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# Creating Cross-Border Connectivity Through Virtual Mentoring & Resources Platform

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# Creating Cross-Border Connectivity Through Virtual Mentoring & Resources Platform

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**EXECUTIVE SUMMARY**

Business Incubators (BIs) and Technology Business Incubators (TBIs) are considered as economic growth engine in both advanced and emerging economies for the promotion of small-medium enterprises (SMEs). There are more than 7000 business incubators globally. However, not all incubators are created equal. Incubators in developed economies have better resources, stronger innovation and entrepreneur ecosystems and highly sustainable compared to its counterparts in developing economies. As the world becomes borderless, cross-border connectivity is increasingly important to compete at the global level. How does developing economies, faced with challenges in sustainability and lacking resources support their entrepreneurs to become global players? This paper explores the concept of a Virtual Mentoring & Resource-Sourcing Platform where incubators can offer access to mentors and sharing of critical resources on a virtual platform to assist their entrepreneurs in their internationalization efforts.

**INTRODUCTION**

Business Incubators (BIs) and Technology Business Incubators (TBIs) are considered as economic growth engine in both advanced and emerging economies for the promotion of small-medium enterprises (SMEs)[1]. There are more than 7000 business incubators globally.[2] The main functions of these incubators are:

a. Provision of a conducive environment for entrepreneurship to thrive and technology to be commercialized;
b. Access to advanced technical equipment for high technology commercialization;
c. Managerial and business support
d. Access to financial capital
e. Access to market
f. Support in the entrepreneur's earlier age for their survival and growth.

Although the concept of "Business Incubators" originated from the United States of America (USA), Business Incubators and Technology Business Incubators are now functioning across the world. They play a significant role in developing economies such as China, India, Malaysia, Pakistan, Middle East, West Asia, Africa and South America.

Asia, the largest and with the most developing economies, with around 50 countries, contributes more than 3000 Business Incubators with China leading at 2400 incubators. Out of the 3000+ incubators, most of the Business Incubators and Technology Business Incubators are operating in China (2400) and India (140). China and India ranks the top 2 with the highest number of incubators in Asia and Top 3 in the world.[3] China and India contributes 27% of the world's unicorn companies behind the United States.[4]

However, not all incubators are created equal. Incubators in developed economies have better resources, stronger innovation and entrepreneur ecosystems; talent and highly sustainable business models compared to its counterparts in developing economies. Within the 3000+ incubators in Asia, incubators in small developing economies are performing with mixed results and are struggling on[5]:

a. Their ability to compete in international markets.
b. Coping up with innovation and entrepreneurial environment
c. Limited technical and business expertise
d. Infrastructure – facilities and equipment
e. Lack of resources – mentors, experts, market specialists, partners and investors

The lack of resources undermines the effectiveness of Business Incubators and Technology Business Incubators as economic growth engines in small developing economies.

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[1] Mahmood, N., Jianfeng, C., Munir, H., Yanran, M., Cai, Y. (2016), Incubators, SMEs, and Economic Development of China. International Journal of Multimedia and Ubiquitous Engineering, 1(1), 311-318.

[2] National Business Incubation Association. (2014a), The History of Business Incubation. Available from: http://www.nbia.org/resource_ library/history/index.php.

[3] Sharma, D. (2017). 'India Now Ranks Third Globally In Number of Incubators, Accelerators: Report'. VCCircle, 6 May 2017. Available on: https://www.vccircle.com/india-now-ranks-third-globally-in-number-of-incubators-accelerators-report/

[4] '$1B+ Market Map: The World's 197 Unicorn Companies in One Infographic'. CBInsights, 19 May 2017. Available on: https://www.cbinsights.com/research/unicorn-startup-market-map/

[5] Al-Mubaraki, H.M., Busler, M. (2010), Business incubators: Findings from a worldwide survey, and Guidance for the GCC states. Global Business Review, 11(1), 1-20.

