



How To Measure Incubators and Accelerators

The S4S Methodology & Best Practice for the Assessment of
Incubators & Accelerators in Developing Countries

A photograph of a tea plant with dark green, glossy leaves and a single, light-colored tea bud. A semi-transparent circular overlay is centered over the plant, containing the text 'An S4S Whitepaper Sept 2019'.

An S4S
Whitepaper
Sept 2019

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“Because entrepreneurship is critical for economic growth and prosperity, policymakers are honing in on entrepreneur support as a vehicle for stimulating economic development in emerging markets. Seeding more and more promising new ventures, and then smoothing the path from “small” to “small-and-growing” is seen as a viable means to create new jobs, as well as a viable alternative to traditional employment-based livelihood approaches. This imperative to double down on entrepreneurs who establish ventures with potential for substantial growth leads to a focus on how to identify and then accelerate promising early-stage ventures in places where development challenges are greatest.”¹

1. INTRODUCTION

In support of the UK's Innovation Agency, Innovate UK, S4S was tasked with developing a means of measuring the effectiveness of Acceleration and Incubation Programs in the UK. Based on the success of that effort, S4S developed this assessment to provide the same insights but in the context of developing countries. Many of the insights gained in the original work translate globally. Accordingly, this report outlines in detail a methodology to capture the efficiency and efficacy of business support programs with a focus on developing countries. It is informed by S4S's 12 years of programs, over 30,000 companies trained, over \$65 Million USD invested, working across 3 continents.²

In order to effectively assess the current capabilities of the Incubators and Accelerators (IAs) in developing countries an assessment methodology is needed that provides a comprehensive view of both the capacities and the shortcomings of the IAs; not only as a relative measure in the context of developing countries,

¹ Roberts, P. and Eden, G. (2018). *Accelerating Startups in Emerging Markets: Insights from 43 Programs*. [online] Galidata.org. Available at: [https://www.galidata.org/assets/report/pdf/Accelerating Startups in Emerging Markets.pdf](https://www.galidata.org/assets/report/pdf/Accelerating%20Startups%20in%20Emerging%20Markets.pdf) [Accessed 3 Jul. 2018].

² Ed. Note: Though this paper is focused on Incubators and Accelerators, the observations, insights, and tools to effectively measure IABs and remedy their shortcomings as discussed below are equally applicable to all entrepreneurship support programs.

but also as an objective measure on the world stage. We must, therefore, have a role model of best practice against which they can be compared.

To understand best practice, we must take into consideration key distinctions between incubators and accelerators, and between developed and developing economies.

Second, we must define from what sectors we will draw companies to be eligible for incubation or acceleration.

Third, we must define the scope of services IAs must include given that the ecosystems are generally not complete. Then we can turn to models of success as the basis for our assessment.

2. KEY CONSIDERATIONS

2.1 Definitions of Incubators and Accelerators

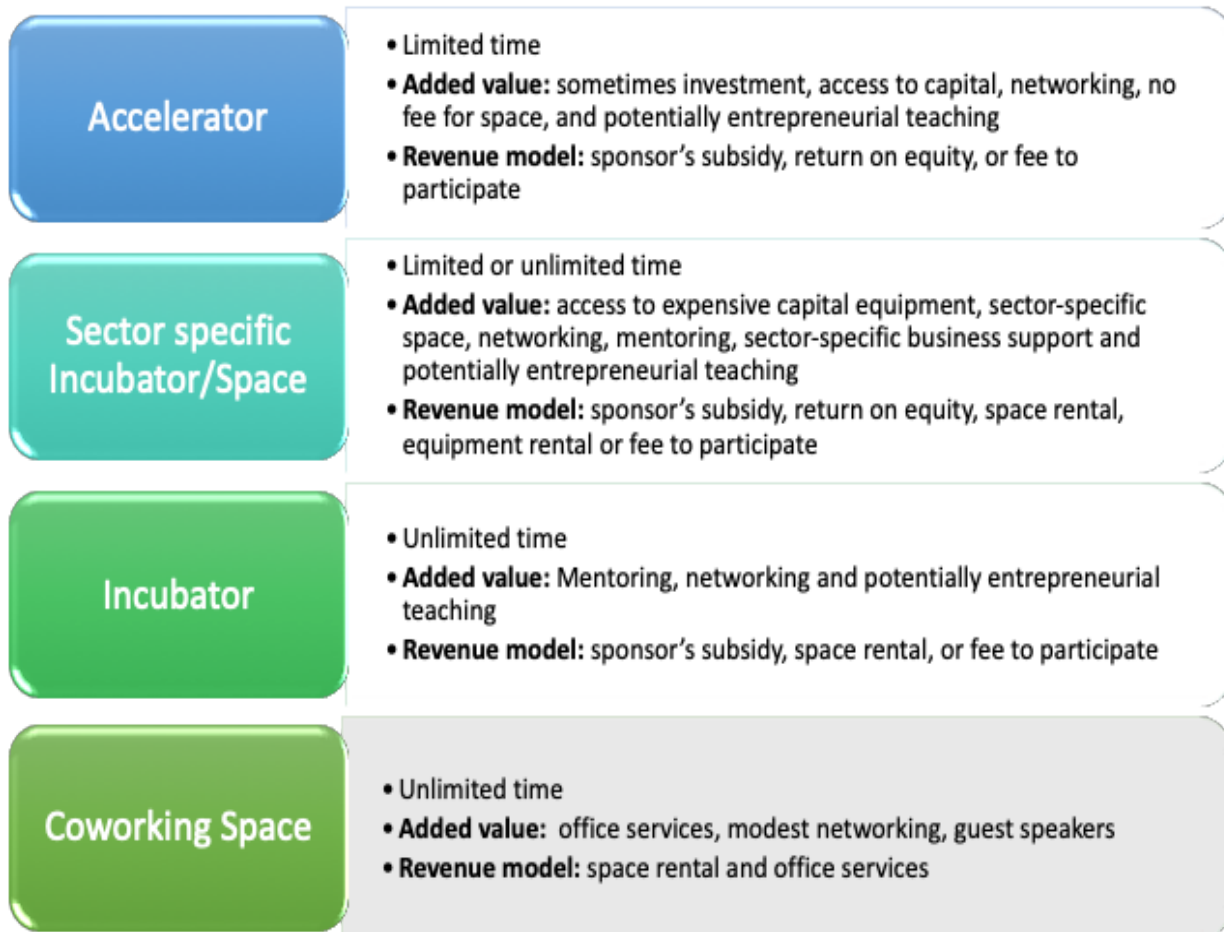
It is important at the outset to understand what we mean when we discuss Incubators and Accelerators. Further, there are two other types of organizations that need to be called out to understand the range of entities: coworking spaces and sector-specific work spaces.

