



Startup Ecosystem Report Bangkok

V.1.1 — December 2019

enpact
data lab

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Print: FLYERALARM GmbH

Publisher:

enpact e.V.

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ISBN: 978-3-96604-009-9

Copies:

Registration Court: Amtsgericht Charlottenburg (Berlin)

Registration Number: VR 32765 B

Cover photo: Evo Flash

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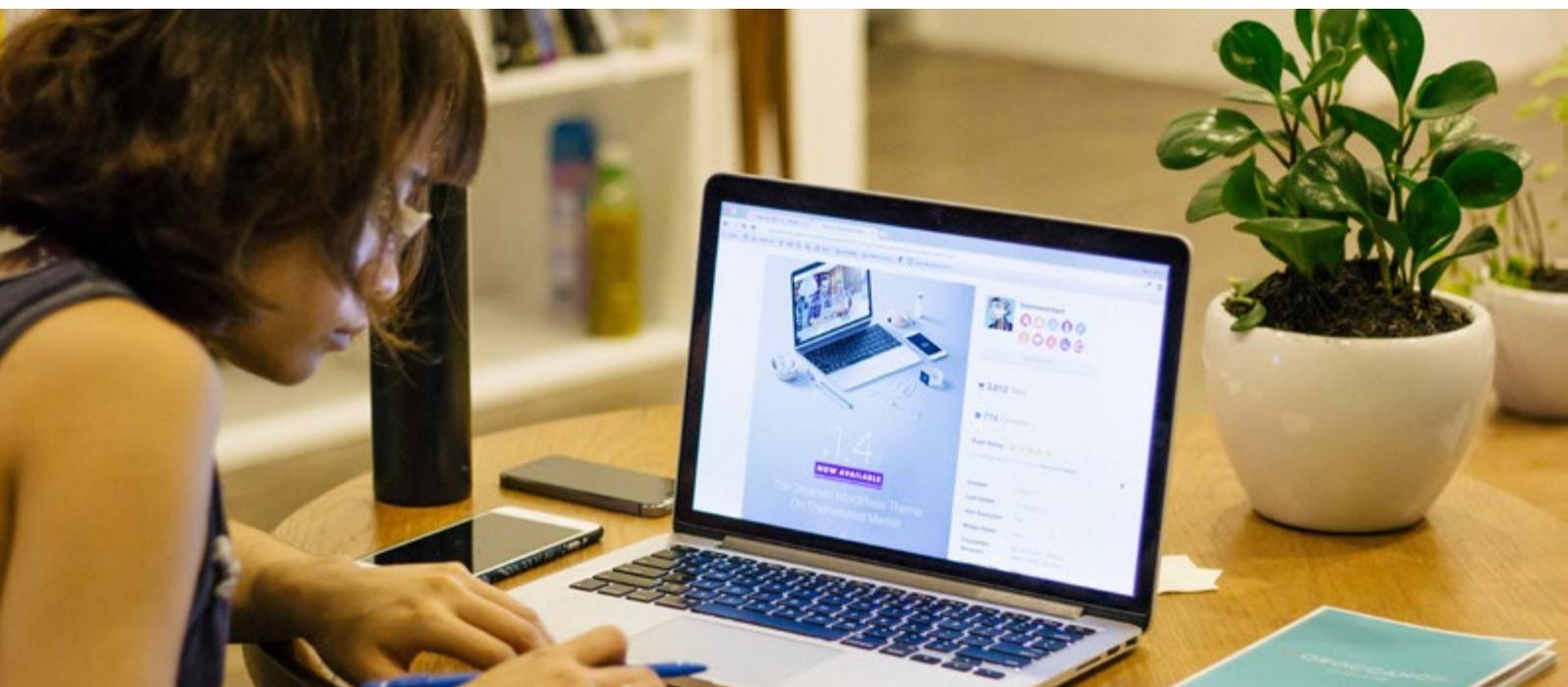
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The Startup Friendliness Index (SFI)

In the field of entrepreneurship, startup ecosystems play an important role. A startup ecosystem is formed by entrepreneurs, startups in their various stages, and numerous other entities such as universities, investors, accelerators, co-working spaces, legal and financial service providers, and government agencies. Through the complex interaction of these players, a startup ecosystem has the capacity to empower entrepreneurs to develop new ideas and bring innovation to the market.

The composition and maturity level of startup ecosystems are essential components of the success rate for entrepreneurs and new enterprises. A good understanding of ecosystem states, strengths, and weaknesses enables specifically-targeted policies, enhances investment decisions, and improves the impact of development cooperation.

The Startup Friendliness Index (SFI) analyses the potential for cities to advance entrepreneurship by measuring six key features (domains) of the startup ecosystem: Human Capital, access to Finance, the liveliness of the Startup Scene, Infrastructure quality, Macro framework, and Market conditions. Together, these six domains interact to form an urban environment that can champion or hinder entrepreneurship.



Research Design

The SFI analyses data on 80 key indicators within the six domains representing core elements of a startup ecosystem, utilising a novel methodology that reflects the importance of interconnectedness between domains.

The SFI relies on data procured from a combination of primary data, collected through surveys and interviews, and secondary data from established sources such as the World Bank and World Economic Forum.

In terms of primary data-gathering, eight indicators are collected through surveys from entrepreneurs and experts living in the measured cities. In Bangkok, 15 survey respondents contributed to our research.

Additionally, five interviews with relevant stakeholders in Bangkok’s startup ecosystem were conducted to complement the information from the surveys and secondary data.

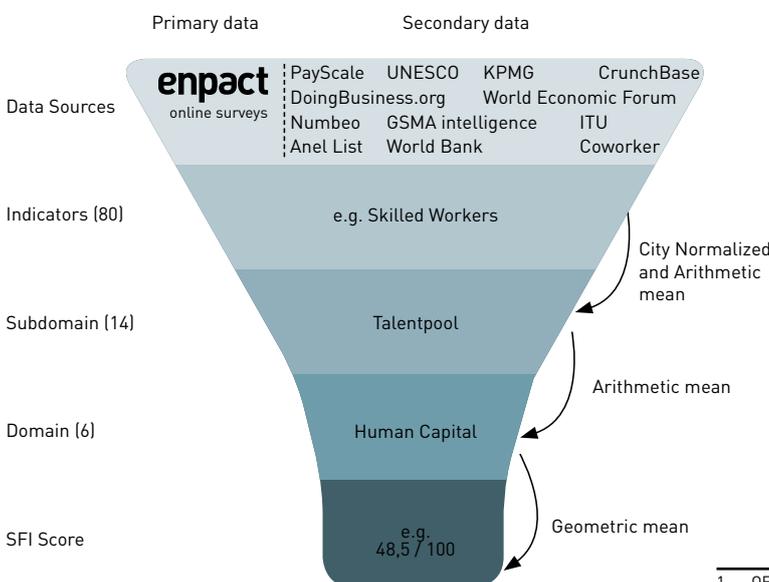
Once gathered, the data are normalised so that the index values can be used to compare the cities in the SFI. The normalised indicator values range from 0 (for a city that has the lowest performance relative to the others) to 100 (for the city that has the best relative performance). Where relevant, normalised scores are adjusted to the population of the city.

Scores are generated simultaneously and reflect essentially the same point in time for all cities. In this report, Bangkok is contrasted with 44 other cities across the globe.

As a final step, the data are aggregated. Drawing from best practices in composite indicator-building¹, we utilise a combination of the familiar arithmetic mean as well as the geometric mean, resulting in an index which accurately reflects the importance of balance (having relatively even levels of maturity across all domains) within an ecosystem.

The logic behind this method is simple; imbalances in an ecosystem have a negative impact, because deficiency in even one area may slow or impede entrepreneurship completely. For example, excellent infrastructure is of limited use if there are no funding opportunities available to initiate a new venture. In other words, there are no substitution effects between domains².

The final SFI scores can be used both as a tool to compare cities on common indicators, and also offer a structured lens to evaluate areas of strengths and weaknesses within individual cities.



1. OECD. (2008). Handbook on Constructing Composite Indicators: Methodology and UserGuide.
 2. Iacob, N., Lachenmayer, J., & Friederici, N. (2019). Operationalising Relational Theory of Entrepreneurial Ecosystems at City-Level in Africa, Asia and the Middle East. German Journal of Economic Geography.

Bangkok Description & Map



BANGKOK IS THE CAPITAL AND LARGEST CITY of the Kingdom of Thailand, located in Southeast Asia. The city has a population of an estimated 17 million, holding by itself approximately 25% of the population of Thailand. It is one of the most popular tourist destinations in Asia and houses a vibrant cosmopolitan life and a vibrant startup ecosystem.

In comparison to enpact's last report on Bangkok in 2017, the city has seen an increase in its startup ecosystem score. While the momentum has historically been higher, there are indicators to suggest recent challenges in the political and labour markets have affected Thailand's progress as a business hub for startups. The startup scene is one of Bangkok's greatest strengths, while challenges in access to capital, infrastructure problems and macro-political interference have become growing concerns.

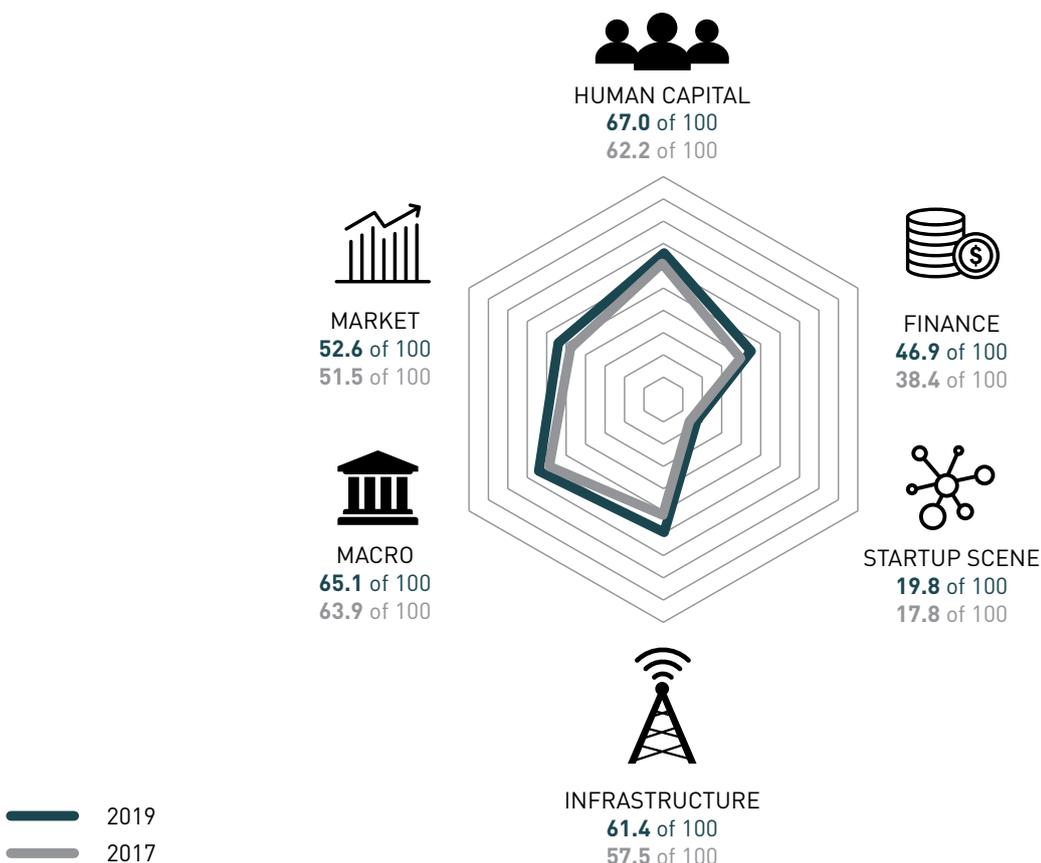
Executive Summary

Bangkok is a global leader in its startup ecosystem, consistently performing among the top and most developed ecosystems in our index. The city ranks 4th in the world behind Singapore, Berlin, and Kuala Lumpur. Since enpact's last report in 2017, the city has seen growth in each domain and an 8.4% growth in its global SFI score overall.