**Presentation Objective And Questions**
This paper intends to explore the importance of cross-border connectivity in supporting incubators and science parks as effective economic growth engines in developing economies; and to propose strategies and approaches to create cross-border connectivity for developing economies to address the problems that they face. This is projected in two research questions:

1. What is the existing practices that existing incubator cooperation at the international level?
2. What can be done at the international level to create more vibrant and sustainable practices to enhance the development of developing economies?

This paper seeks to define the difference between developed and developing economies. Developed Countries are countries, which are developed in terms of economy and industrialization. They command a higher level of per capita income which exceeds USD$25,000. They are self-sufficient nations having a high standard of living, high GDP, high child welfare, health care, excellent medical, transportation, communication and educational facilities, better housing and living conditions, industrial, infrastructural and technological advancement, higher per capita income and increase in life expectancy.

Developing Countries are countries which are going through the initial levels of industrial development along with low per capita income which is less than USD$25,000. Developing Countries depend upon Developed Countries to support them in establishing industries across the country. A developing country has a low Human Development Index (HDI), low to medium Gross Domestic Product, moderate educational, transportation, communication and medical facilities; and unequal distribution of income.

For purposes of this review, we will use South East Asia as the case study for developing economies.

**Significance of this Paper**
This paper attempts to review and identify current available initiatives and practices that can be leveraged for a more progressive development for cross-border connectivity. The objective is to discover how we can enhance our leverage on cross-border connectivity to help incubators in developing economies to achieve maximum impact in developing their innovation capabilities and entrepreneur business ecosystem. This paper intends to propose viable and practical strategies that members can adopt to achieve the above objectives.

**Mapping of the Current Landscape**
As the world becomes borderless, cross-border connectivity is increasingly important to compete at the global level. How do incubators in developing economies, faced with the challenge in sustainability and the lack of resources support their entrepreneurs to compete in the global marketplace?

At the current landscape, we have more than 7000+ incubators with 373 science park members hosting 142,000 corporations within their science parks across 77 countries.[6] In South East Asia, we have 340 incubators with Malaysia and Singapore leading the number of incubators in South East Asia followed by Thailand.[7]

**Strengths:**
1. Developed economies – USA, European economies, OECD Countries, China, India and South Korea has invested a lot in infrastructure, funding and technology. Developing economies such as Malaysia, Thailand, Indonesia, Philippines and Vietnam are starting to develop the innovation economy, entrepreneurship and infrastructure but are way below the capacity of the developed economies.
2. There are more than 7000 incubators globally, giving us a dearth of mentors, experts, partners, facilities and investors within the incubation ecosystem.

[6] https://www.iasp.ws/About-us/Facts-and-figures

[7] Wong, A. (2013), 'Incubators in ASEAN and ASEAN Co-incubation Alliance', Lecture at University of Philippines, Manila.

3. Associations such as International Business Incubators Association (InBIA) and Asia Association of Business Incubators (AABI) have launched co-incubation programs among its member incubators and member associations respectively. There are also private co-incubation programs between incubators within their own respective countries or country-to-country initiatives.

**Weaknesses:**

1. Although we have a dearth of mentors, experts, partners and investors within the incubation ecosystem, our resources are fragmented and geographically dispersed; with minimal proactive cooperation between incubators.
2. Co-incubation programs are less engaging and are based on request basis. It is not integrated part of the incubation offering that is on-demand and self-service.
3. Developing countries faces problems in infrastructure, funding, lack of entrepreneurship resources, technology and people (talent).
4. There is a mismatch of resources within different regions globally.
5. Sustainability of Science Parks and Business Incubators in small developing economies becomes a big issue due to a lack of resources and drive in creating successful enterprises and technology commercialization.
6. Lack of high tech R&D within developing economies.

