INSIGHT

Giving High-Impact Startups a Push in Cambodia

Agritech can aid poverty reduction in Cambodia, as many of the poor are engaged in the rural sector. Photo credit: ADB.

Tech startups in agriculture, education, environment, and health have high potential for social impact but need a supportive ecosystem to thrive.

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Introduction

The rise of technology-oriented startup enterprises (tech startups) over the past 15 years has been phenomenal. By developing new technologies to deliver innovative products or services, they are helping drive the rapid digital transformation of economies and societies in Asia and around the world.

These startups have become an important part of the business landscape in Asia and the Pacific. However, many tech startups may not last long. A better understanding of the startup ecosystem is needed to help them flourish and become commercially viable businesses.

A report by the Asian Development Bank (ADB) assesses the tech startup ecosystem in Cambodia. It focuses on four areas that have potential for success and strong developmental impact: agriculture technology (agritech), which can support the rural poor; education technology (edtech) and health technology (healthtech), which can both assist in human capital formation; and environmental technology (greentech or cleantech), which contributes to environmental sustainability and climate change mitigation. The ADB study discusses the challenges facing these startups and identifies
strategies that could help them survive and thrive.

Four Areas with Strong Potential

In Cambodia, tech startups emerged in the early 2010s, growing from less than 50 in 2013 to around 300 by 2018. Majority are involved in financial technology, media and advertising, e-commerce, development services, and digital marketplaces. Those in the fields of agriculture, education, environment, and health are small and in the early stages of development, but their number has grown over the past few years.

Agritech

There is untapped opportunity in rural areas for agritech. Innovative solutions in agriculture include several agritech projects initiated by development partners. For example, Oxfam’s BlocRice is using blockchain technology for organic rice on the Amru Rice trading platform. The blockchain application provides farmers with information on their supply chain and verifies contract conditions, helping confirm correct and timely cashless payment by buyers.

As of 2021, there were more than 10 active agritech startups in Cambodia from less than five in 2018. Given the interest of government, development partners, large-scale farmers, and the presence of sector-specific incubators, there is potential for agritech’s future growth.

Edtech

The growing education sector and interest in science, technology, engineering, and mathematics (STEM) subjects have boosted edtech solutions in Cambodia. Edtech startups offer platforms and applications that help find universities, tutors, and mentors; provide school management and communication systems; provide e-learning; and disseminate STEM education. However, there are still gaps between urban and rural areas in terms of students’ digital access to learning materials, teachers, and tutors.

To encourage youth entrepreneurship, incubator and accelerator Impact Hub initiated the SmartStart program. It helps Cambodian university students launch their own tech startups by providing financial support and enrolling them in a 6-month incubator program.[1]

Greentech

There are market opportunities, especially in rural areas where low-income households have limited access to energy, and there is growing support from development partners to spur solutions for green growth.

To date, there are only a few greentech startups and related support partners in the country, including enterprises engaged in rural electrification and smart waste management. At the end of 2018, greentech startups attracted more attention. During this period, energy-specific incubator EnergyLab launched the
Smart Energy Hackathon—that aimed to stimulate smart solutions for energy and agriculture—and hosted Clean Energy Week.

Healthtech

Healthtech in Cambodia but is rapidly expanding in other parts of Asia. In 2019, several healthtech events were organized. So far, healthtech startups in Cambodia have platforms and apps that help identify doctors and specialists, provide hospital and clinic management systems, and offer telehealth consulting services. Although there are only a few healthtech startups in Cambodia, there has been a slight increase in recent years.

Among these four areas, more attention and support has been given to agritech and greentech, with sector-specific incubation and acceleration programs, while there are no sector-specific incubators for edtech and healthtech.

Challenges

These startups also face similar challenges experienced by both early- and growth-stage startups in other sectors. These include the following:

- limited information on rules and regulations;
- difficulty in finding highly skilled staff, mainly in ICT and engineering, and high staff turnover;
- limited networks, lack of qualified mentors, and weak technology support;
- startups’ lack of trust in mentors due to concerns about sharing business ideas for fear of confidentiality breach and another startup taking up their idea;
- limited digital knowledge of prospective customers and clients, and clients’ unwillingness to adopt new technology;
- lack of cooperation or assistance from large companies;
- difficulty finding local manufacturers to produce the physical products; and
- lack of skills to deal with venture capital firms and other investors, including understanding of business valuation, legal investment issues, and the due diligence process.

Startups face different challenges depending on their particular stage of growth as identified in Table 1. Raising funds is a major concern, as well as having limited knowledge of financial projections and business planning.