Startup Friendliness Index scores are determined by examining 80 indicators in six domains: Human Capital, access to Finance, the liveliness of the Startup Scene, Infrastructure quality, Macro framework (describing the political and legal system), and Market conditions (such as trade balance and capacity utilisation). Cities with relatively even scores across domains receive a higher overall score than a city with strong performance in one area, and weak performance in another. SFI scores range from 0 - 100, with a score of 0 for the city with the weakest performance, to 100 for the strongest.

Bangkok performs strikingly well in the Human Capital domain, ranking first in the global index, with a score of 67.04. High female participation in entrepreneurship, low unemployment rates, and good university rankings serve as incredible strengths for the vibrant metropolitan city. Access to human capital in general is an overall strength for Bangkok as a measure by our indicators, however, startups often experience constraints as they compete with larger firms for access to talent. Many of our interviewees indicated a struggle to find the right talent for their startups within Thailand, but are also unable to recruit from other countries due to legal restraints. Still, the city attracts many bright and eager labour participants.

Bangkok has a Finance score of 46.95 and 19.82 for Startup Scene. While Bangkok still ranks above average for Finance and Startup Scene (4th and 10th, respectively), the city faces unique challenges in access to seed stage funding and the



number of hubs in proportion to population size. However, these numbers do not portray the entire story. The Thai government's established National Innovation Agency (NIA) works to encourage startup culture in Thailand, with significant investment made in technology parks, entrepreneurial events, and funding for new companies. The high degree of inequality and lack of investors willing to fund seed stage companies is a top constraint for finance. There are indications that there are areas for improvement, but overall, both scores have improved since 2017.

The city has also seen an improvement in its Infrastructure domain with improvements in overall transportation quality, low levels of shortages, high ICT penetration of the population, and relatively cheap costs for internet and mobile internet. While improvements are evident, our interviews indicate that infrastructure tends to be a major constraint for Bangkok, with traffic and congestion affecting who will accept which job based on the feasibility of the commute. Still, Bangkok ranks 5th in the global index and has a score of 61.40.

Thailand has earned the fifth position in the global SFI for Macro-Political and Legal Framework, with many firms reporting a lack of constraints in criminal activity, an appealing VAT tax, low barriers to new business registration in terms of time and costs and effective governance. Bangkok's score in this domain is 65.11, an overall improvement from 2017. Challenges in this domain result from some levels of political instability that tend to scare away foreign investment, legal frameworks that restrict the flow of talent, and the perception of corruption based on

third party indicators from the World Bank and Transparency International.

Finally, the country scores 52.63 in the Market domain, an indication of the strength of the economy and the connectedness of the country with the region and the globe. This score has given the city a third place ranking worldwide. While Thailand's overall economy is strong compared to the region, it has been experiencing a slight economic downturn. The city performs well in trade openness and tourism, but there are some calls for Thai businesses to operate more broadly in the region and global context.

Based on findings from the Startup Friendliness Index, this report concludes with a series of ecosystem development recommendations to support the development of the startup ecosystem.

This report does an assessment of the domains and concludes with policy recommendations that can support the development of the startup ecosystem. For Bangkok, four areas of recommendations are considered: improving policies, preparing entrepreneurs, supporting entrepreneurs, and developing infrastructure.



Startup Friendliness Index Bangkok

Domain and Indicators



1. Human Capital

Bangkok ranks first globally in Human Capital (1 out of 45), even outpacing Berlin. The domain is a complex area for Bangkok. With a score of 67.04 out of 100, it scores particularly favourably with the participation of women in the ecosystem, few labour regulation constraints reported by Thai companies overall, general good access to skilled workers, and a low unemployment rate. However impressive this macro-level data seems, our research suggests the reality for startups in the ecosystem can differ with many reporting challenges in hiring qualified labour.



Talentpool

Subdomain of Human Capital

A business in Bangkok experiences many unique advantages. The city ranks third in the Talentpool domain. Talent is drawn to Bangkok not only from the surrounding Southeast Asia region, but also globally, as Bangkok has continued to be a global destination. From a global perspective, Bangkok ranks first for its lack of workforce constraints and its percentage of skilled workers available according to the World Bank.

Bangkok is also leading globally in its score for Workforce Constraint. However, upon closer examination, it becomes clear there is a difference between the experience of large and small firms³. The percent of small firms identifying labour regulations as a major constraint is double the rate of large firms. “If a startup is willing to pay, finding skilled labour is not a problem. But often it cannot do that,” said one founder of a tech company located in Bangkok. The best skilled labour often goes to larger firms and corporations. “There is a difficulty incentivizing the right talent to stay in engineering when they see better paying jobs in business,” he adds. There is also a marked difference between sectors with 12.6% of firms specializing in electronics and communication reporting difficulty with labour regulations compared with other types of firms (manufacturing firms, for instance, only 2.6% report difficulty). For startups, then, Workforce Constraint is a challenge.

“If a startup is willing to pay, finding skilled labour is not a problem. But often it cannot do that”

Education in Bangkok, likewise, faces unique advantages and challenges. Bangkok has seen a rise in the number of universities and university students, indicating that local Thais see the value of education in the growing global economy. However, there are concerns about the quality of university education and the number of students attracted to the areas of study that would most benefit the startup ecosystem.

A Thai social entrepreneur we interviewed echoed some of the difficulties with Thai university education, especially in Bangkok: “There is a lot of social pressure to become a doctor. There are a set of exams to pass for medical school and if you pass, you often have no choice but to go that route, even if you would rather do something different.”

Overall, Bangkok’s score since 2017 has seen a 45% increase in the university score, which both ranks Bangkok in terms of the number of universities and in their quality. Since 2017, Srinakharinwirot University and Thammasat University have become globally recognized in the top 1,000 universities worldwide. While significant strides have been made, our interviewees indicate there is still a lot of progress to be made. In addition to the big firms having a monopoly over the technical talent, we also see that the quality of engineering schools in Bangkok is not where they need to be. “The computer engineering programs focus a lot on IT Tech support and less on development and infrastructure,” one businesswoman added, “so it can be hard to find developers who can build a solution from the ground up. Critical thinking is not valued in the current curriculum.”



Srinakharinwirot University and Thammasat University have become globally recognized in the top 1,000 universities worldwide.

3. The World Bank. “Thailand.” Enterprise Surveys.



English proficiency is also a current hurdle for Thailand. English proficiency in Thailand is markedly low. It is ranked 64th among 88 non-native English-speaking countries, a ranking conducted by Switzerland-based Education First, a language school operator with branches worldwide. Thailand was awarded a 48.54, which is classified as ‘low proficiency’⁴. English education is one of the noticeable gaps in education system and it is a particular problem for startups. “Math, science and computer science — these are all performed in English and without English proficiency, their students will not be equipped to do this type of labour,” says a Westerner investor with ties in Bangkok. As a foreigner in Bangkok, he believes “there needs to be more education that teaches critical thinking overall” and it is a vital part of training Thai talent to compete in the global and regional markets. Their experience indicates that Bangkok is headed in the right direction but there is still a lot of room for improvement.

Access to skilled workers was previously a challenge for Bangkok but now is ranked first in the global index. In just two years, the city has seen an improvement from a score of 60.90 to 100, making it the global leader. Some attribute this to the growing media attention to startups and entrepreneurship and a few well publicized Thai startup successes and a greater influx of talent from surrounding countries. Attracting the right talent for startups, however, continues to be an issue. In addition to the pay gap between large corporate jobs and startups, culturally young Thais “seek different values in their work than we do here in the Western world,” explained another Westerner. “They value social camaraderie and will often prioritize working with peers in their cohort.”

Still, university education is highly valued in Thai culture and our data indicates Bangkok’s Talentpool development is headed in the right direction.

4. Mala, Dumrongkiat. “Thai English proficiency drops”. The Bangkok Post. 5 Nov 2018.

Labour Market

Subdomain of Human Capital

Bangkok scores 77.09 and ranks 4th worldwide on the Labour Market domain. Overall, our research indicates that Bangkok has seen a slight decrease (2.15%) in its Labour Market score since 2017. The main challenges for the city in this subdomain are the increase in salaries and the rate of female participation.

Again, we see that Labour Regulations are not identified as a constraint for employers in Bangkok, with 0% of firms surveyed by the World Bank identifying labour regulation as a major constraining factor for their business. However, as with Workforce Constraint, this number may not accurately reflect the reality for startups.

Bangkok ranks below average for the indicator representing average salaries for graduates and software developers globally, 38th and 36th, respectively. In this context, low wages are awarded higher scores, as low salary costs are beneficial for the cost structure of startups. These salaries are rising which is a challenge for startups. As indicated in the previous subdomain, it is difficult for startups to attract local Thais to work in startups when larger firms pay substantially more. Recent graduates in Bangkok can expect a salary of around \$688 USD/month (compared to \$526 USD/month average globally) and software developers earn an average of \$1,782 USD/month (far higher than the global average of \$1,219 USD/month). This is, of course, great news for talent with these skills, but it contributes to the difficulty of startups to be able to afford the skilled labour they need in competing with larger firms.