2.1.1 Organized By Services Provided

Though they are typically viewed as completely separate types of organizations, they are better understood as organizations that offer a range of services in 7 key areas:

1. Office space and services
2. Sector specific space, tools and equipment
3. Entrepreneurial teaching and mentoring with a focus on business models
4. Networking
5. Access to capital
6. Direct investment
7. Time limits or none

Equally, what services they offer will be directly related to their core intent as an organization and their revenue model both of which will be discussed below.



As can be seen from the diagram above at the lowest level are coworking spaces which commonly offer space at a range of prices and office services. One step above them are incubators which are coworking spaces with added value in the form of mentoring, networking and potentially entrepreneurial education. (How much of these services they offer ranges tremendously, to the point that many incubators are little more than coworking spaces that have relabeled themselves.)

On top of the incubators lies a new type of entity, that adds in access to capital equipment and sector specific space. These organizations are frequently sector specific, such as Maker Labs that include equipment for manufacturing such as 3D printers, or Fashion Incubators that include equipment such as industrial sewing machines, pattern cutters, photography studios and showroom space or

Cloud Kitchens that focus on the need for food product startups to have access to professional kitchens in addition to traditional incubation services.



Example Food Incubator/ Cloud Kitchen

HBK Incubates is a shared commercial kitchen space and business support program for high-growth food enterprises.



Example Fashion Incubator

Fashion360 Accelerator provides development support, fashion business mentoring, a range of masterclasses and an individual workspace.

Examples of Sector Specific Incubators and Working Spaces

At the top are Accelerators. They differ in that they are for a short period, fixed time, are competitive to participate, and offer access to capital or direct investment.

The differences amongst these organizations can also be understood by the differences in their revenue models and efforts at self-sustainability which is discussed below.

2.2.2 Organized by Type of Sponsor

“While a ... number of private incubators may focus solely on providing returns on shareholder investments [many] of them are setup to enable organizations and academic institutions to bring technologies to the marketplace; and to promote local and regional growth.”³

As is discussed in more detail below, many incubators and accelerators are either funded by, or are part of, other institutions or organizations. (“Sponsors”). These Sponsors play a large role in the purposes of the IAs, and their funding and sustainability. Thus it is also important to organize the IAs by their type of Sponsor, or if they are truly standalone. Sponsor types include: Investment funds, government entities, universities, corporations or a combination of both.

³ A White Paper Guidelines -Metrics & Milestones For Successful Incubator Development Recommendation version 2.0 April 2013

The implications of they type of sponsor are addressed in the discussion of revenue models below.

2.2 Developed versus Developing Economies

For the most part, the blueprints used to design developing countries incubators and accelerators, copy elements from the original Silicon Valley programs.

“The problem with simple replication, however, is that emerging market entrepreneurs, ventures, and ecosystems can be quite different. Therefore, the same kind of program run in two different contexts might produce very different results.”⁴

Thus, any attempt at assessment must also take into account the local context and the special issues that developing economy entrepreneurs face. Amongst others, this will include responsibilities the IAs must take on that would otherwise be dealt with externally, and ensuring the curricula is localized to the locale and the sectors.

2.3 Broadening the Target to Include the Creative Industries

One of the largest opportunities to developing high quality deal flow is to expand the scope of potential businesses to be supported beyond STEM based businesses. Innovation and potentially scalable businesses exist more broadly than that, in traditional sectors that are ripe for disruption and in creativity based businesses that leverage developing countries’s current strengths rather than relying on its future strengths. It is in the program’s interest to broaden the catchment to include any form of business that innovates or uses IP in any form as the basis for their business. This primarily means including companies from the creative industries whose IP is based on creativity rather than science. This is a significant trend. There has been an increasing focus on the creative industries as governments have begun to realize that their creative industries have considerable potential to drive growth. For example:

⁴ Roberts, P. and Eden, G. (2018). *Accelerating Startups in Emerging Markets: Insights from 43 Programs*. [online] Galidata.org. Available at: [https://www.galidata.org/assets/report/pdf/Accelerating Startups in Emerging Markets.pdf](https://www.galidata.org/assets/report/pdf/Accelerating%20Startups%20in%20Emerging%20Markets.pdf) [Accessed 3 Jul. 2018].

- The UK has made the creative industries one of the focuses for entrepreneurial support in addition to its rich pipeline of STEM businesses.
- The IDB has defined the creative sector as the ‘Orange Economy’ and has shown a willingness to fund initiatives that support the growth of the creative sector.
- Colombia’s new administration has made the Orange economy its primary focus to drive entrepreneurial growth.

2.4 Broadening the Scope of the Assessment for Developing Economies

Based on the extensive experience of the Consultants, including a decade of entrepreneurship development and SME interventions around the world, we know that entrepreneurs sit on top of, and are invisibly supported by, an entire ecosystem. But ecosystems, outside of the few exemplary clusters in the US and Europe, are almost uniformly incomplete. So advancing a single intervention — such as incubators or accelerators - as the sole catalyst for expanding the universe of high growth start-ups — could seriously constrain their capacity to produce high numbers of successful startups. Thus, to effectively take into account the individual context of developing countries the analysis will include a map of the gaps that are **within the scope of an effective ecosystem but outside the traditional scope of I/As**. In this way we can ensure the analysis ensures attention is paid to creating local capacity along all points of the ecosystem and produces competitive market and demand-driven startups.

3. MODELS OF SUCCESS: SUSTAINABILITY & EFFECTIVENESS

The underlying truth about incubators and accelerators as pointed out in the Harvard Business Review article, ‘The Problem with Incubators...’ is that *“there are over 7,500 business incubators around the world, and most of them fail.”*⁵ Further, recent studies show that *“... [There is] no evidence that basic accelerator services of cash and co-working space have any effect on fundraising, scale, or*

⁵ Harvard Business Review. (2018). The Problems with Incubators, and How to Solve Them. [online] Available at: <https://hbr.org/2013/08/the-problems-with-incubators-a> [Accessed 3 Jul. 2018].

*survival*⁶ Given those sobering facts, it is important, at the outset, to provide a clear roadmap that developing countries’s incubators and accelerators can follow to become effective and sustainable.

