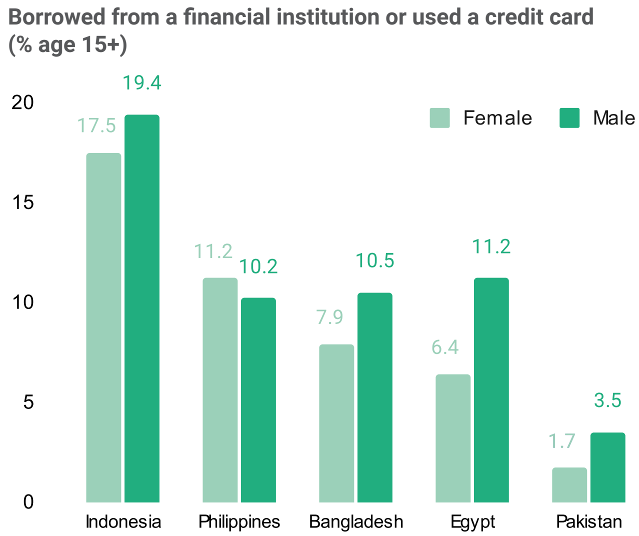


FIGURE 51 Share of Population (age 15+) participating in borrowing/credit-based transactions

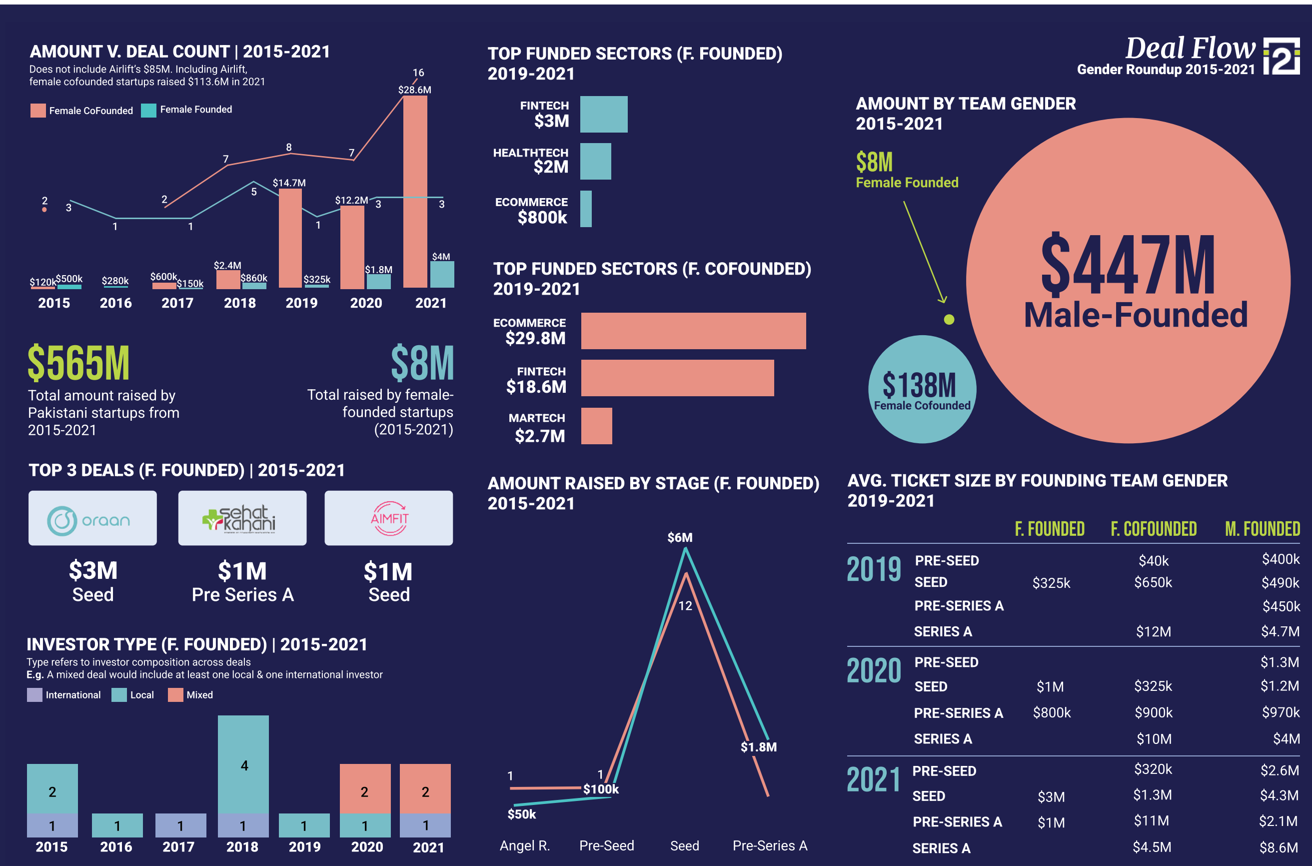
Overall, funding to women-founded startups grew sharply as they managed to raise more money ($4 million) in 2021 compared to all previous years combined ($3.9 million). However, this figure is only a fraction of that raised by female co-founded startups ($144 million across 43 deals) and male-founded startups ($412 million across 194 deals) from 2015-2021. As a result of this growth, the average ticket size to female-founded startups increased to $2 million in 2021, from $900,000 in 2020. Furthermore, the Invest2Innovate Deal Flow Tracker shows that most of the deals raised by female founded startups were concentrated in e-commerce (5), healthtech (5) and edtech (5) while one each went to fintech and transport/mobility. However, their share in the overall deals and amount declined to 3.8% and 1.2% respectively during 2021, showing that despite more capital flowing into Pakistan, women-founded continue to get less than a proportionate share. On the other hand, the percentage of capital raised by female co-founded startups grew to 25.4% (16.7% in terms of deals) in 2021, from 18.7% (14.6% for deals) in 2020.

To help expand the net of financial services, the SBP launched the National Financial Inclusion Strategy in 2019; however it did not not distinguish the unique challenges with respect to women's financial inclusion. This finally changed in 2021 when the SBP introduced the Banking on Equality Policy, which officially recognized the need for having a gender lens with respect to the provision of financial services. In order to bridge the existing gender gap, it identifies five pillars; gender diversity in financial institutions and their access points; women-centric products and outreach targets; women's champions at all customer touchpoints; robust collection of gender-disaggregated data and target setting; and a policy forum on gender and finance.[261]

Similarly, the government's Small and Medium Enterprise Policy 2021 specifically identifies the development of women entrepreneurship as one of the agenda items and proposes preferential treatment — through reduced

261 https://www.sbp.org.pk/BOE/BankingonEquality.pdf

tax rates — to facilitate female-led businesses.[262] In addition to that, it currently offers Women Business Incubation Centers, under the umbrella of the Small and Medium Enterprise Development Authority (SMEDA), to provide female entrepreneurs not only subsidized office space but also other support services such as consulting on tax and financial matters.[263] A few other international non-profit organizations are playing an important role in promoting women entrepreneurship and providing them monetary and non-monetary support. For example, the United States Agency for International Development (USAID) through Small and Medium Enterprise Activity (SMEA) has supported over 431 female-led businesses to date, training them on areas like digital marketing and social media management in addition to helping them optimize their process through technology such as enterprise resource planning software.[264]



		F. FOUNDED	F. COFOUNDED	M. FOUNDED
2019	PRE-SEED		$40k	$400k
	SEED	$325k	$650k	$490k
	PRE-SERIES A			$450k
	SERIES A		$12M	$4.7M
2020	PRE-SEED			$1.3M
	SEED	$1M	$325k	$1.2M
	PRE-SERIES A	$800k	$900k	$970k
	SERIES A		$10M	$4M
2021	PRE-SEED		$320k	$2.6M
	SEED	$3M	$1.3M	$4.3M
	PRE-SERIES A	$1M	$11M	$2.1M
	SERIES A		$4.5M	$8.6M

FIGURE 52 Invest2Innovate Deal Flow Gender Roundup for 2015 - 2021

Karandaaz also does notable work towards capacity building of female-led businesses through its Women Entrepreneurship Challenge by offering risk capital through a competitive process, investing PKR 310 million into 29 women-led companies in addition to providing business support services to over 66 women-founded enterprises.[265] Last year, it further scaled this program to a dedicated Women Ventures arm which currently boasts a portfolio of 18 women-led businesses.[266] On the business skills development and investment readiness side, Invest2Innovate continues to help create an enabling environment for women entrepreneurs through its accelerator and support programs. Under the former, women-led startups account for 34% of all the portfolio companies, including Sehat Kahani that went to raise a $1 million pre-Series A round. With respect to support, its WeRaise program in partnership with the World Bank's Women's Entrepreneurs Finance Initiative (WeFi) helps female entrepreneurs by giving one-on-one coaching, a virtual CFO as well as access to an in-house Insights team on top of connecting with local and international investors.[267] Alumni of this program include the likes of Creditbook, which raised investment from Tiger Global and Ecoenergy.

However, despite these policy measures, support services and growing investment ticket sizes, being a founder is an uphill battle for women in Pakistan, with the challenges increasing with each layer of inequality from social economic status to educational background. These bottlenecks that hamper women founders from achieving their full potential are not just borne out of structural and cultural barriers but also due to inherent biases and a lack of opportunities accorded to women in general.