Compounding the issue for Thai based startups are the legal constraints set by the Thai government on foreign labour. In July of 2018, the Thai government announced a foreign labour cap of 20%⁵. This means that for every foreigner a business hires, they must hire four Thai nationals. Especially for smaller firms, this constraint means that finding the right talent can be a huge obstacle because they cannot afford to hire outside talent and national talent is pulled to larger firms. A Western entrepreneur notes, “there is an informal agreement in Thailand that, because there is no social security for retirement or other absences, everyone must work. So, the government takes another route to ensure everyone can work. So, the government takes another route to ensure everyone can work. This labour cap is a government response to the lack of safety net.” Indeed, our data shows that Bangkok ranks first in the world for unemployment, with less than 1% of the total population out of work and seeking a job.

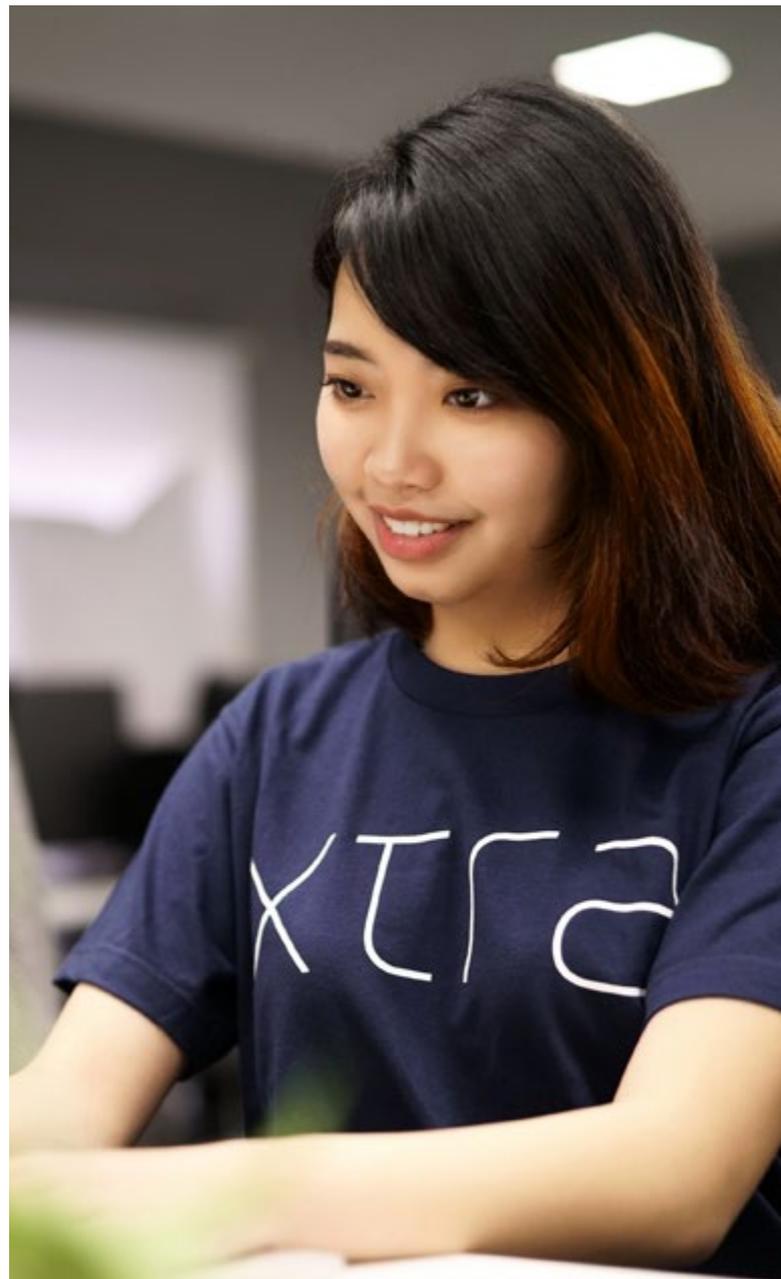
„There is an informal agreement in Thailand that, because there is no social security for retirement or other absences, everyone must work. So, the government takes another route to ensure everyone can work.“

5. Charoensuthipan, Penchan. “Foreign labour cap set at 20% under new law”. The Bangkok Post. 7 May 2018.

Respectively speaking, Bangkok ranks fairly high in its percentage of firms with majority female ownership. It ranks 7th globally, with a score of 40.87, and 18% of firms identified with majority female ownership (compared to the global average of 8%). This success has been echoed by our interviewees with enthusiasm. “I would say Bangkok is leaps and bounds ahead of the rest of world, certainly ahead of the developing world in terms of female entrepreneurship,” says a Western investor. “There are so many powerful women in business in Thailand.” It’s true — women have a higher empowerment in Bangkok compared to many other places globally.

“[Female participation in entrepreneurship] is good, but there is so much more work to be done. I still see women being systematically overlooked.”

As the data indicates, although Bangkok is among the best places globally to be a female entrepreneur, a global average of 8% is a low bar to meet. “It’s good, *but* there is so much more work to be done,” says a Thai woman we spoke to. “It is due, in part, to how passive we are raised to be,” she explained. “There are many who would say the state of female entrepreneurship is so great in Bangkok but I still see women being systematically overlooked. I went to an event highlighting the 20 best new startups in Thailand. The entrepreneurs in attendance were there by invitation. They were all men! Some of whom had business ideas very similar to women I know in Bangkok, but they do not promote their idea enough.” Our interviewee works personally to improve this. She hosted an event recently for female entrepreneurs in tech in Bangkok called *She Loves Tech*. “If we didn’t have that competition, I don’t think the majority of women would get out there,” she expressed.



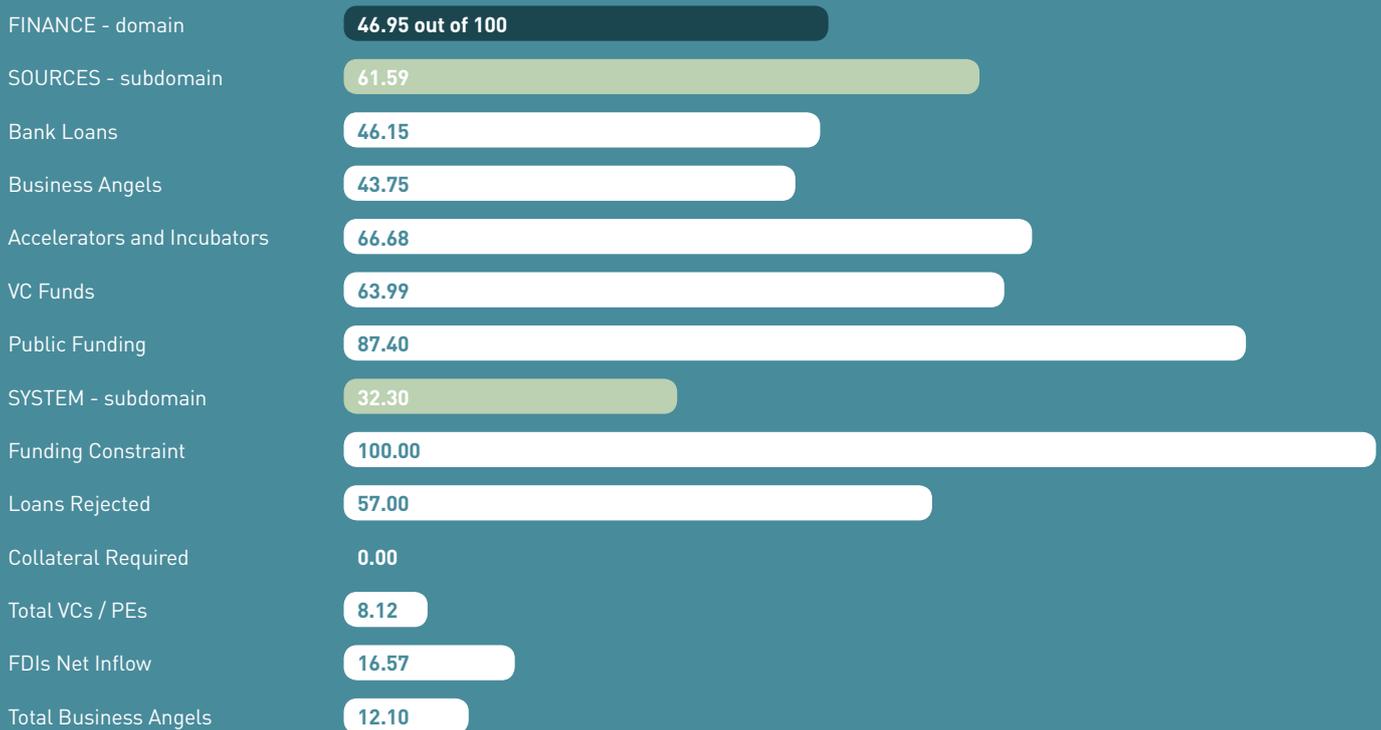
KEY TAKEAWAYS

Bangkok benefits from its allure as one of the world's top destinations for expats and attracts a lot of attention and human capital. Thai culture is also increasingly supporting startup and entrepreneur culture. However, startup firms find it challenging to recruit the right talent due to cultural and political reasons. Key improvements around university education and a stronger emphasis on the benefits of a career at a startup would help entrepreneurs attract the right talent and build on the improvements Bangkok has seen since 2017.



2. Finance

As for many cities, the Finance domain is a challenge for Bangkok, but it ranks 4th globally with a score of 46.95 (the global average is 35.50) behind Singapore, Berlin, and Kuala Lumpur. The main challenges in the Finance domain are in the System subdomain, which attempts to measure the fundamental factors and institutions that create the funding environment. Meanwhile, the Sources subdomain, which measures the accessibility of five potential funding sources, performs quite well in Bangkok.



Sources

Subdomain of Finance

In the Sources subdomain Bangkok ranks third globally with a score of 61.59. The SFI measures the accessibility of five potential funding sources: bank loans, public funding, accelerators/incubators, venture capital, and business angels (individual angel investors). The city has seen a 22.16% increase from its 2017 score with the Bank Loans indicator responsible for the lion's share of that growth.

The availability of funding from external sources is measured through survey data and indexed values from 1-5 are calculated based on how entrepreneurs rank the availability of each source. In Bangkok, we can see that many of the entrepreneurs we surveyed showed there were a variety of sources to gain funding from.

This strength is due in large part to the startup culture in Bangkok, a subject we will explore more in the next domain. The National Innovation Agency (NIA), a government agency devoted to encouraging technical innovation and startup culture, provides access to small grants for startups in the early phases. The NIA can grant funds for around \$3,000 USD for the original idea. One of our interviewees, a Thai social entrepreneur, tells us this is not much for a new startup but it's something. "If they can validate the idea, they can often come back and request a much more meaningful amount, sometimes around \$45,000 USD," she says. Furthermore, she says, there are not many venture capitalists or business angels in the Bangkok startup ecosystem, so there are often ideas that go underfunded.