3.1 The Central Role of Business Model Training

According to the latest research, some accelerators “distinguish themselves by their strong emphasis on entrepreneurship schooling, which provides ‘Entrepreneurial Capital’ to participants who are otherwise lacking it.”⁷

A robust curricula centered on teaching business model analysis and development is the means by which Entrepreneurial Capital is created. But not all entrepreneurship education curricula and teaching methods are the same. A strong case has been made that in order for entrepreneurial capital to be created through entrepreneurship education, the education itself must be relevant and localized and must be embedded within activity, context and culture. Knowledge needs to be presented in authentic contexts — settings and situations that would normally involve that knowledge.⁸ *(For a detailed understanding of the pedagogy and current research please see [Appendix 1: Situated Learning Theory](#))* The curricula itself must not only be localized but also develop the critical skills to analyze the business opportunity in the local context.

This is core to successful entrepreneurship education. In the simplest terms the curricula must be based on a methodology that explicitly develops the entrepreneur’s skill at analyzing their own and their peers business models in context and in real world circumstances. And it should be taught through the Socratic Method⁹, *(See [Appendix 3](#) for a detailed description of Socratic Method)* which

⁶ The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile. Juanita Gonzalez-Uribe, London School of Economics & Michael Leatherbee, Pontificia Universidad Católica de Chile

⁷ The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile. Juanita Gonzalez-Uribe, London School of Economics & Michael Leatherbee, Pontificia Universidad Católica de Chile

⁸ Nicholas Theodorakopoulos Nada K. Kakabadse Carmel McGowan , (2014), "What matters in business incubation? A literature review and a suggestion for situated theorising", *Journal of Small Business and Enterprise Development*, Vol. 21 Iss 4 pp. 602 – 622

⁹ The Socratic method is a well-proven form of inquiry and discussion between individuals, based on asking and answering questions to stimulate critical thinking and to illuminate ideas. The Socratic Method of dialogue between teacher and student subtly forces students to challenge every assumption they make about how the world works and to unpack the specific problems they face and fundamentally rethink the options open to them and the solutions they

forces the entrepreneur to engage in meaningful and impactful dialogue, which accelerates the development of their expertise.

When delivered correctly EET has been shown to improve outcomes and impacts. According to a recent study, *The Effects of Business Accelerators on Venture Performance*¹⁰, “...[The] participation in structured entrepreneurship training, above and beyond access to the basic services of cash and co-working space leads to significantly higher venture fundraising and scale. Results indicate that entrepreneurship schooling increases the probability of securing additional financing by 21.0%, ...that entrepreneurship schooling results in an increase of three times the amount of capital raised, helping firms increase their fundraising performance. Schooling also appears to increase venture scale: we estimate it results in a twofold increase in employees.”¹¹

In short, for accelerators in developing countries to be effective, they must build their entire model around a curriculum that: i) focuses on teaching business models, ii) that has been proven elsewhere and iii) which is taught using Socratic methods.

Given the evidence of the importance of teaching **business model analysis and development training** in the success rate of I/As, the Consultant also places a high priority in assessing I/As, not only on the availability of this form of training, but also at their competency in its delivery. The Consultants include measurements that look for:

- the inclusion of curricula that has been proven and validated elsewhere,
- that focuses first and foremost on developing and analyzing business models,
- and formal training of the I/As staff or contractors in both the curricula itself and the specific teaching skills needed for its delivery.

have developed. The students internalize the questions and thus develop for themselves the ability to dispassionately analyze their business and its challenges — and then formulate innovative and robust ways forward. **A more detailed examination of critical skills thinking may be found in, “The Case for the Socratic Method, July 2018”**

¹⁰ The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile. Juanita Gonzalez-Urbe, London School of Economics & Michael Leatherbee, Pontificia Universidad Católica de Chile

¹¹ *ibid.*

3.2 The Relationship Between I/As and Funding: the case for integration.

Development experts and entrepreneurs agree access to finance remains one of the biggest challenges faced by SMEs and start-ups. It is the area of entrepreneurship intervention with the highest degree of failure, right across emerging economies.

A recent World Bank study notes that, “*very few EET programs remedy the major problem of lack of access to finance*”.¹² Yet Consultant’s experience is that seed capital and 1st stage finance can be successfully channeled to start-ups and new businesses through the training and support program - thus enhancing the prospects of success for the start-ups and the training program.

Collaterally just as the integration of the funding improves the outcome of the training, the integration of the training improves the outcomes of the fund. It comes as no surprise that there is a symbiotic benefit to funds and IAPs if the two can be closely aligned and in fact integrated. The consultants have also found that providers of SME finance who use this approach have reduced costs and raised returns on financing SMEs right across the economy.

However, it is understood that providing startups and early stage businesses with capital can accelerate failure as well as success. Capital provided before the right business model has become embedded can frequently propel a business towards bankruptcy. Capital outflow from the business happens in all directions in the absence of the guiding path provided by the iterative analysis of the developing business model.

The solution to this issue lies in the concept of ‘Readiness Funding’ which dictates how a training and support program should be integrated with early stage funding. It starts with the core principle underpinning this whole approach, that new businesses can be measured by how well they reach agreed performance milestones. The milestones, when reached, release funds in agreed

¹² Alexandria Valerio, Brent Parton, and Alicia Robb (2014) Entrepreneurship Education and Training Programs around the World: Dimensions for Success, World Bank, Washington DC.

amounts on agreed terms for specific purposes to drive the business to the next milestone.

According to the recent study, *The Effects of Business Accelerators on Venture Performance*, “***Entrepreneurial education improves productivity...through the structured education and curricula, access to peer-to-peer networks, the structured accountability imposed by regular meetings and increases in the self-efficacy of the founders.***”

In order for there to be structured accountability, a training program must include two very different roles: Mentors and Monitors. The mentor’s role is to provide uncritical support and guidance to the entrepreneur. While the monitor’s role is to provide an impartial assessment of the entrepreneur’s progress toward their agreed upon milestones. Thus, the entrepreneurs, their mentors and their monitors must agree on the milestones to be achieved and the entrepreneur’s progress is reviewed at regular intervals.

An agreement on milestones can only happen if all parties share a common analytic approach and engage in that analysis together which means a single curricula based on a single methodology for analyzing the business’s progress used by all parties involved.