262 SME Policy 2021 [Page 19]
263 https://smeda.org/phocadownload/Projects/WBIC/WBIC_brochure.pdf
264 https://pdf.usaid.gov/pdf_docs/PA00WFMB.pdf
265 https://karandaaz.com.pk/wp-content/uploads/2021/02/Karandaaz-Annual-Report-2019-20.pdf
266 https://karandaaz.com.pk/our-programs/karandaaz-innovation/women-entreprenuership-challenge/
267 https://invest2innovate.com/weraise/

7.2 GAPS & CHALLENGES

INVESTOR PERCEPTIONS AND GENDER DISPARITY IN VC FINANCING

In 2019, the Global Entrepreneurship Monitor (GEM) estimated Pakistan's female-to-male Total Entrepreneurial Activity ratio at 0.30, half that of the regional average of 0.60.[268] While this is a vast improvement from 2012 (0.06), there are only 3 female entrepreneurs for every 10 male entrepreneurs in the country. The disparity is not just limited to the number of female entrepreneurs but also the amount of investment raised by women-founded startups. As per the World Bank, the existing gap between the demand for formal credit among women-owned micro, small and medium enterprises compared to the supply is around $1.6 trillion.[269]

In Pakistan, female-founded startups account for only 1.4% ($7.91 million /$563 million) of the total amount raised and 6.7% (17/255) of the total deals from 2015 to 2021, which mirrors the global trends discussed earlier. This is despite the relative growth witnessed since 2020, when female-founded startups started to raise $1 million rounds for the first time, including Oraan's record $3 million seed round in 2021 — the highest amount raised by any female founded startup in Pakistan. In comparison, the highest amount raised at the seed stage by a male founded startup QisstPay's $15 million — is five times higher, showing the gender disparity in access to capital that still persists at the same stage. Further, our survey responses show that only 15.6% of the female-founded startups had raised investment compared to 35% of the male-founded startups.[270] Out of the 15.6% of female-founded startups that had raised investment, the average ticket size was substantially lower ($66,500) than the 35% of male-founded companies ($2.1 million) that had raised. It is no surprise then that the overwhelming majority of the respondents — founders (73%), investors (75%) and ESOs (75%) alike[271] — agreed that women faced far greater challenges than their male counterparts when raising investment. One of the challenges cited by female-founded teams during the investment raising process was finding a suitable investor (with 84% of respondents stating as such). Generally, female founders perceived investment-related challenges as greater in magnitude than those facing female co-founded and male-founded teams (refer to figure 54).

Challenges in the Investment-Raising Process

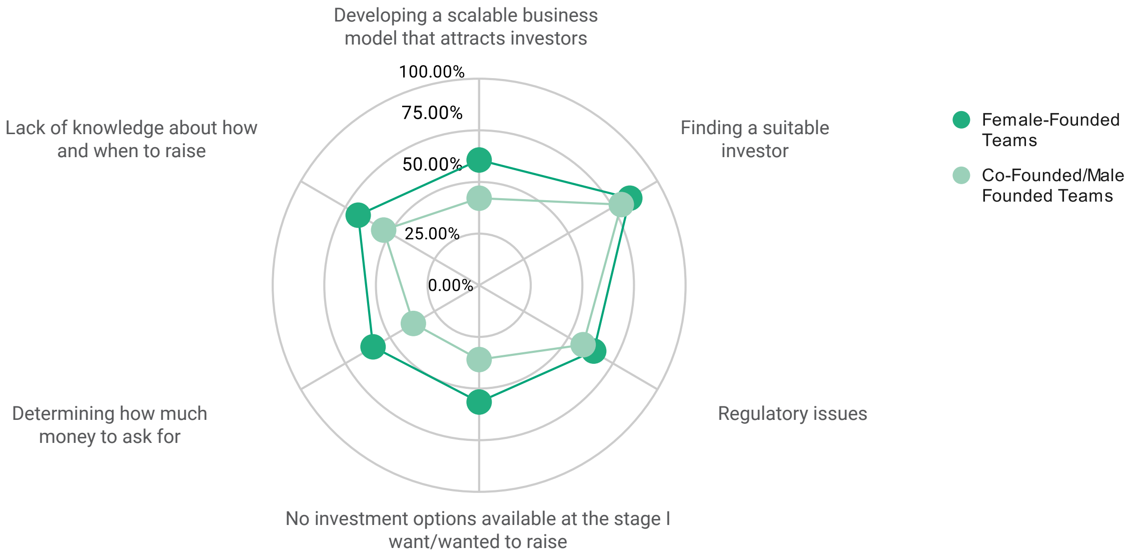


FIGURE 53 Comparison between Female-founded and Female Co-founded/Male Founded Startups

268 Economy Profiles-Pakistan

269 https://www.smefinanceforum.org/data-sites/msme-finance-gap

270 It is important to flag here that the sample used for this study had a perceivably large portion of female founded startups owing to how a sizable portion of the sample was derived from an internal database of entrepreneurs who had attended women-focused training in the past.

271 The respondent sample for this particular prompt consisted of 111 entrepreneurs, 12 investors and 20 ESO-affiliated personnel.

According to Invest2Innovate's Deal Flow Tracker, total investment raised by female-founded startups significantly grew from $1.8 million (across three deals) in 2020 to $4 million (across three deals) in 2021, even though the number of deals stayed virtually the same.[272] Additionally, in 2020 female-founded startups accounted for 6.3% of the deal count and 2.8% of the total amount raised compared to 2021 where the deal count and the total amount raised by female-founded startups was 3.6% and 1.1%, respectively. So, even as more capital has been raised by Pakistani startups overall, female-founded startups haven't received a proportionate share of it. Comparatively, the aggregate amount raised by both female co-founded ($114 million across 16 deals) and male-founded startups ($234 million across 63 deals) towers above the total raised by female-founded companies.

Similarly, female-founded startups had average ticket sizes that were substantially smaller ($2 million) in 2021 than female co-founded ($8.1 million) and male founded startups ($4.6 million). However, excluding Airlift's $85 million Series B out of the total amount raised by female co-founded startups brings their average ticket size down to $2.2 million. This implies that despite growth in absolute value, female-founded startups' share in the overall investment amount has been on a downward trajectory. Female co-founded startups, on the other hand, are in a relatively better position as their share in total deal value increased from 18.8% in 2020 to over 32% in 2021, which is largely owing to Airlift's $85 million round. In fact, excluding this deal, the share of female co-founded startups in total capital raised comes down to just 8.1% in 2021.

Moreover, local investors accounted for 53% of all the deals raised by female-founded startups (9/17 deals) and 27% of the total dollar value ($2.2 million / $7.9 million) that they raised from 2015 to 2021. This shows that female-founded companies are more likely to raise from local investors who typically write smaller cheques. Refer to the Finance section State of Play for details. On the other hand, 23.5%% of all the rounds raised by female-founded startups were mixed rounds, accounting for $4.8 million in terms of amount. By type of investor, 6 of the 17 rounds raised by female-founded startups involved VCs. These six deals were worth a total of $6.4 million in terms of dollar value from 2015-2021. This mix began to change from 2020 onwards as four of the six deals closed by female-founded startups had participation from VC, compared to only 2 (out of 11) from 2015 to 2019.

Prior Record of Investment Raised among Female Founded Startups

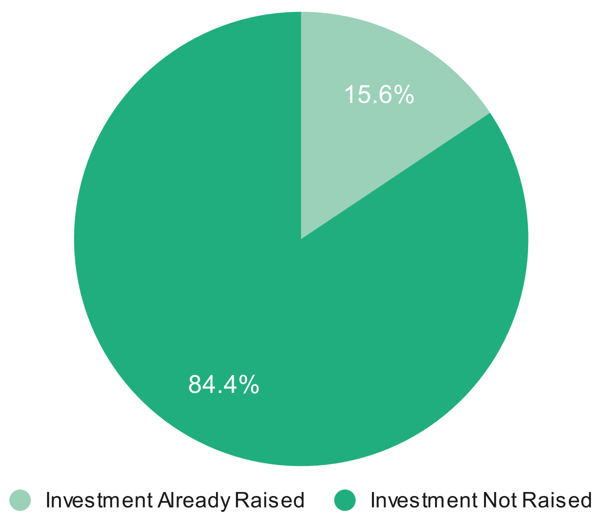


FIGURE 54 Female founded team disaggregated by prior investment raised.

In the context of Pakistan, do you think female founders face significantly greater challenges while raising investment in comparison to their male counterparts?