From the startups surveyed, funding from venture capitalists is identified as fairly accessible to entrepreneurs, however, other interviewees and other systemic aspects indicate that there are some challenges from strong bureaucratic processes and a tendency to invest in established ideas. An investor we spoke to notes that many investors looking into Thailand are not 'industry agnostic', meaning that a corporate venture capital investor will mainly invest in areas like financial technology (FinTech) or areas that support the VC's core business and little outside of that.



Overall the Bangkok ecosystem is very rich in the Sources subdomain. "There are many companies that act as matchmakers between entrepreneurs and investors to grow ideas," said one Thai entrepreneur. Other interviewees expressed similar optimism for the sources of finance in Bangkok.

“There are many companies that act as matchmakers between entrepreneurs and investors to grow ideas.”

System

Subdomain of Finance

In contrast to the Sources subdomain, the System subdomain performs poorly compared to global SFI. With a score of 32.30, the city ranks 23rd out of the 45 cities assessed globally. Strengths for this subdomain are the low number of firms identifying funding as a major constraint. Weaknesses identified are collateral required and foreign direct investment into Bangkok.

According to the World Bank, 0% of firms in Bangkok identify access to funding as a major constraint to doing business, a shocking statistic and far below our global average of 25%. This, again, might be more telling of the divide in socioeconomic status in the country more than anything else. “To be blunt, inequality is extremely stratified in Bangkok and in Thailand overall,” an entrepreneur noted. “Most businesses are started by the children of the 10 wealthiest families in Bangkok. For them, access to capital is a trivial matter.”

“To be blunt, inequality is extremely stratified in Bangkok and in Thailand overall. Most businesses are started by the children of the 10 wealthiest families in Bangkok. For them, access to capital is a trivial matter.”

The number of venture capitalists and private equity legally located in the city is also a challenge for Bangkok. Much of the capital comes in from foreign investment. Also, “many corporations incorporate outside of Bangkok, usually Singapore, and then operate in Bangkok,” a Thai woman explains.

Another constraint is that there is not a lot of investors interested in filling market needs. “In general, there are not many investors for startups in the very early phases,” said a businesswoman of the investment culture in Bangkok. “I can only think of two: 500 Tuk Tuks (the Thai version of the Fortune 500) and Expira Venture Capitalists.” This bottleneck at the beginning of a startup’s lifecycle can be an overall issue. Though there are many sources for startup capital, they are often hidden behind barriers. Many others confirm this assertion that there are funds available through the government, but the process to access it is quite a bureaucratic process and many startups don’t have the time to wait.

The most challenging area in this domain is the fact that 100% of the loans in Bangkok require collateral. “It’s not uncommon to see young people work for large corporations, save up their money, then start their own business after,” said a Thai woman in an interview. In general, Thais prefer other options besides bank loans, so while this indicator is a challenge, the answer to where Thais get startup capital is more complicated. For reasons we will discuss later, many businesses started in Thailand are partnerships between foreigners and Thai nationals. In this system, the foreigner often contributes the startup capital, often earned in Western countries with higher GDP and brought to Thailand, where every dollar stretches further, and the Thai person brings the benefits of their nationality and understanding of the culture.



Access to startup capital is a major challenge for untested ideas in Bangkok, as in many cities globally.

KEY TAKEAWAYS

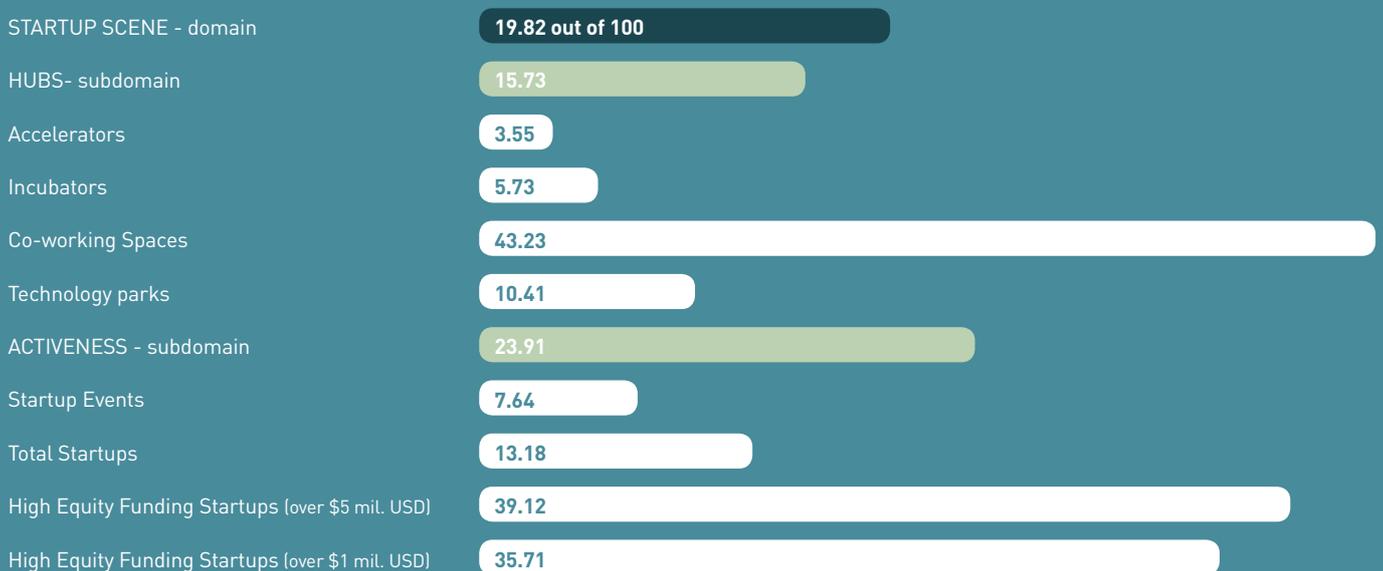
Thailand ranks number one globally for lack of restrictions to startup capital. The government takes significant time and consideration to open funding and resources to the startup ecosystem in order to help it grow. However, extreme inequality and a lack of investment in untested ideas are large barriers to the potential of the startup ecosystem. The high presence of sources is just one piece of the puzzle. There is a lot of room for improvement insofar as who has access to these main streams of capital, how they are invested, and the bureaucratic processes that make access to government investment a hard route to take.



3. Startup Scene

The Startup Scene domain accounts for the maturity and liveliness for startups in a given context, providing the conditions to facilitate visibility, growth and exchange. The SFI measures these features with the number of accelerators, incubators, coworking spaces and technology parks, as well as the number of events, of total startups and the number of high equity funding startups. In Bangkok's case, this domain is the weakest in the ecosystem but at the same time has all the necessary conditions to develop and reach its full potential.

Bangkok's Startup scores 19.82 out of 100 and ranks 10th in the Global SFI in contrast to its positions in the top 5 positions in the other 5 domains. The city's performance in this aspect also lags compared to the regional average, scoring below it. Hubs and Activeness, the subdomains that make up the domain, score low as well and rank 14th and 11th in the Global SFI, respectively. Despite the low performance, there are signs of improvement as well as transformations in motion that are already contributing to the scene's development. After comparing 2017 and 2019's scores, the domain shows a positive evolution of 11.16%, the biggest improvement after the Finance Domain.



Hubs

Subdomain of Startup Scene

The Hubs subdomain is one of the challenges of the startup scene in Bangkok, as the number of accelerators, incubators and technology parks is low compared to the city's population and also does not perform well when compared to the other cities of the Global SFI. Bangkok is ranked 14th with a score of 15.73. Three of its indicators: Number of accelerators, Number of Incubators and Technology Parks perform below the global average.

Incubators and accelerators are fundamental to the support and strength of startups at different stages and is an aspect that still needs improvement in Bangkok's ecosystem. These indicators measure the number of incubators given the population, so ideally, they should grow along with the population growth. The Number of Incubators ranks 17th in the Global SFI and scores very low: 5.73 out of 100 and is even lower compared to 2017's score. These numbers show how the number of incubators is not pacing with population growth and has not shown an increase in 2017. On the other hand, even though the Number of Accelerators is very low as well, 3.55 and ranks 18th, it also shows a positive evolution of 30.43% compared to 2017.

Not only are the number of incubators and accelerators a struggling factor, the overall quality of startup programmes via accelerators is still mediocre in Bangkok. To address this, many programs are focused on improving their overall effectiveness and the level of support for the entrepreneurs they invest in. We spoke to one such Western entrepreneur who is a current participant in an NIA sponsored program. "I find the acceleration programs in Thailand extremely effective," he says. They are really trying to individualize how they are supporting startups as opposed to giving generic advice," he enthused. Space F, food tech startup that offers an incubator and accelerator program with the support of the National Innovation Agency and Mahidol University, he said, is a "good example of Bangkok's investment in the startup ecosystem."

In contrast, the number of coworking spaces is notably increasing in Bangkok and compared to the other SFI cities, is doing well: it scores 43.23 and ranks 11th. However, the cost for these spaces, which is also addressed in the Infrastructure Domain, is high compared to the cost of living, ranking 37th among 45 cities. In that sense, though co-working spaces are available, they are often too expensive to become a viable option for startups, bearing a smaller impact on the strength of the Startup Scene domain.

"I find the acceleration programs in Thailand extremely effective. They are really trying to individualize how they are supporting the start up as opposed to generic advice. [Space F] is a good example of Bangkok's investment in the startup ecosystem."

While the city's Technology Park indicator is struggling, the Thai government is actively investing in this area as well. In June of 2019, Bangkok's CyberTech district *True Digital Park* was launched. This complex is aimed at providing "diverse services and benefits as well as facilities to attract startups, investors and talents from around the world to invest and set up their business operations in Thailand.⁶ The campus is to serve as a gathering place for corporations, investors, VCs, accelerators and academies, startups and entrepreneurs, government agencies and key support services. The potential of this initiative is reflected Bangkok's 73.91% improvement of its Technology Parks indicator since 2017. The current score is 10.41, ranking 12th for the Global SFI. The technology park will play an important role by gathering the different actors and stakeholders under the same roof to facilitate their coordination and joint work.

6. True Digital Park Official Website

Activeness

Subdomain of Startup Scene

Strategic stakeholders have been pushing for the startup scene's development through government investment and organisation, as well as private sector, public sector and academic participation. The NIA, for instance, established by the Ministry of Science and Technology, has played a crucial role in activating the startup scene, playing the "leading role in the development of Thailand's innovation ecosystem by coordinating, networking, fostering, and partnering different organizations from various fields such as academia, technology, industry, finance and investment."⁷

“In general, Bangkok is a great city for starting a business. It is a huge metropolitan area with so many services and amenities. Everything you can possibly need exists here. The startup scene is very vibrant.”