**Table 1: Challenges of Tech Startups to Scale in the Startup Stage**

<table>
<thead>
<tr>
<th>Startup Stage</th>
<th>Support Programs</th>
<th>Source of Funds</th>
<th>Challenges</th>
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<td>Ideation stage</td>
<td>Competition, hackathon, and pre-incubation</td>
<td>Bootstrapping and prize award</td>
<td>Composition of founding team, Team commitment</td>
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<td>Early stage</td>
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<td>Angel investors, venture capital firms, crowdfunding, and prize award (from incubation programs)</td>
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<tr>
<td>Growth stage</td>
<td>Accelerator</td>
<td>Private equity, initial public offering, and crowdfunding</td>
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<tr>
<td></td>
<td></td>
<td>• Product–market fit • Limited technical and business skills • Limited information • Limited capital • Team commitment</td>
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</tbody>
</table>

Source: Authors of the study based on interviews.

**Current Startup Ecosystem**

The Cambodian government and other stakeholders actively support tech startups through high-level policies and strategies, such as the Cambodia Digital Economy and Society Policy Framework (2021–2035), the National Strategic Development Plan 2019–2023, and the Rectangular Strategy IV. However, there is currently no separate and distinct startup policy or road map in place.

The Ministry of Economy and Finance has various projects to support digital startups and more conventional enterprises. These include the Startup Cambodia National Program and Techo Startup Center.

Nongovernment organizations support the startup ecosystem by providing coworking spaces, incubation and acceleration programs, mentorships, and events that expose startups to domestic and international markets. As of end–2021, there were about 30 coworking spaces and around 30 incubators and accelerators run by the government, developmental partners, and the private sector. The country also has a total of about 20 angel investors, venture capital firms, private equity firms, and crowdfunding platforms.

There are relatively few graduates of STEM, as well as health science, agriculture, and extractive and natural sciences, resulting in a shortage of tech talent. Cambodia has reportedly around 50,000 digitally talented persons in the information and communication technology sector, but digital skills are reportedly only moderate and not specialized.

**Recommendations**

Although progress has been made in building the ecosystem, there is limited attention and support for agritech, greentech, healthtech, and edtech startups. The following strategies to nurture their growth are recommended:

**Develop a supportive regime.** Develop a tech startup policy or road map; include startups in the government’s overall policy agenda; establish a startup sandbox; expedite regulatory framework for
innovative research and development; set up science, technology, and innovation parks; and co-invest and provide incentives to venture capital firms and other investors in tech startups.

**Improve and attract technical talent.** Explore the possibility of creating a startup visa program, enhance incentives for capacity building of advanced tech skills, and further support STEM in education; encourage large companies to allow their technical staff to be mentors; and offer internship and apprenticeship programs.

**Promote positive role models.** Continue startup awards and exposure programs in the country and overseas; provide networking platforms and opportunities; enhance networking among startup alumni of incubators and accelerators; and promote awareness of successful startups.

**Improve mentoring quality and increase the number of qualified mentors.** Improve the mentoring curriculum and methodologies used by incubators and accelerators; certify mentors, based on rigorous criteria; provide a platform for matching mentors and startups; establish mentor networks; and expand mentor training programs.

**Develop or improve the startup database.** Expand the startup database and include agritech, edtech, greentech, and healthtech startups, as well as those in common areas, such as fintech and e-commerce; and ensure regular updating of the database.

**Improve the investment readiness of tech startups.** Develop and enhance high-quality acceleration programs; enhance sector-specific incubators and accelerators for agritech and greentech and develop sector-specific incubators and accelerators for healthtech and edtech; design connecting support programs; enhance the current makerspace and R&D centers; further develop incubators and accelerators and regional tech hubs in the provinces; provide a platform for matching investors and startups.

**Encourage startups to register their business.** Enhance the implementation of Prakas 102 (regulation) to promote business registration of early-stage startups and expedite the participation of other government agencies that oversee business for other sectors.

**Strengthen information sharing.** Better inform startups of current information-sharing platforms; promote current information platforms among incubators, accelerators, innovation hubs, and business associations; develop and promote awareness of the central platform for information sharing; and enhance the quality of information.

**Improve digital literacy skills.** Encourage the development of digital citizens, digital business, and digital government; further promote digital and technology access among youth; expand current digital literacy programs to rural areas and improve internet quality; establish tech hubs in the provinces; and set digital literacy targets for women.

**Promote a risk-taking culture.** Build the capacity of youth entrepreneurship and encourage an entrepreneurship mindset; exchange knowledge and experience with international startups; and foster
entrepreneurial and innovation culture through startup fairs, etc.

**Improve the coordination and/or connection among supporting organizations.** Allocate government funds to grow the ecosystem; designate a single hub to coordinate all supporting actors in the ecosystem; and increase networking among government agencies, industry, and academic institutions.

[1] Interview with the representative of Impact Hub in 2019; see also Impact Hub Phnom Penh.

**Resources**


**Startup Cambodia National Program** website.

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Asian Development Bank (ADB)

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