



Digital Entrepreneurial Ecosystem in Bangladesh

**How Bangladesh can build a
world-class digital ecosystem**



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Foreword by Erik Aas

CEO of Banglalink

Bangladesh envisions becoming a major global digital economy by the year 2021. With a vast youth population and increasing access to smartphones and the Internet, the country is poised and ready to pursue its digital journey. As Bangladesh's journey has just started, it is imperative to lay out the foundations for building a strong, self-sustaining digital ecosystem. Over the past few years, the country has digitalized at a rapid pace, giving rise to many disruptions. Recognizing these facts, Banglalink has come forward with

revolutionary tools to help shape the digital future of Bangladesh.

Banglalink started its journey in February 2005 and deployed its biggest digital transformation in the beginning of 2016 with the motto "Banglalink Going Digital." Soon after, we made smartphones available to the masses, and have been constantly working to increase Internet penetration throughout Bangladesh. Digital progress is one of Banglalink's key driving forces, underpinned by our values of collaboration, innovation, transparency, entrepreneurship, and customer focus.

Banglalink offers simpler digital services that make customers' lives more convenient. As part of our commitment to digitalization, we have sponsored the National Hackathon; made more than 25,000 government websites free for our subscribers; and, with the help of our ICT Division, started an IT Incubator to help young entrepreneurs. This vital progress goes hand in hand with digital disruption, and Banglalink is at the forefront of realizing the Government's goal of building a truly digital Bangladesh.

Banglalink believes that technological change and innovation have always been central to improved productivity and economic growth. Our initiatives help unleash the unbound opportunities of the digital world by engaging young people and enabling many basic users to access the Internet for the first time. We are recruiting talented people to help us become a more lean, agile, and digital organization. This will help us be more innovative and responsive when it comes to offering the best services to our customers.

To develop a strong digital ecosystem, all stakeholders have a part to play. As the country encounters more digital disruption, it will need young, innovative entrepreneurs to create a true digital ecosystem. Most of Bangladesh's population is young, talented, and ready to make an impact. Start-up ventures can be the key to making their dreams come true.

The first public-private IT Incubator in Bangladesh is a platform to help young entrepreneurs deploy their innovative ideas, unleash their potential, and get ready to make their mark in the digital world. In this way, it will help them contribute to the digital future of Bangladesh, making them responsible citizens of the country.

The *Digital Entrepreneurial Ecosystem in Bangladesh* white paper provides recommendations to various stakeholders, to engage them in creating a vibrant digital economy in the future. If every stakeholder works toward a common goal, it will not be long before Bangladesh's vibrant digital economy is an example for the whole world to follow.

We wholeheartedly support the Government's agenda and appreciate the Government's support in establishing the IT Incubator. The initiative is enabling young entrepreneurs to build remarkable digital innovations in many different sectors. Constant progress in this area will help Bangladesh become a fully digital country and a globally recognized middle-income economy.



Foreword by Dr. Soeren Grabowski

Head of Communications, Media & Technology Practice in CIS, A.T. Kearney

Although Bangladesh is just starting out on a digital entrepreneurial journey that could take a decade or more to complete, it has considerable potential. This vibrant country has a large and youthful population that is increasingly interested in digital technologies and services, fueling the development of a promising software and IT service sector.

The next step is for Bangladesh to wholeheartedly embrace innovation. Today, many digital start-ups are taking the safer and less-risky route, offering services rather than the new and original products required to build scalable businesses.

To encourage greater risk-taking and accelerate the development of a self-sustaining digital ecosystem, the private and public sectors both need to support aspiring digital entrepreneurs. In particular, founders need greater access to the expertise and funding required to develop robust businesses that employ people and export their products and services around the world. If start-ups have sufficient support, a virtuous circle will emerge and become self-sustaining. Successful digital entrepreneurs and investors will be able to mentor and back their successors, helping build dynamic digital clusters where the best concepts, products, and services receive the attention and funding they deserve.

In the 21st century, every economy needs dynamic digital start-ups. Across the globe, waves of innovation are creating opportunities and challenges for entrepreneurs and established businesses alike. New technologies—such as the Internet of Things, wearable devices, autonomous vehicles, 3D printing, and 5G mobile networks, together with advances in virtual reality, artificial intelligence, and robotics—will transform existing markets and create entirely new sectors in the business-to-consumer (B2C) and business-to-business (B2B) spheres. Agile start-ups tend to be better placed than established businesses to pursue these opportunities, but they still need the support of enterprises, universities, and policymakers. Recognizing this fact, leading digital companies and universities around the world are investing in and partnering with small, nimble businesses run by visionary entrepreneurs.

As international competition intensifies, Bangladesh needs to do more to cultivate its emerging entrepreneurial ecosystem. In particular, it needs to consider how public procurement, regulation, and investment can stimulate innovation and the development of scalable digital products and services. At the same time, Bangladesh's numerous small and medium-size enterprises urgently need to embrace the digital age, creating a vibrant home market for the country's start-ups while boosting the productivity of the national economy.

This paper draws on a diverse and expert group of sources to make recommendations for how Bangladesh can support its entrepreneurs and in doing so drive substantial socioeconomic benefits. We look forward to working with Banglalink, its holding company VEON, and other stakeholders, to help implement these recommendations and ensure that Bangladesh can fully harness the transformative potential of digitalization.

Executive Summary

Bangladesh needs a vibrant digital ecosystem to diversify and strengthen its economy, boost exports, create jobs for its large population of young people, and improve public services, such as healthcare and education.

Bangladesh has considerable potential. Its IT software and services sector is growing by about 50 percent per year in revenue terms and now employs more than 70,000 people. About 200 digital start-ups are launched each year in Bangladesh, taking the total, at the end of 2016, to about 1,000 businesses. However, A.T. Kearney estimates that one-third of these companies are actually small service providers rather than product companies. Furthermore, market experts note that about 80 percent of the digital start-ups in Bangladesh are only targeting the domestic market and do not have sufficient resources to innovate and reach scale. In general, these businesses seek to replicate Internet models that have worked elsewhere, taking advantage of the fact that most global Internet players are not yet present in Bangladesh.

Key drivers for developing the digital ecosystem

- **An expanding consumer market**

Bangladesh has a youthful population that is eager to embrace digital services, while average consumer spending is rising 11 percent annually (reaching US\$1,015 in 2016) and thanks to various government initiatives, 31 million people now use mobile financial services

- **Rising Internet use**

Thanks to the belated rollout of 3G services in 2013 and rising adoption of smartphones, the number of Internet users in the country had risen to about 19 million by the end of 2015, which represents about 12 percent of the population.

- **A young urban population with an appetite for digital services**

According to the US Central Intelligence Agency's World Factbook, about 34 percent of Bangladesh's 161 million people live in urban areas and about 45 percent are under the age of 25

- **Positive government action**

The Government's Digital Bangladesh *Strategy 2021* is harnessing digital technologies to improve public sector procurement and efficiency; drive the rollout of mobile financial services; and increase access to digital services, particularly in rural areas.

- **A growing support network**

Bangladesh has between five and 10 business incubators providing business programs, coaches, mentors, and co-working spaces, with several more in the process of being established. The country also has two conventional accelerators that provide seed funding and take equity, supplemented by more than 10 annual competitions, conferences, and hackathons, which provide idea generation, networking, and public relations opportunities.