Thus in a Readiness Funding model, the Investment Manager is a participant in the discussion between the entrepreneur, the mentor and the monitor. The investment manager’s role is to assign the amount of funding that would be released if the entrepreneur meets each milestone in addition to their traditional role of setting the terms of the investment. The monitor becomes the bridge between the training program and the investor. This approach works regardless of the form of investment, whether it’s a grant, a loan or an equity investment.

3.3 Sustainability of Accelerators

As noted in the Gust report, “*In 2015, a majority of accelerators globally still indicated that they intended to follow the traditional “cash-for-equity” model, which involves*

“As the impact accelerator market matures, there is increasing recognition that a one-size-fits-all approach is not effective. Market dynamics are highly unique in different industries or geographies, and thus it is most useful to give enterprises lessons and resources that are directly related to their specific niche. Accelerators are increasingly developing customized models of support with local or

*investing a small amount of seed money in a startup in exchange for equity. **This model has now been abandoned by a majority of accelerators.** The reason for the pivot is, most likely, the small number of exits which has proven insufficient in funding their operations. To make up for the expensive day-to-day upfront costs accelerators have deployed new models that allow them to generate revenue.¹³*

The key to understanding accelerators is to understand that the majority are not self-sustaining entities, but rather are extensions of other organizations (“Sponsors”) for whom the costs of subsidizing the accelerator are an investment in pursuit of a greater goal. Typical Sponsors are venture investment funds, corporations, universities or governments.

- For venture investors, accelerators give them early access, cheap equity and the ability to take a prolonged look at the startups.
- For corporations, it’s a means of testing disruptors to their own businesses, and a means of developing innovation at a discount to internal investment.
- For universities it is a means of empowering tech transfer and retaining an economic interest in the IP.
- For governments it's a means to developing an entrepreneurial economy.

Of course, not all Incubators or Accelerators have a Sponsor or are part of another organization, which means they do need to find a route to sustainability. Or they do have a Sponsor but it is with the understanding that they will achieve sustainability at some point in the future.

Some would argue that there is no purpose in making an accelerator sustainable. It’s purpose is defined by its sponsor and it is an effective tool in pursuit of the goals defined above. But it is worth noting that the largest cost of an accelerator is the cash invested in the startups in return for equity. For a venture fund or a corporation the investment is core to its effort to secure advantage. But for governments and Universities, it is largely irrelevant. Universities will generally receive equity as a result of their ownership in the underlying IP and governments are focussed on growing the economy. And

¹³ (<https://www.entrepreneur.com/article/300921>)

given that equity investment has proved to be an ineffective revenue model, its removal can drop the costs of an accelerator substantially.

Of course, the startup still needs seed capital, but that can be dealt with by having a seed capital fund alongside the accelerator, as is the case in developing countries. In fact, as discussed above, there is an advantage to having the seed capital fund deeply integrated with the training programs within the accelerator.

By removing the equity investment the reduction in operating costs now puts sustainability in reach. But it means looking beyond the scope of current accelerators. It requires a more expansive set of services and multiple lines of revenue.

3.4 Sustainability of Incubators

Most incubators, as mentioned above are little more than co-working spaces and their revenue model reflects that truth: they charge for space and make a profit on it. This model constrains their ability to offer high value services if those services are also high cost. Thus, the question for incubators is, how can they actually provide value beyond the space.

There is an emerging trend to offer incubators that are sector specific and which are also labs for the development of pilot products which depend on capital equipment. This can be seen in the rise of 'Maker Labs', 'Fashion Labs' and 'Cloud Kitchens.' In all cases the incubator provides a very high value by supplying capital equipment that is necessary for the startups in that sector, but which is too expensive for them to obtain on their own. Maker Labs tend to provide tools such as 3D printers and other prototyping tools. Fashion Labs provide industrial sewing and pattern making equipment as well as design spaces, showrooms and photography studios. Cloud kitchens are fully equipped industrial kitchens. The rise of these sector specific, capital equipment sharing spaces are is one of the biggest trends in incubator development and is potentially key to developing countries leveraging its current strength in the Creative Industries as its global brand abroad.

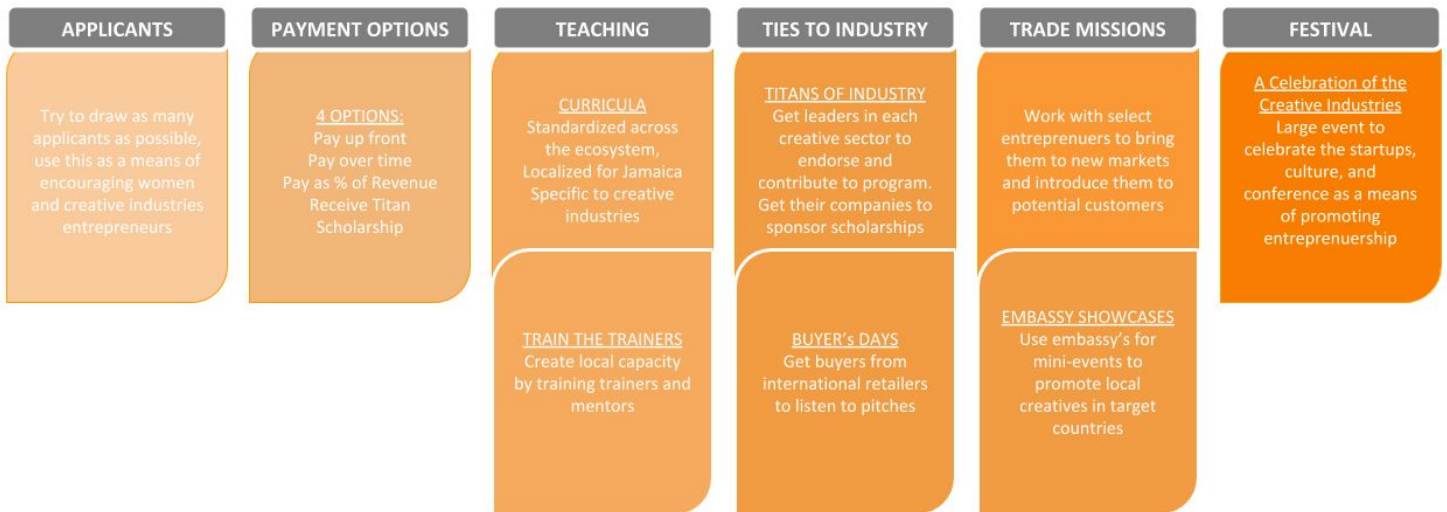
An added value of sector specific incubators is that it provides an increased likelihood of developing partnerships with companies in the industry; which

can lead to mentoring, partnerships, distribution opportunities and in some cases investment.