**Research and Development Expenditure (% of GDP) in 2015**[8]

| Developed Countries | | SEA Countries | |
|---|---|---|---|
| USA | 2.79 | Malaysia | 1.30 |
| European Union | 2.05 | Thailand | 0.63 |
| OECD Members | 2.55 | Indonesia | 0.08 (2013) |
| South Korea | 4.23 | Philippines | 0.14 (2013) |
| Japan | 3.28 | Vietnam | 0.37 (2013) |

**Proposition At The International Level**

**Opportunity:**

The Internet has created endless opportunities for borderless economies. This creates the opportunity for all 7000+ incubators and 373 members of International Association of Science Parks, more than 142,000 companies in 77 countries to be connected in a webbed ecosystem of incubators, science parks, mentors, experts, partners, investors and markets which small developing economies are able to leverage on, to bridge the innovation, talent, infrastructure, technical and business expertise, market and resources divide.

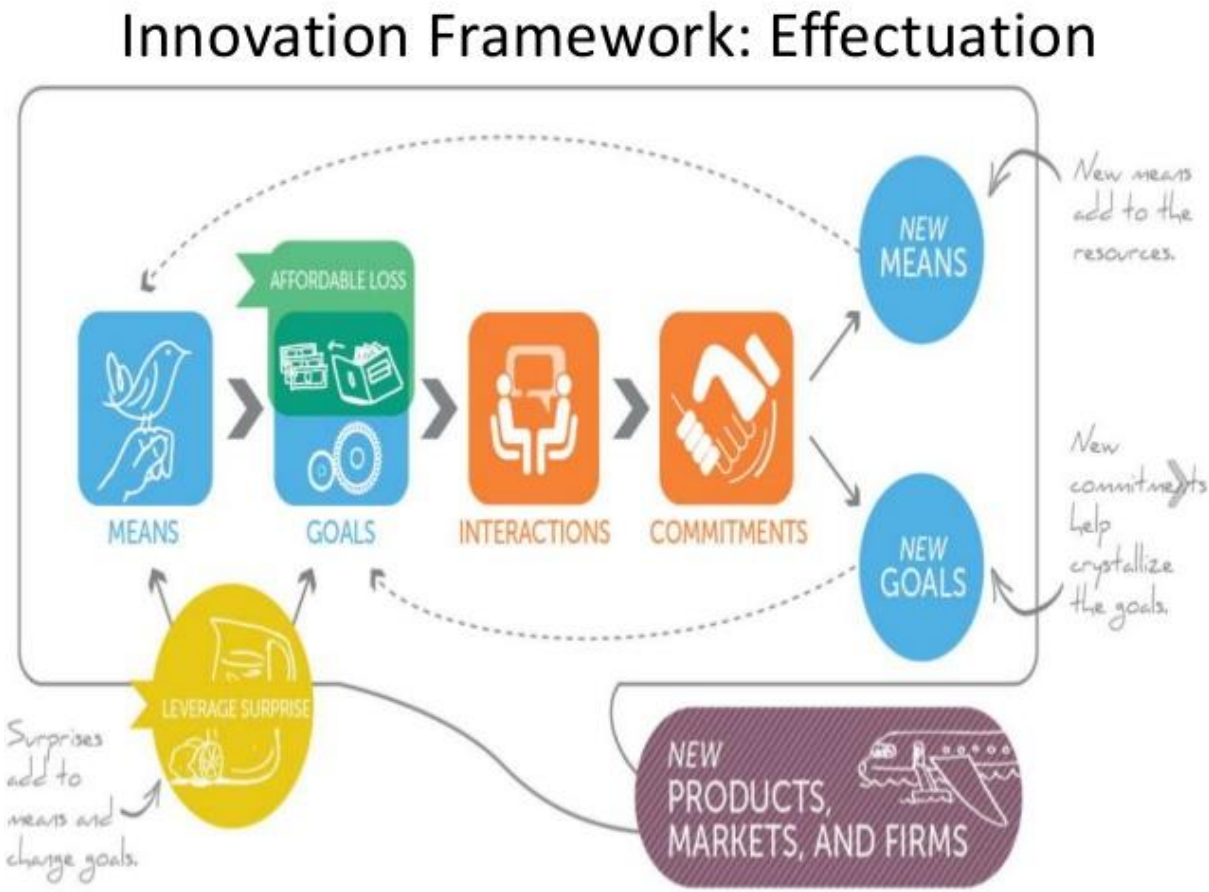
We posit that there is tremendous high level of resources at the international level. However the success of any incubators to be the engine of growth and its entrepreneurs to be successful in developing economies is only as good as the level of resources that are within their control.