Key challenges for developing the digital ecosystem

- **Limited availability of software developers**

There are only about 45,000 software developers in Bangladesh, meaning only three out of every 10,000 people are skilled in IT (compared to 17 in India). This results in intense competition between businesses for mature and high-quality IT specialists.

- **An immature digital market**

Internet penetration is still low in Bangladesh and the e-commerce market is only just emerging. Payza and T-Zone estimate it was worth only US\$50 million in 2015, or less than 2 percent of the formal retail market.

- **Very limited seed capital**

Since 2012, there have been only 18 disclosed venture capital investments in Bangladesh-based start-ups, worth a total of US\$68 million.

- **A lack of business and global market knowledge**

Most founders contend that universities do not provide high-quality IT education and that university courses are based on outdated curriculums and technologies, while suffering from a lack of qualified professors and teachers. They also call for accelerators and corporates to provide much-needed marketing and distribution support.

- **Key gaps in the regulatory framework**

Although the regulatory framework is becoming more robust, start-ups suggest that improvement is needed in a number of areas. Specifically, they believe regulations could support dealings with foreign markets, increase options for registering private stock companies, and remove obstacles preventing the development of online payment platforms.

Recommendations for key stakeholders

There are many different steps that Bangladesh's digital ecosystem can take to support start-ups and entrepreneurial activity. The research conducted for this paper suggests the country should prioritize the following measures.

For corporations

- Provide marketing and distribution support to start-ups as a part of incubation and acceleration programs.
- Develop easy and clear processes for commercial partnerships with start-ups.

For universities

- Collaborate more with international organizations and corporations.
- Add online IT, business administration, and product development courses into the curriculum.

For investors

- Launch seed venture capital funds and organizations, and the Bangladesh Government

¹ Source: IDC estimates

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- Include start-up team management capabilities as a major criterion for investment.

For entrepreneurs

- Focus initially on growing the customer base rather than generating revenue.
- Consider launching products in a more developed market first to help secure seed investment.

For incubators, accelerators and foundations

- Run programs for entrepreneurs focused on product development and customer acquisition.
- Organize networking events with industry experts and investors.

For the Government

- Provide seed investments to start-ups that win a place in an incubator or an accelerator.
- Launch a public fund to provide low-cost financial resources for professional venture capital funds registered in Bangladesh.
- Make it easier for local and foreign funds alike to perform early-stage investment deals in Bangladesh.
- Further improve the ease of doing business.
- Strengthen intellectual property rights to keep tech companies in the country.
- Develop co-working spaces for young entrepreneurs and provide tax and legal support.
- Work with the industry to develop high-quality supporting infrastructure in the form of incubators and innovation centers.
- Stimulate the B2B market by applying tax incentives for companies that make greater use of digital technologies.
- Develop a procurement framework for government information and communications technology (ICT) projects that gives local entrepreneurs the opportunity to collaborate with large ICT corporates.

If the key actors in Bangladesh take the steps outlined above, the country's digital ecosystem could make a major leap forward, fueling socioeconomic progress, creating jobs, and boosting exports.

1 Introduction

1.1 Why Bangladesh needs a vibrant digital entrepreneurial ecosystem

Bangladesh's economy has undergone a major transformation over the past two decades. With the rapid expansion of the garment industry, the country has seen a sustained increase in per capita income, and according to the International Monetary Fund, poverty has nearly halved since 1990.

However, Bangladesh is overly dependent on the clothing industry and agriculture for exports and employment respectively; garments accounted for more than 80 percent of total exports, surpassing US\$25 billion in 2015. Despite this, more than half of gross domestic product (GDP) is generated through the service sector and almost half of Bangladeshis are employed in the agriculture sector, where rice is the single most important product.

It is clear that Bangladesh needs to further diversify its economy. One of the most effective ways to do that would be to create a vibrant entrepreneurial ecosystem that can harness the country's growing IT expertise to meet the rising demand for digital products and services, both in Bangladesh and abroad.

Entrepreneurs can be powerful engines of economic growth. In the United States, for example, companies originally backed by venture capital now account for 43 percent of public corporations and 57 percent of the total market capitalization of public companies. As well as boosting the economy by developing jobs and skills, the digital applications that emerge from an innovative ecosystem could help Bangladesh address important social and environmental challenges—improving efficiency, reducing waste, and enhancing healthcare, education, and other public services, while helping to serve difficult-to-reach segments of the population. For example, connected sensors can be used to make irrigation systems more efficient, and mobile phone apps and messaging can help healthcare providers organize vaccination programs.

1.2 Objectives and methodology for this paper

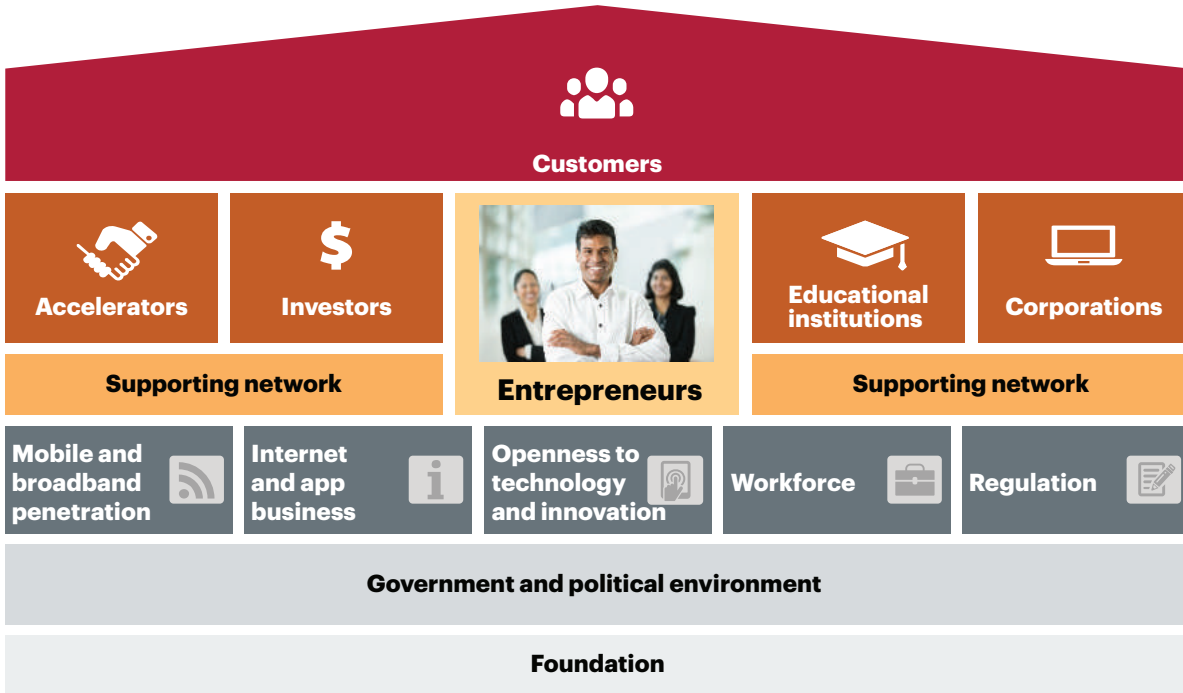
This paper was produced to drive support for Bangladesh's digital economy. It analyzes the country's existing digital entrepreneurial ecosystem, pinpointing its strengths and weaknesses, before making a number of recommendations for different stakeholders in the digital ecosystem. The analysis presented in this paper is based on a framework (shown in figure 1) illustrating the different elements of an entrepreneurial digital ecosystem.