3.5 The Structure of an Effective Accelerator in Developing Countries

This section explains how to set up an effective accelerator program for a developing economy. **The key difference between an effective model for an accelerator in developing countries and one in a developed nation is the scope of its activities.** An accelerator in a developing country must increase its scope to include activities that might be already available in a fully developed ecosystem but which are rarely available outside of a developed economy.

BEST PRACTICE MODEL FOR ACCELERATORS



The key elements, as shown in the above diagram break down into the following components areas: applicants, payment options, teaching, ties to industry, accessing distant markets and culture change initiatives.

3.5.1 Applicants

The application process of an effective accelerator must look at both issues of awareness and selection advantage.

3.5.1.1 AWARENESS

The application process is driven by awareness. The goal is to make sure as many people as possible know about the opportunity. Further, it needs to be attractive. There has to be a PR effort around the program.. This is helped by the Titans of Industry initiative that is part of the program design. After the first year this becomes much easier because the Festivals and other culture change initiatives will draw new applicants. *(The Festival and The Titans are discussed in detail later)*

3.5.1.2 SELECTION ADVANTAGE

One of the characteristics that successful training programs, incubators and accelerators have in common is called Selection Advantage. Selection advantage refers to the advantages conferred on accelerators that have the freedom and the opportunity to choose startups that are more likely to succeed from a large pool of applicants. This advantage is due to a variety of factors, not all of which are within the program's control.

The most significant factor that determines whether there is selection advantage depends on the underlying goal of the program. If the program is focused on disadvantaged populations, then selection advantage is not relevant. Selection advantage has to be understood in the context of the selection pool from which the IAP is choosing.

But in the instance where the focus is on choosing the businesses with the most potential, there are key practices that improve the selection process: First is how effective the program is at reaching all potential attendees through its marketing and awareness efforts. The larger the pool the greater the advantage. Second is how it manages the prospects that are not chosen for the immediate cohort and what can be done to make them ready for succeeding cohorts, and third is whether the selection process is objectively structured and impartially managed.

3.5.2 Payment Options

The goal of the revenue model is to get the Accelerator self-sustaining over a number of years. The revenue streams come from:

1. The entrepreneurs. They have payment choices depending on their level of need:
 - a. If they can afford it then they must pay up front.
 - b. If they can show that they cannot afford it, then:
 - i. They can pay on a payment plan
 - ii. Or as a % of revenue. They sign a contract agreeing to pay a percent of the revenue from the business when it begins to generate revenue. This means they only pay when they can afford it.
 - iii. They can apply for a Titans Scholarship. Titans scholarships are sponsored by large companies in each of the creative sectors.
2. Festival Sponsors. This is discussed later, but the Festival will draw sponsorship.
3. A subsidy from the government that starts at a high level and then decreases each year.

3.5.3 Teaching

There are two components to teaching in an accelerator: the characteristics of the curricula and the potential for developing local capacity to teach.

3.5.3.1 CURRICULA

There are four key characteristics of the curricula that define best practice for teaching entrepreneurship:

1. The curricula must focus on developing and analyzing business models. It's been shown that learning how business models work, and what it takes for one to be successful is the most important thing for early stage entrepreneurs. (See [Appendix 2](#) for an in depth explanation for the SAS approach to teaching business model analysis)
2. The curricula must be localized to the geography. Entrepreneurs in each country will face challenges that apply to all entrepreneurs and also challenges that are unique to the locale. The curricula must reflect that. Further, case studies must be based on local successes both for their aspirational value and for their relevance.

3. The curricula should be tailored to specific industries. So a curricula for creative industries startups should be different than the one for STEM or high tech startups.
4. The curricula should be standardized and should provide a common template for analyzing the businesses across mentors, monitors and investors

3.5.3.2 TRAINING THE TRAINERS

The best way to propagate best practice is to institute teacher and mentor training alongside the accelerator program so that the teachers can see best practice in action. As a rule there are three stages: they support the teacher of the program, they then co-teach with the program teacher, and then they lead with the program teacher assisting and assessing them. Thus, the second generation of teachers are ready to begin teaching on their own by the 3rd year of the program. But each year from then on graduates a new set of teachers as well as entrepreneurs.

3.5.4 Ties to Industry

There are two groups that the accelerator needs to cultivate in order to be most effective: entrepreneurs who are already successful in each business sector and Buyers who represent the potential end customers of the companies in the program.

3.5.4.1 TITANS OF INDUSTRY

The Titans of Industry initiative reaches out to leaders and role models in each of the creative industries sectors, such as fashion or gastronomy and invites them to contribute as little or as much as they can. It could be merely an endorsement or a guest lecture or perhaps even some one on one mentoring.

Additionally, the hope is to also secure some scholarships from the Titan. These scholarships would be named after the Titan and would go to entrepreneurs in the Titan's specific industry.

Scholarships should also come from other sources that are not necessarily tied to the Titans.

3.5.4.2 BUYERS REPRESENTING END CUSTOMERS

Buyer's Days bring to the young companies Buyers from major retailers in potential international markets. This is difficult in the early years as Buyers are not likely to travel, even if their expenses are paid for. But it can be very rewarding. The alternative are the trade missions.

3.5.5 Accessing Distant Markets

Helping companies gain access to the highest value potential markets is key to the accelerator's success. There are two tools available: trade missions and embassy showcases.

3.5.5.1 TRADE MISSIONS

Trade missions are highly curated trips that bring select groups of entrepreneurs to the marketplaces where their products might export to. For example, young clothing designers could be brought to Miami or New York or London. It is part of raising aspirations, not just amongst the entrepreneurs but of the government as well.

3.5.5.2 EMBASSY SHOWCASES

Embassies provide a natural beachhead into a new country. They can host a mini-tradeshaw to showcase designers or other creative companies and use the convening power of the embassy to draw in the press, the retail and wholesale buyers and potential customers.

3.5.6 Culture Change

Culture change initiatives are both within and beyond the scope of a particular accelerator, but they are fundamental to the effort. The best tool for culture change is to celebrate the companies that are part of the accelerator programs.

This can be done through an investment in PR, such as social media, through TV with shows produced to follow the entrepreneur's journey, and through festivals that celebrate the entrepreneurs. A Festival should combine a showcase of all the young companies across the IAs., fashion shows, music, art, exhibits, talks and events, all celebrating the culture and creativity of developing countries. It serves as a launchpad for the companies, as a way of bringing

awareness to the program and creating a buzz around creative entrepreneurship.