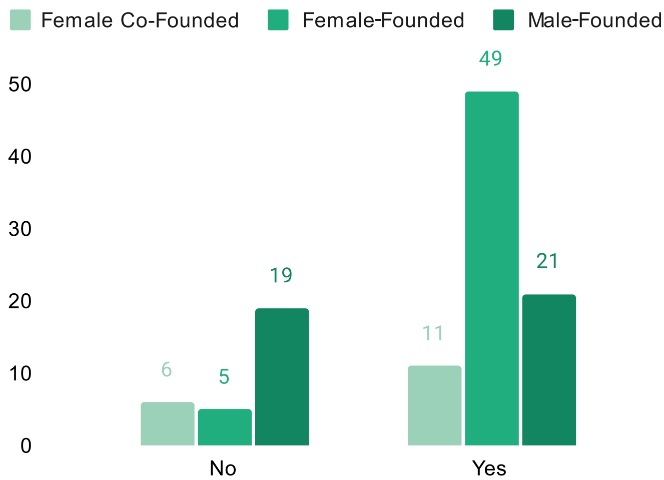


FIGURE 55 Perceptions of difficulty while raising investment disaggregated by founding team gender

272 Deal Flow Tracker (2015 - 2021). Invest2Innovate. [Accessed on 21st February 2022]

Interview respondents suggested a limited pipeline of female founded businesses and potential bias in perceptions against women-founded businesses as two major reasons behind their lower access to finance. They further shared that women founded businesses represent a low volume of investment worthy female-founded startups which limits the number of deals they can evaluate. This is indicative of a global bias where investors blame the lack of female-founded startups in their portfolio on a "pipeline problem", despite women being the fastest growing group of entrepreneurs.[273] However, it also points to lax efforts on part of the VCs with regards to actively scouting for women-founded startup deals; evidence suggests that between 39% and 78% of the VCs' deal flow comes through referrals, where women-founded startups tend to be disadvantaged.[274][275] Moreover, interviewees also alluded to how women-founded businesses in Pakistan are rarely considered high-growth startups that require VC funding, but might be better suited to other types of relatively low-risk capital. Primary data from the entrepreneur survey conducted for this report showed that women founded businesses in the country typically fall under fashion/lifestyle (23.4%) and e-commerce (17.2%) sectors, reportedly raising only $173,000 in investments. See figure 57 for details. A deeper analysis of these businesses shows that many of them were concentrated in the SME category (such as an artisan crafts store hosted on Facebook) instead of high-growth verticals like quick-commerce or transit. However, the gender gap in fund-raising tends to persist across other forms of capital as only 2.2% of females in Pakistan borrow to start a business or a farm, compared to 6.3% of males[276].

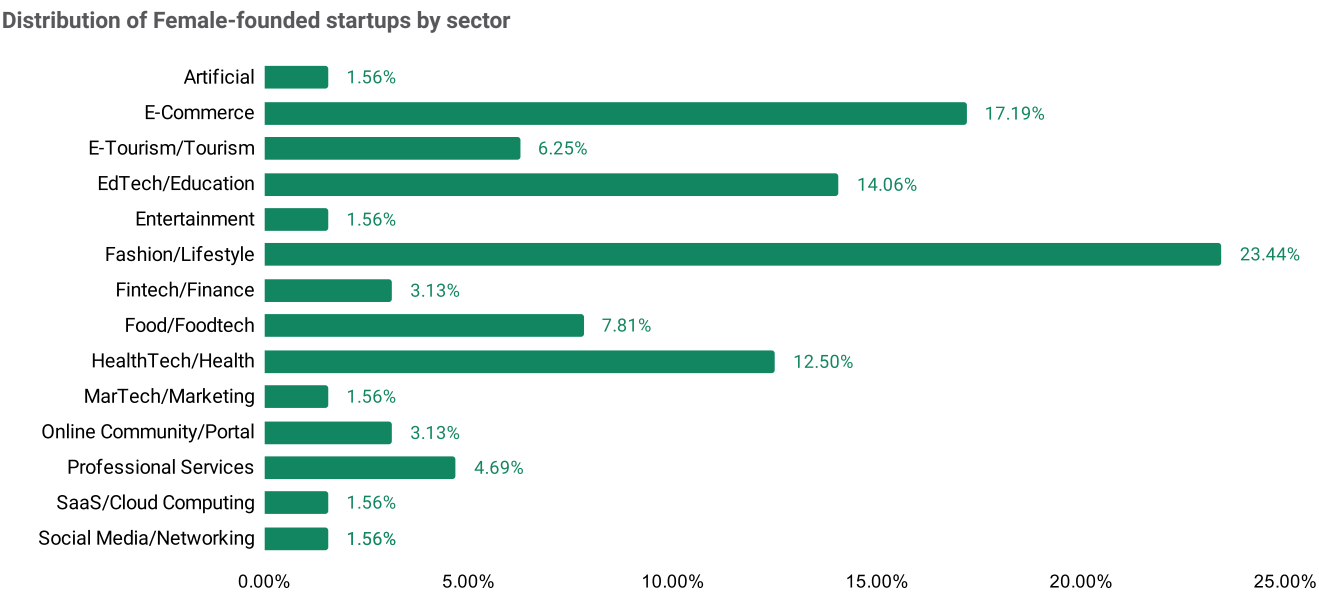


FIGURE 56 Sector-wise distribution of Female-founded startups

Investor perceptions and how they impact women founders' investment-raising journey add to the gender disparity in finance. These perceptions often revolve around implicit and explicit bias regarding women founders' ability to deliver results as an entrepreneur. These perceptions are often rooted in stereotypical gender roles, which result in women bearing a greater load of household responsibilities globally.[277] While discussing the usual approach taken by local investors, Jehan Ara (Founder, Katalyst Labs) pointed out that, "most of them [investors] say that they feel that the female founder will end up prioritizing her family and her home if she is married Or some might decide to get married and have children. And then she will give up".[278]

Investors approach entrepreneurs very differently depending on their gender. One of the ways that this difference manifests itself is in the language they use while sizing up startups. Research shows that while men get asked questions about the potential for gain, women

273 Women-Led Startups Aren't Getting Funded, and There's a Very Simple Reason Why, Inc.com. (2018) [Accessed on 21st February 2022]

274 Korpeal, J., Referral Networks in Venture Capital Deal Sourcing .(2019)

275 Howell, S. & Nanda, R. Networking frictions in venture capital and the gender gap in entrepreneurship. (2020). [Accessed on 21st February 2022]

276 World Bank Gender Database

277 https://www.nytimes.com/2021/04/21/parenting/women-gender-gap-domestic-work.html

278 Primary Interviews: Ara, J. (2021) [Paraphrased for Clarity]

get asked about risk. The difference in these lines of questioning then significantly impacted the fundraising as startups who were asked promotion--based questions (usually males) raised $16.8 million on average in investment compared to $2.3 million raised by startups who were asked prevention-based questions (66% of the questions posed to female entrepreneurs were as such).[279] It was also found that female-led ventures were 63% less likely to obtain funding than male-led ones with up to 35% of this gap possibly explained by gendered preferences of investors.[280] While this unlevel playing field was acknowledged by a majority of respondents to our survey, women-founded startups were much more likely (90.7%) than male-founded startups (52%) to agree with the view that female entrepreneurs were at a disadvantage when it came to fundraising.

Halima Iqbal, founder of Oraan, discussed how investors pursue different lines of questioning based on the gender of the founder: "You cannot question somebody's ambition based on their gender. How does her responsibility stand out in a household? These are questions that you are not asking a man. Do not ask that of a woman as well. It is not your [the investor's] business. How I take care of my child if I have children, if I am married, not married, that is none of an investor's concern."[281] While VCs may not necessarily be biased against women based on their sex when evaluating pitches, they awarded fewer points when contestants displayed traits typically associated with femininity — such as warmth or sensitivity — which were believed to be more common among women.[282]

Women founders participating in a survey for this report were more likely to highlight a lack of knowledge of when and how to raise (69%) as a major challenge than their male counterparts (50%). Refer to figure 58 Similarly, 50% of the female-founded startups saw dearth of investment options at their stage of business lifecycle as a major challenge when it came to raising funding compared to male-founded companies (40%). It is also worth noting that a larger share of women-founded startups (59%) struggled to determine how much money to ask in contrast to male-founded startups (34%). To summarize, while there are major systemic, cultural, and affective barriers that limit women founders from reaching their full potential and raising growth capital, some of the challenges they face are rooted in investment readiness and can be solved for. More on this in the Recommendations section.

How do you rate the process of raising startup investment in Pakistan?