In terms of general activity, Bangkok is one of the world's most vibrant metropolitan cities, a characteristic that lends itself exceedingly well to the activeness of the startup ecosystem. "In general, Bangkok is a great city for starting a business," one Westerner noted. "It is a huge metropolitan area with so many services and amenities. Everything you can possibly need exists here." Yet, there is room to grow. It ranks 11th out of 45 cities, all the indicators scoring higher than the global average, with the exception of the number of startups.

The different events, conferences and spaces for startups are key for a community and network building in an ecosystem where knowledge sharing can take place and the next ideas can gain visibility. The Number of Events is the indicator that shows the biggest evolution compared to 2017's results, improving a massive 92.55% and earning an eighth-place rank. It's score,

however, is seemingly low: 7.64. This contrast reflects the still incipient ecosystem against its great potential. A Thai social entrepreneur we spoke to, in particular laments that the culture of startups and innovation is fading from Thailand and that the enthusiasm is lower than it has been in the past five years. Her recommendations are to increase the number of events for startups, such as hackathons, to bring back startup classes for teenagers to garner interest from a young age, and, most importantly, to create a culture where large investors are active in finding and funding new ideas, not just the ones that have already seen success. She sees events as vital to a startup ecosystem. Events Startup Thailand, Thailand Startup Week, TechSauce Summit and Echelon Thailand, have been a success and have managed to summon thousands of people. The role of government organizations like the Ministry of Science and Technology have played a very important role in those results.



539 identified startups

Likewise, the total number of startups has improved as well, by 37.50% since 2017, regardless of the low score of 13.18 and the fact that is below the global average. By 2019, Bangkok has ranked 15th with 539 identified startups, 635 being the global average.

7. Ministry of Science and Technology, Thailand. "National Innovation Agency (Public Organization) [NIA]". 2017.

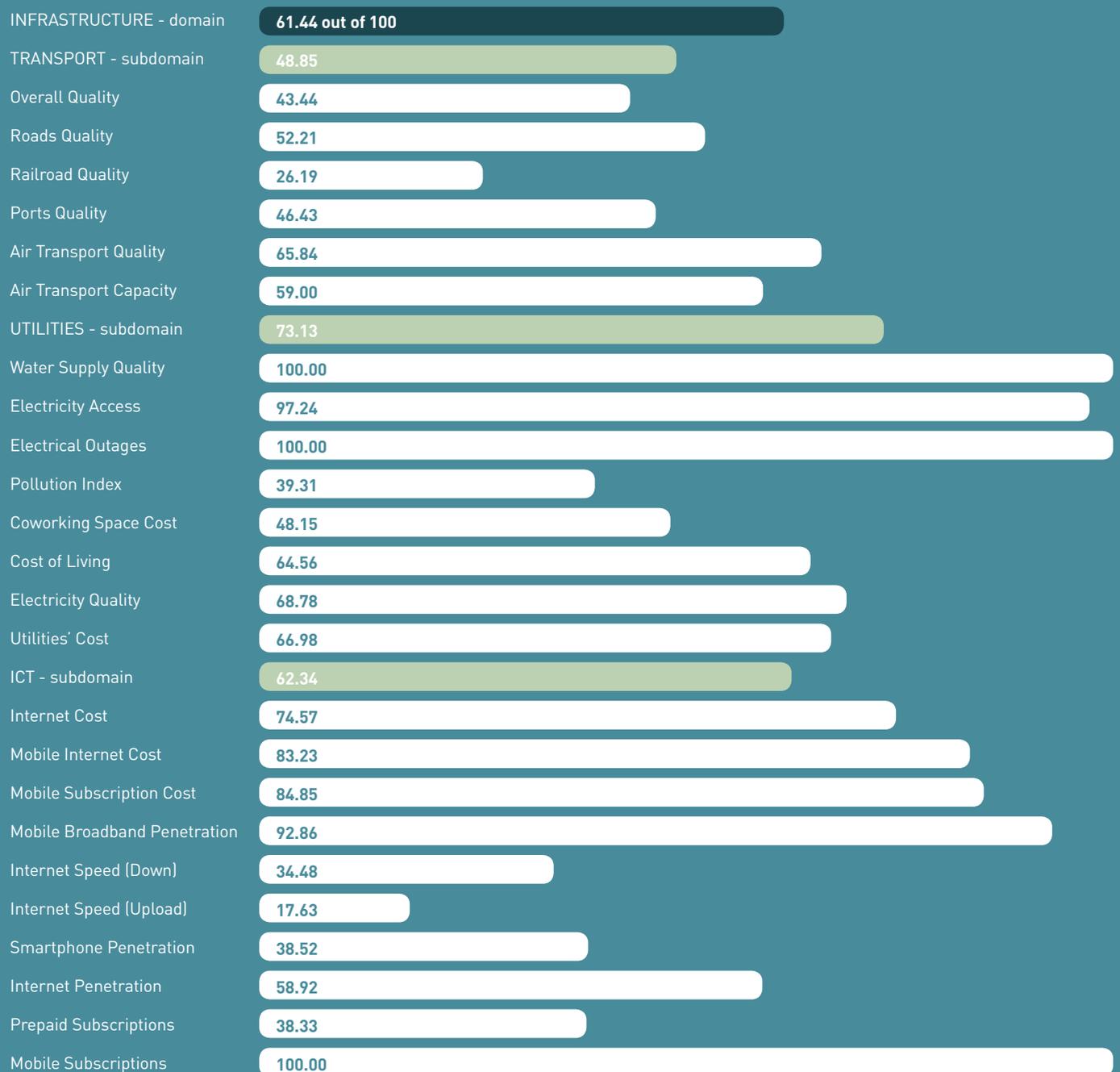
KEY TAKEAWAYS

The startup scene in Bangkok is still flourishing and meets the necessary conditions to reach its full potential. The different measures and plans that are already in motion are expected to contribute in consolidating this domain and making it more attractive to more startups, accelerators, incubators and investors from other cities and countries. By developing the startup scene domain and investing even more in accelerators, incubators and startup events, Bangkok can expect to see a faster boom in their startup ecosystem.



4. Infrastructure

Bangkok's well-developed Infrastructure domain scores 61.40, ranking the city 5th among 45 cities in the global SFI. This domain considers three subdomains: Transport, Utilities, and ICT (information and communication technology). The state of the infrastructure, along with Bangkok's strategic location, facilitates access and connection to other markets to develop businesses and investments.



Transport

Subdomain of Infrastructure

The transport infrastructure scores fairly well. With a score of 48.85 it performs well in comparison with the other SFI cities, ranking 11th in our global index. The quality of transportation methods is uneven, but almost all of the indicators scores are above the global average except Railroad Quality and all indicators show a positive evolution compared to our estimates from 2017. The Overall Quality Indicator, according to the Global Competitive Index scores 43.44 and ranks 14th among 45 countries.

The Roads Quality along with Air Transport Quality are the indicators with the best performance. The former ranks 7th with a 52.21 score while the later ranks 5th scoring the highest in the subdomain: 65.84. Although the Rail Quality has the lowest position, 30th, in turn it has the highest positive evolution compared to the scores of 2017. Air Capacity is a strength as well, ranking 10th while Ports Quality does not fare that well in the 21st position.

One challenge that is not evident from the data, but was made clear from our interviews with Bangkok entrepreneurs, was the traffic problem in the city. Even though road quality fares well, given the growth of the population and number of cars, traffic has become a major problem in the city, which currently ranks 11th in traffic congestion globally according to the Traffic Index.⁸ Traffic has an impact on quality of life as well as hiring for startups, particularly in Bangkok, where there are already incentives for qualified talent to look for employment at more convenient firms. “Traffic is a major issue. It affects the hiring process,” said a Western businessman. “In Bangkok, it can take several hours to get across the city. Some people are not willing to take a job if it implies a long commute. It has even been necessary for some firms to give significant raises to counteract the inconvenience of commuting.” Corresponding with traffic, the Pollution Index is also affected; there has been a negative evolution since 2017, growing from 74.34 to 75.75, 100 being the most polluted.

8. Traffic Index, World Traffic Congestion Ranking

“Traffic is a major issue it affects the hiring process. In Bangkok, it can take several hours to get across the city. Some people are not willing to take a job if it implies a long commute. It has even been necessary for some firms to give significant raises to counteract the inconvenience of commuting.”

In light of the existing issues, there are ongoing projects to alleviate the congestion. The government has a plan to improve public transportation, specifically trains as new roads are “difficult to build and expensive due to the lack of space and high cost of city land expropriation.” Instead, the government is working to construct a sky train and subways to boost the city’s mass transit options and easing the demand for private vehicles, which are currently the primary method of transport for so many in Bangkok.⁹ The result could make a dramatic difference to startups in the city.

9. Limsamararnphun, Nophakhun, Bangkok Traffic Nightmare, The Nation, 17 Aug 2018.



Utilities

Subdomain of Infrastructure

Bangkok performs well in the Utilities domain. Its score is a respectable 73.13, where the average is 71.7. Bangkok, then, performs above average and only lags behind the top performer, Tashkent, by little more than 12 points. Most of these differences derive from the hazard of life in a large, metropolitan area. Bangkok, in this respect suffers, insofar as the exceedingly high traffic generates high levels of pollution.

The other major impediment is the elevated cost of living. While to Western standards Bangkok seems to have an extremely low cost of living, most of our global index sees much lower amounts for cost of living, the cost of utilities, and the cost of coworking spaces. These factors negatively impact startups, which must assume these costs to stay operational. For example, even though the number of coworking spaces is growing and it is a strength in the Startup Scene domain, the cost is very high. Bangkok ranks 37th, with an average of \$165.83 per month for a co-working space while the global average is \$109.71. The expense of a coworking space has an impact on the type and maturity of startups and companies that can afford to rent there, which represents a disadvantage for startups that are on their way to growth and consolidation. In particular, the cost is a hindrance to new startups, who have low cash balances and can seldom afford the going rate for a coworking space in Bangkok.

Bangkok ranks very well in water supply quality, electricity access, and in low levels of electricity outages, all of which are crucial for a business to run without interruption and to focus on daily business growth activities rather than be inconvenienced. Bangkok can take advantage of a comparatively well-developed infrastructure when compared to many cities in our global index. The quality and access to utilities are a strength for Bangkok's ecosystem. The indicators for water supply quality and electrical outages received perfect scores. According to the World Bank, the delivery or supply of water and electricity is very reliable and zero outages reported on a monthly basis. Electricity access also has a very good score, 97.24, which accounts for the time needed to have an electrical connection. In Bangkok's case, it takes an average of 7 days while the global average is 44 days.

Compared to 2017 estimates, pollution, cost of living and utilities cost have all seen a slight negative evolution, most likely due to population growth and the inability of the infrastructure to scale with it.