4. ASSESSMENT AND MEASUREMENT

The materials that follow are quite detailed and form the basis for the taxonomy from which an assessment can be drawn. It is assumed that the metrics need to be shaped to be effective in any particular locale.

4.1 Categories and Metrics

The list of potential metrics breaks down into five overall categories: Enterprise & Entrepreneur Identity, Enterprise Accomplishment, Program Value Creation, Evaluation of Services: Incubator Maturity and Capacity, and Selection Advantage. Below we list the 5 categories, provide the key metrics within each category and provide examples of measures or data points for each metric.

The different categories target answering different questions.

1. Enterprise & Entrepreneur Identity capture data that is focused on understanding the entrepreneur. For purposes of the developing countries program, this will focus mostly on gender.
2. Enterprise Accomplishment. These measures are real-time and longitudinal. They provide a concrete and quantitative means of determining the long term impacts of the I/A on the startup.
3. Program Value Creation. These measures focus on the direct outcomes of the program.
4. Evaluation of Services. These measures provide a deep checklist as assessment of the I/As offer. It is here that the quality of the training is central.
5. Selection Advantage. These measures look at the I/A's expertise at selecting the right startups for their programs.

The full list of questions is detailed in the addendum.

CONCLUSION

The assessment of incubators and accelerators is an emerging area of research. Our work here just begins the process and needs more instances of application to be tested in the field. It was successful in helping Innovate UK understand where to focus its resources and has been field tested to that extent. It is our

hope that this note provides an insight into the opportunity to improve practice in these areas and we welcome feedback and useful critique.

Addendum: The detailed list of categories and metrics

1. Enterprise & Entrepreneur Identity. These measures focus on understanding:
 - 1.1. What businesses are participating (Examples include: Geography, Legal Structure, Operating Structure, Business Sector, Revenue Model, Stage of Organization and potentially Social Purpose), and
 - 1.2. What types of entrepreneurs are participating (Examples include: Demographic, Ethnic and Gender identities, Geography, Wealth, Education, motivation, prior experience, and sense of self-efficacy)
2. Enterprise Accomplishment. These measures focus on the progress of the business, as a business, over time. The measures should be benchmarked at the beginning of the program and then should be measured at the end of the program and annually thereon. The measures are inherently longitudinal and require extensive post-program support extending up to 5 years after the cohort graduates. (Examples include: Stage of Organization by Revenue and Type, Operational Performance focusing on growth in Revenue, EBITDA, Units, Employees, Contractors, and Exports; and Investment secured)
3. Program Value Creation. These measures focus on the direct outcomes of the program. They include:
 - 3.1. Development of a sustainable business model,
 - 3.2. Entrepreneurial Capital:
 - 3.2.1. Entrepreneurs capacity for critical business model analysis,
 - 3.2.2. Core business skills across: finance, marketing, human capital, sales, channels etc.
 - 3.2.3. Investor Readiness: looking at completeness of team, complementary skill sets, investor pitching and communication, and understanding deal terms,
 - 3.3. Investment Readiness: looking at stage of business, forecasts, financial systems, prospects for growth, defensible model, and readiness to scale,
 - 3.4. For Social Enterprises:
 - 3.4.1. Clarity of social purpose,
 - 3.4.2. Measurement of social purpose,
 - 3.4.3. Cost and sustainability of social purpose, and
 - 3.4.4. Potential effectiveness and stakeholder agreement of social purpose.

- 3.5. Entrepreneur Perception:
 - 3.5.1. Increased confidence as demonstrated in an increase in self-efficacy, and
 - 3.5.2. Perceived Value in the Program.
- 4. Evaluation of Services: Incubator Maturity and Capacity.
 - 4.1. Scope of Services:
 - 4.1.1. EET: Robust teaching focusing on:
 - 4.1.1.1. Developing critical business model analysis skills,
 - 4.1.1.2. Functional skills including marketing, finance, sales, human capital management, export, channels, revenue and pricing models all tailored for startups
 - 4.1.1.3. Localized curricula and based on actual businesses in the local context,
 - 4.1.1.4. Using teaching methods that are designed to drive critical analysis skills,
 - 4.1.1.5. Resulting in Actionable Plans with agree milestones.
 - 4.1.2. Accountability: Systems to collaboratively set and track milestones with the entrepreneurs,
 - 4.1.3. Mentoring: Quality of mentorship based on sector specific knowledge, or an experienced entrepreneur
 - 4.1.4. Train-the-Trainer sub-programs for: teachers, mentors, monitors and facilitators,
 - 4.1.5. Regular contact and support across modalities (E.g. Mentoring, Monitoring, Peer Critiques),
 - 4.1.6. Supply Chain: Access to key multi-nationals and the development of programs to access their supply and customer chains,
 - 4.1.7. Sponsors: Sponsorship development and management programs to secure lateral relationships within the eco-system,
 - 4.1.8. Promotion: The capacity to create relevant awareness for the companies through events, social media or cultural activities
 - 4.2. Organizational processes, policies and systems in place,
 - 4.3. Financial sustainability for incubator or secure funding base,
 - 4.4. Adequate program length (6 months+),
 - 4.5. Access to Capital: These measures look at likelihood and availability of relevant funding:
 - 4.5.1. Integration of seed funding into the EET program,

- 4.5.2. Access to external investors, or alternative forms of finance such as government programs, crowd funding etc.,
 - 4.6. Post program on-going mentoring and support, and
 - 4.7. Access to international markets and reference customers.
5. Selection Advantage & Control Group Comparisons: The focus here is on the selection process and the ability to attract the right number and quality of startups:
- 5.1. Marketing: Effectiveness of marketing and outreach as measured in % of market segment reached,
 - 5.2. Pipeline:
 - 5.2.1. Support programs for entrepreneurs not accepted in the program to improve their chances to attend in subsequent cohorts,
 - 5.2.2. What is the size of the pipeline,
 - 5.2.3. What is the quality of the pipeline (What percentage of the attendees meet the pre-set threshold for participation).
 - 5.2.4. Application Process:
 - 5.2.4.1. Structured and objective selection process,
 - 5.2.4.2. Is there an automated system to manage the application process.
 - 5.3. Control Group Comparisons: Capturing performance data about the businesses not accepted into the program, at the time the program starts and ends, provides the opportunity to isolate the IAPs contribution to the enterprise's success.