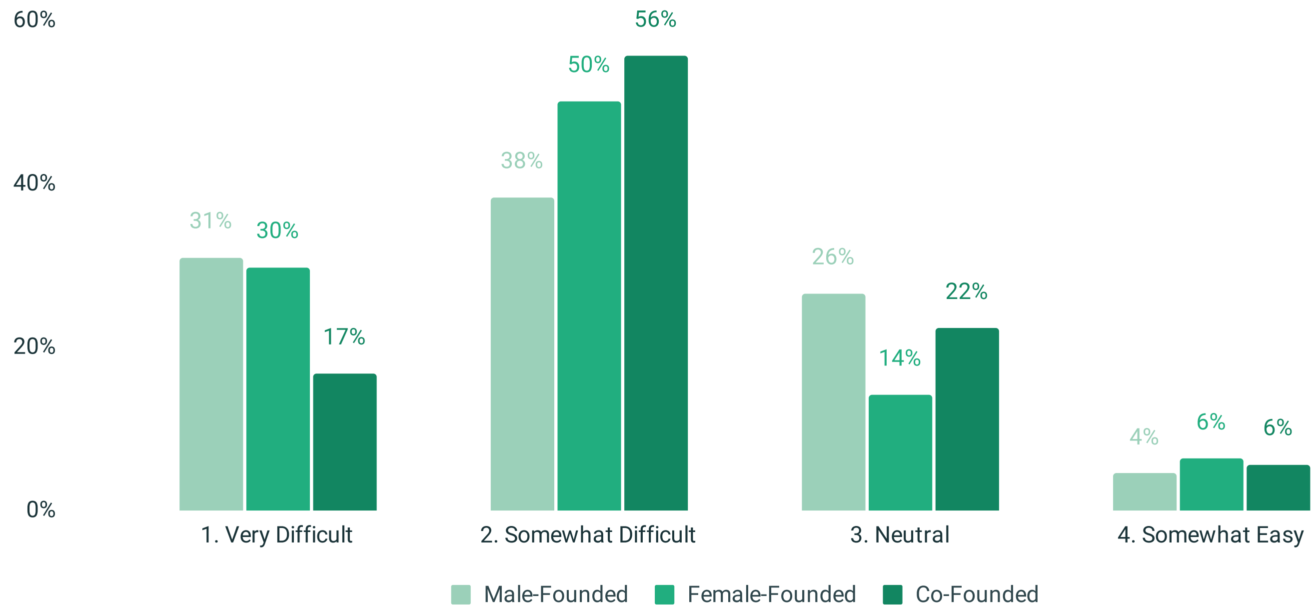


FIGURE 57 Perceptions regarding difficulty of the investment raising process by founding team gender

279 Male and Female Entrepreneurs Get Asked Different Questions by VCs — and It Affects How Much Funding They Get

280 Gender Gap in Entrepreneurship | Columbia Business School Research Archive

281 Primary Interviews: Iqbal, H. (2021) [Paraphrased for Clarity]

282 Balachandra, L. (2020), "How gender biases drive venture capital decision-making: exploring the gender funding gap", Gender in Management, Vol. 35 No. 3, pp. 261-273.

LOWER REPRESENTATION OF WOMEN IN SENIOR ROLES IN VC FUNDS AND STARTUPS

Understanding how women entrepreneurs can be supported in their journey to achieve better outcomes in investment raising, scaling, and team-building is an open avenue of inquiry around the world. The role of other women - whether it is as GPs in VC funds, industry experts in technology and innovation intensive fields, or experienced/successful entrepreneurs who can serve as mentors - in supporting female entrepreneurs is an area often theorized to bear positive results.[283] Globally, only 35% of STEM students in higher education are women, while only 3% of female students in higher education choose information and communication technologies (ICT) studies.[284] Similarly, according to the World Economic Forum's 2020 Gender Gap report, the share of women in specific professional clusters such as Data and AI (26%) and Engineering fields (15%) was rather dismal in G20 countries.[285] See figures 59 and 60 for details.

In Pakistan, there are underlying structural inequities that lead to lower representation of women within certain sectors and fields, both at academic or professional levels. For instance, the gender gap within STEM fields begins at high school level and exacerbates at the tertiary education level where women make up only 21% of all the engineering undergraduates in Pakistan.[286] [287] The situation is similar to the IT industry, as the respective diversity ratio stands at just around 17% while 40% of sector companies reported a gender diversity ratio between 0 and 10%.[288] Shehreyar Hydri (Managing Partner at Deosai Ventures) shared that, "there is a supply side issue of women in tech, just like there is a supply side issue of women in any major corporate sector. So if you take a step back from the founding team of a startup, you have to go back primarily to an engineering degree from any university in Pakistan. And that is where the problem starts. If there are 100 people in a graduating class, 25 of those will be women. [289]

Female Representation in Tertiary Education

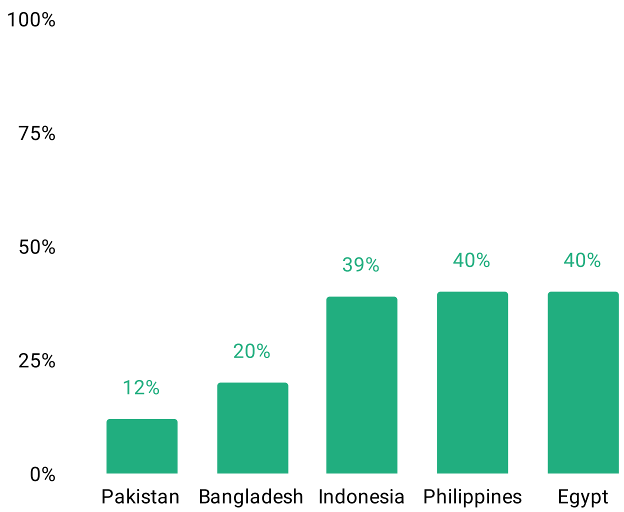


FIGURE 58 Percentage of women engaged in tertiary-level education

Percentage of women engaged in professional sectors

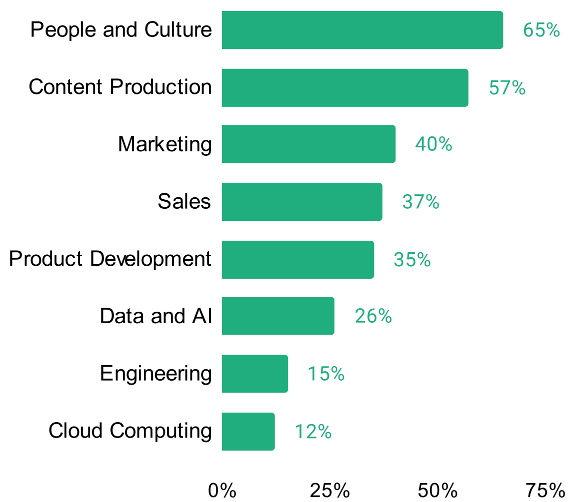


FIGURE 59 World Economic Forum (WEF) Global Gender Gap Report: Sector-wise Distribution

283 https://www.emerald.com/insight/content/doi/10.1108/978-1-78973-289-420191029/full/html

284 Girls' and women's education in science, technology, engineering and mathematics (STEM)

285 https://reports.weforum.org/global-gender-gap-report-2020/the-future-of-gender-parity/

286 UNDERSTANDING FEMALE PARTICIPATION IN STEM SUBJECTS IN PAKISTAN

287 National Dialogue on Women in Science - Pakistan

288 Diversity & Inclusion Framework for Pakistani IT Companies, Pakistan Software Houses Associations for IT & ITES (P@SHA). 2021 [Accessed on 2nd February 2022]

289 Primary Interviews: Hyderi, S. (2021) [Paraphrased for Clarity]

Similarly, the same structural inequalities that serve as academic and educational barriers for women also keep them away from taking up leadership positions, leaving men to decision-making roles in VC firms. This informs the criticism of VC firms worldwide for being a boys' club both with men occupying most of the senior management and general partner roles. The tendency among male venture capitalists to network with similar-minded individuals (exclusively comprising other males) would indicate that these homogeneous networking interactions play a role in the composition of VC teams. Additionally, most VC firms tend to have smaller teams with low turnover rates, which reduces the need for hiring on a frequent basis, limiting the window of opportunity for women to join these investment teams. On the other hand, larger firms were more likely to have gender diverse teams.[290]

Due to such structural gaps, even in countries like the U.S. only a little over 15% of all the general partners are women. Whereas in Pakistan, 47% of the investors interviewed for this report had no women in senior leadership positions in their funds, with i2i Ventures as the only currently active VC fund with all female GPs.[291] Refer to figure 61. Even beyond VC firms, in the wider financial services industry, women tend to be underrepresented. For example, in banking women made up just 11.2% of all the employees in 2018 across Pakistan, lagging behind the labor force participation rate of 21% for females.[292] This percentage drops to 5% for senior positions whereas not a single bank had a female Chief Executive Officer (CEO) at the helm. As women VCs are twice as likely to invest in female founders than male VCs, a more gender-diverse team at the fund level helps bridge the gap in funding received by women-founded startups.[293]

Are any of the senior managers female [including CEO or equivalent, executives, fund manager, and other senior managers?

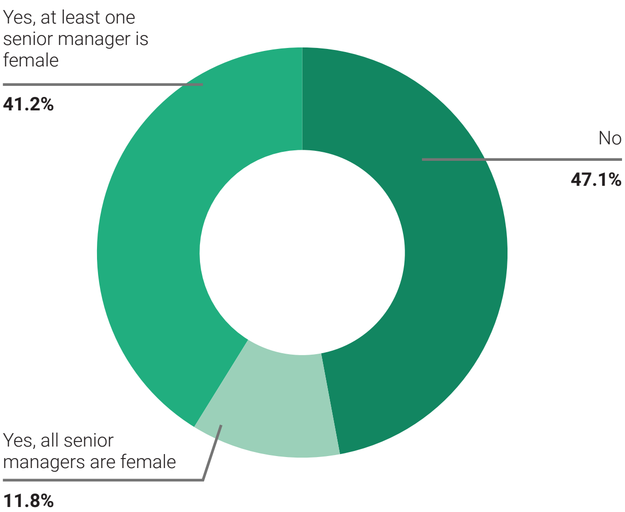


FIGURE 60 Representation of women at senior management roles among surveyed investors

Some female founders shared during interviews for this report that often implicit (as well as explicit) bias exhibited against women entrepreneurs got in the way of their investment raising efforts, day to day operations, and team building efforts. One founder recalled an encounter where an investor told her that , "(she) did not have the inherent qualities to be an entrepreneur". Another founder shared that a lack of acceptance for women as organizational leaders trickled down to the operational level where"new employees who came in stated that they were not going to take instructions from women". She further added that such resistance on part of male employees in turn prevented women from joining their tech team. Another prominent male founder referred to a female operations manager who was an exceptional resource to have in the company but the fact that the 40 subordinates she was supervising were not fully comfortable with having a female manager made her job harder than usual.