Average cost of co-working space in Bangkok: \$165.83 USD/month

Average global cost: \$109.71 USD/month

ICT

Subdomain of Infrastructure

The infrastructure related to information and communication technology is a strength of Bangkok's ecosystem. The existing conditions are favourable to foster new development and innovation opportunities for startups. This subdomain ranks 4th in the Global SFI and all its indicators are above the global average. The cost and quality of the services related to this domain make the city attractive for startups.

Where Bangkok ranks lower in the global SFI is only inasmuch as the comparative higher costs of internet, mobile internet, and mobile subscriptions. Cost of living in Bangkok is elevated due to the traditionally higher cost of such a sprawling metropolitan area and the allure of a global destination for tourists and expats. The costs associated with Internet and Mobile internet and subscription are not that competitive compared to the other SFI cities. The internet, for instance is around \$23 per month while the global average is \$27.

By contrast, Bangkok performs much better in the indicators that measure technological penetration, such as mobile broadband penetration, where it ranks second in our global index, and mobile subscriptions, where it ranks first globally. The overall high penetration of ICT provides a favourable context for startups to explore and develop new kinds of businesses and offers opportunities to expand. The readiness of technological conditions presents the opportunity of reaching a wider audience and propel startups to their fullest potential.



KEY TAKEAWAYS

Bangkok is an attractive destination for startups with a well-developed infrastructure and few daily impediments to the daily operations of a business. The comparative advantages in terms of quality and cost of living are optimal for attracting new entrepreneurs and talent. The growth and penetration of ICT represent a new scope and business opportunities. The biggest area for improvement is transportation in which the growing problem of traffic, congestion and pollution directly affect overall quality of life as well as a startup's ability to hire top talent.



5. Macro-Political and Legal Framework

Bangkok performs well in the Macro domain, ranking fourth globally with a score of 65.11. This domain considers indicators on political stability and representation, the legal framework, and the impact of crime and informality. Low crime rates and favourable legal frameworks are strengths for Bangkok while political stability as well as corruption perception and control show potential weaknesses for the city. Overall, the city has improved marginally from 2017 to 2019, gaining about 1.80%.



Political

Subdomain of Macro-Political and Legal Framework

Bangkok ranks better than average in the Political subdomain from our global index. With a score of 44.95, it ranks 18th globally. Though there are many strengths, Bangkok does not perform as well in this subdomain as it does in many others due to some specific challenges.

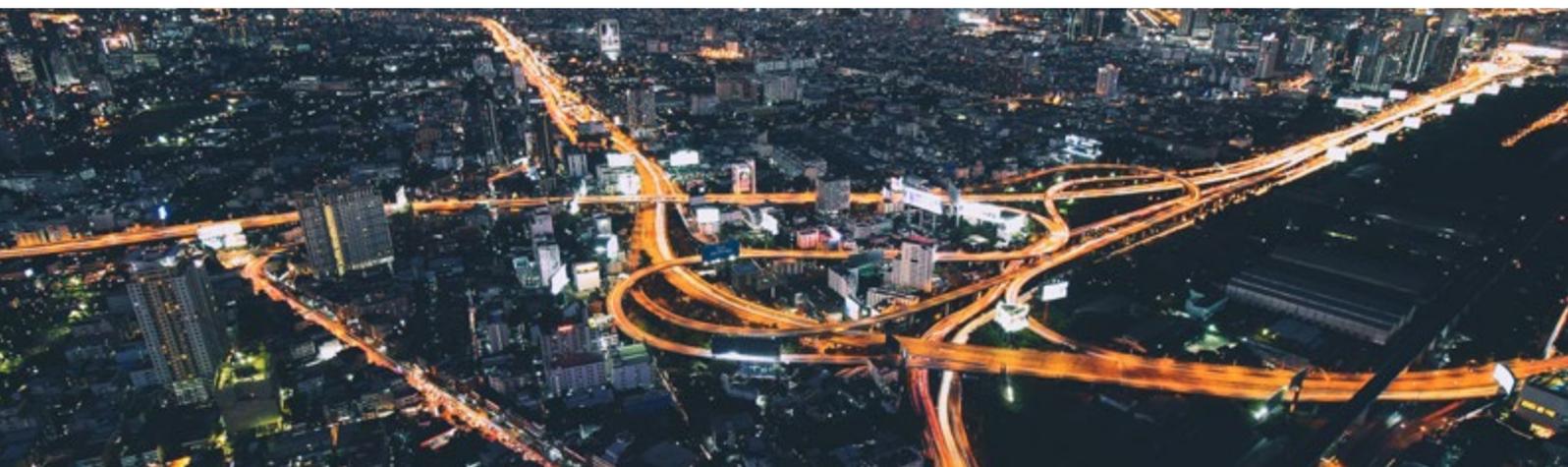
In particular, the country struggles somewhat with political instability. The result can scare away foreign investments and encourage investors to move their capital in other countries in the region, in particular Singapore and Hong Kong. The Political Stability indicator reflects this with a score of 41.47 and ranking Thailand 16th on our global index. A Thai business owner, speaking under anonymity, said of the political climate: “The politics affects us a lot. Not directly, they don’t harm us. But if they manage the country well, then the economy grows. And if they don’t, the economy does not grow and there’s not a lot of income.”

However, many feel the recent changes are completely normal and to be expected in the context of a Thai business. “There isn’t really an effect on startups,” says one businessman. But others see the perception of instability as giving local Thais hesitation to start a business and instead look to Singapore or Australia. “There’s a certain amount of fear that their democracy is not strong enough to protect their interests and an honest business could be subverted without due process,” said one anonymous Western entrepreneur. Indeed, our Democracy Level indicator, based off of the The Economist Intelligence Unit’s Democracy Index and reflecting five categories of democracy (electoral process and pluralism, civil liberties, functioning of government, political participation, and political culture) on a scale between 1 and 10, gave Thailand a score of 4.63, placing Thailand 25th on our global index. Suring up their political stability could make a great effect on the startup culture in Thailand.

“The politics affects us a lot. Not directly, they don’t harm us. But if they manage the country well, then the economy grows. And if they don’t, the economy does not grow and there’s not a lot of income.”

18th

Bangkok ranks above average for it’s Political Subdomain



Legal Framework

Subdomain of Macro-Political and Legal Framework

Bangkok has a unique legal framework that, in addition to constraints to the labour market mentioned in the Human Capital domain, strongly affects startups' ability to recruit foreign talent. For many years, the Thai government has regulated the presence of foreigners in the country. Foreigners cannot own a majority share in a Thai company (Americans are an exception under the Amity Treaty).¹⁰

Still, Thailand is a magnet for foreigners. Many are allured by the culture, food, scenery, and cheap cost of living. This has created a vibrant culture of expats in all of Thailand, especially Bangkok. Many times, foreigners bring in capital they have earned in more developed nations and take advantage of the comparatively low cost of starting a business in Thailand. For this reason, it is extremely common to see partnerships between Thai nationals and expats as co-owners of a business. The foreigner brings to the partnership capital while the Thai citizen contributes his nationality and knowledge of the culture and language. These partnerships are often split 51-49% favouring the Thai national.

The policy is controversial, with many Thais favouring them and many Westerners finding them unnecessarily blocking the growth of the business culture in Thailand. Thais, who are extremely proud of their culture and of having never been colonized by Western forces, see these policies as a necessary protection against colonist forces. "I really feel it's fair," says the Thai business owner we spoke to, "it really operates more like a 50/50 partnership. It's advantageous to me because I get to act as the investor and reap the rewards even though he has brought the capital." Others, such as a Thai social entrepreneur we spoke to, see the problem the law poses: "The government wants to help startup culture but sometimes direct their resources to the wrong places. We need to rethink the 51-49% rule and we need to put in policies that invite foreign investment."

Others echoed this view on policies they feel block economic growth for Thailand. "These policies were put in place to protect Thais, but they are like any other economic policy that creates borders. They end up hurting the economy. The free flow of trade is essential for any country to thrive," said one Western investor speaking under anonymity.

"These policies were put in place to protect Thais, but they are like any other economic policy that creates borders. They end up hurting the economy. The free flow of trade is essential for any country to thrive."

Though it is not complete to say the Thai government has blocked any ability for Western investment to enter the country. For example, the NIA created a special smart visa permit specifically geared towards entrepreneurs, though some note they can be difficult to acquire. Sources note that it is slowly evolving but it's too soon to tell if it will head in the right direction. The government announced last year a 105 billion baht investment in funding for startups in 2018 with the capacity for 1,000 smart visas to be issued.¹¹



It is extremely common to see foreign-Thai partnerships, with ownership split 49-51%, favouring the Thai national.

10. Siam Legal. "US-Thailand Treaty of Amity". Accessed 24 Nov 2019.

11. Leesa-Nguansuk, Suchit. "Smart visas eyed to draw entrepreneurs". The Bangkok Post. 30 Apr 2018.

Thailand ranks extremely well on its VAT tax, ranking 2nd in the global index. Business registration time and costs are also among the highest in our global index with scores in the high 90s. The corporate the statutory corporate tax rate can pose as an issue for businesses. At 20%, the corporate tax rate places Bangkok tenth globally, well above average. However, in Singapore the tax rate is 17%.¹² The proximity gives investors the option to exploit lower tax rates in Singapore. “Many startups just incorporate in Singapore and run their business out of Bangkok,” says one businesswoman of the issues with corporate tax. “It just makes more sense, and businesses that don’t are at a serious disadvantage.” It’s not only the lower corporate tax rate that makes this option more appealing to startups. “Being incorporated in Bangkok garners a poor reputation with outside investors,” she explains. The result is a loss of corporate tax revenue that could benefit Thailand.

Singapore also has tax exemptions in place for startups, high levels of confidentiality and privacy that are appealing to startups who have the choice to do so. Especially if you are looking for Venture Capital, our interviewees indicate, Singapore is better to incorporate in, due to legal requirements in Thailand and the general ease of doing business, including financial transactions. Overall, the legal frameworks tend to make foreign participation difficult and incentivize startups to seek better options elsewhere.



12. Singapore Legal Advice. “Corporate Tax in Singapore: How to Pay, Tax Rate, Exemptions”. 25 Sept 2019.

Crime

Subdomain of Macro-Political and Legal Framework

Bangkok scores a 68.72 for the Crime subdomain, ranking 13th on the global index, again well above average. Indeed, Bangkok sees many good scores in this domain, with Crime as a Constraint ranking first globally for not being a constraint and Informality as a Constraint also scoring positively for the city.