APPENDIX 1: Situated Learning Theory

Entrepreneurial capital refers to the set of skills and resources needed to start and grow a nascent business. This type of capital can include business model analysis skills, functional knowledge across the management spectrum, know-how about seizing opportunities and growing a business,[i] cultivating a good reputation to attract employees, investors, and customers;[ii] and accessing valuable social networks.[iii]

Entrepreneurship Training is the means by which Entrepreneurial Capital is created. But not all entrepreneurship education curricula and teaching methods are the same. A strong case has been made that in order for entrepreneurial capital to be created through entrepreneurship education, the education itself must be relevant and localized, as best understood through *Situated Learning Theory*. Situated Learning Theory says that, in contrast with most classroom learning activities that involve abstract knowledge, which is out of context, learning must be embedded within activity, context and culture. Knowledge needs to be presented in authentic contexts — settings and situations that would normally involve that knowledge. [iv] In order for EET to deliver on Situated Learning the curricula itself must not only be localized but also develop the critical skills to analyze the business opportunity in the local context.

This is core to successful entrepreneurship education. S4S has built its approach on these key insights: The program is based on the 10 Questions Methodology,TM which explicitly develops the entrepreneur’s skill at analyzing their own and their peers business models in context and in real world circumstances. And it is taught through the Socratic Method, which forces the entrepreneur to engage in meaningful and impactful dialogue, which accelerates the development of their expertise.

When delivered correctly EET has been shown to improve outcomes and impacts. According to the recent study, The Effects of Business Accelerators on Venture Performance[v], “Entrepreneurial education improves productivity...through the structured education and curricula, access to peer-to-peer networks, the structured accountability[1] imposed by regular meetings and increases in the self-efficacy^[2] of the founders.”[vi]

[1] Ed. Note: It should be observed that Structured Accountability is absent from many entrepreneurial education programs. Best practice dictates that as a core part of the process, the entrepreneurs, their mentors and their monitors agree on the milestones to be achieved and the entrepreneur's progress is reviewed at regular intervals. The S4S entrepreneurship training programs integrate milestone reviews and periodic reviews as a core part of the program process.

[2] Ed. Note: Self-efficacy is an individual's belief in his or her innate ability to achieve goals

[i] Bingham, Eisenhardt, and Furr 2007

[ii] Rao 1994; Zott and Huy 2007

[iii] Granovetter 1973

[iv] Nicholas Theodorakopoulos Nada K. Kakabadse Carmel McGowan , (2014),"What matters in business

incubation? A literature review and a suggestion for situated theorising", Journal of Small Business and

Enterprise Development, Vol. 21 Iss 4 pp. 602 — 622

[v] The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile. Juanita Gonzalez-Urbe, London School of Economics & Michael Leatherbee, Pontificia Universidad Católica de Chile

[vi] *ibid.*

APPENDIX 2: S4S 10Q METHODOLOGY



A core element of the S4S approach is to use a methodology and teaching approach that unifies all of the people who will work with the entrepreneur. The methodology, unique to S4S, is the Business Model Analysis Tool and Framework called **The 10 Questions™** which is delivered through an interactive learning approach based on The Socratic Method (see below)

The 10 Questions is a business model generation and analysis tool that teaches entrepreneurs (of all kinds) to think critically and analytically about the business idea, or existing business, that they are starting or growing. It compels them, first, to discover the facts they need to test their business model in the real world and then adapt it accordingly; and then provides them with a method to determine, and then overcome, the obstacles that stand in the way of successfully executing their business model and growing their business, social enterprise or social change initiative.

The instructors, mentors, monitors and facilitators involved in all the various training formats we deploy all use the 10 Questions method to help themselves and the entrepreneur-students to understand the core drivers and obstacles to growth of the businesses being discussed. Thus the lens of the 10 Questions, gives all the participants in the process a common language and common path towards harnessing the various training intervention formats to support the business being progressed.

Below we list a short version of the key questions and sub-questions that make up the methodology.

Short List:

Question 1: What do you do that people need or want?

- Why do you say that?
- What is your promise?
- What is your story?
- What evidence do you have of need or want?
 - How do you know that your product is answering a need or fulfilling a desire?
- How can you verify or disprove your assumptions?
- What could we assume instead from that evidence?
- How do you create value for your customers?
 - What 'jobs' are your customers seeking to address (functional / emotional / social / intellectual)
- What problem can you solve better than the competition?
- How do you know this?

- What could a minimal viable product look like?
- What would be an example?
- How does this apply to the rest of your business model?

Question 2: Who are your customers?

- What is your total available market? And your total accessible market?
- How many different customer groups are you intending to sell to?
- Are they equally easy to reach?
- Have you determined the size of each segment?
- How can you verify or disprove that assumption?
- Can you list your customer attributes?
- How would you describe your target customer segments?
- What would be an example?
- What B2C and B2B segments are you targeting?
- Are you operating a single or multi sided model?
- What would be an alternative?
- What generalizations can you make?
- How would you prioritise market segments (value/ease of reach/fastest growing /easiest to test)
- How are you creating value profitably?
- How does this apply to the rest of your business model?

Question 3: Who are you up against?

- Why do you say that?
- How do you define the competition?
- Who else is solving the problem that you are?
- What can you learn from your competitors?
- What advantages does your product or service have?
What advantages are you building into your business model, not your product or service, to increase your competitiveness?
- How do you anticipate your competitors will respond?
How can you sustain your advantage after your competitors have responded?
- How else can you compete?
- How can you verify or disapprove that assumption?
- How might you collaborate or co-create with competitors?
- How does your model protect you from the competition?

Question 4: What do we have in common?

- What trends are impacting your industry?
- Is there potential legislation that may effect your business?
- How are social mores changing that may impact your business?
What impact could future technology have on your product or service or the way you do business?
- How can you predict future trends?
- Which trends could make or break your business in the future?

Question 5: How will you reach your customers?

- How will you acquire new customers?
- How will you retain them?
- How will you grow them?
- What are the different routes to finding customers?
What are the different ways for you to connect your company to your customers?
Which channels will you use (awareness / distribution / sales / evaluation / after sales)?
How much does your business model get customers or third parties to create value for you?
Who currently reaches your customers that you would like to have help from?
- What could you do for them in return?
Are there people or organisations that are influencers (reviewers or organisations that rate quality)?
Have you created a pricing structure that lets third parties make money if they sell the product for you?
- Who would you approach to sell your product for you in other countries?
Whose endorsement would change the perception of your product the most?
- How would you reach them?
Has your pricing strategy included not competing against your own distributors or retailers?