The lack of women in senior positions extends to other sectors as well. According to the Securities and Exchange Commission of Pakistan's (SECP) data, less than a quarter of firms (5,145) registered between March 2020 and March 2021 had at least one female director. Ali Mukhtar (founder of Fatima Gobi Ventures), speculated that the disparity in funding is perhaps because there is a relatively lower pool of female founders applying for VC funding. He added that a maximum of 10% of the applications they get for investment are female founded startups, which leads them to believe that the problem, in his opinion, is not the VCs unwillingness to fund female-founded startups but the fact that there are not enough female founders applying for funding.[294] A larger share of female-founded

290 Advancing Gender Equality in Public Policy, Research Insights: Gender and Tech, Harvard Kennedy School (2019) [Accessed on 2nd February 2022].

291 Gender and culture in VC

292 Gender Compendium

293 Women VCs Invest in Up to 2x More Female Founders - Kauffman Fellows

294 Primary Interviews: Mukhtar, A. (2021) [Paraphrased for Clarity]

startups (22%) in our entrepreneur sample for this report also shared that they did not plan on raising investments compared to the male-founded companies (9%). See figure 62. Such hesitation in raising investment can limit the pool of female founded startups actively looking for VC funding, but it also identifies further need on part of the VCs in the country to ensure that women have equal access to capital and the ecosystem provides adequate support to them.

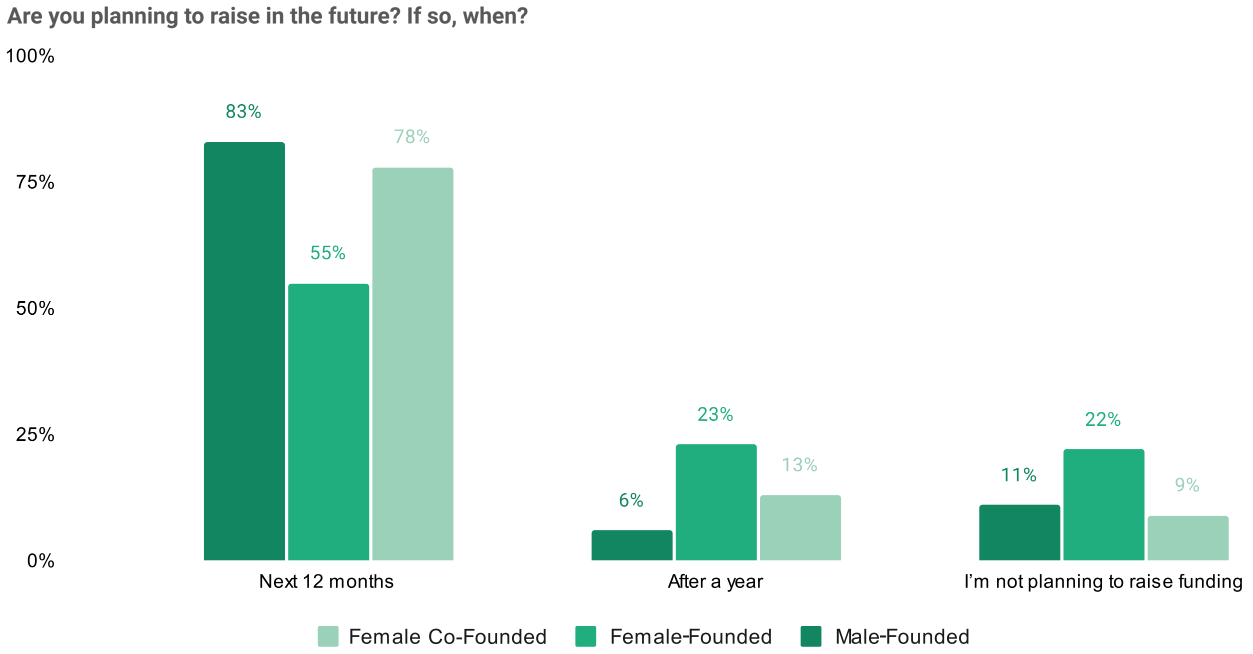


FIGURE 61 Founding Team Gender Composition and Future Plans to Raise Investment

EXISTING SUPPORT SERVICES ARE NOT SUFFICIENTLY TAILORED TO WOMEN FOUNDERS NEEDS

A majority of female-founded startups that responded to our entrepreneur survey had positive opinions on the role of ESOs. For example, 76% of female-founded startups believed that support organizations' role in training on financial management and valuations was helpful, compared to 45% of male-founded startups. Female-founded startups in the entrepreneur sample used for this study were more likely to find legal services inaccessible (48%) compared to male-founded startups (28%). This disparity was even higher in terms of access to consultants and advisors where 61% of women-founded startups saw it as a challenge compared to 40% of the male-founded startups. More than half of the female-founded startups (53%) also felt that access to incubators and accelerators was an obstacle to their business, while 62% felt that securing direct funding from such organizations would be helpful to their businesses. Both the perceptions of a lack of access to support organizations and the cited benefit in securing funding from such organizations serve to indicate that This shows that female founded startups rely on support services more than male-founded ones. Literature suggests that the gender disparity in access to finance first begins to perpetuate at the accelerator level as male founded startups that graduate from these programs raise more equity compared to male-founded startups that do not graduate from an accelerator. As for women-founded startups, graduating from these accelerators have little to no effect on helping them raise equity. [295]

295 Are accelerators widening the gender gap

Perceptions on facing obstacles in access to incubators/accelerators by founding team gender.

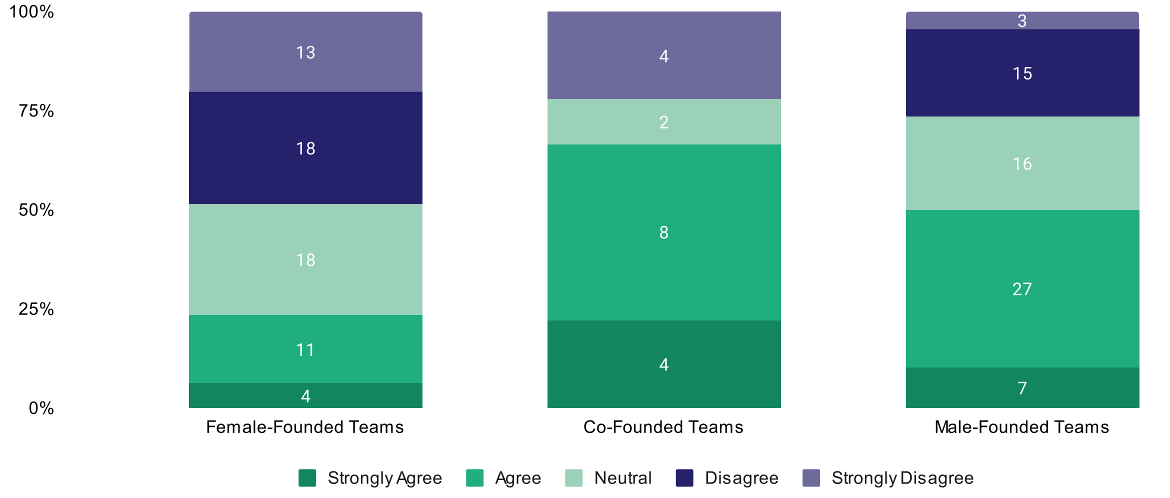


FIGURE 62 Founding team gender composition and perceptions on facing obstacles in access to incubators/accelerators

Networking with investors varies strongly with regard to level of access to high quality local VCs and especially international VCs. In this case, any given entrepreneur's own social capital comes in handy when they are looking to raise. Interestingly, as gender role theory posits, women's networks often include a majority of women, which makes it harder for them to break into male-dominated industries.[296] Especially in countries such as Pakistan, women are at a disadvantage as they have fewer opportunities to engage with a broader, more influential, and predominantly male network of people due to socio-cultural norms.

Moreover, a LinkedIn study found that women are 14%-38% less likely to have a strong network, both in terms of size and diversity.[297] In Pakistan, this would mean that the women entrepreneurs' smaller networks will not only restrict their ability to connect with sources of capital but also have fewer connections when it comes to support and mentorship on different aspects of their business. One female founder interviewed for this report compared how networking poses different challenges for men and women. She shared, "I think one thing ... is that female entrepreneurs have a smaller network. So whether you know somebody in the government, a bureaucrat or an investor, it is very much a boys' club and it's harder for women to build a (strong and diverse) network." Therefore, ESOs can bridge the gaps in networking opportunities that female founders face and ensure that there is gender parity in how startups leverage networks to successfully raise investment.