However, the city faces distinct challenges with bribery, corruption perception and control, and violent crime. “Bribes are common place,” said one Western investor, “but they aren’t seen as a major obstacle, rather as a part of doing business.” He views the Thai bureaucracy as robust, but focused in the wrong areas. This is owed mainly to Thailand’s long-time struggles with drug and sex trafficking. “There’s a lot of focus on getting bad people out of the country,” he explains, such as the mafias and Golden Triangle trafficking (the region of their border that is shared with Myanmar and Laos and is commonly known for trafficking). “Most of their crime laws are focused on this area.”

“There’s a lot of focus on getting bad people out of the country,” such as traffickers and mafias that operate heavily in a region known as the Golden Triangle“



There are very strict rules to even move around Thailand as an expat. For instance, the TM47 Immigration Act requires all immigrants to report to the government every 90 days, even if they hold a work permit.¹³ All of these act as checks by the Thai government to monitor the expat population and adds to the restrictions to owning a business there. “It’s really preventing the right talent from coming in,” he concludes.

13. BBC News. “TM30: The form getting expats in Thailand into a bureaucratic tangle”. 29 Aug 2019.

KEY TAKEAWAYS

Thailand ranks strongly in the Macro Domain, 4th in our overall global index. There are many systems in place by the government to protect Thailand, while still attempting to allow foreign talent to flow in in moderation. However, the result is sometimes a bureaucracy that is complex and difficult to navigate as a foreigner. “These restrictions negatively affect startups who cannot bring in the right foreign talent when local talent is not sufficient.” Improvement in political instability in the country and corruption could go a long way to strengthen Thailand’s Macro Political and Legal Framework even more. For startups, these areas are particularly challenging, but there is a way to easily improve. “There should be allowances for startups,” recommends one entrepreneur, “so that if you are a startup you can have access to tax benefits, visa benefits, grants and funding. It is being increasingly discussed in Thailand, but no action has been taken yet.” If special considerations were allowed for startups, they would be allowed to achieve greater success and bring more wealth into the country.

6. Market Conditions

The market conditions are the context where the startup ecosystem is embedded, measured by the Market Performance and its Connectedness. Bangkok provides comparatively stable and competitive conditions to foster growth and expansion, ranking 3rd in the Global SFI among 45 cities. Although this domain ranked well comparatively, its score is humble — 52.63 for the domain as a whole — and if contrasted to 2017’s estimate, shows little improvement.

The country’s economic shape remains attractive and convenient for entrepreneurs, but some aspects are also stagnant. The Economic Growth indicator for instance illustrates this economic slowdown, ranking 17th, the lowest position within the domain, but still performs above average.



Performance

Subdomain of Market Conditions

Bangkok has an overall good performance regarding its economic potential and growth, measured by GDP PPP per capita, economic growth, deposit interest rate, capacity utilization and trade balance. The city ranks very well, pulling 3rd place in the Global SFI behind Singapore and Berlin, with Singapore’s high level of trade as a major port of entry for neighbouring countries significantly skewing the data.

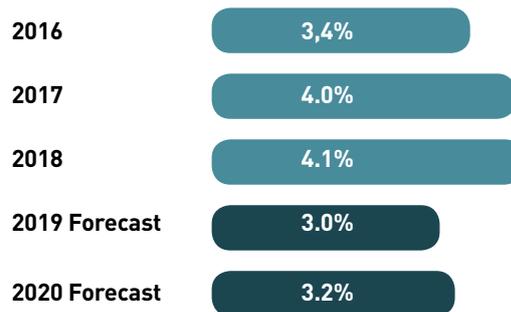
The standard of living in Bangkok, measured by the GDP per capita, represents a comparative advantage for entrepreneurs, both local and international, ranking 5th in the Global SFI. Bangkok performs in the top five of our global index in deposit interest rate, capacity utilization and trade balance, all of which serve as proxy measures for the health of the economy. The data suggest Bangkok’s entrepreneurs have the adequate conditions for starting and growing a business, but these indicators have shown little to no improvement since 2017.

According to the Asian Development Bank, the forecast for Thailand’s GDP growth is on the decline. Overall projected economic growth for 2020 stands at 3.2%, in contrast to the previous two years when it achieved a 4% growth.¹⁴ Some economists point to the baht’s growing strength as the source of the slow down. The strong currency, they assume, has diminished the country’s regional competitiveness by lowering its goods exports and tourism rates, the two main drivers of its economy.¹⁵ Compared to other countries in Southeast Asia, the country’s GDP growth ranks 3rd among 15 cities behind Singapore and Kuala Lumpur. In this light, we see the economy as relative strong and stable.

Some of our interviewees noted the decline of growth of the economy, noticing a slight downturn and the effects it had on their business. One Thai entrepreneur said, “The economy has technically seen growth, but the buying power of customers has not increased, so we see a decrease in business.”

“The economy has technically seen growth, but the buying power of customers has not increased, so we see a decrease in business.”

GDP: Growth Rate: Thailand (%per year)



Source: Asian Development Bank, Asian Development Outlook 2019 Update

¹⁴. Asian Development Bank, Economic Indicators for Thailand.
¹⁵. Cumperayot, Phornchanok. “What Does a Rising Baht Mean for Thailand’s Economy?” The Diplomat. 30 August 2019.

Connectedness

Subdomain of Market Conditions

Bangkok's connection to other cities and markets fare comparatively well and most of the indicators that measure it rank among the top five positions, except for Sister Cities that ranks 10th. However, the scores for this domain are fairly modest, a sign that these aspects can be improved.

Tourism and trade openness are traditional strengths for Thailand and serve as cornerstones for the Thai economy. While the scores for tourism and trade openness may seem modest, 22.78 and 34.28 respectively, both rank third on our global index, only behind Singapore and Malaysia, both of whom perform remarkably strongly in each category.

The overall connectedness of the Thai economy is an interesting debate. Many voices in the West, such as our interviewee who actively invests in Thailand, sees the incredible potential of Thailand and laments that it does not perform to the fullest extent of that potential. "In Thailand, you have an incredibly unique and strong culture," he explains, "it is almost impossible as a foreigner to ever fully understand or be accepted into it. The language is so complex and the culture so specific that only Thais can really serve Thais in this aspect." As a result, the barrier to foreigners designing any solution for Thais are extremely high. "It is a unique strength," he adds, "but in the past Thai startups seem often be content to only create solutions for Thailand and not expand to the rest of the region or globe."

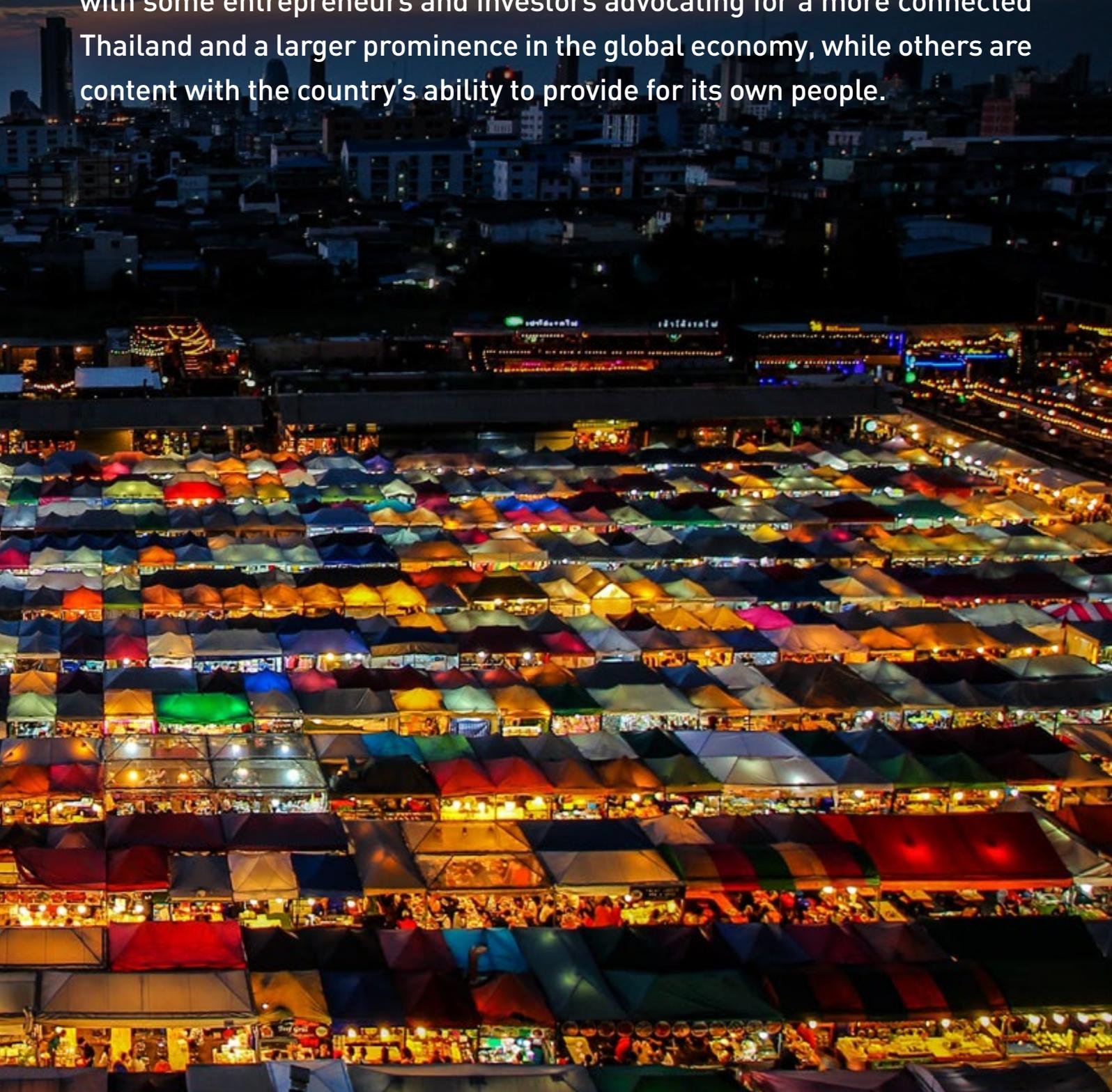
It is an opinion Thais seem to echo, though with a different conclusion. In an interview with a Thai business owner, he noted the strong cultural differences saying, "We have a very different mindset here. Sometimes foreigners are very straightforward and we beat around the bush. We are very traditional here." Of regional and global expansion, he said, "We focus on Thailand because that is our strength. We are not capable of a greater scale of competition. Sometimes Westerners have new ideas — good ideas, innovative ideas. But if those ideas come into our country, our market could be jeopardized. We don't want to eliminate our own local economy. We know how the market works here. The global market is an unknown." The general perception of Thailand's regional and global growth and connectedness, then, is the same across cultural lines. What differs is the priority of it.