At present, the level of resources resides in the local individual incubator level. In Malaysia, incubator cooperation is highly negligible as many incubators compete with each other instead of working in the spirit of coopetition. Although co-incubation initiatives were initiated, but these are based on the spirit of selfish leveraging, making use of resources that is not available to them. This is widely observed in Singapore, Philippines and Brunei. Thailand has better coordination, as all the incubators are government owned and driven by a single government agency. The level of cooperation among incubators is high, which is a reason why Thailand is able to commercialize their R&D with great effectiveness. Thai companies have consistently won international awards from the Asian Association of Business Incubators (AABI) and other international acclaim awards.

At the international level, the combination of resources among incubators and science parks will be able to yield greater effectiveness in nurturing competitive offerings to tenant companies residing in any science parks or incubators across the world.

[8] 'Research and development expenditure (% of GDP)', World Bank. Available on: https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS

There is certainly a lot of cross-border innovation that can be accumulated and manipulated to create new products, new markets and new firms through cross-border connectivity; and potentially create higher market and funding access when cross-border resource sharing occurs within the entire 7000+ incubators, 373 IASP members, 140,000+ companies across 77 countries once firm commitments are secured across incubators, science parks and companies within the ecosystem. The creation of a cross-border connectivity ecosystem is paramount to bring greater impact and success stories for incubators, science parks and entrepreneurs.




To create a strong innovation and growth engine ecosystem, cross-border resources, interactions and commitments among incubators and science parks at the international level is the important first step to realize this goal.[9]

**Approach:**
How shall we do this? How do we address the gap? This paper explores the potential areas of collaboration and cooperation that could be committed among existing resources – incubators, science parks, talents, entrepreneurs, mentors, partners and corporations, in the absence of government involvement. Government involvement, if it happens, will provide a big lift but not all economies see government intervention as a major government policy. Government involvement may come in the form of talent development, R&D spending and grants for entrepreneurs for startups and commercialization.

1. **Infrastructure**
   In the infrastructure gap, co-incubation partnerships between developed and developing economies plugs the gap in terms of facilities and equipment. In the era of a sharing economy, co-incubation partnerships allow incubators with high tech facilities and equipment to support incubators who could not afford to invest in high tech facilities and

[9] Read, S., Sarasvathy, S., Dew, N., Wiltbank, R., Ohlsson, A. (2011), 'Effectual Entrepreneurship', Routledge (publisher), New York.

equipment. For example, Malaysia has a wealth of biodiversity in its rainforest research, which potentially could produce traditional herbal medicine but do not have the facilities to test, prototype and produce pharmaceutical products in a massive way. A co-incubation partnership with a European pharmaceutical incubator would yield tremendous benefits for both countries in commercializing medical product in the healthcare wellness industry. Formal associations such as the Asian Association of Business Incubators (AABI) and International Association of Science Parks (IASP); and informal alliances such as the ASEAN Co-incubation Alliance (ASCIA) and ASEAN Incubation Network (AIN) play significant roles in this endeavor. These associations and alliances need to step up to facilitate the cross-border interaction and sharing between their members.

The now defunct Asia Pacific Incubation Network (APIN) which was backed by the World Bank could have been an effective vehicle to create co-incubation alliances as it brings together incubators from USA, Australia, New Zealand, South East Asia, India, South Asia and West Asia, China, Japan and Taiwan together to create an effective incubation network of cooperation, co-sharing and technology transfer among its member incubators. Its failure may be due to its informal structure with its secretariat in India as it was partially funded by the Indian government together with the World Bank. When funding ceased, all activities ceased. It could have been better managed if there is a sustainable model via memberships, a dedicated secretariat team and participation from members in the network to run the affairs of the Network. A model that follows the ASEAN secretariat could be the right model to follow.