This paper presents key findings from research conducted by A.T. Kearney and VEON for Make Your Mark, the flagship CR program for international telecom operators. Through Banglalink, Make Your Mark is a major player in Bangladesh's digital economy. A.T. Kearney interviewed key market experts, including government representatives, educational institutes, investors, ICT companies, and entrepreneurs, as well as, senior executives at Banglalink. It also conducted an online survey of 62 start-ups.

This paper draws on the views of these market experts and participants, together with data obtained from third-party sources, such as the World Economic Forum, the International Telecommunication Union, and industry analysts, to present insights into how Bangladesh can expand its nascent digital ecosystem.

Figure 1: How entrepreneurs fit into a successful digital ecosystem

Digital entrepreneurial ecosystem framework



2 Bangladesh’s Digital Foundations

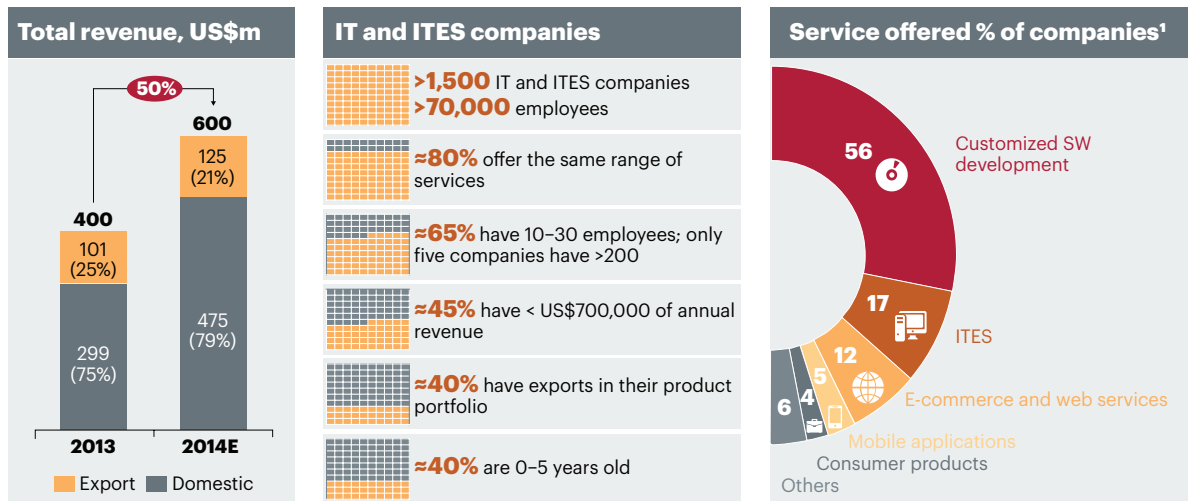
This chapter describes the key characteristics of Bangladesh’s existing digital ecosystem, highlighting both its strengths and weaknesses.

2.1 A large supply of low-cost IT professionals

Bangladesh has a fast-growing IT services sector, underpinned by the availability of low-cost labor and government support. The sector’s total revenue leapt 50 percent in 2014, to US\$600 million. The country has more than 1,500 IT and IT-enabled service (ITES) companies employing more than 70,000 people (see figure 2). Although about 40 percent of these companies export their services, most are still small; two-thirds of them employ 30 people or fewer, and almost half have annual revenues of less than US\$650,000. Moreover, despite rapid growth in recent years, Bangladesh’s domestic ICT service market is still modest, generating US\$475 million in revenue per year).

Figure 2: Bangladesh has a fast-growing IT services industry

Digital start-ups operating in 2016¹



Source: BASIS Survey 2014, Market experts interview, A.T. Kearney

Research firm IDC has estimated that there are 45,000 software developers in Bangladesh, meaning only three out of 10,000 people are skilled in IT (compared to 17 in India). This creates intense competition between businesses for mature and high-quality IT specialists. Market experts say that Bangladesh’s universities do not supply enough engineers and developers, while graduates are generally not competent enough to start working and typically need one or two years of training.

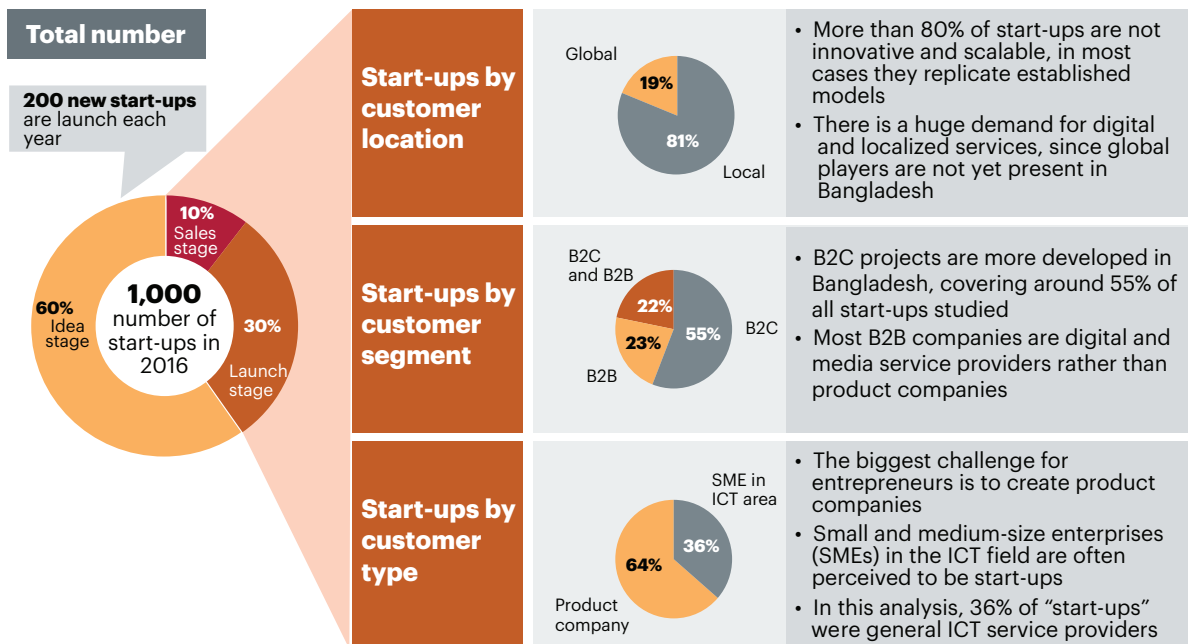
2.2 A growing base of digital start-ups

About 200 digital start-ups launch each year in Bangladesh, taking the total at the end of 2016 to about 1,000 businesses (see figure 3). However, about 600 of these start-ups have yet to progress past the idea stage. Moreover, A.T. Kearney estimates that one-third of these 1,000 companies are actually small service providers, rather than product companies. Furthermore, market experts estimate 80 percent of the digital start-ups in Bangladesh are only targeting the domestic market and are not sufficiently innovative to scale. In general, these businesses seek to replicate Internet models that have worked elsewhere, taking advantage of the fact that most global Internet players are not yet present in Bangladesh.