“Sometimes Westerners have new ideas — good ideas, innovative ideas. But if those ideas come into our country, our market could be jeopardized. We don't want to eliminate our own local economy. We know how the market works here. The global market is an unknown.”

KEY TAKEAWAYS

Bangkok's stable and strong economy is one of the ecosystem's strengths. Its performance is an incentive to attract more startups to the city but the economy has slowed slightly in the past few years. Overall, the baht holds strong and the government is taking measures to protect the country's two main cornerstones of the economy: tourism and trade exports. In the connectedness subdomain there is still room to grow and improve, with some entrepreneurs and investors advocating for a more connected Thailand and a larger prominence in the global economy, while others are content with the country's ability to provide for its own people.



Ecosystem Development Recommendations

Bangkok's startup ecosystem has many strengths, but many challenges also remain. Political instability, legal restrictions, poor infrastructure and deep inequality are the largest issues facing Bangkok specifically. Four recommendations are presented below to address these challenges, including improving policies, preparing entrepreneurs, supporting entrepreneurs, and improving infrastructure and market conditions.



Improving Policies

The Thai government has been generally active and supportive in the promotion of entrepreneurship through the efforts of the NIA, which hosts events, awards grants, and promotes the values entrepreneurial endeavours. However, many of the country's policies are undoubtedly a hindrance to growing the startup scene, particularly in the country's priority to stem the flow immigration and expatriation from the region and Western countries in general. The 20% foreign labour cap and legal requirements on foreigners, even those holding a valid work permit, in particular are burdensome and actively work to discourage talent from entering and remaining in the country.

For startups, this is especially challenging if they cannot find the talent they need from Thai nationals. But there are ways to mitigate them in the context of startups. As previously mentioned, exemptions for businesses that qualify as a startup can go a long way to improve the prospects for the Thai startup ecosystem. Relaxing some of the bureaucratic rules and making the process to acquire a work visa would also be invaluable and allow startups to hire the talent they need to innovate and create new ideas.

Market connectedness, human capital, and macro political frameworks are considered strengths for Bangkok and Thailand as a whole when compared to our global index, but there are overall policies that encourage a protectionist attitude and work to preserve Thailand for Thais. Removing these policies entirely are unlikely — they are popular within Thailand and are rooted in a deep sense of pride for the Thai culture. However, promoting political stability and providing an easier pathway for foreign talent to contribute to Thai companies would be the appropriate measures if growing the economy is a top priority. If preservation of culture and national identity, on the other hand, is a higher priority for Thailand, then the current policies work to serve that purpose.



Preparing Entrepreneurs

While education in Thailand is increasingly headed in the right direction, there are many indications that the country can do a better job of adequately preparing graduates to meaningfully contribute to a career in the modern economy, particularly in their ability to build innovative solutions for Thailand, the region, and the world. Improving curriculum throughout the educational process to focus on technical and applied skills and garnering a culture of critical thinking may help bridge the gap between talent and the skills needed by startups (for example, engineering and IT).

Other improvements to better prepare entrepreneurs could start by encouraging young people to embrace startup culture early in life. Events targeted at teenagers and universities, such as hackathons, coding classes, and tech events, especially those aimed at women, are a great way to spark interest in Thailand's next great entrepreneur. By investing in growing the entrepreneurial spirit of the upcoming generation of Thai citizens, Bangkok can expect to see a growth in their ecosystem to push the city in the right direction.



Supporting Entrepreneurs

Beyond policy measures to improve the education and preparation of entrepreneurs within Thailand, there are a number of practical ways to support current entrepreneurs. Currently, it is common to access the capital required for a startup by partnering with a foreigner who has earned the money abroad or from family wealth. The vast inequality in Thailand overall lends to these common methods of sourcing capital for a startup and pushes many would-be entrepreneurs to prefer high paid if they have the opportunity.

In order to support entrepreneurs without clear cut access to funding, the Thai government has invested time and resources to grants, events, and matchmaking services between investors and startups. But more can always be done to advance the Thai economy. Spreading a culture of innovation and investment, even in untested ideas, can go a long way to see that more entrepreneurs with the next big idea can get their business off the ground.

Furthermore, accelerators and incubators should focus on improving the quality of their programs in their ability to see a new startup through ideation and funding. By increasing the professionalism of the programmes and adopting international best practices, more startups can have the chance to reach the market to test their ideas. One such way to improve this is to bring in international mentors and increase the open exchange of ideas.



Improving Infrastructure and Market Conditions

Regarding infrastructure, the government efforts should focus on improving mobility conditions that affect productivity and attractiveness for startups. Traffic congestion and pollution have an impact on the cost and quality of life. Currently, the government has plans in place to improve the public transport service mainly through rail services, which are necessary to significantly address the problem. On a different note, the issue of the cost of the coworking prices should be reviewed so that they effectively fulfil the objective of connecting and building community instead of only serving as a real estate business.

Market connectivity is one of the aspects that must be improved in market conditions. In addition to a solid economy, it is necessary to establish and consolidate connections with other markets not only for expansion but also for the ecosystem's sustainability. Besides guaranteeing economic and trade conditions in order to achieve more connectedness, language and cultural barriers should be addressed to increase Thailand's ability to compete in the global and regional markets.



Acknowledgements

We would like to express our gratitude and appreciation to the entrepreneurs and professionals involved in entrepreneurship projects in Bangkok for taking the time to provide us with the necessary information and knowledge about startup ecosystems in the city.

We especially want to thank our many interviewees whose combined experience represents the interests and perspectives of investors, entrepreneurs, and large corporations as well as the cultural views of both Thailand and Western nations.

Special thanks to the many photographers whose work enhanced our report: Florian Wehde, Lisheng Chang, Dan Freeman, Tan Kaninthanond, Frida Aguilar Estrada, Jordan Opel, Hanny Naibaho, Zoe Chen, Yuzki Wang, Alexandre Chambon, Arisa Chattasa, Etienne Girardet, Banter Snaps, Rodion Kutasev, Mark Boss, Tanaphong Toochinda, tirachardz, Clay Banks, Mimi Than, Mario Gogh, Hans Vivek, and Riccardo Annandale. Photos sourced from Unsplash and Freepix.

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Sources and Indicators

INDICATOR NAME	SOURCE
Workforce Constraint	World Bank, Enterprise Survey
Skilled workers	World Bank, Enterprise Survey
University Score	TopUniversity.com; 4icu.org; Own Research For the Missing Data
University Students	TopUniversity.com; 4icu.org; Own Research For the Missing Data; Berlin Business Location Center.
Tertiary Education	World Bank - Gross enrollment ratio, tertiary, both sexes
R&D Expenditure	World Bank - Research and Development Expenditure / OECD Database
Labour Regulation Constraint	World Bank, Enterprise Survey
Graduates' salaries	Own Research, Berlin Startup Survey
Software Developers' Salaries	Payscale.com, Averagesalarysurvey.com
Female Participation	World Bank, Modeled on ILO estimate
Unemployment Rate	International Labour Organization, ILOSTAT database.
Female Entrepreneurship	World Bank, Enterprise Survey
Bank Loan	Own Research - Enpact Survey
Business Angels	Own Research - Enpact Survey
Accelerators and Incubators	Own Research - Enpact Survey
VC Funds	Own Research - Enpact Survey
Public Funding	Own Research - Enpact Survey
Funding Constraint	World Bank, Enterprise Survey
Loans Rejected	World Bank, Enterprise Survey
Collateral Required	World Bank, Enterprise Survey
Total VCs / PEs	MENA PEA, Adapted through own research
FDIs Net Inflow	World Bank
Business Angels (total number)	Angel List
Accelerators	Own Research, Expert Consultation
Incubators	Own Research, Expert Consultation
Co-working Spaces	Own Research, Expert Consultation
Technology parks	Own Research, Expert Consultation
Startup Events	Own Research - Enpact Survey
Total Startups	Crunchbase Pro
High Equity Funding Startups (over \$5 mil USD)	Crunchbase Pro

High Equity Funding Startups (over \$1 mil USD)	Crunchbase Pro
Transport Overall Quality	World Economic Forum
Roads Quality	World Economic Forum
Railroad Quality	World Economic Forum
Ports Quality	World Economic Forum
Air Transport Quality	World Economic Forum
Air Transport Capacity	World Economic Forum
Water Supply Quality	World Bank, Enterprise Survey
Electricity Access	World Bank, Enterprise Survey
Electrical Outages	World Bank, Enterprise Survey
Pollution Index	Numbeo
Co-working Space Cost	Coworker
Cost of Living	Numbeo
Electricity Quality	WeForum
Utilities' Cost	Numbeo
Internet Cost	Numbeo
Mobile Internet Cost	Own Research
Mobile Subscription Cost	Numbeo
Mobile Broadband Penetration	GSMA intelligence
Internet Speed (Download)	Startup Meter Survey and testmynet.com
Internet Speed (Upload)	Startup Meter Survey and testmynet.com
Smartphone Penetration	Multiple sources; see country comments for more details.
Internet Penetration	ITU
Prepaid Subscriptions	GSMA intelligence
Mobile Subscriptions	ITU
Stability	World Bank
Effective Governance	World Bank
Regulatory Quality	World Bank
Democracy Level	The Economist Intelligence Unit's Democracy Index
VAT	World Bank Doing Business Report
Corporate Tax	KPMG Corporate income tax tables
Contract Enforcement	World Bank Doing Business 2017
Resolving insolvency	World Bank Doing Business 2017
Business registration (time)	World Bank Doing Business 2017
Business registration (cost)	World Bank Doing Business 2017
Violent Crime	Economic Intelligence Unit (EIU) analysts
Crime as a constraint	World Bank, Enterprise Survey
Informality as a constraint	World Bank, Enterprise Survey
Bribery Depth	World Bank, Enterprise Survey
Corruption Perception	Transparency International
Corruption Control	Worldwide Governance Indicators

GDP PPP per capita	World Bank
Economy Growth	World Bank
Deposit Interest Rate	World Bank
Capacity Utilization	World Bank, Enterprise Survey (under Performance)
Trade Balance	World Bank
Trade openness	World Bank
Tourism	World Bank
Sister Cities	Multiple Sources
Logistic Performance Index	World Bank, Logistic Performance Index



enpact

enpact is a Berlin-headquartered non-profit organisation empowering entrepreneurs, ecosystems and international cooperation. enpact is one of the world leaders in the cultivation of startup ecosystems as a means to promote international cooperation and development. Through a variety of products and services, enpact supports founders and startups in Europe, Africa, Asia, Latin America and the Middle East. The goal is to create a global network of startup ecosystems that facilitates the exchange of ideas, solutions and support. At present, enpact's network consists of 600+ startups, 200+ mentors and 50+ support organisations in 20+ countries. 2500+ jobs have been created as a result of enpact's work with startups.