Further, it is often assumed that women who pursue entrepreneurship do so for family-related reasons such as assuming the role of the primary breadwinner or to introduce a secondary income after the primary one fails to take care of all expenses, all reasons which are also thought to impede their success.[298] In which case, it is safe to assume that it is much more challenging for women to create a work-family balance, especially in the absence of support services that cater to their needs more specifically. Sara Saeed (founder of Sehat Kahani) expressed ,"I don't think gender was a problem in my life in the sense that someone will not invest in me because I am a woman. Gender comes into play when female founders are more likely than their male counterparts to be affected by social and family responsibilities. I think inclusivity needs to happen at places that we're not thinking about (in terms of child care assistance, for example). She further added that daycare facilities are hardly available in the majority of the organizations around, including younger and more progressive companies. She also felt that prioritizing female founders' needs in these fundamental areas could increase women's presence in more sectors. Essential support services like these could ensure that women founders do not have to forego work responsibilities for familial obligations and vice versa, giving them a healthy work-life balance.

296 Langowitz, N. and Minniti, M. , "The entrepreneurial propensity of women", Entrepreneurship Theory and Practice, Vol. 31 No. 3, pp. 341-364. 2007

297 LinkedIn Data Shows Women Are Less Likely to Have Strong Networks — Here's What Companies Should Do

298 Powell, G. N., and Eddleston, K. A. Linking family-to-business enrichment and support to entrepreneurial success: do female and male entrepreneurs experience different outcomes?. Journal of business venturing, 28(2), 261-280. (2013)

7.3 RECOMMENDATIONS

1 ENCOURAGE MORE WOMEN IN FINANCING AND PROVIDE INVESTORS TRAINING ON GENDER SENSITIVITY

The low representation of female-founded startups in the VC financing landscape leaves a lot of room for improvement. However, investors must also be trained as part of the VC funding gap. This bias can be alleviated by first adopting a formal definition of women-led businesses as a formal part of investment philosophy, possibly under the Environmental, Social and Governance Mandate. Secondly, formalized diversity and inclusion training should be provided to VCs that addresses common gender biases that prevent VCs from investing in female founders. Such initiatives can be enforced by the Venture Capital Association of Pakistan through issuing mandates where firms would be liable to submit gender-aggregated data so that women founders could better screen which VCs to approach.

A case study on Patamar Capital, an early stage Southeast Asian VC, lays out how the firm incorporated a gender lens as part of its investment process. Patamar Capital had traditionally relied upon informal referrals through existing networks — comprising incubators/accelerators, portfolio companies, other investors etc — for its deal flow. However, this process was gendered and restricted the number of opportunities made available to women since most stakeholders in the entrepreneurial ecosystem happen to be male. The VC attempted to address the issue by actively attending women-focused events and engaging with other organizations working towards facilitating female entrepreneurs as a way to develop a more inclusive network and get more female-founded startups in the pipeline. [299]

Data from the Kauffman Foundation demonstrates how the presence of female GPs can help narrow this gap; women partners deploy about 32% of all their seed capital in female founding teams compared to only 16% of male GPs.[300] This gap persists despite empirical evidence indicating that VCs with more female investing partners make more successful investments at the portfolio level, have 1.5% higher fund returns, and see 9.7% more profitable exits.[301] Therefore, it makes sense for the existing VCs to actively recruit more diverse teams with a higher female representation because it benefits the overall investment bottomline.

2 DIVERSIFY VC TEAMS AND PROMOTE WOMEN IN LEADERSHIP ROLES IN THE TECH INDUSTRY AND OTHER MALE-DOMINATED SECTORS

In order to ensure that female-founded businesses are facilitated properly to counteract the socio-cultural and economic inequities they face, gender inclusive policies and practices must be instituted in all workplaces. The government should mandate all employers to implement maternity policies and childcare benefits, which has been found to have a positive impact on employee retention and work-life integration.[302] Other incentives can include in-kind grants, wage subsidies, and credit subsidies for women-owned firms. This manner of incentivization can encourage women who might otherwise not enter the workforce or start their own businesses.[303]

299 How to Invest With a Gender Lens: A Guide for Investors in Emerging Markets, Investing in Women, 2020 [Accessed on 1st February 2022]

300 Women VCs Invest in Up to 2X More Female Founders, Kauffman Fellows Journal Blogs. 2020 [Accessed on 1st February 2022]

301 Advancing Gender Equality in Public Policy, Research Insights: Gender and Tech, Harvard Kennedy School (2019) [Accessed on 2nd February 2022].

302 Tackling Childcare Pakistan: Creating Family-Friendly Workplaces, International Finance Corporation. 2021 [Accessed on 2nd February 2022]

303 Incentivizing equality: Investment-led development as a win-win for all, Private Sector Development Blog, World Bank. 2017. [Accessed on 2nd February 2022]

Pakistan Software House Association's (P@SHA) Diversity and Inclusion Framework proposes some measures organizations can take that include companies measuring themselves against their D&I benchmarking tool and the maintenance of data repositories for the demographic data of companies. It further hints at the launch of a D&I certification program with a scoring rubric against which companies can be evaluated on the level of their gender sensitization in their practices.[304]

The SECP has tested mandating quotas for female representation at the board level of listed entities. Since its introduction, female directors as a percentage of all board directors have increased from 8.3% in 2017 to 12% in 2019 while the share of companies with at least one female director has risen from 31% to 58% during the same period.[305] However, listed organizations represent a small fraction of the broader corporate sector and there is a serious need for a similar framework for private limited companies, which account for an overwhelming majority of business activity in terms of employment. Additionally, Katalyst Labs recently introduced its Women Leadership Fellows Program (WLFP)[306] - that aims to build a pipeline for female leaders and entrepreneurs by connecting them with a network of mentors and training them on leadership through workshops from experts.

3 DESIGN SUPPORT SERVICES SUITED TO WOMEN'S NEEDS

According to the International Labor Organization's Women Entrepreneurship Development (ILO-WED) programme, six framework conditions must be assessed in order to create a strong ecosystem for women entrepreneurship: (1) legal and regulatory systems, (2) policy frameworks, (3) gender-sensitive financial services, (4) business development support services, (5) access to markets and technology, and (6) representation of women entrepreneurs in policy dialogue.[307] As a key touch point for early-stage women-founded startups as well as investors and policymakers, ESOs are critically positioned to play an intermediary role in working towards this environment.

In this regard, two areas deserve particular attention: preparing women-founded startups for raising investment and providing daycare. For the former, incubators/accelerators should design customized programs for women-founded startups that are in line with their business needs such as sectors or types of financing instruments most suitable for them. i2i's WeRaise program,[308] supported by the World Bank's WeFi, is one such prominent initiative which prepares women founders for fundraising through a tailored mentorship program. Similarly, ESOs should offer support services such as daycare or transport facilities which will allow women entrepreneurs to focus their full energies towards the business and help alleviate the structural barriers like access to mobility or childcare.

One oft-cited reason for the gap in financing to female-founded startups is their limited network compared to male-founded startups. Incubators/accelerators can bridge this by providing women founders with dedicated mentorship programs, by engaging the local Women Chambers of Commerce and Industry, international associations working on the promotion of female entrepreneurial development such as She Loves Tech or Astia (formerly Women's Technology Cluster), and other entrepreneurs who have been successful in securing funding. These linkages can equip female founders to develop a broader network and increase their chances of raising investment.

304 Diversity & Inclusion Framework for Pakistani IT Companies, Pakistan Software Houses Association for IT and ITeS (P@SHA), 2021.

305 Women on Boards, Securities and Exchange Commission of Pakistan. 2020.

306 Women Leadership Fellowship Program, Katalyst Labs [Accessed on 4th February 2022]

307 Women's Entrepreneurship Development Programme. International Labour Organization. 2016. [Accessed on 3rd February 2022]

308 Move the Needle, Invest2Innovate: WeRaise. [Accessed on 1st February 2022

7.4 CASE STUDY

ORAAN'S PATH TO A $3 MILLION SEED ROUND: NAVIGATING AN ECOSYSTEM UNFAMILIAR WITH INVESTING IN FEMALE-FOUNDED STARTUPS

ORAAN

COUNTRY
Pakistan

FOUNDERS
Halima Iqbal
Farwah Tapal

FOUNDING YEAR
2018

Oraan was founded in 2018 by Halima Iqbal and Farwah Tapal, and is a social finance platform that provides access to savings and credit by first digitizing behavior that already existed in Pakistan – ROSCAs, or rotating savings and credit associations, locally known as committees. Oraan, initially envisioned as a female-first fintech startup, has ambitions to evolve into a digital bank.[309] When Halima started working on the concept of Oraan three years ago, the ecosystem was still very nascent. The COVID-19 pandemic impacted the startup landscape to a great extent, such as increased cohesion among founder investor relationships and better access to deal flow as a result of investors becoming relatively more open to remote pitches.