¹ Source: IDC estimates

Figure 3: Most start-ups have yet to develop a sustainable business

Digital start-ups operating in 2016¹



Source: Crunchbase, FSindex A.T. Kearney

In Bangladesh, more than two-thirds of start-ups are launched by people with a professional background, while 40 percent of founders have start-up experience, and 70 percent speak English fluently. Many of the start-ups launched in Bangladesh are in popular consumer segments such as e-commerce and delivery, marketplaces, and e-transportation (see figure 4). Government initiatives are promoting the adoption of e-health and e-learning services, and start-ups offering localized content in these areas are growing.

However, business development is being held back by a shortage of seed funding, a lack of supporting networks, monetization difficulties, limited local market potential, and various barriers to scaling abroad.

¹ Source: IDC estimates

Figure 4: Most start-ups in Bangladesh focus on local consumer segments

Digital start-ups operating in 2016¹

Digital segment	Total number of start-ups	Number of product companies	Portion of work dedicated to local projects (%)	
Services	E-commerce and delivery	42	93%	
	E-transportation	10	100%	
	E-health	9	6	89%
	E-learning	17	6	76%
	E-finance	5	5	80%
	E-travel	6	1	83%
	Classifiers	9	9	89%
	Communication & social platforms	5	5	100%
	Content (video, music, games)	13	11	54%
	SaaS and IaaS	2	0	50%
	Other (software-related)	35	4	69%
Transaction platforms	Payment platforms	2	1	100%
	Advertising and big data	11	0	82%
	Marketplaces (many-to-many)	19	19	84%
Internet of Things	Smart homes	0	0	0%
	Smart industry	5	2	60%
Total	190	121	81%	

Source: Crunchbase, FSindex, A.T. Kearney (includes 190 start-ups that are more than 12 months old)

2.3 A shortage of venture capital

One of the biggest bottlenecks in the entrepreneurial ecosystem is a shortage of venture capital, bank loans, and other funding facilities. More than 85 percent of founders contend that it is difficult or impossible to secure venture capital or bank finance. None of the six to 10 local private equity and venture capital funds specialize in seed funding. Moreover, Bangladesh does not yet have a culture of angel investing—only 22 percent of founders said it is possible to get funding from business angels, and those who do tend to receive a small amount (US\$10,000–20,000). Foreign investors regularly scan Bangladesh, but entrepreneurs face intense competition for funding from their counterparts in India, Pakistan, and Indonesia.

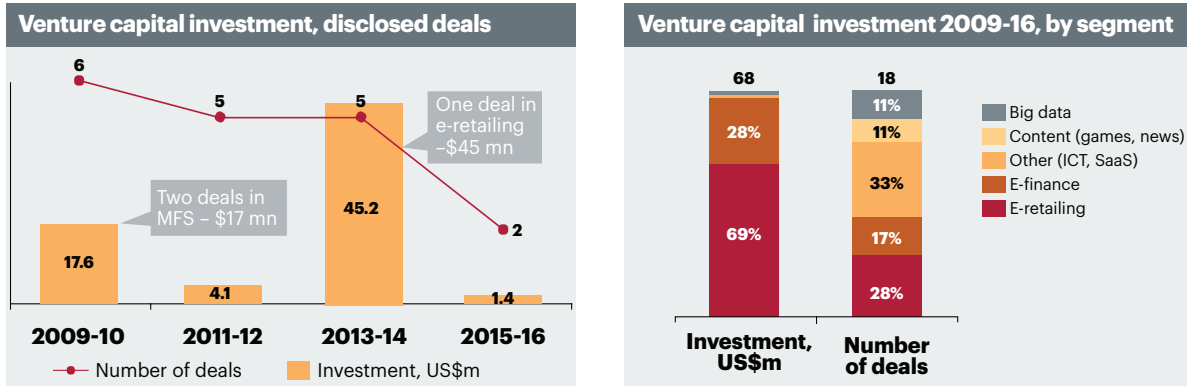
Since 2012, there have been only 18 disclosed venture capital investments in Bangladesh-based start-ups, worth a total of US\$68 million (see figure 5). All of these investments were seed deals, and the vast majority of funds went into e-retailing or e-finance start-ups. The venture capital market is volatile and driven by large-scale programs, such as the countrywide launch of mobile financial services in 2009–2011 and the emergence of e-commerce in 2013. Each deal involved different investors, and 50 percent of them were foreign institutions.

In Bangladesh, most founders rely on their own money or that of family and friends. Some entrepreneurs launch a regular business, such as an IT outsourcing company, to generate cash to fund their own start-up. Although the Government has launched a few programs—including the Innovation Fund for R&D in academia—to provide early-stage funding, there is lack of awareness about these opportunities.

¹ Source: IDC estimates

Figure 5: Bangladesh has an underdeveloped capital industry

The venture capital investment market¹



Source: Crunchbase, A.T. Kearney

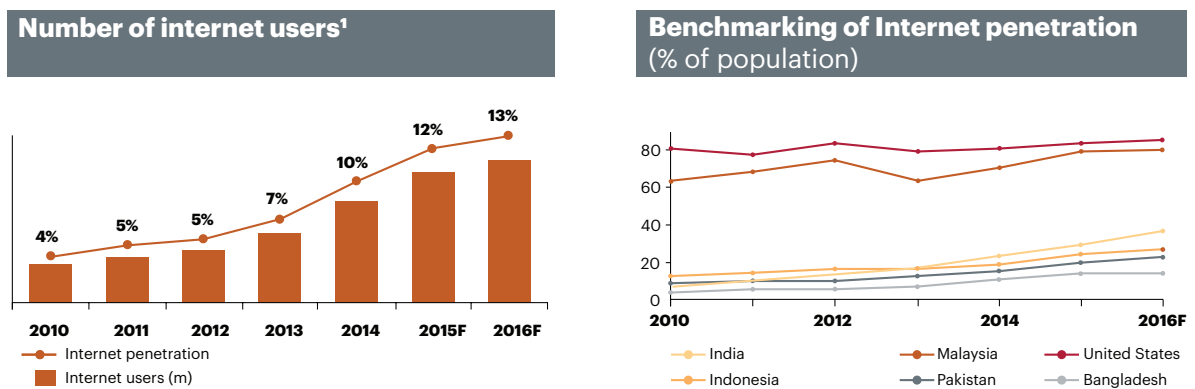
2.4 An expanding consumer market

Although most of the population remains offline, demand for digital services and technologies is rising in Bangladesh. Thanks to the belated rollout of 3G services in 2013, the number of Internet users in the country rose to about 19 million by the end of 2015 (see figure 6), which represents about 12 percent of the population. In terms of Internet penetration, Bangladesh lags behind other Asian countries at a similar stage of development, such as India and Indonesia.

As a result, the e-commerce market is only just emerging: Payza and T-Zone estimate it was worth only US\$50 million in 2015 (less than 2 percent of total retail) and most online shoppers are in the vicinity of Dhaka. Today, according to a survey by LightCastle Partners, 77 percent of online shoppers are young professionals or university students, and one-third have a monthly income of US\$420.