**2. Developing an innovation and entrepreneurial environment**

Developing economies do not have a mature innovation environment compared to developed economies. Its entrepreneurial environment has just started to gain traction. South East Asia has seen a proliferation of startup ecosystem in the last 3 years beginning with Malaysia and Singapore, followed by Vietnam and Thailand. In the last three years, governments have worked on improving the climate for entrepreneurial startup environment. However, the investment in R&D remains relatively low. Most entrepreneurial business models are hybrid copycat models from developed economies such as from the US or Europe.[10] There is a lack of original R&D commercialization among entrepreneurs. Intellectual property creation is low in developing economies. Notably there is nothing wrong with hybrid copycat models. China started with copycats before they improvise and innovate. However the low levels of intellectual property registrations in developing economies yields two conclusions – the lack of innovation in R&D and the inability to defend its turf when a company goes global.

Malaysia spends 1.3% of its GDP on R&D. It has stopped providing government grants for new entrepreneurial ideas except for one government agency that provides funding grants for prototype development. In 2015, the Government of Malaysia created the Malaysian Global Innovation and Creativity (MaGIC)[11] center with a budget of RM100m with the intention to spur innovation and startup entrepreneurs among Malaysians and other global startup entrepreneurs through its program. The intention is to make Malaysia a global startup hub in the South East Asian region, rivaling Singapore. MaGIC has been highly successful in spawning startups ventures but the level of innovation is still relatively low. Most of the business ideas are low tech without any intellectual property support.

Many South East Asian governments have started to move their countries towards an innovation-led economy. With various incentives and R&D grants made available, we believe that developing an innovation and entrepreneurial environment in developing countries is just a matter of time and when as this effort is on-going. The fact that innovation and economic prosperity goes hand-in-hand in today's borderless world, governments are increasingly focusing on its effort to develop that sector in terms of talent development,

[10] Lauria, V.,"In Asia, Don't Create Copycats, Create Hybrids", Forbes, July 1, 2016. Appeared in: https://www.forbes.com/sites/vinnielauria/2016/07/01/in-asia-dont-create-copycats-create-hybrids/#6307727e120f

[11] www.mymagic.my

university entrepreneurship and incubators as well as incentives and funding for new ventures.

3. **Ability to compete in international markets**
The ability for entrepreneurs in developing economies to compete in international markets follows a few factors – intellectual property, innovative business models, distribution and market reach. In developing economies, entrepreneurs lack the ability to compete effectively in international markets save for regional markets such as South East Asia. The lack of resources in terms of distribution, market reach and partners; in addition to the lack of value differentiation, innovative business models and intellectual property creates the inability to compete in foreign markets.

Existing cross-border connectivity in the form of co-incubation partnerships has proven to work to a certain extend. Nevertheless, co-incubation alliances helps in providing resources for space, equipment and incubator assistance to companies who have an decided to venture into a new market. What about those who have intentions to venture and would like to explore?

The Internet has created an opportunity to create a virtual mentoring and resource platform. Cross-border connectivity can be further enhanced through virtual mentoring and virtual resource sourcing. A virtual platform that provides entrepreneurs with mentoring on market access; and resource sourcing for partners and market specialists will greatly boost the propensity for entrepreneurs to be successful in gaining market intelligence, advisor and consequently market access through the right partners and people.

In Malaysia, MAD Incubator has initiated the IX Ventures platform to help commercialize technologies from universities and research institutes. This virtual resource-sourcing platform sources for potential partnerships with other incubators in the South East Asia region to commercialize technologies from universities and research institutes in Malaysia. The goal is to pair technology intellectual property developed in by universities with entrepreneurs for purposes of commercialization and technology intellectual property ownership. This initiative will further be extended to other South East Asian countries as MAD continues to forge incubation alliances with other incubators through AABI or ASCIA. It is envisioned that technology innovation and commercialization can be extended across the South East Asian region through a virtual resource-sourcing platform that connects incubators, research houses/universities, commercialization partners, funders and market.