Despite this progress, it was still an uphill battle for Oraan to raise funding. At the time, very few female-founded startups had managed to raise investment, specifically from VCs, which limited the extent to which these startups could scale compared to male founded teams. Prior to Oraan, only four female-founded startups - Dot&Line, AimFit, Conatural, and Beauty Hooked - had raised VC-led rounds prior to Oraan that amounted to a total of $2.4 million across 4 deals.[310]

Even globally, the proportion of female-founded startups raising VC funding is comparatively small, with female founders receiving 2% of all VC-sourced funding.[311] Halima shared during an interview that she felt this problem was much more serious in markets like Pakistan where there is little to no precedent for female-only founding teams raising large rounds from prominent investors. Although both of the founders had studied and worked abroad, Halima believes that more than those networks, what proved fruitful was cold emails to investors pitching Oraan's value proposition.

With the recent influx of funding into the local ecosystem, the challenge for Oraan's founders no longer hinges on raising further investments but rather in selecting value-added investors who can contribute strategically towards Oraan's success, like providing sector-specific or region-specific expertise. In terms of improving investor participation, Halima suggested that onboarding angel investors as strategic advisory partners is very useful to a new venture, especially operator angel investors with prior founding experience. Such investors can serve as a sounding board for the founding teams while making important business decisions.

Although the initial journey towards attaining funding at the pre-seed and seed level was difficult, it was a combination of capitalizing on ecosystem momentum and accepting strategic capital which played a role in enabling Oraan in raising its seed round, the most raised by a female-founded startup in Pakistan. Oraan's success at raising $3 million at the seed stage establishes a precedent for female-only founding teams being able to raise investment rounds at par with those raised by male/co-founded teams.

309 "Digitizing committees": Women-led startup Oraan shares its success story. Express Tribune. (2021) [Accessed on March 7th, 2022]

310 Deal data sourced from Invest2Innovate Deal Flow Tracker (DFT) [Accessed on 2nd March 2022]

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7.5 KEY TAKEAWAYS

Despite significant growth, female-founded startups account for a very small share of the Pakistani market, and are often subject to negative gender perceptions. Such perceptions must be combatted structurally through greater encouragement of women to enter careers in finance, and through training on gender bias and sensitivity.

Women are often discouraged from pursuing roles in business, finance, and technology, resulting in disproportionately lower representation, especially at senior levels. Investment firms and startups must make a concrete effort to diversify their staff and explicitly promote policies of diversity, equity, and inclusion.

Women are statistically less likely to have access to robust investment networks and support services that recognize their diverse set of needs. Support services must be further tailored to the needs of female-founded startups, including legal and financial services, networking development, and access to mobility.

08 CONCLUSION

Since the last release of the Pakistan Entrepreneurship Ecosystem Report (PSER) in 2019, there has been significant growth in the startup ecosystem. Policy-level initiatives and reforms have played a significant role in this shift, from Pakistani founders being able to set up holding companies abroad to the SECP Sandbox effort. At the same time, much more needs to be done to improve the regulatory environment, especially in relation to the taxation regime, and especially given that investors still perceive this environment, particularly as it relates to the flow of money, to be onerous when compared to more "friendly" ecosystems like Singapore and Indonesia. Increasing valuations and investment round sizes over the past two years signal that Pakistan is becoming an attractive market for international investors, but there are still concerns around future exit opportunities – where they'll come from and also when they will materialize.

On human capital, ecosystem players remain concerned about the talent deficit in the fast-growing startup space, and there is a real need for more upskilling initiatives, as well as efforts on building the talent pipeline overall. Universities, technology conglomerates, MNCs, more mature startups, and software houses can play a significant role in training young graduates and employees on key skill sets needed for building these high growth potential technology startups.

From the support lens, there are noticeable gaps on how local ESOs have performed, and organizations need to improve their overall investment readiness curriculum and support to continue to provide value to startups as the ecosystem matures. ESOs generally need to offer more bespoke services tailored to the needs of growing businesses, as well as provide peer learning opportunities. University incubation centers also need to be improved overall, not only to support young entrepreneurs at that level, but to also produce better talent for the ecosystem overall.

While the progress in the Pakistan startup ecosystem the last two years has been promising, the important question at the moment is whether we will see this growth and activity sustain over the next five years to a decade. This study was developed to not only answer the question, "Why Now?" but to provide guidance on how to solve for the current gaps in the startup ecosystem, which will only deepen as we move deeper into 2022 and the macroeconomic uncertainties globally and in Pakistan grow. Addressing these challenges will strengthen the foundation for future growth, ensuring that startups in this country are set up to succeed, which is necessary for economic growth overall.

GLOSSARY

Accelerator	Support Program focused on supporting startups as per the potential criteria below: Stage: Product Launch/Early Growth (Angel Round/Seed) Model: Cohort-Focused Program Timeline: Less than One Year (often Three to Six months) Physical Workspace: Varies Development Focus: Growth-oriented (Mentorship and Fundraising Support)
All International Degrees	Founding teams where each team member has at least one international degree.
All Local Degrees	Founding teams where all team members have local degrees.
Local	In the context of this study, local refers to Pakistan.
International	In the context of this study, international refers to any regions that are not Pakistan.
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.
Average Ticket Size	The average investment amount raised during a certain funding round.
At Least One International Degree	Founding teams where at least one team member has at least one international degree.
Benchmarking	A way of determining how well a business unit or organization is performing compared with other units elsewhere
Branchless Banking	It is the mode of rendering financial services through a distribution network without having a conventional branch brick and mortar set up.
Bridge Round	An interim financing round raised between two (usually larger) rounds of financing. A Bridge Round may be raised between any two stages.
Co-working Space	Coworking is a business services provision model that involves individuals working independently or collaboratively in a shared office space.
Convertible Note	Short-term debt that converts into equity.
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	The estimated long-term cost to the federal government of a direct loan or loan guarantee.

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.
Entrepreneurial Ecosystem	A product of the surrounding environment, in particular business environment, key actors, investment climate, and the evolving culture and attitudes
Family Office	A privately held company that handles investment management and wealth management for a wealthy family.
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.
Founding Team Uni Characteristics	Used to categorize where the members of the founding team of a startup went to university. Categorization options (currently) include: All local degrees, All international degrees, and At least one international degree.
Friends & Family	An investment round in which funds are provided by friends and/or family of the founding team.
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	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	Refers to a sum of money offered to a startup or company to assist them with their growth and work.
Incubator	Support Program focused on supporting startups as per the potential criteria below: Stage: Ideation/Post-Ideation (Pre-Seed) Model: Non-Cohort Focused Program Timeline: One Year or More Physical Workspace: Provided to Startups under Support Development Focus: Creation-oriented (Capacity Building)
International Investor	Any type of investor (VC, angel, etc) that is based outside of Pakistan and not locally-focused.
International Investor (Angel)	An angel investor that is based outside of Pakistan.
International Investor (Other)	An investor that is not a VC or an angel and based outside of Pakistan.
International Investor (VC)	A venture capitalist that is based outside of Pakistan and not part of a locally-focused VC firm.

International Investor Type	A funding round in which all disclosed participating investors were international investors.
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.
Investor Type	Investor composition (ie. type of investors) across a funding round
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.
Local Investor	Any type of investor (VC, angel, etc) that is based in Pakistan and/or locally-focused.
Local Investor (Angel)	An angel investor that is based in Pakistan.
Local Investor (Other)	An investor that is not a VC or an angel and based outside in Pakistan.
Local Investor (VC)	A venture capitalist that is based in Pakistan and/or part of a locally-focused VC firm.
Local Investor Type	A funding round in which all disclosed participating investors were local investors.
Mixed Investor Type	A funding round in which disclosed participating investors include both international and local investors.
Network Cluster (NC) Startups	Startups with at least one founding team member who's a part of an identified network cluster.
Network Clusters	Prominent startups from which employees go on to found other companies. In the context of Pakistan, these would include Careem, Swvl, etc.
Non-Network Cluster (Non-NC) Startups	Startups where no founding team members are part of an identified network cluster.
Operator Investors	Operators at startups, organizations or companies that angel invest in startups.
Pakistani Startup	Startups with operations in Pakistan.
PK-Focused Investor/Locally-Focused Investor	Investors that may not be based in Pakistan, but primarily invest in Pakistan or explicitly include Pakistan in their thesis (eg. Kinnow VC).
Post-Money Valuation	A company's estimated worth after outside financing and/or capital injections are added to its balance sheet
Pre-Money Valuation	The value of a company before it goes public or receives other investments such as external funding or financing.
Pre-Seed	An early investment round, usually raised to help a (pre-product) startup with its initial foundation and operations. Pakistani startups typically raise between \$5,000 and \$6,000,000 at the Pre-Seed stage.
Pre-Series A	A mid-investment round, between Seed and Series-A. Pakistani startups typically raise between \$450,000 and \$11,000,000 at the Pre-Series A stage.
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.
Pro Rata Rights	A right that is given to an investor that allows them to maintain their initial level of ownership percentage during later financing rounds.