Figure 6: In terms of Internet penetration, Bangladesh lags behind other developing countries in Asia

Mobile and broadband Internet penetration



Sources: Internetlivestats, based on ITU, EIU, A.T. Kearney

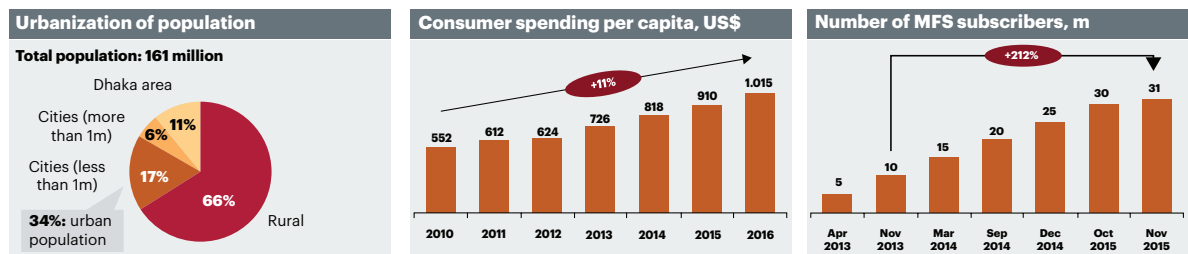
¹ Source: IDC estimates

However, the rising adoption of smartphones is driving the development of a broader consumer market for digital services. Fixed broadband penetration is insignificant in Bangladesh; smartphones are the primary way people get online. During 2015, the number of smartphone users in Bangladesh increased by 3.1 million to reach 8.2 million at the end of the year.

Bangladesh is laying the foundations for a strong B2C digital services market. Bangladesh’s urban population is growing steadily, and average consumer spending is rising by 11 percent annually (reaching US\$1,015 in 2016). Thanks to various government initiatives, 31 million people now use mobile financial services (see figure 7). However, the use of mobile financial services in e-commerce remains low, accounting for just 10 percent of online purchases, while cash-on-delivery payments account for 75–80 percent of online purchase.²

Figure 7: Bangladesh’s consumer market shows considerable potential

B2C customer market size



Source: The World Bank, Retail Planet, Bangladesh Bank, A.T. Kearney

2.5 A fragmented, but promising business market

The vast majority of Bangladesh’s businesses are SMEs, specializing in wholesale and retail, transportation and storage, and manufacturing. In fact, more than 99 percent of the country’s 7.8 million businesses are SMEs. Furthermore, only 35 percent of companies are registered officially, and 70 percent are located in less-accessible rural areas. Bangladesh’s businesses tend to make limited use of technology. For example, 60 percent of manufacturing companies still use hand-operated machinery.

Most businesses would benefit from adopting digital services, the B2B market presents particular opportunities for start-ups, particularly in the retail, banking, public service, and agricultural sectors. For example, digital technologies can be used to remotely control machinery, monitor property, and check stock levels. The Government is encouraging greater digitalization by promoting electronic finance solutions to businesses.

Digital platforms can also make it easier for buyers and sellers to find each other. In many countries, adoption of these tools is growing rapidly. For example, analysts at Kantar Retail forecast that online B2B marketplaces serving the fast-moving consumer goods sector in China and targeting traditional trade retail stores are set to handle transactions worth 330 billion yuan (US\$48 billion) in 2018, up from 40 billion yuan in 2016.³

² Source: Counterpoint Technology Market Research

³ According to [Kantar Retail report](#)

2.6 An improving regulatory and legal environment

According to surveys conducted by the World Economic Forum, Government efficiency in Bangladesh, is low, and lags behind other countries in the Asia Pacific region. At the same time, the ease of doing business is regressing each year. However, the Government is taking steps to address the perception among businesspeople that Bangladesh is a difficult market in which to operate. In 2010, the Government adopted the *Digital Bangladesh Vision 2021 Strategy*, which has led to:

- The introduction of e-government procurement mechanisms that enable equitable access to domestic and international markets
- The rollout of e-payment and mobile banking services to lower the cost and complexity of doing business
- The implementation of an e-filing system in ministries and government divisions to increase transparency and ensure efficiency
- The launch of an instant messaging app for 1.4 million government officials, facilitating the exchange of data
- The establishment of the Bangladesh Hi-Tech Park Authority and 30,000 e-learning labs to promote ICT education and support university–industry collaborations
- The launch of a digital university and the “Bangladeshi Women through ICT” initiative to incorporate ICT in education and e-learning
- The rollout of 3G services and establishment of 5,275 Union Digital Centers in rural areas, to ensure wider access to digital services (such as through shared ICT access points in public locations)

However, the Government has yet to address obstacles that deter investment, such as the ban on Bangladesh-based companies financing overseas subsidiaries.

3 Available Support for Entrepreneurs

This chapter describes the existing infrastructure that aspiring entrepreneurs in Bangladesh can tap into to help them establish and develop digital businesses. Again, it considers both the strengths and weaknesses of the existing ecosystem.

3.1 Incubators, accelerators, and networking

Bangladesh has a small, but growing support network for digital entrepreneurs. Between five and 10 business incubators provide business programs, coaches, and mentors, and co-working space, and several more are in the process of being established. These incubators are generally

⁷ In 2016, the World Economic Forum ranked Bangladesh 174 worldwide on ease of doing business.

⁸ Source: Dhaka Tribune

sponsored by the Government, small ICT and media companies, and international foundations. Bangladesh also has two conventional accelerators that provide seed funding and take equity. Market experts say the key barriers facing would-be accelerators are the lack of exit options, a shortage of scalable ideas, and the limited number of specialists with venture investment knowledge.

Start-ups can also take advantage of more than 10 annual competitions, conferences, and hackathons, which provide idea generation, networking, and public relations opportunities. The StartUp Cup is the biggest competition, attracting more than 400 applications in 2015, and Digital World is the biggest ICT event in the country. Several ICT and media companies also serve as informal consultants, coaches, and mentors. They also drive many of the ecosystem initiatives. There are more than 10 non-government organizations and foundations promoting a culture of entrepreneurship and innovation in Bangladesh, while providing business education to students. Moreover, the Government is planning to launch an Entrepreneurship Academy in Dhaka. And to address the shortage of co-working spaces, the Government has started sponsoring co-working spaces and incubators.