4. **Limited technical and business expertise**
Countries in developing economies face a lack in technical and business expertise. They are usually agriculture or manufacturing based economies, now transitioning to knowledge- and innovation-based economies. This is exacerbated by the lack of entrepreneurial resources such as mentors, experts, market specialists, partners and investors. However, developed economies have abundance of such expertise and experience. In terms of Unicorns that arises from developed economies, developed economies contribute 97% of the 193 current members of the unicorn club (with a cumulative valuation of USD$665 billion). Unicorns or startup companies are valued at more than a billion dollars and they are increasingly based outside of the United States.

With a virtual mentoring and resource-sourcing platform, the creation of new unicorns and gazelles, and consequently new innovation in developing economies can be realized through cross-border sharing of resources, technical and business expertise. Cross-border connectivity through a virtual platform can speed up the interaction and engagement of mentors, partners, technical and business experts with entrepreneurs in the developing economies. The cross-border connectivity bridges the abundance source of technical and business expertise in developed economies to developing economies, allowing countries with limited technical and business expertise to tap into these resources that can be made available to their respective entrepreneurs.

A company, CEOWorld[12] based out of Porto, Portugal seeks to solve this problem by creating an online peer-to-peer learning platform where companies who have been successful are invited to be mentors to companies who are scaling up in Europe. This virtual mentoring platform is able to help companies from South East Asia and other parts of the developing economies have access to expertise from Europe and the United States, thereby enhancing their capabilities through peer-to-peer mentoring and learning.

5. **Lack of resources – mentors, experts, market specialists, partners and investors**
   The concept of co-incubation helps to address the flow of resources to incubators that lack these resources, it is not done so frequently unless there is request or demand for such services. This actually slows down cross-border connectivity. Cross-border connectivity can be further enhanced through a virtual mentoring and resource-sourcing platform which is self-serving, on-demand and engaging. It is the best avenue to resolve the lack of resources encountered by incubators and science parks in developing economies. It will enhance capabilities for incubators and science parks in developing economies to offer internationalization services, technical and business expertise to its entrepreneur ecosystem and reduce the reliance on incubator or science park managers to facilitate cross-border connectivity.

**Conclusion**

Cross-border connectivity is an important component in business incubation as the success of our incubator tenant depends very much on how much linkages that we can provide to our incubator clients. In the past, incubators have initiated co-incubation alliances to achieve this objective. But these alliances are not proactive and dependent on the incubator managers to create these linkages.

The advent of the internet and mobile age creates a new dynamics to cross-border connectivity. Cross-border connectivity has become easier, faster and increasingly virtual. The creation of a virtual mentoring and resource-sourcing platform will help to pool resources together that is needed to create successful business ventures. Imagine an idea developed in Malaysia, pooling resources together from China with mentors and experts residing in United States and Germany and market distribution partners obtained in South East Asia, Europe and United States; all through a virtual mentoring and resource-sourcing platform. A virtual mentoring and resource-sourcing platform is cheaper to maintain, sustainable, faster, self-servicing and available on demand. It makes connectivity and linkages faster and gives greater credence to incubators and science parks.

In developing a sustainable cross-border connectivity, a top down approach requires effective leadership that spells distinct representation and involvement in policy and decision-making. Much have been done at the country-level by the respective governments but the attempt to connect, to share resources between government-to-governments have not yet been achieved. At the macro level (global), organizations such as IASP, AABI and the World Bank play an important role in supporting private initiatives such as CEOWorld or IX Ventures in the organization of resources to create better opportunities for our entrepreneurs. By encouraging private sector involvement – CEOWorld, IX Ventures and other initiatives, we will be able to extend the allocation of resources more efficiently for the benefit of a global ecosystem. At the micro level, incubators and science parks must work together, take stock of their available resources and move to create alliances, domestically and internationally.

This paper provides a wealth of insights on how we can take cross-border connectivity to the next level by leveraging on virtual platforms. More research is needed in detailing cross-border cooperation and the implementation of the virtual mentoring and resource-sharing platform.

[12] www.ceoworld.io