Question 6: What relationship will you have with them?

- What financial relationship do you want to have with your customers?
- What level of customer intimacy will you have?
- How will you decide between a direct and indirect relationship?
How might your acquisition and retention strategies vary for low and high value customers?
How can you lock customers in to your business through the nature of the relationship you have with them?
How easy or difficult is it for your customers to switch to another company?

Question 7: What is it worth to them?

- How much should you charge for your product or service?
- What are your customers willing to pay?
What are the business costs that you need to factor into your pricing model?
- What will you charge your customers?
- What evidence will you use to make these decisions?

- What assumptions are you making about how your customers perceive value?
- How can you prove or disprove these?
What are the ways that you can increase the value of your product or service without adding to costs?
- How will make decisions about the best pricing mechanism to adopt?
What are the pros and cons of adopting a low costs vs value vs premium model?
- Are you going to follow a cost driven or value driven model?
- How scalable is your business model?
- How is this best achieved — economies of scope or scale?

Question 8: Who is the key partner?

- Who is also trying to target the same market as you?
How does link back to other aspect of your business model e.g. competition?
How can suppliers, distributors and marketing companies become key partners?
Who can you bring on board on to help you deliver your value proposition?
How can you develop partnerships that will help leverage from your business model and provide a win-win?

Question 9: What is the key asset?

- What do you have to your advantage, to help you win customers?
- Is it physical, intellectual, human or financial?
- How can you best protect and exploit these assets?
What assets can you acquire that will reduce your costs or increase your sales so your profit rates go up?

Question 10: What is the key competency?

- What do you need to be good at to deliver your business model?
Are there any activities that you could outsource to improve your business model?
Which competencies must you retain in house to deliver your value proposition most profitably?
- What are you personally good at?
- What are you weakest at?
- Is there anyone on your team who is good at what you are not?
- What role do they play or influence do they have over you?

Porters Five Forces

S4S uses the Porters Five Forces to help the participant understand the trends that shape their industry. This is part of the broader trend analysis that falls within the 10 Questions method. Below we provide a short explanation of the Five Forces approach to sector analysis.

Understanding Porter's Five Forces. The tool was created by Harvard Business School professor Michael Porter, to analyse an industry's attractiveness and likely profitability. Porter recognized that organizations likely keep a close watch on their rivals, but he encouraged them to look beyond the actions of their competitors and examine what other factors could impact the business environment. He identified five forces that make up the competitive environment, and which can erode your profitability. These are:

1. **Competitive Rivalry.** This looks at the number and strength of your competitors. How many rivals do you have? Who are they, and how does the quality of their products and services compare with yours? Where rivalry is intense, companies can attract customers with aggressive price cuts and high-impact marketing campaigns. Also, in markets with lots of rivals, your suppliers and buyers can go elsewhere if they feel that they're not getting a good deal from you. On the other hand, where competitive rivalry is minimal, and no one else is doing what you do, then you'll likely have tremendous strength and healthy profits.
2. **Supplier Power.** This is determined by how easy it is for your suppliers to increase their prices. How many potential suppliers do you have? How unique is the product or service that they provide, and how expensive would it be to switch from one supplier to another? The more you have to choose from, the easier it will be to switch to a cheaper alternative. But the fewer suppliers there are, and the more you need their help, the stronger their position and their ability to charge you more. That can impact your profit.
3. **Buyer Power.** Here, you ask yourself how easy it is for buyers to drive your prices down. How many buyers are there, and how big are their orders? How much would it cost them to switch from your products and services to those of a rival? Are your buyers strong enough to dictate terms to you? When you deal with only a few savvy customers, they have more power, but your power increases if you have many customers.
4. **Threat of Substitution.** This refers to the likelihood of your customers finding a different way of doing what you do. For example, if you supply a unique software product that automates an important process, people may substitute it by doing the process manually or by outsourcing it. A substitution that is easy and cheap to make can weaken your position and threaten your profitability.
5. **Threat of New Entry.** Your position can be affected by people's ability to enter your market. So, think about how easily this could be done. How easy is it to get a foothold in your industry or market? How much would it cost, and how tightly is your sector regulated? If it takes little money and effort to enter your market and compete effectively, or if you have little protection for your key

technologies, then rivals can quickly enter your market and weaken your position. If you have strong and durable barriers to entry, then you can preserve a favorable position and take fair advantage of it.

APPENDIX 3:S4S' Socratic Method

The Socratic method is core to the School for Startups teaching and learning process. It is a well-proven form of inquiry and discussion between individuals, based on asking and answering questions to stimulate critical thinking and to illuminate ideas.

The Socratic Method of dialogue between teacher and student subtly forces students to challenge every assumption they make about how the world works and to unpack the specific problems they face and fundamentally rethink the options open to them and the solutions they have developed. The students internalize the questions and thus develop for themselves the ability to dispassionately analyze their business and its challenges — and then formulate innovative and robust ways forward.

The Socratic Method is not the traditional form of teaching that most educators are familiar with, and certainly not those operating in the realm of EET. We have pioneered the use of Socratic teaching methodologies in the delivery of all facets of our curricula, and know it to be a transformative educational and learning experience for all who participate

Moreover, it takes training and practice to become good at The Socratic Method. As discussed further below, we believe that having the local professional capacities to deliver EET is critical for extract maximum social and economic benefit from entrepreneurship. S4S places a high priority on creating these capacities as part of its work program. And we specialize in training local professionals (which includes course instructors but also mentors, facilitators, etc.) to deliver EET using the principles of the Socratic method — these are we believe highly valuable skills which in the fullness of time, these professional will hopefully also deploy much wider and to the greater benefit of their country.

Some process notes. Wherever possible, S4S uses the entrepreneur-students' own business plan or existing business as the focus of the direct training so they cope better with the different problems that emerge as their business plan rolls out in real time. This approach demands programming flexibility and format modularity but also generates real time feedback to S4S instructors, but more importantly to policymakers and stakeholders about real time critical path problems confronted by entrepreneurs and established businesses.

Moreover, the various entrepreneur training formats have been designed to be easily scaled and adapted in terms of length, entrepreneur-student numbers, specificity of teaching material and geographical coverage required. Comprehensive programs and individual training components have been and can be run, for example for as little as one week or covering a full year, and have

accommodated teaching as few as 10 entrepreneur-students (all from one district of one city or province) or as many as 1,200 taught simultaneously in groups of 100 in multiple locations across the country.