3.2 Collaboration between universities and industry

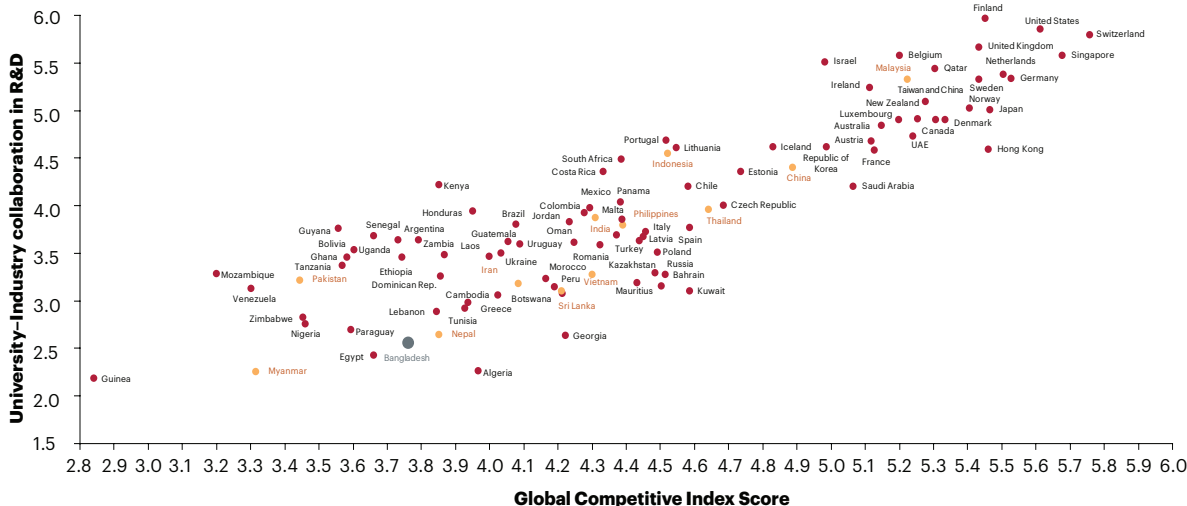
Collaboration between universities and industry helps businesses innovate, adapt to change, and become more globally competitive. It can also help universities fund more research and commercialize their innovations. In fact, there is a strong correlation between the degree of collaboration between academia and enterprises and a country’s overall competitiveness, according to indices produced by the World Economic Forum (see figure 8).

Bangladesh’s capacity for innovation has improved markedly since 2010. However, according to the World Economic Forum’s indices, the country continues to trail well behind Malaysia, Indonesia, India, and Pakistan in this ranking and in numbers of patent applications. In this respect, Bangladesh appears to be held back by a low level of collaboration between the higher-education sector and business; outdated university curriculums and technologies; and well as a shortage of qualified professors and teachers.

Figure 8: A strong correlation between university-industry collaboration and overall competitiveness

Quality of university educational programs

Correlation between Global Competitiveness Index score and university-industry collaboration in R&D



Source: World Economic Forum

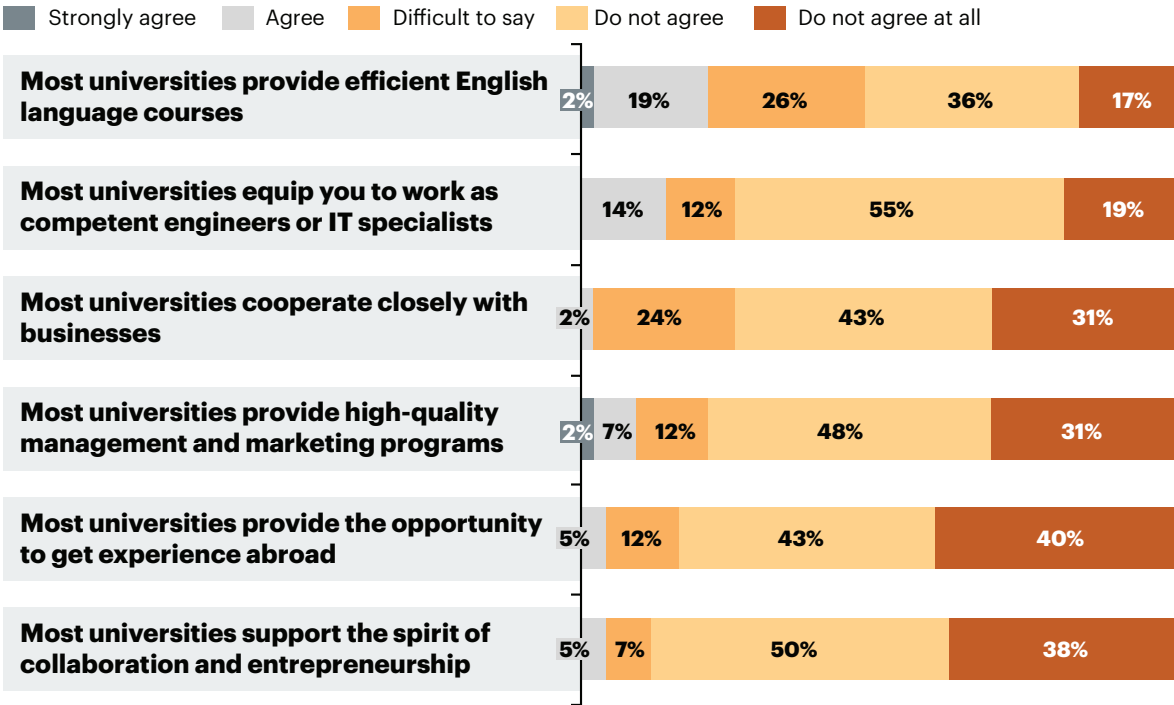
Bangladesh has about 90 private universities, half of which have ICT faculties, and 70 public universities, some of which also provide ICT courses. However, 74 percent of start-up founders contend that universities do not provide a high-quality IT education. Many contend that university courses are based on outdated curriculums and technologies, and suffer from a lack of qualified professors and teachers.

Moreover, most local start-ups believe that Bangladesh’s higher-education sector is not collaborating sufficiently with businesses. Almost 90 percent of start-up founders say that universities do not support a spirit of collaboration and entrepreneurship (see figure 9)*. Furthermore, a lack of understanding of the business landscape and limited business acumen is holding back first-time entrepreneurs, who complain that universities do not provide efficient business courses or sufficient support for entrepreneurship. Perhaps the most glaring gap is the failure of technical faculties to include marketing and business courses in their curriculums.

Many start-ups are unsatisfied with the engineering, IT education, and English language courses Bangladesh’s universities currently provide (see figure 9).

Figure 9: Entrepreneurs believe higher education is not providing enough support

Quality of universities’ educational programs



Source: A.T. Kearney survey of 62 start-ups in Bangladesh

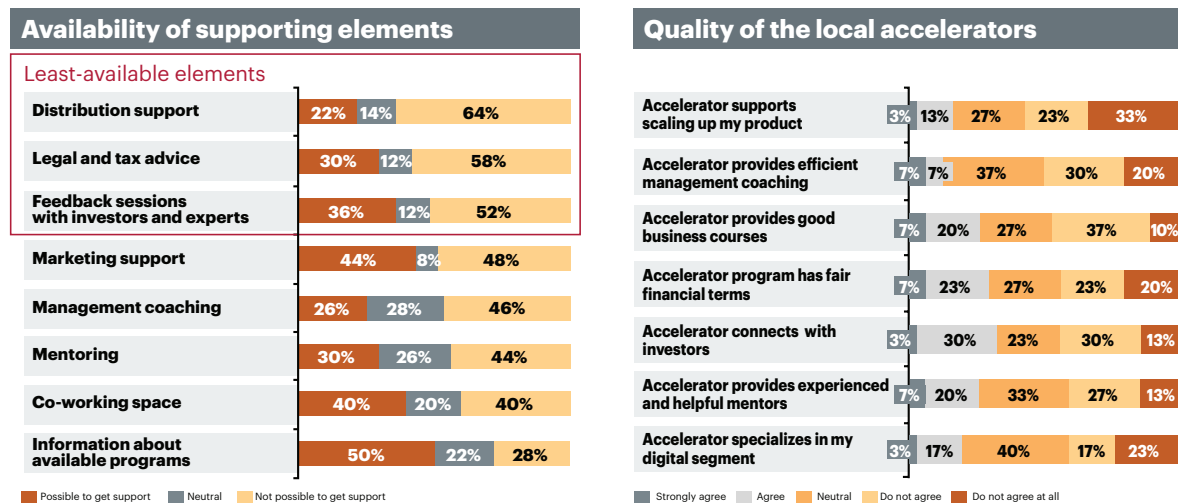
To address these issues, the Bangladeshi Government has launched special training programs and labs for teachers, and postgraduate training for students.