Quasi Equity	A hybrid form of finance with characteristics of both debt and equity investments
Round Size	The amount of money raised across all participating investors in a single deal.
Simple Agreement for Future Equity (SAFE)/SAFE Note	A convertible security that allows the investor to buy shares in a future priced round
Seed	An early investment round, usually raised to help a (pre-product) startup with its initial foundation and operations. Pakistani startups typically raise between \$15,000 and \$15,000,000 at the Seed stage.
Series A	An investment round that is usually a company's first significant round of venture capital financing. Pakistani startups typically raise between \$1,000,000 and \$11,000,000 at the Series A stage.
Series B	An investment round raised after Series A. Pakistani startups typically raise between \$13,000,000 and \$85,000,000 at the Pre-Series A stage.
Series C	An investment round raised after Series B.
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.
Startup(s)	A company legally defined* by the SECP as having the following characteristics: is in existence for not more than ten years from the date of its incorporation or such other period or periods as may be specified; and has a turnover for any of the financial years since incorporation that is not greater than five hundred million rupees or such other amount or amounts as may be specified; and is working towards the innovation, development or improvement of products or processes or services or is a scalable business model with a high potential of employment generation or wealth creation or for such other purposes as may be specified. *This definition may vary in other jurisdictions
Ticket Size	The amount of money put in by an investor in a deal.
Unspecified Angel	Unspecified angels that were part of an investment round.
Valuation	Refers to the analytical process of determining the current (or projected) worth of an asset or a company.
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 Capital Fund	A fund that provides venture capital financing using investors' money who often seek private equity in high growth startups.
Venture Capitalist	A venture capitalist (VC) is an investor that provides capital to firms exhibiting high growth potential in exchange for an equity stake.
Vulture Capital	Vulture capital is the act of buying up companies that are not doing well so as to turn them around and sell them for a profit Or alternatively, vulture capital is when investors ask for too high of equity in return for a relatively insignificant amount of funding.
Experienced Founder	Founders with either experience: Working in a prominent startup/ company; or Founding their own startup in the past

APPENDICES

APPENDIX A: LIST OF INTERVIEWEES

STARTUPS

Abrar Bajwa	Tazah
Adam Dawood	bSecure
Ali Moeen Malik	ezBike
Ali Shabbar	DeafTawk
Asad Hirjee	Airlift
Asma Salman Omer	Marham
Fahad Tanveer	Edkasa
Faizan Aslam	Bookme
Furquan Kidwai	Dawaai.pk
Halima Iqbal	Oraan
Ibrahim Shaukat	Dari Mooch
Iman Jamall	CreditBook
Lina Ahmed	Dot & Line
Maheen Adamjee	Dot & Line
Naureen Hyat	Tez Financial Services
Noor Shaukat	AimFit
Saif Ali	Dastgyr
Salman Gul	BridgeLinx
Salman Shahid	Kamayi
Sara Khurram	Sehat Kahani
Sarmad Farooq	Truck it in
Shazia Khan	Ecoenergy
Usman Javaid	Ricult
Yasir Memon	Jugnu

POLICY

Abdul Rahim Ahmed	Special Technology Zones Authority
Aisha Moriani	Ministry of Commerce
Assad Saeed	Securities and Exchange Commission of Pakistan
Badar Khushnood	P@SHA
Talha Bin Afzal	P@SHA

INVESTORS

Aatif Awan	Indus Valley Capital
Ali Mukhtar	Fatima Gobi Ventures
Amad Mian	Karavan VC
Anees Khawaja	GroundUp
Atif Azim	VentureDive
Christopher Schroeder	Next Billion Ventures
Faisal Aftab	Zayn Capital
Hiep Nguyen	Wavemaker Partners
Jonas Eichhorst	Tharros
Kalsoom Lakhani	i2i Ventures
Khurram Zafar	47 Ventures
Misbah Naqvi	i2i Ventures
Rabeel Warraich	Sarmayacar
Salman Chattha	(Previously) Sarmayacar
Shehryar Hydri	Deosai Ventures
Shoaib Malik	Walled City Co.
Suneel Gokhale	VentureSouq
Tina Daher	Shorooq Partner
Yashvardhan Kanoi	Alter Global

ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOS)

Asim Ishaq Khan	LMKT
Azfar Hussain	NIC Karachi
Jehan Ara	Katalyst Labs
Merai Syed	NIC Islamabad
Muhammad Yasin	Durshal (by KPITB)
Saad Idrees	Daftarkhwan
Salman Tariq	PITB Incubation Wing
Sidra Amin	Invest2Innovate
Uzair Shahid	Takhleeq
Vladimira Mesko Briestenska	Neem Exponential

ECOSYSTEM EXPERTS

Mubariz Siddiqui	Independent
Ozair Ali	Investment Expert

APPENDIX B: RECOMMENDATIONS

FINANCE
Engage local angel investors (as a means to unlock capital for early stage startups)
Ensure accessibility of deal flow to all interested investors (in addition to existing angel investors and VCs)
Develop bespoke programs for connecting potential investors with investment ready startups.
Offer taxation benefits to startup investors (on the same level as those received by investors in mutual funds/treasury bills)
Overhaul existing PE&VC regulations to encourage participation in startup investments on part of corporate investors and family officers.
Incentivize sector-based investments in startups to attract larger industry-based corporates/ organizations to invest (to benefit from the resultant transfer to knowledge and expertise)
Streamline due diligence process for the startup investment process in order to accelerate the pace as to which investors are able to close deals.
Reduce information asymmetry for international investors seeking to invest in local startups (to ensure that they can make investment decisions in consideration of the dynamics of the local ecosystem).
Ensure greater transparency in terms of how startup exits will be dealt with by the government (in terms of financial, governance and taxation treatments).
Improve clarity over existing clauses impacting mergers and acquisitions for startups (including the process by which a startup can list itself on the PSX, in the case of choosing an exit via IPO)

SUPPORT
Develop a specific model of support for specialized sector startups (such as those within the SaaS industry).
Update Investment readiness support modules to be line in existing trends followed by investors and increase emphasis on building up networks and rapports with investors/adjacent parties
Build the peer founder networking aspect of the support programs so that founders can continue to leverage a network of other founders and startups for guidance on their own ventures.
Encourage the launch of newer support models (such as venture studios, which allow for a specialized approach to building up startups including focusing on novel business models or certain sectors).
Tailor focus of development programs for newer startups and experienced founders respectively (such as having a development-oriented focus for new ventures while offering strategic guidance to startups that already have a degree of traction).
Engage existing startup founders to serve as mentors within support programs (for newer less experienced founders).
Provide prospective investors with guidance on navigating the startup landscape and highlight how they can potentially participate within the ongoing deal flows within the ecosystem.
Strengthen cohort selection practices in order to ensure that investment worthy startups (with latent potential) can be developed to succeed in terms of pitching to investors.
Focus the lens of University BICs to focus on market needs and establish deeper linkages with industry to identify emerging trends and best practices.

POLICY

Broaden scope of existing PE&VC regulations to encompass corporate investors investing in startups.

Establish clear direction on how startup exits will be treated on part of regulators (in terms of oversight and taxation)

Revise existing private fund regulations in order to allow angel investors and other HNWIs to invest as legally represented entities

Streamline existing processes to not require separate registration processes to be completed on part of one investor seeking to make multiple investments

Deploy a unified interface for investor verification between different regulatory entities.

Develop data protection protocols extending to government and private enterprises in order to ensure that data privacy and protection are upto investor standards.

HUMAN CAPITAL

Introduce upskilling initiatives through corporate and academic intervention to focus on skill-building, in addition to knowledge development.

Develop skill benchmarking practices to ensure that university curriculums are up-to-date with the talent needs of new ventures.

Portioning a dedicated learning and development budget for internally upskilling employees as new business needs arise.

Adapting training curriculum from tried-and-tested models globally and adapting them for the local workforce.

Focus on non-monetary incentives for ensuring employee retention (such as offering a differentiated workplace culture or flexible work schedules).

Allow for remote/hybrid working arrangements to accommodate employees who desire flexible working arrangements.

Focus on hiring talent via skill-based practicums/work task assignments in order to ensure talent-job role fit

Introduce experiential elements within university curriculums to build up talent receptiveness to the job requirements of working in a startup.

GENDER

Introduce diversity and inclusion-based initiatives/gender sensitivity orientations to orient employees towards being cognizant of social and gender norms.

Develop gender-specific talent acquisition programs for female talent for hiring to less represented roles (to improve diversity and enhance representation of female talent across the startup)

Provide accommodative arrangements for female employees with both familial and work commitments (such as flexible work schedules and daycare facilities)

Offer a remote working option for female employees who may be occupied with personal/health commitments.

Identify and engage appropriate mentors for female founders/investors starting out (potentially other female figures who have been successful in the same domain as their mentees)

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i2i VENTURES	i2i Ventures invests in early-stage technology-enabled startups solving big problems in Pakistan.
INDUS VALLEY CAPITAL	Indus Valley Capital help founders build the most transformative and impactful companies in Pakistan
HBL	HBL was the first commercial bank to be established in Pakistan in 1947. Over the years, HBL has grown its branch network and become the largest private sector bank in the country.
groundUp	A platform that invests in companies & startups that services the needs of industries on the verge of massive change through technological innovation.
	Investment syndicates for seed and early-stage start-ups & entrepreneurs
daftarkhwan	Daftarkhwan delivers state-of-the-art office infrastructure so you & your team focus purely on growing your business.
arbisoft	Arbisoft builds powerful digital solutions and experiences.

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PAKISTAN STARTUP ECOSYSTEM REPORT

2021