3.3 Start-up priorities: distribution and marketing support

Asked what support they need to expand their businesses, Bangladesh’s entrepreneurs prioritized help with distribution, legal, and tax issues—reflecting the fact that most start-ups in Bangladesh involve consumer markets and e-commerce—and the challenges presented by the country’s bureaucracy. Moreover, start-up founders would welcome more feedback sessions with investors and experts that can give them advice on specific market segments (see figure 10).

Figure 10: Entrepreneurs call for more support with distribution, legal issues, and tax

Availability and quality of industry support



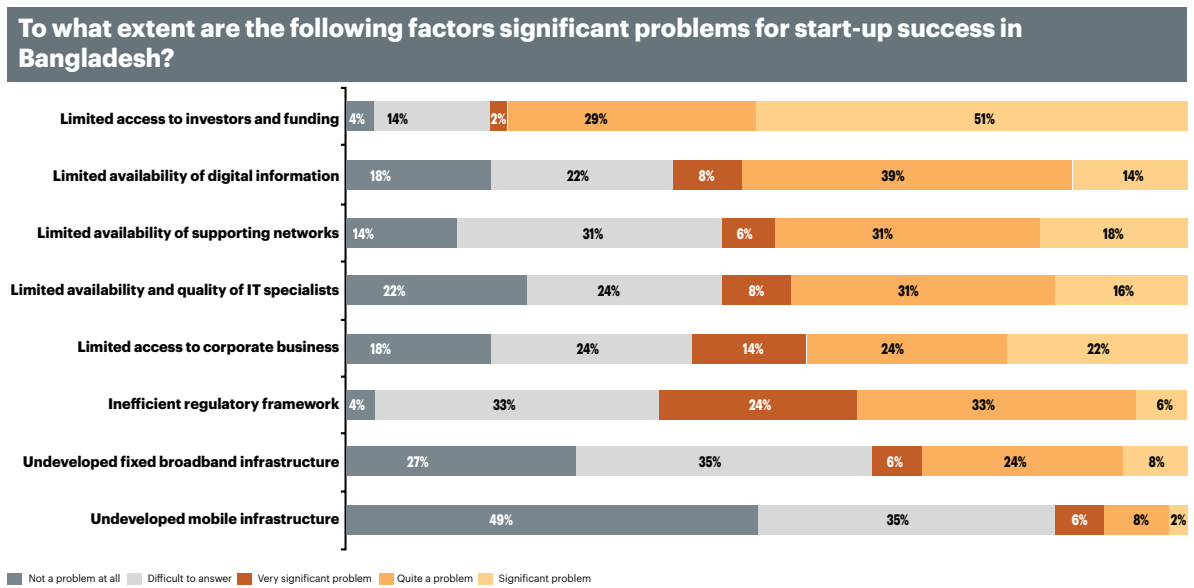
Source: A.T. Kearney survey of 62 start-ups

4 Conclusions and Recommendations

In summary, Bangladesh’s digital entrepreneurial ecosystem is still very nascent. The biggest issue today is the shortage of funding; nearly all founders identify limited access to investors as a significant problem. However, many entrepreneurs are also concerned about the limited availability of digital information and support networks, such as incubators and co-working spaces, particularly outside Dhaka (see figure 11). Moreover, founders also complained about skill shortages, access to corporations, difficulties in scaling abroad, and limited monetization mechanisms, partly because of legal barriers blocking some online payment services, such as PayPal.

Figure 11: Limited access to funding is the biggest barrier identified by digital entrepreneurs

Market barriers to entrepreneurs



Source: A.T. Kearney survey of 62 start-ups

4.1 Building a self-sustaining digital ecosystem

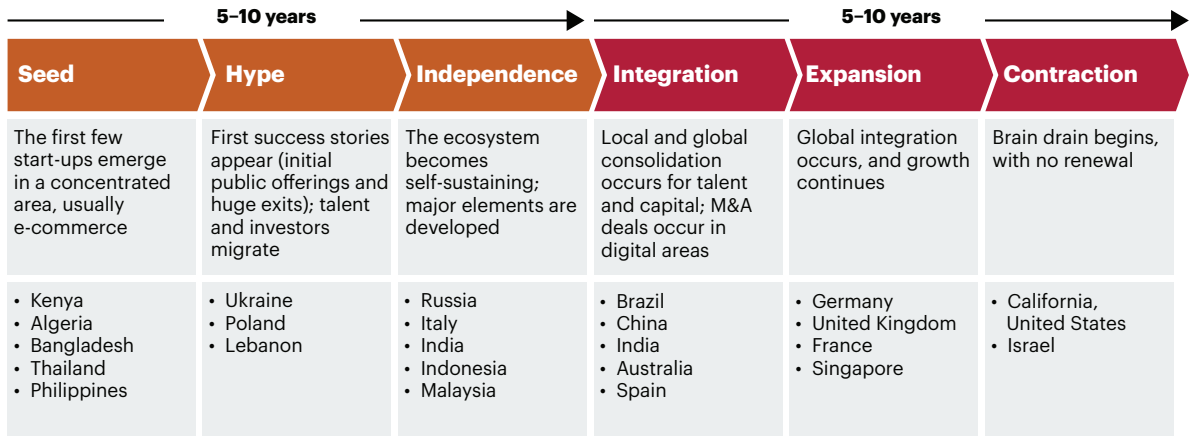
According to A.T. Kearney analysis, it typically takes between five and 10 years for countries to build a self-sustaining digital entrepreneurial ecosystem. If the digital ecosystem in Bangladesh continues to develop at its current pace, it will not be self-sustaining before 2025 (see figure 12). The global trend toward digital entrepreneurship, the demand for digital technologies to improve basic services such as healthcare and education, and the availability of low-cost smartphones will drive this baseline scenario. Although Bangladesh would benefit from broader adoption of digital technologies, it would continue to lag behind regional peers.

Bangladesh could accelerate the development of a self-sustaining digital entrepreneurial ecosystem if the Government further expanded the scope and scale of its digital strategy to encourage innovation, infrastructure development, entrepreneurship, and international collaboration. Section 4.2 details the potential elements of such a strategy.

Bangladesh has considerable potential. With a large and youthful population and growing IT expertise, Bangladesh has the human resources it needs to build a vibrant digital start-up ecosystem that could ultimately compete with those in the world’s leading economies.

Figure 12: It typically takes 5-10 years to build a self-sustaining entrepreneurial ecosystem

Evolution of a start-up



Source: VEON report, *Enabling Entrepreneurs in a Mobile World*, 2014, A.T. Kearney

4.2 Recommendations for key stakeholders

This section outlines the steps each group of stakeholders could take to support the development of Bangladesh’s digital entrepreneurial ecosystem. They are written in order of priority.

Recommendations for corporations

- Provide marketing and distribution support to start-ups as part of incubation and acceleration programs or through commercial partnerships.
- Develop easy and clear processes for commercial partnerships with start-ups, providing guidance on how they can become involved in corporate operations.
- Participate in ecosystem events, such as conferences and networking forums, targeted at start-ups.
- Provide access to application programming interfaces (APIs), digital toolkits, and testing zone start-ups for use in developing products and services.

Recommendations for universities

- Collaborate closely with industry through internships, joint R&D centers, and other mechanisms.
- Incorporate international online courses in IT, business administration, and product development into the curriculum.
- Provide co-working offices for entrepreneurs.

Recommendations for investors

- Launch seed venture capital funds in cooperation with international funds and organizations, and the Government.
- Include start-up team management capabilities as a major criterion for investment.
- Strengthen the network of venture capital professional analysts by sharing knowledge about digital start-up evaluation models and tools.

Recommendations for entrepreneurs

- Focus initially on growing the customer base with a view to disrupting the local market rather than generating revenue.
- Consider launching a product or service in a developed market initially, to help secure seed investment from investors in that market.

Recommendations for incubators, accelerators, and foundations

- Run programs for entrepreneurs focused on two topics: product development and customer acquisition.
- Organize networking events with industry experts and investors.
- Organize training centers for coaches and mentors.
- Collaborate with international organizations to access global expertise.

Recommendations for the Government

The chronic lack of venture capital in Bangladesh is a major bottleneck for the development of the country's digital ecosystem. To alleviate this problem, the Government could:

- Provide seed investment to start-ups that win a place in an incubator or an accelerator.
- Launch a public fund to provide low-cost financial resources for professional venture capital funds registered in Bangladesh.
- Change legislation to make it easier for local and foreign funds alike to perform early-stage investment deals in Bangladesh.

Bangladesh could benefit from simplifying and streamlining its regulatory framework. To that end, the Government could:

- Further improve the ease of doing business — for example, by introducing a corporate law to enable the establishment of private stock companies
- Strengthen intellectual property rights to keep tech companies in the country, while establishing technology transfer offices at research centers
- Introduce a special taxation regime for risk-taking start-ups, such as a two-year tax exemption

The Government can encourage the development of a digital start-up ecosystem by:

- Developing co-working spaces for young entrepreneurs and providing tax and legal support
- Working with industry to develop high-quality supporting infrastructure incubators and innovation centers.
- Driving demand for innovations—for example, by initiating accelerators that support digital governance services in education, health, and administrative services.

Many developed countries use incentives to encourage consumers and businesses to adopt of digital technologies boosting the accessible market for start-ups' digital products and services. In this respect, the Government could:

- Educate people to use new technologies, through training sessions run by international and local volunteers
- Stimulate the B2B market by offering tax incentives for companies that make greater use of digital technologies
- Develop a procurement framework for government ICT projects that gives local entrepreneurs opportunities to collaborate with large ICT corporates.

4.3 Learning from international experience and examples

Bangladesh can learn from other countries that are further along the road to building a self-sustaining digital ecosystem. For example, Estonia has demonstrated how a broad mix of policy levers can be used to nurture a vibrant digital entrepreneurial ecosystem. First and foremost, since 2000, Estonia has spent 1 percent of national GDP on digitalizing government services so that they can be accessed through a mobile ID system, and much of that work has been allocated to start-ups. Secondly, Estonia has established public venture capital funds that partner with private investors, and has created a special credit program to support the export of innovative products. Thirdly, Estonia has increased its capacity for innovation by tailoring its education system to the needs of the market, creating start-up visas and e-residence status for foreign entrepreneurs, and investing in accelerators and start-up boot camps. Finally, Estonia's government has made the country an attractive place to do business by reforming taxation and employing digital technologies to streamline its bureaucracy.

Bangladesh could also learn from the way China has increased the quality of its business incubators by applying rigorous standards to management and operational policies and the services offered to start-ups. Between 2005 and 2008, the number of technology business incubators in China increased from 534 to 670, and the number of tenants graduating from these incubators doubled from 15,815 to 31,746. To help these start-ups develop, China also focused on attracting foreign actors (investors and venture capital professionals) and supporting the exchange of R&D between foreign and local players.

On the demand side, Kenya offers a case study in how Bangladesh could reduce the high cost of mobile phones and digital services. Recognizing that mobile handset prices represented a barrier to the development of the mobile sector, the Kenyan government exempted handsets

from VAT as of June 2009. By the second quarter of 2011, mobile penetration had grown to 70 percent, up from 49 percent two years earlier.

Public and private agencies can also take more tactical steps to bolster financial and digital literacy among key segments of the population. In 2011 in South Africa, a non-profit organization, One Global Economy, in partnership with the Citi Foundation, began offering street vendors in-person training workshops at computer centers throughout Johannesburg and at public libraries in Durban. Participants are taught to conduct online research and access relevant resources to improve their business planning. They are also taught marketing and leadership skills, and how to use the Internet on mobile devices. During 2012–13, more than 50 percent of the 300 participants began to monitor their bank accounts online and/or through SMS alerts, while more than 75 percent accessed multiple online government and local services providing educational and financial support.

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About A.T. Kearney

A.T. Kearney is a leading global management consulting firm with offices in more than 40 countries. Since 1926, we have been trusted advisors to the world’s foremost organizations. A.T. Kearney is a partner-owned firm, committed to helping clients achieve immediate impact and a growing advantage on their most mission-critical issues. For more information, visit www.atkearney.com.

About VEON

VEON has undergone a profound transformation since the new leadership team initiated the company’s evolution from a pure telecommunications operator into a world-class communications and digital service provider. In February 2017, the company rebranded as VEON. This, and the secondary listing in Amsterdam in April 2017, mark the latest steps in this transformation strategy. VEON is the new name of the company and of its new personal digital platform, which VEON intends to deploy across all its markets in the coming year. With an increased free float of 24.1 percent and shares listed and traded on the NASDAQ and Euronext Amsterdam, VEON serves more than 240 million customers across 13 markets. The core communications and connectivity services VEON provides are recognized as key drivers of social and economic development. By accelerating its digital strategy alongside the core business, VEON intends to develop innovative, disruptive technologies to deliver new services and drive growth. The company remains firmly committed to the wellbeing of the communities it serves. VEON can transform lives with its new innovative digital services, and hopes to continue delivering a positive, lasting and sustainable impact in the markets it operates within.

About Banglalink

Banglalink, a subsidiary of the Netherlands-based company VEON Ltd., is one of the leading digital communications service providers in Bangladesh, with more than 31 million subscribers. For more information, visit www.banglalink.net

About Make Your Mark

Make Your Mark is a groupwide program launched by VEON in 2014, focused on “helping young people shape their future.”

Make Your Mark enables VEON to make a significant positive impact on society by involving all of the group’s businesses in contributing initiatives and projects under a common theme. It incorporates ongoing projects, but is also leading to the creation of many more.

The aim is to help the next generation find solutions to the challenges the future will bring, such as climate change, resource scarcity, population growth, and the pressure these will put on access to essentials, including healthcare, education, employment, and food. The goal of Make Your Mark is to empower young people to make a positive difference through inspiring social entrepreneurship—particularly in the digital arena—and enabling increased access to education.

